

**SAMPLING AND ANALYSIS REPORT  
FOR DREDGE SEDIMENT  
CHARACTERIZATION:  
SEWARD MARINE INDUSTRIAL  
CENTER IMPROVEMENTS**

**SEWARD, ALASKA**



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## ACRONYMS & ABBREVIATIONS

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
ASTM	American Society for Testing and Materials
BGS	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, and Total Xylenes
DMMP	Dredged Material Management Program
DRO	Diesel Range Organics
EPA	U.S. Environmental Protection Agency
GRO	Gasoline Range Organics
kg	Kilograms
mg	Milligrams
PID	Photoionization Detector
PPM	Parts Per Million
R&M	R&M Consultants, Inc.
RCRA	Resource Conservation and Recovery Act
RRO	Residual Range Organics
SAP	Sampling and Analysis Plan
SVOC	Semi-Volatile Organic Compound
TBT	Tributyltin
USACE	United States Army Corps of Engineers
USGS	U.S. Geological Survey
VOC	Volatile Organic Compounds

# **SAMPLING AND ANALYSIS REPORT for DREDGE SEDIMENT CHARACTERIZATION: SEWARD MARINE INDUSTRIAL CENTER IMPROVEMENTS**

## **SEWARD, ALASKA**

### **1.0 INTRODUCTION**

#### **1.1 Background and Objectives**

R&M Consultants, Inc. (R&M) has been retained by the City of Seward to design and permit improvements to the existing Seward Marine Industrial Center (SMIC). The existing SMIC is a fairly open industrial harbor on the east side of Resurrection Bay (Figures 1 and 2); it was constructed in the early 1980s, and has been in operation since. The Seward Ships Drydock Inc. (SSDI) is a lessee at SMIC who offers upland storage and maintenance/repair areas for vessels and a 5,000-ton Syncrolift vessel haul out facility. The SMIC also hosts Polar Seafoods (a seafood processor) and the City's 250-ton marine Travelift. The North Dock, which is a sheetpile cargo dock, has a fuel header (owned/operated by Shoreside Petroleum, Inc.) that is connected via subsurface 6-inch diameter pipeline to an aboveground fuel storage tank (AST), (Figure 2).

The existing SMIC basin has an approximate depth of -20 feet to -24 feet mean lower low water (MLLW). Proposed SMIC improvements generally include partially enclosing the harbor with a new breakwater on the west side, extending both the existing North Dock and East Dock, significantly enlarging the harbor basin by excavating/dredging inland, and adding moorage floats, gangways, utilities, and associated amenities (Figure 2).

A sampling and analysis plan (SAP) was prepared to set forth the dredge sediment characterization efforts that were performed for this project, to inform both the permitting process and disposal considerations (R&M, 2013a). Given the industrial character of the area, there is sufficient "reason to believe" that contaminants may be present in the discharge material to warrant sampling and chemical testing for the possible presence of petroleum constituents (DRO, GRO, RRO), VOC's, and SVOC's. TBT and metals have the greatest potential for being carried (e.g. in sandblast grit) by wind and water at the SMIC. Sampling for these constituents was conducted at a screening level. Previous sampling efforts within the project vicinity indicate that PCBs are not a contaminant of concern for this project (R&M, 2013a).

Two disposal scenarios are being considered for this project, offshore disposal (offshore area to be determined) and upland disposal (location or locations to be determined), or a combination thereof. The complete 2013 SAP is included in as Appendix D to this report for reference.

#### **1.2 Purpose and Scope of Work**

The purpose of this Sampling Analysis Report is to characterize the upland and offshore soils proposed for dredging under the SMIC Improvements Project. The information contained in this report has been compiled to inform the City of Seward and the regulatory agencies of physical and environmental characteristics of sediment within the SMIC basin proposed for dredging and

to guide the permitting and dredged sediment disposal efforts. More detailed information on the geotechnical characteristics of the SMIC subsurface may be found in R&M's 2013 geotechnical report for the SMIC Improvement project (R&M, 2013b).

## **2.0 REGIONAL SETTING AND SITE CONDITIONS**

### **2.1 Location and Legal Description**

Seward is situated along the southeastern coast of Alaska's Kenai Peninsula at the head of Resurrection Bay (Figure 1). The SMIC is located on the east side of Resurrection Bay opposite the City of Seward off of Nash Road. The SMIC lies between Fourth of July Creek and Spring Creek. The legal description of the project study area is Section 18, Township 1 South, Range 1 East, Seward Meridian, USGS Quadrangle Seward A-7 SE (USGS, 1983).

A 2011 aerial photograph-based site map of the project study area and surrounding areas is included as Figure 2 in Appendix A.

#### **2.1.1 Geology and Subsurface Conditions**

The site is located on the fan-delta of Fourth of July Creek. Fan-deltas are complex deposits consisting of sand, gravel and cobbles with minor amounts of fines. The deposits grade to finer sand and silt farther from shore. The density of the material is typically loose to medium dense. Fan-deltas are produced by rapid deposition of material on a steep slope at the angle-of-repose (R&M, 2013a). The angle-of-repose is by definition at the limiting natural angle of gravitational stability. A number of geotechnical studies previously conducted in the vicinity of the SMIC site were reviewed to further characterize localized subsurface conditions. The boreholes from these references confirm that the deposits at the site generally consist of poorly graded gravel with sand interlayered with silty sand and silty gravel. Scattered thin layers of silt containing organic material were noted on some borehole logs (H4M, 1981; Tetrattech, 1985; PND, 1987).

Naturally-occurring heavy metal concentrations are common in the soils of the Seward area. High concentrations of naturally occurring arsenic, barium, chromium, and lead are expected in the soil analysis (E&E, 2007).

#### **2.1.2 Dredge Sediment Characterization**

Proposed dredging would occur to an approximate depth of -30 feet MLLW for offshore areas where deep draft vessel access is required and to a depth of -20 feet MLLW for expanded basin areas that may be created from excavating the nearby uplands. Gradation and material type is variable across the site but consists mostly of coarse-grained soils with minimal fine-grained soils (ASTM, 2000). Offshore surface material (to -30 feet MLLW) generally consists of silt (ML), well-graded sand with silt (SW-SM), poorly graded sand with gravel (SP), poorly graded gravel (GP), and well-graded gravel (GW). Geotechnical samples collected from upland boreholes to approximately 20 feet below MLLW consisted of poorly graded gravel with silt and sand (SP-SM), well-graded sand with silt (SW-SM), and well-graded gravel with silt (GW-GM). A full profile of the subsurface conditions is presented in R&M's 2013 geotechnical report for the SMIC Improvement project (R&M, 2013b).

### **2.1.3 Groundwater**

Groundwater levels in the upland portions of the project study area are variable as a result of the geology and tidal influences. The water table was encountered at the upland sample locations K through O, generally between 13 and 14.5 feet below ground surface (BGS); the water table at sample location M was notably deeper at 20.2 feet BGS.



## 3.0 ENVIRONMENTAL SAMPLING

### 3.1 Sampling and Analysis Methods

Environmental sampling and analysis was conducted in conjunction with the geotechnical drilling and sampling program. A truck-mounted drill rig was used to advance borings, both offshore (from a large landing craft) and onshore (Appendix B, Photo 1). In addition, a Petersen grab sampler (clamshell-style) was used from the landing craft to gather seafloor surface sediments (Appendix B, Photo 3). Sampling and decontamination methods were previously presented in the 2013 SAP (R&M, 2013a). Field work and sampling was conducted in general accordance with that document, as detailed herein.

Offshore sampling was conducted from 24 to 26 May 2013. All soil samples were physically screened for visual and olfactory signs of contamination. No soil samples exhibited a hydrocarbon odor or displayed visual signs that contaminants were present. Sample locations R and T were accessible from the beach at low tide; samples were obtained with stainless steel spoons directly from the beach surface (Appendix B, Photo 2). Analytical samples for the remaining offshore sample locations (E, F, S, P, and Q) were collected from the landing craft. Seafloor surface sediment samples were collected with a Petersen grab sampler (Appendix B, Photo 4). For sample locations E and F, split-spoon soil samples were collected as close as possible (depending on wind/wave/tidal action) to five and ten feet below the seafloor per the sampling scheme presented in the 2013 SAP (R&M, 2013a).

Upland sampling was conducted from 30 to 31 May 2013. All soil samples were physically screened for visual and olfactory signs of contamination. No soil samples exhibited a hydrocarbon odor or displayed visual signs that contaminants were present. Surface soil samples were collected by hand from approximately 0 to 6 inches below grade, after the surface soil was broken by the drill auger. Split-spoon soil samples were obtained at 1.5 feet below ground surface, then at five-foot increments to 40 feet below ground surface. Soil from each sample depth was first placed in the laboratory jars; remaining soil was used for field screening. Field screening with a MiniRAE photoionization detector (PID) was conducted by sealing soil within a zip-top bag, agitating it, and warming it to a minimum of five degrees Celsius. Field screening took place after volatile organic compounds, if present, were released from the soil for ten minutes but no longer than one hour. PID readings for each sample are presented in Table 1. Field screening results were intended to identify which samples were to be submitted for laboratory analysis. PID readings were all below 1.0 ppm and did not reveal any areas of contamination. Therefore sample depths were assigned to ensure a relatively even distribution of sample depths across the site. Samples were collected and submitted from saturated soils just above the groundwater table at each sample location (Table 1).

Upland sample locations were generally located in open, sparsely-vegetated areas. The exception to this standard was sample site L which was located adjacent to a material stockpile near Nash Road (Appendix B, Photo 5). During the sampling effort, multiple loaders and construction equipment were observed loading and hauling away material from the stockpile. In addition, sample location M is located within the storage area leased by Polar Seafoods. Stored and stockpiled items consisted of trailers, tires, boats, appliances, fishing equipment, etc. (Appendix B, Photo 6).

**TABLE 1 - PID READINGS (IN PPM) FROM UPLAND SAMPLES**

Depth BGS (feet)	Upland Sample Locations (Figure 2)				
	K	L	M	N	O
0 (surface)	0.3*	0.0*	0.2*	0.1*	0.2*
1.5	0.3*	0.3*	0.2*	0.0*	0.3*
5	0.0	0.6	0.1*	0.0	0.2
10	0.0*	0.0	0.1	0.3*	0.1*
-	WT = 13' BGS	WT = 13' BGS	-	WT = 14' BGS	WT = 14.5' BGS
15	0.3	0.5*	0.0	0.1	0.1
20	0.0	0.3	0.1*	0.1	0.0
-	-	-	WT = 20.2' BGS	-	-
25	0.0	0.2	0.0	0.1	0.2*
30	0.0	0.2	0.0	0.0*	0.0
35	0.0	0.4*	0.0	0.1	0.2
40	0*	0.0	0.0	0.0	0.0

Notes:

*WT = Water Table*

*BGS = Below Ground Surface*

*\* Indicates sample was submitted to lab for analysis*

For all locations, analytical soil samples were collected immediately after opening the split-spoon sampler, in order of decreasing volatility, beginning with gasoline range organics (GRO) and volatile organic compounds (VOC), followed by diesel range organics/residual range organics (DRO/RRO) and semi-volatile organic compounds (SVOC) and Resource Conservation and Recovery Act (RCRA) Metals, then tributyltin (TBT). The soil samples were collected from the split-spoon samplers with nitrile gloves and a clean, disposable stainless steel spoon. Soil samples were placed in new laboratory-grade glass jars, and sealed with Teflon-lined (as appropriate) screw caps. Methanol was used as a sample-covering preservative for soil samples intended for analysis for volatile fuel constituents (GRO and VOC). All sample containers were labeled immediately upon or prior to filling, and placed in a cooler on frozen gel packs along with a Chain-of Custody form, which identified the sample location, date, time, and collection personnel for all samples. Samples were maintained at a temperature of two to six degrees Celsius by R&M until delivery to SGS Laboratories in Anchorage. All holding time requirements were met.

### 3.1.1 Decontamination

For the offshore sampling, the stainless steel tub used (for handling larger Petersen grab samples) and the split-spoon samplers were decontaminated in a three-step process. First the item was washed with sea water to remove soil and residue, then washed with a 1% Alconox/seawater solution, then rinsed with seawater. The grab sampler was rinsed off between sample locations by submersing it back into the seawater as many times as was needed to remove any residual sediment.

For the upland sampling, the split-spoon samplers were decontaminated by a similar three-step process, only potable water was used in lieu of seawater. First the item was washed with fresh potable water to remove soil and residue, then washed with a 1% Alconox solution in potable water, then the item was rinsed with deionized water.

### **3.1.2 Investigation Derived Wastes**

Most soil was collected for either environmental sampling or geotechnical analysis. Any unused soil was discarded over the side of the vessel or spread on uplands adjacent to each sampling site. Decontamination water was discharged either over the side of the vessel or onsite and allowed to infiltrate near the borehole. Solid waste was bagged and placed in an appropriate dumpster or refuse container. There were no other excess potentially contaminated materials that required special disposal.

## 4.0 LABORATORY ANALYSIS

The methods of the laboratory analysis portion of this sampling effort are presented below. The raw analytical data are presented in Appendix C.

### 4.1 Soil Analysis

Based on “Reason to Believe” research on previous contaminant sources in the area, which is prescribed in the 2013 SAP (R&M, 2013a), soil samples were analyzed for DRO by test method AK102, GRO by test method AK101, VOC by test method 8260B, RRO by test method AK103, SVOC by test method 8270, RCRA Metals by test method 6020, and tributyltin by test method Krone 1989. RCRA metals include: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. The specific suite of analytical tests varied by borehole location and depth based on site history and the “reason to believe” analysis included in the 2013 SAP (R&M, 2013a). The samples were submitted for analysis to SGS Environmental Services, Inc. of Anchorage, Alaska, an Environmental Protection Agency (EPA) and Alaska Department of Environmental Conservation (ADEC) approved laboratory. A summary of sample analysis results is presented below in Table 2. The complete SGS lab reports and ADEC Laboratory Data Review Checklists are included in Appendix C.

### 4.2 Quality Assurance

Samples were collected and submitted for laboratory analysis in a timely manner, well within the published hold times associated with each analytical method. Each analytical soil sample was given a unique identifier with the site ID (SMIC), location (borehole/sample letter), and sample depth in feet, namely SMIC-E (5’).

Duplicate samples were collected at the rate of one duplicate per 10 samples, and were submitted for laboratory analysis in a manner identical to regular samples. Duplicate samples were collected in the same place and at the same depth as the regular sample with the same identifier, but noted with a “D”. Results of duplicate samples were examined for variation in analytical results by completing an ADEC Laboratory Data Review Checklist (Appendix C). Samples were found to be in generally good agreement. Silver was identified in the sample for SMIC-S(0) but not in the duplicate, and DRO was detected in the sample for SMIC-M(1.5) but not in its duplicate. As a result these samples had relative percent differences (RPD) of 200%. A roughly 140% difference was noted in the RRO results between sample SMIC-M (1.5) and its duplicate as well. DRO and RRO can be highly variable within a given quantity of soil obtained as grab samples, and this level of change between samples for this level of investigation is not considered noteworthy. All other RPDs were far below the ADEC-suggested 50% RPD threshold.

Soil trip blanks preserved in methanol were transported in coolers containing samples to be analyzed for GRO and VOC. Trip blanks were analyzed for these constituents in conjunction with the collected samples. Trip blanks were all non-detect for GRO and VOCs.

Chain-of-Custody documents accompanied all laboratory samples throughout the analytical process; they are included at the end of the laboratory reports in Appendix C. There were no deviations from quality control procedures during this investigation.

**TABLE 2: LABORATORY ANALYTICAL RESULTS, SOIL SAMPLES (MAY 2013)**

	SAMPLE ID <sup>1</sup>	RRO (mg/kg)	DRO (mg/kg)	VOC (mg/kg)	RCRA METALS (mg/kg)					TBT (mg/kg)	
				Toluene	Arsenic	Barium	Chromium	Lead	Mercury		Silver
OFFSHORE SAMPLES	SMIC-E(0)	34.8	ND	ND	9.50	62.0	41.0	11.0	ND	ND	ND
	SMIC-E(5)	ND	ND	ND	3.83	26.6	25.2	5.42	ND	ND	ND
	SMIC-E(5)D	ND	ND	ND	4.35	25.9	32.3	5.46	ND	ND	ND
	SMIC-E(10)	ND	ND	ND	7.15	38.2	35.7	7.13	ND	ND	ND
	SMIC-F(0)	ND	ND	ND	3.60	21.6	26.8	5.43	ND	ND	ND
	SMIC-F(4.5)	ND	ND	ND	3.92	30.2	30.4	5.12	ND	ND	ND
	SMIC-F(8.5)	ND	ND	ND	5.08	38.0	34.0	5.08	ND	ND	-
	SMIC-P(0)	-	-	ND	15.2	64.0	47.2	13.8	0.0793	ND	ND
	SMIC-Q(0)	-	-	ND	8.99	47.0	38.7	9.40	0.0571	ND	ND
	SMIC-R(0)	-	-	ND	3.72	23.2	29.6	4.64	ND	ND	ND
	SMIC-S(0)	49.9	ND	ND	22.0	81.4	57.5	20.0	0.1270	0.158	ND
	SMIC-S(0)D	66.4	ND	ND	20.2	78.3	54.8	19.6	0.0950	ND	ND
SMIC-T(0)	-	-	-	3.98	38.4	32.2	7.51	ND	ND	ND	
UPLAND SAMPLES	SMIC-K(0)	65.2	ND	ND	4.31	35.3	35.3	5.87	ND	ND	ND
	SMIC-K(1.5)	ND	ND	ND	3.69	29.5	31.3	4.72	ND	ND	ND
	SMIC-K(10)	ND	ND	ND	6.14	50.1	37.2	5.80	ND	ND	-
	SMIC-K(40)	ND	ND	ND	5.66	46.2	32.5	6.45	ND	ND	-
	SMIC-L(0)	267	45.1	ND	4.02	37.4	31.9	7.18	ND	ND	0.0014
	SMIC-L(1.5)	ND	ND	ND	4.73	33.0	47.1	4.78	ND	ND	ND
	SMIC-L(15)	ND	ND	ND	4.04	40.7	34.8	6.24	ND	ND	-
	SMIC-L(35)	ND	ND	ND	6.57	46.2	35.3	7.27	ND	ND	-
	SMIC-M(0)	146	24.3	ND	4.19	33.9	32.0	5.05	ND	ND	0.0033
	SMIC-M(1.5)	184	32.6	ND	4.44	37.0	32.7	5.56	ND	ND	ND
	SMIC-M(1.5)D	36.3	ND	ND	4.34	44.3	34.2	5.05	ND	ND	ND
	SMIC-M(5)	ND	ND	ND	4.06	31.5	27.3	5.55	ND	ND	-
	SMIC-M(20)	ND	ND	ND	4.66	43.0	34.2	5.59	ND	ND	-
	SMIC-N(0)	23.7	ND	50.5	14.3	32.9	39.3	7.88	0.0749	ND	ND
	SMIC-N(1.5)	44.7	ND	ND	17.3	30.0	36.6	9.04	0.0561	ND	ND
	SMIC-N(10)	ND	ND	ND	6.34	35.1	37.9	4.39	ND	ND	-
	SMIC-N(30)	ND	ND	ND	8.08	50.3	29.2	7.48	ND	ND	-
	SMIC-O(0)	ND	ND	68.0	7.43	28.7	41.3	8.46	0.0745	ND	ND
	SMIC-O(0)D	ND	ND	64.7	7.46	30.3	44.1	8.33	0.0861	ND	ND
	SMIC-O(1.5)	39.2	ND	ND	6.77	34.2	39.8	9.30	0.0591	ND	ND
SMIC-O(10)	ND	ND	ND	4.46	36.3	33.4	4.71	ND	ND	-	
SMIC-O(25)	ND	ND	ND	4.64	32.5	32.9	5.30	ND	ND	-	
<b>ADEC MIGRATION TO GROUNDWATER CLEANUP LEVELS<sup>2</sup></b>	<b>9,700</b>	<b>230</b>	<b>6.5</b>	<b>3.9</b>	<b>1,100</b>	<b>25</b>	<b>NA<sup>3</sup></b>	<b>0.012</b>	<b>11.2</b>	<b>1,502<sup>4</sup></b>	
<b>ADEC DIRECT CONTACT CLEANUP LEVELS<sup>2</sup></b>	<b>8,300<sup>5</sup></b>	<b>8,250<sup>5</sup></b>	<b>6,600</b>	<b>3.7</b>	<b>16,600</b>	<b>250</b>	<b>400</b>	<b>25</b>	<b>410</b>	<b>1,502<sup>4</sup></b>	
<b>DMMP SCREENING LEVELS<sup>6</sup></b>	<b>NA<sup>7</sup></b>	<b>NA<sup>7</sup></b>	<b>NA<sup>7</sup></b>	<b>5.7</b>	<b>NA<sup>7</sup></b>	<b>260</b>	<b>450</b>	<b>0.410</b>	<b>6.10</b>	<b>0.075<sup>8</sup></b>	
<b>REPRESENTATIVE BACKGROUND LEVELS<sup>9</sup></b>	<b>53.2</b>	<b>3.52</b>	<b>ND</b>	<b>9.8</b>	<b>218</b>	<b>34.8</b>	<b>6.2</b>	<b>0.11</b>	<b>0.58</b>	<b>-</b>	

**Notes:**

ND = Analyte was not detected.

(-) Indicates analyte was not sampled for.

1. Sample depths presented parenthetically in each sample name.
2. Method Two Cleanup Standards for migration to groundwater are the most stringent.; Cleanup levels for direct contact within the 'over 40-inch zone' (18 AAC 75 Table B) are less stringent and provide a more appropriate comparison for upland disposal options.
3. Migration to groundwater cleanup levels for lead have not been established.
4. Cleanup levels for tributyltin are currently under revision. The current cleanup level is 5,500 mg/kg; the proposed revised cleanup level is 1,502 mg/kg.
5. Direct contact cleanup levels are not presented in 18 AAC 75 Table B; cleanup levels for ingestion within the 'over 40-inch zone' are included here.
6. Screening levels identified in Table 8-2 DMMP Chemicals Of Concern and Regulatory Guidelines (DMMP, 2013) are being used to analyzed offshore disposal options.
7. Screening level for this analyte was not included in the DMMP guidance (DMMP, 2013).
8. Screening level for TBT was not included in the DMMP guidance; 0.075 mg/kg represents the bioaccumulation trigger (DMMP, 2013).
9. Background levels from similar studies used for comparison (E&E, 2007).

## 5.0 LABORATORY ANALYTICAL RESULTS

Detectable contaminants have been summarized in Table 2. Various cleanup standards and criteria are listed at the bottom of the table for comparison purposes. These are discussed in more detail in Section 6.0.

### 5.1 Offshore Samples

The analytical results for the samples acquired offshore were generally non-detect (ND), and any detectable contaminants were found in seafloor surface samples. RRO was detected in relatively low concentrations at sample locations E at 34.8 mg/kg (surface) and S at 66.4 mg/kg (duplicate surface sample). Mercury was detected at sample locations P at 0.0793 mg/kg (surface), Q at 0.0571 mg/kg (surface), and S at 0.127 mg/kg (surface) and 0.0950 mg/kg (duplicate surface sample). Silver only was detected at sample location S at 0.158 mg/kg (surface). Arsenic, barium, chromium, and lead were detected in every sample. Arsenic levels ranged between 3.60 mg/kg (surface) at sample location F to 22.0 mg/kg (surface) at sample location S; barium ranged from 21.6 mg/kg (surface) at sample location F to 81.4 mg/kg (surface) at sample location S; chromium levels ranged from 25.2 mg/kg (5 feet BGS) at sample location E to 57.5 mg/kg (surface) at sample location S; lead levels ranged from 4.64 mg/kg (surface) at sample location R to 20.0 mg/kg (surface) at sample location S. Cadmium and selenium (remaining RCRA metals), TBT, VOC, and SVOC were not detected in any of the offshore samples (Table 2).

### 5.2 Upland Samples

The analytical results for the samples acquired from the upland locations reveal low concentrations of contaminants at the surface to 1.5 feet BGS. DRO was detected at sample locations L at 45.1 mg/kg (surface) and M at 24.3 mg/kg (surface) and 32.6 mg/kg (1.5 feet BGS). RRO was detected at each upland sample location either at the surface or at 1.5 feet BGS; concentrations ranged from 23.7 mg/kg at sample location N (surface) to 267 mg/kg at sample location L (surface). Toluene was the only VOC detected; it was encountered sample location N at 50.5 mg/kg (surface) and sample location O at 68.0 mg/kg (surface). Mercury was detected at sample locations N and O to 1.5 feet BGS; concentrations ranged from 0.0561 at sample location N (1.5 feet BGS) to 0.0861 at sample location O (surface). Arsenic, barium, chromium, and lead were detected in every sample. Arsenic levels ranged between 3.69 mg/kg at sample location K (1.5 feet BGS) to 17.3 mg/kg at sample location N (1.5 feet BGS); barium ranged from 28.7 mg/kg at sample location O (surface) to 50.3 mg/kg at sample location N (30 feet BGS); chromium levels ranged from 27.3 mg/kg at sample location M (5 feet BGS) to 47.1 mg/kg at sample location L (1.5 feet BGS); lead levels ranged from 4.39 mg/kg at sample location N (10 feet BGS) to 9.3 mg/kg at sample location O (1.5 feet BGS). TBT was detected at sample locations L and M at 0.0014 mg/kg (surface) and 0.0033 mg/kg (surface), respectively. Cadmium and selenium (remaining RCRA metals) and SVOC were not detected in any of the upland samples (Table 2).

## 6.0 DISCUSSION AND RECOMMENDATIONS

Based on the results of the environmental sampling effort, both offshore and upland disposal scenarios would be feasible. Soil sample analysis did not reveal any evidence of discrete contamination that would be of concern for offshore or upland disposal of dredged sediment.

ADEC maintains permitting authority for upland disposal options of dredged sediment. ADEC Method Two cleanup levels are included in Table 2 for *migration to groundwater* (most stringent) and *direct contact* (18 AAC 75 Table B). ADEC has indicated that cleanup levels for migration to groundwater should be included in the preliminary assessment of analytical results; however, the direct contact levels represent a more appropriate comparison for upland disposal given the industrial nature and history of the SMIC facility.

The USACE and the Environmental Protection Agency (EPA) provide oversight and permitting authority over offshore disposal of dredged sediment. There currently are no dredged material disposal criteria levels designated for Alaskan waters. For this reason, screening levels presented in guidance established by the Dredged Material Management Program (DMMP) of Washington State have been used to provide an analytical comparison for this sampling effort (DMMP, 2013). Multiple cleanup levels are presented in the *Dredged Material Evaluation and Disposal Procedures, User Manual* (July, 2013). Screening levels (SL) represent values defined for typical chemicals of concern; concentrations at or below the SL indicate there is no reason to believe that offshore disposal of dredged material would result in adverse effects. SL values are presented in Table 2 and used as a tool to assess the appropriateness and feasibility for offshore disposal.

Petroleum hydrocarbon detections (DRO and RRO) are minimal and restricted to surface soils, and are significantly below ADEC cleanup levels; the DMMP has not established screening levels for petroleum hydrocarbons. Surface soil RRO, DRO, and toluene detections appear to reflect the industrial nature of the facility and area, and do not indicate an existing contamination issue.

Detected RCRA metals include arsenic, barium, chromium, lead, mercury, and silver. With the exception of arsenic, all metals were detected at levels below ADEC direct contact cleanup levels and DMMP screening levels. Therefore, the presence of these metals would not be a concern for upland or offshore disposal of dredged sediment. Note that barium was not included as a chemical of concern in the DMMP guidance. Arsenic concentrations exceeded ADEC cleanup levels in every sample and exceeded DMMP screening levels in approximately half of the samples (Table 2). The ADEC cleanup levels and out of state DMMP Guidance do not account for naturally occurring metals found in the project area soils. Previous studies and current literature indicate that detection of arsenic, chromium, and mercury is anticipated and that the detected levels are generally consistent with naturally-occurring concentrations (E&E, 2007; USGS, 1997). In consideration of these naturally-occurring levels, the analytical results for arsenic (as well as chromium and mercury) are comparable to background levels even though they exceed standardized ADEC cleanup and DMMP screening levels.

TBT is commonly used in marine paints. TBT was detected at only two upland surface sample locations at levels significantly below current and proposed ADEC cleanup levels. A screening

level for TBT was not included in the DMMP guidance, but detectable results were below identified bioaccumulation trigger levels (DMMP, 2013).As a result, TBT is not anticipated to pose a risk of contamination for either upland or offshore disposal options (Table 2).



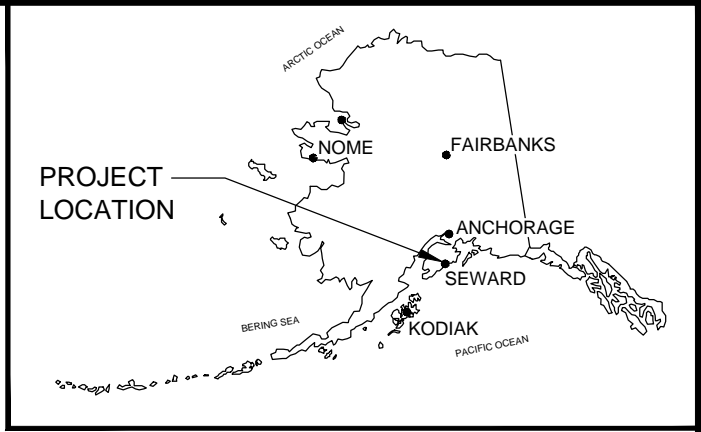
## 7.0 REFERENCES

- Alaska Department of Environmental Conservation (18 AAC 75), Oil and Other Hazardous Substances Pollution Control, 18 AAC 75.340 Soil Cleanup Levels, General Requirements, Amended as of 8 April 2012.
- American Society for Testing and Materials (ASTM, 2000), “Standard Practice for Classification of Soils for Engineering Purposes (Unified Classification System)”, Designation D 2487-00.
- Dredged Material Management Program (DMMP, 2013), “Dredged Material Evaluation and Disposal Procedures User Manual” Prepared by U.S. Army Corps of Engineers-Seattle District and Environmental Protection Agency- Region 10, July 2013.
- Ecology and Environment, Inc. (E&E, 2007), “Seward Ship’s Dry Dock Site Inspection, Seward, Alaska,” Prepared for the U.S. Environmental Protection Agency, September, 2007.
- H4M Corporation (H4M, 1981), “Preliminary Report Soils Exploration, Fourth of July Creek, Seward, Alaska”, August 17, 1981.
- Peratrovich, Nottingham & Drage, Inc. (PND, 1987), “Seward Marine Industrial Center, North Dock Geotechnical Study” November, 1987.
- R&M Consultants, Inc. (R&M, 2013a), “Sampling and Analysis Plan for Dredge Sediment Characterization: Seward Marine Industrial Center Improvements, Seward, Alaska”, Prepared for City of Seward, May 15, 2013.
- R&M Consultants, Inc. (R&M, 2013b), “Geotechnical Analysis: Seward Marine Industrial Center Improvements, Seward, Alaska”, Prepared for City of Seward, (currently in production).
- Tetrattech Limited (Tetrattech, 1985), “Report of Geotechnical Investigations, Fourth of July Creek Marine Industrial Park, Seward, Alaska”, October 4, 1985.
- U.S. Geological Survey (USGS, 1983), “Seward A-7 SE Quadrangle, Alaska”, As viewed on National Geographic’s TOPO!, Version 4.2.6.
- U.S. Geological Survey (USGS, 1997), Environmental Studies of Mineral Deposits in Alaska, U.S. Geological Survey Bulletin 2156, 1997.

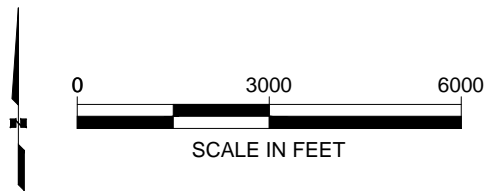
# **APPENDIX A**

## **SITE MAPS**

Location and Vicinity Map .....	Figure 1
Environmental Sample Location Map .....	Figure 2

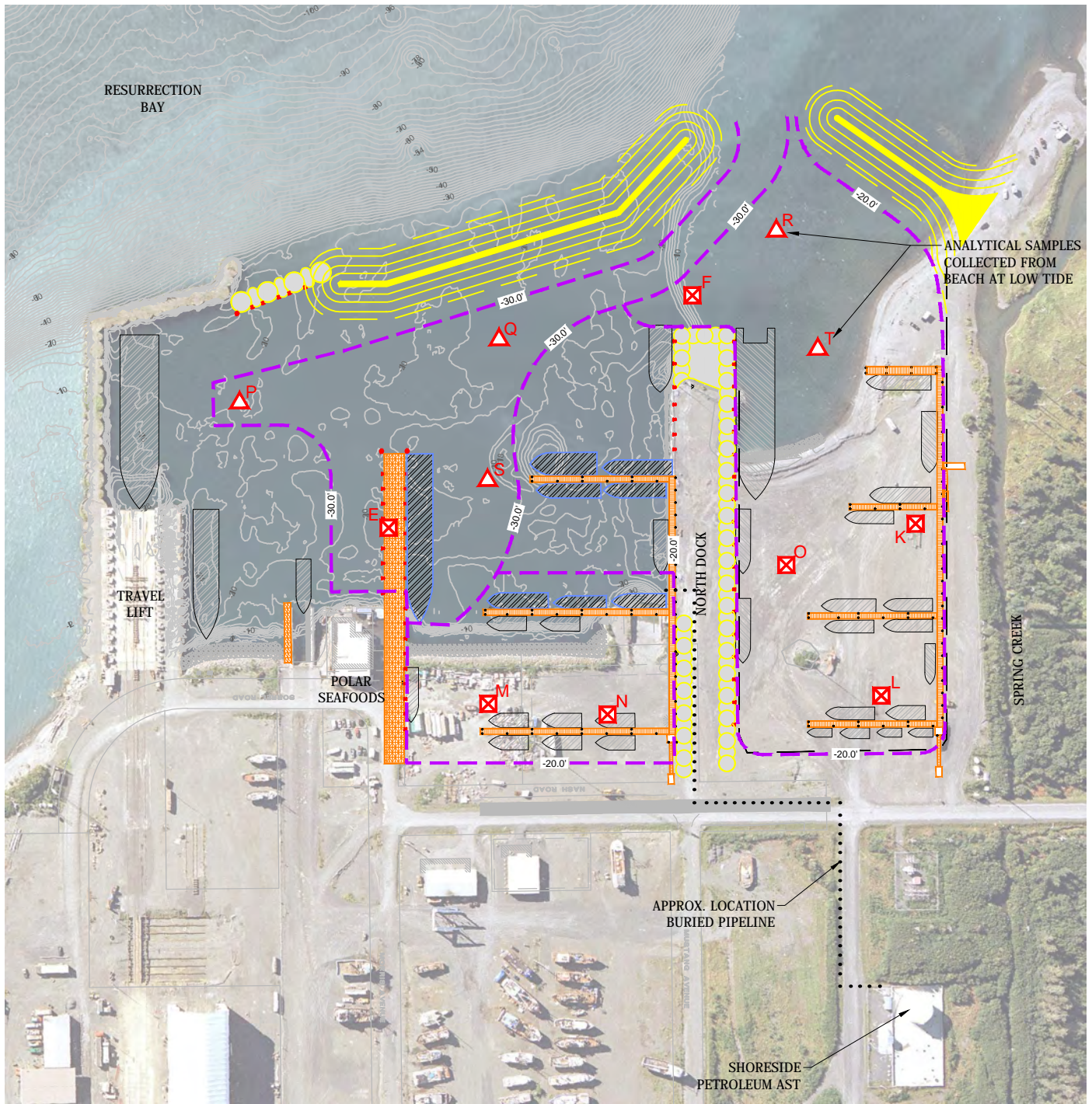


**PROJECT  
AREA**






<b>CITY OF SEWARD</b>	
SEWARD MARINE INDUSTRIAL CENTER IMPROVEMENTS WATERBODY: RESURRECTION BAY SEWARD, ALASKA	
T1S, R1E, SEC 18 SEWARD MERIDIAN USGS QUADRANGLE SEWARD A-7 SE	
<b>LOCATION &amp; VICINITY MAP</b>	
SEPTEMBER 2013	FIGURE 1 OF 2





**LEGEND**

-  SURFACE AND SUBSURFACE SAMPLES OBTAINED
-  SURFACE SAMPLE ONLY
-  PROPOSED DREDGE LIMITS



<b>CITY OF SEWARD</b>	
SEWARD MARINE INDUSTRIAL CENTER IMPROVEMENTS WATERBODY: RESURRECTION BAY SEWARD, ALASKA	
T1S, R1E, SEC 18 SEWARD MERIDIAN USGS QUADRANGLE SEWARD A-7 SE	
<b>ENVIRONMENTAL SAMPLE LOCATION MAP</b>	
SEPTEMBER 2013	FIGURE 2 OF 2

**APPENDIX B**

**FIELD PHOTOGRAPHS**

Photographs of Environmental Sampling ..... B-01 through B-03





Photo 1: Landing craft with truck mounted drill-rig at rear of vessel (24 May 2013).



Photo 2: Surface sample R collected from beach at low tide (24 May 2013).





Photo 3: Obtaining surface sample from seafloor using Peterson Grab Sampler (24 May 2013).



Photo 4: Surface sample collected at location Q (25 May 2013).



Photo 5: Typical upland sample area; sample location O is shown in photo looking northeast. Note material stockpile in background (31 May 2013).



Photo 6: Sample location M within Polar Seafoods leased storage area. Note type and quantity of stored material in background (31 May 2013)



# APPENDIX C

## LABORATORY ANALYTICAL RESULTS

### Offshore Samples

SGS Laboratory Data Report #1132031 .....	C1 - C151
ADEC Laboratory Data Checklist .....	C152 - C158

### Upland Samples

SGS Laboratory Data Report #1132110 .....	C159 - C418
ADEC Laboratory Data Checklist .....	C419 - C425



## Laboratory Report of Analysis

To: R & M Consultants Inc  
9101 Vanguard Dr  
Anchorage, AK 99507  
(907)522-1707

Report Number: **1132031**

Client Project: **SMIC Improvements 1770.01**

Dear Kevin Pendergast,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Steve at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,  
SGS North America Inc.

---

Steve Crupi  
Project Manager  
steven.crupi@sgs.com

Date

Print Date: 06/18/2013 11:16:51AM

SGS North America Inc. | 200 West Potter Drive, Anchorage, AK 99518  
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Member of SGS Group

## Case Narrative

**Customer: RNMCONP**

**R & M Consultants Inc**

**Project: 1132031**

**SMIC Improvements 1770.01**

Refer to the sample receipt form for information on sample condition.

- 1132031001 PS 0**  
Krone 1989 - TBT was analyzed by ALS of Kelso, WA.
- 1132031002 PS 0**  
Krone 1989 - TBT was analyzed by ALS of Kelso, WA.
- 1132031003 PS 0**  
Krone 1989 - TBT was analyzed by ALS of Kelso, WA.
- 1132031004 PS 4.5**  
Krone 1989 - TBT was analyzed by ALS of Kelso, WA.
- 1132031006 PS 0**  
Krone 1989 - TBT was analyzed by ALS of Kelso, WA.  
AK102/103 - Unknown hydrocarbon with several peaks is present.
- 1132031007 PS 5**  
Krone 1989 - TBT was analyzed by ALS of Kelso, WA.
- 1132031008 PS 10**  
Krone 1989 - TBT was analyzed by ALS of Kelso, WA.
- 1132031009 PS 5)**  
Krone 1989 - TBT was analyzed by ALS of Kelso, WA.
- 1132031010 PS 0**  
Krone 1989 - TBT was analyzed by ALS of Kelso, WA.  
AK102/103 - Unknown hydrocarbon with several peaks is present.
- 1132031011 PS 0)**  
Krone 1989 - TBT was analyzed by ALS of Kelso, WA.  
AK102/103 - Unknown hydrocarbon with several peaks is present.
- 1132031012 PS 0**  
Krone 1989 - TBT was analyzed by ALS of Kelso, WA.
- 1132031013 PS 0**  
Krone 1989 - TBT was analyzed by ALS of Kelso, WA.
- 1150322 LCS XXX/29074**  
8270D - LCS recovery for dimethylphthalate, di-n-butylphthalate and chrysene is outside of QC criteria (biased high).  
These analytes were not detected above the LOQ in the associated samples.
- 1150436 MS 0)(1132031013MS**  
6020 - Metals - MS recoveries for barium and chromium were outside of acceptance criteria . Post digestion spike was successful.
- 1150437 MSD 0)(1132031013MSD**  
6020 - Metals - MSD recovery for barium was outside of acceptance criteria. Post digestion spike was successful.

\* QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to the associated field samples.

### Report of Manual Integrations

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Analytical Batch</u>	<u>Analyte</u>	<u>Reason</u>
<b>SW8270D</b>				
1132031006	SMIC-E (0)	XMS7348	Benzo[k]fluoranthene	RP
1132031006	SMIC-E (0)	XMS7348	Benzoic acid	RP
1150322	LCS for HBN 1452070 [XXX/29074	XMS7345	1-Chloronaphthalene	RSP
1150322	LCS for HBN 1452070 [XXX/29074	XMS7345	2-Chloronaphthalene	RSP
1150324	1132031006MS	XMS7348	1-Chloronaphthalene	RSP
1150324	1132031006MS	XMS7348	2-Chloronaphthalene	RSP
1150325	1132031006MSD	XMS7348	1-Chloronaphthalene	RP
1150959	CCV for HBN 1453101 [XMS/7348]	XMS7348	1-Chloronaphthalene	BLC

#### Manual Integration Reason Code Descriptions

Code	Description
O	Original Chromatogram
M	Modified Chromatogram
SS	Skimmed surrogate
BLG	Closed baseline gap
RP	Reassign peak name
PIR	Pattern integration required
IT	Included tail
SP	Split peak
RSP	Removed split peak
FPS	Forced peak start/stop
BLC	Baseline correction
PNF	Peak not found by software

All DRO/RRO analysis are integrated per SOP.

## Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. If you have any questions regarding this report, or if we can be of any other assistance, please contact your SGS Project Manager at 907-562-2343. All work is provided under SGS general terms and conditions (<[http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)>), unless other written agreements have been accepted by both parties.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & UST-005 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020A, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035B, 6020, 7470A, 7471B, 8021B, 8082A, 8260B, 8270D, 8270D-SIM, 9040B, 9045C, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV	Continuing Calibration Verification
CL	Control Limit
D	The analyte concentration is the result of a dilution.
DF	Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
F	Indicates value that is greater than or equal to the DL
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
JL	The analyte was positively identified, but the quantitation is a low estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LOD	Limit of Detection (i.e., 2xDL)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
M	A matrix effect was present.
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
Q	QC parameter out of acceptance range.
R	Rejected
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

### Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SMIC-R-(0)	1132031001	05/24/2013	05/28/2013	Soil/Solid (dry weight)
SMIC-T-(0)	1132031002	05/24/2013	05/28/2013	Soil/Solid (dry weight)
SMIC-F-(0)	1132031003	05/24/2013	05/28/2013	Soil/Solid (dry weight)
SMIC-F (4.5)	1132031004	05/24/2013	05/28/2013	Soil/Solid (dry weight)
SMIC-F (8.5)	1132031005	05/24/2013	05/28/2013	Soil/Solid (dry weight)
SMIC-E (0)	1132031006	05/25/2013	05/28/2013	Soil/Solid (dry weight)
SMIC-E (5)	1132031007	05/25/2013	05/28/2013	Soil/Solid (dry weight)
SMIC-E (10)	1132031008	05/25/2013	05/28/2013	Soil/Solid (dry weight)
SMIC-E (5) D	1132031009	05/25/2013	05/28/2013	Soil/Solid (dry weight)
SMIC-S-(0)	1132031010	05/26/2013	05/28/2013	Soil/Solid (dry weight)
SMIC-S (0) D	1132031011	05/26/2013	05/28/2013	Soil/Solid (dry weight)
SMIC-P (0)	1132031012	05/26/2013	05/28/2013	Soil/Solid (dry weight)
SMIC-Q (0)	1132031013	05/26/2013	05/28/2013	Soil/Solid (dry weight)
Trip Blank 1	1132031014	05/24/2013	05/28/2013	Soil/Solid (dry weight)
Trip Blank 2	1132031015	05/24/2013	05/28/2013	Soil/Solid (dry weight)

<u>Method</u>	<u>Method Description</u>
AK103	Diesel/Residual Range Organics
AK102	Diesel/Residual Range Organics
AK101	Gasoline Range Organics (S)
SM21 2540G	Percent Solids SM2540G
SW6020	RCRA Metals by ICP-MS
SW8270D	SW846 8270 Semi-Volatiles by GC/MS (S)
SW8260B	VOC 8260 (S) Field Extracted

Print Date: 06/18/2013 11:16:53AM

### Detectable Results Summary

Client Sample ID: **SMIC-R-(0)**

Lab Sample ID: 1132031001

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	3.72	mg/Kg
Barium	23.2	mg/Kg
Chromium	29.6	mg/Kg
Lead	4.64	mg/Kg

Client Sample ID: **SMIC-T-(0)**

Lab Sample ID: 1132031002

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	3.98	mg/Kg
Barium	38.4	mg/Kg
Chromium	32.2	mg/Kg
Lead	7.51	mg/Kg

Client Sample ID: **SMIC-F-(0)**

Lab Sample ID: 1132031003

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	3.60	mg/Kg
Barium	21.6	mg/Kg
Chromium	26.8	mg/Kg
Lead	5.43	mg/Kg

Client Sample ID: **SMIC-F (4.5)**

Lab Sample ID: 1132031004

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	3.92	mg/Kg
Barium	30.2	mg/Kg
Chromium	30.4	mg/Kg
Lead	5.12	mg/Kg

Client Sample ID: **SMIC-F (8.5)**

Lab Sample ID: 1132031005

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	5.08	mg/Kg
Barium	38.0	mg/Kg
Chromium	34.0	mg/Kg
Lead	5.08	mg/Kg

Client Sample ID: **SMIC-E (0)**

Lab Sample ID: 1132031006

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	9.50	mg/Kg
Barium	62.0	mg/Kg
Chromium	41.0	mg/Kg
Lead	11.0	mg/Kg
Residual Range Organics	34.8	mg/Kg

**Semivolatile Organic Fuels**

Client Sample ID: **SMIC-E (5)**

Lab Sample ID: 1132031007

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	3.83	mg/Kg
Barium	26.6	mg/Kg
Chromium	25.2	mg/Kg
Lead	5.42	mg/Kg

Print Date: 06/18/2013 11:16:53AM

### Detectable Results Summary

Client Sample ID: **SMIC-E (10)**

Lab Sample ID: 1132031008

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	7.15	mg/Kg
Barium	38.2	mg/Kg
Chromium	35.7	mg/Kg
Lead	7.13	mg/Kg

Client Sample ID: **SMIC-E (5) D**

Lab Sample ID: 1132031009

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	4.35	mg/Kg
Barium	25.9	mg/Kg
Chromium	32.3	mg/Kg
Lead	5.46	mg/Kg

Client Sample ID: **SMIC-S-(0)**

Lab Sample ID: 1132031010

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	22.0	mg/Kg
Barium	81.4	mg/Kg
Chromium	57.5	mg/Kg
Lead	20.0	mg/Kg
Mercury	0.127	mg/Kg
Silver	0.158	mg/Kg
Residual Range Organics	49.9	mg/Kg

**Semivolatile Organic Fuels**

Client Sample ID: **SMIC-S (0) D**

Lab Sample ID: 1132031011

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	20.2	mg/Kg
Barium	78.3	mg/Kg
Chromium	54.8	mg/Kg
Lead	19.6	mg/Kg
Mercury	0.0950	mg/Kg
Residual Range Organics	66.4	mg/Kg

**Semivolatile Organic Fuels**

Client Sample ID: **SMIC-P (0)**

Lab Sample ID: 1132031012

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	15.2	mg/Kg
Barium	64.0	mg/Kg
Chromium	47.2	mg/Kg
Lead	13.8	mg/Kg
Mercury	0.0793	mg/Kg

Client Sample ID: **SMIC-Q (0)**

Lab Sample ID: 1132031013

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	8.99	mg/Kg
Barium	47.0	mg/Kg
Chromium	38.7	mg/Kg
Lead	9.40	mg/Kg
Mercury	0.0571	mg/Kg





### Results of SMIC-R-(0)

Client Sample ID: **SMIC-R-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031001  
Lab Project ID: 1132031

Collection Date: 05/24/13 07:34  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 84.1

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	3.72		1.09	0.339	mg/Kg	10	05/31/13 12:51
Barium	23.2		0.328	0.103	mg/Kg	10	05/31/13 12:51
Cadmium	0.219	U	0.219	0.0678	mg/Kg	10	05/31/13 12:51
Chromium	29.6		0.437	0.131	mg/Kg	10	05/31/13 12:51
Lead	4.64		0.219	0.0678	mg/Kg	10	05/31/13 12:51
Mercury	0.0437	U	0.0437	0.0131	mg/Kg	10	05/31/13 12:51
Selenium	0.547	U	0.547	0.164	mg/Kg	10	05/31/13 12:51
Silver	0.109	U	0.109	0.0339	mg/Kg	10	05/31/13 12:51

### Batch Information

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Analyst: ACF  
Analytical Date/Time: 05/31/13 12:51  
Container ID: 1132031001-A

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 05/30/13 08:20  
Prep Initial Wt./Vol.: 1.088 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-R-(0)**

Client Sample ID: **SMIC-R-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031001  
Lab Project ID: 1132031

Collection Date: 05/24/13 07:34  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 84.1

Results by **Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
1,2-Dichlorobenzene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
1,3-Dichlorobenzene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
1,4-Dichlorobenzene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
1-Chloronaphthalene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
2,4,5-Trichlorophenol	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
2,4,6-Trichlorophenol	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
2,4-Dichlorophenol	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
2,4-Dimethylphenol	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
2,4-Dinitrophenol	3.57	U	3.57	1.12	mg/Kg	1	05/31/13 01:00
2,4-Dinitrotoluene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
2,6-Dichlorophenol	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
2,6-Dinitrotoluene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
2-Chloronaphthalene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
2-Chlorophenol	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
2-Methyl-4,6-dinitrophenol	2.38	U	2.38	0.739	mg/Kg	1	05/31/13 01:00
2-Methylnaphthalene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
2-Methylphenol (o-Cresol)	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
2-Nitroaniline	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
2-Nitrophenol	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
3&4-Methylphenol (p&m-Cresol)	1.19	U	1.19	0.369	mg/Kg	1	05/31/13 01:00
3,3-Dichlorobenzidine	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
3-Nitroaniline	0.596	U	0.596	0.179	mg/Kg	1	05/31/13 01:00
4-Bromophenyl-phenylether	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
4-Chloro-3-methylphenol	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
4-Chloroaniline	0.596	U	0.596	0.179	mg/Kg	1	05/31/13 01:00
4-Chlorophenyl-phenylether	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
4-Nitroaniline	3.57	U	3.57	1.12	mg/Kg	1	05/31/13 01:00
4-Nitrophenol	1.19	U	1.19	0.369	mg/Kg	1	05/31/13 01:00
Acenaphthene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Acenaphthylene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Aniline	2.38	U	2.38	0.739	mg/Kg	1	05/31/13 01:00
Anthracene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Azobenzene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Benzo(a)Anthracene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Benzo[a]pyrene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Benzo[b]Fluoranthene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Benzo[g,h,i]perylene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Benzo[k]fluoranthene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Benzoic acid	1.79	U	1.79	0.893	mg/Kg	1	05/31/13 01:00
Benzyl alcohol	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Bis(2-Chloroethoxy)methane	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Bis(2-Chloroethyl)ether	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
bis(2-Ethylhexyl)phthalate	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-R-(0)**

Client Sample ID: **SMIC-R-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031001  
Lab Project ID: 1132031

Collection Date: 05/24/13 07:34  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 84.1

Results by **Semivolatile Organic GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Butylbenzylphthalate	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Carbazole	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Chrysene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Di-n-butylphthalate	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
di-n-Octylphthalate	0.596	U	0.596	0.179	mg/Kg	1	05/31/13 01:00
Dibenzo[a,h]anthracene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Dibenzofuran	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Diethylphthalate	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Dimethylphthalate	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Fluoranthene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Fluorene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Hexachlorobenzene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Hexachlorobutadiene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Hexachlorocyclopentadiene	0.834	U	0.834	0.238	mg/Kg	1	05/31/13 01:00
Hexachloroethane	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Indeno[1,2,3-c,d] pyrene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Isophorone	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
N-Nitroso-di-n-propylamine	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
N-Nitrosodimethylamine	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
N-Nitrosodiphenylamine	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Naphthalene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Nitrobenzene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Pentachlorophenol	2.38	U	2.38	0.739	mg/Kg	1	05/31/13 01:00
Phenanthrene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Phenol	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00
Pyrene	0.298	U	0.298	0.0929	mg/Kg	1	05/31/13 01:00

**Surrogates**

2,4,6-Tribromophenol	94		35-125		%	1	05/31/13 01:00
2-Fluorobiphenyl	87		45-105		%	1	05/31/13 01:00
2-Fluorophenol	72.7		35-105		%	1	05/31/13 01:00
Nitrobenzene-d5	75.2		35-100		%	1	05/31/13 01:00
Phenol-d6	78.6		40-100		%	1	05/31/13 01:00
Terphenyl-d14	106		30-125		%	1	05/31/13 01:00

**Batch Information**

Analytical Batch: XMS7345  
Analytical Method: SW8270D  
Analyst: DSH  
Analytical Date/Time: 05/31/13 01:00  
Container ID: 1132031001-A

Prep Batch: XXX29074  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 11:00  
Prep Initial Wt./Vol.: 22.462 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-T-(0)

Client Sample ID: **SMIC-T-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031002  
Lab Project ID: 1132031

Collection Date: 05/24/13 07:53  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 91.8

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	3.98		0.999	0.310	mg/Kg	10	05/31/13 12:53
Barium	38.4		0.300	0.0939	mg/Kg	10	05/31/13 12:53
Cadmium	0.200	U	0.200	0.0619	mg/Kg	10	05/31/13 12:53
Chromium	32.2		0.399	0.120	mg/Kg	10	05/31/13 12:53
Lead	7.51		0.200	0.0619	mg/Kg	10	05/31/13 12:53
Mercury	0.0399	U	0.0399	0.0120	mg/Kg	10	05/31/13 12:53
Selenium	0.499	U	0.499	0.150	mg/Kg	10	05/31/13 12:53
Silver	0.0999	U	0.0999	0.0310	mg/Kg	10	05/31/13 12:53

### Batch Information

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Analyst: ACF  
Analytical Date/Time: 05/31/13 12:53  
Container ID: 1132031002-A

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 05/30/13 08:20  
Prep Initial Wt./Vol.: 1.091 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-F-(0)

Client Sample ID: **SMIC-F-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031003  
Lab Project ID: 1132031

Collection Date: 05/24/13 12:58  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 87.4

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	3.60		1.08	0.335	mg/Kg	10	05/31/13 12:55
Barium	21.6		0.324	0.102	mg/Kg	10	05/31/13 12:55
Cadmium	0.216	U	0.216	0.0670	mg/Kg	10	05/31/13 12:55
Chromium	26.8		0.432	0.130	mg/Kg	10	05/31/13 12:55
Lead	5.43		0.216	0.0670	mg/Kg	10	05/31/13 12:55
Mercury	0.0432	U	0.0432	0.0130	mg/Kg	10	05/31/13 12:55
Selenium	0.541	U	0.541	0.162	mg/Kg	10	05/31/13 12:55
Silver	0.108	U	0.108	0.0335	mg/Kg	10	05/31/13 12:55

### Batch Information

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Analyst: ACF  
Analytical Date/Time: 05/31/13 12:55  
Container ID: 1132031003-A

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 05/30/13 08:20  
Prep Initial Wt./Vol.: 1.058 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-F-(0)**

Client Sample ID: **SMIC-F-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031003  
Lab Project ID: 1132031

Collection Date: 05/24/13 12:58  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 87.4

Results by **Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	22.6	U	22.6	7.00	mg/Kg	1	06/04/13 12:02
<b>Surrogates</b>							
5a Androstane	93.6		50-150		%	1	06/04/13 12:02

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:02  
Container ID: 1132031003-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.376 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	22.6	U	22.6	7.00	mg/Kg	1	06/04/13 12:02
<b>Surrogates</b>							
n-Triacontane-d62	99.3		50-150		%	1	06/04/13 12:02

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:02  
Container ID: 1132031003-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.376 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-F-(0)**

Client Sample ID: **SMIC-F-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031003  
Lab Project ID: 1132031

Collection Date: 05/24/13 12:58  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 87.4

Results by **Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
1,2-Dichlorobenzene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
1,3-Dichlorobenzene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
1,4-Dichlorobenzene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
1-Chloronaphthalene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
2,4,5-Trichlorophenol	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
2,4,6-Trichlorophenol	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
2,4-Dichlorophenol	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
2,4-Dimethylphenol	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
2,4-Dinitrophenol	3.42	U	3.42	1.07	mg/Kg	1	05/31/13 01:17
2,4-Dinitrotoluene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
2,6-Dichlorophenol	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
2,6-Dinitrotoluene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
2-Chloronaphthalene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
2-Chlorophenol	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
2-Methyl-4,6-dinitrophenol	2.28	U	2.28	0.707	mg/Kg	1	05/31/13 01:17
2-Methylnaphthalene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
2-Methylphenol (o-Cresol)	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
2-Nitroaniline	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
2-Nitrophenol	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
3&4-Methylphenol (p&m-Cresol)	1.14	U	1.14	0.353	mg/Kg	1	05/31/13 01:17
3,3-Dichlorobenzidine	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
3-Nitroaniline	0.570	U	0.570	0.171	mg/Kg	1	05/31/13 01:17
4-Bromophenyl-phenylether	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
4-Chloro-3-methylphenol	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
4-Chloroaniline	0.570	U	0.570	0.171	mg/Kg	1	05/31/13 01:17
4-Chlorophenyl-phenylether	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
4-Nitroaniline	3.42	U	3.42	1.07	mg/Kg	1	05/31/13 01:17
4-Nitrophenol	1.14	U	1.14	0.353	mg/Kg	1	05/31/13 01:17
Acenaphthene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Acenaphthylene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Aniline	2.28	U	2.28	0.707	mg/Kg	1	05/31/13 01:17
Anthracene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Azobenzene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Benzo(a)Anthracene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Benzo[a]pyrene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Benzo[b]Fluoranthene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Benzo[g,h,i]perylene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Benzo[k]fluoranthene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Benzoic acid	1.71	U	1.71	0.855	mg/Kg	1	05/31/13 01:17
Benzyl alcohol	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Bis(2-Chloroethoxy)methane	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Bis(2-Chloroethyl)ether	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
bis(2-Ethylhexyl)phthalate	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-F-(0)**

Client Sample ID: **SMIC-F-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031003  
Lab Project ID: 1132031

Collection Date: 05/24/13 12:58  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 87.4

Results by **Semivolatile Organic GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Butylbenzylphthalate	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Carbazole	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Chrysene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Di-n-butylphthalate	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
di-n-Octylphthalate	0.570	U	0.570	0.171	mg/Kg	1	05/31/13 01:17
Dibenzo[a,h]anthracene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Dibenzofuran	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Diethylphthalate	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Dimethylphthalate	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Fluoranthene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Fluorene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Hexachlorobenzene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Hexachlorobutadiene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Hexachlorocyclopentadiene	0.798	U	0.798	0.228	mg/Kg	1	05/31/13 01:17
Hexachloroethane	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Indeno[1,2,3-c,d] pyrene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Isophorone	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
N-Nitroso-di-n-propylamine	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
N-Nitrosodimethylamine	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
N-Nitrosodiphenylamine	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Naphthalene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Nitrobenzene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Pentachlorophenol	2.28	U	2.28	0.707	mg/Kg	1	05/31/13 01:17
Phenanthrene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Phenol	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17
Pyrene	0.285	U	0.285	0.0889	mg/Kg	1	05/31/13 01:17

**Surrogates**

2,4,6-Tribromophenol	94		35-125		%	1	05/31/13 01:17
2-Fluorobiphenyl	91.6		45-105		%	1	05/31/13 01:17
2-Fluorophenol	70.6		35-105		%	1	05/31/13 01:17
Nitrobenzene-d5	72.9		35-100		%	1	05/31/13 01:17
Phenol-d6	77.7		40-100		%	1	05/31/13 01:17
Terphenyl-d14	108		30-125		%	1	05/31/13 01:17

**Batch Information**

Analytical Batch: XMS7345  
Analytical Method: SW8270D  
Analyst: DSH  
Analytical Date/Time: 05/31/13 01:17  
Container ID: 1132031003-A

Prep Batch: XXX29074  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 11:00  
Prep Initial Wt./Vol.: 22.569 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM





### Results of **SMIC-F-(0)**

Client Sample ID: **SMIC-F-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031003  
Lab Project ID: 1132031

Collection Date: 05/24/13 12:58  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 87.4

### Results by **Volatile Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.08	U	2.08	0.624	mg/Kg	1	06/05/13 12:33
<b>Surrogates</b>							
4-Bromofluorobenzene	94.6		50-150		%	1	06/05/13 12:33

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 12:33  
Container ID: 1132031003-C

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/24/13 12:58  
Prep Initial Wt./Vol.: 104.996 g  
Prep Extract Vol: 38.1955 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-F-(0)**

Client Sample ID: **SMIC-F-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031003  
Lab Project ID: 1132031

Collection Date: 05/24/13 12:58  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 87.4

Results by **Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,1,1-Trichloroethane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,1,2,2-Tetrachloroethane	41.6	U	41.6	12.5	ug/Kg	1	05/30/13 23:27
1,1,2-Trichloroethane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,1-Dichloroethane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,1-Dichloroethene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,1-Dichloropropene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,2,3-Trichlorobenzene	41.6	U	41.6	12.5	ug/Kg	1	05/30/13 23:27
1,2,3-Trichloropropane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,2,4-Trichlorobenzene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,2,4-Trimethylbenzene	41.6	U	41.6	12.5	ug/Kg	1	05/30/13 23:27
1,2-Dibromo-3-chloropropane	83.2	U	83.2	25.8	ug/Kg	1	05/30/13 23:27
1,2-Dibromoethane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,2-Dichlorobenzene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,2-Dichloroethane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,2-Dichloropropane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,3,5-Trimethylbenzene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,3-Dichlorobenzene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,3-Dichloropropane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
1,4-Dichlorobenzene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
2,2-Dichloropropane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
2-Butanone (MEK)	208	U	208	64.9	ug/Kg	1	05/30/13 23:27
2-Chlorotoluene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
2-Hexanone	208	U	208	64.9	ug/Kg	1	05/30/13 23:27
4-Chlorotoluene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
4-Isopropyltoluene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
4-Methyl-2-pentanone (MIBK)	208	U	208	64.9	ug/Kg	1	05/30/13 23:27
Benzene	10.4	U	10.4	3.25	ug/Kg	1	05/30/13 23:27
Bromobenzene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Bromochloromethane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Bromodichloromethane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Bromoform	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Bromomethane	166	U	166	51.6	ug/Kg	1	05/30/13 23:27
Carbon disulfide	83.2	U	83.2	25.8	ug/Kg	1	05/30/13 23:27
Carbon tetrachloride	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Chlorobenzene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Chloroethane	166	U	166	51.6	ug/Kg	1	05/30/13 23:27
Chloroform	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Chloromethane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
cis-1,2-Dichloroethene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
cis-1,3-Dichloropropene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Dibromochloromethane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Dibromomethane	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Dichlorodifluoromethane	41.6	U	41.6	12.5	ug/Kg	1	05/30/13 23:27

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-F-(0)**

Client Sample ID: **SMIC-F-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031003  
Lab Project ID: 1132031

Collection Date: 05/24/13 12:58  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 87.4

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Hexachlorobutadiene	41.6	U	41.6	12.5	ug/Kg	1	05/30/13 23:27
Isopropylbenzene (Cumene)	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Methyl-t-butyl ether	83.2	U	83.2	25.8	ug/Kg	1	05/30/13 23:27
Methylene chloride	83.2	U	83.2	25.8	ug/Kg	1	05/30/13 23:27
n-Butylbenzene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
n-Propylbenzene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Naphthalene	41.6	U	41.6	12.5	ug/Kg	1	05/30/13 23:27
o-Xylene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
P & M -Xylene	41.6	U	41.6	12.5	ug/Kg	1	05/30/13 23:27
sec-Butylbenzene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Styrene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
tert-Butylbenzene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Tetrachloroethene	10.4	U	10.4	3.25	ug/Kg	1	05/30/13 23:27
Toluene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
trans-1,2-Dichloroethene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
trans-1,3-Dichloropropene	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Trichloroethene	10.4	U	10.4	3.25	ug/Kg	1	05/30/13 23:27
Trichlorofluoromethane	41.6	U	41.6	12.5	ug/Kg	1	05/30/13 23:27
Vinyl chloride	20.8	U	20.8	6.49	ug/Kg	1	05/30/13 23:27
Xylenes (total)	83.2	U	83.2	25.8	ug/Kg	1	05/30/13 23:27
<b>Surrogates</b>							
1,2-Dichloroethane-D4	99.2		79-118		%	1	05/30/13 23:27
4-Bromofluorobenzene	94.1		67-138		%	1	05/30/13 23:27
Toluene-d8	94.7		85-115		%	1	05/30/13 23:27

**Batch Information**

Analytical Batch: VMS13526  
Analytical Method: SW8260B  
Analyst: HM  
Analytical Date/Time: 05/30/13 23:27  
Container ID: 1132031003-C

Prep Batch: VXX24760  
Prep Method: SW5035A  
Prep Date/Time: 05/24/13 12:58  
Prep Initial Wt./Vol.: 104.996 g  
Prep Extract Vol: 38.1955 mL

Print Date: 06/18/2013 11:16:54AM



**Results of SMIC-F (4.5)**

Client Sample ID: **SMIC-F (4.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031004  
Lab Project ID: 1132031

Collection Date: 05/24/13 13:44  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 84.1

**Results by Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	3.92		1.18	0.366	mg/Kg	10	05/31/13 12:58
Barium	30.2		0.354	0.111	mg/Kg	10	05/31/13 12:58
Cadmium	0.236	U	0.236	0.0731	mg/Kg	10	05/31/13 12:58
Chromium	30.4		0.472	0.142	mg/Kg	10	05/31/13 12:58
Lead	5.12		0.236	0.0731	mg/Kg	10	05/31/13 12:58
Mercury	0.0472	U	0.0472	0.0142	mg/Kg	10	05/31/13 12:58
Selenium	0.590	U	0.590	0.177	mg/Kg	10	05/31/13 12:58
Silver	0.118	U	0.118	0.0366	mg/Kg	10	05/31/13 12:58

**Batch Information**

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Analyst: ACF  
Analytical Date/Time: 05/31/13 12:58  
Container ID: 1132031004-A

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 05/30/13 08:20  
Prep Initial Wt./Vol.: 1.008 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:54AM



**Results of SMIC-F (4.5)**

Client Sample ID: **SMIC-F (4.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031004  
Lab Project ID: 1132031

Collection Date: 05/24/13 13:44  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 84.1

**Results by Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	23.5	U	23.5	7.27	mg/Kg	1	06/04/13 12:11

**Surrogates**

5a Androstane	78.9		50-150		%	1	06/04/13 12:11
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**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:11  
Container ID: 1132031004-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.411 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	23.5	U	23.5	7.27	mg/Kg	1	06/04/13 12:11

**Surrogates**

n-Triacontane-d62	86.9		50-150		%	1	06/04/13 12:11
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**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:11  
Container ID: 1132031004-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.411 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-F (4.5)**

Client Sample ID: **SMIC-F (4.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031004  
Lab Project ID: 1132031

Collection Date: 05/24/13 13:44  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 84.1

Results by **Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
1,2-Dichlorobenzene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
1,3-Dichlorobenzene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
1,4-Dichlorobenzene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
1-Chloronaphthalene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
2,4,5-Trichlorophenol	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
2,4,6-Trichlorophenol	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
2,4-Dichlorophenol	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
2,4-Dimethylphenol	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
2,4-Dinitrophenol	3.51	U	3.51	1.10	mg/Kg	1	05/31/13 01:34
2,4-Dinitrotoluene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
2,6-Dichlorophenol	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
2,6-Dinitrotoluene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
2-Chloronaphthalene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
2-Chlorophenol	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
2-Methyl-4,6-dinitrophenol	2.34	U	2.34	0.725	mg/Kg	1	05/31/13 01:34
2-Methylnaphthalene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
2-Methylphenol (o-Cresol)	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
2-Nitroaniline	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
2-Nitrophenol	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
3&4-Methylphenol (p&m-Cresol)	1.17	U	1.17	0.362	mg/Kg	1	05/31/13 01:34
3,3-Dichlorobenzidine	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
3-Nitroaniline	0.585	U	0.585	0.175	mg/Kg	1	05/31/13 01:34
4-Bromophenyl-phenylether	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
4-Chloro-3-methylphenol	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
4-Chloroaniline	0.585	U	0.585	0.175	mg/Kg	1	05/31/13 01:34
4-Chlorophenyl-phenylether	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
4-Nitroaniline	3.51	U	3.51	1.10	mg/Kg	1	05/31/13 01:34
4-Nitrophenol	1.17	U	1.17	0.362	mg/Kg	1	05/31/13 01:34
Acenaphthene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Acenaphthylene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Aniline	2.34	U	2.34	0.725	mg/Kg	1	05/31/13 01:34
Anthracene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Azobenzene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Benzo(a)Anthracene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Benzo[a]pyrene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Benzo[b]Fluoranthene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Benzo[g,h,i]perylene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Benzo[k]fluoranthene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Benzoic acid	1.75	U	1.75	0.877	mg/Kg	1	05/31/13 01:34
Benzyl alcohol	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Bis(2-Chloroethoxy)methane	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Bis(2-Chloroethyl)ether	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
bis(2-Ethylhexyl)phthalate	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-F (4.5)**

Client Sample ID: **SMIC-F (4.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031004  
Lab Project ID: 1132031

Collection Date: 05/24/13 13:44  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 84.1

Results by **Semivolatile Organic GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Butylbenzylphthalate	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Carbazole	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Chrysene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Di-n-butylphthalate	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
di-n-Octylphthalate	0.585	U	0.585	0.175	mg/Kg	1	05/31/13 01:34
Dibenzo[a,h]anthracene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Dibenzofuran	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Diethylphthalate	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Dimethylphthalate	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Fluoranthene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Fluorene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Hexachlorobenzene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Hexachlorobutadiene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Hexachlorocyclopentadiene	0.818	U	0.818	0.234	mg/Kg	1	05/31/13 01:34
Hexachloroethane	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Indeno[1,2,3-c,d] pyrene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Isophorone	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
N-Nitroso-di-n-propylamine	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
N-Nitrosodimethylamine	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
N-Nitrosodiphenylamine	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Naphthalene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Nitrobenzene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Pentachlorophenol	2.34	U	2.34	0.725	mg/Kg	1	05/31/13 01:34
Phenanthrene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Phenol	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34
Pyrene	0.292	U	0.292	0.0912	mg/Kg	1	05/31/13 01:34

**Surrogates**

2,4,6-Tribromophenol	88.1		35-125		%	1	05/31/13 01:34
2-Fluorobiphenyl	83.5		45-105		%	1	05/31/13 01:34
2-Fluorophenol	68.8		35-105		%	1	05/31/13 01:34
Nitrobenzene-d5	71.7		35-100		%	1	05/31/13 01:34
Phenol-d6	74.5		40-100		%	1	05/31/13 01:34
Terphenyl-d14	103		30-125		%	1	05/31/13 01:34

**Batch Information**

Analytical Batch: XMS7345  
Analytical Method: SW8270D  
Analyst: DSH  
Analytical Date/Time: 05/31/13 01:34  
Container ID: 1132031004-A

Prep Batch: XXX29074  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 11:00  
Prep Initial Wt./Vol.: 22.877 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-F (4.5)

Client Sample ID: **SMIC-F (4.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031004  
Lab Project ID: 1132031

Collection Date: 05/24/13 13:44  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 84.1

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	4.44	U	4.44	1.33	mg/Kg	1	06/05/13 12:51
<b>Surrogates</b>							
4-Bromofluorobenzene	91.7		50-150		%	1	06/05/13 12:51

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 12:51  
Container ID: 1132031004-C

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/24/13 13:44  
Prep Initial Wt./Vol.: 42.445 g  
Prep Extract Vol: 31.7381 mL

Print Date: 06/18/2013 11:16:54AM





### Results of SMIC-F (4.5)

Client Sample ID: **SMIC-F (4.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132031004  
 Lab Project ID: 1132031

Collection Date: 05/24/13 13:44  
 Received Date: 05/28/13 12:04  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 84.1

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,1,1-Trichloroethane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,1,2,2-Tetrachloroethane	88.9	U	88.9	26.7	ug/Kg	1	05/30/13 23:44
1,1,2-Trichloroethane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,1-Dichloroethane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,1-Dichloroethene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,1-Dichloropropene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,2,3-Trichlorobenzene	88.9	U	88.9	26.7	ug/Kg	1	05/30/13 23:44
1,2,3-Trichloropropane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,2,4-Trichlorobenzene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,2,4-Trimethylbenzene	88.9	U	88.9	26.7	ug/Kg	1	05/30/13 23:44
1,2-Dibromo-3-chloropropane	178	U	178	55.1	ug/Kg	1	05/30/13 23:44
1,2-Dibromoethane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,2-Dichlorobenzene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,2-Dichloroethane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,2-Dichloropropane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,3,5-Trimethylbenzene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,3-Dichlorobenzene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,3-Dichloropropane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
1,4-Dichlorobenzene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
2,2-Dichloropropane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
2-Butanone (MEK)	444	U	444	139	ug/Kg	1	05/30/13 23:44
2-Chlorotoluene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
2-Hexanone	444	U	444	139	ug/Kg	1	05/30/13 23:44
4-Chlorotoluene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
4-Isopropyltoluene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
4-Methyl-2-pentanone (MIBK)	444	U	444	139	ug/Kg	1	05/30/13 23:44
Benzene	22.2	U	22.2	6.93	ug/Kg	1	05/30/13 23:44
Bromobenzene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Bromochloromethane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Bromodichloromethane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Bromoform	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Bromomethane	356	U	356	110	ug/Kg	1	05/30/13 23:44
Carbon disulfide	178	U	178	55.1	ug/Kg	1	05/30/13 23:44
Carbon tetrachloride	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Chlorobenzene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Chloroethane	356	U	356	110	ug/Kg	1	05/30/13 23:44
Chloroform	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Chloromethane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
cis-1,2-Dichloroethene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
cis-1,3-Dichloropropene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Dibromochloromethane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Dibromomethane	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Dichlorodifluoromethane	88.9	U	88.9	26.7	ug/Kg	1	05/30/13 23:44

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-F (4.5)**

Client Sample ID: **SMIC-F (4.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031004  
Lab Project ID: 1132031

Collection Date: 05/24/13 13:44  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 84.1

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Hexachlorobutadiene	88.9	U	88.9	26.7	ug/Kg	1	05/30/13 23:44
Isopropylbenzene (Cumene)	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Methyl-t-butyl ether	178	U	178	55.1	ug/Kg	1	05/30/13 23:44
Methylene chloride	178	U	178	55.1	ug/Kg	1	05/30/13 23:44
n-Butylbenzene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
n-Propylbenzene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Naphthalene	88.9	U	88.9	26.7	ug/Kg	1	05/30/13 23:44
o-Xylene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
P & M -Xylene	88.9	U	88.9	26.7	ug/Kg	1	05/30/13 23:44
sec-Butylbenzene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Styrene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
tert-Butylbenzene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Tetrachloroethene	22.2	U	22.2	6.93	ug/Kg	1	05/30/13 23:44
Toluene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
trans-1,2-Dichloroethene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
trans-1,3-Dichloropropene	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Trichloroethene	22.2	U	22.2	6.93	ug/Kg	1	05/30/13 23:44
Trichlorofluoromethane	88.9	U	88.9	26.7	ug/Kg	1	05/30/13 23:44
Vinyl chloride	44.4	U	44.4	13.9	ug/Kg	1	05/30/13 23:44
Xylenes (total)	178	U	178	55.1	ug/Kg	1	05/30/13 23:44
<b>Surrogates</b>							
1,2-Dichloroethane-D4	108		79-118		%	1	05/30/13 23:44
4-Bromofluorobenzene	96.7		67-138		%	1	05/30/13 23:44
Toluene-d8	102		85-115		%	1	05/30/13 23:44

**Batch Information**

Analytical Batch: VMS13526  
Analytical Method: SW8260B  
Analyst: HM  
Analytical Date/Time: 05/30/13 23:44  
Container ID: 1132031004-C

Prep Batch: VXX24760  
Prep Method: SW5035A  
Prep Date/Time: 05/24/13 13:44  
Prep Initial Wt./Vol.: 42.445 g  
Prep Extract Vol: 31.7381 mL

Print Date: 06/18/2013 11:16:54AM



**Results of SMIC-F (8.5)**

Client Sample ID: **SMIC-F (8.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031005  
Lab Project ID: 1132031

Collection Date: 05/24/13 14:21  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 82.5

**Results by Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	5.08		1.18	0.367	mg/Kg	10	05/31/13 13:00
Barium	38.0		0.355	0.111	mg/Kg	10	05/31/13 13:00
Cadmium	0.237	U	0.237	0.0734	mg/Kg	10	05/31/13 13:00
Chromium	34.0		0.474	0.142	mg/Kg	10	05/31/13 13:00
Lead	5.08		0.237	0.0734	mg/Kg	10	05/31/13 13:00
Mercury	0.0474	U	0.0474	0.0142	mg/Kg	10	05/31/13 13:00
Selenium	0.592	U	0.592	0.178	mg/Kg	10	05/31/13 13:00
Silver	0.118	U	0.118	0.0367	mg/Kg	10	05/31/13 13:00

**Batch Information**

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Analyst: ACF  
Analytical Date/Time: 05/31/13 13:00  
Container ID: 1132031005-A

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 05/30/13 08:20  
Prep Initial Wt./Vol.: 1.024 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-F (8.5)**

Client Sample ID: **SMIC-F (8.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031005  
Lab Project ID: 1132031

Collection Date: 05/24/13 14:21  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 82.5

Results by **Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	24.2	U	24.2	7.51	mg/Kg	1	06/04/13 12:21

**Surrogates**

5a Androstane	82.1		50-150		%	1	06/04/13 12:21
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**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:21  
Container ID: 1132031005-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.048 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	24.2	U	24.2	7.51	mg/Kg	1	06/04/13 12:21

**Surrogates**

n-Triacontane-d62	85.6		50-150		%	1	06/04/13 12:21
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**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:21  
Container ID: 1132031005-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.048 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-F (8.5)**

Client Sample ID: **SMIC-F (8.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031005  
Lab Project ID: 1132031

Collection Date: 05/24/13 14:21  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 82.5

Results by **Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
1,2-Dichlorobenzene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
1,3-Dichlorobenzene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
1,4-Dichlorobenzene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
1-Chloronaphthalene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
2,4,5-Trichlorophenol	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
2,4,6-Trichlorophenol	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
2,4-Dichlorophenol	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
2,4-Dimethylphenol	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
2,4-Dinitrophenol	3.62	U	3.62	1.14	mg/Kg	1	05/31/13 01:52
2,4-Dinitrotoluene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
2,6-Dichlorophenol	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
2,6-Dinitrotoluene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
2-Chloronaphthalene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
2-Chlorophenol	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
2-Methyl-4,6-dinitrophenol	2.42	U	2.42	0.749	mg/Kg	1	05/31/13 01:52
2-Methylnaphthalene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
2-Methylphenol (o-Cresol)	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
2-Nitroaniline	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
2-Nitrophenol	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
3&4-Methylphenol (p&m-Cresol)	1.21	U	1.21	0.375	mg/Kg	1	05/31/13 01:52
3,3-Dichlorobenzidine	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
3-Nitroaniline	0.604	U	0.604	0.181	mg/Kg	1	05/31/13 01:52
4-Bromophenyl-phenylether	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
4-Chloro-3-methylphenol	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
4-Chloroaniline	0.604	U	0.604	0.181	mg/Kg	1	05/31/13 01:52
4-Chlorophenyl-phenylether	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
4-Nitroaniline	3.62	U	3.62	1.14	mg/Kg	1	05/31/13 01:52
4-Nitrophenol	1.21	U	1.21	0.375	mg/Kg	1	05/31/13 01:52
Acenaphthene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Acenaphthylene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Aniline	2.42	U	2.42	0.749	mg/Kg	1	05/31/13 01:52
Anthracene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Azobenzene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Benzo(a)Anthracene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Benzo[a]pyrene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Benzo[b]Fluoranthene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Benzo[g,h,i]perylene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Benzo[k]fluoranthene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Benzoic acid	1.81	U	1.81	0.906	mg/Kg	1	05/31/13 01:52
Benzyl alcohol	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Bis(2-Chloroethoxy)methane	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Bis(2-Chloroethyl)ether	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
bis(2-Ethylhexyl)phthalate	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-F (8.5)**

Client Sample ID: **SMIC-F (8.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031005  
Lab Project ID: 1132031

Collection Date: 05/24/13 14:21  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 82.5

Results by **Semivolatile Organic GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Butylbenzylphthalate	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Carbazole	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Chrysene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Di-n-butylphthalate	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
di-n-Octylphthalate	0.604	U	0.604	0.181	mg/Kg	1	05/31/13 01:52
Dibenzo[a,h]anthracene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Dibenzofuran	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Diethylphthalate	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Dimethylphthalate	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Fluoranthene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Fluorene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Hexachlorobenzene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Hexachlorobutadiene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Hexachlorocyclopentadiene	0.846	U	0.846	0.242	mg/Kg	1	05/31/13 01:52
Hexachloroethane	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Indeno[1,2,3-c,d] pyrene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Isophorone	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
N-Nitroso-di-n-propylamine	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
N-Nitrosodimethylamine	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
N-Nitrosodiphenylamine	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Naphthalene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Nitrobenzene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Pentachlorophenol	2.42	U	2.42	0.749	mg/Kg	1	05/31/13 01:52
Phenanthrene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Phenol	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52
Pyrene	0.302	U	0.302	0.0942	mg/Kg	1	05/31/13 01:52

**Surrogates**

2,4,6-Tribromophenol	88.8		35-125		%	1	05/31/13 01:52
2-Fluorobiphenyl	83.2		45-105		%	1	05/31/13 01:52
2-Fluorophenol	67.5		35-105		%	1	05/31/13 01:52
Nitrobenzene-d5	71.8		35-100		%	1	05/31/13 01:52
Phenol-d6	73.7		40-100		%	1	05/31/13 01:52
Terphenyl-d14	108		30-125		%	1	05/31/13 01:52

**Batch Information**

Analytical Batch: XMS7345  
Analytical Method: SW8270D  
Analyst: DSH  
Analytical Date/Time: 05/31/13 01:52  
Container ID: 1132031005-A

Prep Batch: XXX29074  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 11:00  
Prep Initial Wt./Vol.: 22.579 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



### Results of **SMIC-F (8.5)**

Client Sample ID: **SMIC-F (8.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031005  
Lab Project ID: 1132031

Collection Date: 05/24/13 14:21  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 82.5

### Results by **Volatile Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.63	U	2.63	0.790	mg/Kg	1	06/05/13 13:10

#### **Surrogates**

4-Bromofluorobenzene	106		50-150		%	1	06/05/13 13:10
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### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 13:10  
Container ID: 1132031005-B

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/24/13 14:21  
Prep Initial Wt./Vol.: 96.507 g  
Prep Extract Vol: 41.911 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-F (8.5)**

Client Sample ID: **SMIC-F (8.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031005  
Lab Project ID: 1132031

Collection Date: 05/24/13 14:21  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 82.5

Results by **Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,1,1-Trichloroethane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,1,2,2-Tetrachloroethane	52.7	U	52.7	15.8	ug/Kg	1	05/31/13 00:01
1,1,2-Trichloroethane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,1-Dichloroethane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,1-Dichloroethene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,1-Dichloropropene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,2,3-Trichlorobenzene	52.7	U	52.7	15.8	ug/Kg	1	05/31/13 00:01
1,2,3-Trichloropropane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,2,4-Trichlorobenzene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,2,4-Trimethylbenzene	52.7	U	52.7	15.8	ug/Kg	1	05/31/13 00:01
1,2-Dibromo-3-chloropropane	105	U	105	32.6	ug/Kg	1	05/31/13 00:01
1,2-Dibromoethane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,2-Dichlorobenzene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,2-Dichloroethane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,2-Dichloropropane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,3,5-Trimethylbenzene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,3-Dichlorobenzene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,3-Dichloropropane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
1,4-Dichlorobenzene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
2,2-Dichloropropane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
2-Butanone (MEK)	263	U	263	82.1	ug/Kg	1	05/31/13 00:01
2-Chlorotoluene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
2-Hexanone	263	U	263	82.1	ug/Kg	1	05/31/13 00:01
4-Chlorotoluene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
4-Isopropyltoluene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
4-Methyl-2-pentanone (MIBK)	263	U	263	82.1	ug/Kg	1	05/31/13 00:01
Benzene	13.2	U	13.2	4.11	ug/Kg	1	05/31/13 00:01
Bromobenzene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Bromochloromethane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Bromodichloromethane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Bromoform	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Bromomethane	211	U	211	65.3	ug/Kg	1	05/31/13 00:01
Carbon disulfide	105	U	105	32.6	ug/Kg	1	05/31/13 00:01
Carbon tetrachloride	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Chlorobenzene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Chloroethane	211	U	211	65.3	ug/Kg	1	05/31/13 00:01
Chloroform	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Chloromethane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
cis-1,2-Dichloroethene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
cis-1,3-Dichloropropene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Dibromochloromethane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Dibromomethane	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Dichlorodifluoromethane	52.7	U	52.7	15.8	ug/Kg	1	05/31/13 00:01

Print Date: 06/18/2013 11:16:54AM





Results of **SMIC-F (8.5)**

Client Sample ID: **SMIC-F (8.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031005  
Lab Project ID: 1132031

Collection Date: 05/24/13 14:21  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 82.5

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Hexachlorobutadiene	52.7	U	52.7	15.8	ug/Kg	1	05/31/13 00:01
Isopropylbenzene (Cumene)	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Methyl-t-butyl ether	105	U	105	32.6	ug/Kg	1	05/31/13 00:01
Methylene chloride	105	U	105	32.6	ug/Kg	1	05/31/13 00:01
n-Butylbenzene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
n-Propylbenzene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Naphthalene	52.7	U	52.7	15.8	ug/Kg	1	05/31/13 00:01
o-Xylene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
P & M -Xylene	52.7	U	52.7	15.8	ug/Kg	1	05/31/13 00:01
sec-Butylbenzene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Styrene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
tert-Butylbenzene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Tetrachloroethene	13.2	U	13.2	4.11	ug/Kg	1	05/31/13 00:01
Toluene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
trans-1,2-Dichloroethene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
trans-1,3-Dichloropropene	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Trichloroethene	13.2	U	13.2	4.11	ug/Kg	1	05/31/13 00:01
Trichlorofluoromethane	52.7	U	52.7	15.8	ug/Kg	1	05/31/13 00:01
Vinyl chloride	26.3	U	26.3	8.21	ug/Kg	1	05/31/13 00:01
Xylenes (total)	105	U	105	32.6	ug/Kg	1	05/31/13 00:01
<b>Surrogates</b>							
1,2-Dichloroethane-D4	98.8		79-118		%	1	05/31/13 00:01
4-Bromofluorobenzene	103		67-138		%	1	05/31/13 00:01
Toluene-d8	92.5		85-115		%	1	05/31/13 00:01

**Batch Information**

Analytical Batch: VMS13526  
Analytical Method: SW8260B  
Analyst: HM  
Analytical Date/Time: 05/31/13 00:01  
Container ID: 1132031005-B

Prep Batch: VXX24760  
Prep Method: SW5035A  
Prep Date/Time: 05/24/13 14:21  
Prep Initial Wt./Vol.: 96.507 g  
Prep Extract Vol: 41.911 mL

Print Date: 06/18/2013 11:16:54AM



**Results of SMIC-E (0)**

Client Sample ID: **SMIC-E (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031006  
Lab Project ID: 1132031

Collection Date: 05/25/13 20:11  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 70.8

**Results by Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	9.50		1.40	0.433	mg/Kg	10	05/31/13 13:02
Barium	62.0		0.419	0.131	mg/Kg	10	05/31/13 13:02
Cadmium	0.279	U	0.279	0.0865	mg/Kg	10	05/31/13 13:02
Chromium	41.0		0.558	0.168	mg/Kg	10	05/31/13 13:02
Lead	11.0		0.279	0.0865	mg/Kg	10	05/31/13 13:02
Mercury	0.0558	U	0.0558	0.0168	mg/Kg	10	05/31/13 13:02
Selenium	0.698	U	0.698	0.209	mg/Kg	10	05/31/13 13:02
Silver	0.140	U	0.140	0.0433	mg/Kg	10	05/31/13 13:02

**Batch Information**

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Analyst: ACF  
Analytical Date/Time: 05/31/13 13:02  
Container ID: 1132031006-A

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 05/30/13 08:20  
Prep Initial Wt./Vol.: 1.012 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:54AM



**Results of SMIC-E (0)**

Client Sample ID: **SMIC-E (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031006  
Lab Project ID: 1132031

Collection Date: 05/25/13 20:11  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 70.8

**Results by Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	27.8	U	27.8	8.63	mg/Kg	1	06/04/13 12:30
<b>Surrogates</b>							
5a Androstane	84.9		50-150		%	1	06/04/13 12:30

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:30  
Container ID: 1132031006-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.456 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	34.8		27.8	8.63	mg/Kg	1	06/04/13 12:30
<b>Surrogates</b>							
n-Triacontane-d62	95.8		50-150		%	1	06/04/13 12:30

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:30  
Container ID: 1132031006-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.456 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-E (0)**

Client Sample ID: **SMIC-E (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031006  
Lab Project ID: 1132031

Collection Date: 05/25/13 20:11  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 70.8

Results by **Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
1,2-Dichlorobenzene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
1,3-Dichlorobenzene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
1,4-Dichlorobenzene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
1-Chloronaphthalene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
2,4,5-Trichlorophenol	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
2,4,6-Trichlorophenol	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
2,4-Dichlorophenol	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
2,4-Dimethylphenol	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
2,4-Dinitrophenol	4.16	U	4.16	1.30	mg/Kg	1	06/03/13 19:47
2,4-Dinitrotoluene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
2,6-Dichlorophenol	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
2,6-Dinitrotoluene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
2-Chloronaphthalene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
2-Chlorophenol	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
2-Methyl-4,6-dinitrophenol	2.77	U	2.77	0.859	mg/Kg	1	06/03/13 19:47
2-Methylnaphthalene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
2-Methylphenol (o-Cresol)	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
2-Nitroaniline	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
2-Nitrophenol	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
3&4-Methylphenol (p&m-Cresol)	1.39	U	1.39	0.430	mg/Kg	1	06/03/13 19:47
3,3-Dichlorobenzidine	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
3-Nitroaniline	0.693	U	0.693	0.208	mg/Kg	1	06/03/13 19:47
4-Bromophenyl-phenylether	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
4-Chloro-3-methylphenol	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
4-Chloroaniline	0.693	U	0.693	0.208	mg/Kg	1	06/03/13 19:47
4-Chlorophenyl-phenylether	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
4-Nitroaniline	4.16	U	4.16	1.30	mg/Kg	1	06/03/13 19:47
4-Nitrophenol	1.39	U	1.39	0.430	mg/Kg	1	06/03/13 19:47
Acenaphthene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Acenaphthylene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Aniline	2.77	U	2.77	0.859	mg/Kg	1	06/03/13 19:47
Anthracene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Azobenzene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Benzo(a)Anthracene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Benzo[a]pyrene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Benzo[b]Fluoranthene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Benzo[g,h,i]perylene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Benzo[k]fluoranthene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Benzoic acid	2.08	U	2.08	1.04	mg/Kg	1	06/03/13 19:47
Benzyl alcohol	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Bis(2-Chloroethoxy)methane	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Bis(2-Chloroethyl)ether	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
bis(2-Ethylhexyl)phthalate	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-E (0)**

Client Sample ID: **SMIC-E (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031006  
Lab Project ID: 1132031

Collection Date: 05/25/13 20:11  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 70.8

Results by **Semivolatile Organic GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Butylbenzylphthalate	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Carbazole	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Chrysene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Di-n-butylphthalate	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
di-n-Octylphthalate	0.693	U	0.693	0.208	mg/Kg	1	06/03/13 19:47
Dibenzo[a,h]anthracene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Dibenzofuran	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Diethylphthalate	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Dimethylphthalate	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Fluoranthene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Fluorene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Hexachlorobenzene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Hexachlorobutadiene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Hexachlorocyclopentadiene	0.970	U	0.970	0.277	mg/Kg	1	06/03/13 19:47
Hexachloroethane	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Indeno[1,2,3-c,d] pyrene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Isophorone	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
N-Nitroso-di-n-propylamine	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
N-Nitrosodimethylamine	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
N-Nitrosodiphenylamine	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Naphthalene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Nitrobenzene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Pentachlorophenol	2.77	U	2.77	0.859	mg/Kg	1	06/03/13 19:47
Phenanthrene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Phenol	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47
Pyrene	0.346	U	0.346	0.108	mg/Kg	1	06/03/13 19:47

**Surrogates**

2,4,6-Tribromophenol	91.8		35-125		%	1	06/03/13 19:47
2-Fluorobiphenyl	87.5		45-105		%	1	06/03/13 19:47
2-Fluorophenol	73		35-105		%	1	06/03/13 19:47
Nitrobenzene-d5	77.8		35-100		%	1	06/03/13 19:47
Phenol-d6	80.4		40-100		%	1	06/03/13 19:47
Terphenyl-d14	100		30-125		%	1	06/03/13 19:47

**Batch Information**

Analytical Batch: XMS7348  
Analytical Method: SW8270D  
Analyst: DSH  
Analytical Date/Time: 06/03/13 19:47  
Container ID: 1132031006-A

Prep Batch: XXX29074  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 11:00  
Prep Initial Wt./Vol.: 22.938 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



**Results of SMIC-E (0)**

Client Sample ID: **SMIC-E (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031006  
Lab Project ID: 1132031

Collection Date: 05/25/13 20:11  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 70.8

**Results by Volatile Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	4.37	U	4.37	1.31	mg/Kg	1	06/05/13 13:28

**Surrogates**

4-Bromofluorobenzene	84.9		50-150		%	1	06/05/13 13:28
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**Batch Information**

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 13:28  
Container ID: 1132031006-B

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/25/13 20:11  
Prep Initial Wt./Vol.: 76.58 g  
Prep Extract Vol: 47.3686 mL

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-E (0)

Client Sample ID: **SMIC-E (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031006  
Lab Project ID: 1132031

Collection Date: 05/25/13 20:11  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 70.8

### Results by Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,1,1-Trichloroethane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,1,2,2-Tetrachloroethane	87.4	U	87.4	26.2	ug/Kg	1	05/31/13 00:17
1,1,2-Trichloroethane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,1-Dichloroethane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,1-Dichloroethene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,1-Dichloropropene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,2,3-Trichlorobenzene	87.4	U	87.4	26.2	ug/Kg	1	05/31/13 00:17
1,2,3-Trichloropropane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,2,4-Trichlorobenzene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,2,4-Trimethylbenzene	87.4	U	87.4	26.2	ug/Kg	1	05/31/13 00:17
1,2-Dibromo-3-chloropropane	175	U	175	54.2	ug/Kg	1	05/31/13 00:17
1,2-Dibromoethane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,2-Dichlorobenzene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,2-Dichloroethane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,2-Dichloropropane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,3,5-Trimethylbenzene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,3-Dichlorobenzene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,3-Dichloropropane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
1,4-Dichlorobenzene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
2,2-Dichloropropane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
2-Butanone (MEK)	437	U	437	136	ug/Kg	1	05/31/13 00:17
2-Chlorotoluene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
2-Hexanone	437	U	437	136	ug/Kg	1	05/31/13 00:17
4-Chlorotoluene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
4-Isopropyltoluene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
4-Methyl-2-pentanone (MIBK)	437	U	437	136	ug/Kg	1	05/31/13 00:17
Benzene	21.8	U	21.8	6.82	ug/Kg	1	05/31/13 00:17
Bromobenzene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Bromochloromethane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Bromodichloromethane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Bromoform	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Bromomethane	350	U	350	108	ug/Kg	1	05/31/13 00:17
Carbon disulfide	175	U	175	54.2	ug/Kg	1	05/31/13 00:17
Carbon tetrachloride	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Chlorobenzene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Chloroethane	350	U	350	108	ug/Kg	1	05/31/13 00:17
Chloroform	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Chloromethane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
cis-1,2-Dichloroethene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
cis-1,3-Dichloropropene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Dibromochloromethane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Dibromomethane	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Dichlorodifluoromethane	87.4	U	87.4	26.2	ug/Kg	1	05/31/13 00:17

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-E (0)**

Client Sample ID: **SMIC-E (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031006  
Lab Project ID: 1132031

Collection Date: 05/25/13 20:11  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 70.8

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Hexachlorobutadiene	87.4	U	87.4	26.2	ug/Kg	1	05/31/13 00:17
Isopropylbenzene (Cumene)	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Methyl-t-butyl ether	175	U	175	54.2	ug/Kg	1	05/31/13 00:17
Methylene chloride	175	U	175	54.2	ug/Kg	1	05/31/13 00:17
n-Butylbenzene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
n-Propylbenzene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Naphthalene	87.4	U	87.4	26.2	ug/Kg	1	05/31/13 00:17
o-Xylene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
P & M -Xylene	87.4	U	87.4	26.2	ug/Kg	1	05/31/13 00:17
sec-Butylbenzene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Styrene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
tert-Butylbenzene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Tetrachloroethene	21.8	U	21.8	6.82	ug/Kg	1	05/31/13 00:17
Toluene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
trans-1,2-Dichloroethene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
trans-1,3-Dichloropropene	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Trichloroethene	21.8	U	21.8	6.82	ug/Kg	1	05/31/13 00:17
Trichlorofluoromethane	87.4	U	87.4	26.2	ug/Kg	1	05/31/13 00:17
Vinyl chloride	43.7	U	43.7	13.6	ug/Kg	1	05/31/13 00:17
Xylenes (total)	175	U	175	54.2	ug/Kg	1	05/31/13 00:17

**Surrogates**

1,2-Dichloroethane-D4	103		79-118		%	1	05/31/13 00:17
4-Bromofluorobenzene	102		67-138		%	1	05/31/13 00:17
Toluene-d8	97.3		85-115		%	1	05/31/13 00:17

**Batch Information**

Analytical Batch: VMS13526  
Analytical Method: SW8260B  
Analyst: HM  
Analytical Date/Time: 05/31/13 00:17  
Container ID: 1132031006-C

Prep Batch: VXX24760  
Prep Method: SW5035A  
Prep Date/Time: 05/25/13 20:11  
Prep Initial Wt./Vol.: 76.58 g  
Prep Extract Vol: 47.3686 mL

Print Date: 06/18/2013 11:16:54AM





### Results of SMIC-E (5)

Client Sample ID: **SMIC-E (5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031007  
Lab Project ID: 1132031

Collection Date: 05/25/13 21:07  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 90.1

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	3.83		1.03	0.320	mg/Kg	10	05/31/13 13:04
Barium	26.6		0.309	0.0969	mg/Kg	10	05/31/13 13:04
Cadmium	0.206	U	0.206	0.0639	mg/Kg	10	05/31/13 13:04
Chromium	25.2		0.412	0.124	mg/Kg	10	05/31/13 13:04
Lead	5.42		0.206	0.0639	mg/Kg	10	05/31/13 13:04
Mercury	0.0412	U	0.0412	0.0124	mg/Kg	10	05/31/13 13:04
Selenium	0.515	U	0.515	0.155	mg/Kg	10	05/31/13 13:04
Silver	0.103	U	0.103	0.0320	mg/Kg	10	05/31/13 13:04

### Batch Information

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Analyst: ACF  
Analytical Date/Time: 05/31/13 13:04  
Container ID: 1132031007-A

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 05/30/13 08:20  
Prep Initial Wt./Vol.: 1.077 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:54AM



**Results of SMIC-E (5)**

Client Sample ID: **SMIC-E (5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031007  
Lab Project ID: 1132031

Collection Date: 05/25/13 21:07  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 90.1

**Results by Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	22.2	U	22.2	6.87	mg/Kg	1	06/04/13 12:40
<b>Surrogates</b>							
5a Androstane	73.4		50-150		%	1	06/04/13 12:40

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:40  
Container ID: 1132031007-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.046 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	22.2	U	22.2	6.87	mg/Kg	1	06/04/13 12:40
<b>Surrogates</b>							
n-Triacontane-d62	79.7		50-150		%	1	06/04/13 12:40

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:40  
Container ID: 1132031007-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.046 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



**Results of SMIC-E (5)**

Client Sample ID: **SMIC-E (5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132031007  
 Lab Project ID: 1132031

Collection Date: 05/25/13 21:07  
 Received Date: 05/28/13 12:04  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 90.1

**Results by Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
1,2-Dichlorobenzene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
1,3-Dichlorobenzene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
1,4-Dichlorobenzene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
1-Chloronaphthalene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
2,4,5-Trichlorophenol	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
2,4,6-Trichlorophenol	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
2,4-Dichlorophenol	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
2,4-Dimethylphenol	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
2,4-Dinitrophenol	3.30	U	3.30	1.04	mg/Kg	1	05/31/13 03:01
2,4-Dinitrotoluene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
2,6-Dichlorophenol	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
2,6-Dinitrotoluene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
2-Chloronaphthalene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
2-Chlorophenol	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
2-Methyl-4,6-dinitrophenol	2.20	U	2.20	0.683	mg/Kg	1	05/31/13 03:01
2-Methylnaphthalene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
2-Methylphenol (o-Cresol)	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
2-Nitroaniline	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
2-Nitrophenol	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
3&4-Methylphenol (p&m-Cresol)	1.10	U	1.10	0.341	mg/Kg	1	05/31/13 03:01
3,3-Dichlorobenzidine	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
3-Nitroaniline	0.551	U	0.551	0.165	mg/Kg	1	05/31/13 03:01
4-Bromophenyl-phenylether	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
4-Chloro-3-methylphenol	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
4-Chloroaniline	0.551	U	0.551	0.165	mg/Kg	1	05/31/13 03:01
4-Chlorophenyl-phenylether	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
4-Nitroaniline	3.30	U	3.30	1.04	mg/Kg	1	05/31/13 03:01
4-Nitrophenol	1.10	U	1.10	0.341	mg/Kg	1	05/31/13 03:01
Acenaphthene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Acenaphthylene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Aniline	2.20	U	2.20	0.683	mg/Kg	1	05/31/13 03:01
Anthracene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Azobenzene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Benzo(a)Anthracene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Benzo[a]pyrene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Benzo[b]Fluoranthene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Benzo[g,h,i]perylene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Benzo[k]fluoranthene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Benzoic acid	1.65	U	1.65	0.826	mg/Kg	1	05/31/13 03:01
Benzyl alcohol	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Bis(2-Chloroethoxy)methane	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Bis(2-Chloroethyl)ether	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
bis(2-Ethylhexyl)phthalate	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-E (5)**

Client Sample ID: **SMIC-E (5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031007  
Lab Project ID: 1132031

Collection Date: 05/25/13 21:07  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 90.1

Results by **Semivolatile Organic GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Butylbenzylphthalate	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Carbazole	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Chrysene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Di-n-butylphthalate	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
di-n-Octylphthalate	0.551	U	0.551	0.165	mg/Kg	1	05/31/13 03:01
Dibenzo[a,h]anthracene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Dibenzofuran	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Diethylphthalate	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Dimethylphthalate	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Fluoranthene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Fluorene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Hexachlorobenzene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Hexachlorobutadiene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Hexachlorocyclopentadiene	0.771	U	0.771	0.220	mg/Kg	1	05/31/13 03:01
Hexachloroethane	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Indeno[1,2,3-c,d] pyrene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Isophorone	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
N-Nitroso-di-n-propylamine	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
N-Nitrosodimethylamine	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
N-Nitrosodiphenylamine	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Naphthalene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Nitrobenzene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Pentachlorophenol	2.20	U	2.20	0.683	mg/Kg	1	05/31/13 03:01
Phenanthrene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Phenol	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01
Pyrene	0.275	U	0.275	0.0859	mg/Kg	1	05/31/13 03:01

**Surrogates**

2,4,6-Tribromophenol	87		35-125		%	1	05/31/13 03:01
2-Fluorobiphenyl	84.6		45-105		%	1	05/31/13 03:01
2-Fluorophenol	72.9		35-105		%	1	05/31/13 03:01
Nitrobenzene-d5	75.7		35-100		%	1	05/31/13 03:01
Phenol-d6	78.3		40-100		%	1	05/31/13 03:01
Terphenyl-d14	104		30-125		%	1	05/31/13 03:01

**Batch Information**

Analytical Batch: XMS7345  
Analytical Method: SW8270D  
Analyst: DSH  
Analytical Date/Time: 05/31/13 03:01  
Container ID: 1132031007-A

Prep Batch: XXX29074  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 11:00  
Prep Initial Wt./Vol.: 22.683 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-E (5)

Client Sample ID: **SMIC-E (5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031007  
Lab Project ID: 1132031

Collection Date: 05/25/13 21:07  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 90.1

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.19	U	2.19	0.656	mg/Kg	1	06/05/13 13:47
<b>Surrogates</b>							
4-Bromofluorobenzene	98.9		50-150		%	1	06/05/13 13:47

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 13:47  
Container ID: 1132031007-B

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/25/13 21:07  
Prep Initial Wt./Vol.: 84.972 g  
Prep Extract Vol: 33.4447 mL

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-E (5)

Client Sample ID: **SMIC-E (5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031007  
Lab Project ID: 1132031

Collection Date: 05/25/13 21:07  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 90.1

### Results by Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,1,1-Trichloroethane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,1,2,2-Tetrachloroethane	43.7	U	43.7	13.1	ug/Kg	1	05/31/13 00:34
1,1,2-Trichloroethane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,1-Dichloroethane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,1-Dichloroethene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,1-Dichloropropene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,2,3-Trichlorobenzene	43.7	U	43.7	13.1	ug/Kg	1	05/31/13 00:34
1,2,3-Trichloropropane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,2,4-Trichlorobenzene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,2,4-Trimethylbenzene	43.7	U	43.7	13.1	ug/Kg	1	05/31/13 00:34
1,2-Dibromo-3-chloropropane	87.4	U	87.4	27.1	ug/Kg	1	05/31/13 00:34
1,2-Dibromoethane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,2-Dichlorobenzene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,2-Dichloroethane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,2-Dichloropropane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,3,5-Trimethylbenzene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,3-Dichlorobenzene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,3-Dichloropropane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
1,4-Dichlorobenzene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
2,2-Dichloropropane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
2-Butanone (MEK)	219	U	219	68.2	ug/Kg	1	05/31/13 00:34
2-Chlorotoluene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
2-Hexanone	219	U	219	68.2	ug/Kg	1	05/31/13 00:34
4-Chlorotoluene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
4-Isopropyltoluene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
4-Methyl-2-pentanone (MIBK)	219	U	219	68.2	ug/Kg	1	05/31/13 00:34
Benzene	10.9	U	10.9	3.41	ug/Kg	1	05/31/13 00:34
Bromobenzene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Bromochloromethane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Bromodichloromethane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Bromoform	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Bromomethane	175	U	175	54.2	ug/Kg	1	05/31/13 00:34
Carbon disulfide	87.4	U	87.4	27.1	ug/Kg	1	05/31/13 00:34
Carbon tetrachloride	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Chlorobenzene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Chloroethane	175	U	175	54.2	ug/Kg	1	05/31/13 00:34
Chloroform	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Chloromethane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
cis-1,2-Dichloroethene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
cis-1,3-Dichloropropene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Dibromochloromethane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Dibromomethane	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Dichlorodifluoromethane	43.7	U	43.7	13.1	ug/Kg	1	05/31/13 00:34

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-E (5)**

Client Sample ID: **SMIC-E (5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031007  
Lab Project ID: 1132031

Collection Date: 05/25/13 21:07  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 90.1

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Hexachlorobutadiene	43.7	U	43.7	13.1	ug/Kg	1	05/31/13 00:34
Isopropylbenzene (Cumene)	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Methyl-t-butyl ether	87.4	U	87.4	27.1	ug/Kg	1	05/31/13 00:34
Methylene chloride	87.4	U	87.4	27.1	ug/Kg	1	05/31/13 00:34
n-Butylbenzene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
n-Propylbenzene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Naphthalene	43.7	U	43.7	13.1	ug/Kg	1	05/31/13 00:34
o-Xylene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
P & M -Xylene	43.7	U	43.7	13.1	ug/Kg	1	05/31/13 00:34
sec-Butylbenzene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Styrene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
tert-Butylbenzene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Tetrachloroethene	10.9	U	10.9	3.41	ug/Kg	1	05/31/13 00:34
Toluene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
trans-1,2-Dichloroethene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
trans-1,3-Dichloropropene	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Trichloroethene	10.9	U	10.9	3.41	ug/Kg	1	05/31/13 00:34
Trichlorofluoromethane	43.7	U	43.7	13.1	ug/Kg	1	05/31/13 00:34
Vinyl chloride	21.9	U	21.9	6.82	ug/Kg	1	05/31/13 00:34
Xylenes (total)	87.4	U	87.4	27.1	ug/Kg	1	05/31/13 00:34

**Surrogates**

1,2-Dichloroethane-D4	105		79-118		%	1	05/31/13 00:34
4-Bromofluorobenzene	99		67-138		%	1	05/31/13 00:34
Toluene-d8	97.3		85-115		%	1	05/31/13 00:34

**Batch Information**

Analytical Batch: VMS13526  
Analytical Method: SW8260B  
Analyst: HM  
Analytical Date/Time: 05/31/13 00:34  
Container ID: 1132031007-C

Prep Batch: VXX24760  
Prep Method: SW5035A  
Prep Date/Time: 05/25/13 21:07  
Prep Initial Wt./Vol.: 84.972 g  
Prep Extract Vol: 33.4447 mL

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-E (10)

Client Sample ID: **SMIC-E (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031008  
Lab Project ID: 1132031

Collection Date: 05/25/13 22:14  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.3

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	7.15		1.05	0.326	mg/Kg	10	05/31/13 13:06
Barium	38.2		0.316	0.0989	mg/Kg	10	05/31/13 13:06
Cadmium	0.210	U	0.210	0.0652	mg/Kg	10	05/31/13 13:06
Chromium	35.7		0.421	0.126	mg/Kg	10	05/31/13 13:06
Lead	7.13		0.210	0.0652	mg/Kg	10	05/31/13 13:06
Mercury	0.0421	U	0.0421	0.0126	mg/Kg	10	05/31/13 13:06
Selenium	0.526	U	0.526	0.158	mg/Kg	10	05/31/13 13:06
Silver	0.105	U	0.105	0.0326	mg/Kg	10	05/31/13 13:06

### Batch Information

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Analyst: ACF  
Analytical Date/Time: 05/31/13 13:06  
Container ID: 1132031008-A

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 05/30/13 08:20  
Prep Initial Wt./Vol.: 1.077 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:54AM





**Results of SMIC-E (10)**

Client Sample ID: **SMIC-E (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031008  
Lab Project ID: 1132031

Collection Date: 05/25/13 22:14  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.3

**Results by Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	22.4	U	22.4	6.93	mg/Kg	1	06/04/13 12:49
<b>Surrogates</b>							
5a Androstane	78.9		50-150		%	1	06/04/13 12:49

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:49  
Container ID: 1132031008-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.388 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	22.4	U	22.4	6.93	mg/Kg	1	06/04/13 12:49
<b>Surrogates</b>							
n-Triacontane-d62	85.1		50-150		%	1	06/04/13 12:49

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:49  
Container ID: 1132031008-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.388 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-E (10)**

Client Sample ID: **SMIC-E (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031008  
Lab Project ID: 1132031

Collection Date: 05/25/13 22:14  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.3

Results by **Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
1,2-Dichlorobenzene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
1,3-Dichlorobenzene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
1,4-Dichlorobenzene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
1-Chloronaphthalene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
2,4,5-Trichlorophenol	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
2,4,6-Trichlorophenol	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
2,4-Dichlorophenol	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
2,4-Dimethylphenol	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
2,4-Dinitrophenol	3.37	U	3.37	1.06	mg/Kg	1	05/31/13 03:19
2,4-Dinitrotoluene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
2,6-Dichlorophenol	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
2,6-Dinitrotoluene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
2-Chloronaphthalene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
2-Chlorophenol	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
2-Methyl-4,6-dinitrophenol	2.25	U	2.25	0.697	mg/Kg	1	05/31/13 03:19
2-Methylnaphthalene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
2-Methylphenol (o-Cresol)	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
2-Nitroaniline	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
2-Nitrophenol	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
3&4-Methylphenol (p&m-Cresol)	1.12	U	1.12	0.349	mg/Kg	1	05/31/13 03:19
3,3-Dichlorobenzidine	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
3-Nitroaniline	0.562	U	0.562	0.169	mg/Kg	1	05/31/13 03:19
4-Bromophenyl-phenylether	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
4-Chloro-3-methylphenol	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
4-Chloroaniline	0.562	U	0.562	0.169	mg/Kg	1	05/31/13 03:19
4-Chlorophenyl-phenylether	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
4-Nitroaniline	3.37	U	3.37	1.06	mg/Kg	1	05/31/13 03:19
4-Nitrophenol	1.12	U	1.12	0.349	mg/Kg	1	05/31/13 03:19
Acenaphthene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Acenaphthylene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Aniline	2.25	U	2.25	0.697	mg/Kg	1	05/31/13 03:19
Anthracene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Azobenzene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Benzo(a)Anthracene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Benzo[a]pyrene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Benzo[b]Fluoranthene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Benzo[g,h,i]perylene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Benzo[k]fluoranthene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Benzoic acid	1.69	U	1.69	0.843	mg/Kg	1	05/31/13 03:19
Benzyl alcohol	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Bis(2-Chloroethoxy)methane	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Bis(2-Chloroethyl)ether	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
bis(2-Ethylhexyl)phthalate	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19

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### Results of SMIC-E (10)

Client Sample ID: **SMIC-E (10)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132031008  
 Lab Project ID: 1132031

Collection Date: 05/25/13 22:14  
 Received Date: 05/28/13 12:04  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 88.3

### Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Butylbenzylphthalate	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Carbazole	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Chrysene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Di-n-butylphthalate	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
di-n-Octylphthalate	0.562	U	0.562	0.169	mg/Kg	1	05/31/13 03:19
Dibenzo[a,h]anthracene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Dibenzofuran	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Diethylphthalate	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Dimethylphthalate	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Fluoranthene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Fluorene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Hexachlorobenzene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Hexachlorobutadiene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Hexachlorocyclopentadiene	0.787	U	0.787	0.225	mg/Kg	1	05/31/13 03:19
Hexachloroethane	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Indeno[1,2,3-c,d] pyrene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Isophorone	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
N-Nitroso-di-n-propylamine	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
N-Nitrosodimethylamine	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
N-Nitrosodiphenylamine	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Naphthalene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Nitrobenzene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Pentachlorophenol	2.25	U	2.25	0.697	mg/Kg	1	05/31/13 03:19
Phenanthrene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Phenol	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19
Pyrene	0.281	U	0.281	0.0877	mg/Kg	1	05/31/13 03:19

### Surrogates

2,4,6-Tribromophenol	88.2		35-125		%	1	05/31/13 03:19
2-Fluorobiphenyl	89.5		45-105		%	1	05/31/13 03:19
2-Fluorophenol	73.8		35-105		%	1	05/31/13 03:19
Nitrobenzene-d5	74.8		35-100		%	1	05/31/13 03:19
Phenol-d6	80.2		40-100		%	1	05/31/13 03:19
Terphenyl-d14	105		30-125		%	1	05/31/13 03:19

### Batch Information

Analytical Batch: XMS7345  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 05/31/13 03:19  
 Container ID: 1132031008-A

Prep Batch: XXX29074  
 Prep Method: SW3550C  
 Prep Date/Time: 05/30/13 11:00  
 Prep Initial Wt./Vol.: 22.661 g  
 Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



### Results of **SMIC-E (10)**

Client Sample ID: **SMIC-E (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031008  
Lab Project ID: 1132031

Collection Date: 05/25/13 22:14  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.3

### Results by **Volatile Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.37	U	2.37	0.712	mg/Kg	1	06/05/13 14:06
<b>Surrogates</b>							
4-Bromofluorobenzene	98.6		50-150		%	1	06/05/13 14:06

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 14:06  
Container ID: 1132031008-B

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/25/13 22:14  
Prep Initial Wt./Vol.: 82.832 g  
Prep Extract Vol: 34.7023 mL

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-E (10)

Client Sample ID: **SMIC-E (10)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132031008  
 Lab Project ID: 1132031

Collection Date: 05/25/13 22:14  
 Received Date: 05/28/13 12:04  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 88.3

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,1,1-Trichloroethane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,1,2,2-Tetrachloroethane	47.5	U	47.5	14.2	ug/Kg	1	05/31/13 00:51
1,1,2-Trichloroethane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,1-Dichloroethane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,1-Dichloroethene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,1-Dichloropropene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,2,3-Trichlorobenzene	47.5	U	47.5	14.2	ug/Kg	1	05/31/13 00:51
1,2,3-Trichloropropane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,2,4-Trichlorobenzene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,2,4-Trimethylbenzene	47.5	U	47.5	14.2	ug/Kg	1	05/31/13 00:51
1,2-Dibromo-3-chloropropane	94.9	U	94.9	29.4	ug/Kg	1	05/31/13 00:51
1,2-Dibromoethane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,2-Dichlorobenzene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,2-Dichloroethane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,2-Dichloropropane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,3,5-Trimethylbenzene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,3-Dichlorobenzene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,3-Dichloropropane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
1,4-Dichlorobenzene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
2,2-Dichloropropane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
2-Butanone (MEK)	237	U	237	74.0	ug/Kg	1	05/31/13 00:51
2-Chlorotoluene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
2-Hexanone	237	U	237	74.0	ug/Kg	1	05/31/13 00:51
4-Chlorotoluene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
4-Isopropyltoluene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
4-Methyl-2-pentanone (MIBK)	237	U	237	74.0	ug/Kg	1	05/31/13 00:51
Benzene	11.9	U	11.9	3.70	ug/Kg	1	05/31/13 00:51
Bromobenzene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Bromochloromethane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Bromodichloromethane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Bromoform	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Bromomethane	190	U	190	58.8	ug/Kg	1	05/31/13 00:51
Carbon disulfide	94.9	U	94.9	29.4	ug/Kg	1	05/31/13 00:51
Carbon tetrachloride	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Chlorobenzene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Chloroethane	190	U	190	58.8	ug/Kg	1	05/31/13 00:51
Chloroform	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Chloromethane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
cis-1,2-Dichloroethene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
cis-1,3-Dichloropropene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Dibromochloromethane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Dibromomethane	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Dichlorodifluoromethane	47.5	U	47.5	14.2	ug/Kg	1	05/31/13 00:51

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### Results of SMIC-E (10)

Client Sample ID: **SMIC-E (10)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132031008  
 Lab Project ID: 1132031

Collection Date: 05/25/13 22:14  
 Received Date: 05/28/13 12:04  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 88.3

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Hexachlorobutadiene	47.5	U	47.5	14.2	ug/Kg	1	05/31/13 00:51
Isopropylbenzene (Cumene)	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Methyl-t-butyl ether	94.9	U	94.9	29.4	ug/Kg	1	05/31/13 00:51
Methylene chloride	94.9	U	94.9	29.4	ug/Kg	1	05/31/13 00:51
n-Butylbenzene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
n-Propylbenzene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Naphthalene	47.5	U	47.5	14.2	ug/Kg	1	05/31/13 00:51
o-Xylene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
P & M -Xylene	47.5	U	47.5	14.2	ug/Kg	1	05/31/13 00:51
sec-Butylbenzene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Styrene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
tert-Butylbenzene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Tetrachloroethene	11.9	U	11.9	3.70	ug/Kg	1	05/31/13 00:51
Toluene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
trans-1,2-Dichloroethene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
trans-1,3-Dichloropropene	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Trichloroethene	11.9	U	11.9	3.70	ug/Kg	1	05/31/13 00:51
Trichlorofluoromethane	47.5	U	47.5	14.2	ug/Kg	1	05/31/13 00:51
Vinyl chloride	23.7	U	23.7	7.40	ug/Kg	1	05/31/13 00:51
Xylenes (total)	94.9	U	94.9	29.4	ug/Kg	1	05/31/13 00:51
<b>Surrogates</b>							
1,2-Dichloroethane-D4	107		79-118		%	1	05/31/13 00:51
4-Bromofluorobenzene	104		67-138		%	1	05/31/13 00:51
Toluene-d8	99.4		85-115		%	1	05/31/13 00:51

### Batch Information

Analytical Batch: VMS13526  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 05/31/13 00:51  
 Container ID: 1132031008-C

Prep Batch: VXX24760  
 Prep Method: SW5035A  
 Prep Date/Time: 05/25/13 22:14  
 Prep Initial Wt./Vol.: 82.832 g  
 Prep Extract Vol: 34.7023 mL

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-E (5) D

Client Sample ID: **SMIC-E (5) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031009  
Lab Project ID: 1132031

Collection Date: 05/25/13 21:10  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.6

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	4.35		1.09	0.339	mg/Kg	10	05/31/13 13:09
Barium	25.9		0.328	0.103	mg/Kg	10	05/31/13 13:09
Cadmium	0.219	U	0.219	0.0678	mg/Kg	10	05/31/13 13:09
Chromium	32.3		0.438	0.131	mg/Kg	10	05/31/13 13:09
Lead	5.46		0.219	0.0678	mg/Kg	10	05/31/13 13:09
Mercury	0.0438	U	0.0438	0.0131	mg/Kg	10	05/31/13 13:09
Selenium	0.547	U	0.547	0.164	mg/Kg	10	05/31/13 13:09
Silver	0.109	U	0.109	0.0339	mg/Kg	10	05/31/13 13:09

### Batch Information

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Analyst: ACF  
Analytical Date/Time: 05/31/13 13:09  
Container ID: 1132031009-A

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 05/30/13 08:20  
Prep Initial Wt./Vol.: 1.032 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:54AM



**Results of SMIC-E (5) D**

Client Sample ID: **SMIC-E (5) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031009  
Lab Project ID: 1132031

Collection Date: 05/25/13 21:10  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.6

**Results by Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	22.2	U	22.2	6.89	mg/Kg	1	06/04/13 12:59
<b>Surrogates</b>							
5a Androstane	74.3		50-150		%	1	06/04/13 12:59

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:59  
Container ID: 1132031009-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.46 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	22.2	U	22.2	6.89	mg/Kg	1	06/04/13 12:59
<b>Surrogates</b>							
n-Triacontane-d62	80.3		50-150		%	1	06/04/13 12:59

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/04/13 12:59  
Container ID: 1132031009-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.46 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM





Results of **SMIC-E (5) D**

Client Sample ID: **SMIC-E (5) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031009  
Lab Project ID: 1132031

Collection Date: 05/25/13 21:10  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.6

Results by **Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
1,2-Dichlorobenzene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
1,3-Dichlorobenzene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
1,4-Dichlorobenzene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
1-Chloronaphthalene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
2,4,5-Trichlorophenol	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
2,4,6-Trichlorophenol	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
2,4-Dichlorophenol	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
2,4-Dimethylphenol	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
2,4-Dinitrophenol	3.36	U	3.36	1.05	mg/Kg	1	05/31/13 03:36
2,4-Dinitrotoluene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
2,6-Dichlorophenol	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
2,6-Dinitrotoluene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
2-Chloronaphthalene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
2-Chlorophenol	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
2-Methyl-4,6-dinitrophenol	2.24	U	2.24	0.693	mg/Kg	1	05/31/13 03:36
2-Methylnaphthalene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
2-Methylphenol (o-Cresol)	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
2-Nitroaniline	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
2-Nitrophenol	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
3&4-Methylphenol (p&m-Cresol)	1.12	U	1.12	0.347	mg/Kg	1	05/31/13 03:36
3,3-Dichlorobenzidine	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
3-Nitroaniline	0.559	U	0.559	0.168	mg/Kg	1	05/31/13 03:36
4-Bromophenyl-phenylether	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
4-Chloro-3-methylphenol	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
4-Chloroaniline	0.559	U	0.559	0.168	mg/Kg	1	05/31/13 03:36
4-Chlorophenyl-phenylether	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
4-Nitroaniline	3.36	U	3.36	1.05	mg/Kg	1	05/31/13 03:36
4-Nitrophenol	1.12	U	1.12	0.347	mg/Kg	1	05/31/13 03:36
Acenaphthene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Acenaphthylene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Aniline	2.24	U	2.24	0.693	mg/Kg	1	05/31/13 03:36
Anthracene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Azobenzene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Benzo(a)Anthracene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Benzo[a]pyrene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Benzo[b]Fluoranthene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Benzo[g,h,i]perylene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Benzo[k]fluoranthene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Benzoic acid	1.68	U	1.68	0.839	mg/Kg	1	05/31/13 03:36
Benzyl alcohol	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Bis(2-Chloroethoxy)methane	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Bis(2-Chloroethyl)ether	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
bis(2-Ethylhexyl)phthalate	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36

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Results of **SMIC-E (5) D**

Client Sample ID: **SMIC-E (5) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031009  
Lab Project ID: 1132031

Collection Date: 05/25/13 21:10  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.6

Results by **Semivolatile Organic GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Butylbenzylphthalate	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Carbazole	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Chrysene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Di-n-butylphthalate	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
di-n-Octylphthalate	0.559	U	0.559	0.168	mg/Kg	1	05/31/13 03:36
Dibenzo[a,h]anthracene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Dibenzofuran	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Diethylphthalate	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Dimethylphthalate	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Fluoranthene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Fluorene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Hexachlorobenzene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Hexachlorobutadiene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Hexachlorocyclopentadiene	0.783	U	0.783	0.224	mg/Kg	1	05/31/13 03:36
Hexachloroethane	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Indeno[1,2,3-c,d] pyrene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Isophorone	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
N-Nitroso-di-n-propylamine	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
N-Nitrosodimethylamine	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
N-Nitrosodiphenylamine	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Naphthalene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Nitrobenzene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Pentachlorophenol	2.24	U	2.24	0.693	mg/Kg	1	05/31/13 03:36
Phenanthrene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Phenol	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36
Pyrene	0.280	U	0.280	0.0872	mg/Kg	1	05/31/13 03:36

**Surrogates**

2,4,6-Tribromophenol	87.8		35-125		%	1	05/31/13 03:36
2-Fluorobiphenyl	89.9		45-105		%	1	05/31/13 03:36
2-Fluorophenol	75.3		35-105		%	1	05/31/13 03:36
Nitrobenzene-d5	77.9		35-100		%	1	05/31/13 03:36
Phenol-d6	81.4		40-100		%	1	05/31/13 03:36
Terphenyl-d14	108		30-125		%	1	05/31/13 03:36

**Batch Information**

Analytical Batch: XMS7345  
Analytical Method: SW8270D  
Analyst: DSH  
Analytical Date/Time: 05/31/13 03:36  
Container ID: 1132031009-A

Prep Batch: XXX29074  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 11:00  
Prep Initial Wt./Vol.: 22.707 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-E (5) D

Client Sample ID: **SMIC-E (5) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031009  
Lab Project ID: 1132031

Collection Date: 05/25/13 21:10  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.6

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.65	U	2.65	0.796	mg/Kg	1	06/05/13 14:24
<b>Surrogates</b>							
4-Bromofluorobenzene	98.7		50-150		%	1	06/05/13 14:24

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 14:24  
Container ID: 1132031009-B

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/25/13 21:10  
Prep Initial Wt./Vol.: 70.187 g  
Prep Extract Vol: 33.0078 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-E (5) D**

Client Sample ID: **SMIC-E (5) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031009  
Lab Project ID: 1132031

Collection Date: 05/25/13 21:10  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.6

Results by **Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,1,1-Trichloroethane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,1,2,2-Tetrachloroethane	53.1	U	53.1	15.9	ug/Kg	1	05/31/13 01:08
1,1,2-Trichloroethane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,1-Dichloroethane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,1-Dichloroethene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,1-Dichloropropene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,2,3-Trichlorobenzene	53.1	U	53.1	15.9	ug/Kg	1	05/31/13 01:08
1,2,3-Trichloropropane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,2,4-Trichlorobenzene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,2,4-Trimethylbenzene	53.1	U	53.1	15.9	ug/Kg	1	05/31/13 01:08
1,2-Dibromo-3-chloropropane	106	U	106	32.9	ug/Kg	1	05/31/13 01:08
1,2-Dibromoethane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,2-Dichlorobenzene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,2-Dichloroethane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,2-Dichloropropane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,3,5-Trimethylbenzene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,3-Dichlorobenzene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,3-Dichloropropane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
1,4-Dichlorobenzene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
2,2-Dichloropropane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
2-Butanone (MEK)	265	U	265	82.8	ug/Kg	1	05/31/13 01:08
2-Chlorotoluene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
2-Hexanone	265	U	265	82.8	ug/Kg	1	05/31/13 01:08
4-Chlorotoluene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
4-Isopropyltoluene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
4-Methyl-2-pentanone (MIBK)	265	U	265	82.8	ug/Kg	1	05/31/13 01:08
Benzene	13.3	U	13.3	4.14	ug/Kg	1	05/31/13 01:08
Bromobenzene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Bromochloromethane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Bromodichloromethane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Bromoform	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Bromomethane	212	U	212	65.8	ug/Kg	1	05/31/13 01:08
Carbon disulfide	106	U	106	32.9	ug/Kg	1	05/31/13 01:08
Carbon tetrachloride	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Chlorobenzene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Chloroethane	212	U	212	65.8	ug/Kg	1	05/31/13 01:08
Chloroform	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Chloromethane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
cis-1,2-Dichloroethene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
cis-1,3-Dichloropropene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Dibromochloromethane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Dibromomethane	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Dichlorodifluoromethane	53.1	U	53.1	15.9	ug/Kg	1	05/31/13 01:08

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-E (5) D**

Client Sample ID: **SMIC-E (5) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031009  
Lab Project ID: 1132031

Collection Date: 05/25/13 21:10  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.6

Results by **Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Ethylbenzene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Hexachlorobutadiene	53.1	U	53.1	15.9	ug/Kg	1	05/31/13 01:08
Isopropylbenzene (Cumene)	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Methyl-t-butyl ether	106	U	106	32.9	ug/Kg	1	05/31/13 01:08
Methylene chloride	106	U	106	32.9	ug/Kg	1	05/31/13 01:08
n-Butylbenzene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
n-Propylbenzene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Naphthalene	53.1	U	53.1	15.9	ug/Kg	1	05/31/13 01:08
o-Xylene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
P & M -Xylene	53.1	U	53.1	15.9	ug/Kg	1	05/31/13 01:08
sec-Butylbenzene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Styrene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
tert-Butylbenzene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Tetrachloroethene	13.3	U	13.3	4.14	ug/Kg	1	05/31/13 01:08
Toluene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
trans-1,2-Dichloroethene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
trans-1,3-Dichloropropene	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Trichloroethene	13.3	U	13.3	4.14	ug/Kg	1	05/31/13 01:08
Trichlorofluoromethane	53.1	U	53.1	15.9	ug/Kg	1	05/31/13 01:08
Vinyl chloride	26.5	U	26.5	8.28	ug/Kg	1	05/31/13 01:08
Xylenes (total)	106	U	106	32.9	ug/Kg	1	05/31/13 01:08
<b>Surrogates</b>							
1,2-Dichloroethane-D4	110		79-118		%	1	05/31/13 01:08
4-Bromofluorobenzene	106		67-138		%	1	05/31/13 01:08
Toluene-d8	106		85-115		%	1	05/31/13 01:08

**Batch Information**

Analytical Batch: VMS13526  
Analytical Method: SW8260B  
Analyst: HM  
Analytical Date/Time: 05/31/13 01:08  
Container ID: 1132031009-C

Prep Batch: VXX24760  
Prep Method: SW5035A  
Prep Date/Time: 05/25/13 21:10  
Prep Initial Wt./Vol.: 70.187 g  
Prep Extract Vol: 33.0078 mL

Print Date: 06/18/2013 11:16:54AM



**Results of SMIC-S-(0)**

Client Sample ID: **SMIC-S-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031010  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:15  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 63.6

**Results by Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	22.0		1.51	0.468	mg/Kg	10	05/31/13 13:22
Barium	81.4		0.453	0.142	mg/Kg	10	05/31/13 13:22
Cadmium	0.302	U	0.302	0.0936	mg/Kg	10	05/31/13 13:22
Chromium	57.5		0.604	0.181	mg/Kg	10	05/31/13 13:22
Lead	20.0		0.302	0.0936	mg/Kg	10	05/31/13 13:22
Mercury	0.127		0.0604	0.0181	mg/Kg	10	05/31/13 13:22
Selenium	0.755	U	0.755	0.227	mg/Kg	10	05/31/13 13:22
Silver	0.158		0.151	0.0468	mg/Kg	10	05/31/13 13:22

**Batch Information**

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Analyst: ACF  
Analytical Date/Time: 05/31/13 13:22  
Container ID: 1132031010-A

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 05/30/13 08:20  
Prep Initial Wt./Vol.: 1.042 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:54AM



**Results of SMIC-S-(0)**

Client Sample ID: **SMIC-S-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031010  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:15  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 63.6

**Results by Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	31.0	U	31.0	9.61	mg/Kg	1	06/04/13 13:08
<b>Surrogates</b>							
5a Androstane	72.7		50-150		%	1	06/04/13 13:08

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/04/13 13:08  
Container ID: 1132031010-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.457 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	49.9		31.0	9.61	mg/Kg	1	06/04/13 13:08
<b>Surrogates</b>							
n-Triacontane-d62	83.7		50-150		%	1	06/04/13 13:08

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/04/13 13:08  
Container ID: 1132031010-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.457 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-S-(0)**

Client Sample ID: **SMIC-S-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031010  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:15  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 63.6

Results by **Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
1,2-Dichlorobenzene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
1,3-Dichlorobenzene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
1,4-Dichlorobenzene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
1-Chloronaphthalene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
2,4,5-Trichlorophenol	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
2,4,6-Trichlorophenol	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
2,4-Dichlorophenol	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
2,4-Dimethylphenol	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
2,4-Dinitrophenol	4.71	U	4.71	1.48	mg/Kg	1	06/03/13 20:38
2,4-Dinitrotoluene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
2,6-Dichlorophenol	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
2,6-Dinitrotoluene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
2-Chloronaphthalene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
2-Chlorophenol	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
2-Methyl-4,6-dinitrophenol	3.14	U	3.14	0.973	mg/Kg	1	06/03/13 20:38
2-Methylnaphthalene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
2-Methylphenol (o-Cresol)	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
2-Nitroaniline	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
2-Nitrophenol	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
3&4-Methylphenol (p&m-Cresol)	1.57	U	1.57	0.487	mg/Kg	1	06/03/13 20:38
3,3-Dichlorobenzidine	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
3-Nitroaniline	0.785	U	0.785	0.235	mg/Kg	1	06/03/13 20:38
4-Bromophenyl-phenylether	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
4-Chloro-3-methylphenol	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
4-Chloroaniline	0.785	U	0.785	0.235	mg/Kg	1	06/03/13 20:38
4-Chlorophenyl-phenylether	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
4-Nitroaniline	4.71	U	4.71	1.48	mg/Kg	1	06/03/13 20:38
4-Nitrophenol	1.57	U	1.57	0.487	mg/Kg	1	06/03/13 20:38
Acenaphthene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Acenaphthylene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Aniline	3.14	U	3.14	0.973	mg/Kg	1	06/03/13 20:38
Anthracene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Azobenzene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Benzo(a)Anthracene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Benzo[a]pyrene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Benzo[b]Fluoranthene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Benzo[g,h,i]perylene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Benzo[k]fluoranthene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Benzoic acid	2.35	U	2.35	1.18	mg/Kg	1	06/03/13 20:38
Benzyl alcohol	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Bis(2-Chloroethoxy)methane	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Bis(2-Chloroethyl)ether	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
bis(2-Ethylhexyl)phthalate	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38

Print Date: 06/18/2013 11:16:54AM





### Results of SMIC-S-(0)

Client Sample ID: **SMIC-S-(0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132031010  
 Lab Project ID: 1132031

Collection Date: 05/26/13 13:15  
 Received Date: 05/28/13 12:04  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 63.6

### Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Butylbenzylphthalate	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Carbazole	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Chrysene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Di-n-butylphthalate	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
di-n-Octylphthalate	0.785	U	0.785	0.235	mg/Kg	1	06/03/13 20:38
Dibenzo[a,h]anthracene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Dibenzofuran	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Diethylphthalate	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Dimethylphthalate	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Fluoranthene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Fluorene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Hexachlorobenzene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Hexachlorobutadiene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Hexachlorocyclopentadiene	1.10	U	1.10	0.314	mg/Kg	1	06/03/13 20:38
Hexachloroethane	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Indeno[1,2,3-c,d] pyrene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Isophorone	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
N-Nitroso-di-n-propylamine	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
N-Nitrosodimethylamine	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
N-Nitrosodiphenylamine	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Naphthalene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Nitrobenzene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Pentachlorophenol	3.14	U	3.14	0.973	mg/Kg	1	06/03/13 20:38
Phenanthrene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Phenol	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38
Pyrene	0.392	U	0.392	0.122	mg/Kg	1	06/03/13 20:38

### Surrogates

2,4,6-Tribromophenol	94.8		35-125		%	1	06/03/13 20:38
2-Fluorobiphenyl	86.7		45-105		%	1	06/03/13 20:38
2-Fluorophenol	72.7		35-105		%	1	06/03/13 20:38
Nitrobenzene-d5	80.4		35-100		%	1	06/03/13 20:38
Phenol-d6	80.3		40-100		%	1	06/03/13 20:38
Terphenyl-d14	111		30-125		%	1	06/03/13 20:38

### Batch Information

Analytical Batch: XMS7348  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/03/13 20:38  
 Container ID: 1132031010-A

Prep Batch: XXX29074  
 Prep Method: SW3550C  
 Prep Date/Time: 05/30/13 11:00  
 Prep Initial Wt./Vol.: 22.554 g  
 Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



### Results of **SMIC-S-(0)**

Client Sample ID: **SMIC-S-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031010  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:15  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 63.6

### Results by **Volatile Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	5.84	U	5.84	1.75	mg/Kg	1	06/05/13 14:43
<b>Surrogates</b>							
4-Bromofluorobenzene	73.3		50-150		%	1	06/05/13 14:43

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 14:43  
Container ID: 1132031010-B

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/26/13 13:15  
Prep Initial Wt./Vol.: 66.183 g  
Prep Extract Vol: 49.12 mL

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-S-(0)

Client Sample ID: **SMIC-S-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031010  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:15  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 63.6

### Results by Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,1,1-Trichloroethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,1,2,2-Tetrachloroethane	117	U	117	35.0	ug/Kg	1	05/31/13 01:24
1,1,2-Trichloroethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,1-Dichloroethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,1-Dichloroethene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,1-Dichloropropene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,2,3-Trichlorobenzene	117	U	117	35.0	ug/Kg	1	05/31/13 01:24
1,2,3-Trichloropropane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,2,4-Trichlorobenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,2,4-Trimethylbenzene	117	U	117	35.0	ug/Kg	1	05/31/13 01:24
1,2-Dibromo-3-chloropropane	234	U	234	72.4	ug/Kg	1	05/31/13 01:24
1,2-Dibromoethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,2-Dichlorobenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,2-Dichloroethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,2-Dichloropropane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,3,5-Trimethylbenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,3-Dichlorobenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,3-Dichloropropane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
1,4-Dichlorobenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
2,2-Dichloropropane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
2-Butanone (MEK)	584	U	584	182	ug/Kg	1	05/31/13 01:24
2-Chlorotoluene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
2-Hexanone	584	U	584	182	ug/Kg	1	05/31/13 01:24
4-Chlorotoluene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
4-Isopropyltoluene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
4-Methyl-2-pentanone (MIBK)	584	U	584	182	ug/Kg	1	05/31/13 01:24
Benzene	29.2	U	29.2	9.11	ug/Kg	1	05/31/13 01:24
Bromobenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Bromochloromethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Bromodichloromethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Bromoform	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Bromomethane	467	U	467	145	ug/Kg	1	05/31/13 01:24
Carbon disulfide	234	U	234	72.4	ug/Kg	1	05/31/13 01:24
Carbon tetrachloride	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Chlorobenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Chloroethane	467	U	467	145	ug/Kg	1	05/31/13 01:24
Chloroform	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Chloromethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
cis-1,2-Dichloroethene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
cis-1,3-Dichloropropene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Dibromochloromethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Dibromomethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Dichlorodifluoromethane	117	U	117	35.0	ug/Kg	1	05/31/13 01:24

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-S-(0)**

Client Sample ID: **SMIC-S-(0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031010  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:15  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 63.6

Results by **Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Ethylbenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Hexachlorobutadiene	117	U	117	35.0	ug/Kg	1	05/31/13 01:24
Isopropylbenzene (Cumene)	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Methyl-t-butyl ether	234	U	234	72.4	ug/Kg	1	05/31/13 01:24
Methylene chloride	234	U	234	72.4	ug/Kg	1	05/31/13 01:24
n-Butylbenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
n-Propylbenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Naphthalene	117	U	117	35.0	ug/Kg	1	05/31/13 01:24
o-Xylene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
P & M -Xylene	117	U	117	35.0	ug/Kg	1	05/31/13 01:24
sec-Butylbenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Styrene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
tert-Butylbenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Tetrachloroethene	29.2	U	29.2	9.11	ug/Kg	1	05/31/13 01:24
Toluene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
trans-1,2-Dichloroethene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
trans-1,3-Dichloropropene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Trichloroethene	29.2	U	29.2	9.11	ug/Kg	1	05/31/13 01:24
Trichlorofluoromethane	117	U	117	35.0	ug/Kg	1	05/31/13 01:24
Vinyl chloride	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:24
Xylenes (total)	234	U	234	72.4	ug/Kg	1	05/31/13 01:24

**Surrogates**

1,2-Dichloroethane-D4	105		79-118		%	1	05/31/13 01:24
4-Bromofluorobenzene	102		67-138		%	1	05/31/13 01:24
Toluene-d8	98.2		85-115		%	1	05/31/13 01:24

**Batch Information**

Analytical Batch: VMS13526  
Analytical Method: SW8260B  
Analyst: HM  
Analytical Date/Time: 05/31/13 01:24  
Container ID: 1132031010-C

Prep Batch: VXX24760  
Prep Method: SW5035A  
Prep Date/Time: 05/26/13 13:15  
Prep Initial Wt./Vol.: 66.183 g  
Prep Extract Vol: 49.12 mL

Print Date: 06/18/2013 11:16:54AM



**Results of SMIC-S (0) D**

Client Sample ID: **SMIC-S (0) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031011  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:18  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 61.3

**Results by Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	20.2		1.54	0.479	mg/Kg	10	05/31/13 13:24
Barium	78.3		0.463	0.145	mg/Kg	10	05/31/13 13:24
Cadmium	0.309	U	0.309	0.0958	mg/Kg	10	05/31/13 13:24
Chromium	54.8		0.618	0.185	mg/Kg	10	05/31/13 13:24
Lead	19.6		0.309	0.0958	mg/Kg	10	05/31/13 13:24
Mercury	0.0950		0.0618	0.0185	mg/Kg	10	05/31/13 13:24
Selenium	0.772	U	0.772	0.232	mg/Kg	10	05/31/13 13:24
Silver	0.154	U	0.154	0.0479	mg/Kg	10	05/31/13 13:24

**Batch Information**

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Analyst: ACF  
Analytical Date/Time: 05/31/13 13:24  
Container ID: 1132031011-A

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 05/30/13 08:20  
Prep Initial Wt./Vol.: 1.056 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:54AM



**Results of SMIC-S (0) D**

Client Sample ID: **SMIC-S (0) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031011  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:18  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 61.3

**Results by Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	32.3	U	32.3	10.0	mg/Kg	1	06/04/13 13:18
<b>Surrogates</b>							
5a Androstane	83.2		50-150		%	1	06/04/13 13:18

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/04/13 13:18  
Container ID: 1132031011-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.261 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	66.4		32.3	10.0	mg/Kg	1	06/04/13 13:18
<b>Surrogates</b>							
n-Triacontane-d62	93.5		50-150		%	1	06/04/13 13:18

**Batch Information**

Analytical Batch: XFC10912  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/04/13 13:18  
Container ID: 1132031011-A

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 13:30  
Prep Initial Wt./Vol.: 30.261 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-S (0) D**

Client Sample ID: **SMIC-S (0) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031011  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:18  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 61.3

Results by **Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
1,2-Dichlorobenzene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
1,3-Dichlorobenzene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
1,4-Dichlorobenzene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
1-Chloronaphthalene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
2,4,5-Trichlorophenol	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
2,4,6-Trichlorophenol	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
2,4-Dichlorophenol	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
2,4-Dimethylphenol	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
2,4-Dinitrophenol	4.81	U	4.81	1.51	mg/Kg	1	06/03/13 20:55
2,4-Dinitrotoluene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
2,6-Dichlorophenol	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
2,6-Dinitrotoluene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
2-Chloronaphthalene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
2-Chlorophenol	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
2-Methyl-4,6-dinitrophenol	3.21	U	3.21	0.994	mg/Kg	1	06/03/13 20:55
2-Methylnaphthalene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
2-Methylphenol (o-Cresol)	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
2-Nitroaniline	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
2-Nitrophenol	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
3&4-Methylphenol (p&m-Cresol)	1.60	U	1.60	0.497	mg/Kg	1	06/03/13 20:55
3,3-Dichlorobenzidine	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
3-Nitroaniline	0.802	U	0.802	0.241	mg/Kg	1	06/03/13 20:55
4-Bromophenyl-phenylether	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
4-Chloro-3-methylphenol	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
4-Chloroaniline	0.802	U	0.802	0.241	mg/Kg	1	06/03/13 20:55
4-Chlorophenyl-phenylether	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
4-Nitroaniline	4.81	U	4.81	1.51	mg/Kg	1	06/03/13 20:55
4-Nitrophenol	1.60	U	1.60	0.497	mg/Kg	1	06/03/13 20:55
Acenaphthene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Acenaphthylene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Aniline	3.21	U	3.21	0.994	mg/Kg	1	06/03/13 20:55
Anthracene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Azobenzene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Benzo(a)Anthracene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Benzo[a]pyrene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Benzo[b]Fluoranthene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Benzo[g,h,i]perylene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Benzo[k]fluoranthene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Benzoic acid	2.41	U	2.41	1.20	mg/Kg	1	06/03/13 20:55
Benzyl alcohol	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Bis(2-Chloroethoxy)methane	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Bis(2-Chloroethyl)ether	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
bis(2-Ethylhexyl)phthalate	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-S (0) D

Client Sample ID: **SMIC-S (0) D**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132031011  
 Lab Project ID: 1132031

Collection Date: 05/26/13 13:18  
 Received Date: 05/28/13 12:04  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 61.3

### Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Butylbenzylphthalate	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Carbazole	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Chrysene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Di-n-butylphthalate	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
di-n-Octylphthalate	0.802	U	0.802	0.241	mg/Kg	1	06/03/13 20:55
Dibenzo[a,h]anthracene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Dibenzofuran	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Diethylphthalate	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Dimethylphthalate	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Fluoranthene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Fluorene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Hexachlorobenzene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Hexachlorobutadiene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Hexachlorocyclopentadiene	1.12	U	1.12	0.321	mg/Kg	1	06/03/13 20:55
Hexachloroethane	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Indeno[1,2,3-c,d] pyrene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Isophorone	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
N-Nitroso-di-n-propylamine	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
N-Nitrosodimethylamine	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
N-Nitrosodiphenylamine	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Naphthalene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Nitrobenzene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Pentachlorophenol	3.21	U	3.21	0.994	mg/Kg	1	06/03/13 20:55
Phenanthrene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Phenol	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55
Pyrene	0.401	U	0.401	0.125	mg/Kg	1	06/03/13 20:55

### Surrogates

2,4,6-Tribromophenol	84.4		35-125		%	1	06/03/13 20:55
2-Fluorobiphenyl	75.5		45-105		%	1	06/03/13 20:55
2-Fluorophenol	64.5		35-105		%	1	06/03/13 20:55
Nitrobenzene-d5	69.9		35-100		%	1	06/03/13 20:55
Phenol-d6	71.2		40-100		%	1	06/03/13 20:55
Terphenyl-d14	96		30-125		%	1	06/03/13 20:55

### Batch Information

Analytical Batch: XMS7348  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/03/13 20:55  
 Container ID: 1132031011-A

Prep Batch: XXX29074  
 Prep Method: SW3550C  
 Prep Date/Time: 05/30/13 11:00  
 Prep Initial Wt./Vol.: 22.879 g  
 Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM





### Results of **SMIC-S (0) D**

Client Sample ID: **SMIC-S (0) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031011  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:18  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 61.3

### Results by **Volatile Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	5.84	U	5.84	1.75	mg/Kg	1	06/05/13 15:02
<b>Surrogates</b>							
4-Bromofluorobenzene	99.5		50-150		%	1	06/05/13 15:02

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 15:02  
Container ID: 1132031011-B

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/26/13 13:18  
Prep Initial Wt./Vol.: 75.967 g  
Prep Extract Vol: 54.3885 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-S (0) D**

Client Sample ID: **SMIC-S (0) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031011  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:18  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 61.3

Results by **Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,1,1-Trichloroethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,1,2,2-Tetrachloroethane	117	U	117	35.0	ug/Kg	1	05/31/13 01:41
1,1,2-Trichloroethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,1-Dichloroethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,1-Dichloroethene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,1-Dichloropropene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,2,3-Trichlorobenzene	117	U	117	35.0	ug/Kg	1	05/31/13 01:41
1,2,3-Trichloropropane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,2,4-Trichlorobenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,2,4-Trimethylbenzene	117	U	117	35.0	ug/Kg	1	05/31/13 01:41
1,2-Dibromo-3-chloropropane	234	U	234	72.4	ug/Kg	1	05/31/13 01:41
1,2-Dibromoethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,2-Dichlorobenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,2-Dichloroethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,2-Dichloropropane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,3,5-Trimethylbenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,3-Dichlorobenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,3-Dichloropropane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
1,4-Dichlorobenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
2,2-Dichloropropane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
2-Butanone (MEK)	584	U	584	182	ug/Kg	1	05/31/13 01:41
2-Chlorotoluene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
2-Hexanone	584	U	584	182	ug/Kg	1	05/31/13 01:41
4-Chlorotoluene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
4-Isopropyltoluene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
4-Methyl-2-pentanone (MIBK)	584	U	584	182	ug/Kg	1	05/31/13 01:41
Benzene	29.2	U	29.2	9.11	ug/Kg	1	05/31/13 01:41
Bromobenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Bromochloromethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Bromodichloromethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Bromoform	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Bromomethane	467	U	467	145	ug/Kg	1	05/31/13 01:41
Carbon disulfide	234	U	234	72.4	ug/Kg	1	05/31/13 01:41
Carbon tetrachloride	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Chlorobenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Chloroethane	467	U	467	145	ug/Kg	1	05/31/13 01:41
Chloroform	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Chloromethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
cis-1,2-Dichloroethene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
cis-1,3-Dichloropropene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Dibromochloromethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Dibromomethane	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Dichlorodifluoromethane	117	U	117	35.0	ug/Kg	1	05/31/13 01:41

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-S (0) D

Client Sample ID: **SMIC-S (0) D**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132031011  
 Lab Project ID: 1132031

Collection Date: 05/26/13 13:18  
 Received Date: 05/28/13 12:04  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 61.3

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Hexachlorobutadiene	117	U	117	35.0	ug/Kg	1	05/31/13 01:41
Isopropylbenzene (Cumene)	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Methyl-t-butyl ether	234	U	234	72.4	ug/Kg	1	05/31/13 01:41
Methylene chloride	234	U	234	72.4	ug/Kg	1	05/31/13 01:41
n-Butylbenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
n-Propylbenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Naphthalene	117	U	117	35.0	ug/Kg	1	05/31/13 01:41
o-Xylene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
P & M -Xylene	117	U	117	35.0	ug/Kg	1	05/31/13 01:41
sec-Butylbenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Styrene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
tert-Butylbenzene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Tetrachloroethene	29.2	U	29.2	9.11	ug/Kg	1	05/31/13 01:41
Toluene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
trans-1,2-Dichloroethene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
trans-1,3-Dichloropropene	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Trichloroethene	29.2	U	29.2	9.11	ug/Kg	1	05/31/13 01:41
Trichlorofluoromethane	117	U	117	35.0	ug/Kg	1	05/31/13 01:41
Vinyl chloride	58.4	U	58.4	18.2	ug/Kg	1	05/31/13 01:41
Xylenes (total)	234	U	234	72.4	ug/Kg	1	05/31/13 01:41
<b>Surrogates</b>							
1,2-Dichloroethane-D4	101		79-118		%	1	05/31/13 01:41
4-Bromofluorobenzene	115		67-138		%	1	05/31/13 01:41
Toluene-d8	95		85-115		%	1	05/31/13 01:41

### Batch Information

Analytical Batch: VMS13526  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 05/31/13 01:41  
 Container ID: 1132031011-C

Prep Batch: VXX24760  
 Prep Method: SW5035A  
 Prep Date/Time: 05/26/13 13:18  
 Prep Initial Wt./Vol.: 75.967 g  
 Prep Extract Vol: 54.3885 mL

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-P (0)

Client Sample ID: **SMIC-P (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031012  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:52  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 67.1

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	15.2		1.36	0.421	mg/Kg	10	05/31/13 13:27
Barium	64.0		0.407	0.128	mg/Kg	10	05/31/13 13:27
Cadmium	0.272	U	0.272	0.0842	mg/Kg	10	05/31/13 13:27
Chromium	47.2		0.543	0.163	mg/Kg	10	05/31/13 13:27
Lead	13.8		0.272	0.0842	mg/Kg	10	05/31/13 13:27
Mercury	0.0793		0.0543	0.0163	mg/Kg	10	05/31/13 13:27
Selenium	0.679	U	0.679	0.204	mg/Kg	10	05/31/13 13:27
Silver	0.136	U	0.136	0.0421	mg/Kg	10	05/31/13 13:27

### Batch Information

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Analyst: ACF  
Analytical Date/Time: 05/31/13 13:27  
Container ID: 1132031012-A

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 05/30/13 08:20  
Prep Initial Wt./Vol.: 1.097 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-P (0)**

Client Sample ID: **SMIC-P (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031012  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:52  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 67.1

Results by **Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
1,2-Dichlorobenzene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
1,3-Dichlorobenzene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
1,4-Dichlorobenzene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
1-Chloronaphthalene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
2,4,5-Trichlorophenol	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
2,4,6-Trichlorophenol	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
2,4-Dichlorophenol	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
2,4-Dimethylphenol	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
2,4-Dinitrophenol	4.42	U	4.42	1.39	mg/Kg	1	06/03/13 21:12
2,4-Dinitrotoluene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
2,6-Dichlorophenol	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
2,6-Dinitrotoluene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
2-Chloronaphthalene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
2-Chlorophenol	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
2-Methyl-4,6-dinitrophenol	2.95	U	2.95	0.914	mg/Kg	1	06/03/13 21:12
2-Methylnaphthalene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
2-Methylphenol (o-Cresol)	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
2-Nitroaniline	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
2-Nitrophenol	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
3&4-Methylphenol (p&m-Cresol)	1.47	U	1.47	0.457	mg/Kg	1	06/03/13 21:12
3,3-Dichlorobenzidine	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
3-Nitroaniline	0.737	U	0.737	0.221	mg/Kg	1	06/03/13 21:12
4-Bromophenyl-phenylether	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
4-Chloro-3-methylphenol	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
4-Chloroaniline	0.737	U	0.737	0.221	mg/Kg	1	06/03/13 21:12
4-Chlorophenyl-phenylether	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
4-Nitroaniline	4.42	U	4.42	1.39	mg/Kg	1	06/03/13 21:12
4-Nitrophenol	1.47	U	1.47	0.457	mg/Kg	1	06/03/13 21:12
Acenaphthene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Acenaphthylene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Aniline	2.95	U	2.95	0.914	mg/Kg	1	06/03/13 21:12
Anthracene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Azobenzene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Benzo(a)Anthracene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Benzo[a]pyrene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Benzo[b]Fluoranthene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Benzo[g,h,i]perylene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Benzo[k]fluoranthene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Benzoic acid	2.21	U	2.21	1.11	mg/Kg	1	06/03/13 21:12
Benzyl alcohol	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Bis(2-Chloroethoxy)methane	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Bis(2-Chloroethyl)ether	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
bis(2-Ethylhexyl)phthalate	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-P (0)**

Client Sample ID: **SMIC-P (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031012  
Lab Project ID: 1132031

Collection Date: 05/26/13 13:52  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 67.1

Results by **Semivolatile Organic GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Butylbenzylphthalate	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Carbazole	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Chrysene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Di-n-butylphthalate	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
di-n-Octylphthalate	0.737	U	0.737	0.221	mg/Kg	1	06/03/13 21:12
Dibenzo[a,h]anthracene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Dibenzofuran	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Diethylphthalate	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Dimethylphthalate	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Fluoranthene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Fluorene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Hexachlorobenzene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Hexachlorobutadiene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Hexachlorocyclopentadiene	1.03	U	1.03	0.295	mg/Kg	1	06/03/13 21:12
Hexachloroethane	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Indeno[1,2,3-c,d] pyrene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Isophorone	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
N-Nitroso-di-n-propylamine	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
N-Nitrosodimethylamine	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
N-Nitrosodiphenylamine	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Naphthalene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Nitrobenzene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Pentachlorophenol	2.95	U	2.95	0.914	mg/Kg	1	06/03/13 21:12
Phenanthrene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Phenol	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12
Pyrene	0.369	U	0.369	0.115	mg/Kg	1	06/03/13 21:12

**Surrogates**

2,4,6-Tribromophenol	86.5		35-125		%	1	06/03/13 21:12
2-Fluorobiphenyl	74.9		45-105		%	1	06/03/13 21:12
2-Fluorophenol	59.2		35-105		%	1	06/03/13 21:12
Nitrobenzene-d5	64.8		35-100		%	1	06/03/13 21:12
Phenol-d6	67.2		40-100		%	1	06/03/13 21:12
Terphenyl-d14	101		30-125		%	1	06/03/13 21:12

**Batch Information**

Analytical Batch: XMS7348  
Analytical Method: SW8270D  
Analyst: DSH  
Analytical Date/Time: 06/03/13 21:12  
Container ID: 1132031012-A

Prep Batch: XXX29074  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 11:00  
Prep Initial Wt./Vol.: 22.729 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



### Results of SMIC-Q (0)

Client Sample ID: **SMIC-Q (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031013  
Lab Project ID: 1132031

Collection Date: 05/26/13 14:02  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 73.2

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	8.99		1.26	0.392	mg/Kg	10	05/31/13 12:26
Barium	47.0		0.379	0.119	mg/Kg	10	05/31/13 12:26
Cadmium	0.253	U	0.253	0.0784	mg/Kg	10	05/31/13 12:26
Chromium	38.7		0.506	0.152	mg/Kg	10	05/31/13 12:26
Lead	9.40		0.253	0.0784	mg/Kg	10	05/31/13 12:26
Mercury	0.0571		0.0506	0.0152	mg/Kg	10	05/31/13 12:26
Selenium	0.632	U	0.632	0.190	mg/Kg	10	05/31/13 12:26
Silver	0.126	U	0.126	0.0392	mg/Kg	10	05/31/13 12:26

### Batch Information

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Analyst: ACF  
Analytical Date/Time: 05/31/13 12:26  
Container ID: 1132031013-A

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 05/30/13 08:20  
Prep Initial Wt./Vol.: 1.081 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:54AM



Results of **SMIC-Q (0)**

Client Sample ID: **SMIC-Q (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031013  
Lab Project ID: 1132031

Collection Date: 05/26/13 14:02  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 73.2

Results by **Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
1,2-Dichlorobenzene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
1,3-Dichlorobenzene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
1,4-Dichlorobenzene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
1-Chloronaphthalene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
2,4,5-Trichlorophenol	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
2,4,6-Trichlorophenol	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
2,4-Dichlorophenol	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
2,4-Dimethylphenol	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
2,4-Dinitrophenol	4.06	U	4.06	1.27	mg/Kg	1	06/03/13 21:29
2,4-Dinitrotoluene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
2,6-Dichlorophenol	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
2,6-Dinitrotoluene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
2-Chloronaphthalene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
2-Chlorophenol	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
2-Methyl-4,6-dinitrophenol	2.71	U	2.71	0.839	mg/Kg	1	06/03/13 21:29
2-Methylnaphthalene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
2-Methylphenol (o-Cresol)	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
2-Nitroaniline	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
2-Nitrophenol	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
3&4-Methylphenol (p&m-Cresol)	1.35	U	1.35	0.419	mg/Kg	1	06/03/13 21:29
3,3-Dichlorobenzidine	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
3-Nitroaniline	0.676	U	0.676	0.203	mg/Kg	1	06/03/13 21:29
4-Bromophenyl-phenylether	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
4-Chloro-3-methylphenol	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
4-Chloroaniline	0.676	U	0.676	0.203	mg/Kg	1	06/03/13 21:29
4-Chlorophenyl-phenylether	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
4-Nitroaniline	4.06	U	4.06	1.27	mg/Kg	1	06/03/13 21:29
4-Nitrophenol	1.35	U	1.35	0.419	mg/Kg	1	06/03/13 21:29
Acenaphthene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Acenaphthylene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Aniline	2.71	U	2.71	0.839	mg/Kg	1	06/03/13 21:29
Anthracene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Azobenzene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Benzo(a)Anthracene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Benzo[a]pyrene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Benzo[b]Fluoranthene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Benzo[g,h,i]perylene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Benzo[k]fluoranthene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Benzoic acid	2.03	U	2.03	1.01	mg/Kg	1	06/03/13 21:29
Benzyl alcohol	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Bis(2-Chloroethoxy)methane	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Bis(2-Chloroethyl)ether	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
bis(2-Ethylhexyl)phthalate	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29

Print Date: 06/18/2013 11:16:54AM





Results of **SMIC-Q (0)**

Client Sample ID: **SMIC-Q (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031013  
Lab Project ID: 1132031

Collection Date: 05/26/13 14:02  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%): 73.2

Results by **Semivolatile Organic GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Butylbenzylphthalate	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Carbazole	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Chrysene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Di-n-butylphthalate	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
di-n-Octylphthalate	0.676	U	0.676	0.203	mg/Kg	1	06/03/13 21:29
Dibenzo[a,h]anthracene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Dibenzofuran	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Diethylphthalate	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Dimethylphthalate	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Fluoranthene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Fluorene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Hexachlorobenzene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Hexachlorobutadiene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Hexachlorocyclopentadiene	0.947	U	0.947	0.271	mg/Kg	1	06/03/13 21:29
Hexachloroethane	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Indeno[1,2,3-c,d] pyrene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Isophorone	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
N-Nitroso-di-n-propylamine	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
N-Nitrosodimethylamine	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
N-Nitrosodiphenylamine	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Naphthalene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Nitrobenzene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Pentachlorophenol	2.71	U	2.71	0.839	mg/Kg	1	06/03/13 21:29
Phenanthrene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Phenol	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29
Pyrene	0.338	U	0.338	0.106	mg/Kg	1	06/03/13 21:29

**Surrogates**

2,4,6-Tribromophenol	88.9		35-125		%	1	06/03/13 21:29
2-Fluorobiphenyl	81.3		45-105		%	1	06/03/13 21:29
2-Fluorophenol	68.7		35-105		%	1	06/03/13 21:29
Nitrobenzene-d5	74.5		35-100		%	1	06/03/13 21:29
Phenol-d6	75.2		40-100		%	1	06/03/13 21:29
Terphenyl-d14	103		30-125		%	1	06/03/13 21:29

**Batch Information**

Analytical Batch: XMS7348  
Analytical Method: SW8270D  
Analyst: DSH  
Analytical Date/Time: 06/03/13 21:29  
Container ID: 1132031013-A

Prep Batch: XXX29074  
Prep Method: SW3550C  
Prep Date/Time: 05/30/13 11:00  
Prep Initial Wt./Vol.: 22.735 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:16:54AM



### Results of Trip Blank 1

Client Sample ID: **Trip Blank 1**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132031014  
Lab Project ID: 1132031

Collection Date: 05/24/13 12:58  
Received Date: 05/28/13 12:04  
Matrix: Soil/Solid (dry weight)  
Solids (%):

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.51	U	2.51	0.752	mg/Kg	1	06/05/13 15:39
<b>Surrogates</b>							
4-Bromofluorobenzene	97.3		50-150		%	1	06/05/13 15:39

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 15:39  
Container ID: 1132031014-A

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/24/13 12:58  
Prep Initial Wt./Vol.: 49.835 g  
Prep Extract Vol: 25 mL

Print Date: 06/18/2013 11:16:54AM



Results of Trip Blank 2

Client Sample ID: Trip Blank 2
Client Project ID: SMIC Improvements 1770.01
Lab Sample ID: 1132031015
Lab Project ID: 1132031

Collection Date: 05/24/13 12:58
Received Date: 05/28/13 12:04
Matrix: Soil/Solid (dry weight)
Solids (%):

Results by Volatile GC/MS

Table with 8 columns: Parameter, Result, Qual, LOQ/CL, DL, Units, DF, Date Analyzed. Lists various chemical compounds and their corresponding test results.

Print Date: 06/18/2013 11:16:54AM



### Results of Trip Blank 2

Client Sample ID: **Trip Blank 2**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132031015  
 Lab Project ID: 1132031

Collection Date: 05/24/13 12:58  
 Received Date: 05/28/13 12:04  
 Matrix: Soil/Solid (dry weight)  
 Solids (%):

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	25.0	U	25.0	7.82	ug/Kg	1	05/31/13 14:21
Hexachlorobutadiene	50.1	U	50.1	15.0	ug/Kg	1	05/31/13 14:21
Isopropylbenzene (Cumene)	25.0	U	25.0	7.82	ug/Kg	1	05/31/13 14:21
Methyl-t-butyl ether	100	U	100	31.1	ug/Kg	1	05/31/13 14:21
Methylene chloride	100	U	100	31.1	ug/Kg	1	05/31/13 14:21
n-Butylbenzene	25.0	U	25.0	7.82	ug/Kg	1	05/31/13 14:21
n-Propylbenzene	25.0	U	25.0	7.82	ug/Kg	1	05/31/13 14:21
Naphthalene	50.1	U	50.1	15.0	ug/Kg	1	05/31/13 14:21
o-Xylene	25.0	U	25.0	7.82	ug/Kg	1	05/31/13 14:21
P & M -Xylene	50.1	U	50.1	15.0	ug/Kg	1	05/31/13 14:21
sec-Butylbenzene	25.0	U	25.0	7.82	ug/Kg	1	05/31/13 14:21
Styrene	25.0	U	25.0	7.82	ug/Kg	1	05/31/13 14:21
tert-Butylbenzene	25.0	U	25.0	7.82	ug/Kg	1	05/31/13 14:21
Tetrachloroethene	12.5	U	12.5	3.91	ug/Kg	1	05/31/13 14:21
Toluene	25.0	U	25.0	7.82	ug/Kg	1	05/31/13 14:21
trans-1,2-Dichloroethene	25.0	U	25.0	7.82	ug/Kg	1	05/31/13 14:21
trans-1,3-Dichloropropene	25.0	U	25.0	7.82	ug/Kg	1	05/31/13 14:21
Trichloroethene	12.5	U	12.5	3.91	ug/Kg	1	05/31/13 14:21
Trichlorofluoromethane	50.1	U	50.1	15.0	ug/Kg	1	05/31/13 14:21
Vinyl chloride	25.0	U	25.0	7.82	ug/Kg	1	05/31/13 14:21
Xylenes (total)	100	U	100	31.1	ug/Kg	1	05/31/13 14:21
<b>Surrogates</b>							
1,2-Dichloroethane-D4	105		79-118		%	1	05/31/13 14:21
4-Bromofluorobenzene	93.5		67-138		%	1	05/31/13 14:21
Toluene-d8	101		85-115		%	1	05/31/13 14:21

### Batch Information

Analytical Batch: VMS13528  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 05/31/13 14:21  
 Container ID: 1132031015-A

Prep Batch: VXX24762  
 Prep Method: SW5035A  
 Prep Date/Time: 05/24/13 12:58  
 Prep Initial Wt./Vol.: 49.902 g  
 Prep Extract Vol: 25 mL

Print Date: 06/18/2013 11:16:54AM



### Method Blank

Blank ID: MB for HBN 1452181 [MXX/26513]  
Blank Lab ID: 1150434

Matrix: Soil/Solid (dry weight)

#### QC for Samples:

1132031001, 1132031002, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031012, 1132031013

### Results by SW6020

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Arsenic	0.614U	0.990	0.307	mg/Kg
Barium	0.186U	0.297	0.0931	mg/Kg
Cadmium	0.123U	0.198	0.0614	mg/Kg
Chromium	0.238U	0.396	0.119	mg/Kg
Lead	0.123U	0.198	0.0614	mg/Kg
Mercury	0.0238U	0.0396	0.0119	mg/Kg
Selenium	0.298U	0.495	0.149	mg/Kg
Silver	0.0614U	0.0990	0.0307	mg/Kg

### Batch Information

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Instrument: Perkin Elmer Sciex ICP-MS P3  
Analyst: ACF  
Analytical Date/Time: 5/31/2013 1:16:23PM

Prep Batch: MXX26513  
Prep Method: SW3050B  
Prep Date/Time: 5/30/2013 8:20:00AM  
Prep Initial Wt./Vol.: 1.01 g  
Prep Extract Vol: 50 mL

Print Date: 06/18/2013 11:16:58AM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132031 [MXX26513]  
 Blank Spike Lab ID: 1150435  
 Date Analyzed: 05/31/2013 13:18

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031001, 1132031002, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007,  
 1132031008, 1132031009, 1132031010, 1132031011, 1132031012, 1132031013

## Results by SW6020

Parameter	Blank Spike (mg/Kg)			CL
	Spike	Result	Rec (%)	
Arsenic	48.4	49.4	102	( 80-120 )
Barium	48.4	53.9	111	( 80-120 )
Cadmium	4.84	5.00	103	( 80-120 )
Chromium	19.4	21.1	109	( 80-120 )
Lead	48.4	56.5	117	( 80-120 )
Mercury	0.484	0.485	100	( 80-120 )
Selenium	48.4	51.3	106	( 80-120 )
Silver	4.84	5.03	104	( 80-120 )

## Batch Information

Analytical Batch: **MMS7977**  
 Analytical Method: **SW6020**  
 Instrument: **Perkin Elmer Sciex ICP-MS P3**  
 Analyst: **ACF**

Prep Batch: **MXX26513**  
 Prep Method: **SW3050B**  
 Prep Date/Time: **05/30/2013 08:20**  
 Spike Init Wt./Vol.: 48.4 mg/Kg Extract Vol: 50 mL  
 Dupe Init Wt./Vol.: Extract Vol:



### Matrix Spike Summary

Original Sample ID: 1132031013  
 MS Sample ID: 1150436 MS  
 MSD Sample ID: 1150437 MSD

Analysis Date: 05/31/2013 12:26  
 Analysis Date: 05/31/2013 17:50  
 Analysis Date: 05/31/2013 17:52  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031001, 1132031002, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031012, 1132031013

### Results by SW6020

Parameter	Sample	Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Arsenic	8.99	61.5	73.4	105	67.2	78.6	104	80-120	6.82	(< 20 )
Barium	47.0	61.5	129	134 *	67.2	136	132 *	80-120	4.88	(< 20 )
Cadmium	0.253U	6.15	6.46	105	6.72	7.23	108	80-120	11.20	(< 20 )
Chromium	38.7	24.6	68.6	122 *	26.9	70.8	119	80-120	3.11	(< 20 )
Lead	9.40	61.5	78.0	112	67.2	85.2	113	80-120	8.82	(< 20 )
Mercury	0.0571	0.615	0.672	100	0.672	0.721	99	80-120	7.13	(< 20 )
Selenium	0.632U	61.5	67.9	110	67.2	71.9	107	80-120	5.65	(< 20 )
Silver	0.126U	6.15	6.49	106	6.72	7.08	105	80-120	8.57	(< 20 )

### Batch Information

Analytical Batch: MMS7977  
 Analytical Method: SW6020  
 Instrument: Perkin Elmer Sciex ICP-MS P3  
 Analyst: ACF  
 Analytical Date/Time: 5/31/2013 5:50:35PM

Prep Batch: MX226513  
 Prep Method: Soils/Solids Digest for Metals by ICP-MS  
 Prep Date/Time: 5/30/2013 8:20:00AM  
 Prep Initial Wt./Vol.: 1.11g  
 Prep Extract Vol: 50.00mL

Print Date: 06/18/2013 11:17:00AM



### Bench Spike Summary

Original Sample ID: 1132031013  
MS Sample ID: 1150438 BND  
MSD Sample ID:

Analysis Date: 05/31/2013 12:26  
Analysis Date: 05/31/2013 17:55  
Analysis Date:  
Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031001, 1132031002, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031012, 1132031013

### Results by SW6020

Parameter	Sample	Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Barium	47.0	316	385	107				75-125		
Chromium	38.7	158	205	105				75-125		

### Batch Information

Analytical Batch: MMS7977  
Analytical Method: SW6020  
Instrument: Perkin Elmer Sciex ICP-MS P3  
Analyst: ACF  
Analytical Date/Time: 5/31/2013 5:55:02PM

Prep Batch: MXX26513  
Prep Method: Soils/Solids Digest for Metals by ICP-MS  
Prep Date/Time: 5/30/2013 8:20:00AM  
Prep Initial Wt./Vol.: 1.08g  
Prep Extract Vol: 50.00mL

Print Date: 06/18/2013 11:17:00AM





### Method Blank

Blank ID: MB for HBN 1452059 [SPT/9029]  
Blank Lab ID: 1150286

Matrix: Soil/Solid (dry weight)

#### QC for Samples:

1132031001, 1132031002, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009,  
1132031010, 1132031011, 1132031012, 1132031013

### Results by SM21 2540G

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Solids	100			%

### Batch Information

Analytical Batch: SPT9029  
Analytical Method: SM21 2540G  
Instrument:  
Analyst: ACE  
Analytical Date/Time: 5/29/2013 5:13:00PM

Print Date: 06/18/2013 11:17:00AM



### Duplicate Sample Summary

Original Sample ID: 1132031010

Duplicate Sample ID: 1150287

Analysis Date: 05/29/2013 17:13

Matrix: Soil/Solid (dry weight)

QC for Samples:

1132031001, 1132031002, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031012, 1132031013

### Results by SM21 2540G

<u>NAME</u>	<u>Original (15.00)</u>	<u>Duplicate (15.00)</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Solids	63.6	63.6	0.03	15.00

### Batch Information

Analytical Batch: SPT9029

Analytical Method: SM21 2540G

Instrument:

Analyst: ACE

Print Date: 06/18/2013 11:17:01AM

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## Method Blank

Blank ID: MB for HBN 1452362 [VXX/24760]  
 Blank Lab ID: 1150457

Matrix: Soil/Solid (dry weight)

QC for Samples:

1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031015

## Results by SW8260B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
1,1,1,2-Tetrachloroethane	15.6U	25.0	7.80	ug/Kg
1,1,1-Trichloroethane	15.6U	25.0	7.80	ug/Kg
1,1,2,2-Tetrachloroethane	30.0U	50.0	15.0	ug/Kg
1,1,2-Trichloroethane	15.6U	25.0	7.80	ug/Kg
1,1-Dichloroethane	15.6U	25.0	7.80	ug/Kg
1,1-Dichloroethene	15.6U	25.0	7.80	ug/Kg
1,1-Dichloropropene	15.6U	25.0	7.80	ug/Kg
1,2,3-Trichlorobenzene	30.0U	50.0	15.0	ug/Kg
1,2,3-Trichloropropane	15.6U	25.0	7.80	ug/Kg
1,2,4-Trichlorobenzene	15.6U	25.0	7.80	ug/Kg
1,2,4-Trimethylbenzene	30.0U	50.0	15.0	ug/Kg
1,2-Dibromo-3-chloropropane	62.0U	100	31.0	ug/Kg
1,2-Dibromoethane	15.6U	25.0	7.80	ug/Kg
1,2-Dichlorobenzene	15.6U	25.0	7.80	ug/Kg
1,2-Dichloroethane	15.6U	25.0	7.80	ug/Kg
1,2-Dichloropropane	15.6U	25.0	7.80	ug/Kg
1,3,5-Trimethylbenzene	15.6U	25.0	7.80	ug/Kg
1,3-Dichlorobenzene	15.6U	25.0	7.80	ug/Kg
1,3-Dichloropropane	15.6U	25.0	7.80	ug/Kg
1,4-Dichlorobenzene	15.6U	25.0	7.80	ug/Kg
2,2-Dichloropropane	15.6U	25.0	7.80	ug/Kg
2-Butanone (MEK)	156U	250	78.0	ug/Kg
2-Chlorotoluene	15.6U	25.0	7.80	ug/Kg
2-Hexanone	156U	250	78.0	ug/Kg
4-Chlorotoluene	15.6U	25.0	7.80	ug/Kg
4-Isopropyltoluene	15.6U	25.0	7.80	ug/Kg
4-Methyl-2-pentanone (MIBK)	156U	250	78.0	ug/Kg
Benzene	7.80U	12.5	3.90	ug/Kg
Bromobenzene	15.6U	25.0	7.80	ug/Kg
Bromochloromethane	15.6U	25.0	7.80	ug/Kg
Bromodichloromethane	15.6U	25.0	7.80	ug/Kg
Bromoform	15.6U	25.0	7.80	ug/Kg
Bromomethane	124U	200	62.0	ug/Kg
Carbon disulfide	62.0U	100	31.0	ug/Kg
Carbon tetrachloride	15.6U	25.0	7.80	ug/Kg
Chlorobenzene	15.6U	25.0	7.80	ug/Kg
Chloroethane	124U	200	62.0	ug/Kg
Chloroform	15.6U	25.0	7.80	ug/Kg

Print Date: 06/18/2013 11:17:02AM

## Method Blank

Blank ID: MB for HBN 1452362 [VXX/24760]  
 Blank Lab ID: 1150457

Matrix: Soil/Solid (dry weight)

QC for Samples:

1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031015

## Results by SW8260B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Chloromethane	15.6U	25.0	7.80	ug/Kg
cis-1,2-Dichloroethene	15.6U	25.0	7.80	ug/Kg
cis-1,3-Dichloropropene	15.6U	25.0	7.80	ug/Kg
Dibromochloromethane	15.6U	25.0	7.80	ug/Kg
Dibromomethane	15.6U	25.0	7.80	ug/Kg
Dichlorodifluoromethane	30.0U	50.0	15.0	ug/Kg
Ethylbenzene	15.6U	25.0	7.80	ug/Kg
Hexachlorobutadiene	30.0U	50.0	15.0	ug/Kg
Isopropylbenzene (Cumene)	15.6U	25.0	7.80	ug/Kg
Methylene chloride	62.0U	100	31.0	ug/Kg
Methyl-t-butyl ether	62.0U	100	31.0	ug/Kg
Naphthalene	30.0U	50.0	15.0	ug/Kg
n-Butylbenzene	15.6U	25.0	7.80	ug/Kg
n-Propylbenzene	15.6U	25.0	7.80	ug/Kg
o-Xylene	15.6U	25.0	7.80	ug/Kg
P & M -Xylene	30.0U	50.0	15.0	ug/Kg
sec-Butylbenzene	15.6U	25.0	7.80	ug/Kg
Styrene	15.6U	25.0	7.80	ug/Kg
tert-Butylbenzene	15.6U	25.0	7.80	ug/Kg
Tetrachloroethene	7.80U	12.5	3.90	ug/Kg
Toluene	15.6U	25.0	7.80	ug/Kg
trans-1,2-Dichloroethene	15.6U	25.0	7.80	ug/Kg
trans-1,3-Dichloropropene	15.6U	25.0	7.80	ug/Kg
Trichloroethene	7.80U	12.5	3.90	ug/Kg
Trichlorofluoromethane	30.0U	50.0	15.0	ug/Kg
Vinyl chloride	15.6U	25.0	7.80	ug/Kg
Xylenes (total)	62.0U	100	31.0	ug/Kg
<b>Surrogates</b>				
1,2-Dichloroethane-D4	104	79-118		%
4-Bromofluorobenzene	95.9	67-138		%
Toluene-d8	99.8	85-115		%

Print Date: 06/18/2013 11:17:02AM



**Method Blank**

Blank ID: MB for HBN 1452362 [VXX/24760]  
Blank Lab ID: 1150457

Matrix: Soil/Solid (dry weight)

QC for Samples:

1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031015

Results by **SW8260B**

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
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**Batch Information**

Analytical Batch: VMS13526  
Analytical Method: SW8260B  
Instrument: Agilent 7890-75MS  
Analyst: HM  
Analytical Date/Time: 5/30/2013 6:49:01PM

Prep Batch: VXX24760  
Prep Method: SW5035A  
Prep Date/Time: 5/30/2013 8:00:00AM  
Prep Initial Wt./Vol.: 50 g  
Prep Extract Vol: 25 mL

Print Date: 06/18/2013 11:17:02AM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1132031 [VXX24760]

Blank Spike Lab ID: 1150458

Date Analyzed: 05/30/2013 19:06

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031015

### Results by SW8260B

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
1,1,1,2-Tetrachloroethane	750	829	110	( 75-125 )
1,1,1-Trichloroethane	750	834	111	( 70-135 )
1,1,2,2-Tetrachloroethane	750	862	115	( 55-130 )
1,1,2-Trichloroethane	750	862	115	( 60-125 )
1,1-Dichloroethane	750	831	111	( 75-125 )
1,1-Dichloroethene	750	831	111	( 65-135 )
1,1-Dichloropropene	750	838	112	( 70-135 )
1,2,3-Trichlorobenzene	750	834	111	( 60-135 )
1,2,3-Trichloropropane	750	834	111	( 65-130 )
1,2,4-Trichlorobenzene	750	826	110	( 65-130 )
1,2,4-Trimethylbenzene	750	830	111	( 65-135 )
1,2-Dibromo-3-chloropropane	750	838	112	( 40-135 )
1,2-Dibromoethane	750	834	111	( 70-125 )
1,2-Dichlorobenzene	750	818	109	( 75-120 )
1,2-Dichloroethane	750	825	110	( 70-135 )
1,2-Dichloropropane	750	832	111	( 70-120 )
1,3,5-Trimethylbenzene	750	834	111	( 65-135 )
1,3-Dichlorobenzene	750	825	110	( 70-125 )
1,3-Dichloropropane	750	839	112	( 75-125 )
1,4-Dichlorobenzene	750	824	110	( 70-125 )
2,2-Dichloropropane	750	796	106	( 65-135 )
2-Butanone (MEK)	2250	2360	105	( 30-160 )
2-Chlorotoluene	750	840	112	( 70-130 )
2-Hexanone	2250	2590	115	( 45-145 )
4-Chlorotoluene	750	828	110	( 75-125 )
4-Isopropyltoluene	750	836	111	( 75-135 )
4-Methyl-2-pentanone (MIBK)	2250	2560	114	( 45-145 )
Benzene	750	782	104	( 75-125 )
Bromobenzene	750	823	110	( 65-120 )
Bromochloromethane	750	815	109	( 70-125 )
Bromodichloromethane	750	828	110	( 70-130 )
Bromoform	750	843	112	( 55-135 )
Bromomethane	750	827	110	( 30-160 )

Print Date: 06/18/2013 11:17:03AM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1132031 [VXX24760]

Blank Spike Lab ID: 1150458

Date Analyzed: 05/30/2013 19:06

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031015

### Results by SW8260B

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
Carbon disulfide	1130	1200	107	( 45-160 )
Carbon tetrachloride	750	774	103	( 65-135 )
Chlorobenzene	750	827	110	( 75-125 )
Chloroethane	750	860	115	( 40-155 )
Chloroform	750	830	111	( 70-125 )
Chloromethane	750	833	111	( 50-130 )
cis-1,2-Dichloroethene	750	826	110	( 65-125 )
cis-1,3-Dichloropropene	750	819	109	( 70-125 )
Dibromochloromethane	750	845	113	( 65-130 )
Dibromomethane	750	822	110	( 75-130 )
Dichlorodifluoromethane	750	777	104	( 35-135 )
Ethylbenzene	750	848	113	( 75-125 )
Hexachlorobutadiene	750	822	110	( 55-140 )
Isopropylbenzene (Cumene)	750	838	112	( 75-130 )
Methyl-t-butyl ether	1130	1240	110	( 63-149 )
Methylene chloride	750	757	101	( 55-140 )
n-Butylbenzene	750	820	109	( 65-140 )
n-Propylbenzene	750	837	112	( 65-135 )
Naphthalene	750	836	111	( 40-125 )
o-Xylene	750	827	110	( 75-125 )
P & M -Xylene	1500	1660	111	( 80-125 )
sec-Butylbenzene	750	836	112	( 65-130 )
Styrene	750	828	110	( 75-125 )
tert-Butylbenzene	750	826	110	( 65-130 )
Tetrachloroethene	750	865	115	( 65-140 )
Toluene	750	885	118	( 70-125 )
trans-1,2-Dichloroethene	750	827	110	( 65-135 )
trans-1,3-Dichloropropene	750	841	112	( 65-125 )
Trichloroethene	750	774	103	( 75-125 )
Trichlorofluoromethane	750	790	105	( 25-185 )
Vinyl chloride	750	848	113	( 60-125 )
Xylenes (total)	2250	2490	111	( 80-125 )

### Surrogates

Print Date: 06/18/2013 11:17:03AM

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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132031 [VXX24760]

Blank Spike Lab ID: 1150458

Date Analyzed: 05/30/2013 19:06

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009,  
1132031010, 1132031011, 1132031015

## Results by SW8260B

<u>Parameter</u>	Blank Spike (%)			<u>CL</u>
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	
1,2-Dichloroethane-D4	750	109	109	( 79-118 )
4-Bromofluorobenzene	750	106	106	( 67-138 )
Toluene-d8	750	109	109	( 85-115 )

## Batch Information

Analytical Batch: **VMS13526**  
Analytical Method: **SW8260B**  
Instrument: **Agilent 7890-75MS**  
Analyst: **HM**

Prep Batch: **VXX24760**  
Prep Method: **SW5035A**  
Prep Date/Time: **05/30/2013 08:00**  
Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL  
Dupe Init Wt./Vol.: Extract Vol:

Print Date: 06/18/2013 11:17:03AM



### Matrix Spike Summary

Original Sample ID: 1150460  
 MS Sample ID: 1150461 MS  
 MSD Sample ID: 1150462 MSD

Analysis Date: 05/30/2013 21:13  
 Analysis Date: 05/30/2013 20:23  
 Analysis Date: 05/30/2013 20:40  
 Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031015

### Results by SW8260B

Parameter	Sample	Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
1,1,1,2-Tetrachloroethane	10.2U	490	466	95	490	464	95	75-125	0.46	(< 20 )
1,1,1-Trichloroethane	10.2U	490	473	97	490	469	96	70-135	0.90	(< 20 )
1,1,2,2-Tetrachloroethane	19.6U	490	494	101	490	485	99	55-130	1.70	(< 20 )
1,1,2-Trichloroethane	10.2U	490	477	97	490	476	97	60-125	0.27	(< 20 )
1,1-Dichloroethane	10.2U	490	470	96	490	464	95	75-125	1.30	(< 20 )
1,1-Dichloroethene	10.2U	490	469	96	490	464	95	65-135	1.10	(< 20 )
1,1-Dichloropropene	10.2U	490	474	97	490	477	97	70-135	0.58	(< 20 )
1,2,3-Trichlorobenzene	19.6U	490	468	96	490	480	98	60-135	2.60	(< 20 )
1,2,3-Trichloropropane	10.2U	490	487	99	490	471	96	65-130	3.30	(< 20 )
1,2,4-Trichlorobenzene	10.2U	490	475	97	490	477	97	65-130	0.38	(< 20 )
1,2,4-Trimethylbenzene	19.6U	490	471	96	490	464	95	65-135	1.50	(< 20 )
1,2-Dibromo-3-chloropropane	40.6U	490	505	103	490	505	103	40-135	0.10	(< 20 )
1,2-Dibromoethane	10.2U	490	464	95	490	459	94	70-125	1.20	(< 20 )
1,2-Dichlorobenzene	10.2U	490	465	95	490	461	94	75-120	0.78	(< 20 )
1,2-Dichloroethane	10.2U	490	461	94	490	455	93	70-135	1.30	(< 20 )
1,2-Dichloropropane	10.2U	490	469	96	490	462	94	70-120	1.40	(< 20 )
1,3,5-Trimethylbenzene	10.2U	490	472	96	490	466	95	65-135	1.30	(< 20 )
1,3-Dichlorobenzene	10.2U	490	462	94	490	459	94	70-125	0.67	(< 20 )
1,3-Dichloropropane	10.2U	490	466	95	490	456	93	75-125	2.20	(< 20 )
1,4-Dichlorobenzene	10.2U	490	471	96	490	461	94	70-125	2.30	(< 20 )
2,2-Dichloropropane	10.2U	490	496	101	490	492	100	65-135	0.73	(< 20 )
2-Butanone (MEK)	102U	1470	1500	102	1470	1490	102	30-160	0.68	(< 20 )
2-Chlorotoluene	10.2U	490	473	97	490	466	95	70-130	1.40	(< 20 )
2-Hexanone	102U	1470	1550	106	1470	1560	106	45-145	0.12	(< 20 )
4-Chlorotoluene	10.2U	490	470	96	490	464	95	75-125	1.30	(< 20 )
4-Isopropyltoluene	10.2U	490	472	96	490	473	96	75-135	0.17	(< 20 )
4-Methyl-2-pentanone (MIBK)	102U	1470	1530	104	1470	1530	104	45-145	0.28	(< 20 )
Benzene	5.10U	490	438	89	490	433	88	75-125	1.00	(< 20 )
Bromobenzene	10.2U	490	464	95	490	461	94	65-120	0.53	(< 20 )
Bromochloromethane	10.2U	490	461	94	490	455	93	70-125	1.30	(< 20 )
Bromodichloromethane	10.2U	490	472	96	490	461	94	70-130	2.30	(< 20 )
Bromoform	10.2U	490	463	95	490	468	96	55-135	1.10	(< 20 )
Bromomethane	81.0U	490	563	115	490	493	101	30-160	13.20	(< 20 )
Carbon disulfide	34.8J	735	681	88	735	712	92	45-160	4.40	(< 20 )
Carbon tetrachloride	10.2U	490	440	90	490	434	89	65-135	1.20	(< 20 )
Chlorobenzene	10.2U	490	462	94	490	460	94	75-125	0.57	(< 20 )
Chloroethane	81.0U	490	507	103	490	475	97	40-155	6.60	(< 20 )

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### Matrix Spike Summary

Original Sample ID: 1150460  
 MS Sample ID: 1150461 MS  
 MSD Sample ID: 1150462 MSD

Analysis Date: 05/30/2013 21:13  
 Analysis Date: 05/30/2013 20:23  
 Analysis Date: 05/30/2013 20:40  
 Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031015

### Results by SW8260B

Parameter	Sample	Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Chloroform	10.2U	490	469	96	490	462	94	70-125	1.60	(< 20 )
Chloromethane	5.88J	490	472	95	490	467	94	50-130	1.00	(< 20 )
cis-1,2-Dichloroethene	10.2U	490	466	95	490	463	94	65-125	0.63	(< 20 )
cis-1,3-Dichloropropene	10.2U	490	470	96	490	467	95	70-125	0.59	(< 20 )
Dibromochloromethane	10.2U	490	472	96	490	464	95	65-130	1.80	(< 20 )
Dibromomethane	10.2U	490	464	95	490	457	93	75-130	1.50	(< 20 )
Dichlorodifluoromethane	19.6U	490	443	90	490	430	88	35-135	3.00	(< 20 )
Ethylbenzene	10.2U	490	468	96	490	466	95	75-125	0.56	(< 20 )
Hexachlorobutadiene	13.1J	490	480	95	490	487	97	55-140	1.50	(< 20 )
Isopropylbenzene (Cumene)	10.2U	490	474	97	490	471	96	75-130	0.62	(< 20 )
Methyl-t-butyl ether	40.6U	735	694	94	735	682	93	63-149	1.70	(< 20 )
Methylene chloride	40.6U	490	427	87	490	415	85	55-140	2.90	(< 20 )
n-Butylbenzene	10.2U	490	477	97	490	480	98	65-140	0.55	(< 20 )
n-Propylbenzene	10.2U	490	469	96	490	469	96	65-135	0.04	(< 20 )
Naphthalene	19.6U	490	477	97	490	487	99	40-125	2.10	(< 20 )
o-Xylene	10.2U	490	466	95	490	463	94	75-125	0.67	(< 20 )
P & M -Xylene	19.6U	980	928	95	980	919	94	80-125	1.00	(< 20 )
sec-Butylbenzene	10.2U	490	472	96	490	474	97	65-130	0.35	(< 20 )
Styrene	10.2U	490	462	94	490	466	95	75-125	0.85	(< 20 )
tert-Butylbenzene	10.2U	490	466	95	490	464	95	65-130	0.39	(< 20 )
Tetrachloroethene	11.8	490	484	96	490	487	97	65-140	0.44	(< 20 )
Toluene	10.2U	490	485	99	490	485	99	70-125	0.10	(< 20 )
trans-1,2-Dichloroethene	7.84J	490	468	94	490	472	95	65-135	0.94	(< 20 )
trans-1,3-Dichloropropene	10.2U	490	467	95	490	464	95	65-125	0.74	(< 20 )
Trichloroethene	5.10U	490	438	89	490	438	89	75-125	0.00	(< 20 )
Trichlorofluoromethane	19.6U	490	447	91	490	441	90	25-185	1.40	(< 20 )
Vinyl chloride	10.2U	490	486	99	490	484	99	60-125	0.40	(< 20 )
Xylenes (total)	40.6U	1470	1390	95	1470	1380	94	80-125	0.91	(< 20 )
<b>Surrogates</b>										
1,2-Dichloroethane-D4		490	451	92	490	470	96	79-118	4.00	
4-Bromofluorobenzene		1310	1070	82	1310	1080	83	67-138	1.40	
Toluene-d8		490	436	89	490	466	95	85-115	6.60	

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### Matrix Spike Summary

Original Sample ID: 1150460  
MS Sample ID: 1150461 MS  
MSD Sample ID: 1150462 MSD

Analysis Date:  
Analysis Date: 05/30/2013 20:23  
Analysis Date: 05/30/2013 20:40  
Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031015

### Results by SW8260B

Parameter	Sample	Matrix Spike (%)			Spike Duplicate (%)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			

### Batch Information

Analytical Batch: VMS13526  
Analytical Method: SW8260B  
Instrument: Agilent 7890-75MS  
Analyst: HM  
Analytical Date/Time: 5/30/2013 8:23:00PM

Prep Batch: VXX24760  
Prep Method: Vol. Extraction SW8260 Field Extracted L  
Prep Date/Time: 5/30/2013 8:00:00AM  
Prep Initial Wt./Vol.: 76.50g  
Prep Extract Vol: 25.00mL

Print Date: 06/18/2013 11:17:03AM

## Method Blank

Blank ID: MB for HBN 1452659 [VXX/24762]

Blank Lab ID: 1150551

QC for Samples:

1132031015

Matrix: Soil/Solid (dry weight)

## Results by SW8260B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
1,1,1,2-Tetrachloroethane	15.6U	25.0	7.80	ug/Kg
1,1,1-Trichloroethane	15.6U	25.0	7.80	ug/Kg
1,1,2,2-Tetrachloroethane	30.0U	50.0	15.0	ug/Kg
1,1,2-Trichloroethane	15.6U	25.0	7.80	ug/Kg
1,1-Dichloroethane	15.6U	25.0	7.80	ug/Kg
1,1-Dichloroethene	15.6U	25.0	7.80	ug/Kg
1,1-Dichloropropene	15.6U	25.0	7.80	ug/Kg
1,2,3-Trichlorobenzene	30.0U	50.0	15.0	ug/Kg
1,2,3-Trichloropropane	15.6U	25.0	7.80	ug/Kg
1,2,4-Trichlorobenzene	15.6U	25.0	7.80	ug/Kg
1,2,4-Trimethylbenzene	30.0U	50.0	15.0	ug/Kg
1,2-Dibromo-3-chloropropane	62.0U	100	31.0	ug/Kg
1,2-Dibromoethane	15.6U	25.0	7.80	ug/Kg
1,2-Dichlorobenzene	15.6U	25.0	7.80	ug/Kg
1,2-Dichloroethane	15.6U	25.0	7.80	ug/Kg
1,2-Dichloropropane	15.6U	25.0	7.80	ug/Kg
1,3,5-Trimethylbenzene	15.6U	25.0	7.80	ug/Kg
1,3-Dichlorobenzene	15.6U	25.0	7.80	ug/Kg
1,3-Dichloropropane	15.6U	25.0	7.80	ug/Kg
1,4-Dichlorobenzene	15.6U	25.0	7.80	ug/Kg
2,2-Dichloropropane	15.6U	25.0	7.80	ug/Kg
2-Butanone (MEK)	156U	250	78.0	ug/Kg
2-Chlorotoluene	15.6U	25.0	7.80	ug/Kg
2-Hexanone	156U	250	78.0	ug/Kg
4-Chlorotoluene	15.6U	25.0	7.80	ug/Kg
4-Isopropyltoluene	15.6U	25.0	7.80	ug/Kg
4-Methyl-2-pentanone (MIBK)	156U	250	78.0	ug/Kg
Benzene	7.80U	12.5	3.90	ug/Kg
Bromobenzene	15.6U	25.0	7.80	ug/Kg
Bromochloromethane	15.6U	25.0	7.80	ug/Kg
Bromodichloromethane	15.6U	25.0	7.80	ug/Kg
Bromoform	15.6U	25.0	7.80	ug/Kg
Bromomethane	124U	200	62.0	ug/Kg
Carbon disulfide	62.0U	100	31.0	ug/Kg
Carbon tetrachloride	15.6U	25.0	7.80	ug/Kg
Chlorobenzene	15.6U	25.0	7.80	ug/Kg
Chloroethane	124U	200	62.0	ug/Kg
Chloroform	15.6U	25.0	7.80	ug/Kg

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## Method Blank

Blank ID: MB for HBN 1452659 [VXX/24762]

Blank Lab ID: 1150551

QC for Samples:

1132031015

Matrix: Soil/Solid (dry weight)

## Results by SW8260B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Chloromethane	15.6U	25.0	7.80	ug/Kg
cis-1,2-Dichloroethene	15.6U	25.0	7.80	ug/Kg
cis-1,3-Dichloropropene	15.6U	25.0	7.80	ug/Kg
Dibromochloromethane	15.6U	25.0	7.80	ug/Kg
Dibromomethane	15.6U	25.0	7.80	ug/Kg
Dichlorodifluoromethane	30.0U	50.0	15.0	ug/Kg
Ethylbenzene	15.6U	25.0	7.80	ug/Kg
Hexachlorobutadiene	30.0U	50.0	15.0	ug/Kg
Isopropylbenzene (Cumene)	15.6U	25.0	7.80	ug/Kg
Methylene chloride	62.0U	100	31.0	ug/Kg
Methyl-t-butyl ether	62.0U	100	31.0	ug/Kg
Naphthalene	30.0U	50.0	15.0	ug/Kg
n-Butylbenzene	15.6U	25.0	7.80	ug/Kg
n-Propylbenzene	15.6U	25.0	7.80	ug/Kg
o-Xylene	15.6U	25.0	7.80	ug/Kg
P & M -Xylene	30.0U	50.0	15.0	ug/Kg
sec-Butylbenzene	15.6U	25.0	7.80	ug/Kg
Styrene	15.6U	25.0	7.80	ug/Kg
tert-Butylbenzene	15.6U	25.0	7.80	ug/Kg
Tetrachloroethene	7.80U	12.5	3.90	ug/Kg
Toluene	15.6U	25.0	7.80	ug/Kg
trans-1,2-Dichloroethene	15.6U	25.0	7.80	ug/Kg
trans-1,3-Dichloropropene	15.6U	25.0	7.80	ug/Kg
Trichloroethene	7.80U	12.5	3.90	ug/Kg
Trichlorofluoromethane	30.0U	50.0	15.0	ug/Kg
Vinyl chloride	15.6U	25.0	7.80	ug/Kg
Xylenes (total)	62.0U	100	31.0	ug/Kg
<b>Surrogates</b>				
1,2-Dichloroethane-D4	113	79-118		%
4-Bromofluorobenzene	104	67-138		%
Toluene-d8	109	85-115		%

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**Method Blank**

Blank ID: MB for HBN 1452659 [VXX/24762]  
Blank Lab ID: 1150551

Matrix: Soil/Solid (dry weight)

QC for Samples:  
1132031015

**Results by SW8260B**

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
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**Batch Information**

Analytical Batch: VMS13528  
Analytical Method: SW8260B  
Instrument: HP 5890 Series II MS3 VNA  
Analyst: HM  
Analytical Date/Time: 5/31/2013 11:40:01AM

Prep Batch: VXX24762  
Prep Method: SW5035A  
Prep Date/Time: 5/31/2013 8:00:00AM  
Prep Initial Wt./Vol.: 50 g  
Prep Extract Vol: 25 mL

Print Date: 06/18/2013 11:17:04AM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1132031 [VXX24762]  
Blank Spike Lab ID: 1150552  
Date Analyzed: 05/31/2013 12:00

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031015

### Results by SW8260B

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
1,1,1,2-Tetrachloroethane	750	677	90	( 75-125 )
1,1,1-Trichloroethane	750	698	93	( 70-135 )
1,1,2,2-Tetrachloroethane	750	740	99	( 55-130 )
1,1,2-Trichloroethane	750	776	103	( 60-125 )
1,1-Dichloroethane	750	741	99	( 75-125 )
1,1-Dichloroethene	750	753	100	( 65-135 )
1,1-Dichloropropene	750	762	102	( 70-135 )
1,2,3-Trichlorobenzene	750	731	98	( 60-135 )
1,2,3-Trichloropropane	750	705	94	( 65-130 )
1,2,4-Trichlorobenzene	750	747	100	( 65-130 )
1,2,4-Trimethylbenzene	750	723	96	( 65-135 )
1,2-Dibromo-3-chloropropane	750	630	84	( 40-135 )
1,2-Dibromoethane	750	764	102	( 70-125 )
1,2-Dichlorobenzene	750	751	100	( 75-120 )
1,2-Dichloroethane	750	743	99	( 70-135 )
1,2-Dichloropropane	750	729	97	( 70-120 )
1,3,5-Trimethylbenzene	750	733	98	( 65-135 )
1,3-Dichlorobenzene	750	719	96	( 70-125 )
1,3-Dichloropropane	750	746	100	( 75-125 )
1,4-Dichlorobenzene	750	706	94	( 70-125 )
2,2-Dichloropropane	750	775	103	( 65-135 )
2-Butanone (MEK)	2250	2170	96	( 30-160 )
2-Chlorotoluene	750	717	96	( 70-130 )
2-Hexanone	2250	2380	106	( 45-145 )
4-Chlorotoluene	750	724	97	( 75-125 )
4-Isopropyltoluene	750	743	99	( 75-135 )
4-Methyl-2-pentanone (MIBK)	2250	2130	95	( 45-145 )
Benzene	750	702	94	( 75-125 )
Bromobenzene	750	722	96	( 65-120 )
Bromochloromethane	750	746	100	( 70-125 )
Bromodichloromethane	750	652	87	( 70-130 )
Bromoform	750	624	83	( 55-135 )
Bromomethane	750	736	98	( 30-160 )

Print Date: 06/18/2013 11:17:04AM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1132031 [VXX24762]  
 Blank Spike Lab ID: 1150552  
 Date Analyzed: 05/31/2013 12:00

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031015

### Results by SW8260B

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
Carbon disulfide	1130	1070	95	( 45-160 )
Carbon tetrachloride	750	656	87	( 65-135 )
Chlorobenzene	750	744	99	( 75-125 )
Chloroethane	750	759	101	( 40-155 )
Chloroform	750	723	96	( 70-125 )
Chloromethane	750	770	103	( 50-130 )
cis-1,2-Dichloroethene	750	704	94	( 65-125 )
cis-1,3-Dichloropropene	750	663	88	( 70-125 )
Dibromochloromethane	750	646	86	( 65-130 )
Dibromomethane	750	731	97	( 75-130 )
Dichlorodifluoromethane	750	762	102	( 35-135 )
Ethylbenzene	750	751	100	( 75-125 )
Hexachlorobutadiene	750	729	97	( 55-140 )
Isopropylbenzene (Cumene)	750	765	102	( 75-130 )
Methyl-t-butyl ether	1130	1130	100	( 63-149 )
Methylene chloride	750	737	98	( 55-140 )
n-Butylbenzene	750	751	100	( 65-140 )
n-Propylbenzene	750	739	99	( 65-135 )
Naphthalene	750	753	100	( 40-125 )
o-Xylene	750	746	99	( 75-125 )
P & M -Xylene	1500	1510	101	( 80-125 )
sec-Butylbenzene	750	731	98	( 65-130 )
Styrene	750	755	101	( 75-125 )
tert-Butylbenzene	750	732	98	( 65-130 )
Tetrachloroethene	750	716	96	( 65-140 )
Toluene	750	747	100	( 70-125 )
trans-1,2-Dichloroethene	750	749	100	( 65-135 )
trans-1,3-Dichloropropene	750	696	93	( 65-125 )
Trichloroethene	750	708	94	( 75-125 )
Trichlorofluoromethane	750	610	81	( 25-185 )
Vinyl chloride	750	806	107	( 60-125 )
Xylenes (total)	2250	2260	100	( 80-125 )

### Surrogates

Print Date: 06/18/2013 11:17:04AM



## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132031 [VXX24762]  
Blank Spike Lab ID: 1150552  
Date Analyzed: 05/31/2013 12:00

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031015

## Results by SW8260B

<u>Parameter</u>	Blank Spike (%)			<u>CL</u>
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	
1,2-Dichloroethane-D4	750	105	105	( 79-118 )
4-Bromofluorobenzene	750	96.7	97	( 67-138 )
Toluene-d8	750	104	104	( 85-115 )

## Batch Information

Analytical Batch: **VMS13528**  
Analytical Method: **SW8260B**  
Instrument: **HP 5890 Series II MS3 VNA**  
Analyst: **HM**

Prep Batch: **VXX24762**  
Prep Method: **SW5035A**  
Prep Date/Time: **05/31/2013 08:00**  
Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL  
Dupe Init Wt./Vol.: Extract Vol:

Print Date: 06/18/2013 11:17:04AM



### Matrix Spike Summary

Original Sample ID: 1150553  
 MS Sample ID: 1150554 MS  
 MSD Sample ID: 1150555 MSD

Analysis Date: 05/31/2013 14:56  
 Analysis Date: 05/31/2013 12:39  
 Analysis Date: 05/31/2013 12:56  
 Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1132031015

### Results by SW8260B

Parameter	Sample	Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
1,1,1,2-Tetrachloroethane	5.56U	268	265	99	268	250	94	75-125	5.80	(< 20 )
1,1,1-Trichloroethane	5.56U	268	278	104	268	276	103	70-135	0.93	(< 20 )
1,1,2,2-Tetrachloroethane	10.7U	268	302	113	268	284	106	55-130	6.10	(< 20 )
1,1,2-Trichloroethane	5.56U	268	305	114	268	284	106	60-125	7.20	(< 20 )
1,1-Dichloroethane	5.56U	268	292	109	268	285	107	75-125	2.50	(< 20 )
1,1-Dichloroethene	5.56U	268	309	116	268	307	115	65-135	0.55	(< 20 )
1,1-Dichloropropene	5.56U	268	301	112	268	296	111	70-135	1.70	(< 20 )
1,2,3-Trichlorobenzene	10.7U	268	279	104	268	270	101	60-135	3.40	(< 20 )
1,2,3-Trichloropropane	5.56U	268	288	108	268	270	101	65-130	6.50	(< 20 )
1,2,4-Trichlorobenzene	5.56U	268	285	107	268	274	103	65-130	3.80	(< 20 )
1,2,4-Trimethylbenzene	7.76J	268	291	106	268	277	101	65-135	4.90	(< 20 )
1,2-Dibromo-3-chloropropane	22.2U	268	270	101	268	247	92	40-135	9.00	(< 20 )
1,2-Dibromoethane	5.56U	268	305	114	268	288	108	70-125	5.90	(< 20 )
1,2-Dichlorobenzene	5.56U	268	288	108	268	280	105	75-120	2.90	(< 20 )
1,2-Dichloroethane	5.56U	268	298	112	268	293	109	70-135	2.00	(< 20 )
1,2-Dichloropropane	5.56U	268	291	109	268	289	108	70-120	0.92	(< 20 )
1,3,5-Trimethylbenzene	3.48J	268	291	108	268	279	103	65-135	4.10	(< 20 )
1,3-Dichlorobenzene	5.56U	268	279	104	268	269	100	70-125	3.70	(< 20 )
1,3-Dichloropropane	5.56U	268	295	110	268	277	104	75-125	6.20	(< 20 )
1,4-Dichlorobenzene	5.56U	268	277	104	268	269	101	70-125	3.20	(< 20 )
2,2-Dichloropropane	5.56U	268	305	114	268	302	113	65-135	1.10	(< 20 )
2-Butanone (MEK)	55.6U	803	921	115	803	848	106	30-160	8.20	(< 20 )
2-Chlorotoluene	5.56U	268	283	106	268	273	102	70-130	3.40	(< 20 )
2-Hexanone	55.6U	803	1000	125	803	914	114	45-145	9.40	(< 20 )
4-Chlorotoluene	5.56U	268	282	105	268	268	100	75-125	5.20	(< 20 )
4-Isopropyltoluene	6.15J	268	292	107	268	282	103	75-135	3.70	(< 20 )
4-Methyl-2-pentanone (MIBK)	55.6U	803	908	113	803	843	105	45-145	7.40	(< 20 )
Benzene	2.78U	268	276	103	268	271	101	75-125	1.60	(< 20 )
Bromobenzene	5.56U	268	285	107	268	274	103	65-120	4.00	(< 20 )
Bromochloromethane	5.56U	268	301	113	268	290	109	70-125	3.60	(< 20 )
Bromodichloromethane	5.56U	268	265	99	268	262	98	70-130	1.30	(< 20 )
Bromoform	5.56U	268	255	95	268	238	89	55-135	6.80	(< 20 )
Bromomethane	44.2U	268	318	119	268	323	121	30-160	1.60	(< 20 )
Carbon disulfide	22.2U	401	433	108	401	425	106	45-160	1.70	(< 20 )
Carbon tetrachloride	5.56U	268	254	95	268	255	95	65-135	0.28	(< 20 )
Chlorobenzene	5.56U	268	290	109	268	275	103	75-125	5.50	(< 20 )
Chloroethane	44.2U	268	316	118	268	321	120	40-155	1.80	(< 20 )

Print Date: 06/18/2013 11:17:05AM



### Matrix Spike Summary

Original Sample ID: 1150553  
 MS Sample ID: 1150554 MS  
 MSD Sample ID: 1150555 MSD

Analysis Date: 05/31/2013 14:56  
 Analysis Date: 05/31/2013 12:39  
 Analysis Date: 05/31/2013 12:56  
 Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1132031015

### Results by SW8260B

Parameter	Sample	Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Chloroform	5.56U	268	288	108	268	282	106	70-125	2.10	(< 20 )
Chloromethane	5.56U	268	301	112	268	300	112	50-130	0.15	(< 20 )
cis-1,2-Dichloroethene	5.56U	268	293	110	268	286	107	65-125	2.70	(< 20 )
cis-1,3-Dichloropropene	5.56U	268	270	101	268	263	98	70-125	2.80	(< 20 )
Dibromochloromethane	5.56U	268	254	95	268	244	91	65-130	4.30	(< 20 )
Dibromomethane	5.56U	268	296	111	268	289	108	75-130	2.30	(< 20 )
Dichlorodifluoromethane	10.7U	268	281	105	268	274	102	35-135	2.50	(< 20 )
Ethylbenzene	5.56U	268	297	111	268	277	104	75-125	6.60	(< 20 )
Hexachlorobutadiene	10.7U	268	299	112	268	287	107	55-140	3.90	(< 20 )
Isopropylbenzene (Cumene)	5.56U	268	296	111	268	278	104	75-130	6.10	(< 20 )
Methyl-t-butyl ether	22.2U	401	454	113	401	442	110	63-149	2.60	(< 20 )
Methylene chloride	22.2U	268	282	105	268	272	102	55-140	3.60	(< 20 )
n-Butylbenzene	5.56U	268	289	108	268	282	105	65-140	2.60	(< 20 )
n-Propylbenzene	5.56U	268	291	109	268	279	104	65-135	4.10	(< 20 )
Naphthalene	10.7U	268	308	115	268	292	109	40-125	5.30	(< 20 )
o-Xylene	5.56U	268	291	109	268	275	103	75-125	5.60	(< 20 )
P & M -Xylene	10.7U	535	593	111	535	563	105	80-125	5.20	(< 20 )
sec-Butylbenzene	5.56U	268	284	106	268	271	101	65-130	4.40	(< 20 )
Styrene	5.56U	268	292	109	268	277	104	75-125	5.00	(< 20 )
tert-Butylbenzene	5.56U	268	286	107	268	274	102	65-130	4.20	(< 20 )
Tetrachloroethene	2.78U	268	278	104	268	262	98	65-140	6.10	(< 20 )
Toluene	5.56U	268	287	107	268	276	103	70-125	4.10	(< 20 )
trans-1,2-Dichloroethene	5.56U	268	291	109	268	286	107	65-135	1.90	(< 20 )
trans-1,3-Dichloropropene	5.56U	268	272	102	268	259	97	65-125	4.80	(< 20 )
Trichloroethene	2.78U	268	275	103	268	272	102	75-125	1.30	(< 20 )
Trichlorofluoromethane	10.7U	268	332	124	268	366	137	25-185	9.70	(< 20 )
Vinyl chloride	5.56U	268	293	110	268	289	108	60-125	1.40	(< 20 )
Xylenes (total)	22.2U	803	884	110	803	838	104	80-125	5.30	(< 20 )
<b>Surrogates</b>										
1,2-Dichloroethane-D4		268	287	107	268	295	110	79-118	2.60	
4-Bromofluorobenzene		713	494	69	713	492	69	67-138	0.47	
Toluene-d8		268	275	103	268	268	100	85-115	2.60	

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### Matrix Spike Summary

Original Sample ID: 1150553  
MS Sample ID: 1150554 MS  
MSD Sample ID: 1150555 MSD

Analysis Date:  
Analysis Date: 05/31/2013 12:39  
Analysis Date: 05/31/2013 12:56  
Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1132031015

### Results by SW8260B

Parameter	Sample	Matrix Spike (%)			Spike Duplicate (%)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			

### Batch Information

Analytical Batch: VMS13528  
Analytical Method: SW8260B  
Instrument: HP 5890 Series II MS3 VNA  
Analyst: HM  
Analytical Date/Time: 5/31/2013 12:39:00PM

Prep Batch: VXX24762  
Prep Method: Vol. Extraction SW8260 Field Extracted L  
Prep Date/Time: 5/31/2013 8:00:00AM  
Prep Initial Wt./Vol.: 140.19g  
Prep Extract Vol: 25.00mL

Print Date: 06/18/2013 11:17:05AM



### Method Blank

Blank ID: MB for HBN 1453288 [VXX/24775]  
Blank Lab ID: 1151394

Matrix: Soil/Solid (dry weight)

#### QC for Samples:

1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031014

### Results by AK101

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Gasoline Range Organics	0.936J	2.50	0.750	mg/Kg
<b>Surrogates</b>				
4-Bromofluorobenzene	82.3	50-150		%

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Instrument: Agilent 7890 PID/FID  
Analyst: ST  
Analytical Date/Time: 6/5/2013 10:40:00AM

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 6/5/2013 8:00:00AM  
Prep Initial Wt./Vol.: 50 g  
Prep Extract Vol: 25 mL

Print Date: 06/18/2013 11:17:05AM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132031 [VXX24775]  
 Blank Spike Lab ID: 1151395  
 Date Analyzed: 06/05/2013 11:36

Spike Duplicate ID: LCSD for HBN 1132031 [VXX24775]  
 Spike Duplicate Lab ID: 1151396  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031014

## Results by AK101

Parameter	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Gasoline Range Organics	10.0	9.80	98	10.0	9.50	95	( 60-120 )	3.00	(< 20 )
<b>Surrogates</b>									
4-Bromofluorobenzene	1.25	83.3	83	1.25	82.9	83	( 50-150 )	0.46	

## Batch Information

Analytical Batch: **VFC11449**  
 Analytical Method: **AK101**  
 Instrument: **Agilent 7890 PID/FID**  
 Analyst: **ST**

Prep Batch: **VXX24775**  
 Prep Method: **SW5035A**  
 Prep Date/Time: **06/05/2013 08:00**  
 Spike Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL  
 Dupe Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL

Print Date: 06/18/2013 11:17:06AM

## Method Blank

Blank ID: MB for HBN 1452070 [XXX/29074]

Matrix: Soil/Solid (dry weight)

Blank Lab ID: 1150320

QC for Samples:

1132031001, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031012, 1132031013

## Results by SW8270D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
1,2,4-Trichlorobenzene	0.156U	0.250	0.0780	mg/Kg
1,2-Dichlorobenzene	0.156U	0.250	0.0780	mg/Kg
1,3-Dichlorobenzene	0.156U	0.250	0.0780	mg/Kg
1,4-Dichlorobenzene	0.156U	0.250	0.0780	mg/Kg
1-Chloronaphthalene	0.156U	0.250	0.0780	mg/Kg
2,4,5-Trichlorophenol	0.156U	0.250	0.0780	mg/Kg
2,4,6-Trichlorophenol	0.156U	0.250	0.0780	mg/Kg
2,4-Dichlorophenol	0.156U	0.250	0.0780	mg/Kg
2,4-Dimethylphenol	0.156U	0.250	0.0780	mg/Kg
2,4-Dinitrophenol	1.88U	3.00	0.940	mg/Kg
2,4-Dinitrotoluene	0.156U	0.250	0.0780	mg/Kg
2,6-Dichlorophenol	0.156U	0.250	0.0780	mg/Kg
2,6-Dinitrotoluene	0.156U	0.250	0.0780	mg/Kg
2-Chloronaphthalene	0.156U	0.250	0.0780	mg/Kg
2-Chlorophenol	0.156U	0.250	0.0780	mg/Kg
2-Methyl-4,6-dinitrophenol	1.24U	2.00	0.620	mg/Kg
2-Methylnaphthalene	0.156U	0.250	0.0780	mg/Kg
2-Methylphenol (o-Cresol)	0.156U	0.250	0.0780	mg/Kg
2-Nitroaniline	0.156U	0.250	0.0780	mg/Kg
2-Nitrophenol	0.156U	0.250	0.0780	mg/Kg
3&4-Methylphenol (p&m-Cresol)	0.620U	1.00	0.310	mg/Kg
3,3-Dichlorobenzidine	0.156U	0.250	0.0780	mg/Kg
3-Nitroaniline	0.300U	0.500	0.150	mg/Kg
4-Bromophenyl-phenylether	0.156U	0.250	0.0780	mg/Kg
4-Chloro-3-methylphenol	0.156U	0.250	0.0780	mg/Kg
4-Chloroaniline	0.300U	0.500	0.150	mg/Kg
4-Chlorophenyl-phenylether	0.156U	0.250	0.0780	mg/Kg
4-Nitroaniline	1.88U	3.00	0.940	mg/Kg
4-Nitrophenol	0.620U	1.00	0.310	mg/Kg
Acenaphthene	0.156U	0.250	0.0780	mg/Kg
Acenaphthylene	0.156U	0.250	0.0780	mg/Kg
Aniline	1.24U	2.00	0.620	mg/Kg
Anthracene	0.156U	0.250	0.0780	mg/Kg
Azobenzene	0.156U	0.250	0.0780	mg/Kg
Benzo(a)Anthracene	0.156U	0.250	0.0780	mg/Kg
Benzo[a]pyrene	0.156U	0.250	0.0780	mg/Kg
Benzo[b]Fluoranthene	0.156U	0.250	0.0780	mg/Kg
Benzo[g,h,i]perylene	0.156U	0.250	0.0780	mg/Kg

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## Method Blank

Blank ID: MB for HBN 1452070 [XXX/29074]  
Blank Lab ID: 1150320

Matrix: Soil/Solid (dry weight)

QC for Samples:

1132031001, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031012, 1132031013

## Results by SW8270D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Benzo[k]fluoranthene	0.156U	0.250	0.0780	mg/Kg
Benzoic acid	1.50U	1.50	0.750	mg/Kg
Benzyl alcohol	0.156U	0.250	0.0780	mg/Kg
Bis(2chloro1methylethyl)Ether	0.156U	0.250	0.0780	mg/Kg
Bis(2-Chloroethoxy)methane	0.156U	0.250	0.0780	mg/Kg
Bis(2-Chloroethyl)ether	0.156U	0.250	0.0780	mg/Kg
bis(2-Ethylhexyl)phthalate	0.156U	0.250	0.0780	mg/Kg
Butylbenzylphthalate	0.156U	0.250	0.0780	mg/Kg
Carbazole	0.156U	0.250	0.0780	mg/Kg
Chrysene	0.156U	0.250	0.0780	mg/Kg
Dibenzo[a,h]anthracene	0.156U	0.250	0.0780	mg/Kg
Dibenzofuran	0.156U	0.250	0.0780	mg/Kg
Diethylphthalate	0.156U	0.250	0.0780	mg/Kg
Dimethylphthalate	0.156U	0.250	0.0780	mg/Kg
Di-n-butylphthalate	0.156U	0.250	0.0780	mg/Kg
di-n-Octylphthalate	0.300U	0.500	0.150	mg/Kg
Fluoranthene	0.156U	0.250	0.0780	mg/Kg
Fluorene	0.156U	0.250	0.0780	mg/Kg
Hexachlorobenzene	0.156U	0.250	0.0780	mg/Kg
Hexachlorobutadiene	0.156U	0.250	0.0780	mg/Kg
Hexachlorocyclopentadiene	0.400U	0.700	0.200	mg/Kg
Hexachloroethane	0.156U	0.250	0.0780	mg/Kg
Indeno[1,2,3-c,d] pyrene	0.156U	0.250	0.0780	mg/Kg
Isophorone	0.156U	0.250	0.0780	mg/Kg
Naphthalene	0.156U	0.250	0.0780	mg/Kg
Nitrobenzene	0.156U	0.250	0.0780	mg/Kg
N-Nitrosodimethylamine	0.156U	0.250	0.0780	mg/Kg
N-Nitroso-di-n-propylamine	0.156U	0.250	0.0780	mg/Kg
N-Nitrosodiphenylamine	0.156U	0.250	0.0780	mg/Kg
Pentachlorophenol	1.24U	2.00	0.620	mg/Kg
Phenanthrene	0.156U	0.250	0.0780	mg/Kg
Phenol	0.156U	0.250	0.0780	mg/Kg
Pyrene	0.156U	0.250	0.0780	mg/Kg
<b>Surrogates</b>				
2,4,6-Tribromophenol	86	35-125		%
2-Fluorobiphenyl	85	45-105		%
2-Fluorophenol	71	35-105		%
Nitrobenzene-d5	72.5	35-100		%

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## Method Blank

Blank ID: MB for HBN 1452070 [XXX/29074]  
Blank Lab ID: 1150320

Matrix: Soil/Solid (dry weight)

### QC for Samples:

1132031001, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031012, 1132031013

## Results by SW8270D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Phenol-d6	76.4	40-100		%
Terphenyl-d14	99.6	30-125		%

## Batch Information

Analytical Batch: XMS7345  
Analytical Method: SW8270D  
Instrument: HP 6890/5973 SSA  
Analyst: DSH  
Analytical Date/Time: 5/30/2013 7:14:00PM

Prep Batch: XXX29074  
Prep Method: SW3550C  
Prep Date/Time: 5/30/2013 11:00:00AM  
Prep Initial Wt./Vol.: 22.5 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:17:07AM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1132031 [XXX29074]

Blank Spike Lab ID: 1150322

Date Analyzed: 05/30/2013 19:32

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031001, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031012, 1132031013

### Results by SW8270D

Parameter	Blank Spike (mg/Kg)			CL
	Spike	Result	Rec (%)	
1,2,4-Trichlorobenzene	4.44	3.59	81	( 45-110 )
1,2-Dichlorobenzene	4.44	3.20	72	( 45-100 )
1,3-Dichlorobenzene	4.44	3.27	74	( 40-100 )
1,4-Dichlorobenzene	4.44	3.25	73	( 35-105 )
1-Chloronaphthalene	1.78	1.69	95	( 44-105 )
2,4,5-Trichlorophenol	4.44	4.54	102	( 50-110 )
2,4,6-Trichlorophenol	4.44	4.18	94	( 45-110 )
2,4-Dichlorophenol	4.44	3.98	90	( 45-110 )
2,4-Dimethylphenol	4.44	3.91	88	( 30-105 )
2,4-Dinitrophenol	8	7.84	98	( 15-130 )
2,4-Dinitrotoluene	4.44	4.76	107	( 50-115 )
2,6-Dichlorophenol	1.78	1.59	90	( 52-102 )
2,6-Dinitrotoluene	4.44	4.40	99	( 50-110 )
2-Chloronaphthalene	4.44	4.31	97	( 45-105 )
2-Chlorophenol	4.44	3.38	76	( 45-105 )
2-Methyl-4,6-dinitrophenol	8	9.58	120	( 30-135 )
2-Methylnaphthalene	4.44	3.92	88	( 45-105 )
2-Methylphenol (o-Cresol)	4.44	3.56	80	( 40-105 )
2-Nitroaniline	4.44	4.88	110	( 45-120 )
2-Nitrophenol	4.44	4.13	93	( 40-110 )
3&4-Methylphenol (p&m-Cresol)	6.22	5.88	94	( 40-105 )
3,3-Dichlorobenzidine	4.44	4.13	93	( 10-130 )
3-Nitroaniline	4.44	4.65	105	( 25-110 )
4-Bromophenyl-phenylether	4.44	4.76	107	( 45-115 )
4-Chloro-3-methylphenol	4.44	4.39	99	( 45-115 )
4-Chloroaniline	4.44	3.79	85	( 10-100 )
4-Chlorophenyl-phenylether	4.44	4.76	107	( 45-110 )
4-Nitroaniline	4.44	4.84	109	( 35-115 )
4-Nitrophenol	6.22	6.05	97	( 15-140 )
Acenaphthene	4.44	4.24	96	( 45-110 )
Acenaphthylene	4.44	4.51	101	( 45-105 )
Aniline	4.44	2.85	64	( 20-84 )
Anthracene	4.44	4.31	97	( 55-105 )

Print Date: 06/18/2013 11:17:07AM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1132031 [XXX29074]  
 Blank Spike Lab ID: 1150322  
 Date Analyzed: 05/30/2013 19:32

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031001, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008,  
 1132031009, 1132031010, 1132031011, 1132031012, 1132031013

### Results by SW8270D

Parameter	Blank Spike (mg/Kg)			CL
	Spike	Result	Rec (%)	
Azobenzene	4.44	4.39	99	( 63-117 )
Benzo(a)Anthracene	4.44	4.68	105	( 50-110 )
Benzo[a]pyrene	4.44	4.50	101	( 50-110 )
Benzo[b]Fluoranthene	4.44	4.96	112	( 45-115 )
Benzo[g,h,i]perylene	4.44	4.25	96	( 40-125 )
Benzo[k]fluoranthene	4.44	4.44	100	( 45-125 )
Benzoic acid	6.22	6.42	103	( 10-110 )
Benzyl alcohol	4.44	3.86	87	( 20-125 )
Bis(2-Chloroethoxy)methane	4.44	4.21	95	( 45-110 )
Bis(2-Chloroethyl)ether	4.44	4.06	91	( 40-105 )
bis(2-Ethylhexyl)phthalate	4.44	5.11	115	( 45-125 )
Bis(2chloro1methylethyl)Ether	4.44	3.50	79	( 20-115 )
Butylbenzylphthalate	4.44	5.14	116	( 50-125 )
Carbazole	4.44	4.57	103	( 45-115 )
Chrysene	4.44	4.92	111	* ( 55-110 )
Di-n-butylphthalate	4.44	4.98	112	* ( 55-110 )
di-n-Octylphthalate	4.44	5.20	117	( 40-130 )
Dibenzo[a,h]anthracene	4.44	4.51	102	( 40-125 )
Dibenzofuran	4.44	4.55	102	( 50-105 )
Diethylphthalate	4.44	4.89	110	( 50-115 )
Dimethylphthalate	4.44	4.93	111	* ( 50-110 )
Fluoranthene	4.44	4.63	104	( 55-115 )
Fluorene	4.44	4.41	99	( 50-110 )
Hexachlorobenzene	4.44	4.46	100	( 45-120 )
Hexachlorobutadiene	4.44	3.95	89	( 40-115 )
Hexachlorocyclopentadiene	4.44	4.32	97	( 48-108 )
Hexachloroethane	4.44	3.28	74	( 35-110 )
Indeno[1,2,3-c,d] pyrene	4.44	4.34	98	( 40-120 )
Isophorone	4.44	4.20	95	( 45-110 )
N-Nitroso-di-n-propylamine	4.44	4.12	93	( 40-115 )
N-Nitrosodimethylamine	4.44	3.57	80	( 20-115 )
N-Nitrosodiphenylamine	4.44	3.77	85	( 50-115 )
Naphthalene	4.44	3.65	82	( 40-105 )

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### Blank Spike Summary

Blank Spike ID: LCS for HBN 1132031 [XXX29074]  
Blank Spike Lab ID: 1150322  
Date Analyzed: 05/30/2013 19:32

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031001, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008,  
1132031009, 1132031010, 1132031011, 1132031012, 1132031013

### Results by SW8270D

Parameter	Blank Spike (mg/Kg)			CL
	Spike	Result	Rec (%)	
Nitrobenzene	4.44	3.94	89	( 40-115 )
Pentachlorophenol	6.22	6.22	100	( 25-120 )
Phenanthrene	4.44	4.42	100	( 50-110 )
Phenol	4.44	3.56	80	( 40-100 )
Pyrene	4.44	4.62	104	( 45-125 )
<b>Surrogates</b>				
2,4,6-Tribromophenol	8.89	93.2	93	( 35-125 )
2-Fluorobiphenyl	4.44	93.7	94	( 45-105 )
2-Fluorophenol	8.89	72.7	73	( 35-105 )
Nitrobenzene-d5	4.44	80.7	81	( 35-100 )
Phenol-d6	8.89	78.9	79	( 40-100 )
Terphenyl-d14	4.44	101	101	( 30-125 )

### Batch Information

Analytical Batch: XMS7345  
Analytical Method: SW8270D  
Instrument: HP 6890/5973 SSA  
Analyst: DSH

Prep Batch: XXX29074  
Prep Method: SW3550C  
Prep Date/Time: 05/30/2013 11:00  
Spike Init Wt./Vol.: 4.44 mg/Kg Extract Vol: 1 mL  
Dupe Init Wt./Vol.: Extract Vol:

Print Date: 06/18/2013 11:17:07AM



### Matrix Spike Summary

Original Sample ID: 1132031006  
 MS Sample ID: 1150324 MS  
 MSD Sample ID: 1150325 MSD

Analysis Date: 06/03/2013 19:47  
 Analysis Date: 06/03/2013 20:04  
 Analysis Date: 06/03/2013 20:21  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031001, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031012, 1132031013

### Results by SW8270D

Parameter	Sample	Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
1,2,4-Trichlorobenzene	0.346U	6.12	4.58	75	6.27	4.58	73	45-110	0.17	(< 30 )
1,2-Dichlorobenzene	0.346U	6.12	4.45	73	6.27	4.15	66	45-100	7.00	(< 30 )
1,3-Dichlorobenzene	0.346U	6.12	4.39	72	6.27	4.11	66	40-100	6.50	(< 30 )
1,4-Dichlorobenzene	0.346U	6.12	4.36	71	6.27	4.11	66	35-105	6.00	(< 30 )
1-Chloronaphthalene	0.346U	2.44	2.18	89	2.51	1.92	77	44-105	12.10	(< 30 )
2,4,5-Trichlorophenol	0.346U	6.12	5.89	96	6.27	6.24	100	50-110	5.80	(< 30 )
2,4,6-Trichlorophenol	0.346U	6.12	5.56	91	6.27	5.96	95	45-110	6.70	(< 30 )
2,4-Dichlorophenol	0.346U	6.12	5.07	83	6.27	5.38	86	45-110	6.10	(< 30 )
2,4-Dimethylphenol	0.346U	6.12	5.08	83	6.27	5.32	85	30-105	4.70	(< 30 )
2,4-Dinitrophenol	4.16U	11.0	9.04	82	11.3	10.1	89	15-130	10.70	(< 30 )
2,4-Dinitrotoluene	0.346U	6.12	6.07	99	6.27	6.44	103	50-115	5.80	(< 30 )
2,6-Dichlorophenol	0.346U	2.44	2.02	82	2.51	2.08	83	52-102	2.80	(< 30 )
2,6-Dinitrotoluene	0.346U	6.12	5.55	91	6.27	5.86	94	50-110	5.40	(< 30 )
2-Chloronaphthalene	0.346U	6.12	5.13	84	6.27	5.75	92	45-105	11.40	(< 30 )
2-Chlorophenol	0.346U	6.12	4.62	76	6.27	4.46	71	45-105	3.60	(< 30 )
2-Methyl-4,6-dinitrophenol	2.77U	11.0	12.6	115	11.3	13.4	119	30-135	6.10	(< 30 )
2-Methylnaphthalene	0.346U	6.12	4.84	79	6.27	5.13	82	45-105	5.50	(< 30 )
2-Methylphenol (o-Cresol)	0.346U	6.12	4.80	79	6.27	4.79	76	40-105	0.29	(< 30 )
2-Nitroaniline	0.346U	6.12	6.10	100	6.27	6.48	103	45-120	6.20	(< 30 )
2-Nitrophenol	0.346U	6.12	5.42	89	6.27	5.52	88	40-110	1.70	(< 30 )
3&4-Methylphenol (p&m-Cresol)	1.39U	8.56	7.92	93	8.79	8.11	92	40-105	2.30	(< 30 )
3,3-Dichlorobenzidine	0.346U	6.12	5.42	89	6.27	5.79	92	10-130	6.80	(< 30 )
3-Nitroaniline	0.693U	6.12	5.78	95	6.27	6.17	98	25-110	6.50	(< 30 )
4-Bromophenyl-phenylether	0.346U	6.12	5.99	98	6.27	6.13	98	45-115	2.20	(< 30 )
4-Chloro-3-methylphenol	0.346U	6.12	5.54	91	6.27	5.93	95	45-115	6.90	(< 30 )
4-Chloroaniline	0.693U	6.12	4.94	81	6.27	5.08	81	10-100	2.60	(< 30 )
4-Chlorophenyl-phenylether	0.346U	6.12	5.73	94	6.27	5.89	94	45-110	2.50	(< 30 )
4-Nitroaniline	4.16U	6.12	6.02	98	6.27	6.34	101	35-115	5.30	(< 30 )
4-Nitrophenol	1.39U	8.56	7.88	92	8.79	8.31	95	15-140	5.40	(< 30 )
Acenaphthene	0.346U	6.12	5.38	88	6.27	5.52	88	45-110	2.50	(< 30 )
Acenaphthylene	0.346U	6.12	5.59	91	6.27	5.79	92	45-105	3.70	(< 30 )
Aniline	2.77U	6.12	4.12	68	6.27	4.03	64	20-84	2.40	(< 30 )
Anthracene	0.346U	6.12	5.88	96	6.27	5.83	93	55-105	0.81	(< 30 )
Azobenzene	0.346U	6.12	5.96	98	6.27	6.21	99	63-117	4.10	(< 30 )
Benzo(a)Anthracene	0.346U	6.12	5.83	96	6.27	6.23	99	50-110	6.60	(< 30 )
Benzo[a]pyrene	0.346U	6.12	5.92	97	6.27	6.03	96	50-110	1.80	(< 30 )
Benzo[b]Fluoranthene	0.346U	6.12	6.29	103	6.27	6.79	108	45-115	7.90	(< 30 )

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### Matrix Spike Summary

Original Sample ID: 1132031006  
 MS Sample ID: 1150324 MS  
 MSD Sample ID: 1150325 MSD

Analysis Date: 06/03/2013 19:47  
 Analysis Date: 06/03/2013 20:04  
 Analysis Date: 06/03/2013 20:21  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031001, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031012, 1132031013

### Results by SW8270D

Parameter	Sample	Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Benzo[g,h,i]perylene	0.346U	6.12	5.10	83	6.27	5.08	81	40-125	0.34	(< 30 )
Benzo[k]fluoranthene	0.346U	6.12	6.38	104	6.27	6.26	100	45-125	2.00	(< 30 )
Benzoic acid	2.08U	8.56	5.88	69	8.79	7.25	83	10-110	20.90	(< 30 )
Benzyl alcohol	0.346U	6.12	5.08	83	6.27	5.13	82	20-125	0.85	(< 30 )
Bis(2-Chloroethoxy)methane	0.346U	6.12	5.37	88	6.27	5.48	87	45-110	2.10	(< 30 )
Bis(2-Chloroethyl)ether	0.346U	6.12	5.38	88	6.27	5.44	87	40-105	0.96	(< 30 )
bis(2-Ethylhexyl)phthalate	0.346U	6.12	6.34	104	6.27	6.78	108	45-125	6.60	(< 30 )
Bis(2chloro1methylethyl)Ether	0.346U	6.12	4.92	80	6.27	4.68	75	20-115	5.00	(< 30 )
Butylbenzylphthalate	0.346U	6.12	6.57	107	6.27	7.01	112	50-125	6.50	(< 30 )
Carbazole	0.346U	6.12	6.20	101	6.27	6.43	103	45-115	3.60	(< 30 )
Chrysene	0.346U	6.12	5.99	98	6.27	6.40	102	55-110	6.50	(< 30 )
Di-n-butylphthalate	0.346U	6.12	6.17	101	6.27	6.36	101	55-110	3.10	(< 30 )
di-n-Octylphthalate	0.693U	6.12	6.33	103	6.27	6.72	107	40-130	6.10	(< 30 )
Dibenzo[a,h]anthracene	0.346U	6.12	5.10	83	6.27	5.23	83	40-125	2.40	(< 30 )
Dibenzofuran	0.346U	6.12	5.64	92	6.27	5.82	93	50-105	3.10	(< 30 )
Diethylphthalate	0.346U	6.12	6.26	102	6.27	6.38	102	50-115	2.10	(< 30 )
Dimethylphthalate	0.346U	6.12	6.17	101	6.27	6.38	102	50-110	3.20	(< 30 )
Fluoranthene	0.346U	6.12	5.95	97	6.27	6.20	99	55-115	4.20	(< 30 )
Fluorene	0.346U	6.12	5.51	90	6.27	5.79	92	50-110	5.10	(< 30 )
Hexachlorobenzene	0.346U	6.12	5.78	94	6.27	6.16	98	45-120	6.40	(< 30 )
Hexachlorobutadiene	0.346U	6.12	4.86	79	6.27	4.80	77	40-115	1.10	(< 30 )
Hexachlorocyclopentadiene	0.970U	6.12	4.42	72	6.27	4.41	70	48-108	0.35	(< 30 )
Hexachloroethane	0.346U	6.12	4.34	71	6.27	4.05	65	35-110	6.60	(< 30 )
Indeno[1,2,3-c,d] pyrene	0.346U	6.12	5.11	84	6.27	5.17	82	40-120	1.20	(< 30 )
Isophorone	0.346U	6.12	5.27	86	6.27	5.61	89	45-110	6.20	(< 30 )
N-Nitroso-di-n-propylamine	0.346U	6.12	5.35	88	6.27	5.49	88	40-115	2.70	(< 30 )
N-Nitrosodimethylamine	0.346U	6.12	4.90	80	6.27	4.63	74	20-115	5.80	(< 30 )
N-Nitrosodiphenylamine	0.346U	6.12	5.08	83	6.27	5.21	83	50-115	2.50	(< 30 )
Naphthalene	0.346U	6.12	4.72	77	6.27	4.70	75	40-105	0.14	(< 30 )
Nitrobenzene	0.346U	6.12	5.04	83	6.27	5.18	83	40-115	2.90	(< 30 )
Pentachlorophenol	2.77U	8.56	7.98	93	8.79	8.66	99	25-120	8.00	(< 30 )
Phenanthrene	0.346U	6.12	6.03	99	6.27	6.21	99	50-110	3.00	(< 30 )
Phenol	0.346U	6.12	4.82	79	6.27	4.83	77	40-100	0.41	(< 30 )
Pyrene	0.346U	6.12	5.82	95	6.27	6.30	100	45-125	8.00	(< 30 )
<b>Surrogates</b>										
2,4,6-Tribromophenol		12.2	11.3	92	12.5	11.8	94	35-125	4.70	
2-Fluorobiphenyl		6.12	4.80	79	6.27	5.11	81	45-105	6.00	

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## Matrix Spike Summary

Original Sample ID: 1132031006  
 MS Sample ID: 1150324 MS  
 MSD Sample ID: 1150325 MSD

Analysis Date:  
 Analysis Date: 06/03/2013 20:04  
 Analysis Date: 06/03/2013 20:21  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031001, 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011, 1132031012, 1132031013

## Results by SW8270D

Parameter	Sample	Matrix Spike (%)			Spike Duplicate (%)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
2-Fluorophenol		12.2	8.53	70	12.5	7.99	64	35-105	6.60	
Nitrobenzene-d5		6.12	4.79	78	6.27	4.92	78	35-100	2.40	
Phenol-d6		12.2	9.32	76	12.5	9.36	75	40-100	0.39	
Terphenyl-d14		6.12	5.86	96	6.27	6.34	101	30-125	7.90	

## Batch Information

Analytical Batch: XMS7348  
 Analytical Method: SW8270D  
 Instrument: HP 6890/5973 SSA  
 Analyst: DSH  
 Analytical Date/Time: 6/3/2013 8:04:00PM

Prep Batch: XXX29074  
 Prep Method: Sonication Extraction Soil SW8270  
 Prep Date/Time: 5/30/2013 11:00:00AM  
 Prep Initial Wt./Vol.: 23.11g  
 Prep Extract Vol: 1.00mL

Print Date: 06/18/2013 11:17:08AM



### Method Blank

Blank ID: MB for HBN 1452170 [XXX/29075]  
Blank Lab ID: 1150389

Matrix: Soil/Solid (dry weight)

QC for Samples:

1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011

### Results by AK102

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Diesel Range Organics	12.4U	20.0	6.20	mg/Kg
<b>Surrogates</b>				
5a Androstane	83.5	60-120		%

### Batch Information

Analytical Batch: XFC10912  
Analytical Method: AK102  
Instrument: HP 6890 Series II FID SV D R  
Analyst: MCM  
Analytical Date/Time: 6/4/2013 11:24:00AM

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 5/30/2013 1:30:00PM  
Prep Initial Wt./Vol.: 30 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:17:08AM



## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132031 [XXX29075]  
 Blank Spike Lab ID: 1150390  
 Date Analyzed: 06/04/2013 11:33

Spike Duplicate ID: LCSD for HBN 1132031 [XXX29075]  
 Spike Duplicate Lab ID: 1150391  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011

## Results by AK102

Parameter	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Diesel Range Organics	167	154	92	167	134	81	( 75-125 )	13.50	(< 20 )
<b>Surrogates</b>									
5a Androstane	3.33	104	104	3.33	88	88	( 60-120 )	17.20	

## Batch Information

Analytical Batch: **XFC10912**  
 Analytical Method: **AK102**  
 Instrument: **HP 6890 Series II FID SV D R**  
 Analyst: **MCM**

Prep Batch: **XXX29075**  
 Prep Method: **SW3550C**  
 Prep Date/Time: **05/30/2013 13:30**  
 Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL  
 Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL

Print Date: 06/18/2013 11:17:09AM



### Method Blank

Blank ID: MB for HBN 1452170 [XXX/29075]  
Blank Lab ID: 1150389

Matrix: Soil/Solid (dry weight)

QC for Samples:

1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011

### Results by AK103

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Residual Range Organics	12.4U	20.0	6.20	mg/Kg
<b>Surrogates</b>				
n-Triacontane-d62	87.1	60-120		%

### Batch Information

Analytical Batch: XFC10912  
Analytical Method: AK103  
Instrument: HP 6890 Series II FID SV D R  
Analyst: MCM  
Analytical Date/Time: 6/4/2013 11:24:00AM

Prep Batch: XXX29075  
Prep Method: SW3550C  
Prep Date/Time: 5/30/2013 1:30:00PM  
Prep Initial Wt./Vol.: 30 g  
Prep Extract Vol: 1 mL

Print Date: 06/18/2013 11:17:10AM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1132031 [XXX29075]  
Blank Spike Lab ID: 1150390  
Date Analyzed: 06/04/2013 11:33

Spike Duplicate ID: LCSD for HBN 1132031 [XXX29075]  
Spike Duplicate Lab ID: 1150391  
Matrix: Soil/Solid (dry weight)

QC for Samples: 1132031003, 1132031004, 1132031005, 1132031006, 1132031007, 1132031008, 1132031009, 1132031010, 1132031011

### Results by AK103

Parameter	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Residual Range Organics	167	179	107	167	156	94	( 60-120 )	13.80	(< 20 )
<b>Surrogates</b>									
n-Triacontane-d62	3.33	111	111	3.33	93.4	93	( 60-120 )	17.60	

### Batch Information

Analytical Batch: **XFC10912**  
Analytical Method: **AK103**  
Instrument: **HP 6890 Series II FID SV D R**  
Analyst: **MCM**

Prep Batch: **XXX29075**  
Prep Method: **SW3550C**  
Prep Date/Time: **05/30/2013 13:30**  
Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL  
Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL

Print Date: 06/18/2013 11:17:10AM



Instructions: Sections 1 - 5 must be filled out.  
Omissions may delay the onset of analysis.

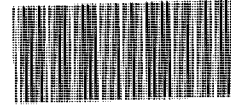
Section 1	CLIENT: <u>R+M Consultants, Inc</u>		Section 3		
	CONTACT: <u>Kristi Mclean</u>	PHONE NO: <u>907.646.9689</u>	Preservative		
	PROJECT NAME: <u>SMIC Improvements</u>	PROJECT/ PWSID/ PERMIT#: <u>1770.01</u>	#	Type	
	REPORTS TO: <u>K.Mclean</u>	E-MAIL: <u>kmclean@rmconsult.com</u>	C	COMP	
INVOICE TO: <u>K.Mclean</u>	QUOTE #: <u>1770.01</u>	G	GRAB		
		MI	Multi		
		Incremental	Soils		

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE	C	G	SVOC (EPA 8270)	PCRA Metals (EPA 6020)	TBT (Krona 1489)	MeOH (AK101)	MeOH (EPA 8260)	DRD AK102	RRD AK103	REMARKS/LOC ID
	1) DA-B SMIC-R-(Ø)	5/24/13	07:34	Soil	2	G	X	X	X					
	2) DA-B SMIC-T-(Ø)	5/24/13	07:53	Soil	2	G		X	X					
	3) DA-C SMIC-F-(Ø)	5/24/13	12:58	Soil	3	G	X	X	X	X	X	X		
	4) DA-C SMIC-F (4.5)	5/24/13	13:44	Soil	3	G	X	X	X	X	X	X		
	5) DA-B SMIC-F (8.5)	5/24/13	14:21	Soil	2	G	X	X		X	X	X		
	6) DA-C SMIC-E (Ø)	5/25/13	20:11	Soil	3	G	X	X	X	X	X	X		
	7) DA-C SMIC-E (5)	5/25/13	21:07	Soil	3	G	X	X	X	X	X	X		
	8) DA-C SMIC-E (10)	5/25/13	22:14	Soil	3	G	X	X	X	X	X	X		
	9) DA-C SMIC-E (5) D	5/25/13	21:10	Soil	3	G	X	X	X	X	X	X		

Section 5	Relinquished By: (1) <u>[Signature]</u>	Date: <u>5/28/13</u>	Time: <u>12:04</u>	Received By: <u>[Signature]</u>	Section 4	DOD Project? Yes No	Data Deliverable Requirements:
	Relinquished By: (2) <u>[Signature]</u>	Date:	Time:	Received By: <u>[Signature]</u>	Cooler ID:	Requested Turnaround Time and/or Special Instructions:	
	Relinquished By: (3) <u>[Signature]</u>	Date:	Time:	Received By: <u>[Signature]</u>	Temp Blank °C: <u>3.1/11</u>	Chain of Custody Seal: (Circle)	
	Relinquished By: (4) <u>[Signature]</u>	Date: <u>5/28/13</u>	Time: <u>12:04</u>	Received For Laboratory By: <u>[Signature]</u>	or Ambient [ ]	INTACT BROKEN <u>ABSENT</u>	
				(See attached Sample Receipt Form)		(See attached Sample Receipt Form)	



CLIENT: <u>R&amp;M Consultants Inc</u>					<b>Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.</b>										Page <u>2</u> of <u>2</u>																																																																																																																																																																																																																								
Section 1	CONTACT: <u>Kristi McLean</u>		PHONE NO: <u>646.9689</u>			Section 3		Preservative										REMARKS/ LOC ID																																																																																																																																																																																																																					
	PROJECT NAME: <u>SMIC Improvements</u>		PROJECT/ PWSID/ PERMIT#: <u>1770.01</u>			#  C O N T A I N E R S	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"></td> <td style="width: 10%; text-align: center;">✓</td> <td style="width: 10%; text-align: center;">✓</td> <td style="width: 10%; text-align: center;">✓</td> <td style="width: 10%; text-align: center;"><u>MeOH</u></td> <td style="width: 10%; text-align: center;"><u>MeOH</u></td> <td style="width: 10%; text-align: center;">✓</td> <td style="width: 10%; text-align: center;">✓</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td style="font-size: small;">Type</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td style="font-size: small;">C =</td> <td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td> </tr> <tr> <td style="font-size: small;">COMP</td> <td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td> </tr> <tr> <td style="font-size: small;">G =</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td style="font-size: small;">GRAB</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td style="font-size: small;">MI =</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td style="font-size: small;">Multi</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td style="font-size: small;">Incremental</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td style="font-size: small;">Soils</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>												✓	✓	✓	<u>MeOH</u>	<u>MeOH</u>	✓	✓													Type																					C =	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	COMP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	G =																						GRAB																						MI =																						Multi																						Incremental																						Soils																					
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## SAMPLE RECEIPT FORM

Review Criteria:	Condition:	Comments/Action Taken:
Were custody seals intact? Note # & location, if applicable. COC accompanied samples?	Yes No <input checked="" type="radio"/> N/A <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	absent
<b>Temperature blank compliant*</b> (i.e., 0-6°C after CF)? <i>* Note: Exemption permitted for chilled samples collected less than 8 hours ago.</i> Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ <i>Note: If non-compliant, use form FS-0029 to document affected samples/analyses.</i> If samples are received <u>without</u> a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "COOLER TEMP" will be noted to the right. In cases where neither a temp blank <u>nor</u> cooler temp can be obtained, note "ambient" or "chilled."	Yes No <input checked="" type="radio"/> N/A	
<b>If temperature(s) &lt;0°C, were all sample containers ice free?</b>	Yes No <input checked="" type="radio"/> N/A	
Delivery method (specify all that apply): <input checked="" type="radio"/> Client USPS Alert Courier C&D Delivery AK Air Lynden Carlile ERA PenAir FedEx UPS NAC Other: → For WO# with airbills, was the WO# & airbill info recorded in the Front Counter eLog?	Note ABN/tracking # See Attached or <input checked="" type="radio"/> N/A Yes No <input checked="" type="radio"/> N/A	
→ For samples received with payment, note amount (\$) and cash / check / CC (circle one) or note: → For samples received in FBKS, ANCH staff will verify all criteria are reviewed.		SRF Initiated by: HLG <input checked="" type="radio"/> N/A
Were samples received within hold time? <i>Note: Refer to form F-083 "Sample Guide" for hold time information.</i> Do samples <b>match COC*</b> (i.e., sample IDs, dates/times collected)? <i>* Note: Exemption permitted if times differ &lt;1hr; in that case, use times on COC.</i> Were analyses requested unambiguous?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Were samples in <b>good condition</b> (no leaks/cracks/breakage)? Packing material used (specify all that apply): <input checked="" type="radio"/> Bubble Wrap Separate plastic bags Vermiculite Other: <input checked="" type="radio"/> boxes	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Were all VOA vials <b>free of headspace</b> (i.e., bubbles ≤6 mm)? Were all soil VOAs <b>field extracted</b> with MeOH+BFB?	Yes No <input checked="" type="radio"/> N/A <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Were <b>proper containers</b> (type/mass/volume/preservative*) used? <i>* Note: Exemption permitted for waters to be analyzed for metals.</i> Were <b>Trip Blanks</b> (i.e., VOAs, LL-Hg) in cooler with samples?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
For <b>special handling</b> (e.g., "MI" or foreign soils, lab filter, limited volume, <input checked="" type="radio"/> Ref Lab), were bottles/paperwork flagged (e.g., sticker)?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	TBT (Krone 1984)
For preserved waters (other than VOA vials, LL-Mercury or microbiological analyses), was <b>pH verified and compliant</b> ? If pH was adjusted, were bottles flagged (i.e., stickers)?	Yes No <input checked="" type="radio"/> N/A Yes No <input checked="" type="radio"/> N/A	
For <b>RUSH/SHORT Hold Time</b> , were COC/Bottles flagged accordingly? Was Rush/Short HT email sent, if applicable?	Yes No <input checked="" type="radio"/> N/A	
For <b>SITE-SPECIFIC QC</b> , e.g. BMS/BMSD/BDUP, were containers / paperwork flagged accordingly?	Yes No <input checked="" type="radio"/> N/A	
For any question answered "No," has the PM been notified and the problem resolved (or paperwork put in their bin)?	Yes No <input checked="" type="radio"/> N/A	SRF Completed by: HLG <input checked="" type="radio"/> N/A PM =
Was <b>PEER REVIEW</b> of sample numbering/labeling completed?	Yes No <input checked="" type="radio"/> N/A	Peer Reviewed by: <input checked="" type="radio"/> N/A
Additional notes (if applicable):		

*Note to Client: Any "no" circled above indicates non-compliance with standard procedures and may impact data quality.*



June 17, 2013

Analytical Report for Service Request No: K1305064

Julie Shumway  
SGS Environmental Services, Inc.  
200 West Potter Drive  
Anchorage, AK 99518

**RE: 1132031**

Dear Julie:

Enclosed are the results of the samples submitted to our laboratory on May 30, 2013. For your reference, these analyses have been assigned our service request number K1305064.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3364. You may also contact me via Email at [Howard.Holmes@alsglobal.com](mailto:Howard.Holmes@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Howard Holmes  
Project Manager

HH/ln

Page 1 of 26

## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.



### **Inorganic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

### **Metals Data Qualifiers**

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.  
  - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Organic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Additional Petroleum Hydrocarbon Specific Qualifiers**

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**Columbia Analytical Services, Inc. dba ALS Environmental (ALS) - Kelso  
State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Web Site</b>	<b>Number</b>
Alaska DEC UST	<a href="http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx">http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2286
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L12-28
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Georgia DNR	<a href="http://www.gaepd.org/Documents/techguide_pcb.html#cel">http://www.gaepd.org/Documents/techguide_pcb.html#cel</a>	881
Hawaii DOH	Not available	-
Idaho DHW	<a href="http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx">http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx</a>	-
Indiana DOH	<a href="http://www.in.gov/isdh/24859.htm">http://www.in.gov/isdh/24859.htm</a>	C-WA-01
ISO 17025	<a href="http://www.pjlabs.com/">http://www.pjlabs.com/</a>	L12-27
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx">http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx</a>	3016
Louisiana DHH	Not available	LA110003
Maine DHS	Not available	WA0035
Michigan DEQ	<a href="http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html">http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html</a>	9949
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-368
Montana DPHHS	<a href="http://www.dphhs.mt.gov/publichealth/">http://www.dphhs.mt.gov/publichealth/</a>	CERT0047
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/labservice.htm">http://ndep.nv.gov/bsdw/labservice.htm</a>	WA35
New Jersey DEP	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	WA005
New Mexico ED	<a href="http://www.nmenv.state.nm.us/dwb/Index.htm">http://www.nmenv.state.nm.us/dwb/Index.htm</a>	-
North Carolina DWQ	<a href="http://www.dwqlab.org/">http://www.dwqlab.org/</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA200001
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/envserv/">http://www.scdhec.gov/environment/envserv/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	4704427-08-TX
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C1203
Wisconsin DNR	<a href="http://dnr.wi.gov/">http://dnr.wi.gov/</a>	998386840
Wyoming (EPA Region 8)	<a href="http://www.epa.gov/region8/water/dwhome/wyomingdi.html">http://www.epa.gov/region8/water/dwhome/wyomingdi.html</a>	-
Kelso Laboratory Website	<a href="http://www.caslab.com">www.caslab.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.caslab.com](http://www.caslab.com) or at the accreditation bodies web site

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

K1305064



SGS North America Inc.  
CHAIN OF CUSTODY RECORD

Locations Nationwide

- Alaska
- New Jersey
- North Carolina
- West Virginia
- Maryland
- New York
- Indiana
- Kentucky

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1 CLIENT: SGS - AK					SGS Reference: ALS Kelso					Page <u>1</u> of <u>2</u>					
CONTACT: Julie Shumway PHONE NO: (907) 562-2343					Additional Comments:										
PROJECT NAME: 1132031 PROJECT/PWSID/PERMIT#:					# C O N T A I N E R S	3 Preservative Used: <i>None</i>									
REPORTS TO: Julie Shumway E-MAIL: Julie.Shumway@sgs.com						TYPE: C = COMP G = GRAB Multi Incremental Soils									
INVOICE TO: QUOTE #: P.O. #: 1132031						TBT(Krone 1989)									
2	RESERVED for lab use	SAMPLE IDENTIFICATION		DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX	S	GRAB	x	MS	MSD	SGS lab #	Loc ID	REMARKS	
		SMIC-R-(0)		05/24/13	734	S	1	GRAB	x			1132031001			
		SMIC-T-(0)		05/24/13	753	S	1	GRAB	x			1132031002			
		SMIC-F-(0)		05/24/13	1258	S	1	GRAB	x			1132031003			
		SMIC-F-(4.5)		05/24/13	1344	S	1	GRAB	x			1132031004			
		SMIC-E-(0)		05/25/13	2011	S	1	GRAB	x			1132031006			
		SMIC-E-(5)		05/25/13	2107	S	1	GRAB	x			1132031007			
		SMIC-E-(10)		05/25/13	2214	S	1	GRAB	x			1132031008			
		SMIC-E-(5)D		05/25/13	2110	S	1	GRAB	x			1132031009			
		SMIC-S-(0)		05/26/13	1315	S	1	GRAB	x			1132031010			
		SMIC-(0)D		05/26/13	1318	S	1	GRAB	x			1132031011			
5	Relinquished By: (1) <i>[Signature]</i>			Date 05/29/13	Time 0840	Received By:			4 DOD Project? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		Data Deliverable Requirements: Level II report + csv Excel EDD				
5	Relinquished By: (2)			Date	Time	Received By:			Requested Turnaround Time and-or Special Instructions:						
5	Relinquished By: (3)			Date	Time	Received By:			Temp Blank °C: _____ or Ambient [ ] (See attached Sample Receipt Form)						
5	Relinquished By: (4)			Date 5/30/13	Time 1015	Received For Laboratory By: <i>[Signature]</i>								Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT (See attached Sample Receipt Form)	

[ ] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301  
 [ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

<http://www.sgs.com/terms and conditions.htm>

11305064



SGS North America Inc.  
CHAIN OF CUSTODY RECORD

Locations Nationwide

- Alaska                      Maryland
  - New Jersey                New York
  - North Carolina            Indiana
  - West Virginia             Kentucky
- [www.us.sgs.com](http://www.us.sgs.com)

<b>1</b> CLIENT: SGS - AK					SGS Reference: <b>ALS Kelso</b>					Additional Comments:					Page <u>2</u> of <u>2</u>															
CONTACT: Julie Shumway      PHONE NO: (907) 562-2343					<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="3" style="text-align: center; vertical-align: middle;"># C O N T A I N E R S</td> <td style="padding: 2px;">Preservative Used: <b>3</b></td> <td colspan="4"></td> </tr> <tr> <td style="padding: 2px;">None</td> <td colspan="4"></td> </tr> <tr> <td style="padding: 2px;">TYPE C = COMP G = GRAB Multi Incremental Soils</td> <td style="padding: 2px;">TBT(Krone 1989)</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>					# C O N T A I N E R S	Preservative Used: <b>3</b>					None					TYPE C = COMP G = GRAB Multi Incremental Soils	TBT(Krone 1989)					PROJECT NAME: 1132031      PROJECT/PWSID/PERMIT#:		REPORTS TO: Julie Shumway      E-MAIL: Julie.Shumway@sgs.com	
# C O N T A I N E R S	Preservative Used: <b>3</b>																													
	None																													
	TYPE C = COMP G = GRAB Multi Incremental Soils	TBT(Krone 1989)																												
INVOICE TO:      QUOTE #: 1132031					P.O. #: 1132031																									
<b>2</b> RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX	#	TYPE	TBT	MS	MSD	SGS lab #	Loc ID	REMARKS																		
	SMIC-P-(0)	05/26/13	1652	S	1	GRAB	x			1132031012																				
	SMIC-Q-(0)	05/26/13	1402	S	1	GRAB	x			1132031013																				
<b>5</b> Relinquished By: (1) <i>Janet Taylor</i> Date: 05/29/13      Time: 0840      Received By:					<b>4</b> DOD Project?      YES      NO					Data Deliverable Requirements: Level II report + csv Excel EDD																				
Relinquished By: (2)					Date:      Time:      Received By:					Cooler ID: _____																				
Relinquished By: (3)					Date:      Time:      Received By:					Requested Turnaround Time and-or Special Instructions:																				
Relinquished By: (4)					Date: 5/30/13      Time: 1215      Received For Laboratory By: <i>Buy</i>					Temp Blank °C: _____ or Ambient [ ]					Chain of Custody Seal: (Circle) INTACT      BROKEN      ABSENT															
(See attached Sample Receipt Form)					(See attached Sample Receipt Form)																									

[ ] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301  
 [ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

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PC H2

### Cooler Receipt and Preservation Form

Client / Project: SGS Service Request K13 05064

Received: 5/30/13 Opened: 5/30/13 By: PT Unloaded: 5/30/13 By: PT

- 1. Samples were received via?  Mail  Fed Ex  **UPS**  DHL  PDX  Courier  Hand Delivered
- 2. Samples were received in: (circle)  **Cooler**  Box  Envelope  Other \_\_\_\_\_ NA
- 3. Were custody seals on coolers? NA  Y  N If yes, how many and where? 2 front
- If present, were custody seals intact?  Y  N If present, were they signed and dated?  Y  N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
0.7	0.4	0.9	0.6	-0.3	298	<input checked="" type="checkbox"/> NA	12A8019W0158817945		

- 4. Packing material:  Inserts  Baggies  **Bubble Wrap**  **Gel Packs**  Wet Ice  Dry Ice  Sleeves peanuts
- 5. Were custody papers properly filled out (ink, signed, etc.)? NA  Y  N
- 6. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA  Y  N
- 7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA  Y  N
- 8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA  Y  N
- 9. Were appropriate bottles/containers and volumes received for the tests indicated? NA  Y  N
- 10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below*  NA  Y  N
- 11. Were VOA vials received without headspace? *Indicate in the table below.*  NA  Y  N
- 12. Was C12/Res negative?  NA  Y  N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064

**Total Solids**

**Prep Method:** NONE  
**Analysis Method:** 160.3M  
**Test Notes:**

**Units:** PERCENT  
**Basis:** Wet

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
SMIC-R-(0)	K1305064-001	05/24/2013	05/30/2013	06/06/2013	86.5	
SMIC-T-(0)	K1305064-002	05/24/2013	05/30/2013	06/06/2013	93.6	
SMIC-F-(0)	K1305064-003	05/24/2013	05/30/2013	06/06/2013	87.3	
SMIC-F-(4.5)	K1305064-004	05/24/2013	05/30/2013	06/06/2013	82.9	
SMIC-E-(0)	K1305064-005	05/25/2013	05/30/2013	06/06/2013	68.6	
SMIC-E-(5)	K1305064-006	05/25/2013	05/30/2013	06/06/2013	87.6	
SMIC-E-(10)	K1305064-007	05/25/2013	05/30/2013	06/06/2013	93.0	
SMIC-E-(5)D	K1305064-008	05/25/2013	05/30/2013	06/06/2013	88.1	
SMIC-S-(0)	K1305064-009	05/26/2013	05/30/2013	06/06/2013	62.5	
SMIC-(0)D	K1305064-010	05/26/2013	05/30/2013	06/06/2013	62.5	
SMIC-P-(0)	K1305064-011	05/26/2013	05/30/2013	06/06/2013	68.8	
SMIC-Q-(0)	K1305064-012	05/26/2013	05/30/2013	06/06/2013	78.8	

QA/QC Report

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/24/2013  
**Date Received:** 05/30/2013  
**Date Analyzed:** 06/06/2013

**Duplicate Sample Summary**  
**Total Solids**

**Prep Method:** NONE  
**Analysis Method:** 160.3M  
**Test Notes:**

**Units:** PERCENT  
**Basis:** Wet

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
SMIC-R-(0)	K1305064-001	86.5	88.4	87.5	2	

QA/QC Report

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/26/2013  
**Date Received:** 05/30/2013  
**Date Analyzed:** 06/06/2013

**Duplicate Sample Summary**  
**Total Solids**

**Prep Method:** NONE  
**Analysis Method:** 160.3M  
**Test Notes:**

**Units:** PERCENT  
**Basis:** Wet

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
SMIC-P-(0)	K1305064-011	68.8	71.8	70.3	4	



Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/24/2013  
**Date Received:** 05/30/2013

Butyltins (as cation)

**Sample Name:** SMIC-R-(0)  
**Lab Code:** K1305064-001  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.2	1	06/04/13	06/10/13	KWG1305527	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	85	10-120	06/10/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/24/2013  
**Date Received:** 05/30/2013

Butyltins (as cation)

**Sample Name:** SMIC-T-(0)  
**Lab Code:** K1305064-002  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.1	1	06/04/13	06/10/13	KWG1305527	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	78	10-120	06/10/13	Acceptable

**Comments:** \_\_\_\_\_

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/24/2013  
**Date Received:** 05/30/2013

Butyltins (as cation)

**Sample Name:** SMIC-F-(0)  
**Lab Code:** K1305064-003  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.2	1	06/04/13	06/10/13	KWG1305527	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	81	10-120	06/10/13	Acceptable

**Comments:** \_\_\_\_\_

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/24/2013  
**Date Received:** 05/30/2013

Butyltins (as cation)

**Sample Name:** SMIC-F-(4.5)  
**Lab Code:** K1305064-004  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.2	1	06/04/13	06/10/13	KWG1305527	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	81	10-120	06/10/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/25/2013  
**Date Received:** 05/30/2013

Butyltins (as cation)

**Sample Name:** SMIC-E-(0)  
**Lab Code:** K1305064-005  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.5	1	06/04/13	06/10/13	KWG1305527	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	85	10-120	06/10/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/25/2013  
**Date Received:** 05/30/2013

Butyltins (as cation)

**Sample Name:** SMIC-E-(5)  
**Lab Code:** K1305064-006  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.2	1	06/04/13	06/10/13	KWG1305527	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	69	10-120	06/10/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/25/2013  
**Date Received:** 05/30/2013

Butyltins (as cation)

**Sample Name:** SMIC-E-(10)  
**Lab Code:** K1305064-007  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.1	1	06/04/13	06/10/13	KWG1305527	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	58	10-120	06/10/13	Acceptable

**Comments:** \_\_\_\_\_

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/25/2013  
**Date Received:** 05/30/2013

Butyltins (as cation)

**Sample Name:** SMIC-E-(5)D  
**Lab Code:** K1305064-008  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.2	1	06/04/13	06/10/13	KWG1305527	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	80	10-120	06/10/13	Acceptable

**Comments:** \_\_\_\_\_



Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/26/2013  
**Date Received:** 05/30/2013

Butyltins (as cation)

**Sample Name:** SMIC-S-(0)  
**Lab Code:** K1305064-009  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.6	1	06/04/13	06/10/13	KWG1305527	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	79	10-120	06/10/13	Acceptable

**Comments:** \_\_\_\_\_

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/26/2013  
**Date Received:** 05/30/2013

Butyltins (as cation)

**Sample Name:** SMIC-(0)D  
**Lab Code:** K1305064-010  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.6	1	06/04/13	06/10/13	KWG1305527	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	71	10-120	06/10/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/26/2013  
**Date Received:** 05/30/2013

Butyltins (as cation)

**Sample Name:** SMIC-P-(0)  
**Lab Code:** K1305064-011  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.5	1	06/04/13	06/10/13	KWG1305527	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	87	10-120	06/10/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Soil

**Service Request:** K1305064  
**Date Collected:** 05/26/2013  
**Date Received:** 05/30/2013

Butyltins (as cation)

**Sample Name:** SMIC-Q-(0)  
**Lab Code:** K1305064-012  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.3	1	06/04/13	06/10/13	KWG1305527	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	77	10-120	06/10/13	Acceptable

**Comments:** \_\_\_\_\_

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Sediment

**Service Request:** K1305064  
**Date Collected:** NA  
**Date Received:** NA

Butyltins (as cation)

**Sample Name:** Method Blank  
**Lab Code:** KWG1305527-4  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	0.98	1	06/04/13	06/10/13	KWG1305527	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	61	10-120	06/10/13	Acceptable

**Comments:** \_\_\_\_\_

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Sediment

**Service Request:** K1305064

**Surrogate Recovery Summary**  
**Butyltins (as cation)**

**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** Percent  
**Level:** Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
Batch QC	K1305034-001	93
SMIC-R-(0)	K1305064-001	85
SMIC-T-(0)	K1305064-002	78
SMIC-F-(0)	K1305064-003	81
SMIC-F-(4.5)	K1305064-004	81
SMIC-E-(0)	K1305064-005	85
SMIC-E-(5)	K1305064-006	69
SMIC-E-(10)	K1305064-007	58
SMIC-E-(5)D	K1305064-008	80
SMIC-S-(0)	K1305064-009	79
SMIC-(0)D	K1305064-010	71
SMIC-P-(0)	K1305064-011	87
SMIC-Q-(0)	K1305064-012	77
Method Blank	KWG1305527-4	61
Batch QCMS	KWG1305527-1	97
Batch QCDMS	KWG1305527-2	101
Lab Control Sample	KWG1305527-3	83

**Surrogate Recovery Control Limits (%)**

---

Sur1 = Tri-n-propyltin 10-120

---

Results flagged with an asterisk (\*) indicate values outside control criteria.  
 Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Sediment

**Service Request:** K1305064  
**Date Extracted:** 06/04/2013  
**Date Analyzed:** 06/10/2013

**Matrix Spike/Duplicate Matrix Spike Summary**  
**Butyltins (as cation)**

**Sample Name:** Batch QC  
**Lab Code:** K1305034-001  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low  
**Extraction Lot:** KWG1305527

Analyte Name	Sample Result	Batch QCMS KWG1305527-1 Matrix Spike			Batch QCDMS KWG1305527-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Spike Amount	%Rec	Result	Spike Amount	%Rec			
Tri-n-butyltin Cation	ND	18.2	22.0	83	15.0	22.0	68	10-115	19	40

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132031  
**Sample Matrix:** Sediment

**Service Request:** K1305064  
**Date Extracted:** 06/04/2013  
**Date Analyzed:** 06/10/2013

**Lab Control Spike Summary**  
**Butyltins (as cation)**

**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low  
**Extraction Lot:** KWG1305527

Lab Control Sample  
 KWG1305527-3  
**Lab Control Spike**

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
Tri-n-butyltin Cation	11.3	22.2	51	10-122

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



# Laboratory Data Review Checklist

Completed by:	Kristi McLean		
Title:	Environmental Specialist	Date:	24 July 2013
CS Report Name:	SMIC Improvements 1770.01	Report Date:	19 June 2013
Consultant Firm:	R&M Consultants, Inc.		
Laboratory Name:	SGS North America, Inc.	Laboratory Report Number:	1132031
ADEC File Number:	NA	ADEC RecKey Number:	NA

## 1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

Yes     No     NA (Please explain.)    Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

Yes     No     NA (Please explain)    Comments:

Columbia Analytical Services, Inc. dba ALS Environmental is certified by the State of Alaska

## 2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

Yes     No     NA (Please explain)    Comments:

b. Correct analyses requested?

Yes     No     NA (Please explain)    Comments:

## 3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt ( $4^{\circ} \pm 2^{\circ} \text{C}$ )?

Yes     No     NA (Please explain)    Comments:

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

Yes       No       NA (Please explain)      Comments:

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

Yes       No       NA (Please explain)      Comments:

All samples were received in good condition

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

Yes       No       NA (Please explain)      Comments:

No discrepancies were documented.

e. Data quality or usability affected? (Please explain)

Comments:

NA

#### 4. Case Narrative

a. Present and understandable?

Yes       No       NA (Please explain)      Comments:

b. Discrepancies, errors or QC failures identified by the lab?

Yes       No       NA (Please explain)      Comments:

c. Were all corrective actions documented?

Yes       No       NA (Please explain)      Comments:

No corrective actions were identified.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

NA

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

Yes     No     NA (Please explain)

Comments:

b. All applicable holding times met?

Yes     No     NA (Please explain)

Comments:

c. All soils reported on a dry weight basis?

Yes     No     NA (Please explain)

Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

Yes     No     NA (Please explain)

Comments:

e. Data quality or usability affected? (Please explain)

Comments:

Sample handling and results did not result in an issue that would have affected data quality or usability.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

Yes     No     NA (Please explain)

Comments:

ii. All method blank results less than PQL?

Yes     No     NA (Please explain)

Comments:

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes     No     NA (Please explain)    Comments:

No samples were affected

v. Data quality or usability affected? (Please explain)    Comments:

No samples were affected; data quality and usability was not compromised.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

Yes     No     NA (Please explain)    Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes     No     NA (Please explain)    Comments:

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes     No     NA (Please explain)    Comments:

LCS recovery for demethylphthalate, di-n-butylphthalate, and chrysene is outside of QC criteria in one sample.

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes     No     NA (Please explain)    Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

No samples were affected.

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

Yes     No     NA (Please explain)    Comments:

The samples were not affected and therefore not flagged.

vii. Data quality or usability affected? (Please explain)    Comments:

QC criteria was biased high and the identified analytes were not detected in the associated samples.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

Yes     No     NA (Please explain)    Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

Yes     No     NA (Please explain)    Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

Yes     No     NA (Please explain)    Comments:

No samples had failed surrogate recoveries

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

NA, see above

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

Yes     No     NA (Please explain.)    Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

Yes     No     NA (Please explain.)    Comments:

Only one cooler with samples and trip blank was submitted to the lab.

iii. All results less than PQL?

Yes     No     NA (Please explain.)

Comments:

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

NA

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

Yes     No     NA (Please explain)

Comments:

ii. Submitted blind to lab?

Yes     No     NA (Please explain.)

Comments:

iii. Precision - All relative percent differences (RPD) less than specified DQOs?  
(Recommended: 30% water, 50% soil)

$$RPD (\%) = \frac{\text{Absolute Value of: } (R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where  $R_1$  = Sample Concentration

$R_2$  = Field Duplicate Concentration

Yes     No     NA (Please explain)

Comments:

The RPD for sample SMIC-S(0) was 200% for silver; it was not detected in the duplicate sample.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Yes     No     NA (Please explain)

Comments:

There is often discrepancies with grab samples.

f. Decontamination or Equipment Blank (if applicable)

Yes     No     NA (Please explain)

Comments:

No decontamination sample was submitted to the lab.

i. All results less than PQL?

Yes     No     NA (Please explain)

Comments:

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? (Please explain.)

Comments:

NA

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

Yes     No     NA (Please explain)

Comments:

No data flags/qualifiers were associated with the samples.

Reset Form



## Laboratory Report of Analysis

To: R & M Consultants Inc  
9101 Vanguard Dr  
Anchorage, AK 99507  
(907)522-1707

Report Number: **1132110**

Client Project: **SMIC Improvements 1770.01**

Dear Kevin Pendergast,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Steve at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,  
SGS North America Inc.

---

Steve Crupi  
Project Manager  
steven.crupi@sgs.com

Date

Print Date: 06/27/2013 5:39:04PM

SGS North America Inc.

200 West Potter Drive, Anchorage, AK 99518  
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Member of SGS Group



## Case Narrative

SGS Client: **R & M Consultants Inc**  
SGS Project: **1132110**  
Project Name/Site: **SMIC Improvements 1770.01**  
Project Contact: **Kevin Pendergast**

Refer to sample receipt form for information on sample condition.

### **SMIC-K (0) (1132110001) PS**

Krone - Tributyl tin was analyzed by ALS of Kelso, WA.

8270D - Surrogate (terphenyl-d14) recovery is outside of QC criteria (biased high). No analytes were detected above the LOQ in the sample.

AK103 - Unknown hydrocarbon with several peaks is present.

### **SMIC-K (1.5) (1132110002) PS**

Krone - Tributyl tin was analyzed by ALS of Kelso, WA.

8270D - Surrogate (terphenyl-d14) recovery is outside of QC criteria (biased high). No analytes were detected above the LOQ in the sample.

### **SMIC-K (10) (1132110003) PS**

8270D - Surrogate (terphenyl-d14) recovery is outside of QC criteria (biased high). No analytes were detected above the LOQ in the sample.

### **SMIC-K (40) (1132110004) PS**

8270D - Surrogate (terphenyl-d14) recovery is outside of QC criteria (biased high). No analytes were detected above the LOQ in the sample.

### **SMIC-L (0) (1132110005) PS**

Krone - Tributyl tin was analyzed by ALS of Kelso, WA.

AK103 - Unknown hydrocarbon with several peaks is present.

### **SMIC-L (1.5) (1132110006) PS**

Krone - Tributyl tin was analyzed by ALS of Kelso, WA.

8260B - Sample surrogate recovery for 1,2-dichloroethane-D4 does not meet QC criteria (biased high). All analytes associated with this surrogate were not detected above the LOQ.

### **SMIC-O (0) (1132110009) PS**

Krone - Tributyl tin was analyzed by ALS of Kelso, WA.

### **SMIC-O (0) D (1132110010) PS**

Krone - Tributyl tin was analyzed by ALS of Kelso, WA.

### **SMIC-O (1.5) (1132110011) PS**

Krone - Tributyl tin was analyzed by ALS of Kelso, WA.

AK103 - Unknown hydrocarbon with several peaks is present.

### **SMIC-M (0) (1132110014) PS**

Krone - Tributyl tin was analyzed by ALS of Kelso, WA.

AK102/103 - Unknown hydrocarbon with several peaks is present.

### **SMIC-M (1.5) (1132110015) PS**

Krone - Tributyl tin was analyzed by ALS of Kelso, WA.

AK102/103 - Unknown hydrocarbon with several peaks is present.

### **SMIC-M (1.5) D (1132110018) PS**

### Case Narrative

SGS Client: **R & M Consultants Inc**  
SGS Project: **1132110**  
Project Name/Site: **SMIC Improvements 1770.01**  
Project Contact: **Kevin Pendergast**

Refer to sample receipt form for information on sample condition.

Krone - Tributyl tin was analyzed by ALS of Kelso, WA.

8260B - Sample surrogate recovery for 1,2-dichloroethane-D4 does not meet QC criteria (biased high). All analytes associated with this surrogate were not detected above the LOQ.

AK102/103 - Unknown hydrocarbon with several peaks is present.

**SMIC-N (0) (1132110019) PS**

Krone - Tributyl tin was analyzed by ALS of Kelso, WA.

AK102/103 - Unknown hydrocarbon with several peaks is present.

**SMIC-N (1.5) (1132110020) PS**

Krone - Tributyl tin was analyzed by ALS of Kelso, WA.

AK102/103 - Unknown hydrocarbon with several peaks is present.

**SMIC-N (30) (1132110022) PS**

8260B - Sample surrogate recovery for 1,2-dichloroethane-D4 does not meet QC criteria (biased high). All analytes associated with this surrogate were not detected above the LOQ.

**CCV for HBN 1453192 (VMS/13531 (1151211) CCV**

8260B - CCV recoveries for several analytes do not meet QC criteria (biased high). These analytes were not detected above the LOQ in the associated samples.

**CCV for HBN 1453194 (VMS/13532 (1151226) CCV**

8260B - CCV recovery for 2-butanone (MEK) does not meet QC criteria (biased high). This analyte was not detected above the LOQ in the associated samples.

**LCS for HBN 1453077 [XXX/29091 (1150864) LCS**

AK103 - LCS n-Triacontane (surrogate) recovery is outside QC criteria (biased high). Associated samples met criteria for this surrogate.

**MB for HBN 1453077 [XXX/29091] (1150863) MB**

AK103 - MB n-Triacontane (surrogate) recovery is outside QC criteria (biased high). Associated samples met criteria for this surrogate.

**1132110006MS (1150931) MS**

6020 - Metals - MS/MSD recoveries for chromium and barium were outside of acceptance criteria. Post digestion spike was successful.

**1131859001MS (1150937) MS**

6020 - Metals - MS/MSD recoveries for chromium were outside of acceptance criteria. Post digestion spike was successful.

**1132110006MSD (1150932) MSD**

6020 - Metals - MS/MSD recoveries for chromium and barium were outside of acceptance criteria. Post digestion spike was successful.

**1131859001MSD (1150938) MSD**

6020 - Metals - MS/MSD recoveries for chromium were outside of acceptance criteria. Post digestion spike was successful.

**1132110020(1151214MSD) (1151216) MSD**

### Case Narrative

SGS Client: **R & M Consultants Inc**  
SGS Project: **1132110**  
Project Name/Site: **SMIC Improvements 1770.01**  
Project Contact: **Kevin Pendergast**

Refer to sample receipt form for information on sample condition.

8260B - MS/MSD RPDs for several analytes does not meet QC criteria. These analytes were not detected above the LOQ in the original sample.

8260B - Sample surrogate recovery for 1,2-dichloroethane-D4 does not meet QC criteria (biased high). All analytes associated with this surrogate were not detected above the LOQ.

\*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

Print Date: 06/27/2013 5:39:04PM

### Report of Manual Integrations

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Analytical Batch</u>	<u>Analyte</u>	<u>Reason</u>
<b>SW8270D</b>				
1150982	LCS for HBN 1453106 [XXX/29094	XMS7354	1-Chloronaphthalene	SP
1150982	LCS for HBN 1453106 [XXX/29094	XMS7354	2-Chloronaphthalene	SP
1150984	1132110021MS	XMS7354	1-Chloronaphthalene	RP
1150985	1132110021MSD	XMS7354	1-Chloronaphthalene	SP
1150985	1132110021MSD	XMS7354	2-Chloronaphthalene	SP
1151198	LCS for HBN 1453190 [XXX/29103	XMS7361	2-Chloronaphthalene	BLC
1151201	1132110020MS	XMS7361	1-Chloronaphthalene	RSP
1151201	1132110020MS	XMS7361	2-Chloronaphthalene	RSP
1151202	1132110020MSD	XMS7361	1-Chloronaphthalene	PNF
1151202	1132110020MSD	XMS7361	2-Chloronaphthalene	BLC

#### Manual Integration Reason Code Descriptions

Code	Description
O	Original Chromatogram
M	Modified Chromatogram
SS	Skimmed surrogate
BLG	Closed baseline gap
RP	Reassign peak name
PIR	Pattern integration required
IT	Included tail
SP	Split peak
RSP	Removed split peak
FPS	Forced peak start/stop
BLC	Baseline correction
PNF	Peak not found by software

All DRO/RRO analysis are integrated per SOP.

## Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. If you have any questions regarding this report, or if we can be of any other assistance, please contact your SGS Project Manager at 907-562-2343. All work is provided under SGS general terms and conditions (<[http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)>), unless other written agreements have been accepted by both parties.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & UST-005 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020A, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035B, 6020, 7470A, 7471B, 8021B, 8082A, 8260B, 8270D, 8270D-SIM, 9040B, 9045C, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV	Continuing Calibration Verification
CL	Control Limit
D	The analyte concentration is the result of a dilution.
DF	Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
F	Indicates value that is greater than or equal to the DL
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
JL	The analyte was positively identified, but the quantitation is a low estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LOD	Limit of Detection (i.e., 2xDL)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
M	A matrix effect was present.
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
Q	QC parameter out of acceptance range.
R	Rejected
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

### Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SMIC-K (0)	1132110001	05/30/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-K (1.5)	1132110002	05/30/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-K (10)	1132110003	05/30/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-K (40)	1132110004	05/30/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-L (0)	1132110005	05/30/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-L (1.5)	1132110006	05/30/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-L (15)	1132110007	05/30/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-L (35)	1132110008	05/30/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-O (0)	1132110009	05/31/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-O (0) D	1132110010	05/31/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-O (1.5)	1132110011	05/31/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-O (10)	1132110012	05/31/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-O (25)	1132110013	05/31/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-M (0)	1132110014	05/31/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-M (1.5)	1132110015	05/31/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-M (5)	1132110016	05/31/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-M (20)	1132110017	05/31/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-M (1.5) D	1132110018	05/31/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-N (0)	1132110019	05/31/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-N (1.5)	1132110020	05/31/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-N (10)	1132110021	05/31/2013	06/03/2013	Soil/Solid (dry weight)
SMIC-N (30)	1132110022	05/31/2013	06/03/2013	Soil/Solid (dry weight)
Trip Blank	1132110023	05/30/2013	06/03/2013	Soil/Solid (dry weight)

Method

AK103

AK102

AK101

SM21 2540G

SW6020

SW8270D

SW8260B

Method Description

Diesel/Residual Range Organics

Diesel/Residual Range Organics

Gasoline Range Organics (S)

Percent Solids SM2540G

RCRA Metals by ICP-MS

SW846 8270 Semi-Volatiles by GC/MS (S)

VOC 8260 (S) Field Extracted

### Detectable Results Summary

Client Sample ID: **SMIC-K (0)**

Lab Sample ID: 1132110001

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	4.31	mg/Kg
Barium	35.3	mg/Kg
Chromium	35.3	mg/Kg
Lead	5.87	mg/Kg
Residual Range Organics	65.2	mg/Kg

**Semivolatile Organic Fuels**

Client Sample ID: **SMIC-K (1.5)**

Lab Sample ID: 1132110002

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	3.69	mg/Kg
Barium	29.5	mg/Kg
Chromium	31.3	mg/Kg
Lead	4.72	mg/Kg

Client Sample ID: **SMIC-K (10)**

Lab Sample ID: 1132110003

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	6.14	mg/Kg
Barium	50.1	mg/Kg
Chromium	37.2	mg/Kg
Lead	5.80	mg/Kg

Client Sample ID: **SMIC-K (40)**

Lab Sample ID: 1132110004

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	5.66	mg/Kg
Barium	46.2	mg/Kg
Chromium	32.5	mg/Kg
Lead	6.45	mg/Kg

Client Sample ID: **SMIC-L (0)**

Lab Sample ID: 1132110005

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	4.02	mg/Kg
Barium	37.4	mg/Kg
Chromium	31.9	mg/Kg
Lead	7.18	mg/Kg

**Semivolatile Organic Fuels**

Diesel Range Organics	45.1	mg/Kg
Residual Range Organics	267	mg/Kg

Client Sample ID: **SMIC-L (1.5)**

Lab Sample ID: 1132110006

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	4.73	mg/Kg
Barium	33.0	mg/Kg
Chromium	47.1	mg/Kg
Lead	4.78	mg/Kg

### Detectable Results Summary

Client Sample ID: **SMIC-L (15)**

Lab Sample ID: 1132110007

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	4.04	mg/Kg
Barium	40.7	mg/Kg
Chromium	34.8	mg/Kg
Lead	6.24	mg/Kg

Client Sample ID: **SMIC-L (35)**

Lab Sample ID: 1132110008

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	6.57	mg/Kg
Barium	46.2	mg/Kg
Chromium	35.3	mg/Kg
Lead	7.27	mg/Kg

Client Sample ID: **SMIC-O (0)**

Lab Sample ID: 1132110009

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	7.43	mg/Kg
Barium	28.7	mg/Kg
Chromium	41.3	mg/Kg
Lead	8.46	mg/Kg
Mercury	0.0745	mg/Kg
Toluene	68.0	ug/Kg

**Volatile GC/MS**

Client Sample ID: **SMIC-O (0) D**

Lab Sample ID: 1132110010

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	7.46	mg/Kg
Barium	30.3	mg/Kg
Chromium	44.1	mg/Kg
Lead	8.33	mg/Kg
Mercury	0.0861	mg/Kg
Toluene	64.7	ug/Kg

**Volatile GC/MS**

Client Sample ID: **SMIC-O (1.5)**

Lab Sample ID: 1132110011

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	6.77	mg/Kg
Barium	34.2	mg/Kg
Chromium	39.8	mg/Kg
Lead	9.30	mg/Kg
Mercury	0.0591	mg/Kg
Residual Range Organics	39.2	mg/Kg

**Semivolatile Organic Fuels**

Client Sample ID: **SMIC-O (10)**

Lab Sample ID: 1132110012

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	4.46	mg/Kg
Barium	36.3	mg/Kg
Chromium	33.4	mg/Kg
Lead	4.71	mg/Kg



### Detectable Results Summary

Client Sample ID: **SMIC-O (25)**

Lab Sample ID: 1132110013

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	4.64	mg/Kg
Barium	32.5	mg/Kg
Chromium	32.9	mg/Kg
Lead	5.30	mg/Kg

Client Sample ID: **SMIC-M (0)**

Lab Sample ID: 1132110014

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	4.19	mg/Kg
Barium	33.9	mg/Kg
Chromium	32.0	mg/Kg
Lead	5.05	mg/Kg
Diesel Range Organics	24.3	mg/Kg
Residual Range Organics	146	mg/Kg

**Semivolatile Organic Fuels**

Client Sample ID: **SMIC-M (1.5)**

Lab Sample ID: 1132110015

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	4.44	mg/Kg
Barium	37.0	mg/Kg
Chromium	32.7	mg/Kg
Lead	5.56	mg/Kg
Diesel Range Organics	32.6	mg/Kg
Residual Range Organics	184	mg/Kg

**Semivolatile Organic Fuels**

Client Sample ID: **SMIC-M (5)**

Lab Sample ID: 1132110016

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	4.06	mg/Kg
Barium	31.5	mg/Kg
Chromium	27.3	mg/Kg
Lead	5.55	mg/Kg

Client Sample ID: **SMIC-M (20)**

Lab Sample ID: 1132110017

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	4.66	mg/Kg
Barium	43.0	mg/Kg
Chromium	34.2	mg/Kg
Lead	5.59	mg/Kg

Client Sample ID: **SMIC-M (1.5) D**

Lab Sample ID: 1132110018

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	4.34	mg/Kg
Barium	44.3	mg/Kg
Chromium	34.2	mg/Kg
Lead	5.05	mg/Kg
Residual Range Organics	36.3	mg/Kg

**Semivolatile Organic Fuels**

### Detectable Results Summary

Client Sample ID: **SMIC-N (0)**

Lab Sample ID: 1132110019

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	14.3	mg/Kg
Barium	32.9	mg/Kg
Chromium	39.3	mg/Kg
Lead	7.88	mg/Kg
Mercury	0.0749	mg/Kg
Residual Range Organics	23.7	mg/Kg
Toluene	50.5	ug/Kg

**Semivolatile Organic Fuels**

**Volatile GC/MS**

Client Sample ID: **SMIC-N (1.5)**

Lab Sample ID: 1132110020

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	17.3	mg/Kg
Barium	30.0	mg/Kg
Chromium	36.6	mg/Kg
Lead	9.04	mg/Kg
Mercury	0.0561	mg/Kg
Residual Range Organics	44.7	mg/Kg

**Semivolatile Organic Fuels**

Client Sample ID: **SMIC-N (10)**

Lab Sample ID: 1132110021

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	6.34	mg/Kg
Barium	35.1	mg/Kg
Chromium	37.9	mg/Kg
Lead	4.39	mg/Kg

Client Sample ID: **SMIC-N (30)**

Lab Sample ID: 1132110022

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	8.08	mg/Kg
Barium	50.3	mg/Kg
Chromium	29.2	mg/Kg
Lead	7.48	mg/Kg



### Results of SMIC-K (0)

Client Sample ID: **SMIC-K (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110001  
Lab Project ID: 1132110

Collection Date: 05/30/13 10:29  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 96.3

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	4.31		0.933	0.289	mg/Kg	10	06/04/13 17:41
Barium	35.3		0.280	0.0877	mg/Kg	10	06/04/13 17:41
Cadmium	0.187	U	0.187	0.0579	mg/Kg	10	06/04/13 17:41
Chromium	35.3		0.373	0.112	mg/Kg	10	06/04/13 17:41
Lead	5.87		0.187	0.0579	mg/Kg	10	06/04/13 17:41
Mercury	0.0373	U	0.0373	0.0112	mg/Kg	10	06/04/13 17:41
Selenium	0.467	U	0.467	0.140	mg/Kg	10	06/04/13 17:41
Silver	0.0933	U	0.0933	0.0289	mg/Kg	10	06/04/13 17:41

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 17:41  
Container ID: 1132110001-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.113 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-K (0)**

Client Sample ID: **SMIC-K (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110001  
Lab Project ID: 1132110

Collection Date: 05/30/13 10:29  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 96.3

Results by **Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	20.0	U	20.0	6.20	mg/Kg	1	06/08/13 19:51
<b>Surrogates</b>							
5a Androstane	103		50-150		%	1	06/08/13 19:51

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 19:51  
Container ID: 1132110001-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 31.155 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	65.2		20.0	6.20	mg/Kg	1	06/08/13 19:51
<b>Surrogates</b>							
n-Triacontane-d62	128		50-150		%	1	06/08/13 19:51

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 19:51  
Container ID: 1132110001-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 31.155 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-K (0)

Client Sample ID: **SMIC-K (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110001  
 Lab Project ID: 1132110

Collection Date: 05/30/13 10:29  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.3

### Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
1,2-Dichlorobenzene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
1,3-Dichlorobenzene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
1,4-Dichlorobenzene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
1-Chloronaphthalene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
2,4,5-Trichlorophenol	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
2,4,6-Trichlorophenol	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
2,4-Dichlorophenol	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
2,4-Dimethylphenol	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
2,4-Dinitrophenol	3.09	U	3.09	0.967	mg/Kg	1	06/06/13 03:20
2,4-Dinitrotoluene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
2,6-Dichlorophenol	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
2,6-Dinitrotoluene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
2-Chloronaphthalene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
2-Chlorophenol	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
2-Methyl-4,6-dinitrophenol	2.06	U	2.06	0.638	mg/Kg	1	06/06/13 03:20
2-Methylnaphthalene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
2-Methylphenol (o-Cresol)	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
2-Nitroaniline	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
2-Nitrophenol	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
3&4-Methylphenol (p&m-Cresol)	1.03	U	1.03	0.319	mg/Kg	1	06/06/13 03:20
3,3-Dichlorobenzidine	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
3-Nitroaniline	0.514	U	0.514	0.154	mg/Kg	1	06/06/13 03:20
4-Bromophenyl-phenylether	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
4-Chloro-3-methylphenol	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
4-Chloroaniline	0.514	U	0.514	0.154	mg/Kg	1	06/06/13 03:20
4-Chlorophenyl-phenylether	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
4-Nitroaniline	3.09	U	3.09	0.967	mg/Kg	1	06/06/13 03:20
4-Nitrophenol	1.03	U	1.03	0.319	mg/Kg	1	06/06/13 03:20
Acenaphthene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Acenaphthylene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Aniline	2.06	U	2.06	0.638	mg/Kg	1	06/06/13 03:20
Anthracene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Azobenzene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Benzo(a)Anthracene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Benzo[a]pyrene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Benzo[b]Fluoranthene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Benzo[g,h,i]perylene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Benzo[k]fluoranthene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Benzoic acid	1.54	U	1.54	0.771	mg/Kg	1	06/06/13 03:20
Benzyl alcohol	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Bis(2-Chloroethoxy)methane	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Bis(2-Chloroethyl)ether	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
bis(2-Ethylhexyl)phthalate	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-K (0)

Client Sample ID: **SMIC-K (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110001  
 Lab Project ID: 1132110

Collection Date: 05/30/13 10:29  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.3

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Butylbenzylphthalate	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Carbazole	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Chrysene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Di-n-butylphthalate	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
di-n-Octylphthalate	0.514	U	0.514	0.154	mg/Kg	1	06/06/13 03:20
Dibenzo[a,h]anthracene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Dibenzofuran	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Diethylphthalate	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Dimethylphthalate	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Fluoranthene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Fluorene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Hexachlorobenzene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Hexachlorobutadiene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Hexachlorocyclopentadiene	0.720	U	0.720	0.206	mg/Kg	1	06/06/13 03:20
Hexachloroethane	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Indeno[1,2,3-c,d] pyrene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Isophorone	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
N-Nitroso-di-n-propylamine	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
N-Nitrosodimethylamine	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
N-Nitrosodiphenylamine	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Naphthalene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Nitrobenzene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Pentachlorophenol	2.06	U	2.06	0.638	mg/Kg	1	06/06/13 03:20
Phenanthrene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Phenol	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20
Pyrene	0.257	U	0.257	0.0802	mg/Kg	1	06/06/13 03:20

### Surrogates

2,4,6-Tribromophenol	94.7		35-125		%	1	06/06/13 03:20
2-Fluorobiphenyl	90.2		45-105		%	1	06/06/13 03:20
2-Fluorophenol	70.9		35-105		%	1	06/06/13 03:20
Nitrobenzene-d5	78.6		35-100		%	1	06/06/13 03:20
Phenol-d6	79.4		40-100		%	1	06/06/13 03:20
Terphenyl-d14	139	*	30-125		%	1	06/06/13 03:20

## Batch Information

Analytical Batch: XMS7354  
 Analytical Method: SW8270D  
 Analyst: RTS  
 Analytical Date/Time: 06/06/13 03:20  
 Container ID: 1132110001-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.726 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-K (0)

Client Sample ID: **SMIC-K (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110001  
Lab Project ID: 1132110

Collection Date: 05/30/13 10:29  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 96.3

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.76	U	2.76	0.829	mg/Kg	1	06/05/13 18:17
<b>Surrogates</b>							
4-Bromofluorobenzene	97.2		50-150		%	1	06/05/13 18:17

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 18:17  
Container ID: 1132110001-C

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/30/13 10:29  
Prep Initial Wt./Vol.: 50.514 g  
Prep Extract Vol: 26.8826 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-K (0)

Client Sample ID: **SMIC-K (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110001  
 Lab Project ID: 1132110

Collection Date: 05/30/13 10:29  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.3

## Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,1,1-Trichloroethane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,1,2,2-Tetrachloroethane	55.3	U	55.3	16.6	ug/Kg	1	06/03/13 15:04
1,1,2-Trichloroethane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,1-Dichloroethane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,1-Dichloroethene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,1-Dichloropropene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,2,3-Trichlorobenzene	55.3	U	55.3	16.6	ug/Kg	1	06/03/13 15:04
1,2,3-Trichloropropane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,2,4-Trichlorobenzene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,2,4-Trimethylbenzene	55.3	U	55.3	16.6	ug/Kg	1	06/03/13 15:04
1,2-Dibromo-3-chloropropane	111	U	111	34.3	ug/Kg	1	06/03/13 15:04
1,2-Dibromoethane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,2-Dichlorobenzene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,2-Dichloroethane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,2-Dichloropropane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,3,5-Trimethylbenzene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,3-Dichlorobenzene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,3-Dichloropropane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
1,4-Dichlorobenzene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
2,2-Dichloropropane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
2-Butanone (MEK)	276	U	276	86.2	ug/Kg	1	06/03/13 15:04
2-Chlorotoluene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
2-Hexanone	276	U	276	86.2	ug/Kg	1	06/03/13 15:04
4-Chlorotoluene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
4-Isopropyltoluene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
4-Methyl-2-pentanone (MIBK)	276	U	276	86.2	ug/Kg	1	06/03/13 15:04
Benzene	13.8	U	13.8	4.31	ug/Kg	1	06/03/13 15:04
Bromobenzene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Bromochloromethane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Bromodichloromethane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Bromoform	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Bromomethane	221	U	221	68.5	ug/Kg	1	06/03/13 15:04
Carbon disulfide	111	U	111	34.3	ug/Kg	1	06/03/13 15:04
Carbon tetrachloride	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Chlorobenzene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Chloroethane	221	U	221	68.5	ug/Kg	1	06/03/13 15:04
Chloroform	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Chloromethane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
cis-1,2-Dichloroethene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
cis-1,3-Dichloropropene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Dibromochloromethane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Dibromomethane	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Dichlorodifluoromethane	55.3	U	55.3	16.6	ug/Kg	1	06/03/13 15:04

Print Date: 06/27/2013 5:39:07PM





### Results of SMIC-K (0)

Client Sample ID: **SMIC-K (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110001  
 Lab Project ID: 1132110

Collection Date: 05/30/13 10:29  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.3

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Hexachlorobutadiene	55.3	U	55.3	16.6	ug/Kg	1	06/03/13 15:04
Isopropylbenzene (Cumene)	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Methyl-t-butyl ether	111	U	111	34.3	ug/Kg	1	06/03/13 15:04
Methylene chloride	111	U	111	34.3	ug/Kg	1	06/03/13 15:04
n-Butylbenzene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
n-Propylbenzene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Naphthalene	55.3	U	55.3	16.6	ug/Kg	1	06/03/13 15:04
o-Xylene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
P & M -Xylene	55.3	U	55.3	16.6	ug/Kg	1	06/03/13 15:04
sec-Butylbenzene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Styrene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
tert-Butylbenzene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Tetrachloroethene	13.8	U	13.8	4.31	ug/Kg	1	06/03/13 15:04
Toluene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
trans-1,2-Dichloroethene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
trans-1,3-Dichloropropene	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Trichloroethene	13.8	U	13.8	4.31	ug/Kg	1	06/03/13 15:04
Trichlorofluoromethane	55.3	U	55.3	16.6	ug/Kg	1	06/03/13 15:04
Vinyl chloride	27.6	U	27.6	8.62	ug/Kg	1	06/03/13 15:04
Xylenes (total)	111	U	111	34.3	ug/Kg	1	06/03/13 15:04
<b>Surrogates</b>							
1,2-Dichloroethane-D4	111		79-118		%	1	06/03/13 15:04
4-Bromofluorobenzene	97.3		67-138		%	1	06/03/13 15:04
Toluene-d8	103		85-115		%	1	06/03/13 15:04

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 15:04  
 Container ID: 1132110001-C

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/30/13 10:29  
 Prep Initial Wt./Vol.: 50.514 g  
 Prep Extract Vol: 26.8826 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-K (1.5)

Client Sample ID: **SMIC-K (1.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110002  
Lab Project ID: 1132110

Collection Date: 05/30/13 10:37  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.5

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	3.69		0.944	0.293	mg/Kg	10	06/04/13 17:43
Barium	29.5		0.283	0.0888	mg/Kg	10	06/04/13 17:43
Cadmium	0.189	U	0.189	0.0585	mg/Kg	10	06/04/13 17:43
Chromium	31.3		0.378	0.113	mg/Kg	10	06/04/13 17:43
Lead	4.72		0.189	0.0585	mg/Kg	10	06/04/13 17:43
Mercury	0.0378	U	0.0378	0.0113	mg/Kg	10	06/04/13 17:43
Selenium	0.472	U	0.472	0.142	mg/Kg	10	06/04/13 17:43
Silver	0.0944	U	0.0944	0.0293	mg/Kg	10	06/04/13 17:43

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 17:43  
Container ID: 1132110002-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.086 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-K (1.5)**

Client Sample ID: **SMIC-K (1.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110002  
Lab Project ID: 1132110

Collection Date: 05/30/13 10:37  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.5

Results by **Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	19.9	U	19.9	6.18	mg/Kg	1	06/08/13 20:01
<b>Surrogates</b>							
5a Androstane	106		50-150		%	1	06/08/13 20:01

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:01  
Container ID: 1132110002-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.883 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	19.9	U	19.9	6.18	mg/Kg	1	06/08/13 20:01
<b>Surrogates</b>							
n-Triacontane-d62	130		50-150		%	1	06/08/13 20:01

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:01  
Container ID: 1132110002-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.883 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-K (1.5)

Client Sample ID: **SMIC-K (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110002  
 Lab Project ID: 1132110

Collection Date: 05/30/13 10:37  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.5

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
1,2-Dichlorobenzene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
1,3-Dichlorobenzene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
1,4-Dichlorobenzene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
1-Chloronaphthalene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
2,4,5-Trichlorophenol	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
2,4,6-Trichlorophenol	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
2,4-Dichlorophenol	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
2,4-Dimethylphenol	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
2,4-Dinitrophenol	3.04	U	3.04	0.954	mg/Kg	1	06/06/13 03:37
2,4-Dinitrotoluene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
2,6-Dichlorophenol	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
2,6-Dinitrotoluene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
2-Chloronaphthalene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
2-Chlorophenol	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
2-Methyl-4,6-dinitrophenol	2.03	U	2.03	0.629	mg/Kg	1	06/06/13 03:37
2-Methylnaphthalene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
2-Methylphenol (o-Cresol)	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
2-Nitroaniline	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
2-Nitrophenol	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
3&4-Methylphenol (p&m-Cresol)	1.01	U	1.01	0.314	mg/Kg	1	06/06/13 03:37
3,3-Dichlorobenzidine	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
3-Nitroaniline	0.507	U	0.507	0.152	mg/Kg	1	06/06/13 03:37
4-Bromophenyl-phenylether	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
4-Chloro-3-methylphenol	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
4-Chloroaniline	0.507	U	0.507	0.152	mg/Kg	1	06/06/13 03:37
4-Chlorophenyl-phenylether	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
4-Nitroaniline	3.04	U	3.04	0.954	mg/Kg	1	06/06/13 03:37
4-Nitrophenol	1.01	U	1.01	0.314	mg/Kg	1	06/06/13 03:37
Acenaphthene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Acenaphthylene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Aniline	2.03	U	2.03	0.629	mg/Kg	1	06/06/13 03:37
Anthracene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Azobenzene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Benzo(a)Anthracene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Benzo[a]pyrene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Benzo[b]Fluoranthene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Benzo[g,h,i]perylene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Benzo[k]fluoranthene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Benzoic acid	1.52	U	1.52	0.761	mg/Kg	1	06/06/13 03:37
Benzyl alcohol	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Bis(2-Chloroethoxy)methane	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Bis(2-Chloroethyl)ether	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
bis(2-Ethylhexyl)phthalate	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-K (1.5)

Client Sample ID: **SMIC-K (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110002  
 Lab Project ID: 1132110

Collection Date: 05/30/13 10:37  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.5

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Butylbenzylphthalate	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Carbazole	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Chrysene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Di-n-butylphthalate	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
di-n-Octylphthalate	0.507	U	0.507	0.152	mg/Kg	1	06/06/13 03:37
Dibenzo[a,h]anthracene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Dibenzofuran	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Diethylphthalate	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Dimethylphthalate	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Fluoranthene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Fluorene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Hexachlorobenzene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Hexachlorobutadiene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Hexachlorocyclopentadiene	0.710	U	0.710	0.203	mg/Kg	1	06/06/13 03:37
Hexachloroethane	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Indeno[1,2,3-c,d] pyrene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Isophorone	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
N-Nitroso-di-n-propylamine	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
N-Nitrosodimethylamine	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
N-Nitrosodiphenylamine	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Naphthalene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Nitrobenzene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Pentachlorophenol	2.03	U	2.03	0.629	mg/Kg	1	06/06/13 03:37
Phenanthrene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Phenol	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
Pyrene	0.254	U	0.254	0.0791	mg/Kg	1	06/06/13 03:37
<b>Surrogates</b>							
2,4,6-Tribromophenol	86.7		35-125		%	1	06/06/13 03:37
2-Fluorobiphenyl	85.1		45-105		%	1	06/06/13 03:37
2-Fluorophenol	70.7		35-105		%	1	06/06/13 03:37
Nitrobenzene-d5	78.1		35-100		%	1	06/06/13 03:37
Phenol-d6	79.8		40-100		%	1	06/06/13 03:37
Terphenyl-d14	128	*	30-125		%	1	06/06/13 03:37

## Batch Information

Analytical Batch: XMS7354  
 Analytical Method: SW8270D  
 Analyst: RTS  
 Analytical Date/Time: 06/06/13 03:37  
 Container ID: 1132110002-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.745 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-K (1.5)

Client Sample ID: **SMIC-K (1.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110002  
Lab Project ID: 1132110

Collection Date: 05/30/13 10:37  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.5

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.76	U	2.76	0.827	mg/Kg	1	06/05/13 18:36
<b>Surrogates</b>							
4-Bromofluorobenzene	97.4		50-150		%	1	06/05/13 18:36

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 18:36  
Container ID: 1132110002-C

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/30/13 10:37  
Prep Initial Wt./Vol.: 48.735 g  
Prep Extract Vol: 26.2146 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-K (1.5)

Client Sample ID: **SMIC-K (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110002  
 Lab Project ID: 1132110

Collection Date: 05/30/13 10:37  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.5

## Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,1,1-Trichloroethane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,1,2,2-Tetrachloroethane	55.2	U	55.2	16.5	ug/Kg	1	06/03/13 15:21
1,1,2-Trichloroethane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,1-Dichloroethane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,1-Dichloroethene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,1-Dichloropropene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,2,3-Trichlorobenzene	55.2	U	55.2	16.5	ug/Kg	1	06/03/13 15:21
1,2,3-Trichloropropane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,2,4-Trichlorobenzene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,2,4-Trimethylbenzene	55.2	U	55.2	16.5	ug/Kg	1	06/03/13 15:21
1,2-Dibromo-3-chloropropane	110	U	110	34.2	ug/Kg	1	06/03/13 15:21
1,2-Dibromoethane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,2-Dichlorobenzene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,2-Dichloroethane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,2-Dichloropropane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,3,5-Trimethylbenzene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,3-Dichlorobenzene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,3-Dichloropropane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
1,4-Dichlorobenzene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
2,2-Dichloropropane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
2-Butanone (MEK)	276	U	276	86.1	ug/Kg	1	06/03/13 15:21
2-Chlorotoluene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
2-Hexanone	276	U	276	86.1	ug/Kg	1	06/03/13 15:21
4-Chlorotoluene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
4-Isopropyltoluene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
4-Methyl-2-pentanone (MIBK)	276	U	276	86.1	ug/Kg	1	06/03/13 15:21
Benzene	13.8	U	13.8	4.30	ug/Kg	1	06/03/13 15:21
Bromobenzene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Bromochloromethane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Bromodichloromethane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Bromoform	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Bromomethane	221	U	221	68.4	ug/Kg	1	06/03/13 15:21
Carbon disulfide	110	U	110	34.2	ug/Kg	1	06/03/13 15:21
Carbon tetrachloride	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Chlorobenzene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Chloroethane	221	U	221	68.4	ug/Kg	1	06/03/13 15:21
Chloroform	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Chloromethane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
cis-1,2-Dichloroethene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
cis-1,3-Dichloropropene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Dibromochloromethane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Dibromomethane	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Dichlorodifluoromethane	55.2	U	55.2	16.5	ug/Kg	1	06/03/13 15:21

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-K (1.5)

Client Sample ID: **SMIC-K (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110002  
 Lab Project ID: 1132110

Collection Date: 05/30/13 10:37  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.5

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Hexachlorobutadiene	55.2	U	55.2	16.5	ug/Kg	1	06/03/13 15:21
Isopropylbenzene (Cumene)	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Methyl-t-butyl ether	110	U	110	34.2	ug/Kg	1	06/03/13 15:21
Methylene chloride	110	U	110	34.2	ug/Kg	1	06/03/13 15:21
n-Butylbenzene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
n-Propylbenzene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Naphthalene	55.2	U	55.2	16.5	ug/Kg	1	06/03/13 15:21
o-Xylene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
P & M -Xylene	55.2	U	55.2	16.5	ug/Kg	1	06/03/13 15:21
sec-Butylbenzene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Styrene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
tert-Butylbenzene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Tetrachloroethene	13.8	U	13.8	4.30	ug/Kg	1	06/03/13 15:21
Toluene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
trans-1,2-Dichloroethene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
trans-1,3-Dichloropropene	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Trichloroethene	13.8	U	13.8	4.30	ug/Kg	1	06/03/13 15:21
Trichlorofluoromethane	55.2	U	55.2	16.5	ug/Kg	1	06/03/13 15:21
Vinyl chloride	27.6	U	27.6	8.61	ug/Kg	1	06/03/13 15:21
Xylenes (total)	110	U	110	34.2	ug/Kg	1	06/03/13 15:21
<b>Surrogates</b>							
1,2-Dichloroethane-D4	113		79-118		%	1	06/03/13 15:21
4-Bromofluorobenzene	97.5		67-138		%	1	06/03/13 15:21
Toluene-d8	104		85-115		%	1	06/03/13 15:21

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 15:21  
 Container ID: 1132110002-C

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/30/13 10:37  
 Prep Initial Wt./Vol.: 48.735 g  
 Prep Extract Vol: 26.2146 mL

Print Date: 06/27/2013 5:39:07PM





### Results of SMIC-K (10)

Client Sample ID: **SMIC-K (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110003  
Lab Project ID: 1132110

Collection Date: 05/30/13 10:58  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 91.8

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	6.14		1.08	0.334	mg/Kg	10	06/04/13 17:50
Barium	50.1		0.323	0.101	mg/Kg	10	06/04/13 17:50
Cadmium	0.215	U	0.215	0.0667	mg/Kg	10	06/04/13 17:50
Chromium	37.2		0.431	0.129	mg/Kg	10	06/04/13 17:50
Lead	5.80		0.215	0.0667	mg/Kg	10	06/04/13 17:50
Mercury	0.0431	U	0.0431	0.0129	mg/Kg	10	06/04/13 17:50
Selenium	0.538	U	0.538	0.161	mg/Kg	10	06/04/13 17:50
Silver	0.108	U	0.108	0.0334	mg/Kg	10	06/04/13 17:50

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 17:50  
Container ID: 1132110003-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.012 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-K (10)**

Client Sample ID: **SMIC-K (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110003  
Lab Project ID: 1132110

Collection Date: 05/30/13 10:58  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 91.8

Results by **Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	21.4	U	21.4	6.64	mg/Kg	1	06/08/13 20:10
<b>Surrogates</b>							
5a Androstane	94.2		50-150		%	1	06/08/13 20:10

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:10  
Container ID: 1132110003-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.51 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	21.4	U	21.4	6.64	mg/Kg	1	06/08/13 20:10
<b>Surrogates</b>							
n-Triacontane-d62	113		50-150		%	1	06/08/13 20:10

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:10  
Container ID: 1132110003-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.51 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-K (10)**

Client Sample ID: **SMIC-K (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110003  
Lab Project ID: 1132110

Collection Date: 05/30/13 10:58  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 91.8

Results by **Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
1,2-Dichlorobenzene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
1,3-Dichlorobenzene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
1,4-Dichlorobenzene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
1-Chloronaphthalene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
2,4,5-Trichlorophenol	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
2,4,6-Trichlorophenol	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
2,4-Dichlorophenol	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
2,4-Dimethylphenol	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
2,4-Dinitrophenol	3.26	U	3.26	1.02	mg/Kg	1	06/06/13 03:54
2,4-Dinitrotoluene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
2,6-Dichlorophenol	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
2,6-Dinitrotoluene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
2-Chloronaphthalene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
2-Chlorophenol	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
2-Methyl-4,6-dinitrophenol	2.17	U	2.17	0.674	mg/Kg	1	06/06/13 03:54
2-Methylnaphthalene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
2-Methylphenol (o-Cresol)	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
2-Nitroaniline	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
2-Nitrophenol	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
3&4-Methylphenol (p&m-Cresol)	1.09	U	1.09	0.337	mg/Kg	1	06/06/13 03:54
3,3-Dichlorobenzidine	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
3-Nitroaniline	0.543	U	0.543	0.163	mg/Kg	1	06/06/13 03:54
4-Bromophenyl-phenylether	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
4-Chloro-3-methylphenol	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
4-Chloroaniline	0.543	U	0.543	0.163	mg/Kg	1	06/06/13 03:54
4-Chlorophenyl-phenylether	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
4-Nitroaniline	3.26	U	3.26	1.02	mg/Kg	1	06/06/13 03:54
4-Nitrophenol	1.09	U	1.09	0.337	mg/Kg	1	06/06/13 03:54
Acenaphthene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Acenaphthylene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Aniline	2.17	U	2.17	0.674	mg/Kg	1	06/06/13 03:54
Anthracene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Azobenzene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Benzo(a)Anthracene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Benzo[a]pyrene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Benzo[b]Fluoranthene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Benzo[g,h,i]perylene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Benzo[k]fluoranthene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Benzoic acid	1.63	U	1.63	0.815	mg/Kg	1	06/06/13 03:54
Benzyl alcohol	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Bis(2-Chloroethoxy)methane	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Bis(2-Chloroethyl)ether	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
bis(2-Ethylhexyl)phthalate	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54

Print Date: 06/27/2013 5:39:07PM

**Results of SMIC-K (10)**

Client Sample ID: **SMIC-K (10)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110003  
 Lab Project ID: 1132110

Collection Date: 05/30/13 10:58  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 91.8

**Results by Semivolatile Organic GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Butylbenzylphthalate	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Carbazole	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Chrysene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Di-n-butylphthalate	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
di-n-Octylphthalate	0.543	U	0.543	0.163	mg/Kg	1	06/06/13 03:54
Dibenzo[a,h]anthracene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Dibenzofuran	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Diethylphthalate	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Dimethylphthalate	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Fluoranthene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Fluorene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Hexachlorobenzene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Hexachlorobutadiene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Hexachlorocyclopentadiene	0.761	U	0.761	0.217	mg/Kg	1	06/06/13 03:54
Hexachloroethane	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Indeno[1,2,3-c,d] pyrene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Isophorone	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
N-Nitroso-di-n-propylamine	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
N-Nitrosodimethylamine	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
N-Nitrosodiphenylamine	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Naphthalene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Nitrobenzene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Pentachlorophenol	2.17	U	2.17	0.674	mg/Kg	1	06/06/13 03:54
Phenanthrene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Phenol	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
Pyrene	0.272	U	0.272	0.0848	mg/Kg	1	06/06/13 03:54
<b>Surrogates</b>							
2,4,6-Tribromophenol	77.6		35-125		%	1	06/06/13 03:54
2-Fluorobiphenyl	73.8		45-105		%	1	06/06/13 03:54
2-Fluorophenol	53.7		35-105		%	1	06/06/13 03:54
Nitrobenzene-d5	59.8		35-100		%	1	06/06/13 03:54
Phenol-d6	62.2		40-100		%	1	06/06/13 03:54
Terphenyl-d14	126	*	30-125		%	1	06/06/13 03:54

**Batch Information**

Analytical Batch: XMS7354  
 Analytical Method: SW8270D  
 Analyst: RTS  
 Analytical Date/Time: 06/06/13 03:54  
 Container ID: 1132110003-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.552 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-K (10)

Client Sample ID: **SMIC-K (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110003  
Lab Project ID: 1132110

Collection Date: 05/30/13 10:58  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 91.8

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.86	U	2.86	0.859	mg/Kg	1	06/05/13 18:54
<b>Surrogates</b>							
4-Bromofluorobenzene	103		50-150		%	1	06/05/13 18:54

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 18:54  
Container ID: 1132110003-B

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/30/13 10:58  
Prep Initial Wt./Vol.: 56.362 g  
Prep Extract Vol: 29.6194 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-K (10)

Client Sample ID: **SMIC-K (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110003  
Lab Project ID: 1132110

Collection Date: 05/30/13 10:58  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 91.8

### Results by Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,1,1-Trichloroethane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,1,2,2-Tetrachloroethane	57.2	U	57.2	17.2	ug/Kg	1	06/03/13 15:37
1,1,2-Trichloroethane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,1-Dichloroethane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,1-Dichloroethene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,1-Dichloropropene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,2,3-Trichlorobenzene	57.2	U	57.2	17.2	ug/Kg	1	06/03/13 15:37
1,2,3-Trichloropropane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,2,4-Trichlorobenzene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,2,4-Trimethylbenzene	57.2	U	57.2	17.2	ug/Kg	1	06/03/13 15:37
1,2-Dibromo-3-chloropropane	114	U	114	35.5	ug/Kg	1	06/03/13 15:37
1,2-Dibromoethane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,2-Dichlorobenzene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,2-Dichloroethane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,2-Dichloropropane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,3,5-Trimethylbenzene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,3-Dichlorobenzene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,3-Dichloropropane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
1,4-Dichlorobenzene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
2,2-Dichloropropane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
2-Butanone (MEK)	286	U	286	89.3	ug/Kg	1	06/03/13 15:37
2-Chlorotoluene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
2-Hexanone	286	U	286	89.3	ug/Kg	1	06/03/13 15:37
4-Chlorotoluene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
4-Isopropyltoluene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
4-Methyl-2-pentanone (MIBK)	286	U	286	89.3	ug/Kg	1	06/03/13 15:37
Benzene	14.3	U	14.3	4.47	ug/Kg	1	06/03/13 15:37
Bromobenzene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Bromochloromethane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Bromodichloromethane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Bromoform	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Bromomethane	229	U	229	71.0	ug/Kg	1	06/03/13 15:37
Carbon disulfide	114	U	114	35.5	ug/Kg	1	06/03/13 15:37
Carbon tetrachloride	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Chlorobenzene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Chloroethane	229	U	229	71.0	ug/Kg	1	06/03/13 15:37
Chloroform	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Chloromethane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
cis-1,2-Dichloroethene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
cis-1,3-Dichloropropene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Dibromochloromethane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Dibromomethane	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Dichlorodifluoromethane	57.2	U	57.2	17.2	ug/Kg	1	06/03/13 15:37

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-K (10)

Client Sample ID: **SMIC-K (10)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110003  
 Lab Project ID: 1132110

Collection Date: 05/30/13 10:58  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 91.8

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Hexachlorobutadiene	57.2	U	57.2	17.2	ug/Kg	1	06/03/13 15:37
Isopropylbenzene (Cumene)	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Methyl-t-butyl ether	114	U	114	35.5	ug/Kg	1	06/03/13 15:37
Methylene chloride	114	U	114	35.5	ug/Kg	1	06/03/13 15:37
n-Butylbenzene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
n-Propylbenzene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Naphthalene	57.2	U	57.2	17.2	ug/Kg	1	06/03/13 15:37
o-Xylene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
P & M -Xylene	57.2	U	57.2	17.2	ug/Kg	1	06/03/13 15:37
sec-Butylbenzene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Styrene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
tert-Butylbenzene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Tetrachloroethene	14.3	U	14.3	4.47	ug/Kg	1	06/03/13 15:37
Toluene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
trans-1,2-Dichloroethene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
trans-1,3-Dichloropropene	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Trichloroethene	14.3	U	14.3	4.47	ug/Kg	1	06/03/13 15:37
Trichlorofluoromethane	57.2	U	57.2	17.2	ug/Kg	1	06/03/13 15:37
Vinyl chloride	28.6	U	28.6	8.93	ug/Kg	1	06/03/13 15:37
Xylenes (total)	114	U	114	35.5	ug/Kg	1	06/03/13 15:37
<b>Surrogates</b>							
1,2-Dichloroethane-D4	109		79-118		%	1	06/03/13 15:37
4-Bromofluorobenzene	101		67-138		%	1	06/03/13 15:37
Toluene-d8	101		85-115		%	1	06/03/13 15:37

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 15:37  
 Container ID: 1132110003-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/30/13 10:58  
 Prep Initial Wt./Vol.: 56.362 g  
 Prep Extract Vol: 29.6194 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-K (40)

Client Sample ID: **SMIC-K (40)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110004  
Lab Project ID: 1132110

Collection Date: 05/30/13 12:28  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 87.5

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	5.66		1.08	0.334	mg/Kg	10	06/04/13 17:52
Barium	46.2		0.324	0.101	mg/Kg	10	06/04/13 17:52
Cadmium	0.216	U	0.216	0.0669	mg/Kg	10	06/04/13 17:52
Chromium	32.5		0.431	0.129	mg/Kg	10	06/04/13 17:52
Lead	6.45		0.216	0.0669	mg/Kg	10	06/04/13 17:52
Mercury	0.0431	U	0.0431	0.0129	mg/Kg	10	06/04/13 17:52
Selenium	0.539	U	0.539	0.162	mg/Kg	10	06/04/13 17:52
Silver	0.108	U	0.108	0.0334	mg/Kg	10	06/04/13 17:52

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 17:52  
Container ID: 1132110004-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.06 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM





Results of **SMIC-K (40)**

Client Sample ID: **SMIC-K (40)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110004  
Lab Project ID: 1132110

Collection Date: 05/30/13 12:28  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 87.5

Results by **Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	22.3	U	22.3	6.92	mg/Kg	1	06/08/13 20:19
<b>Surrogates</b>							
5a Androstane	106		50-150		%	1	06/08/13 20:19

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:19  
Container ID: 1132110004-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.722 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	22.3	U	22.3	6.92	mg/Kg	1	06/08/13 20:19
<b>Surrogates</b>							
n-Triacontane-d62	126		50-150		%	1	06/08/13 20:19

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:19  
Container ID: 1132110004-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.722 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-K (40)

Client Sample ID: **SMIC-K (40)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110004  
 Lab Project ID: 1132110

Collection Date: 05/30/13 12:28  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 87.5

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
1,2-Dichlorobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
1,3-Dichlorobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
1,4-Dichlorobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
1-Chloronaphthalene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
2,4,5-Trichlorophenol	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
2,4,6-Trichlorophenol	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
2,4-Dichlorophenol	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
2,4-Dimethylphenol	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
2,4-Dinitrophenol	3.39	U	3.39	1.06	mg/Kg	1	06/06/13 04:10
2,4-Dinitrotoluene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
2,6-Dichlorophenol	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
2,6-Dinitrotoluene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
2-Chloronaphthalene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
2-Chlorophenol	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
2-Methyl-4,6-dinitrophenol	2.26	U	2.26	0.701	mg/Kg	1	06/06/13 04:10
2-Methylnaphthalene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
2-Methylphenol (o-Cresol)	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
2-Nitroaniline	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
2-Nitrophenol	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
3&4-Methylphenol (p&m-Cresol)	1.13	U	1.13	0.350	mg/Kg	1	06/06/13 04:10
3,3-Dichlorobenzidine	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
3-Nitroaniline	0.565	U	0.565	0.170	mg/Kg	1	06/06/13 04:10
4-Bromophenyl-phenylether	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
4-Chloro-3-methylphenol	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
4-Chloroaniline	0.565	U	0.565	0.170	mg/Kg	1	06/06/13 04:10
4-Chlorophenyl-phenylether	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
4-Nitroaniline	3.39	U	3.39	1.06	mg/Kg	1	06/06/13 04:10
4-Nitrophenol	1.13	U	1.13	0.350	mg/Kg	1	06/06/13 04:10
Acenaphthene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Acenaphthylene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Aniline	2.26	U	2.26	0.701	mg/Kg	1	06/06/13 04:10
Anthracene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Azobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Benzo(a)Anthracene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Benzo[a]pyrene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Benzo[b]Fluoranthene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Benzo[g,h,i]perylene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Benzo[k]fluoranthene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Benzoic acid	1.70	U	1.70	0.848	mg/Kg	1	06/06/13 04:10
Benzyl alcohol	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Bis(2-Chloroethoxy)methane	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Bis(2-Chloroethyl)ether	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
bis(2-Ethylhexyl)phthalate	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-K (40)

Client Sample ID: **SMIC-K (40)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110004  
 Lab Project ID: 1132110

Collection Date: 05/30/13 12:28  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 87.5

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Butylbenzylphthalate	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Carbazole	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Chrysene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Di-n-butylphthalate	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
di-n-Octylphthalate	0.565	U	0.565	0.170	mg/Kg	1	06/06/13 04:10
Dibenzo[a,h]anthracene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Dibenzofuran	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Diethylphthalate	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Dimethylphthalate	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Fluoranthene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Fluorene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Hexachlorobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Hexachlorobutadiene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Hexachlorocyclopentadiene	0.791	U	0.791	0.226	mg/Kg	1	06/06/13 04:10
Hexachloroethane	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Indeno[1,2,3-c,d] pyrene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Isophorone	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
N-Nitroso-di-n-propylamine	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
N-Nitrosodimethylamine	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
N-Nitrosodiphenylamine	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Naphthalene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Nitrobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Pentachlorophenol	2.26	U	2.26	0.701	mg/Kg	1	06/06/13 04:10
Phenanthrene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Phenol	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10
Pyrene	0.283	U	0.283	0.0882	mg/Kg	1	06/06/13 04:10

### Surrogates

2,4,6-Tribromophenol	77.1		35-125		%	1	06/06/13 04:10
2-Fluorobiphenyl	72.9		45-105		%	1	06/06/13 04:10
2-Fluorophenol	57.3		35-105		%	1	06/06/13 04:10
Nitrobenzene-d5	62		35-100		%	1	06/06/13 04:10
Phenol-d6	65.9		40-100		%	1	06/06/13 04:10
Terphenyl-d14	128	*	30-125		%	1	06/06/13 04:10

### Batch Information

Analytical Batch: XMS7354  
 Analytical Method: SW8270D  
 Analyst: RTS  
 Analytical Date/Time: 06/06/13 04:10  
 Container ID: 1132110004-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.752 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-K (40)

Client Sample ID: **SMIC-K (40)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110004  
Lab Project ID: 1132110

Collection Date: 05/30/13 12:28  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 87.5

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	3.17	U	3.17	0.951	mg/Kg	1	06/05/13 19:13
<b>Surrogates</b>							
4-Bromofluorobenzene	103		50-150		%	1	06/05/13 19:13

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 19:13  
Container ID: 1132110004-B

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/30/13 12:28  
Prep Initial Wt./Vol.: 58.255 g  
Prep Extract Vol: 32.2962 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-K (40)**

Client Sample ID: **SMIC-K (40)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110004  
Lab Project ID: 1132110

Collection Date: 05/30/13 12:28  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 87.5

Results by **Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,1,1-Trichloroethane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,1,2,2-Tetrachloroethane	63.4	U	63.4	19.0	ug/Kg	1	06/03/13 15:54
1,1,2-Trichloroethane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,1-Dichloroethane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,1-Dichloroethene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,1-Dichloropropene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,2,3-Trichlorobenzene	63.4	U	63.4	19.0	ug/Kg	1	06/03/13 15:54
1,2,3-Trichloropropane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,2,4-Trichlorobenzene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,2,4-Trimethylbenzene	63.4	U	63.4	19.0	ug/Kg	1	06/03/13 15:54
1,2-Dibromo-3-chloropropane	127	U	127	39.3	ug/Kg	1	06/03/13 15:54
1,2-Dibromoethane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,2-Dichlorobenzene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,2-Dichloroethane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,2-Dichloropropane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,3,5-Trimethylbenzene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,3-Dichlorobenzene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,3-Dichloropropane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
1,4-Dichlorobenzene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
2,2-Dichloropropane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
2-Butanone (MEK)	317	U	317	98.9	ug/Kg	1	06/03/13 15:54
2-Chlorotoluene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
2-Hexanone	317	U	317	98.9	ug/Kg	1	06/03/13 15:54
4-Chlorotoluene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
4-Isopropyltoluene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
4-Methyl-2-pentanone (MIBK)	317	U	317	98.9	ug/Kg	1	06/03/13 15:54
Benzene	15.8	U	15.8	4.94	ug/Kg	1	06/03/13 15:54
Bromobenzene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Bromochloromethane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Bromodichloromethane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Bromoform	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Bromomethane	254	U	254	78.6	ug/Kg	1	06/03/13 15:54
Carbon disulfide	127	U	127	39.3	ug/Kg	1	06/03/13 15:54
Carbon tetrachloride	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Chlorobenzene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Chloroethane	254	U	254	78.6	ug/Kg	1	06/03/13 15:54
Chloroform	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Chloromethane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
cis-1,2-Dichloroethene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
cis-1,3-Dichloropropene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Dibromochloromethane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Dibromomethane	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Dichlorodifluoromethane	63.4	U	63.4	19.0	ug/Kg	1	06/03/13 15:54

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-K (40)

Client Sample ID: **SMIC-K (40)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110004  
 Lab Project ID: 1132110

Collection Date: 05/30/13 12:28  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 87.5

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Hexachlorobutadiene	63.4	U	63.4	19.0	ug/Kg	1	06/03/13 15:54
Isopropylbenzene (Cumene)	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Methyl-t-butyl ether	127	U	127	39.3	ug/Kg	1	06/03/13 15:54
Methylene chloride	127	U	127	39.3	ug/Kg	1	06/03/13 15:54
n-Butylbenzene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
n-Propylbenzene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Naphthalene	63.4	U	63.4	19.0	ug/Kg	1	06/03/13 15:54
o-Xylene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
P & M -Xylene	63.4	U	63.4	19.0	ug/Kg	1	06/03/13 15:54
sec-Butylbenzene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Styrene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
tert-Butylbenzene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Tetrachloroethene	15.8	U	15.8	4.94	ug/Kg	1	06/03/13 15:54
Toluene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
trans-1,2-Dichloroethene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
trans-1,3-Dichloropropene	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Trichloroethene	15.8	U	15.8	4.94	ug/Kg	1	06/03/13 15:54
Trichlorofluoromethane	63.4	U	63.4	19.0	ug/Kg	1	06/03/13 15:54
Vinyl chloride	31.7	U	31.7	9.89	ug/Kg	1	06/03/13 15:54
Xylenes (total)	127	U	127	39.3	ug/Kg	1	06/03/13 15:54
<b>Surrogates</b>							
1,2-Dichloroethane-D4	115		79-118		%	1	06/03/13 15:54
4-Bromofluorobenzene	103		67-138		%	1	06/03/13 15:54
Toluene-d8	105		85-115		%	1	06/03/13 15:54

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 15:54  
 Container ID: 1132110004-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/30/13 12:28  
 Prep Initial Wt./Vol.: 58.255 g  
 Prep Extract Vol: 32.2962 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-L (0)

Client Sample ID: **SMIC-L (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110005  
Lab Project ID: 1132110

Collection Date: 05/30/13 15:44  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 95.4

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	4.02		0.973	0.302	mg/Kg	10	06/04/13 17:54
Barium	37.4		0.292	0.0914	mg/Kg	10	06/04/13 17:54
Cadmium	0.195	U	0.195	0.0603	mg/Kg	10	06/04/13 17:54
Chromium	31.9		0.389	0.117	mg/Kg	10	06/04/13 17:54
Lead	7.18		0.195	0.0603	mg/Kg	10	06/04/13 17:54
Mercury	0.0389	U	0.0389	0.0117	mg/Kg	10	06/04/13 17:54
Selenium	0.486	U	0.486	0.146	mg/Kg	10	06/04/13 17:54
Silver	0.0973	U	0.0973	0.0302	mg/Kg	10	06/04/13 17:54

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 17:54  
Container ID: 1132110005-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.078 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



**Results of SMIC-L (0)**

Client Sample ID: **SMIC-L (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110005  
Lab Project ID: 1132110

Collection Date: 05/30/13 15:44  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 95.4

**Results by Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	45.1		20.5	6.34	mg/Kg	1	06/08/13 20:29
<b>Surrogates</b>							
5a Androstane	116		50-150		%	1	06/08/13 20:29

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:29  
Container ID: 1132110005-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.74 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	267		20.5	6.34	mg/Kg	1	06/08/13 20:29
<b>Surrogates</b>							
n-Triacontane-d62	146		50-150		%	1	06/08/13 20:29

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:29  
Container ID: 1132110005-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.74 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



## Results of SMIC-L (0)

Client Sample ID: **SMIC-L (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110005  
 Lab Project ID: 1132110

Collection Date: 05/30/13 15:44  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 95.4

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
1,2-Dichlorobenzene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
1,3-Dichlorobenzene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
1,4-Dichlorobenzene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
1-Chloronaphthalene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
2,4,5-Trichlorophenol	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
2,4,6-Trichlorophenol	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
2,4-Dichlorophenol	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
2,4-Dimethylphenol	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
2,4-Dinitrophenol	3.10	U	3.10	0.972	mg/Kg	1	06/11/13 21:39
2,4-Dinitrotoluene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
2,6-Dichlorophenol	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
2,6-Dinitrotoluene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
2-Chloronaphthalene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
2-Chlorophenol	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
2-Methyl-4,6-dinitrophenol	2.07	U	2.07	0.641	mg/Kg	1	06/11/13 21:39
2-Methylnaphthalene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
2-Methylphenol (o-Cresol)	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
2-Nitroaniline	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
2-Nitrophenol	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
3&4-Methylphenol (p&m-Cresol)	1.03	U	1.03	0.320	mg/Kg	1	06/11/13 21:39
3,3-Dichlorobenzidine	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
3-Nitroaniline	0.517	U	0.517	0.155	mg/Kg	1	06/11/13 21:39
4-Bromophenyl-phenylether	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
4-Chloro-3-methylphenol	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
4-Chloroaniline	0.517	U	0.517	0.155	mg/Kg	1	06/11/13 21:39
4-Chlorophenyl-phenylether	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
4-Nitroaniline	3.10	U	3.10	0.972	mg/Kg	1	06/11/13 21:39
4-Nitrophenol	1.03	U	1.03	0.320	mg/Kg	1	06/11/13 21:39
Acenaphthene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Acenaphthylene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Aniline	2.07	U	2.07	0.641	mg/Kg	1	06/11/13 21:39
Anthracene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Azobenzene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Benzo(a)Anthracene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Benzo[a]pyrene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Benzo[b]Fluoranthene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Benzo[g,h,i]perylene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Benzo[k]fluoranthene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Benzoic acid	1.55	U	1.55	0.775	mg/Kg	1	06/11/13 21:39
Benzyl alcohol	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Bis(2-Chloroethoxy)methane	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Bis(2-Chloroethyl)ether	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
bis(2-Ethylhexyl)phthalate	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-L (0)

Client Sample ID: **SMIC-L (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110005  
 Lab Project ID: 1132110

Collection Date: 05/30/13 15:44  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 95.4

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Butylbenzylphthalate	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Carbazole	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Chrysene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Di-n-butylphthalate	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
di-n-Octylphthalate	0.517	U	0.517	0.155	mg/Kg	1	06/11/13 21:39
Dibenzo[a,h]anthracene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Dibenzofuran	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Diethylphthalate	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Dimethylphthalate	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Fluoranthene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Fluorene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Hexachlorobenzene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Hexachlorobutadiene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Hexachlorocyclopentadiene	0.724	U	0.724	0.207	mg/Kg	1	06/11/13 21:39
Hexachloroethane	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Indeno[1,2,3-c,d] pyrene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Isophorone	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
N-Nitroso-di-n-propylamine	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
N-Nitrosodimethylamine	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
N-Nitrosodiphenylamine	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Naphthalene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Nitrobenzene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Pentachlorophenol	2.07	U	2.07	0.641	mg/Kg	1	06/11/13 21:39
Phenanthrene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Phenol	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
Pyrene	0.258	U	0.258	0.0806	mg/Kg	1	06/11/13 21:39
<b>Surrogates</b>							
2,4,6-Tribromophenol	113		35-125		%	1	06/11/13 21:39
2-Fluorobiphenyl	95.7		45-105		%	1	06/11/13 21:39
2-Fluorophenol	65.7		35-105		%	1	06/11/13 21:39
Nitrobenzene-d5	67.1		35-100		%	1	06/11/13 21:39
Phenol-d6	76.3		40-100		%	1	06/11/13 21:39
Terphenyl-d14	110		30-125		%	1	06/11/13 21:39

## Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/11/13 21:39  
 Container ID: 1132110005-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.824 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



**Results of SMIC-L (0)**

Client Sample ID: **SMIC-L (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110005  
Lab Project ID: 1132110

Collection Date: 05/30/13 15:44  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 95.4

**Results by Volatile Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.70	U	2.70	0.811	mg/Kg	1	06/05/13 19:32
<b>Surrogates</b>							
4-Bromofluorobenzene	96.9		50-150		%	1	06/05/13 19:32

**Batch Information**

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 19:32  
Container ID: 1132110005-B

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/30/13 15:44  
Prep Initial Wt./Vol.: 53.265 g  
Prep Extract Vol: 27.4662 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-L (0)

Client Sample ID: **SMIC-L (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110005  
 Lab Project ID: 1132110

Collection Date: 05/30/13 15:44  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 95.4

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,1,1-Trichloroethane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,1,2,2-Tetrachloroethane	54.1	U	54.1	16.2	ug/Kg	1	06/03/13 16:11
1,1,2-Trichloroethane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,1-Dichloroethane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,1-Dichloroethene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,1-Dichloropropene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,2,3-Trichlorobenzene	54.1	U	54.1	16.2	ug/Kg	1	06/03/13 16:11
1,2,3-Trichloropropane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,2,4-Trichlorobenzene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,2,4-Trimethylbenzene	54.1	U	54.1	16.2	ug/Kg	1	06/03/13 16:11
1,2-Dibromo-3-chloropropane	108	U	108	33.5	ug/Kg	1	06/03/13 16:11
1,2-Dibromoethane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,2-Dichlorobenzene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,2-Dichloroethane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,2-Dichloropropane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,3,5-Trimethylbenzene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,3-Dichlorobenzene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,3-Dichloropropane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
1,4-Dichlorobenzene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
2,2-Dichloropropane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
2-Butanone (MEK)	270	U	270	84.3	ug/Kg	1	06/03/13 16:11
2-Chlorotoluene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
2-Hexanone	270	U	270	84.3	ug/Kg	1	06/03/13 16:11
4-Chlorotoluene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
4-Isopropyltoluene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
4-Methyl-2-pentanone (MIBK)	270	U	270	84.3	ug/Kg	1	06/03/13 16:11
Benzene	13.5	U	13.5	4.22	ug/Kg	1	06/03/13 16:11
Bromobenzene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Bromochloromethane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Bromodichloromethane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Bromoform	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Bromomethane	216	U	216	67.0	ug/Kg	1	06/03/13 16:11
Carbon disulfide	108	U	108	33.5	ug/Kg	1	06/03/13 16:11
Carbon tetrachloride	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Chlorobenzene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Chloroethane	216	U	216	67.0	ug/Kg	1	06/03/13 16:11
Chloroform	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Chloromethane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
cis-1,2-Dichloroethene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
cis-1,3-Dichloropropene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Dibromochloromethane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Dibromomethane	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Dichlorodifluoromethane	54.1	U	54.1	16.2	ug/Kg	1	06/03/13 16:11

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-L (0)

Client Sample ID: **SMIC-L (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110005  
 Lab Project ID: 1132110

Collection Date: 05/30/13 15:44  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 95.4

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Hexachlorobutadiene	54.1	U	54.1	16.2	ug/Kg	1	06/03/13 16:11
Isopropylbenzene (Cumene)	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Methyl-t-butyl ether	108	U	108	33.5	ug/Kg	1	06/03/13 16:11
Methylene chloride	108	U	108	33.5	ug/Kg	1	06/03/13 16:11
n-Butylbenzene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
n-Propylbenzene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Naphthalene	54.1	U	54.1	16.2	ug/Kg	1	06/03/13 16:11
o-Xylene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
P & M -Xylene	54.1	U	54.1	16.2	ug/Kg	1	06/03/13 16:11
sec-Butylbenzene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Styrene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
tert-Butylbenzene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Tetrachloroethene	13.5	U	13.5	4.22	ug/Kg	1	06/03/13 16:11
Toluene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
trans-1,2-Dichloroethene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
trans-1,3-Dichloropropene	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Trichloroethene	13.5	U	13.5	4.22	ug/Kg	1	06/03/13 16:11
Trichlorofluoromethane	54.1	U	54.1	16.2	ug/Kg	1	06/03/13 16:11
Vinyl chloride	27.0	U	27.0	8.43	ug/Kg	1	06/03/13 16:11
Xylenes (total)	108	U	108	33.5	ug/Kg	1	06/03/13 16:11
<b>Surrogates</b>							
1,2-Dichloroethane-D4	109		79-118		%	1	06/03/13 16:11
4-Bromofluorobenzene	94.5		67-138		%	1	06/03/13 16:11
Toluene-d8	98.8		85-115		%	1	06/03/13 16:11

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 16:11  
 Container ID: 1132110005-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/30/13 15:44  
 Prep Initial Wt./Vol.: 53.265 g  
 Prep Extract Vol: 27.4662 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-L (1.5)

Client Sample ID: **SMIC-L (1.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110006  
Lab Project ID: 1132110

Collection Date: 05/30/13 15:52  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 98.2

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	4.73		0.959	0.297	mg/Kg	10	06/04/13 17:27
Barium	33.0		0.288	0.0901	mg/Kg	10	06/04/13 17:27
Cadmium	0.192	U	0.192	0.0595	mg/Kg	10	06/04/13 17:27
Chromium	47.1		0.384	0.115	mg/Kg	10	06/04/13 17:27
Lead	4.78		0.192	0.0595	mg/Kg	10	06/04/13 17:27
Mercury	0.0384	U	0.0384	0.0115	mg/Kg	10	06/04/13 17:27
Selenium	0.480	U	0.480	0.144	mg/Kg	10	06/04/13 17:27
Silver	0.0959	U	0.0959	0.0297	mg/Kg	10	06/04/13 17:27

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 17:27  
Container ID: 1132110006-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.062 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-L (1.5)**

Client Sample ID: **SMIC-L (1.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110006  
Lab Project ID: 1132110

Collection Date: 05/30/13 15:52  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 98.2

Results by **Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	20.1	U	20.1	6.24	mg/Kg	1	06/08/13 20:38
<b>Surrogates</b>							
5a Androstane	110		50-150		%	1	06/08/13 20:38

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:38  
Container ID: 1132110006-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.338 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	20.1	U	20.1	6.24	mg/Kg	1	06/08/13 20:38
<b>Surrogates</b>							
n-Triacontane-d62	130		50-150		%	1	06/08/13 20:38

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:38  
Container ID: 1132110006-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.338 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-L (1.5)

Client Sample ID: **SMIC-L (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110006  
 Lab Project ID: 1132110

Collection Date: 05/30/13 15:52  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 98.2

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
1,2-Dichlorobenzene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
1,3-Dichlorobenzene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
1,4-Dichlorobenzene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
1-Chloronaphthalene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
2,4,5-Trichlorophenol	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
2,4,6-Trichlorophenol	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
2,4-Dichlorophenol	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
2,4-Dimethylphenol	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
2,4-Dinitrophenol	3.03	U	3.03	0.951	mg/Kg	1	06/11/13 21:57
2,4-Dinitrotoluene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
2,6-Dichlorophenol	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
2,6-Dinitrotoluene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
2-Chloronaphthalene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
2-Chlorophenol	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
2-Methyl-4,6-dinitrophenol	2.02	U	2.02	0.627	mg/Kg	1	06/11/13 21:57
2-Methylnaphthalene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
2-Methylphenol (o-Cresol)	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
2-Nitroaniline	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
2-Nitrophenol	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
3&4-Methylphenol (p&m-Cresol)	1.01	U	1.01	0.314	mg/Kg	1	06/11/13 21:57
3,3-Dichlorobenzidine	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
3-Nitroaniline	0.506	U	0.506	0.152	mg/Kg	1	06/11/13 21:57
4-Bromophenyl-phenylether	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
4-Chloro-3-methylphenol	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
4-Chloroaniline	0.506	U	0.506	0.152	mg/Kg	1	06/11/13 21:57
4-Chlorophenyl-phenylether	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
4-Nitroaniline	3.03	U	3.03	0.951	mg/Kg	1	06/11/13 21:57
4-Nitrophenol	1.01	U	1.01	0.314	mg/Kg	1	06/11/13 21:57
Acenaphthene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Acenaphthylene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Aniline	2.02	U	2.02	0.627	mg/Kg	1	06/11/13 21:57
Anthracene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Azobenzene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Benzo(a)Anthracene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Benzo[a]pyrene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Benzo[b]Fluoranthene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Benzo[g,h,i]perylene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Benzo[k]fluoranthene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Benzoic acid	1.52	U	1.52	0.759	mg/Kg	1	06/11/13 21:57
Benzyl alcohol	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Bis(2-Chloroethoxy)methane	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Bis(2-Chloroethyl)ether	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
bis(2-Ethylhexyl)phthalate	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57

Print Date: 06/27/2013 5:39:07PM





### Results of SMIC-L (1.5)

Client Sample ID: **SMIC-L (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110006  
 Lab Project ID: 1132110

Collection Date: 05/30/13 15:52  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 98.2

### Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Butylbenzylphthalate	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Carbazole	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Chrysene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Di-n-butylphthalate	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
di-n-Octylphthalate	0.506	U	0.506	0.152	mg/Kg	1	06/11/13 21:57
Dibenzo[a,h]anthracene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Dibenzofuran	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Diethylphthalate	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Dimethylphthalate	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Fluoranthene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Fluorene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Hexachlorobenzene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Hexachlorobutadiene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Hexachlorocyclopentadiene	0.708	U	0.708	0.202	mg/Kg	1	06/11/13 21:57
Hexachloroethane	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Indeno[1,2,3-c,d] pyrene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Isophorone	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
N-Nitroso-di-n-propylamine	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
N-Nitrosodimethylamine	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
N-Nitrosodiphenylamine	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Naphthalene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Nitrobenzene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Pentachlorophenol	2.02	U	2.02	0.627	mg/Kg	1	06/11/13 21:57
Phenanthrene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Phenol	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57
Pyrene	0.253	U	0.253	0.0789	mg/Kg	1	06/11/13 21:57

### Surrogates

2,4,6-Tribromophenol	98.3		35-125		%	1	06/11/13 21:57
2-Fluorobiphenyl	89.6		45-105		%	1	06/11/13 21:57
2-Fluorophenol	65.4		35-105		%	1	06/11/13 21:57
Nitrobenzene-d5	65.4		35-100		%	1	06/11/13 21:57
Phenol-d6	77.5		40-100		%	1	06/11/13 21:57
Terphenyl-d14	102		30-125		%	1	06/11/13 21:57

### Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/11/13 21:57  
 Container ID: 1132110006-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.658 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-L (1.5)

Client Sample ID: **SMIC-L (1.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110006  
Lab Project ID: 1132110

Collection Date: 05/30/13 15:52  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 98.2

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.61	U	2.61	0.784	mg/Kg	1	06/05/13 19:50
<b>Surrogates</b>							
4-Bromofluorobenzene	93.6		50-150		%	1	06/05/13 19:50

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 19:50  
Container ID: 1132110006-B

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/30/13 15:52  
Prep Initial Wt./Vol.: 50.488 g  
Prep Extract Vol: 25.9151 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-L (1.5)

Client Sample ID: **SMIC-L (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110006  
 Lab Project ID: 1132110

Collection Date: 05/30/13 15:52  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 98.2

### Results by Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,1,1-Trichloroethane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,1,2,2-Tetrachloroethane	52.3	U	52.3	15.7	ug/Kg	1	06/03/13 16:28
1,1,2-Trichloroethane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,1-Dichloroethane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,1-Dichloroethene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,1-Dichloropropene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,2,3-Trichlorobenzene	52.3	U	52.3	15.7	ug/Kg	1	06/03/13 16:28
1,2,3-Trichloropropane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,2,4-Trichlorobenzene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,2,4-Trimethylbenzene	52.3	U	52.3	15.7	ug/Kg	1	06/03/13 16:28
1,2-Dibromo-3-chloropropane	105	U	105	32.4	ug/Kg	1	06/03/13 16:28
1,2-Dibromoethane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,2-Dichlorobenzene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,2-Dichloroethane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,2-Dichloropropane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,3,5-Trimethylbenzene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,3-Dichlorobenzene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,3-Dichloropropane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
1,4-Dichlorobenzene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
2,2-Dichloropropane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
2-Butanone (MEK)	261	U	261	81.6	ug/Kg	1	06/03/13 16:28
2-Chlorotoluene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
2-Hexanone	261	U	261	81.6	ug/Kg	1	06/03/13 16:28
4-Chlorotoluene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
4-Isopropyltoluene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
4-Methyl-2-pentanone (MIBK)	261	U	261	81.6	ug/Kg	1	06/03/13 16:28
Benzene	13.1	U	13.1	4.08	ug/Kg	1	06/03/13 16:28
Bromobenzene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Bromochloromethane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Bromodichloromethane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Bromoform	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Bromomethane	209	U	209	64.8	ug/Kg	1	06/03/13 16:28
Carbon disulfide	105	U	105	32.4	ug/Kg	1	06/03/13 16:28
Carbon tetrachloride	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Chlorobenzene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Chloroethane	209	U	209	64.8	ug/Kg	1	06/03/13 16:28
Chloroform	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Chloromethane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
cis-1,2-Dichloroethene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
cis-1,3-Dichloropropene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Dibromochloromethane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Dibromomethane	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Dichlorodifluoromethane	52.3	U	52.3	15.7	ug/Kg	1	06/03/13 16:28

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### Results of SMIC-L (1.5)

Client Sample ID: **SMIC-L (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110006  
 Lab Project ID: 1132110

Collection Date: 05/30/13 15:52  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 98.2

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Hexachlorobutadiene	52.3	U	52.3	15.7	ug/Kg	1	06/03/13 16:28
Isopropylbenzene (Cumene)	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Methyl-t-butyl ether	105	U	105	32.4	ug/Kg	1	06/03/13 16:28
Methylene chloride	105	U	105	32.4	ug/Kg	1	06/03/13 16:28
n-Butylbenzene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
n-Propylbenzene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Naphthalene	52.3	U	52.3	15.7	ug/Kg	1	06/03/13 16:28
o-Xylene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
P & M -Xylene	52.3	U	52.3	15.7	ug/Kg	1	06/03/13 16:28
sec-Butylbenzene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Styrene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
tert-Butylbenzene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Tetrachloroethene	13.1	U	13.1	4.08	ug/Kg	1	06/03/13 16:28
Toluene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
trans-1,2-Dichloroethene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
trans-1,3-Dichloropropene	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Trichloroethene	13.1	U	13.1	4.08	ug/Kg	1	06/03/13 16:28
Trichlorofluoromethane	52.3	U	52.3	15.7	ug/Kg	1	06/03/13 16:28
Vinyl chloride	26.1	U	26.1	8.16	ug/Kg	1	06/03/13 16:28
Xylenes (total)	105	U	105	32.4	ug/Kg	1	06/03/13 16:28
<b>Surrogates</b>							
1,2-Dichloroethane-D4	119	*	79-118		%	1	06/03/13 16:28
4-Bromofluorobenzene	104		67-138		%	1	06/03/13 16:28
Toluene-d8	109		85-115		%	1	06/03/13 16:28

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 16:28  
 Container ID: 1132110006-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/30/13 15:52  
 Prep Initial Wt./Vol.: 50.488 g  
 Prep Extract Vol: 25.9151 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-L (15)

Client Sample ID: **SMIC-L (15)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110007  
Lab Project ID: 1132110

Collection Date: 05/30/13 16:13  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 83.9

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	4.04		1.14	0.355	mg/Kg	10	06/04/13 17:56
Barium	40.7		0.343	0.108	mg/Kg	10	06/04/13 17:56
Cadmium	0.229	U	0.229	0.0709	mg/Kg	10	06/04/13 17:56
Chromium	34.8		0.458	0.137	mg/Kg	10	06/04/13 17:56
Lead	6.24		0.229	0.0709	mg/Kg	10	06/04/13 17:56
Mercury	0.0458	U	0.0458	0.0137	mg/Kg	10	06/04/13 17:56
Selenium	0.572	U	0.572	0.172	mg/Kg	10	06/04/13 17:56
Silver	0.114	U	0.114	0.0355	mg/Kg	10	06/04/13 17:56

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 17:56  
Container ID: 1132110007-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.042 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-L (15)**

Client Sample ID: **SMIC-L (15)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110007  
Lab Project ID: 1132110

Collection Date: 05/30/13 16:13  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 83.9

Results by **Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	23.3	U	23.3	7.21	mg/Kg	1	06/08/13 20:48
<b>Surrogates</b>							
5a Androstane	112		50-150		%	1	06/08/13 20:48

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:48  
Container ID: 1132110007-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.726 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	23.3	U	23.3	7.21	mg/Kg	1	06/08/13 20:48
<b>Surrogates</b>							
n-Triacontane-d62	133		50-150		%	1	06/08/13 20:48

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:48  
Container ID: 1132110007-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.726 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-L (15)

Client Sample ID: **SMIC-L (15)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110007  
 Lab Project ID: 1132110

Collection Date: 05/30/13 16:13  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 83.9

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
1,2-Dichlorobenzene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
1,3-Dichlorobenzene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
1,4-Dichlorobenzene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
1-Chloronaphthalene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
2,4,5-Trichlorophenol	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
2,4,6-Trichlorophenol	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
2,4-Dichlorophenol	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
2,4-Dimethylphenol	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
2,4-Dinitrophenol	3.55	U	3.55	1.11	mg/Kg	1	06/11/13 22:14
2,4-Dinitrotoluene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
2,6-Dichlorophenol	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
2,6-Dinitrotoluene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
2-Chloronaphthalene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
2-Chlorophenol	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
2-Methyl-4,6-dinitrophenol	2.36	U	2.36	0.733	mg/Kg	1	06/11/13 22:14
2-Methylnaphthalene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
2-Methylphenol (o-Cresol)	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
2-Nitroaniline	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
2-Nitrophenol	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
3&4-Methylphenol (p&m-Cresol)	1.18	U	1.18	0.366	mg/Kg	1	06/11/13 22:14
3,3-Dichlorobenzidine	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
3-Nitroaniline	0.591	U	0.591	0.177	mg/Kg	1	06/11/13 22:14
4-Bromophenyl-phenylether	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
4-Chloro-3-methylphenol	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
4-Chloroaniline	0.591	U	0.591	0.177	mg/Kg	1	06/11/13 22:14
4-Chlorophenyl-phenylether	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
4-Nitroaniline	3.55	U	3.55	1.11	mg/Kg	1	06/11/13 22:14
4-Nitrophenol	1.18	U	1.18	0.366	mg/Kg	1	06/11/13 22:14
Acenaphthene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Acenaphthylene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Aniline	2.36	U	2.36	0.733	mg/Kg	1	06/11/13 22:14
Anthracene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Azobenzene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Benzo(a)Anthracene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Benzo[a]pyrene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Benzo[b]Fluoranthene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Benzo[g,h,i]perylene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Benzo[k]fluoranthene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Benzoic acid	1.77	U	1.77	0.887	mg/Kg	1	06/11/13 22:14
Benzyl alcohol	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Bis(2-Chloroethoxy)methane	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Bis(2-Chloroethyl)ether	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
bis(2-Ethylhexyl)phthalate	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14

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## Results of SMIC-L (15)

Client Sample ID: **SMIC-L (15)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110007  
 Lab Project ID: 1132110

Collection Date: 05/30/13 16:13  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 83.9

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Butylbenzylphthalate	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Carbazole	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Chrysene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Di-n-butylphthalate	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
di-n-Octylphthalate	0.591	U	0.591	0.177	mg/Kg	1	06/11/13 22:14
Dibenzo[a,h]anthracene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Dibenzofuran	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Diethylphthalate	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Dimethylphthalate	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Fluoranthene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Fluorene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Hexachlorobenzene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Hexachlorobutadiene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Hexachlorocyclopentadiene	0.828	U	0.828	0.236	mg/Kg	1	06/11/13 22:14
Hexachloroethane	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Indeno[1,2,3-c,d] pyrene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Isophorone	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
N-Nitroso-di-n-propylamine	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
N-Nitrosodimethylamine	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
N-Nitrosodiphenylamine	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Naphthalene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Nitrobenzene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Pentachlorophenol	2.36	U	2.36	0.733	mg/Kg	1	06/11/13 22:14
Phenanthrene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Phenol	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
Pyrene	0.296	U	0.296	0.0922	mg/Kg	1	06/11/13 22:14
<b>Surrogates</b>							
2,4,6-Tribromophenol	95.9		35-125		%	1	06/11/13 22:14
2-Fluorobiphenyl	89.1		45-105		%	1	06/11/13 22:14
2-Fluorophenol	64.1		35-105		%	1	06/11/13 22:14
Nitrobenzene-d5	64		35-100		%	1	06/11/13 22:14
Phenol-d6	72.7		40-100		%	1	06/11/13 22:14
Terphenyl-d14	102		30-125		%	1	06/11/13 22:14

## Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/11/13 22:14  
 Container ID: 1132110007-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.683 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM





### Results of SMIC-L (15)

Client Sample ID: **SMIC-L (15)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110007  
Lab Project ID: 1132110

Collection Date: 05/30/13 16:13  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 83.9

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.87	U	2.87	0.862	mg/Kg	1	06/05/13 20:09
<b>Surrogates</b>							
4-Bromofluorobenzene	104		50-150		%	1	06/05/13 20:09

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 20:09  
Container ID: 1132110007-B

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 05/30/13 16:13  
Prep Initial Wt./Vol.: 77.886 g  
Prep Extract Vol: 37.5343 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-L (15)

Client Sample ID: **SMIC-L (15)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110007  
Lab Project ID: 1132110

Collection Date: 05/30/13 16:13  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 83.9

### Results by Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,1,1-Trichloroethane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,1,2,2-Tetrachloroethane	57.4	U	57.4	17.2	ug/Kg	1	06/03/13 16:44
1,1,2-Trichloroethane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,1-Dichloroethane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,1-Dichloroethene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,1-Dichloropropene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,2,3-Trichlorobenzene	57.4	U	57.4	17.2	ug/Kg	1	06/03/13 16:44
1,2,3-Trichloropropane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,2,4-Trichlorobenzene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,2,4-Trimethylbenzene	57.4	U	57.4	17.2	ug/Kg	1	06/03/13 16:44
1,2-Dibromo-3-chloropropane	115	U	115	35.6	ug/Kg	1	06/03/13 16:44
1,2-Dibromoethane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,2-Dichlorobenzene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,2-Dichloroethane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,2-Dichloropropane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,3,5-Trimethylbenzene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,3-Dichlorobenzene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,3-Dichloropropane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
1,4-Dichlorobenzene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
2,2-Dichloropropane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
2-Butanone (MEK)	287	U	287	89.6	ug/Kg	1	06/03/13 16:44
2-Chlorotoluene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
2-Hexanone	287	U	287	89.6	ug/Kg	1	06/03/13 16:44
4-Chlorotoluene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
4-Isopropyltoluene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
4-Methyl-2-pentanone (MIBK)	287	U	287	89.6	ug/Kg	1	06/03/13 16:44
Benzene	14.4	U	14.4	4.48	ug/Kg	1	06/03/13 16:44
Bromobenzene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Bromochloromethane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Bromodichloromethane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Bromoform	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Bromomethane	230	U	230	71.2	ug/Kg	1	06/03/13 16:44
Carbon disulfide	115	U	115	35.6	ug/Kg	1	06/03/13 16:44
Carbon tetrachloride	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Chlorobenzene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Chloroethane	230	U	230	71.2	ug/Kg	1	06/03/13 16:44
Chloroform	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Chloromethane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
cis-1,2-Dichloroethene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
cis-1,3-Dichloropropene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Dibromochloromethane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Dibromomethane	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Dichlorodifluoromethane	57.4	U	57.4	17.2	ug/Kg	1	06/03/13 16:44

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-L (15)

Client Sample ID: **SMIC-L (15)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110007  
 Lab Project ID: 1132110

Collection Date: 05/30/13 16:13  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 83.9

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Hexachlorobutadiene	57.4	U	57.4	17.2	ug/Kg	1	06/03/13 16:44
Isopropylbenzene (Cumene)	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Methyl-t-butyl ether	115	U	115	35.6	ug/Kg	1	06/03/13 16:44
Methylene chloride	115	U	115	35.6	ug/Kg	1	06/03/13 16:44
n-Butylbenzene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
n-Propylbenzene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Naphthalene	57.4	U	57.4	17.2	ug/Kg	1	06/03/13 16:44
o-Xylene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
P & M -Xylene	57.4	U	57.4	17.2	ug/Kg	1	06/03/13 16:44
sec-Butylbenzene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Styrene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
tert-Butylbenzene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Tetrachloroethene	14.4	U	14.4	4.48	ug/Kg	1	06/03/13 16:44
Toluene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
trans-1,2-Dichloroethene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
trans-1,3-Dichloropropene	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Trichloroethene	14.4	U	14.4	4.48	ug/Kg	1	06/03/13 16:44
Trichlorofluoromethane	57.4	U	57.4	17.2	ug/Kg	1	06/03/13 16:44
Vinyl chloride	28.7	U	28.7	8.96	ug/Kg	1	06/03/13 16:44
Xylenes (total)	115	U	115	35.6	ug/Kg	1	06/03/13 16:44
<b>Surrogates</b>							
1,2-Dichloroethane-D4	114		79-118		%	1	06/03/13 16:44
4-Bromofluorobenzene	103		67-138		%	1	06/03/13 16:44
Toluene-d8	104		85-115		%	1	06/03/13 16:44

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 16:44  
 Container ID: 1132110007-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/30/13 16:13  
 Prep Initial Wt./Vol.: 77.886 g  
 Prep Extract Vol: 37.5343 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-L (35)

Client Sample ID: **SMIC-L (35)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110008  
Lab Project ID: 1132110

Collection Date: 05/30/13 16:54  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.5

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	6.57		1.07	0.332	mg/Kg	10	06/04/13 17:59
Barium	46.2		0.321	0.101	mg/Kg	10	06/04/13 17:59
Cadmium	0.214	U	0.214	0.0664	mg/Kg	10	06/04/13 17:59
Chromium	35.3		0.428	0.128	mg/Kg	10	06/04/13 17:59
Lead	7.27		0.214	0.0664	mg/Kg	10	06/04/13 17:59
Mercury	0.0428	U	0.0428	0.0128	mg/Kg	10	06/04/13 17:59
Selenium	0.535	U	0.535	0.161	mg/Kg	10	06/04/13 17:59
Silver	0.107	U	0.107	0.0332	mg/Kg	10	06/04/13 17:59

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 17:59  
Container ID: 1132110008-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.055 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-L (35)**

Client Sample ID: **SMIC-L (35)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110008  
Lab Project ID: 1132110

Collection Date: 05/30/13 16:54  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.5

Results by **Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	22.4	U	22.4	6.94	mg/Kg	1	06/08/13 20:57
<b>Surrogates</b>							
5a Androstane	104		50-150		%	1	06/08/13 20:57

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:57  
Container ID: 1132110008-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.266 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	22.4	U	22.4	6.94	mg/Kg	1	06/08/13 20:57
<b>Surrogates</b>							
n-Triacontane-d62	122		50-150		%	1	06/08/13 20:57

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 20:57  
Container ID: 1132110008-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.266 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-L (35)

Client Sample ID: **SMIC-L (35)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110008  
 Lab Project ID: 1132110

Collection Date: 05/30/13 16:54  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 88.5

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
1,2-Dichlorobenzene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
1,3-Dichlorobenzene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
1,4-Dichlorobenzene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
1-Chloronaphthalene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
2,4,5-Trichlorophenol	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
2,4,6-Trichlorophenol	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
2,4-Dichlorophenol	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
2,4-Dimethylphenol	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
2,4-Dinitrophenol	3.34	U	3.34	1.05	mg/Kg	1	06/11/13 22:31
2,4-Dinitrotoluene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
2,6-Dichlorophenol	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
2,6-Dinitrotoluene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
2-Chloronaphthalene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
2-Chlorophenol	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
2-Methyl-4,6-dinitrophenol	2.23	U	2.23	0.690	mg/Kg	1	06/11/13 22:31
2-Methylnaphthalene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
2-Methylphenol (o-Cresol)	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
2-Nitroaniline	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
2-Nitrophenol	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
3&4-Methylphenol (p&m-Cresol)	1.11	U	1.11	0.345	mg/Kg	1	06/11/13 22:31
3,3-Dichlorobenzidine	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
3-Nitroaniline	0.556	U	0.556	0.167	mg/Kg	1	06/11/13 22:31
4-Bromophenyl-phenylether	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
4-Chloro-3-methylphenol	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
4-Chloroaniline	0.556	U	0.556	0.167	mg/Kg	1	06/11/13 22:31
4-Chlorophenyl-phenylether	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
4-Nitroaniline	3.34	U	3.34	1.05	mg/Kg	1	06/11/13 22:31
4-Nitrophenol	1.11	U	1.11	0.345	mg/Kg	1	06/11/13 22:31
Acenaphthene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Acenaphthylene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Aniline	2.23	U	2.23	0.690	mg/Kg	1	06/11/13 22:31
Anthracene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Azobenzene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Benzo(a)Anthracene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Benzo[a]pyrene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Benzo[b]Fluoranthene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Benzo[g,h,i]perylene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Benzo[k]fluoranthene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Benzoic acid	1.67	U	1.67	0.834	mg/Kg	1	06/11/13 22:31
Benzyl alcohol	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Bis(2-Chloroethoxy)methane	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Bis(2-Chloroethyl)ether	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
bis(2-Ethylhexyl)phthalate	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31

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## Results of SMIC-L (35)

Client Sample ID: **SMIC-L (35)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110008  
 Lab Project ID: 1132110

Collection Date: 05/30/13 16:54  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 88.5

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Butylbenzylphthalate	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Carbazole	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Chrysene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Di-n-butylphthalate	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
di-n-Octylphthalate	0.556	U	0.556	0.167	mg/Kg	1	06/11/13 22:31
Dibenzo[a,h]anthracene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Dibenzofuran	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Diethylphthalate	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Dimethylphthalate	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Fluoranthene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Fluorene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Hexachlorobenzene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Hexachlorobutadiene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Hexachlorocyclopentadiene	0.779	U	0.779	0.223	mg/Kg	1	06/11/13 22:31
Hexachloroethane	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Indeno[1,2,3-c,d] pyrene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Isophorone	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
N-Nitroso-di-n-propylamine	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
N-Nitrosodimethylamine	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
N-Nitrosodiphenylamine	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Naphthalene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Nitrobenzene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Pentachlorophenol	2.23	U	2.23	0.690	mg/Kg	1	06/11/13 22:31
Phenanthrene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Phenol	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31
Pyrene	0.278	U	0.278	0.0868	mg/Kg	1	06/11/13 22:31

### Surrogates

2,4,6-Tribromophenol	101		35-125		%	1	06/11/13 22:31
2-Fluorobiphenyl	88.6		45-105		%	1	06/11/13 22:31
2-Fluorophenol	63.3		35-105		%	1	06/11/13 22:31
Nitrobenzene-d5	67.6		35-100		%	1	06/11/13 22:31
Phenol-d6	73.3		40-100		%	1	06/11/13 22:31
Terphenyl-d14	102		30-125		%	1	06/11/13 22:31

### Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/11/13 22:31  
 Container ID: 1132110008-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.844 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-L (35)

Client Sample ID: **SMIC-L (35)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110008  
Lab Project ID: 1132110

Collection Date: 05/30/13 16:54  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 88.5

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.74	U	2.74	0.822	mg/Kg	1	06/06/13 21:06
<b>Surrogates</b>							
4-Bromofluorobenzene	105		50-150		%	1	06/06/13 21:06

### Batch Information

Analytical Batch: VFC11451  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/06/13 21:06  
Container ID: 1132110008-B

Prep Batch: VXX24779  
Prep Method: SW5035A  
Prep Date/Time: 05/30/13 16:54  
Prep Initial Wt./Vol.: 67.516 g  
Prep Extract Vol: 32.7421 mL

Print Date: 06/27/2013 5:39:07PM



## Results of SMIC-L (35)

Client Sample ID: **SMIC-L (35)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110008  
 Lab Project ID: 1132110

Collection Date: 05/30/13 16:54  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 88.5

## Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,1,1-Trichloroethane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,1,2,2-Tetrachloroethane	54.8	U	54.8	16.4	ug/Kg	1	06/03/13 17:01
1,1,2-Trichloroethane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,1-Dichloroethane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,1-Dichloroethene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,1-Dichloropropene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,2,3-Trichlorobenzene	54.8	U	54.8	16.4	ug/Kg	1	06/03/13 17:01
1,2,3-Trichloropropane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,2,4-Trichlorobenzene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,2,4-Trimethylbenzene	54.8	U	54.8	16.4	ug/Kg	1	06/03/13 17:01
1,2-Dibromo-3-chloropropane	110	U	110	34.0	ug/Kg	1	06/03/13 17:01
1,2-Dibromoethane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,2-Dichlorobenzene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,2-Dichloroethane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,2-Dichloropropane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,3,5-Trimethylbenzene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,3-Dichlorobenzene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,3-Dichloropropane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
1,4-Dichlorobenzene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
2,2-Dichloropropane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
2-Butanone (MEK)	274	U	274	85.5	ug/Kg	1	06/03/13 17:01
2-Chlorotoluene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
2-Hexanone	274	U	274	85.5	ug/Kg	1	06/03/13 17:01
4-Chlorotoluene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
4-Isopropyltoluene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
4-Methyl-2-pentanone (MIBK)	274	U	274	85.5	ug/Kg	1	06/03/13 17:01
Benzene	13.7	U	13.7	4.27	ug/Kg	1	06/03/13 17:01
Bromobenzene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Bromochloromethane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Bromodichloromethane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Bromoform	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Bromomethane	219	U	219	67.9	ug/Kg	1	06/03/13 17:01
Carbon disulfide	110	U	110	34.0	ug/Kg	1	06/03/13 17:01
Carbon tetrachloride	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Chlorobenzene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Chloroethane	219	U	219	67.9	ug/Kg	1	06/03/13 17:01
Chloroform	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Chloromethane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
cis-1,2-Dichloroethene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
cis-1,3-Dichloropropene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Dibromochloromethane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Dibromomethane	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Dichlorodifluoromethane	54.8	U	54.8	16.4	ug/Kg	1	06/03/13 17:01

Print Date: 06/27/2013 5:39:07PM

**Results of SMIC-L (35)**

Client Sample ID: **SMIC-L (35)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110008  
 Lab Project ID: 1132110

Collection Date: 05/30/13 16:54  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 88.5

**Results by Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Ethylbenzene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Hexachlorobutadiene	54.8	U	54.8	16.4	ug/Kg	1	06/03/13 17:01
Isopropylbenzene (Cumene)	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Methyl-t-butyl ether	110	U	110	34.0	ug/Kg	1	06/03/13 17:01
Methylene chloride	110	U	110	34.0	ug/Kg	1	06/03/13 17:01
n-Butylbenzene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
n-Propylbenzene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Naphthalene	54.8	U	54.8	16.4	ug/Kg	1	06/03/13 17:01
o-Xylene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
P & M -Xylene	54.8	U	54.8	16.4	ug/Kg	1	06/03/13 17:01
sec-Butylbenzene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Styrene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
tert-Butylbenzene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Tetrachloroethene	13.7	U	13.7	4.27	ug/Kg	1	06/03/13 17:01
Toluene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
trans-1,2-Dichloroethene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
trans-1,3-Dichloropropene	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Trichloroethene	13.7	U	13.7	4.27	ug/Kg	1	06/03/13 17:01
Trichlorofluoromethane	54.8	U	54.8	16.4	ug/Kg	1	06/03/13 17:01
Vinyl chloride	27.4	U	27.4	8.55	ug/Kg	1	06/03/13 17:01
Xylenes (total)	110	U	110	34.0	ug/Kg	1	06/03/13 17:01
<b>Surrogates</b>							
1,2-Dichloroethane-D4	116		79-118		%	1	06/03/13 17:01
4-Bromofluorobenzene	105		67-138		%	1	06/03/13 17:01
Toluene-d8	105		85-115		%	1	06/03/13 17:01

**Batch Information**

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 17:01  
 Container ID: 1132110008-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/30/13 16:54  
 Prep Initial Wt./Vol.: 67.516 g  
 Prep Extract Vol: 32.7421 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (0)

Client Sample ID: **SMIC-O (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110009  
Lab Project ID: 1132110

Collection Date: 05/31/13 08:44  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.4

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	7.43		0.941	0.292	mg/Kg	10	06/04/13 18:01
Barium	28.7		0.282	0.0885	mg/Kg	10	06/04/13 18:01
Cadmium	0.188	U	0.188	0.0584	mg/Kg	10	06/04/13 18:01
Chromium	41.3		0.377	0.113	mg/Kg	10	06/04/13 18:01
Lead	8.46		0.188	0.0584	mg/Kg	10	06/04/13 18:01
Mercury	0.0745		0.0377	0.0113	mg/Kg	10	06/04/13 18:01
Selenium	0.471	U	0.471	0.141	mg/Kg	10	06/04/13 18:01
Silver	0.0941	U	0.0941	0.0292	mg/Kg	10	06/04/13 18:01

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 18:01  
Container ID: 1132110009-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.091 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (0)

Client Sample ID: **SMIC-O (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110009  
 Lab Project ID: 1132110

Collection Date: 05/31/13 08:44  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.4

### Results by Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	20.3	U	20.3	6.30	mg/Kg	1	06/08/13 21:07
<b>Surrogates</b>							
5a Androstane	125		50-150		%	1	06/08/13 21:07

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK102  
 Analyst: MCM  
 Analytical Date/Time: 06/08/13 21:07  
 Container ID: 1132110009-A

Prep Batch: XXX29091  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 09:10  
 Prep Initial Wt./Vol.: 30.317 g  
 Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	20.3	U	20.3	6.30	mg/Kg	1	06/08/13 21:07
<b>Surrogates</b>							
n-Triacontane-d62	148		50-150		%	1	06/08/13 21:07

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK103  
 Analyst: MCM  
 Analytical Date/Time: 06/08/13 21:07  
 Container ID: 1132110009-A

Prep Batch: XXX29091  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 09:10  
 Prep Initial Wt./Vol.: 30.317 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-O (0)

Client Sample ID: **SMIC-O (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110009  
 Lab Project ID: 1132110

Collection Date: 05/31/13 08:44  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.4

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
1,2-Dichlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
1,3-Dichlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
1,4-Dichlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
1-Chloronaphthalene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
2,4,5-Trichlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
2,4,6-Trichlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
2,4-Dichlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
2,4-Dimethylphenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
2,4-Dinitrophenol	3.05	U	3.05	0.955	mg/Kg	1	06/11/13 22:48
2,4-Dinitrotoluene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
2,6-Dichlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
2,6-Dinitrotoluene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
2-Chloronaphthalene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
2-Chlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
2-Methyl-4,6-dinitrophenol	2.03	U	2.03	0.630	mg/Kg	1	06/11/13 22:48
2-Methylnaphthalene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
2-Methylphenol (o-Cresol)	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
2-Nitroaniline	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
2-Nitrophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
3&4-Methylphenol (p&m-Cresol)	1.02	U	1.02	0.315	mg/Kg	1	06/11/13 22:48
3,3-Dichlorobenzidine	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
3-Nitroaniline	0.508	U	0.508	0.152	mg/Kg	1	06/11/13 22:48
4-Bromophenyl-phenylether	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
4-Chloro-3-methylphenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
4-Chloroaniline	0.508	U	0.508	0.152	mg/Kg	1	06/11/13 22:48
4-Chlorophenyl-phenylether	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
4-Nitroaniline	3.05	U	3.05	0.955	mg/Kg	1	06/11/13 22:48
4-Nitrophenol	1.02	U	1.02	0.315	mg/Kg	1	06/11/13 22:48
Acenaphthene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Acenaphthylene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Aniline	2.03	U	2.03	0.630	mg/Kg	1	06/11/13 22:48
Anthracene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Azobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Benzo(a)Anthracene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Benzo[a]pyrene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Benzo[b]Fluoranthene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Benzo[g,h,i]perylene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Benzo[k]fluoranthene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Benzoic acid	1.52	U	1.52	0.762	mg/Kg	1	06/11/13 22:48
Benzyl alcohol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Bis(2-Chloroethoxy)methane	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Bis(2-Chloroethyl)ether	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
bis(2-Ethylhexyl)phthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-O (0)

Client Sample ID: **SMIC-O (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110009  
 Lab Project ID: 1132110

Collection Date: 05/31/13 08:44  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.4

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Butylbenzylphthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Carbazole	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Chrysene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Di-n-butylphthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
di-n-Octylphthalate	0.508	U	0.508	0.152	mg/Kg	1	06/11/13 22:48
Dibenzo[a,h]anthracene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Dibenzofuran	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Diethylphthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Dimethylphthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Fluoranthene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Fluorene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Hexachlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Hexachlorobutadiene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Hexachlorocyclopentadiene	0.711	U	0.711	0.203	mg/Kg	1	06/11/13 22:48
Hexachloroethane	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Indeno[1,2,3-c,d] pyrene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Isophorone	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
N-Nitroso-di-n-propylamine	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
N-Nitrosodimethylamine	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
N-Nitrosodiphenylamine	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Naphthalene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Nitrobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Pentachlorophenol	2.03	U	2.03	0.630	mg/Kg	1	06/11/13 22:48
Phenanthrene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Phenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
Pyrene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 22:48
<b>Surrogates</b>							
2,4,6-Tribromophenol	89.9		35-125		%	1	06/11/13 22:48
2-Fluorobiphenyl	88		45-105		%	1	06/11/13 22:48
2-Fluorophenol	61.5		35-105		%	1	06/11/13 22:48
Nitrobenzene-d5	66.8		35-100		%	1	06/11/13 22:48
Phenol-d6	70.2		40-100		%	1	06/11/13 22:48
Terphenyl-d14	101		30-125		%	1	06/11/13 22:48

## Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/11/13 22:48  
 Container ID: 1132110009-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.749 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (0)

Client Sample ID: **SMIC-O (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110009  
Lab Project ID: 1132110

Collection Date: 05/31/13 08:44  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.4

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.19	U	2.19	0.656	mg/Kg	1	06/06/13 21:25
<b>Surrogates</b>							
4-Bromofluorobenzene	89.4		50-150		%	1	06/06/13 21:25

### Batch Information

Analytical Batch: VFC11451  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/06/13 21:25  
Container ID: 1132110009-B

Prep Batch: VXX24779  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 08:44  
Prep Initial Wt./Vol.: 62.588 g  
Prep Extract Vol: 26.642 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (0)

Client Sample ID: **SMIC-O (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110009  
 Lab Project ID: 1132110

Collection Date: 05/31/13 08:44  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.4

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,1,1-Trichloroethane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,1,2,2-Tetrachloroethane	43.7	U	43.7	13.1	ug/Kg	1	06/03/13 17:18
1,1,2-Trichloroethane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,1-Dichloroethane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,1-Dichloroethene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,1-Dichloropropene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,2,3-Trichlorobenzene	43.7	U	43.7	13.1	ug/Kg	1	06/03/13 17:18
1,2,3-Trichloropropane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,2,4-Trichlorobenzene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,2,4-Trimethylbenzene	43.7	U	43.7	13.1	ug/Kg	1	06/03/13 17:18
1,2-Dibromo-3-chloropropane	87.4	U	87.4	27.1	ug/Kg	1	06/03/13 17:18
1,2-Dibromoethane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,2-Dichlorobenzene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,2-Dichloroethane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,2-Dichloropropane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,3,5-Trimethylbenzene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,3-Dichlorobenzene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,3-Dichloropropane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
1,4-Dichlorobenzene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
2,2-Dichloropropane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
2-Butanone (MEK)	219	U	219	68.2	ug/Kg	1	06/03/13 17:18
2-Chlorotoluene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
2-Hexanone	219	U	219	68.2	ug/Kg	1	06/03/13 17:18
4-Chlorotoluene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
4-Isopropyltoluene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
4-Methyl-2-pentanone (MIBK)	219	U	219	68.2	ug/Kg	1	06/03/13 17:18
Benzene	10.9	U	10.9	3.41	ug/Kg	1	06/03/13 17:18
Bromobenzene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Bromochloromethane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Bromodichloromethane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Bromoform	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Bromomethane	175	U	175	54.2	ug/Kg	1	06/03/13 17:18
Carbon disulfide	87.4	U	87.4	27.1	ug/Kg	1	06/03/13 17:18
Carbon tetrachloride	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Chlorobenzene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Chloroethane	175	U	175	54.2	ug/Kg	1	06/03/13 17:18
Chloroform	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Chloromethane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
cis-1,2-Dichloroethene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
cis-1,3-Dichloropropene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Dibromochloromethane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Dibromomethane	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Dichlorodifluoromethane	43.7	U	43.7	13.1	ug/Kg	1	06/03/13 17:18

Print Date: 06/27/2013 5:39:07PM





### Results of SMIC-O (0)

Client Sample ID: **SMIC-O (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110009  
 Lab Project ID: 1132110

Collection Date: 05/31/13 08:44  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.4

### Results by Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Ethylbenzene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Hexachlorobutadiene	43.7	U	43.7	13.1	ug/Kg	1	06/03/13 17:18
Isopropylbenzene (Cumene)	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Methyl-t-butyl ether	87.4	U	87.4	27.1	ug/Kg	1	06/03/13 17:18
Methylene chloride	87.4	U	87.4	27.1	ug/Kg	1	06/03/13 17:18
n-Butylbenzene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
n-Propylbenzene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Naphthalene	43.7	U	43.7	13.1	ug/Kg	1	06/03/13 17:18
o-Xylene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
P & M -Xylene	43.7	U	43.7	13.1	ug/Kg	1	06/03/13 17:18
sec-Butylbenzene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Styrene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
tert-Butylbenzene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Tetrachloroethene	10.9	U	10.9	3.41	ug/Kg	1	06/03/13 17:18
Toluene	68.0		21.9	6.82	ug/Kg	1	06/03/13 17:18
trans-1,2-Dichloroethene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
trans-1,3-Dichloropropene	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Trichloroethene	10.9	U	10.9	3.41	ug/Kg	1	06/03/13 17:18
Trichlorofluoromethane	43.7	U	43.7	13.1	ug/Kg	1	06/03/13 17:18
Vinyl chloride	21.9	U	21.9	6.82	ug/Kg	1	06/03/13 17:18
Xylenes (total)	87.4	U	87.4	27.1	ug/Kg	1	06/03/13 17:18
<b>Surrogates</b>							
1,2-Dichloroethane-D4	116		79-118		%	1	06/03/13 17:18
4-Bromofluorobenzene	93.1		67-138		%	1	06/03/13 17:18
Toluene-d8	104		85-115		%	1	06/03/13 17:18

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 17:18  
 Container ID: 1132110009-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/31/13 08:44  
 Prep Initial Wt./Vol.: 62.588 g  
 Prep Extract Vol: 26.642 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (0) D

Client Sample ID: **SMIC-O (0) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110010  
Lab Project ID: 1132110

Collection Date: 05/31/13 08:47  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.4

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	7.46		0.970	0.301	mg/Kg	10	06/04/13 18:03
Barium	30.3		0.291	0.0912	mg/Kg	10	06/04/13 18:03
Cadmium	0.194	U	0.194	0.0602	mg/Kg	10	06/04/13 18:03
Chromium	44.1		0.388	0.116	mg/Kg	10	06/04/13 18:03
Lead	8.33		0.194	0.0602	mg/Kg	10	06/04/13 18:03
Mercury	0.0861		0.0388	0.0116	mg/Kg	10	06/04/13 18:03
Selenium	0.485	U	0.485	0.146	mg/Kg	10	06/04/13 18:03
Silver	0.0970	U	0.0970	0.0301	mg/Kg	10	06/04/13 18:03

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 18:03  
Container ID: 1132110010-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.058 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-O (0) D**

Client Sample ID: **SMIC-O (0) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110010  
Lab Project ID: 1132110

Collection Date: 05/31/13 08:47  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.4

Results by **Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	20.2	U	20.2	6.28	mg/Kg	1	06/08/13 21:16
<b>Surrogates</b>							
5a Androstane	101		50-150		%	1	06/08/13 21:16

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 21:16  
Container ID: 1132110010-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.423 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	20.2	U	20.2	6.28	mg/Kg	1	06/08/13 21:16
<b>Surrogates</b>							
n-Triacontane-d62	117		50-150		%	1	06/08/13 21:16

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 21:16  
Container ID: 1132110010-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.423 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-O (0) D

Client Sample ID: **SMIC-O (0) D**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110010  
 Lab Project ID: 1132110

Collection Date: 05/31/13 08:47  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.4

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
1,2-Dichlorobenzene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
1,3-Dichlorobenzene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
1,4-Dichlorobenzene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
1-Chloronaphthalene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
2,4,5-Trichlorophenol	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
2,4,6-Trichlorophenol	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
2,4-Dichlorophenol	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
2,4-Dimethylphenol	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
2,4-Dinitrophenol	3.06	U	3.06	0.960	mg/Kg	1	06/11/13 23:05
2,4-Dinitrotoluene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
2,6-Dichlorophenol	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
2,6-Dinitrotoluene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
2-Chloronaphthalene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
2-Chlorophenol	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
2-Methyl-4,6-dinitrophenol	2.04	U	2.04	0.633	mg/Kg	1	06/11/13 23:05
2-Methylnaphthalene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
2-Methylphenol (o-Cresol)	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
2-Nitroaniline	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
2-Nitrophenol	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
3&4-Methylphenol (p&m-Cresol)	1.02	U	1.02	0.317	mg/Kg	1	06/11/13 23:05
3,3-Dichlorobenzidine	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
3-Nitroaniline	0.511	U	0.511	0.153	mg/Kg	1	06/11/13 23:05
4-Bromophenyl-phenylether	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
4-Chloro-3-methylphenol	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
4-Chloroaniline	0.511	U	0.511	0.153	mg/Kg	1	06/11/13 23:05
4-Chlorophenyl-phenylether	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
4-Nitroaniline	3.06	U	3.06	0.960	mg/Kg	1	06/11/13 23:05
4-Nitrophenol	1.02	U	1.02	0.317	mg/Kg	1	06/11/13 23:05
Acenaphthene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Acenaphthylene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Aniline	2.04	U	2.04	0.633	mg/Kg	1	06/11/13 23:05
Anthracene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Azobenzene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Benzo(a)Anthracene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Benzo[a]pyrene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Benzo[b]Fluoranthene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Benzo[g,h,i]perylene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Benzo[k]fluoranthene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Benzoic acid	1.53	U	1.53	0.766	mg/Kg	1	06/11/13 23:05
Benzyl alcohol	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Bis(2-Chloroethoxy)methane	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Bis(2-Chloroethyl)ether	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
bis(2-Ethylhexyl)phthalate	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-O (0) D

Client Sample ID: **SMIC-O (0) D**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110010  
 Lab Project ID: 1132110

Collection Date: 05/31/13 08:47  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.4

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Butylbenzylphthalate	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Carbazole	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Chrysene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Di-n-butylphthalate	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
di-n-Octylphthalate	0.511	U	0.511	0.153	mg/Kg	1	06/11/13 23:05
Dibenzo[a,h]anthracene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Dibenzofuran	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Diethylphthalate	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Dimethylphthalate	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Fluoranthene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Fluorene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Hexachlorobenzene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Hexachlorobutadiene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Hexachlorocyclopentadiene	0.715	U	0.715	0.204	mg/Kg	1	06/11/13 23:05
Hexachloroethane	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Indeno[1,2,3-c,d] pyrene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Isophorone	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
N-Nitroso-di-n-propylamine	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
N-Nitrosodimethylamine	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
N-Nitrosodiphenylamine	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Naphthalene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Nitrobenzene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Pentachlorophenol	2.04	U	2.04	0.633	mg/Kg	1	06/11/13 23:05
Phenanthrene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Phenol	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05
Pyrene	0.255	U	0.255	0.0797	mg/Kg	1	06/11/13 23:05

### Surrogates

2,4,6-Tribromophenol	89.6		35-125		%	1	06/11/13 23:05
2-Fluorobiphenyl	90.4		45-105		%	1	06/11/13 23:05
2-Fluorophenol	61.1		35-105		%	1	06/11/13 23:05
Nitrobenzene-d5	67.7		35-100		%	1	06/11/13 23:05
Phenol-d6	72		40-100		%	1	06/11/13 23:05
Terphenyl-d14	100		30-125		%	1	06/11/13 23:05

### Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/11/13 23:05  
 Container ID: 1132110010-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.608 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (0) D

Client Sample ID: **SMIC-O (0) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110010  
Lab Project ID: 1132110

Collection Date: 05/31/13 08:47  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.4

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.80	U	2.80	0.840	mg/Kg	1	06/06/13 21:44
<b>Surrogates</b>							
4-Bromofluorobenzene	91.1		50-150		%	1	06/06/13 21:44

### Batch Information

Analytical Batch: VFC11451  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/06/13 21:44  
Container ID: 1132110010-B

Prep Batch: VXX24779  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 08:47  
Prep Initial Wt./Vol.: 48.087 g  
Prep Extract Vol: 26.2386 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-O (0) D**

Client Sample ID: **SMIC-O (0) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110010  
Lab Project ID: 1132110

Collection Date: 05/31/13 08:47  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.4

Results by **Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,1,1-Trichloroethane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,1,2,2-Tetrachloroethane	56.0	U	56.0	16.8	ug/Kg	1	06/03/13 17:35
1,1,2-Trichloroethane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,1-Dichloroethane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,1-Dichloroethene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,1-Dichloropropene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,2,3-Trichlorobenzene	56.0	U	56.0	16.8	ug/Kg	1	06/03/13 17:35
1,2,3-Trichloropropane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,2,4-Trichlorobenzene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,2,4-Trimethylbenzene	56.0	U	56.0	16.8	ug/Kg	1	06/03/13 17:35
1,2-Dibromo-3-chloropropane	112	U	112	34.7	ug/Kg	1	06/03/13 17:35
1,2-Dibromoethane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,2-Dichlorobenzene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,2-Dichloroethane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,2-Dichloropropane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,3,5-Trimethylbenzene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,3-Dichlorobenzene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,3-Dichloropropane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
1,4-Dichlorobenzene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
2,2-Dichloropropane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
2-Butanone (MEK)	280	U	280	87.4	ug/Kg	1	06/03/13 17:35
2-Chlorotoluene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
2-Hexanone	280	U	280	87.4	ug/Kg	1	06/03/13 17:35
4-Chlorotoluene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
4-Isopropyltoluene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
4-Methyl-2-pentanone (MIBK)	280	U	280	87.4	ug/Kg	1	06/03/13 17:35
Benzene	14.0	U	14.0	4.37	ug/Kg	1	06/03/13 17:35
Bromobenzene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Bromochloromethane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Bromodichloromethane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Bromoform	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Bromomethane	224	U	224	69.4	ug/Kg	1	06/03/13 17:35
Carbon disulfide	112	U	112	34.7	ug/Kg	1	06/03/13 17:35
Carbon tetrachloride	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Chlorobenzene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Chloroethane	224	U	224	69.4	ug/Kg	1	06/03/13 17:35
Chloroform	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Chloromethane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
cis-1,2-Dichloroethene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
cis-1,3-Dichloropropene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Dibromochloromethane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Dibromomethane	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Dichlorodifluoromethane	56.0	U	56.0	16.8	ug/Kg	1	06/03/13 17:35

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (0) D

Client Sample ID: **SMIC-O (0) D**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110010  
 Lab Project ID: 1132110

Collection Date: 05/31/13 08:47  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.4

### Results by Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Ethylbenzene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Hexachlorobutadiene	56.0	U	56.0	16.8	ug/Kg	1	06/03/13 17:35
Isopropylbenzene (Cumene)	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Methyl-t-butyl ether	112	U	112	34.7	ug/Kg	1	06/03/13 17:35
Methylene chloride	112	U	112	34.7	ug/Kg	1	06/03/13 17:35
n-Butylbenzene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
n-Propylbenzene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Naphthalene	56.0	U	56.0	16.8	ug/Kg	1	06/03/13 17:35
o-Xylene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
P & M -Xylene	56.0	U	56.0	16.8	ug/Kg	1	06/03/13 17:35
sec-Butylbenzene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Styrene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
tert-Butylbenzene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Tetrachloroethene	14.0	U	14.0	4.37	ug/Kg	1	06/03/13 17:35
Toluene	64.7		28.0	8.74	ug/Kg	1	06/03/13 17:35
trans-1,2-Dichloroethene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
trans-1,3-Dichloropropene	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Trichloroethene	14.0	U	14.0	4.37	ug/Kg	1	06/03/13 17:35
Trichlorofluoromethane	56.0	U	56.0	16.8	ug/Kg	1	06/03/13 17:35
Vinyl chloride	28.0	U	28.0	8.74	ug/Kg	1	06/03/13 17:35
Xylenes (total)	112	U	112	34.7	ug/Kg	1	06/03/13 17:35
<b>Surrogates</b>							
1,2-Dichloroethane-D4	115		79-118		%	1	06/03/13 17:35
4-Bromofluorobenzene	94.7		67-138		%	1	06/03/13 17:35
Toluene-d8	105		85-115		%	1	06/03/13 17:35

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 17:35  
 Container ID: 1132110010-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/31/13 08:47  
 Prep Initial Wt./Vol.: 48.087 g  
 Prep Extract Vol: 26.2386 mL

Print Date: 06/27/2013 5:39:07PM





### Results of SMIC-O (1.5)

Client Sample ID: **SMIC-O (1.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110011  
Lab Project ID: 1132110

Collection Date: 05/31/13 08:55  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 96.8

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	6.77		1.01	0.314	mg/Kg	10	06/04/13 18:05
Barium	34.2		0.304	0.0952	mg/Kg	10	06/04/13 18:05
Cadmium	0.203	U	0.203	0.0628	mg/Kg	10	06/04/13 18:05
Chromium	39.8		0.405	0.122	mg/Kg	10	06/04/13 18:05
Lead	9.30		0.203	0.0628	mg/Kg	10	06/04/13 18:05
Mercury	0.0591		0.0405	0.0122	mg/Kg	10	06/04/13 18:05
Selenium	0.506	U	0.506	0.152	mg/Kg	10	06/04/13 18:05
Silver	0.101	U	0.101	0.0314	mg/Kg	10	06/04/13 18:05

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 18:05  
Container ID: 1132110011-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.02 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (1.5)

Client Sample ID: **SMIC-O (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110011  
 Lab Project ID: 1132110

Collection Date: 05/31/13 08:55  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.8

### Results by Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	20.6	U	20.6	6.39	mg/Kg	1	06/08/13 21:26
<b>Surrogates</b>							
5a Androstane	111		50-150		%	1	06/08/13 21:26

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK102  
 Analyst: MCM  
 Analytical Date/Time: 06/08/13 21:26  
 Container ID: 1132110011-A

Prep Batch: XXX29091  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 09:10  
 Prep Initial Wt./Vol.: 30.054 g  
 Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	39.2		20.6	6.39	mg/Kg	1	06/08/13 21:26
<b>Surrogates</b>							
n-Triacontane-d62	134		50-150		%	1	06/08/13 21:26

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK103  
 Analyst: MCM  
 Analytical Date/Time: 06/08/13 21:26  
 Container ID: 1132110011-A

Prep Batch: XXX29091  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 09:10  
 Prep Initial Wt./Vol.: 30.054 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (1.5)

Client Sample ID: **SMIC-O (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110011  
 Lab Project ID: 1132110

Collection Date: 05/31/13 08:55  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.8

### Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
1,2-Dichlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
1,3-Dichlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
1,4-Dichlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
1-Chloronaphthalene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
2,4,5-Trichlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
2,4,6-Trichlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
2,4-Dichlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
2,4-Dimethylphenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
2,4-Dinitrophenol	3.05	U	3.05	0.955	mg/Kg	1	06/11/13 23:22
2,4-Dinitrotoluene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
2,6-Dichlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
2,6-Dinitrotoluene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
2-Chloronaphthalene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
2-Chlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
2-Methyl-4,6-dinitrophenol	2.03	U	2.03	0.630	mg/Kg	1	06/11/13 23:22
2-Methylnaphthalene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
2-Methylphenol (o-Cresol)	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
2-Nitroaniline	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
2-Nitrophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
3&4-Methylphenol (p&m-Cresol)	1.02	U	1.02	0.315	mg/Kg	1	06/11/13 23:22
3,3-Dichlorobenzidine	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
3-Nitroaniline	0.508	U	0.508	0.152	mg/Kg	1	06/11/13 23:22
4-Bromophenyl-phenylether	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
4-Chloro-3-methylphenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
4-Chloroaniline	0.508	U	0.508	0.152	mg/Kg	1	06/11/13 23:22
4-Chlorophenyl-phenylether	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
4-Nitroaniline	3.05	U	3.05	0.955	mg/Kg	1	06/11/13 23:22
4-Nitrophenol	1.02	U	1.02	0.315	mg/Kg	1	06/11/13 23:22
Acenaphthene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Acenaphthylene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Aniline	2.03	U	2.03	0.630	mg/Kg	1	06/11/13 23:22
Anthracene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Azobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Benzo(a)Anthracene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Benzo[a]pyrene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Benzo[b]Fluoranthene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Benzo[g,h,i]perylene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Benzo[k]fluoranthene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Benzoic acid	1.52	U	1.52	0.762	mg/Kg	1	06/11/13 23:22
Benzyl alcohol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Bis(2-Chloroethoxy)methane	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Bis(2-Chloroethyl)ether	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
bis(2-Ethylhexyl)phthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-O (1.5)

Client Sample ID: **SMIC-O (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110011  
 Lab Project ID: 1132110

Collection Date: 05/31/13 08:55  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.8

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Butylbenzylphthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Carbazole	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Chrysene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Di-n-butylphthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
di-n-Octylphthalate	0.508	U	0.508	0.152	mg/Kg	1	06/11/13 23:22
Dibenzo[a,h]anthracene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Dibenzofuran	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Diethylphthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Dimethylphthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Fluoranthene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Fluorene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Hexachlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Hexachlorobutadiene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Hexachlorocyclopentadiene	0.711	U	0.711	0.203	mg/Kg	1	06/11/13 23:22
Hexachloroethane	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Indeno[1,2,3-c,d] pyrene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Isophorone	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
N-Nitroso-di-n-propylamine	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
N-Nitrosodimethylamine	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
N-Nitrosodiphenylamine	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Naphthalene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Nitrobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Pentachlorophenol	2.03	U	2.03	0.630	mg/Kg	1	06/11/13 23:22
Phenanthrene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Phenol	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
Pyrene	0.254	U	0.254	0.0792	mg/Kg	1	06/11/13 23:22
<b>Surrogates</b>							
2,4,6-Tribromophenol	93.4		35-125		%	1	06/11/13 23:22
2-Fluorobiphenyl	87.7		45-105		%	1	06/11/13 23:22
2-Fluorophenol	62.3		35-105		%	1	06/11/13 23:22
Nitrobenzene-d5	65.9		35-100		%	1	06/11/13 23:22
Phenol-d6	71.3		40-100		%	1	06/11/13 23:22
Terphenyl-d14	100		30-125		%	1	06/11/13 23:22

## Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/11/13 23:22  
 Container ID: 1132110011-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.888 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (1.5)

Client Sample ID: **SMIC-O (1.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110011  
Lab Project ID: 1132110

Collection Date: 05/31/13 08:55  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 96.8

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.94	U	2.94	0.883	mg/Kg	1	06/06/13 22:02
<b>Surrogates</b>							
4-Bromofluorobenzene	86.9		50-150		%	1	06/06/13 22:02

### Batch Information

Analytical Batch: VFC11451  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/06/13 22:02  
Container ID: 1132110011-B

Prep Batch: VXX24779  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 08:55  
Prep Initial Wt./Vol.: 46.486 g  
Prep Extract Vol: 26.4963 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (1.5)

Client Sample ID: **SMIC-O (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110011  
 Lab Project ID: 1132110

Collection Date: 05/31/13 08:55  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.8

### Results by Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,1,1-Trichloroethane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,1,2,2-Tetrachloroethane	58.9	U	58.9	17.7	ug/Kg	1	06/03/13 17:51
1,1,2-Trichloroethane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,1-Dichloroethane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,1-Dichloroethene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,1-Dichloropropene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,2,3-Trichlorobenzene	58.9	U	58.9	17.7	ug/Kg	1	06/03/13 17:51
1,2,3-Trichloropropane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,2,4-Trichlorobenzene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,2,4-Trimethylbenzene	58.9	U	58.9	17.7	ug/Kg	1	06/03/13 17:51
1,2-Dibromo-3-chloropropane	118	U	118	36.5	ug/Kg	1	06/03/13 17:51
1,2-Dibromoethane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,2-Dichlorobenzene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,2-Dichloroethane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,2-Dichloropropane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,3,5-Trimethylbenzene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,3-Dichlorobenzene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,3-Dichloropropane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
1,4-Dichlorobenzene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
2,2-Dichloropropane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
2-Butanone (MEK)	294	U	294	91.9	ug/Kg	1	06/03/13 17:51
2-Chlorotoluene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
2-Hexanone	294	U	294	91.9	ug/Kg	1	06/03/13 17:51
4-Chlorotoluene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
4-Isopropyltoluene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
4-Methyl-2-pentanone (MIBK)	294	U	294	91.9	ug/Kg	1	06/03/13 17:51
Benzene	14.7	U	14.7	4.59	ug/Kg	1	06/03/13 17:51
Bromobenzene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Bromochloromethane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Bromodichloromethane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Bromoform	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Bromomethane	236	U	236	73.0	ug/Kg	1	06/03/13 17:51
Carbon disulfide	118	U	118	36.5	ug/Kg	1	06/03/13 17:51
Carbon tetrachloride	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Chlorobenzene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Chloroethane	236	U	236	73.0	ug/Kg	1	06/03/13 17:51
Chloroform	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Chloromethane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
cis-1,2-Dichloroethene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
cis-1,3-Dichloropropene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Dibromochloromethane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Dibromomethane	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Dichlorodifluoromethane	58.9	U	58.9	17.7	ug/Kg	1	06/03/13 17:51

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (1.5)

Client Sample ID: **SMIC-O (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110011  
 Lab Project ID: 1132110

Collection Date: 05/31/13 08:55  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.8

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Hexachlorobutadiene	58.9	U	58.9	17.7	ug/Kg	1	06/03/13 17:51
Isopropylbenzene (Cumene)	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Methyl-t-butyl ether	118	U	118	36.5	ug/Kg	1	06/03/13 17:51
Methylene chloride	118	U	118	36.5	ug/Kg	1	06/03/13 17:51
n-Butylbenzene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
n-Propylbenzene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Naphthalene	58.9	U	58.9	17.7	ug/Kg	1	06/03/13 17:51
o-Xylene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
P & M -Xylene	58.9	U	58.9	17.7	ug/Kg	1	06/03/13 17:51
sec-Butylbenzene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Styrene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
tert-Butylbenzene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Tetrachloroethene	14.7	U	14.7	4.59	ug/Kg	1	06/03/13 17:51
Toluene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
trans-1,2-Dichloroethene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
trans-1,3-Dichloropropene	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Trichloroethene	14.7	U	14.7	4.59	ug/Kg	1	06/03/13 17:51
Trichlorofluoromethane	58.9	U	58.9	17.7	ug/Kg	1	06/03/13 17:51
Vinyl chloride	29.4	U	29.4	9.19	ug/Kg	1	06/03/13 17:51
Xylenes (total)	118	U	118	36.5	ug/Kg	1	06/03/13 17:51
<b>Surrogates</b>							
1,2-Dichloroethane-D4	111		79-118		%	1	06/03/13 17:51
4-Bromofluorobenzene	89.2		67-138		%	1	06/03/13 17:51
Toluene-d8	101		85-115		%	1	06/03/13 17:51

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 17:51  
 Container ID: 1132110011-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/31/13 08:55  
 Prep Initial Wt./Vol.: 46.486 g  
 Prep Extract Vol: 26.4963 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (10)

Client Sample ID: **SMIC-O (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110012  
Lab Project ID: 1132110

Collection Date: 05/31/13 09:06  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 96.7

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	4.46		0.991	0.307	mg/Kg	10	06/04/13 18:07
Barium	36.3		0.297	0.0932	mg/Kg	10	06/04/13 18:07
Cadmium	0.198	U	0.198	0.0614	mg/Kg	10	06/04/13 18:07
Chromium	33.4		0.396	0.119	mg/Kg	10	06/04/13 18:07
Lead	4.71		0.198	0.0614	mg/Kg	10	06/04/13 18:07
Mercury	0.0396	U	0.0396	0.0119	mg/Kg	10	06/04/13 18:07
Selenium	0.496	U	0.496	0.149	mg/Kg	10	06/04/13 18:07
Silver	0.0991	U	0.0991	0.0307	mg/Kg	10	06/04/13 18:07

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 18:07  
Container ID: 1132110012-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.043 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM





Results of **SMIC-O (10)**

Client Sample ID: **SMIC-O (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110012  
Lab Project ID: 1132110

Collection Date: 05/31/13 09:06  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 96.7

Results by **Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	20.4	U	20.4	6.33	mg/Kg	1	06/08/13 21:35
<b>Surrogates</b>							
5a Androstane	102		50-150		%	1	06/08/13 21:35

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 21:35  
Container ID: 1132110012-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.376 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	20.4	U	20.4	6.33	mg/Kg	1	06/08/13 21:35
<b>Surrogates</b>							
n-Triacontane-d62	120		50-150		%	1	06/08/13 21:35

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 21:35  
Container ID: 1132110012-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.376 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-O (10)

Client Sample ID: **SMIC-O (10)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110012  
 Lab Project ID: 1132110

Collection Date: 05/31/13 09:06  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.7

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
1,2-Dichlorobenzene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
1,3-Dichlorobenzene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
1,4-Dichlorobenzene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
1-Chloronaphthalene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
2,4,5-Trichlorophenol	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
2,4,6-Trichlorophenol	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
2,4-Dichlorophenol	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
2,4-Dimethylphenol	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
2,4-Dinitrophenol	3.09	U	3.09	0.968	mg/Kg	1	06/11/13 23:39
2,4-Dinitrotoluene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
2,6-Dichlorophenol	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
2,6-Dinitrotoluene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
2-Chloronaphthalene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
2-Chlorophenol	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
2-Methyl-4,6-dinitrophenol	2.06	U	2.06	0.638	mg/Kg	1	06/11/13 23:39
2-Methylnaphthalene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
2-Methylphenol (o-Cresol)	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
2-Nitroaniline	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
2-Nitrophenol	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
3&4-Methylphenol (p&m-Cresol)	1.03	U	1.03	0.319	mg/Kg	1	06/11/13 23:39
3,3-Dichlorobenzidine	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
3-Nitroaniline	0.515	U	0.515	0.154	mg/Kg	1	06/11/13 23:39
4-Bromophenyl-phenylether	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
4-Chloro-3-methylphenol	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
4-Chloroaniline	0.515	U	0.515	0.154	mg/Kg	1	06/11/13 23:39
4-Chlorophenyl-phenylether	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
4-Nitroaniline	3.09	U	3.09	0.968	mg/Kg	1	06/11/13 23:39
4-Nitrophenol	1.03	U	1.03	0.319	mg/Kg	1	06/11/13 23:39
Acenaphthene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Acenaphthylene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Aniline	2.06	U	2.06	0.638	mg/Kg	1	06/11/13 23:39
Anthracene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Azobenzene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Benzo(a)Anthracene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Benzo[a]pyrene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Benzo[b]Fluoranthene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Benzo[g,h,i]perylene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Benzo[k]fluoranthene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Benzoic acid	1.54	U	1.54	0.772	mg/Kg	1	06/11/13 23:39
Benzyl alcohol	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Bis(2-Chloroethoxy)methane	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Bis(2-Chloroethyl)ether	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
bis(2-Ethylhexyl)phthalate	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-O (10)

Client Sample ID: **SMIC-O (10)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110012  
 Lab Project ID: 1132110

Collection Date: 05/31/13 09:06  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.7

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Butylbenzylphthalate	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Carbazole	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Chrysene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Di-n-butylphthalate	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
di-n-Octylphthalate	0.515	U	0.515	0.154	mg/Kg	1	06/11/13 23:39
Dibenzo[a,h]anthracene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Dibenzofuran	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Diethylphthalate	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Dimethylphthalate	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Fluoranthene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Fluorene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Hexachlorobenzene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Hexachlorobutadiene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Hexachlorocyclopentadiene	0.721	U	0.721	0.206	mg/Kg	1	06/11/13 23:39
Hexachloroethane	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Indeno[1,2,3-c,d] pyrene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Isophorone	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
N-Nitroso-di-n-propylamine	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
N-Nitrosodimethylamine	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
N-Nitrosodiphenylamine	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Naphthalene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Nitrobenzene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Pentachlorophenol	2.06	U	2.06	0.638	mg/Kg	1	06/11/13 23:39
Phenanthrene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Phenol	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
Pyrene	0.257	U	0.257	0.0803	mg/Kg	1	06/11/13 23:39
<b>Surrogates</b>							
2,4,6-Tribromophenol	94.4		35-125		%	1	06/11/13 23:39
2-Fluorobiphenyl	86.7		45-105		%	1	06/11/13 23:39
2-Fluorophenol	62.8		35-105		%	1	06/11/13 23:39
Nitrobenzene-d5	64.2		35-100		%	1	06/11/13 23:39
Phenol-d6	70.4		40-100		%	1	06/11/13 23:39
Terphenyl-d14	94.2		30-125		%	1	06/11/13 23:39

## Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/11/13 23:39  
 Container ID: 1132110012-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.587 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (10)

Client Sample ID: **SMIC-O (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110012  
Lab Project ID: 1132110

Collection Date: 05/31/13 09:06  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 96.7

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	3.49	U	3.49	1.05	mg/Kg	1	06/06/13 22:21
<b>Surrogates</b>							
4-Bromofluorobenzene	101		50-150		%	1	06/06/13 22:21

### Batch Information

Analytical Batch: VFC11451  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/06/13 22:21  
Container ID: 1132110012-B

Prep Batch: VXX24779  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 09:06  
Prep Initial Wt./Vol.: 38.921 g  
Prep Extract Vol: 26.2675 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-O (10)

Client Sample ID: **SMIC-O (10)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110012  
 Lab Project ID: 1132110

Collection Date: 05/31/13 09:06  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.7

## Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,1,1-Trichloroethane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,1,2,2-Tetrachloroethane	69.8	U	69.8	20.9	ug/Kg	1	06/03/13 18:08
1,1,2-Trichloroethane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,1-Dichloroethane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,1-Dichloroethene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,1-Dichloropropene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,2,3-Trichlorobenzene	69.8	U	69.8	20.9	ug/Kg	1	06/03/13 18:08
1,2,3-Trichloropropane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,2,4-Trichlorobenzene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,2,4-Trimethylbenzene	69.8	U	69.8	20.9	ug/Kg	1	06/03/13 18:08
1,2-Dibromo-3-chloropropane	140	U	140	43.3	ug/Kg	1	06/03/13 18:08
1,2-Dibromoethane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,2-Dichlorobenzene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,2-Dichloroethane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,2-Dichloropropane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,3,5-Trimethylbenzene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,3-Dichlorobenzene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,3-Dichloropropane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
1,4-Dichlorobenzene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
2,2-Dichloropropane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
2-Butanone (MEK)	349	U	349	109	ug/Kg	1	06/03/13 18:08
2-Chlorotoluene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
2-Hexanone	349	U	349	109	ug/Kg	1	06/03/13 18:08
4-Chlorotoluene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
4-Isopropyltoluene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
4-Methyl-2-pentanone (MIBK)	349	U	349	109	ug/Kg	1	06/03/13 18:08
Benzene	17.4	U	17.4	5.44	ug/Kg	1	06/03/13 18:08
Bromobenzene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Bromochloromethane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Bromodichloromethane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Bromoform	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Bromomethane	279	U	279	86.5	ug/Kg	1	06/03/13 18:08
Carbon disulfide	140	U	140	43.3	ug/Kg	1	06/03/13 18:08
Carbon tetrachloride	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Chlorobenzene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Chloroethane	279	U	279	86.5	ug/Kg	1	06/03/13 18:08
Chloroform	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Chloromethane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
cis-1,2-Dichloroethene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
cis-1,3-Dichloropropene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Dibromochloromethane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Dibromomethane	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Dichlorodifluoromethane	69.8	U	69.8	20.9	ug/Kg	1	06/03/13 18:08

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (10)

Client Sample ID: **SMIC-O (10)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110012  
 Lab Project ID: 1132110

Collection Date: 05/31/13 09:06  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.7

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Hexachlorobutadiene	69.8	U	69.8	20.9	ug/Kg	1	06/03/13 18:08
Isopropylbenzene (Cumene)	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Methyl-t-butyl ether	140	U	140	43.3	ug/Kg	1	06/03/13 18:08
Methylene chloride	140	U	140	43.3	ug/Kg	1	06/03/13 18:08
n-Butylbenzene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
n-Propylbenzene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Naphthalene	69.8	U	69.8	20.9	ug/Kg	1	06/03/13 18:08
o-Xylene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
P & M -Xylene	69.8	U	69.8	20.9	ug/Kg	1	06/03/13 18:08
sec-Butylbenzene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Styrene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
tert-Butylbenzene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Tetrachloroethene	17.4	U	17.4	5.44	ug/Kg	1	06/03/13 18:08
Toluene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
trans-1,2-Dichloroethene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
trans-1,3-Dichloropropene	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Trichloroethene	17.4	U	17.4	5.44	ug/Kg	1	06/03/13 18:08
Trichlorofluoromethane	69.8	U	69.8	20.9	ug/Kg	1	06/03/13 18:08
Vinyl chloride	34.9	U	34.9	10.9	ug/Kg	1	06/03/13 18:08
Xylenes (total)	140	U	140	43.3	ug/Kg	1	06/03/13 18:08
<b>Surrogates</b>							
1,2-Dichloroethane-D4	114		79-118		%	1	06/03/13 18:08
4-Bromofluorobenzene	97.5		67-138		%	1	06/03/13 18:08
Toluene-d8	104		85-115		%	1	06/03/13 18:08

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 18:08  
 Container ID: 1132110012-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/31/13 09:06  
 Prep Initial Wt./Vol.: 38.921 g  
 Prep Extract Vol: 26.2675 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-O (25)

Client Sample ID: **SMIC-O (25)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110013  
 Lab Project ID: 1132110

Collection Date: 05/31/13 09:32  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 85.8

## Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	4.64		1.10	0.341	mg/Kg	10	06/04/13 18:10
Barium	32.5		0.330	0.103	mg/Kg	10	06/04/13 18:10
Cadmium	0.220	U	0.220	0.0682	mg/Kg	10	06/04/13 18:10
Chromium	32.9		0.440	0.132	mg/Kg	10	06/04/13 18:10
Lead	5.30		0.220	0.0682	mg/Kg	10	06/04/13 18:10
Mercury	0.0440	U	0.0440	0.0132	mg/Kg	10	06/04/13 18:10
Selenium	0.550	U	0.550	0.165	mg/Kg	10	06/04/13 18:10
Silver	0.110	U	0.110	0.0341	mg/Kg	10	06/04/13 18:10

## Batch Information

Analytical Batch: MMS7983  
 Analytical Method: SW6020  
 Analyst: HKS  
 Analytical Date/Time: 06/04/13 18:10  
 Container ID: 1132110013-A

Prep Batch: MXX26523  
 Prep Method: SW3050B  
 Prep Date/Time: 06/04/13 09:35  
 Prep Initial Wt./Vol.: 1.06 g  
 Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (25)

Client Sample ID: **SMIC-O (25)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110013  
 Lab Project ID: 1132110

Collection Date: 05/31/13 09:32  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 85.8

### Results by Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	23.0	U	23.0	7.12	mg/Kg	1	06/08/13 21:45
<b>Surrogates</b>							
5a Androstane	91.2		50-150		%	1	06/08/13 21:45

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK102  
 Analyst: MCM  
 Analytical Date/Time: 06/08/13 21:45  
 Container ID: 1132110013-A

Prep Batch: XXX29091  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 09:10  
 Prep Initial Wt./Vol.: 30.47 g  
 Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	23.0	U	23.0	7.12	mg/Kg	1	06/08/13 21:45
<b>Surrogates</b>							
n-Triacontane-d62	103		50-150		%	1	06/08/13 21:45

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK103  
 Analyst: MCM  
 Analytical Date/Time: 06/08/13 21:45  
 Container ID: 1132110013-A

Prep Batch: XXX29091  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 09:10  
 Prep Initial Wt./Vol.: 30.47 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM





Results of **SMIC-O (25)**

Client Sample ID: **SMIC-O (25)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110013  
Lab Project ID: 1132110

Collection Date: 05/31/13 09:32  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 85.8

Results by **Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
1,2-Dichlorobenzene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
1,3-Dichlorobenzene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
1,4-Dichlorobenzene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
1-Chloronaphthalene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
2,4,5-Trichlorophenol	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
2,4,6-Trichlorophenol	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
2,4-Dichlorophenol	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
2,4-Dimethylphenol	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
2,4-Dinitrophenol	3.49	U	3.49	1.09	mg/Kg	1	06/11/13 23:56
2,4-Dinitrotoluene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
2,6-Dichlorophenol	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
2,6-Dinitrotoluene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
2-Chloronaphthalene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
2-Chlorophenol	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
2-Methyl-4,6-dinitrophenol	2.32	U	2.32	0.720	mg/Kg	1	06/11/13 23:56
2-Methylnaphthalene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
2-Methylphenol (o-Cresol)	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
2-Nitroaniline	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
2-Nitrophenol	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
3&4-Methylphenol (p&m-Cresol)	1.16	U	1.16	0.360	mg/Kg	1	06/11/13 23:56
3,3-Dichlorobenzidine	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
3-Nitroaniline	0.581	U	0.581	0.174	mg/Kg	1	06/11/13 23:56
4-Bromophenyl-phenylether	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
4-Chloro-3-methylphenol	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
4-Chloroaniline	0.581	U	0.581	0.174	mg/Kg	1	06/11/13 23:56
4-Chlorophenyl-phenylether	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
4-Nitroaniline	3.49	U	3.49	1.09	mg/Kg	1	06/11/13 23:56
4-Nitrophenol	1.16	U	1.16	0.360	mg/Kg	1	06/11/13 23:56
Acenaphthene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Acenaphthylene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Aniline	2.32	U	2.32	0.720	mg/Kg	1	06/11/13 23:56
Anthracene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Azobenzene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Benzo(a)Anthracene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Benzo[a]pyrene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Benzo[b]Fluoranthene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Benzo[g,h,i]perylene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Benzo[k]fluoranthene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Benzoic acid	1.74	U	1.74	0.871	mg/Kg	1	06/11/13 23:56
Benzyl alcohol	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Bis(2-Chloroethoxy)methane	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Bis(2-Chloroethyl)ether	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
bis(2-Ethylhexyl)phthalate	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-O (25)

Client Sample ID: **SMIC-O (25)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110013  
 Lab Project ID: 1132110

Collection Date: 05/31/13 09:32  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 85.8

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Butylbenzylphthalate	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Carbazole	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Chrysene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Di-n-butylphthalate	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
di-n-Octylphthalate	0.581	U	0.581	0.174	mg/Kg	1	06/11/13 23:56
Dibenzo[a,h]anthracene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Dibenzofuran	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Diethylphthalate	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Dimethylphthalate	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Fluoranthene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Fluorene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Hexachlorobenzene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Hexachlorobutadiene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Hexachlorocyclopentadiene	0.813	U	0.813	0.232	mg/Kg	1	06/11/13 23:56
Hexachloroethane	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Indeno[1,2,3-c,d] pyrene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Isophorone	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
N-Nitroso-di-n-propylamine	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
N-Nitrosodimethylamine	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
N-Nitrosodiphenylamine	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Naphthalene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Nitrobenzene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Pentachlorophenol	2.32	U	2.32	0.720	mg/Kg	1	06/11/13 23:56
Phenanthrene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Phenol	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56
Pyrene	0.290	U	0.290	0.0906	mg/Kg	1	06/11/13 23:56

### Surrogates

2,4,6-Tribromophenol	94.9		35-125		%	1	06/11/13 23:56
2-Fluorobiphenyl	92.2		45-105		%	1	06/11/13 23:56
2-Fluorophenol	63.2		35-105		%	1	06/11/13 23:56
Nitrobenzene-d5	67.2		35-100		%	1	06/11/13 23:56
Phenol-d6	72.1		40-100		%	1	06/11/13 23:56
Terphenyl-d14	98.2		30-125		%	1	06/11/13 23:56

## Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/11/13 23:56  
 Container ID: 1132110013-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.579 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (25)

Client Sample ID: **SMIC-O (25)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110013  
Lab Project ID: 1132110

Collection Date: 05/31/13 09:32  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 85.8

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	3.01	U	3.01	0.903	mg/Kg	1	06/06/13 22:39
<b>Surrogates</b>							
4-Bromofluorobenzene	101		50-150		%	1	06/06/13 22:39

### Batch Information

Analytical Batch: VFC11451  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/06/13 22:39  
Container ID: 1132110013-B

Prep Batch: VXX24779  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 09:32  
Prep Initial Wt./Vol.: 66.856 g  
Prep Extract Vol: 34.5157 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (25)

Client Sample ID: **SMIC-O (25)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110013  
 Lab Project ID: 1132110

Collection Date: 05/31/13 09:32  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 85.8

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,1,1-Trichloroethane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,1,2,2-Tetrachloroethane	60.2	U	60.2	18.1	ug/Kg	1	06/03/13 18:25
1,1,2-Trichloroethane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,1-Dichloroethane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,1-Dichloroethene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,1-Dichloropropene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,2,3-Trichlorobenzene	60.2	U	60.2	18.1	ug/Kg	1	06/03/13 18:25
1,2,3-Trichloropropane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,2,4-Trichlorobenzene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,2,4-Trimethylbenzene	60.2	U	60.2	18.1	ug/Kg	1	06/03/13 18:25
1,2-Dibromo-3-chloropropane	120	U	120	37.3	ug/Kg	1	06/03/13 18:25
1,2-Dibromoethane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,2-Dichlorobenzene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,2-Dichloroethane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,2-Dichloropropane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,3,5-Trimethylbenzene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,3-Dichlorobenzene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,3-Dichloropropane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
1,4-Dichlorobenzene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
2,2-Dichloropropane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
2-Butanone (MEK)	301	U	301	93.9	ug/Kg	1	06/03/13 18:25
2-Chlorotoluene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
2-Hexanone	301	U	301	93.9	ug/Kg	1	06/03/13 18:25
4-Chlorotoluene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
4-Isopropyltoluene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
4-Methyl-2-pentanone (MIBK)	301	U	301	93.9	ug/Kg	1	06/03/13 18:25
Benzene	15.0	U	15.0	4.70	ug/Kg	1	06/03/13 18:25
Bromobenzene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Bromochloromethane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Bromodichloromethane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Bromoform	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Bromomethane	241	U	241	74.6	ug/Kg	1	06/03/13 18:25
Carbon disulfide	120	U	120	37.3	ug/Kg	1	06/03/13 18:25
Carbon tetrachloride	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Chlorobenzene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Chloroethane	241	U	241	74.6	ug/Kg	1	06/03/13 18:25
Chloroform	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Chloromethane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
cis-1,2-Dichloroethene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
cis-1,3-Dichloropropene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Dibromochloromethane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Dibromomethane	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Dichlorodifluoromethane	60.2	U	60.2	18.1	ug/Kg	1	06/03/13 18:25

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-O (25)

Client Sample ID: **SMIC-O (25)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110013  
 Lab Project ID: 1132110

Collection Date: 05/31/13 09:32  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 85.8

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Hexachlorobutadiene	60.2	U	60.2	18.1	ug/Kg	1	06/03/13 18:25
Isopropylbenzene (Cumene)	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Methyl-t-butyl ether	120	U	120	37.3	ug/Kg	1	06/03/13 18:25
Methylene chloride	120	U	120	37.3	ug/Kg	1	06/03/13 18:25
n-Butylbenzene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
n-Propylbenzene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Naphthalene	60.2	U	60.2	18.1	ug/Kg	1	06/03/13 18:25
o-Xylene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
P & M -Xylene	60.2	U	60.2	18.1	ug/Kg	1	06/03/13 18:25
sec-Butylbenzene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Styrene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
tert-Butylbenzene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Tetrachloroethene	15.0	U	15.0	4.70	ug/Kg	1	06/03/13 18:25
Toluene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
trans-1,2-Dichloroethene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
trans-1,3-Dichloropropene	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Trichloroethene	15.0	U	15.0	4.70	ug/Kg	1	06/03/13 18:25
Trichlorofluoromethane	60.2	U	60.2	18.1	ug/Kg	1	06/03/13 18:25
Vinyl chloride	30.1	U	30.1	9.39	ug/Kg	1	06/03/13 18:25
Xylenes (total)	120	U	120	37.3	ug/Kg	1	06/03/13 18:25
<b>Surrogates</b>							
1,2-Dichloroethane-D4	108		79-118		%	1	06/03/13 18:25
4-Bromofluorobenzene	98		67-138		%	1	06/03/13 18:25
Toluene-d8	98.7		85-115		%	1	06/03/13 18:25

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 18:25  
 Container ID: 1132110013-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/31/13 09:32  
 Prep Initial Wt./Vol.: 66.856 g  
 Prep Extract Vol: 34.5157 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (0)

Client Sample ID: **SMIC-M (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110014  
Lab Project ID: 1132110

Collection Date: 05/31/13 13:23  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.5

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	4.19		0.964	0.299	mg/Kg	10	06/04/13 18:16
Barium	33.9		0.289	0.0906	mg/Kg	10	06/04/13 18:16
Cadmium	0.193	U	0.193	0.0598	mg/Kg	10	06/04/13 18:16
Chromium	32.0		0.386	0.116	mg/Kg	10	06/04/13 18:16
Lead	5.05		0.193	0.0598	mg/Kg	10	06/04/13 18:16
Mercury	0.0386	U	0.0386	0.0116	mg/Kg	10	06/04/13 18:16
Selenium	0.482	U	0.482	0.145	mg/Kg	10	06/04/13 18:16
Silver	0.0964	U	0.0964	0.0299	mg/Kg	10	06/04/13 18:16

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 18:16  
Container ID: 1132110014-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.064 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-M (0)**

Client Sample ID: **SMIC-M (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110014  
Lab Project ID: 1132110

Collection Date: 05/31/13 13:23  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.5

Results by **Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	24.3		20.2	6.27	mg/Kg	1	06/08/13 21:54
<b>Surrogates</b>							
5a Androstane	119		50-150		%	1	06/08/13 21:54

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 21:54  
Container ID: 1132110014-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.426 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	146		20.2	6.27	mg/Kg	1	06/08/13 21:54
<b>Surrogates</b>							
n-Triacontane-d62	140		50-150		%	1	06/08/13 21:54

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 21:54  
Container ID: 1132110014-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.426 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-M (0)

Client Sample ID: **SMIC-M (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110014  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:23  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.5

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
1,2-Dichlorobenzene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
1,3-Dichlorobenzene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
1,4-Dichlorobenzene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
1-Chloronaphthalene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
2,4,5-Trichlorophenol	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
2,4,6-Trichlorophenol	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
2,4-Dichlorophenol	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
2,4-Dimethylphenol	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
2,4-Dinitrophenol	3.03	U	3.03	0.949	mg/Kg	1	06/12/13 00:13
2,4-Dinitrotoluene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
2,6-Dichlorophenol	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
2,6-Dinitrotoluene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
2-Chloronaphthalene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
2-Chlorophenol	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
2-Methyl-4,6-dinitrophenol	2.02	U	2.02	0.626	mg/Kg	1	06/12/13 00:13
2-Methylnaphthalene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
2-Methylphenol (o-Cresol)	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
2-Nitroaniline	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
2-Nitrophenol	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
3&4-Methylphenol (p&m-Cresol)	1.01	U	1.01	0.313	mg/Kg	1	06/12/13 00:13
3,3-Dichlorobenzidine	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
3-Nitroaniline	0.505	U	0.505	0.151	mg/Kg	1	06/12/13 00:13
4-Bromophenyl-phenylether	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
4-Chloro-3-methylphenol	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
4-Chloroaniline	0.505	U	0.505	0.151	mg/Kg	1	06/12/13 00:13
4-Chlorophenyl-phenylether	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
4-Nitroaniline	3.03	U	3.03	0.949	mg/Kg	1	06/12/13 00:13
4-Nitrophenol	1.01	U	1.01	0.313	mg/Kg	1	06/12/13 00:13
Acenaphthene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Acenaphthylene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Aniline	2.02	U	2.02	0.626	mg/Kg	1	06/12/13 00:13
Anthracene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Azobenzene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Benzo(a)Anthracene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Benzo[a]pyrene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Benzo[b]Fluoranthene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Benzo[g,h,i]perylene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Benzo[k]fluoranthene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Benzoic acid	1.51	U	1.51	0.757	mg/Kg	1	06/12/13 00:13
Benzyl alcohol	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Bis(2-Chloroethoxy)methane	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Bis(2-Chloroethyl)ether	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
bis(2-Ethylhexyl)phthalate	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13

Print Date: 06/27/2013 5:39:07PM



## Results of SMIC-M (0)

Client Sample ID: **SMIC-M (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110014  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:23  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.5

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Butylbenzylphthalate	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Carbazole	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Chrysene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Di-n-butylphthalate	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
di-n-Octylphthalate	0.505	U	0.505	0.151	mg/Kg	1	06/12/13 00:13
Dibenzo[a,h]anthracene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Dibenzofuran	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Diethylphthalate	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Dimethylphthalate	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Fluoranthene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Fluorene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Hexachlorobenzene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Hexachlorobutadiene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Hexachlorocyclopentadiene	0.707	U	0.707	0.202	mg/Kg	1	06/12/13 00:13
Hexachloroethane	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Indeno[1,2,3-c,d] pyrene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Isophorone	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
N-Nitroso-di-n-propylamine	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
N-Nitrosodimethylamine	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
N-Nitrosodiphenylamine	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Naphthalene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Nitrobenzene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Pentachlorophenol	2.02	U	2.02	0.626	mg/Kg	1	06/12/13 00:13
Phenanthrene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Phenol	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13
Pyrene	0.252	U	0.252	0.0788	mg/Kg	1	06/12/13 00:13

### Surrogates

2,4,6-Tribromophenol	95.5		35-125		%	1	06/12/13 00:13
2-Fluorobiphenyl	96.4		45-105		%	1	06/12/13 00:13
2-Fluorophenol	70		35-105		%	1	06/12/13 00:13
Nitrobenzene-d5	73.1		35-100		%	1	06/12/13 00:13
Phenol-d6	78.9		40-100		%	1	06/12/13 00:13
Terphenyl-d14	102		30-125		%	1	06/12/13 00:13

### Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/12/13 00:13  
 Container ID: 1132110014-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.846 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (0)

Client Sample ID: **SMIC-M (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110014  
Lab Project ID: 1132110

Collection Date: 05/31/13 13:23  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.5

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	1.99	U	1.99	0.597	mg/Kg	1	06/06/13 22:58
<b>Surrogates</b>							
4-Bromofluorobenzene	99.9		50-150		%	1	06/06/13 22:58

### Batch Information

Analytical Batch: VFC11451  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/06/13 22:58  
Container ID: 1132110014-B

Prep Batch: VXX24779  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 13:23  
Prep Initial Wt./Vol.: 68.799 g  
Prep Extract Vol: 26.7071 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-M (0)**

Client Sample ID: **SMIC-M (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110014  
Lab Project ID: 1132110

Collection Date: 05/31/13 13:23  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.5

Results by **Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,1,1-Trichloroethane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,1,2,2-Tetrachloroethane	39.8	U	39.8	11.9	ug/Kg	1	06/03/13 18:42
1,1,2-Trichloroethane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,1-Dichloroethane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,1-Dichloroethene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,1-Dichloropropene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,2,3-Trichlorobenzene	39.8	U	39.8	11.9	ug/Kg	1	06/03/13 18:42
1,2,3-Trichloropropane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,2,4-Trichlorobenzene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,2,4-Trimethylbenzene	39.8	U	39.8	11.9	ug/Kg	1	06/03/13 18:42
1,2-Dibromo-3-chloropropane	79.6	U	79.6	24.7	ug/Kg	1	06/03/13 18:42
1,2-Dibromoethane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,2-Dichlorobenzene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,2-Dichloroethane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,2-Dichloropropane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,3,5-Trimethylbenzene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,3-Dichlorobenzene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,3-Dichloropropane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
1,4-Dichlorobenzene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
2,2-Dichloropropane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
2-Butanone (MEK)	199	U	199	62.1	ug/Kg	1	06/03/13 18:42
2-Chlorotoluene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
2-Hexanone	199	U	199	62.1	ug/Kg	1	06/03/13 18:42
4-Chlorotoluene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
4-Isopropyltoluene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
4-Methyl-2-pentanone (MIBK)	199	U	199	62.1	ug/Kg	1	06/03/13 18:42
Benzene	9.95	U	9.95	3.10	ug/Kg	1	06/03/13 18:42
Bromobenzene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Bromochloromethane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Bromodichloromethane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Bromoform	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Bromomethane	159	U	159	49.4	ug/Kg	1	06/03/13 18:42
Carbon disulfide	79.6	U	79.6	24.7	ug/Kg	1	06/03/13 18:42
Carbon tetrachloride	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Chlorobenzene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Chloroethane	159	U	159	49.4	ug/Kg	1	06/03/13 18:42
Chloroform	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Chloromethane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
cis-1,2-Dichloroethene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
cis-1,3-Dichloropropene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Dibromochloromethane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Dibromomethane	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Dichlorodifluoromethane	39.8	U	39.8	11.9	ug/Kg	1	06/03/13 18:42

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-M (0)**

Client Sample ID: **SMIC-M (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110014  
Lab Project ID: 1132110

Collection Date: 05/31/13 13:23  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.5

Results by **Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Ethylbenzene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Hexachlorobutadiene	39.8	U	39.8	11.9	ug/Kg	1	06/03/13 18:42
Isopropylbenzene (Cumene)	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Methyl-t-butyl ether	79.6	U	79.6	24.7	ug/Kg	1	06/03/13 18:42
Methylene chloride	79.6	U	79.6	24.7	ug/Kg	1	06/03/13 18:42
n-Butylbenzene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
n-Propylbenzene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Naphthalene	39.8	U	39.8	11.9	ug/Kg	1	06/03/13 18:42
o-Xylene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
P & M -Xylene	39.8	U	39.8	11.9	ug/Kg	1	06/03/13 18:42
sec-Butylbenzene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Styrene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
tert-Butylbenzene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Tetrachloroethene	9.95	U	9.95	3.10	ug/Kg	1	06/03/13 18:42
Toluene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
trans-1,2-Dichloroethene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
trans-1,3-Dichloropropene	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Trichloroethene	9.95	U	9.95	3.10	ug/Kg	1	06/03/13 18:42
Trichlorofluoromethane	39.8	U	39.8	11.9	ug/Kg	1	06/03/13 18:42
Vinyl chloride	19.9	U	19.9	6.21	ug/Kg	1	06/03/13 18:42
Xylenes (total)	79.6	U	79.6	24.7	ug/Kg	1	06/03/13 18:42

**Surrogates**

1,2-Dichloroethane-D4	114		79-118		%	1	06/03/13 18:42
4-Bromofluorobenzene	99.4		67-138		%	1	06/03/13 18:42
Toluene-d8	102		85-115		%	1	06/03/13 18:42

**Batch Information**

Analytical Batch: VMS13531  
Analytical Method: SW8260B  
Analyst: HM  
Analytical Date/Time: 06/03/13 18:42  
Container ID: 1132110014-B

Prep Batch: VXX24765  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 13:23  
Prep Initial Wt./Vol.: 68.799 g  
Prep Extract Vol: 26.7071 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (1.5)

Client Sample ID: **SMIC-M (1.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110015  
Lab Project ID: 1132110

Collection Date: 05/31/13 13:29  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.4

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	4.44		0.962	0.298	mg/Kg	10	06/04/13 18:19
Barium	37.0		0.289	0.0904	mg/Kg	10	06/04/13 18:19
Cadmium	0.192	U	0.192	0.0597	mg/Kg	10	06/04/13 18:19
Chromium	32.7		0.385	0.115	mg/Kg	10	06/04/13 18:19
Lead	5.56		0.192	0.0597	mg/Kg	10	06/04/13 18:19
Mercury	0.0385	U	0.0385	0.0115	mg/Kg	10	06/04/13 18:19
Selenium	0.481	U	0.481	0.144	mg/Kg	10	06/04/13 18:19
Silver	0.0962	U	0.0962	0.0298	mg/Kg	10	06/04/13 18:19

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 18:19  
Container ID: 1132110015-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.067 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (1.5)

Client Sample ID: **SMIC-M (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110015  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:29  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.4

### Results by Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	32.6		20.0	6.20	mg/Kg	1	06/08/13 22:04
<b>Surrogates</b>							
5a Androstane	122		50-150		%	1	06/08/13 22:04

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK102  
 Analyst: MCM  
 Analytical Date/Time: 06/08/13 22:04  
 Container ID: 1132110015-A

Prep Batch: XXX29091  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 09:10  
 Prep Initial Wt./Vol.: 30.794 g  
 Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	184		20.0	6.20	mg/Kg	1	06/08/13 22:04
<b>Surrogates</b>							
n-Triacontane-d62	141		50-150		%	1	06/08/13 22:04

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK103  
 Analyst: MCM  
 Analytical Date/Time: 06/08/13 22:04  
 Container ID: 1132110015-A

Prep Batch: XXX29091  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 09:10  
 Prep Initial Wt./Vol.: 30.794 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-M (1.5)

Client Sample ID: **SMIC-M (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110015  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:29  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.4

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
1,2-Dichlorobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
1,3-Dichlorobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
1,4-Dichlorobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
1-Chloronaphthalene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
2,4,5-Trichlorophenol	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
2,4,6-Trichlorophenol	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
2,4-Dichlorophenol	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
2,4-Dimethylphenol	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
2,4-Dinitrophenol	3.05	U	3.05	0.956	mg/Kg	1	06/12/13 00:30
2,4-Dinitrotoluene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
2,6-Dichlorophenol	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
2,6-Dinitrotoluene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
2-Chloronaphthalene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
2-Chlorophenol	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
2-Methyl-4,6-dinitrophenol	2.03	U	2.03	0.631	mg/Kg	1	06/12/13 00:30
2-Methylnaphthalene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
2-Methylphenol (o-Cresol)	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
2-Nitroaniline	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
2-Nitrophenol	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
3&4-Methylphenol (p&m-Cresol)	1.02	U	1.02	0.315	mg/Kg	1	06/12/13 00:30
3,3-Dichlorobenzidine	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
3-Nitroaniline	0.509	U	0.509	0.153	mg/Kg	1	06/12/13 00:30
4-Bromophenyl-phenylether	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
4-Chloro-3-methylphenol	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
4-Chloroaniline	0.509	U	0.509	0.153	mg/Kg	1	06/12/13 00:30
4-Chlorophenyl-phenylether	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
4-Nitroaniline	3.05	U	3.05	0.956	mg/Kg	1	06/12/13 00:30
4-Nitrophenol	1.02	U	1.02	0.315	mg/Kg	1	06/12/13 00:30
Acenaphthene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Acenaphthylene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Aniline	2.03	U	2.03	0.631	mg/Kg	1	06/12/13 00:30
Anthracene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Azobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Benzo(a)Anthracene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Benzo[a]pyrene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Benzo[b]Fluoranthene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Benzo[g,h,i]perylene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Benzo[k]fluoranthene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Benzoic acid	1.53	U	1.53	0.763	mg/Kg	1	06/12/13 00:30
Benzyl alcohol	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Bis(2-Chloroethoxy)methane	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Bis(2-Chloroethyl)ether	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
bis(2-Ethylhexyl)phthalate	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30

Print Date: 06/27/2013 5:39:07PM

**Results of SMIC-M (1.5)**

Client Sample ID: **SMIC-M (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110015  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:29  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.4

**Results by Semivolatile Organic GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Butylbenzylphthalate	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Carbazole	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Chrysene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Di-n-butylphthalate	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
di-n-Octylphthalate	0.509	U	0.509	0.153	mg/Kg	1	06/12/13 00:30
Dibenzo[a,h]anthracene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Dibenzofuran	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Diethylphthalate	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Dimethylphthalate	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Fluoranthene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Fluorene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Hexachlorobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Hexachlorobutadiene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Hexachlorocyclopentadiene	0.712	U	0.712	0.203	mg/Kg	1	06/12/13 00:30
Hexachloroethane	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Indeno[1,2,3-c,d] pyrene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Isophorone	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
N-Nitroso-di-n-propylamine	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
N-Nitrosodimethylamine	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
N-Nitrosodiphenylamine	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Naphthalene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Nitrobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Pentachlorophenol	2.03	U	2.03	0.631	mg/Kg	1	06/12/13 00:30
Phenanthrene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Phenol	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30
Pyrene	0.254	U	0.254	0.0793	mg/Kg	1	06/12/13 00:30

**Surrogates**

2,4,6-Tribromophenol	95.9		35-125		%	1	06/12/13 00:30
2-Fluorobiphenyl	90.7		45-105		%	1	06/12/13 00:30
2-Fluorophenol	65.3		35-105		%	1	06/12/13 00:30
Nitrobenzene-d5	67.5		35-100		%	1	06/12/13 00:30
Phenol-d6	75.9		40-100		%	1	06/12/13 00:30
Terphenyl-d14	106		30-125		%	1	06/12/13 00:30

**Batch Information**

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/12/13 00:30  
 Container ID: 1132110015-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.713 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM





### Results of SMIC-M (1.5)

Client Sample ID: **SMIC-M (1.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110015  
Lab Project ID: 1132110

Collection Date: 05/31/13 13:29  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.4

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.00	U	2.00	0.599	mg/Kg	1	06/06/13 23:17
<b>Surrogates</b>							
4-Bromofluorobenzene	104		50-150		%	1	06/06/13 23:17

### Batch Information

Analytical Batch: VFC11451  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/06/13 23:17  
Container ID: 1132110015-B

Prep Batch: VXX24779  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 13:29  
Prep Initial Wt./Vol.: 68.812 g  
Prep Extract Vol: 26.7848 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-M (1.5)

Client Sample ID: **SMIC-M (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110015  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:29  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.4

## Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,1,1-Trichloroethane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,1,2,2-Tetrachloroethane	40.0	U	40.0	12.0	ug/Kg	1	06/03/13 18:58
1,1,2-Trichloroethane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,1-Dichloroethane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,1-Dichloroethene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,1-Dichloropropene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,2,3-Trichlorobenzene	40.0	U	40.0	12.0	ug/Kg	1	06/03/13 18:58
1,2,3-Trichloropropane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,2,4-Trichlorobenzene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,2,4-Trimethylbenzene	40.0	U	40.0	12.0	ug/Kg	1	06/03/13 18:58
1,2-Dibromo-3-chloropropane	79.9	U	79.9	24.8	ug/Kg	1	06/03/13 18:58
1,2-Dibromoethane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,2-Dichlorobenzene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,2-Dichloroethane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,2-Dichloropropane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,3,5-Trimethylbenzene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,3-Dichlorobenzene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,3-Dichloropropane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
1,4-Dichlorobenzene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
2,2-Dichloropropane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
2-Butanone (MEK)	200	U	200	62.3	ug/Kg	1	06/03/13 18:58
2-Chlorotoluene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
2-Hexanone	200	U	200	62.3	ug/Kg	1	06/03/13 18:58
4-Chlorotoluene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
4-Isopropyltoluene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
4-Methyl-2-pentanone (MIBK)	200	U	200	62.3	ug/Kg	1	06/03/13 18:58
Benzene	9.99	U	9.99	3.12	ug/Kg	1	06/03/13 18:58
Bromobenzene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Bromochloromethane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Bromodichloromethane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Bromoform	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Bromomethane	160	U	160	49.6	ug/Kg	1	06/03/13 18:58
Carbon disulfide	79.9	U	79.9	24.8	ug/Kg	1	06/03/13 18:58
Carbon tetrachloride	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Chlorobenzene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Chloroethane	160	U	160	49.6	ug/Kg	1	06/03/13 18:58
Chloroform	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Chloromethane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
cis-1,2-Dichloroethene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
cis-1,3-Dichloropropene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Dibromochloromethane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Dibromomethane	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Dichlorodifluoromethane	40.0	U	40.0	12.0	ug/Kg	1	06/03/13 18:58

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (1.5)

Client Sample ID: **SMIC-M (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110015  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:29  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.4

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Hexachlorobutadiene	40.0	U	40.0	12.0	ug/Kg	1	06/03/13 18:58
Isopropylbenzene (Cumene)	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Methyl-t-butyl ether	79.9	U	79.9	24.8	ug/Kg	1	06/03/13 18:58
Methylene chloride	79.9	U	79.9	24.8	ug/Kg	1	06/03/13 18:58
n-Butylbenzene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
n-Propylbenzene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Naphthalene	40.0	U	40.0	12.0	ug/Kg	1	06/03/13 18:58
o-Xylene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
P & M -Xylene	40.0	U	40.0	12.0	ug/Kg	1	06/03/13 18:58
sec-Butylbenzene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Styrene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
tert-Butylbenzene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Tetrachloroethene	9.99	U	9.99	3.12	ug/Kg	1	06/03/13 18:58
Toluene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
trans-1,2-Dichloroethene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
trans-1,3-Dichloropropene	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Trichloroethene	9.99	U	9.99	3.12	ug/Kg	1	06/03/13 18:58
Trichlorofluoromethane	40.0	U	40.0	12.0	ug/Kg	1	06/03/13 18:58
Vinyl chloride	20.0	U	20.0	6.23	ug/Kg	1	06/03/13 18:58
Xylenes (total)	79.9	U	79.9	24.8	ug/Kg	1	06/03/13 18:58
<b>Surrogates</b>							
1,2-Dichloroethane-D4	110		79-118		%	1	06/03/13 18:58
4-Bromofluorobenzene	101		67-138		%	1	06/03/13 18:58
Toluene-d8	103		85-115		%	1	06/03/13 18:58

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 18:58  
 Container ID: 1132110015-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/31/13 13:29  
 Prep Initial Wt./Vol.: 68.812 g  
 Prep Extract Vol: 26.7848 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (5)

Client Sample ID: **SMIC-M (5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110016  
Lab Project ID: 1132110

Collection Date: 05/31/13 13:37  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.3

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	4.06		0.985	0.305	mg/Kg	10	06/04/13 18:21
Barium	31.5		0.295	0.0926	mg/Kg	10	06/04/13 18:21
Cadmium	0.197	U	0.197	0.0611	mg/Kg	10	06/04/13 18:21
Chromium	27.3		0.394	0.118	mg/Kg	10	06/04/13 18:21
Lead	5.55		0.197	0.0611	mg/Kg	10	06/04/13 18:21
Mercury	0.0394	U	0.0394	0.0118	mg/Kg	10	06/04/13 18:21
Selenium	0.492	U	0.492	0.148	mg/Kg	10	06/04/13 18:21
Silver	0.0985	U	0.0985	0.0305	mg/Kg	10	06/04/13 18:21

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 18:21  
Container ID: 1132110016-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.043 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (5)

Client Sample ID: **SMIC-M (5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110016  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:37  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.3

### Results by Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	20.1	U	20.1	6.23	mg/Kg	1	06/08/13 22:13
<b>Surrogates</b>							
5a Androstane	100		50-150		%	1	06/08/13 22:13

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK102  
 Analyst: MCM  
 Analytical Date/Time: 06/08/13 22:13  
 Container ID: 1132110016-A

Prep Batch: XXX29091  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 09:10  
 Prep Initial Wt./Vol.: 30.665 g  
 Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	20.1	U	20.1	6.23	mg/Kg	1	06/08/13 22:13
<b>Surrogates</b>							
n-Triacontane-d62	114		50-150		%	1	06/08/13 22:13

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK103  
 Analyst: MCM  
 Analytical Date/Time: 06/08/13 22:13  
 Container ID: 1132110016-A

Prep Batch: XXX29091  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 09:10  
 Prep Initial Wt./Vol.: 30.665 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-M (5)

Client Sample ID: **SMIC-M (5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110016  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:37  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.3

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
1,2-Dichlorobenzene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
1,3-Dichlorobenzene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
1,4-Dichlorobenzene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
1-Chloronaphthalene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
2,4,5-Trichlorophenol	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
2,4,6-Trichlorophenol	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
2,4-Dichlorophenol	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
2,4-Dimethylphenol	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
2,4-Dinitrophenol	3.06	U	3.06	0.959	mg/Kg	1	06/12/13 00:47
2,4-Dinitrotoluene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
2,6-Dichlorophenol	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
2,6-Dinitrotoluene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
2-Chloronaphthalene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
2-Chlorophenol	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
2-Methyl-4,6-dinitrophenol	2.04	U	2.04	0.633	mg/Kg	1	06/12/13 00:47
2-Methylnaphthalene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
2-Methylphenol (o-Cresol)	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
2-Nitroaniline	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
2-Nitrophenol	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
3&4-Methylphenol (p&m-Cresol)	1.02	U	1.02	0.316	mg/Kg	1	06/12/13 00:47
3,3-Dichlorobenzidine	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
3-Nitroaniline	0.510	U	0.510	0.153	mg/Kg	1	06/12/13 00:47
4-Bromophenyl-phenylether	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
4-Chloro-3-methylphenol	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
4-Chloroaniline	0.510	U	0.510	0.153	mg/Kg	1	06/12/13 00:47
4-Chlorophenyl-phenylether	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
4-Nitroaniline	3.06	U	3.06	0.959	mg/Kg	1	06/12/13 00:47
4-Nitrophenol	1.02	U	1.02	0.316	mg/Kg	1	06/12/13 00:47
Acenaphthene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Acenaphthylene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Aniline	2.04	U	2.04	0.633	mg/Kg	1	06/12/13 00:47
Anthracene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Azobenzene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Benzo(a)Anthracene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Benzo[a]pyrene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Benzo[b]Fluoranthene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Benzo[g,h,i]perylene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Benzo[k]fluoranthene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Benzoic acid	1.53	U	1.53	0.765	mg/Kg	1	06/12/13 00:47
Benzyl alcohol	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Bis(2-Chloroethoxy)methane	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Bis(2-Chloroethyl)ether	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
bis(2-Ethylhexyl)phthalate	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-M (5)

Client Sample ID: **SMIC-M (5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110016  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:37  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.3

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Butylbenzylphthalate	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Carbazole	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Chrysene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Di-n-butylphthalate	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
di-n-Octylphthalate	0.510	U	0.510	0.153	mg/Kg	1	06/12/13 00:47
Dibenzo[a,h]anthracene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Dibenzofuran	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Diethylphthalate	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Dimethylphthalate	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Fluoranthene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Fluorene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Hexachlorobenzene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Hexachlorobutadiene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Hexachlorocyclopentadiene	0.714	U	0.714	0.204	mg/Kg	1	06/12/13 00:47
Hexachloroethane	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Indeno[1,2,3-c,d] pyrene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Isophorone	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
N-Nitroso-di-n-propylamine	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
N-Nitrosodimethylamine	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
N-Nitrosodiphenylamine	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Naphthalene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Nitrobenzene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Pentachlorophenol	2.04	U	2.04	0.633	mg/Kg	1	06/12/13 00:47
Phenanthrene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Phenol	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47
Pyrene	0.255	U	0.255	0.0796	mg/Kg	1	06/12/13 00:47

### Surrogates

2,4,6-Tribromophenol	96.9		35-125		%	1	06/12/13 00:47
2-Fluorobiphenyl	92.4		45-105		%	1	06/12/13 00:47
2-Fluorophenol	65.5		35-105		%	1	06/12/13 00:47
Nitrobenzene-d5	65.1		35-100		%	1	06/12/13 00:47
Phenol-d6	76.3		40-100		%	1	06/12/13 00:47
Terphenyl-d14	99		30-125		%	1	06/12/13 00:47

## Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/12/13 00:47  
 Container ID: 1132110016-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.658 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (5)

Client Sample ID: **SMIC-M (5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110016  
Lab Project ID: 1132110

Collection Date: 05/31/13 13:37  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.3

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.80	U	2.80	0.841	mg/Kg	1	06/06/13 23:35
<b>Surrogates</b>							
4-Bromofluorobenzene	97.8		50-150		%	1	06/06/13 23:35

### Batch Information

Analytical Batch: VFC11451  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/06/13 23:35  
Container ID: 1132110016-B

Prep Batch: VXX24779  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 13:37  
Prep Initial Wt./Vol.: 48.143 g  
Prep Extract Vol: 26.2816 mL

Print Date: 06/27/2013 5:39:07PM



## Results of SMIC-M (5)

Client Sample ID: **SMIC-M (5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110016  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:37  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.3

## Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,1,1-Trichloroethane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,1,2,2-Tetrachloroethane	56.1	U	56.1	16.8	ug/Kg	1	06/03/13 19:15
1,1,2-Trichloroethane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,1-Dichloroethane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,1-Dichloroethene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,1-Dichloropropene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,2,3-Trichlorobenzene	56.1	U	56.1	16.8	ug/Kg	1	06/03/13 19:15
1,2,3-Trichloropropane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,2,4-Trichlorobenzene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,2,4-Trimethylbenzene	56.1	U	56.1	16.8	ug/Kg	1	06/03/13 19:15
1,2-Dibromo-3-chloropropane	112	U	112	34.8	ug/Kg	1	06/03/13 19:15
1,2-Dibromoethane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,2-Dichlorobenzene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,2-Dichloroethane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,2-Dichloropropane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,3,5-Trimethylbenzene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,3-Dichlorobenzene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,3-Dichloropropane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
1,4-Dichlorobenzene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
2,2-Dichloropropane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
2-Butanone (MEK)	280	U	280	87.5	ug/Kg	1	06/03/13 19:15
2-Chlorotoluene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
2-Hexanone	280	U	280	87.5	ug/Kg	1	06/03/13 19:15
4-Chlorotoluene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
4-Isopropyltoluene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
4-Methyl-2-pentanone (MIBK)	280	U	280	87.5	ug/Kg	1	06/03/13 19:15
Benzene	14.0	U	14.0	4.37	ug/Kg	1	06/03/13 19:15
Bromobenzene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Bromochloromethane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Bromodichloromethane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Bromoform	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Bromomethane	224	U	224	69.5	ug/Kg	1	06/03/13 19:15
Carbon disulfide	112	U	112	34.8	ug/Kg	1	06/03/13 19:15
Carbon tetrachloride	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Chlorobenzene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Chloroethane	224	U	224	69.5	ug/Kg	1	06/03/13 19:15
Chloroform	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Chloromethane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
cis-1,2-Dichloroethene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
cis-1,3-Dichloropropene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Dibromochloromethane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Dibromomethane	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Dichlorodifluoromethane	56.1	U	56.1	16.8	ug/Kg	1	06/03/13 19:15

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (5)

Client Sample ID: **SMIC-M (5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110016  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:37  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.3

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Hexachlorobutadiene	56.1	U	56.1	16.8	ug/Kg	1	06/03/13 19:15
Isopropylbenzene (Cumene)	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Methyl-t-butyl ether	112	U	112	34.8	ug/Kg	1	06/03/13 19:15
Methylene chloride	112	U	112	34.8	ug/Kg	1	06/03/13 19:15
n-Butylbenzene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
n-Propylbenzene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Naphthalene	56.1	U	56.1	16.8	ug/Kg	1	06/03/13 19:15
o-Xylene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
P & M -Xylene	56.1	U	56.1	16.8	ug/Kg	1	06/03/13 19:15
sec-Butylbenzene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Styrene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
tert-Butylbenzene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Tetrachloroethene	14.0	U	14.0	4.37	ug/Kg	1	06/03/13 19:15
Toluene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
trans-1,2-Dichloroethene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
trans-1,3-Dichloropropene	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Trichloroethene	14.0	U	14.0	4.37	ug/Kg	1	06/03/13 19:15
Trichlorofluoromethane	56.1	U	56.1	16.8	ug/Kg	1	06/03/13 19:15
Vinyl chloride	28.0	U	28.0	8.75	ug/Kg	1	06/03/13 19:15
Xylenes (total)	112	U	112	34.8	ug/Kg	1	06/03/13 19:15
<b>Surrogates</b>							
1,2-Dichloroethane-D4	108		79-118		%	1	06/03/13 19:15
4-Bromofluorobenzene	96.4		67-138		%	1	06/03/13 19:15
Toluene-d8	102		85-115		%	1	06/03/13 19:15

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 19:15  
 Container ID: 1132110016-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/31/13 13:37  
 Prep Initial Wt./Vol.: 48.143 g  
 Prep Extract Vol: 26.2816 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (20)

Client Sample ID: **SMIC-M (20)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110017  
Lab Project ID: 1132110

Collection Date: 05/31/13 14:02  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 86.6

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	4.66		0.986	0.306	mg/Kg	10	06/04/13 18:23
Barium	43.0		0.296	0.0927	mg/Kg	10	06/04/13 18:23
Cadmium	0.197	U	0.197	0.0611	mg/Kg	10	06/04/13 18:23
Chromium	34.2		0.394	0.118	mg/Kg	10	06/04/13 18:23
Lead	5.59		0.197	0.0611	mg/Kg	10	06/04/13 18:23
Mercury	0.0394	U	0.0394	0.0118	mg/Kg	10	06/04/13 18:23
Selenium	0.493	U	0.493	0.148	mg/Kg	10	06/04/13 18:23
Silver	0.0986	U	0.0986	0.0306	mg/Kg	10	06/04/13 18:23

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 18:23  
Container ID: 1132110017-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.171 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



**Results of SMIC-M (20)**

Client Sample ID: **SMIC-M (20)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110017  
Lab Project ID: 1132110

Collection Date: 05/31/13 14:02  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 86.6

**Results by Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	22.9	U	22.9	7.08	mg/Kg	1	06/08/13 22:22
<b>Surrogates</b>							
5a Androstane	96.1		50-150		%	1	06/08/13 22:22

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 22:22  
Container ID: 1132110017-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.321 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	22.9	U	22.9	7.08	mg/Kg	1	06/08/13 22:22
<b>Surrogates</b>							
n-Triacontane-d62	112		50-150		%	1	06/08/13 22:22

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 22:22  
Container ID: 1132110017-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.321 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-M (20)

Client Sample ID: **SMIC-M (20)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110017  
 Lab Project ID: 1132110

Collection Date: 05/31/13 14:02  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 86.6

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
1,2-Dichlorobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
1,3-Dichlorobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
1,4-Dichlorobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
1-Chloronaphthalene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
2,4,5-Trichlorophenol	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
2,4,6-Trichlorophenol	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
2,4-Dichlorophenol	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
2,4-Dimethylphenol	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
2,4-Dinitrophenol	3.39	U	3.39	1.06	mg/Kg	1	06/12/13 01:04
2,4-Dinitrotoluene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
2,6-Dichlorophenol	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
2,6-Dinitrotoluene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
2-Chloronaphthalene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
2-Chlorophenol	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
2-Methyl-4,6-dinitrophenol	2.26	U	2.26	0.701	mg/Kg	1	06/12/13 01:04
2-Methylnaphthalene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
2-Methylphenol (o-Cresol)	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
2-Nitroaniline	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
2-Nitrophenol	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
3&4-Methylphenol (p&m-Cresol)	1.13	U	1.13	0.351	mg/Kg	1	06/12/13 01:04
3,3-Dichlorobenzidine	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
3-Nitroaniline	0.566	U	0.566	0.170	mg/Kg	1	06/12/13 01:04
4-Bromophenyl-phenylether	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
4-Chloro-3-methylphenol	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
4-Chloroaniline	0.566	U	0.566	0.170	mg/Kg	1	06/12/13 01:04
4-Chlorophenyl-phenylether	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
4-Nitroaniline	3.39	U	3.39	1.06	mg/Kg	1	06/12/13 01:04
4-Nitrophenol	1.13	U	1.13	0.351	mg/Kg	1	06/12/13 01:04
Acenaphthene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Acenaphthylene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Aniline	2.26	U	2.26	0.701	mg/Kg	1	06/12/13 01:04
Anthracene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Azobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Benzo(a)Anthracene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Benzo[a]pyrene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Benzo[b]Fluoranthene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Benzo[g,h,i]perylene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Benzo[k]fluoranthene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Benzoic acid	1.70	U	1.70	0.848	mg/Kg	1	06/12/13 01:04
Benzyl alcohol	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Bis(2-Chloroethoxy)methane	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Bis(2-Chloroethyl)ether	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
bis(2-Ethylhexyl)phthalate	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-M (20)

Client Sample ID: **SMIC-M (20)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110017  
 Lab Project ID: 1132110

Collection Date: 05/31/13 14:02  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 86.6

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Butylbenzylphthalate	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Carbazole	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Chrysene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Di-n-butylphthalate	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
di-n-Octylphthalate	0.566	U	0.566	0.170	mg/Kg	1	06/12/13 01:04
Dibenzo[a,h]anthracene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Dibenzofuran	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Diethylphthalate	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Dimethylphthalate	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Fluoranthene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Fluorene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Hexachlorobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Hexachlorobutadiene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Hexachlorocyclopentadiene	0.792	U	0.792	0.226	mg/Kg	1	06/12/13 01:04
Hexachloroethane	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Indeno[1,2,3-c,d] pyrene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Isophorone	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
N-Nitroso-di-n-propylamine	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
N-Nitrosodimethylamine	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
N-Nitrosodiphenylamine	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Naphthalene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Nitrobenzene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Pentachlorophenol	2.26	U	2.26	0.701	mg/Kg	1	06/12/13 01:04
Phenanthrene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Phenol	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
Pyrene	0.283	U	0.283	0.0882	mg/Kg	1	06/12/13 01:04
<b>Surrogates</b>							
2,4,6-Tribromophenol	88.5		35-125		%	1	06/12/13 01:04
2-Fluorobiphenyl	86		45-105		%	1	06/12/13 01:04
2-Fluorophenol	58.7		35-105		%	1	06/12/13 01:04
Nitrobenzene-d5	60.4		35-100		%	1	06/12/13 01:04
Phenol-d6	68.4		40-100		%	1	06/12/13 01:04
Terphenyl-d14	96.1		30-125		%	1	06/12/13 01:04

## Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/12/13 01:04  
 Container ID: 1132110017-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.971 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (20)

Client Sample ID: **SMIC-M (20)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110017  
Lab Project ID: 1132110

Collection Date: 05/31/13 14:02  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 86.6

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.45	U	2.45	0.735	mg/Kg	1	06/06/13 23:54
<b>Surrogates</b>							
4-Bromofluorobenzene	112		50-150		%	1	06/06/13 23:54

### Batch Information

Analytical Batch: VFC11451  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/06/13 23:54  
Container ID: 1132110017-B

Prep Batch: VXX24779  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 14:02  
Prep Initial Wt./Vol.: 86.107 g  
Prep Extract Vol: 36.542 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (20)

Client Sample ID: **SMIC-M (20)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110017  
 Lab Project ID: 1132110

Collection Date: 05/31/13 14:02  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 86.6

### Results by Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,1,1-Trichloroethane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,1,2,2-Tetrachloroethane	49.0	U	49.0	14.7	ug/Kg	1	06/03/13 19:32
1,1,2-Trichloroethane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,1-Dichloroethane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,1-Dichloroethene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,1-Dichloropropene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,2,3-Trichlorobenzene	49.0	U	49.0	14.7	ug/Kg	1	06/03/13 19:32
1,2,3-Trichloropropane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,2,4-Trichlorobenzene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,2,4-Trimethylbenzene	49.0	U	49.0	14.7	ug/Kg	1	06/03/13 19:32
1,2-Dibromo-3-chloropropane	98.0	U	98.0	30.4	ug/Kg	1	06/03/13 19:32
1,2-Dibromoethane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,2-Dichlorobenzene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,2-Dichloroethane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,2-Dichloropropane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,3,5-Trimethylbenzene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,3-Dichlorobenzene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,3-Dichloropropane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
1,4-Dichlorobenzene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
2,2-Dichloropropane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
2-Butanone (MEK)	245	U	245	76.5	ug/Kg	1	06/03/13 19:32
2-Chlorotoluene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
2-Hexanone	245	U	245	76.5	ug/Kg	1	06/03/13 19:32
4-Chlorotoluene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
4-Isopropyltoluene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
4-Methyl-2-pentanone (MIBK)	245	U	245	76.5	ug/Kg	1	06/03/13 19:32
Benzene	12.3	U	12.3	3.82	ug/Kg	1	06/03/13 19:32
Bromobenzene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Bromochloromethane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Bromodichloromethane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Bromoform	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Bromomethane	196	U	196	60.8	ug/Kg	1	06/03/13 19:32
Carbon disulfide	98.0	U	98.0	30.4	ug/Kg	1	06/03/13 19:32
Carbon tetrachloride	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Chlorobenzene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Chloroethane	196	U	196	60.8	ug/Kg	1	06/03/13 19:32
Chloroform	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Chloromethane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
cis-1,2-Dichloroethene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
cis-1,3-Dichloropropene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Dibromochloromethane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Dibromomethane	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Dichlorodifluoromethane	49.0	U	49.0	14.7	ug/Kg	1	06/03/13 19:32

Print Date: 06/27/2013 5:39:07PM





Results of **SMIC-M (20)**

Client Sample ID: **SMIC-M (20)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110017  
Lab Project ID: 1132110

Collection Date: 05/31/13 14:02  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 86.6

Results by **Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Ethylbenzene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Hexachlorobutadiene	49.0	U	49.0	14.7	ug/Kg	1	06/03/13 19:32
Isopropylbenzene (Cumene)	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Methyl-t-butyl ether	98.0	U	98.0	30.4	ug/Kg	1	06/03/13 19:32
Methylene chloride	98.0	U	98.0	30.4	ug/Kg	1	06/03/13 19:32
n-Butylbenzene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
n-Propylbenzene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Naphthalene	49.0	U	49.0	14.7	ug/Kg	1	06/03/13 19:32
o-Xylene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
P & M -Xylene	49.0	U	49.0	14.7	ug/Kg	1	06/03/13 19:32
sec-Butylbenzene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Styrene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
tert-Butylbenzene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Tetrachloroethene	12.3	U	12.3	3.82	ug/Kg	1	06/03/13 19:32
Toluene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
trans-1,2-Dichloroethene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
trans-1,3-Dichloropropene	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Trichloroethene	12.3	U	12.3	3.82	ug/Kg	1	06/03/13 19:32
Trichlorofluoromethane	49.0	U	49.0	14.7	ug/Kg	1	06/03/13 19:32
Vinyl chloride	24.5	U	24.5	7.65	ug/Kg	1	06/03/13 19:32
Xylenes (total)	98.0	U	98.0	30.4	ug/Kg	1	06/03/13 19:32

**Surrogates**

1,2-Dichloroethane-D4	110		79-118		%	1	06/03/13 19:32
4-Bromofluorobenzene	101		67-138		%	1	06/03/13 19:32
Toluene-d8	101		85-115		%	1	06/03/13 19:32

**Batch Information**

Analytical Batch: VMS13531  
Analytical Method: SW8260B  
Analyst: HM  
Analytical Date/Time: 06/03/13 19:32  
Container ID: 1132110017-B

Prep Batch: VXX24765  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 14:02  
Prep Initial Wt./Vol.: 86.107 g  
Prep Extract Vol: 36.542 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (1.5) D

Client Sample ID: **SMIC-M (1.5) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110018  
Lab Project ID: 1132110

Collection Date: 05/31/13 13:31  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 98.0

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	4.34		0.990	0.307	mg/Kg	10	06/04/13 18:25
Barium	44.3		0.297	0.0931	mg/Kg	10	06/04/13 18:25
Cadmium	0.198	U	0.198	0.0614	mg/Kg	10	06/04/13 18:25
Chromium	34.2		0.396	0.119	mg/Kg	10	06/04/13 18:25
Lead	5.05		0.198	0.0614	mg/Kg	10	06/04/13 18:25
Mercury	0.0396	U	0.0396	0.0119	mg/Kg	10	06/04/13 18:25
Selenium	0.495	U	0.495	0.149	mg/Kg	10	06/04/13 18:25
Silver	0.0990	U	0.0990	0.0307	mg/Kg	10	06/04/13 18:25

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 18:25  
Container ID: 1132110018-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.031 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



**Results of SMIC-M (1.5) D**

Client Sample ID: **SMIC-M (1.5) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110018  
Lab Project ID: 1132110

Collection Date: 05/31/13 13:31  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 98.0

**Results by Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	20.2	U	20.2	6.26	mg/Kg	1	06/08/13 22:32
<b>Surrogates</b>							
5a Androstane	103		50-150		%	1	06/08/13 22:32

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 22:32  
Container ID: 1132110018-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.338 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	36.3		20.2	6.26	mg/Kg	1	06/08/13 22:32
<b>Surrogates</b>							
n-Triacontane-d62	114		50-150		%	1	06/08/13 22:32

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 22:32  
Container ID: 1132110018-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.338 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-M (1.5) D

Client Sample ID: **SMIC-M (1.5) D**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110018  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:31  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 98.0

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
1,2-Dichlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
1,3-Dichlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
1,4-Dichlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
1-Chloronaphthalene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
2,4,5-Trichlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
2,4,6-Trichlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
2,4-Dichlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
2,4-Dimethylphenol	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
2,4-Dinitrophenol	3.05	U	3.05	0.955	mg/Kg	1	06/12/13 01:21
2,4-Dinitrotoluene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
2,6-Dichlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
2,6-Dinitrotoluene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
2-Chloronaphthalene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
2-Chlorophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
2-Methyl-4,6-dinitrophenol	2.03	U	2.03	0.630	mg/Kg	1	06/12/13 01:21
2-Methylnaphthalene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
2-Methylphenol (o-Cresol)	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
2-Nitroaniline	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
2-Nitrophenol	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
3&4-Methylphenol (p&m-Cresol)	1.02	U	1.02	0.315	mg/Kg	1	06/12/13 01:21
3,3-Dichlorobenzidine	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
3-Nitroaniline	0.508	U	0.508	0.152	mg/Kg	1	06/12/13 01:21
4-Bromophenyl-phenylether	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
4-Chloro-3-methylphenol	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
4-Chloroaniline	0.508	U	0.508	0.152	mg/Kg	1	06/12/13 01:21
4-Chlorophenyl-phenylether	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
4-Nitroaniline	3.05	U	3.05	0.955	mg/Kg	1	06/12/13 01:21
4-Nitrophenol	1.02	U	1.02	0.315	mg/Kg	1	06/12/13 01:21
Acenaphthene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Acenaphthylene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Aniline	2.03	U	2.03	0.630	mg/Kg	1	06/12/13 01:21
Anthracene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Azobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Benzo(a)Anthracene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Benzo[a]pyrene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Benzo[b]Fluoranthene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Benzo[g,h,i]perylene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Benzo[k]fluoranthene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Benzoic acid	1.52	U	1.52	0.762	mg/Kg	1	06/12/13 01:21
Benzyl alcohol	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Bis(2-Chloroethoxy)methane	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Bis(2-Chloroethyl)ether	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
bis(2-Ethylhexyl)phthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (1.5) D

Client Sample ID: **SMIC-M (1.5) D**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110018  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:31  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 98.0

### Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Butylbenzylphthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Carbazole	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Chrysene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Di-n-butylphthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
di-n-Octylphthalate	0.508	U	0.508	0.152	mg/Kg	1	06/12/13 01:21
Dibenzo[a,h]anthracene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Dibenzofuran	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Diethylphthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Dimethylphthalate	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Fluoranthene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Fluorene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Hexachlorobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Hexachlorobutadiene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Hexachlorocyclopentadiene	0.711	U	0.711	0.203	mg/Kg	1	06/12/13 01:21
Hexachloroethane	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Indeno[1,2,3-c,d] pyrene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Isophorone	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
N-Nitroso-di-n-propylamine	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
N-Nitrosodimethylamine	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
N-Nitrosodiphenylamine	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Naphthalene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Nitrobenzene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Pentachlorophenol	2.03	U	2.03	0.630	mg/Kg	1	06/12/13 01:21
Phenanthrene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Phenol	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21
Pyrene	0.254	U	0.254	0.0792	mg/Kg	1	06/12/13 01:21

### Surrogates

2,4,6-Tribromophenol	89.6		35-125		%	1	06/12/13 01:21
2-Fluorobiphenyl	88.2		45-105		%	1	06/12/13 01:21
2-Fluorophenol	63.5		35-105		%	1	06/12/13 01:21
Nitrobenzene-d5	64.8		35-100		%	1	06/12/13 01:21
Phenol-d6	72.9		40-100		%	1	06/12/13 01:21
Terphenyl-d14	104		30-125		%	1	06/12/13 01:21

### Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/12/13 01:21  
 Container ID: 1132110018-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.621 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (1.5) D

Client Sample ID: **SMIC-M (1.5) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110018  
Lab Project ID: 1132110

Collection Date: 05/31/13 13:31  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 98.0

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.11	U	2.11	0.633	mg/Kg	1	06/07/13 00:13
<b>Surrogates</b>							
4-Bromofluorobenzene	99.1		50-150		%	1	06/07/13 00:13

### Batch Information

Analytical Batch: VFC11451  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/07/13 00:13  
Container ID: 1132110018-B

Prep Batch: VXX24779  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 13:31  
Prep Initial Wt./Vol.: 63.587 g  
Prep Extract Vol: 26.3032 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (1.5) D

Client Sample ID: **SMIC-M (1.5) D**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110018  
Lab Project ID: 1132110

Collection Date: 05/31/13 13:31  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 98.0

### Results by Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,1,1-Trichloroethane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,1,2,2-Tetrachloroethane	42.2	U	42.2	12.7	ug/Kg	1	06/03/13 19:49
1,1,2-Trichloroethane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,1-Dichloroethane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,1-Dichloroethene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,1-Dichloropropene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,2,3-Trichlorobenzene	42.2	U	42.2	12.7	ug/Kg	1	06/03/13 19:49
1,2,3-Trichloropropane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,2,4-Trichlorobenzene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,2,4-Trimethylbenzene	42.2	U	42.2	12.7	ug/Kg	1	06/03/13 19:49
1,2-Dibromo-3-chloropropane	84.5	U	84.5	26.2	ug/Kg	1	06/03/13 19:49
1,2-Dibromoethane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,2-Dichlorobenzene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,2-Dichloroethane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,2-Dichloropropane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,3,5-Trimethylbenzene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,3-Dichlorobenzene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,3-Dichloropropane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
1,4-Dichlorobenzene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
2,2-Dichloropropane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
2-Butanone (MEK)	211	U	211	65.9	ug/Kg	1	06/03/13 19:49
2-Chlorotoluene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
2-Hexanone	211	U	211	65.9	ug/Kg	1	06/03/13 19:49
4-Chlorotoluene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
4-Isopropyltoluene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
4-Methyl-2-pentanone (MIBK)	211	U	211	65.9	ug/Kg	1	06/03/13 19:49
Benzene	10.6	U	10.6	3.29	ug/Kg	1	06/03/13 19:49
Bromobenzene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Bromochloromethane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Bromodichloromethane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Bromoform	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Bromomethane	169	U	169	52.4	ug/Kg	1	06/03/13 19:49
Carbon disulfide	84.5	U	84.5	26.2	ug/Kg	1	06/03/13 19:49
Carbon tetrachloride	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Chlorobenzene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Chloroethane	169	U	169	52.4	ug/Kg	1	06/03/13 19:49
Chloroform	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Chloromethane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
cis-1,2-Dichloroethene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
cis-1,3-Dichloropropene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Dibromochloromethane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Dibromomethane	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Dichlorodifluoromethane	42.2	U	42.2	12.7	ug/Kg	1	06/03/13 19:49

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-M (1.5) D

Client Sample ID: **SMIC-M (1.5) D**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110018  
 Lab Project ID: 1132110

Collection Date: 05/31/13 13:31  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 98.0

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Hexachlorobutadiene	42.2	U	42.2	12.7	ug/Kg	1	06/03/13 19:49
Isopropylbenzene (Cumene)	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Methyl-t-butyl ether	84.5	U	84.5	26.2	ug/Kg	1	06/03/13 19:49
Methylene chloride	84.5	U	84.5	26.2	ug/Kg	1	06/03/13 19:49
n-Butylbenzene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
n-Propylbenzene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Naphthalene	42.2	U	42.2	12.7	ug/Kg	1	06/03/13 19:49
o-Xylene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
P & M -Xylene	42.2	U	42.2	12.7	ug/Kg	1	06/03/13 19:49
sec-Butylbenzene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Styrene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
tert-Butylbenzene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Tetrachloroethene	10.6	U	10.6	3.29	ug/Kg	1	06/03/13 19:49
Toluene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
trans-1,2-Dichloroethene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
trans-1,3-Dichloropropene	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Trichloroethene	10.6	U	10.6	3.29	ug/Kg	1	06/03/13 19:49
Trichlorofluoromethane	42.2	U	42.2	12.7	ug/Kg	1	06/03/13 19:49
Vinyl chloride	21.1	U	21.1	6.59	ug/Kg	1	06/03/13 19:49
Xylenes (total)	84.5	U	84.5	26.2	ug/Kg	1	06/03/13 19:49
<b>Surrogates</b>							
1,2-Dichloroethane-D4	119	*	79-118		%	1	06/03/13 19:49
4-Bromofluorobenzene	101		67-138		%	1	06/03/13 19:49
Toluene-d8	107		85-115		%	1	06/03/13 19:49

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 19:49  
 Container ID: 1132110018-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/31/13 13:31  
 Prep Initial Wt./Vol.: 63.587 g  
 Prep Extract Vol: 26.3032 mL

Print Date: 06/27/2013 5:39:07PM





### Results of SMIC-N (0)

Client Sample ID: **SMIC-N (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110019  
Lab Project ID: 1132110

Collection Date: 05/31/13 10:49  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.2

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	14.3		0.976	0.302	mg/Kg	10	06/04/13 18:28
Barium	32.9		0.293	0.0917	mg/Kg	10	06/04/13 18:28
Cadmium	0.195	U	0.195	0.0605	mg/Kg	10	06/04/13 18:28
Chromium	39.3		0.390	0.117	mg/Kg	10	06/04/13 18:28
Lead	7.88		0.195	0.0605	mg/Kg	10	06/04/13 18:28
Mercury	0.0749		0.0390	0.0117	mg/Kg	10	06/04/13 18:28
Selenium	0.488	U	0.488	0.146	mg/Kg	10	06/04/13 18:28
Silver	0.0976	U	0.0976	0.0302	mg/Kg	10	06/04/13 18:28

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 18:28  
Container ID: 1132110019-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.054 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (0)

Client Sample ID: **SMIC-N (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110019  
 Lab Project ID: 1132110

Collection Date: 05/31/13 10:49  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.2

### Results by Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	20.4	U	20.4	6.31	mg/Kg	1	06/08/13 22:41
<b>Surrogates</b>							
5a Androstane	114		50-150		%	1	06/08/13 22:41

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK102  
 Analyst: MCM  
 Analytical Date/Time: 06/08/13 22:41  
 Container ID: 1132110019-A

Prep Batch: XXX29091  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 09:10  
 Prep Initial Wt./Vol.: 30.309 g  
 Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	23.7		20.4	6.31	mg/Kg	1	06/08/13 22:41
<b>Surrogates</b>							
n-Triacontane-d62	132		50-150		%	1	06/08/13 22:41

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK103  
 Analyst: MCM  
 Analytical Date/Time: 06/08/13 22:41  
 Container ID: 1132110019-A

Prep Batch: XXX29091  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 09:10  
 Prep Initial Wt./Vol.: 30.309 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-N (0)

Client Sample ID: **SMIC-N (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110019  
 Lab Project ID: 1132110

Collection Date: 05/31/13 10:49  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.2

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
1,2-Dichlorobenzene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
1,3-Dichlorobenzene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
1,4-Dichlorobenzene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
1-Chloronaphthalene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
2,4,5-Trichlorophenol	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
2,4,6-Trichlorophenol	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
2,4-Dichlorophenol	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
2,4-Dimethylphenol	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
2,4-Dinitrophenol	3.06	U	3.06	0.958	mg/Kg	1	06/12/13 01:38
2,4-Dinitrotoluene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
2,6-Dichlorophenol	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
2,6-Dinitrotoluene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
2-Chloronaphthalene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
2-Chlorophenol	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
2-Methyl-4,6-dinitrophenol	2.04	U	2.04	0.632	mg/Kg	1	06/12/13 01:38
2-Methylnaphthalene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
2-Methylphenol (o-Cresol)	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
2-Nitroaniline	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
2-Nitrophenol	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
3&4-Methylphenol (p&m-Cresol)	1.02	U	1.02	0.316	mg/Kg	1	06/12/13 01:38
3,3-Dichlorobenzidine	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
3-Nitroaniline	0.510	U	0.510	0.153	mg/Kg	1	06/12/13 01:38
4-Bromophenyl-phenylether	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
4-Chloro-3-methylphenol	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
4-Chloroaniline	0.510	U	0.510	0.153	mg/Kg	1	06/12/13 01:38
4-Chlorophenyl-phenylether	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
4-Nitroaniline	3.06	U	3.06	0.958	mg/Kg	1	06/12/13 01:38
4-Nitrophenol	1.02	U	1.02	0.316	mg/Kg	1	06/12/13 01:38
Acenaphthene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Acenaphthylene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Aniline	2.04	U	2.04	0.632	mg/Kg	1	06/12/13 01:38
Anthracene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Azobenzene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Benzo(a)Anthracene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Benzo[a]pyrene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Benzo[b]Fluoranthene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Benzo[g,h,i]perylene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Benzo[k]fluoranthene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Benzoic acid	1.53	U	1.53	0.764	mg/Kg	1	06/12/13 01:38
Benzyl alcohol	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Bis(2-Chloroethoxy)methane	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Bis(2-Chloroethyl)ether	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
bis(2-Ethylhexyl)phthalate	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38

Print Date: 06/27/2013 5:39:07PM

**Results of SMIC-N (0)**

Client Sample ID: **SMIC-N (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110019  
 Lab Project ID: 1132110

Collection Date: 05/31/13 10:49  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.2

**Results by Semivolatile Organic GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Butylbenzylphthalate	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Carbazole	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Chrysene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Di-n-butylphthalate	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
di-n-Octylphthalate	0.510	U	0.510	0.153	mg/Kg	1	06/12/13 01:38
Dibenzo[a,h]anthracene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Dibenzofuran	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Diethylphthalate	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Dimethylphthalate	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Fluoranthene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Fluorene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Hexachlorobenzene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Hexachlorobutadiene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Hexachlorocyclopentadiene	0.713	U	0.713	0.204	mg/Kg	1	06/12/13 01:38
Hexachloroethane	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Indeno[1,2,3-c,d] pyrene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Isophorone	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
N-Nitroso-di-n-propylamine	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
N-Nitrosodimethylamine	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
N-Nitrosodiphenylamine	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Naphthalene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Nitrobenzene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Pentachlorophenol	2.04	U	2.04	0.632	mg/Kg	1	06/12/13 01:38
Phenanthrene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Phenol	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38
Pyrene	0.255	U	0.255	0.0795	mg/Kg	1	06/12/13 01:38

**Surrogates**

2,4,6-Tribromophenol	89.7		35-125		%	1	06/12/13 01:38
2-Fluorobiphenyl	88.8		45-105		%	1	06/12/13 01:38
2-Fluorophenol	61.1		35-105		%	1	06/12/13 01:38
Nitrobenzene-d5	67.1		35-100		%	1	06/12/13 01:38
Phenol-d6	72.7		40-100		%	1	06/12/13 01:38
Terphenyl-d14	99.7		30-125		%	1	06/12/13 01:38

**Batch Information**

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/12/13 01:38  
 Container ID: 1132110019-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.702 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (0)

Client Sample ID: **SMIC-N (0)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110019  
Lab Project ID: 1132110

Collection Date: 05/31/13 10:49  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 97.2

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.21	U	2.21	0.662	mg/Kg	1	06/07/13 13:11
<b>Surrogates</b>							
4-Bromofluorobenzene	85.4		50-150		%	1	06/07/13 13:11

### Batch Information

Analytical Batch: VFC11454  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/07/13 13:11  
Container ID: 1132110019-B

Prep Batch: VXX24787  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 10:49  
Prep Initial Wt./Vol.: 62.269 g  
Prep Extract Vol: 26.7173 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (0)

Client Sample ID: **SMIC-N (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110019  
 Lab Project ID: 1132110

Collection Date: 05/31/13 10:49  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.2

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,1,1-Trichloroethane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,1,2,2-Tetrachloroethane	44.1	U	44.1	13.2	ug/Kg	1	06/03/13 20:05
1,1,2-Trichloroethane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,1-Dichloroethane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,1-Dichloroethene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,1-Dichloropropene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,2,3-Trichlorobenzene	44.1	U	44.1	13.2	ug/Kg	1	06/03/13 20:05
1,2,3-Trichloropropane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,2,4-Trichlorobenzene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,2,4-Trimethylbenzene	44.1	U	44.1	13.2	ug/Kg	1	06/03/13 20:05
1,2-Dibromo-3-chloropropane	88.2	U	88.2	27.4	ug/Kg	1	06/03/13 20:05
1,2-Dibromoethane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,2-Dichlorobenzene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,2-Dichloroethane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,2-Dichloropropane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,3,5-Trimethylbenzene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,3-Dichlorobenzene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,3-Dichloropropane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
1,4-Dichlorobenzene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
2,2-Dichloropropane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
2-Butanone (MEK)	221	U	221	68.8	ug/Kg	1	06/03/13 20:05
2-Chlorotoluene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
2-Hexanone	221	U	221	68.8	ug/Kg	1	06/03/13 20:05
4-Chlorotoluene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
4-Isopropyltoluene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
4-Methyl-2-pentanone (MIBK)	221	U	221	68.8	ug/Kg	1	06/03/13 20:05
Benzene	11.0	U	11.0	3.44	ug/Kg	1	06/03/13 20:05
Bromobenzene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Bromochloromethane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Bromodichloromethane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Bromoform	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Bromomethane	176	U	176	54.7	ug/Kg	1	06/03/13 20:05
Carbon disulfide	88.2	U	88.2	27.4	ug/Kg	1	06/03/13 20:05
Carbon tetrachloride	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Chlorobenzene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Chloroethane	176	U	176	54.7	ug/Kg	1	06/03/13 20:05
Chloroform	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Chloromethane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
cis-1,2-Dichloroethene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
cis-1,3-Dichloropropene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Dibromochloromethane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Dibromomethane	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Dichlorodifluoromethane	44.1	U	44.1	13.2	ug/Kg	1	06/03/13 20:05

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (0)

Client Sample ID: **SMIC-N (0)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110019  
 Lab Project ID: 1132110

Collection Date: 05/31/13 10:49  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 97.2

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Hexachlorobutadiene	44.1	U	44.1	13.2	ug/Kg	1	06/03/13 20:05
Isopropylbenzene (Cumene)	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Methyl-t-butyl ether	88.2	U	88.2	27.4	ug/Kg	1	06/03/13 20:05
Methylene chloride	88.2	U	88.2	27.4	ug/Kg	1	06/03/13 20:05
n-Butylbenzene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
n-Propylbenzene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Naphthalene	44.1	U	44.1	13.2	ug/Kg	1	06/03/13 20:05
o-Xylene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
P & M -Xylene	44.1	U	44.1	13.2	ug/Kg	1	06/03/13 20:05
sec-Butylbenzene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Styrene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
tert-Butylbenzene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Tetrachloroethene	11.0	U	11.0	3.44	ug/Kg	1	06/03/13 20:05
Toluene	50.5		22.1	6.88	ug/Kg	1	06/03/13 20:05
trans-1,2-Dichloroethene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
trans-1,3-Dichloropropene	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Trichloroethene	11.0	U	11.0	3.44	ug/Kg	1	06/03/13 20:05
Trichlorofluoromethane	44.1	U	44.1	13.2	ug/Kg	1	06/03/13 20:05
Vinyl chloride	22.1	U	22.1	6.88	ug/Kg	1	06/03/13 20:05
Xylenes (total)	88.2	U	88.2	27.4	ug/Kg	1	06/03/13 20:05
<b>Surrogates</b>							
1,2-Dichloroethane-D4	103		79-118		%	1	06/03/13 20:05
4-Bromofluorobenzene	80.8		67-138		%	1	06/03/13 20:05
Toluene-d8	89.1		85-115		%	1	06/03/13 20:05

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 20:05  
 Container ID: 1132110019-B

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/31/13 10:49  
 Prep Initial Wt./Vol.: 62.269 g  
 Prep Extract Vol: 26.7173 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (1.5)

Client Sample ID: **SMIC-N (1.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110020  
Lab Project ID: 1132110

Collection Date: 05/31/13 10:56  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 96.9

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	17.3		1.00	0.310	mg/Kg	10	06/04/13 18:30
Barium	30.0		0.300	0.0940	mg/Kg	10	06/04/13 18:30
Cadmium	0.200	U	0.200	0.0620	mg/Kg	10	06/04/13 18:30
Chromium	36.6		0.400	0.120	mg/Kg	10	06/04/13 18:30
Lead	9.04		0.200	0.0620	mg/Kg	10	06/04/13 18:30
Mercury	0.0561		0.0400	0.0120	mg/Kg	10	06/04/13 18:30
Selenium	0.500	U	0.500	0.150	mg/Kg	10	06/04/13 18:30
Silver	0.100	U	0.100	0.0310	mg/Kg	10	06/04/13 18:30

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 18:30  
Container ID: 1132110020-A

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.032 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM





**Results of SMIC-N (1.5)**

Client Sample ID: **SMIC-N (1.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110020  
Lab Project ID: 1132110

Collection Date: 05/31/13 10:56  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 96.9

**Results by Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	20.5	U	20.5	6.35	mg/Kg	1	06/08/13 22:51
<b>Surrogates</b>							
5a Androstane	123		50-150		%	1	06/08/13 22:51

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/08/13 22:51  
Container ID: 1132110020-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.221 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	44.7		20.5	6.35	mg/Kg	1	06/08/13 22:51
<b>Surrogates</b>							
n-Triacontane-d62	149		50-150		%	1	06/08/13 22:51

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/08/13 22:51  
Container ID: 1132110020-A

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 09:10  
Prep Initial Wt./Vol.: 30.221 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-N (1.5)

Client Sample ID: **SMIC-N (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110020  
 Lab Project ID: 1132110

Collection Date: 05/31/13 10:56  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.9

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
1,2-Dichlorobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
1,3-Dichlorobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
1,4-Dichlorobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
1-Chloronaphthalene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
2,4,5-Trichlorophenol	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
2,4,6-Trichlorophenol	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
2,4-Dichlorophenol	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
2,4-Dimethylphenol	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
2,4-Dinitrophenol	3.05	U	3.05	0.956	mg/Kg	1	06/11/13 20:47
2,4-Dinitrotoluene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
2,6-Dichlorophenol	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
2,6-Dinitrotoluene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
2-Chloronaphthalene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
2-Chlorophenol	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
2-Methyl-4,6-dinitrophenol	2.03	U	2.03	0.630	mg/Kg	1	06/11/13 20:47
2-Methylnaphthalene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
2-Methylphenol (o-Cresol)	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
2-Nitroaniline	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
2-Nitrophenol	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
3&4-Methylphenol (p&m-Cresol)	1.02	U	1.02	0.315	mg/Kg	1	06/11/13 20:47
3,3-Dichlorobenzidine	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
3-Nitroaniline	0.508	U	0.508	0.153	mg/Kg	1	06/11/13 20:47
4-Bromophenyl-phenylether	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
4-Chloro-3-methylphenol	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
4-Chloroaniline	0.508	U	0.508	0.153	mg/Kg	1	06/11/13 20:47
4-Chlorophenyl-phenylether	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
4-Nitroaniline	3.05	U	3.05	0.956	mg/Kg	1	06/11/13 20:47
4-Nitrophenol	1.02	U	1.02	0.315	mg/Kg	1	06/11/13 20:47
Acenaphthene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Acenaphthylene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Aniline	2.03	U	2.03	0.630	mg/Kg	1	06/11/13 20:47
Anthracene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Azobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Benzo(a)Anthracene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Benzo[a]pyrene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Benzo[b]Fluoranthene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Benzo[g,h,i]perylene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Benzo[k]fluoranthene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Benzoic acid	1.53	U	1.53	0.763	mg/Kg	1	06/11/13 20:47
Benzyl alcohol	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Bis(2-Chloroethoxy)methane	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Bis(2-Chloroethyl)ether	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
bis(2-Ethylhexyl)phthalate	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (1.5)

Client Sample ID: **SMIC-N (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110020  
 Lab Project ID: 1132110

Collection Date: 05/31/13 10:56  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.9

### Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Butylbenzylphthalate	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Carbazole	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Chrysene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Di-n-butylphthalate	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
di-n-Octylphthalate	0.508	U	0.508	0.153	mg/Kg	1	06/11/13 20:47
Dibenzo[a,h]anthracene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Dibenzofuran	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Diethylphthalate	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Dimethylphthalate	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Fluoranthene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Fluorene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Hexachlorobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Hexachlorobutadiene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Hexachlorocyclopentadiene	0.712	U	0.712	0.203	mg/Kg	1	06/11/13 20:47
Hexachloroethane	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Indeno[1,2,3-c,d] pyrene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Isophorone	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
N-Nitroso-di-n-propylamine	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
N-Nitrosodimethylamine	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
N-Nitrosodiphenylamine	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Naphthalene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Nitrobenzene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Pentachlorophenol	2.03	U	2.03	0.630	mg/Kg	1	06/11/13 20:47
Phenanthrene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Phenol	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47
Pyrene	0.254	U	0.254	0.0793	mg/Kg	1	06/11/13 20:47

### Surrogates

2,4,6-Tribromophenol	85		35-125		%	1	06/11/13 20:47
2-Fluorobiphenyl	78.6		45-105		%	1	06/11/13 20:47
2-Fluorophenol	58.6		35-105		%	1	06/11/13 20:47
Nitrobenzene-d5	57.3		35-100		%	1	06/11/13 20:47
Phenol-d6	66.7		40-100		%	1	06/11/13 20:47
Terphenyl-d14	91.1		30-125		%	1	06/11/13 20:47

### Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/11/13 20:47  
 Container ID: 1132110020-A

Prep Batch: XXX29103  
 Prep Method: SW3550C  
 Prep Date/Time: 06/05/13 12:00  
 Prep Initial Wt./Vol.: 22.838 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (1.5)

Client Sample ID: **SMIC-N (1.5)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110020  
Lab Project ID: 1132110

Collection Date: 05/31/13 10:56  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 96.9

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.69	U	2.69	0.807	mg/Kg	1	06/05/13 04:27
<b>Surrogates</b>							
4-Bromofluorobenzene	87		50-150		%	1	06/05/13 04:27

### Batch Information

Analytical Batch: VFC11446  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/05/13 04:27  
Container ID: 1132110020-B

Prep Batch: VXX24768  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 10:56  
Prep Initial Wt./Vol.: 50.99 g  
Prep Extract Vol: 26.5902 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (1.5)

Client Sample ID: **SMIC-N (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110020  
 Lab Project ID: 1132110

Collection Date: 05/31/13 10:56  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.9

### Results by Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,1,1-Trichloroethane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,1,2,2-Tetrachloroethane	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:10
1,1,2-Trichloroethane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,1-Dichloroethane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,1-Dichloroethene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,1-Dichloropropene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,2,3-Trichlorobenzene	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:10
1,2,3-Trichloropropane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,2,4-Trichlorobenzene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,2,4-Trimethylbenzene	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:10
1,2-Dibromo-3-chloropropane	108	U	108	33.4	ug/Kg	1	06/04/13 14:10
1,2-Dibromoethane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,2-Dichloroethene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,2-Dichloroethane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,2-Dichloropropane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,3,5-Trimethylbenzene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,3-Dichlorobenzene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,3-Dichloropropane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
1,4-Dichlorobenzene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
2,2-Dichloropropane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
2-Butanone (MEK)	269	U	269	84.0	ug/Kg	1	06/04/13 14:10
2-Chlorotoluene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
2-Hexanone	269	U	269	84.0	ug/Kg	1	06/04/13 14:10
4-Chlorotoluene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
4-Isopropyltoluene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
4-Methyl-2-pentanone (MIBK)	269	U	269	84.0	ug/Kg	1	06/04/13 14:10
Benzene	13.5	U	13.5	4.20	ug/Kg	1	06/04/13 14:10
Bromobenzene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Bromochloromethane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Bromodichloromethane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Bromoform	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Bromomethane	215	U	215	66.7	ug/Kg	1	06/04/13 14:10
Carbon disulfide	108	U	108	33.4	ug/Kg	1	06/04/13 14:10
Carbon tetrachloride	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Chlorobenzene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Chloroethane	215	U	215	66.7	ug/Kg	1	06/04/13 14:10
Chloroform	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Chloromethane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
cis-1,2-Dichloroethene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
cis-1,3-Dichloropropene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Dibromochloromethane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Dibromomethane	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Dichlorodifluoromethane	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:10

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (1.5)

Client Sample ID: **SMIC-N (1.5)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110020  
 Lab Project ID: 1132110

Collection Date: 05/31/13 10:56  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 96.9

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Hexachlorobutadiene	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:10
Isopropylbenzene (Cumene)	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Methyl-t-butyl ether	108	U	108	33.4	ug/Kg	1	06/04/13 14:10
Methylene chloride	108	U	108	33.4	ug/Kg	1	06/04/13 14:10
n-Butylbenzene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
n-Propylbenzene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Naphthalene	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:10
o-Xylene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
P & M -Xylene	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:10
sec-Butylbenzene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Styrene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
tert-Butylbenzene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Tetrachloroethene	13.5	U	13.5	4.20	ug/Kg	1	06/04/13 14:10
Toluene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
trans-1,2-Dichloroethene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
trans-1,3-Dichloropropene	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Trichloroethene	13.5	U	13.5	4.20	ug/Kg	1	06/04/13 14:10
Trichlorofluoromethane	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:10
Vinyl chloride	26.9	U	26.9	8.40	ug/Kg	1	06/04/13 14:10
Xylenes (total)	108	U	108	33.4	ug/Kg	1	06/04/13 14:10
<b>Surrogates</b>							
1,2-Dichloroethane-D4	117		79-118		%	1	06/04/13 14:10
4-Bromofluorobenzene	85.8		67-138		%	1	06/04/13 14:10
Toluene-d8	102		85-115		%	1	06/04/13 14:10

### Batch Information

Analytical Batch: VMS13532  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/04/13 14:10  
 Container ID: 1132110020-B

Prep Batch: VXX24769  
 Prep Method: SW5035A  
 Prep Date/Time: 05/31/13 10:56  
 Prep Initial Wt./Vol.: 50.99 g  
 Prep Extract Vol: 26.5902 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (10)

Client Sample ID: **SMIC-N (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110021  
Lab Project ID: 1132110

Collection Date: 05/31/13 11:10  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 90.8

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	6.34		1.05	0.326	mg/Kg	10	06/04/13 14:58
Barium	35.1		0.315	0.0988	mg/Kg	10	06/04/13 14:58
Cadmium	0.210	U	0.210	0.0652	mg/Kg	10	06/04/13 14:58
Chromium	37.9		0.420	0.126	mg/Kg	10	06/04/13 14:58
Lead	4.39		0.210	0.0652	mg/Kg	10	06/04/13 14:58
Mercury	0.0420	U	0.0420	0.0126	mg/Kg	10	06/04/13 14:58
Selenium	0.526	U	0.526	0.158	mg/Kg	10	06/04/13 14:58
Silver	0.105	U	0.105	0.0326	mg/Kg	10	06/04/13 14:58

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 14:58  
Container ID: 1132110021-A

Prep Batch: MXX26524  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.048 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-N (10)**

Client Sample ID: **SMIC-N (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110021  
Lab Project ID: 1132110

Collection Date: 05/31/13 11:10  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 90.8

Results by **Semivolatile Organic Fuels**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	21.7	U	21.7	6.71	mg/Kg	1	06/09/13 01:41
<b>Surrogates</b>							
5a Androstane	102		50-150		%	1	06/09/13 01:41

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Analyst: MCM  
Analytical Date/Time: 06/09/13 01:41  
Container ID: 1132110021-A

Prep Batch: XXX29093  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 11:15  
Prep Initial Wt./Vol.: 30.527 g  
Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	21.7	U	21.7	6.71	mg/Kg	1	06/09/13 01:41
<b>Surrogates</b>							
n-Triacontane-d62	119		50-150		%	1	06/09/13 01:41

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK103  
Analyst: MCM  
Analytical Date/Time: 06/09/13 01:41  
Container ID: 1132110021-A

Prep Batch: XXX29093  
Prep Method: SW3550C  
Prep Date/Time: 06/04/13 11:15  
Prep Initial Wt./Vol.: 30.527 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM





### Results of SMIC-N (10)

Client Sample ID: **SMIC-N (10)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110021  
 Lab Project ID: 1132110

Collection Date: 05/31/13 11:10  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 90.8

### Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
1,2-Dichlorobenzene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
1,3-Dichlorobenzene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
1,4-Dichlorobenzene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
1-Chloronaphthalene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
2,4,5-Trichlorophenol	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
2,4,6-Trichlorophenol	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
2,4-Dichlorophenol	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
2,4-Dimethylphenol	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
2,4-Dinitrophenol	3.26	U	3.26	1.02	mg/Kg	1	06/06/13 02:29
2,4-Dinitrotoluene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
2,6-Dichlorophenol	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
2,6-Dinitrotoluene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
2-Chloronaphthalene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
2-Chlorophenol	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
2-Methyl-4,6-dinitrophenol	2.17	U	2.17	0.673	mg/Kg	1	06/06/13 02:29
2-Methylnaphthalene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
2-Methylphenol (o-Cresol)	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
2-Nitroaniline	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
2-Nitrophenol	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
3&4-Methylphenol (p&m-Cresol)	1.09	U	1.09	0.337	mg/Kg	1	06/06/13 02:29
3,3-Dichlorobenzidine	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
3-Nitroaniline	0.543	U	0.543	0.163	mg/Kg	1	06/06/13 02:29
4-Bromophenyl-phenylether	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
4-Chloro-3-methylphenol	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
4-Chloroaniline	0.543	U	0.543	0.163	mg/Kg	1	06/06/13 02:29
4-Chlorophenyl-phenylether	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
4-Nitroaniline	3.26	U	3.26	1.02	mg/Kg	1	06/06/13 02:29
4-Nitrophenol	1.09	U	1.09	0.337	mg/Kg	1	06/06/13 02:29
Acenaphthene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Acenaphthylene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Aniline	2.17	U	2.17	0.673	mg/Kg	1	06/06/13 02:29
Anthracene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Azobenzene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Benzo(a)Anthracene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Benzo[a]pyrene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Benzo[b]Fluoranthene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Benzo[g,h,i]perylene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Benzo[k]fluoranthene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Benzoic acid	1.63	U	1.63	0.814	mg/Kg	1	06/06/13 02:29
Benzyl alcohol	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Bis(2-Chloroethoxy)methane	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Bis(2-Chloroethyl)ether	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
bis(2-Ethylhexyl)phthalate	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29

Print Date: 06/27/2013 5:39:07PM

**Results of SMIC-N (10)**

Client Sample ID: **SMIC-N (10)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110021  
 Lab Project ID: 1132110

Collection Date: 05/31/13 11:10  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 90.8

**Results by Semivolatile Organic GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Bis(2chloro1methylethyl)Ether	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Butylbenzylphthalate	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Carbazole	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Chrysene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Di-n-butylphthalate	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
di-n-Octylphthalate	0.543	U	0.543	0.163	mg/Kg	1	06/06/13 02:29
Dibenzo[a,h]anthracene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Dibenzofuran	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Diethylphthalate	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Dimethylphthalate	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Fluoranthene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Fluorene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Hexachlorobenzene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Hexachlorobutadiene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Hexachlorocyclopentadiene	0.760	U	0.760	0.217	mg/Kg	1	06/06/13 02:29
Hexachloroethane	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Indeno[1,2,3-c,d] pyrene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Isophorone	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
N-Nitroso-di-n-propylamine	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
N-Nitrosodimethylamine	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
N-Nitrosodiphenylamine	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Naphthalene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Nitrobenzene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Pentachlorophenol	2.17	U	2.17	0.673	mg/Kg	1	06/06/13 02:29
Phenanthrene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Phenol	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29
Pyrene	0.271	U	0.271	0.0847	mg/Kg	1	06/06/13 02:29

**Surrogates**

2,4,6-Tribromophenol	85.3		35-125		%	1	06/06/13 02:29
2-Fluorobiphenyl	83.4		45-105		%	1	06/06/13 02:29
2-Fluorophenol	64.7		35-105		%	1	06/06/13 02:29
Nitrobenzene-d5	71.4		35-100		%	1	06/06/13 02:29
Phenol-d6	74.9		40-100		%	1	06/06/13 02:29
Terphenyl-d14	119		30-125		%	1	06/06/13 02:29

**Batch Information**

Analytical Batch: XMS7354  
 Analytical Method: SW8270D  
 Analyst: RTS  
 Analytical Date/Time: 06/06/13 02:29  
 Container ID: 1132110021-A

Prep Batch: XXX29094  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 14:00  
 Prep Initial Wt./Vol.: 22.83 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (10)

Client Sample ID: **SMIC-N (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110021  
Lab Project ID: 1132110

Collection Date: 05/31/13 11:10  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 90.8

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.69	U	2.69	0.807	mg/Kg	1	06/07/13 13:48
<b>Surrogates</b>							
4-Bromofluorobenzene	95.9		50-150		%	1	06/07/13 13:48

### Batch Information

Analytical Batch: VFC11454  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/07/13 13:48  
Container ID: 1132110021-B

Prep Batch: VXX24787  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 11:10  
Prep Initial Wt./Vol.: 63.114 g  
Prep Extract Vol: 30.8239 mL

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-N (10)**

Client Sample ID: **SMIC-N (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110021  
Lab Project ID: 1132110

Collection Date: 05/31/13 11:10  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 90.8

Results by **Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,1,1-Trichloroethane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,1,2,2-Tetrachloroethane	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:26
1,1,2-Trichloroethane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,1-Dichloroethane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,1-Dichloroethene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,1-Dichloropropene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,2,3-Trichlorobenzene	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:26
1,2,3-Trichloropropane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,2,4-Trichlorobenzene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,2,4-Trimethylbenzene	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:26
1,2-Dibromo-3-chloropropane	108	U	108	33.4	ug/Kg	1	06/04/13 14:26
1,2-Dibromoethane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,2-Dichloroethane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,2-Dichloropropane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,3,5-Trimethylbenzene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,3-Dichlorobenzene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,3-Dichloropropane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
1,4-Dichlorobenzene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
2,2-Dichloropropane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
2-Butanone (MEK)	269	U	269	83.9	ug/Kg	1	06/04/13 14:26
2-Chlorotoluene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
2-Hexanone	269	U	269	83.9	ug/Kg	1	06/04/13 14:26
4-Chlorotoluene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
4-Isopropyltoluene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
4-Methyl-2-pentanone (MIBK)	269	U	269	83.9	ug/Kg	1	06/04/13 14:26
Benzene	13.5	U	13.5	4.20	ug/Kg	1	06/04/13 14:26
Bromobenzene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Bromochloromethane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Bromodichloromethane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Bromoform	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Bromomethane	215	U	215	66.7	ug/Kg	1	06/04/13 14:26
Carbon disulfide	108	U	108	33.4	ug/Kg	1	06/04/13 14:26
Carbon tetrachloride	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Chlorobenzene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Chloroethane	215	U	215	66.7	ug/Kg	1	06/04/13 14:26
Chloroform	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Chloromethane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
cis-1,2-Dichloroethene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
cis-1,3-Dichloropropene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Dibromochloromethane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Dibromomethane	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Dichlorodifluoromethane	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:26

Print Date: 06/27/2013 5:39:07PM



Results of **SMIC-N (10)**

Client Sample ID: **SMIC-N (10)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110021  
Lab Project ID: 1132110

Collection Date: 05/31/13 11:10  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 90.8

Results by **Volatile GC/MS**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Ethylbenzene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Hexachlorobutadiene	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:26
Isopropylbenzene (Cumene)	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Methyl-t-butyl ether	108	U	108	33.4	ug/Kg	1	06/04/13 14:26
Methylene chloride	108	U	108	33.4	ug/Kg	1	06/04/13 14:26
n-Butylbenzene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
n-Propylbenzene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Naphthalene	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:26
o-Xylene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
P & M -Xylene	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:26
sec-Butylbenzene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Styrene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
tert-Butylbenzene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Tetrachloroethene	13.5	U	13.5	4.20	ug/Kg	1	06/04/13 14:26
Toluene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
trans-1,2-Dichloroethene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
trans-1,3-Dichloropropene	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Trichloroethene	13.5	U	13.5	4.20	ug/Kg	1	06/04/13 14:26
Trichlorofluoromethane	53.8	U	53.8	16.1	ug/Kg	1	06/04/13 14:26
Vinyl chloride	26.9	U	26.9	8.39	ug/Kg	1	06/04/13 14:26
Xylenes (total)	108	U	108	33.4	ug/Kg	1	06/04/13 14:26

**Surrogates**

1,2-Dichloroethane-D4	117		79-118		%	1	06/04/13 14:26
4-Bromofluorobenzene	92.7		67-138		%	1	06/04/13 14:26
Toluene-d8	101		85-115		%	1	06/04/13 14:26

**Batch Information**

Analytical Batch: VMS13532  
Analytical Method: SW8260B  
Analyst: HM  
Analytical Date/Time: 06/04/13 14:26  
Container ID: 1132110021-B

Prep Batch: VXX24769  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 11:10  
Prep Initial Wt./Vol.: 63.114 g  
Prep Extract Vol: 30.8239 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (30)

Client Sample ID: **SMIC-N (30)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110022  
Lab Project ID: 1132110

Collection Date: 05/31/13 11:45  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 90.4

### Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	8.08		1.08	0.336	mg/Kg	10	06/04/13 15:00
Barium	50.3		0.325	0.102	mg/Kg	10	06/04/13 15:00
Cadmium	0.217	U	0.217	0.0672	mg/Kg	10	06/04/13 15:00
Chromium	29.2		0.434	0.130	mg/Kg	10	06/04/13 15:00
Lead	7.48		0.217	0.0672	mg/Kg	10	06/04/13 15:00
Mercury	0.0434	U	0.0434	0.0130	mg/Kg	10	06/04/13 15:00
Selenium	0.542	U	0.542	0.163	mg/Kg	10	06/04/13 15:00
Silver	0.108	U	0.108	0.0336	mg/Kg	10	06/04/13 15:00

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Analyst: HKS  
Analytical Date/Time: 06/04/13 15:00  
Container ID: 1132110022-A

Prep Batch: MXX26524  
Prep Method: SW3050B  
Prep Date/Time: 06/04/13 09:35  
Prep Initial Wt./Vol.: 1.02 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (30)

Client Sample ID: **SMIC-N (30)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110022  
 Lab Project ID: 1132110

Collection Date: 05/31/13 11:45  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 90.4

### Results by Semivolatile Organic Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics	22.0	U	22.0	6.81	mg/Kg	1	06/09/13 01:51
<b>Surrogates</b>							
5a Androstane	99.5		50-150		%	1	06/09/13 01:51

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK102  
 Analyst: MCM  
 Analytical Date/Time: 06/09/13 01:51  
 Container ID: 1132110022-A

Prep Batch: XXX29093  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 11:15  
 Prep Initial Wt./Vol.: 30.222 g  
 Prep Extract Vol: 1 mL

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Residual Range Organics	22.0	U	22.0	6.81	mg/Kg	1	06/09/13 01:51
<b>Surrogates</b>							
n-Triacontane-d62	115		50-150		%	1	06/09/13 01:51

### Batch Information

Analytical Batch: XFC10918  
 Analytical Method: AK103  
 Analyst: MCM  
 Analytical Date/Time: 06/09/13 01:51  
 Container ID: 1132110022-A

Prep Batch: XXX29093  
 Prep Method: SW3550C  
 Prep Date/Time: 06/04/13 11:15  
 Prep Initial Wt./Vol.: 30.222 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-N (30)

Client Sample ID: **SMIC-N (30)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110022  
 Lab Project ID: 1132110

Collection Date: 05/31/13 11:45  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 90.4

## Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
1,2-Dichlorobenzene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
1,3-Dichlorobenzene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
1,4-Dichlorobenzene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
1-Chloronaphthalene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
2,4,5-Trichlorophenol	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
2,4,6-Trichlorophenol	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
2,4-Dichlorophenol	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
2,4-Dimethylphenol	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
2,4-Dinitrophenol	3.26	U	3.26	1.02	mg/Kg	1	06/12/13 01:55
2,4-Dinitrotoluene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
2,6-Dichlorophenol	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
2,6-Dinitrotoluene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
2-Chloronaphthalene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
2-Chlorophenol	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
2-Methyl-4,6-dinitrophenol	2.17	U	2.17	0.674	mg/Kg	1	06/12/13 01:55
2-Methylnaphthalene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
2-Methylphenol (o-Cresol)	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
2-Nitroaniline	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
2-Nitrophenol	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
3&4-Methylphenol (p&m-Cresol)	1.09	U	1.09	0.337	mg/Kg	1	06/12/13 01:55
3,3-Dichlorobenzidine	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
3-Nitroaniline	0.543	U	0.543	0.163	mg/Kg	1	06/12/13 01:55
4-Bromophenyl-phenylether	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
4-Chloro-3-methylphenol	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
4-Chloroaniline	0.543	U	0.543	0.163	mg/Kg	1	06/12/13 01:55
4-Chlorophenyl-phenylether	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
4-Nitroaniline	3.26	U	3.26	1.02	mg/Kg	1	06/12/13 01:55
4-Nitrophenol	1.09	U	1.09	0.337	mg/Kg	1	06/12/13 01:55
Acenaphthene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Acenaphthylene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Aniline	2.17	U	2.17	0.674	mg/Kg	1	06/12/13 01:55
Anthracene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Azobenzene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Benzo(a)Anthracene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Benzo[a]pyrene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Benzo[b]Fluoranthene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Benzo[g,h,i]perylene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Benzo[k]fluoranthene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Benzoic acid	1.63	U	1.63	0.815	mg/Kg	1	06/12/13 01:55
Benzyl alcohol	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Bis(2-Chloroethoxy)methane	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Bis(2-Chloroethyl)ether	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
bis(2-Ethylhexyl)phthalate	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55

Print Date: 06/27/2013 5:39:07PM





### Results of SMIC-N (30)

Client Sample ID: **SMIC-N (30)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110022  
 Lab Project ID: 1132110

Collection Date: 05/31/13 11:45  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 90.4

### Results by Semivolatile Organic GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Bis(2chloro1methylethyl)Ether	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Butylbenzylphthalate	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Carbazole	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Chrysene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Di-n-butylphthalate	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
di-n-Octylphthalate	0.543	U	0.543	0.163	mg/Kg	1	06/12/13 01:55
Dibenzo[a,h]anthracene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Dibenzofuran	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Diethylphthalate	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Dimethylphthalate	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Fluoranthene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Fluorene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Hexachlorobenzene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Hexachlorobutadiene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Hexachlorocyclopentadiene	0.761	U	0.761	0.217	mg/Kg	1	06/12/13 01:55
Hexachloroethane	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Indeno[1,2,3-c,d] pyrene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Isophorone	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
N-Nitroso-di-n-propylamine	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
N-Nitrosodimethylamine	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
N-Nitrosodiphenylamine	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Naphthalene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Nitrobenzene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Pentachlorophenol	2.17	U	2.17	0.674	mg/Kg	1	06/12/13 01:55
Phenanthrene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Phenol	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55
Pyrene	0.272	U	0.272	0.0847	mg/Kg	1	06/12/13 01:55

### Surrogates

2,4,6-Tribromophenol	91.1		35-125		%	1	06/12/13 01:55
2-Fluorobiphenyl	85.1		45-105		%	1	06/12/13 01:55
2-Fluorophenol	63.6		35-105		%	1	06/12/13 01:55
Nitrobenzene-d5	65.1		35-100		%	1	06/12/13 01:55
Phenol-d6	71.6		40-100		%	1	06/12/13 01:55
Terphenyl-d14	99.7		30-125		%	1	06/12/13 01:55

### Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Analyst: DSH  
 Analytical Date/Time: 06/12/13 01:55  
 Container ID: 1132110022-A

Prep Batch: XXX29103  
 Prep Method: SW3550C  
 Prep Date/Time: 06/05/13 12:00  
 Prep Initial Wt./Vol.: 22.907 g  
 Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (30)

Client Sample ID: **SMIC-N (30)**  
Client Project ID: **SMIC Improvements 1770.01**  
Lab Sample ID: 1132110022  
Lab Project ID: 1132110

Collection Date: 05/31/13 11:45  
Received Date: 06/03/13 09:25  
Matrix: Soil/Solid (dry weight)  
Solids (%): 90.4

### Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.35	U	2.35	0.704	mg/Kg	1	06/07/13 14:06
<b>Surrogates</b>							
4-Bromofluorobenzene	98.5		50-150		%	1	06/07/13 14:06

### Batch Information

Analytical Batch: VFC11454  
Analytical Method: AK101  
Analyst: ST  
Analytical Date/Time: 06/07/13 14:06  
Container ID: 1132110022-B

Prep Batch: VXX24787  
Prep Method: SW5035A  
Prep Date/Time: 05/31/13 11:45  
Prep Initial Wt./Vol.: 76.179 g  
Prep Extract Vol: 32.3084 mL

Print Date: 06/27/2013 5:39:07PM

## Results of SMIC-N (30)

Client Sample ID: **SMIC-N (30)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110022  
 Lab Project ID: 1132110

Collection Date: 05/31/13 11:45  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 90.4

## Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,1,1-Trichloroethane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,1,2,2-Tetrachloroethane	46.9	U	46.9	14.1	ug/Kg	1	06/04/13 14:43
1,1,2-Trichloroethane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,1-Dichloroethane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,1-Dichloroethene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,1-Dichloropropene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,2,3-Trichlorobenzene	46.9	U	46.9	14.1	ug/Kg	1	06/04/13 14:43
1,2,3-Trichloropropane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,2,4-Trichlorobenzene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,2,4-Trimethylbenzene	46.9	U	46.9	14.1	ug/Kg	1	06/04/13 14:43
1,2-Dibromo-3-chloropropane	93.8	U	93.8	29.1	ug/Kg	1	06/04/13 14:43
1,2-Dibromoethane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,2-Dichloroethane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,2-Dichloropropane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,3,5-Trimethylbenzene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,3-Dichlorobenzene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,3-Dichloropropane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
1,4-Dichlorobenzene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
2,2-Dichloropropane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
2-Butanone (MEK)	235	U	235	73.2	ug/Kg	1	06/04/13 14:43
2-Chlorotoluene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
2-Hexanone	235	U	235	73.2	ug/Kg	1	06/04/13 14:43
4-Chlorotoluene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
4-Isopropyltoluene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
4-Methyl-2-pentanone (MIBK)	235	U	235	73.2	ug/Kg	1	06/04/13 14:43
Benzene	11.7	U	11.7	3.66	ug/Kg	1	06/04/13 14:43
Bromobenzene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Bromochloromethane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Bromodichloromethane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Bromoform	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Bromomethane	188	U	188	58.2	ug/Kg	1	06/04/13 14:43
Carbon disulfide	93.8	U	93.8	29.1	ug/Kg	1	06/04/13 14:43
Carbon tetrachloride	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Chlorobenzene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Chloroethane	188	U	188	58.2	ug/Kg	1	06/04/13 14:43
Chloroform	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Chloromethane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
cis-1,2-Dichloroethene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
cis-1,3-Dichloropropene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Dibromochloromethane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Dibromomethane	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Dichlorodifluoromethane	46.9	U	46.9	14.1	ug/Kg	1	06/04/13 14:43

Print Date: 06/27/2013 5:39:07PM



### Results of SMIC-N (30)

Client Sample ID: **SMIC-N (30)**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110022  
 Lab Project ID: 1132110

Collection Date: 05/31/13 11:45  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%): 90.4

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Hexachlorobutadiene	46.9	U	46.9	14.1	ug/Kg	1	06/04/13 14:43
Isopropylbenzene (Cumene)	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Methyl-t-butyl ether	93.8	U	93.8	29.1	ug/Kg	1	06/04/13 14:43
Methylene chloride	93.8	U	93.8	29.1	ug/Kg	1	06/04/13 14:43
n-Butylbenzene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
n-Propylbenzene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Naphthalene	46.9	U	46.9	14.1	ug/Kg	1	06/04/13 14:43
o-Xylene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
P & M -Xylene	46.9	U	46.9	14.1	ug/Kg	1	06/04/13 14:43
sec-Butylbenzene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Styrene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
tert-Butylbenzene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Tetrachloroethene	11.7	U	11.7	3.66	ug/Kg	1	06/04/13 14:43
Toluene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
trans-1,2-Dichloroethene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
trans-1,3-Dichloropropene	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Trichloroethene	11.7	U	11.7	3.66	ug/Kg	1	06/04/13 14:43
Trichlorofluoromethane	46.9	U	46.9	14.1	ug/Kg	1	06/04/13 14:43
Vinyl chloride	23.5	U	23.5	7.32	ug/Kg	1	06/04/13 14:43
Xylenes (total)	93.8	U	93.8	29.1	ug/Kg	1	06/04/13 14:43
<b>Surrogates</b>							
1,2-Dichloroethane-D4	119	*	79-118		%	1	06/04/13 14:43
4-Bromofluorobenzene	103		67-138		%	1	06/04/13 14:43
Toluene-d8	101		85-115		%	1	06/04/13 14:43

### Batch Information

Analytical Batch: VMS13532  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/04/13 14:43  
 Container ID: 1132110022-B

Prep Batch: VXX24769  
 Prep Method: SW5035A  
 Prep Date/Time: 05/31/13 11:45  
 Prep Initial Wt./Vol.: 76.179 g  
 Prep Extract Vol: 32.3084 mL

Print Date: 06/27/2013 5:39:07PM

## Results of Trip Blank

Client Sample ID: **Trip Blank**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110023  
 Lab Project ID: 1132110

Collection Date: 05/30/13 10:29  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%):

## Results by Volatile Fuels

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics	2.54	U	2.54	0.762	mg/Kg	1	06/06/13 20:47
<b>Surrogates</b>							
4-Bromofluorobenzene	101		50-150		%	1	06/06/13 20:47

## Batch Information

Analytical Batch: VFC11451  
 Analytical Method: AK101  
 Analyst: ST  
 Analytical Date/Time: 06/06/13 20:47  
 Container ID: 1132110023-A

Prep Batch: VXX24779  
 Prep Method: SW5035A  
 Prep Date/Time: 05/30/13 10:29  
 Prep Initial Wt./Vol.: 49.225 g  
 Prep Extract Vol: 25 mL

Print Date: 06/27/2013 5:39:07PM



### Results of Trip Blank

Client Sample ID: **Trip Blank**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110023  
 Lab Project ID: 1132110

Collection Date: 05/30/13 10:29  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%):

### Results by Volatile GC/MS

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,1,1-Trichloroethane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,1,2,2-Tetrachloroethane	50.8	U	50.8	15.2	ug/Kg	1	06/03/13 14:47
1,1,2-Trichloroethane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,1-Dichloroethane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,1-Dichloroethene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,1-Dichloropropene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,2,3-Trichlorobenzene	50.8	U	50.8	15.2	ug/Kg	1	06/03/13 14:47
1,2,3-Trichloropropane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,2,4-Trichlorobenzene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,2,4-Trimethylbenzene	50.8	U	50.8	15.2	ug/Kg	1	06/03/13 14:47
1,2-Dibromo-3-chloropropane	102	U	102	31.5	ug/Kg	1	06/03/13 14:47
1,2-Dibromoethane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,2-Dichlorobenzene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,2-Dichloroethane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,2-Dichloropropane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,3,5-Trimethylbenzene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,3-Dichlorobenzene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,3-Dichloropropane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
1,4-Dichlorobenzene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
2,2-Dichloropropane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
2-Butanone (MEK)	254	U	254	79.2	ug/Kg	1	06/03/13 14:47
2-Chlorotoluene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
2-Hexanone	254	U	254	79.2	ug/Kg	1	06/03/13 14:47
4-Chlorotoluene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
4-Isopropyltoluene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
4-Methyl-2-pentanone (MIBK)	254	U	254	79.2	ug/Kg	1	06/03/13 14:47
Benzene	12.7	U	12.7	3.96	ug/Kg	1	06/03/13 14:47
Bromobenzene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Bromochloromethane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Bromodichloromethane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Bromoform	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Bromomethane	203	U	203	63.0	ug/Kg	1	06/03/13 14:47
Carbon disulfide	102	U	102	31.5	ug/Kg	1	06/03/13 14:47
Carbon tetrachloride	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Chlorobenzene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Chloroethane	203	U	203	63.0	ug/Kg	1	06/03/13 14:47
Chloroform	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Chloromethane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
cis-1,2-Dichloroethene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
cis-1,3-Dichloropropene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Dibromochloromethane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Dibromomethane	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Dichlorodifluoromethane	50.8	U	50.8	15.2	ug/Kg	1	06/03/13 14:47

Print Date: 06/27/2013 5:39:07PM



### Results of Trip Blank

Client Sample ID: **Trip Blank**  
 Client Project ID: **SMIC Improvements 1770.01**  
 Lab Sample ID: 1132110023  
 Lab Project ID: 1132110

Collection Date: 05/30/13 10:29  
 Received Date: 06/03/13 09:25  
 Matrix: Soil/Solid (dry weight)  
 Solids (%):

### Results by Volatile GC/MS

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Date Analyzed
Ethylbenzene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Hexachlorobutadiene	50.8	U	50.8	15.2	ug/Kg	1	06/03/13 14:47
Isopropylbenzene (Cumene)	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Methyl-t-butyl ether	102	U	102	31.5	ug/Kg	1	06/03/13 14:47
Methylene chloride	102	U	102	31.5	ug/Kg	1	06/03/13 14:47
n-Butylbenzene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
n-Propylbenzene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Naphthalene	50.8	U	50.8	15.2	ug/Kg	1	06/03/13 14:47
o-Xylene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
P & M -Xylene	50.8	U	50.8	15.2	ug/Kg	1	06/03/13 14:47
sec-Butylbenzene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Styrene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
tert-Butylbenzene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Tetrachloroethene	12.7	U	12.7	3.96	ug/Kg	1	06/03/13 14:47
Toluene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
trans-1,2-Dichloroethene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
trans-1,3-Dichloropropene	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Trichloroethene	12.7	U	12.7	3.96	ug/Kg	1	06/03/13 14:47
Trichlorofluoromethane	50.8	U	50.8	15.2	ug/Kg	1	06/03/13 14:47
Vinyl chloride	25.4	U	25.4	7.92	ug/Kg	1	06/03/13 14:47
Xylenes (total)	102	U	102	31.5	ug/Kg	1	06/03/13 14:47
<b>Surrogates</b>							
1,2-Dichloroethane-D4	108		79-118		%	1	06/03/13 14:47
4-Bromofluorobenzene	93.9		67-138		%	1	06/03/13 14:47
Toluene-d8	99.3		85-115		%	1	06/03/13 14:47

### Batch Information

Analytical Batch: VMS13531  
 Analytical Method: SW8260B  
 Analyst: HM  
 Analytical Date/Time: 06/03/13 14:47  
 Container ID: 1132110023-A

Prep Batch: VXX24765  
 Prep Method: SW5035A  
 Prep Date/Time: 05/30/13 10:29  
 Prep Initial Wt./Vol.: 49.225 g  
 Prep Extract Vol: 25 mL

Print Date: 06/27/2013 5:39:07PM



### Method Blank

Blank ID: MB for HBN 1453096 [MXX/26523]  
Blank Lab ID: 1150929

Matrix: Soil/Solid (dry weight)

#### QC for Samples:

1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110020

### Results by SW6020

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Arsenic	0.620U	1.00	0.310	mg/Kg
Barium	0.188U	0.300	0.0940	mg/Kg
Cadmium	0.124U	0.200	0.0620	mg/Kg
Chromium	0.240U	0.400	0.120	mg/Kg
Lead	0.124U	0.200	0.0620	mg/Kg
Mercury	0.0240U	0.0400	0.0120	mg/Kg
Selenium	0.300U	0.500	0.150	mg/Kg
Silver	0.0620U	0.100	0.0310	mg/Kg

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Instrument: Perkin Elmer Sciex ICP-MS P3  
Analyst: HKS  
Analytical Date/Time: 6/4/2013 5:23:08PM

Prep Batch: MXX26523  
Prep Method: SW3050B  
Prep Date/Time: 6/4/2013 9:35:00AM  
Prep Initial Wt./Vol.: 1 g  
Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:22PM



## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [MXX26523]

Blank Spike Lab ID: 1150930

Date Analyzed: 06/04/2013 17:25

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110020

## Results by SW6020

Parameter	Blank Spike (mg/Kg)			CL
	Spike	Result	Rec (%)	
Arsenic	50	52.9	106	( 80-120 )
Barium	50	54.6	109	( 80-120 )
Cadmium	5	5.32	106	( 80-120 )
Chromium	20	22.2	111	( 80-120 )
Lead	50	57.9	116	( 80-120 )
Mercury	0.5	0.510	102	( 80-120 )
Selenium	50	55.0	110	( 80-120 )
Silver	5	5.19	104	( 80-120 )

## Batch Information

Analytical Batch: **MMS7983**

Analytical Method: **SW6020**

Instrument: **Perkin Elmer Sciex ICP-MS P3**

Analyst: **HKS**

Prep Batch: **MXX26523**

Prep Method: **SW3050B**

Prep Date/Time: **06/04/2013 09:35**

Spike Init Wt./Vol.: 50 mg/Kg Extract Vol: 50 mL

Dupe Init Wt./Vol.: Extract Vol:

## Matrix Spike Summary

Original Sample ID: 1132110006  
 MS Sample ID: 1150931 MS  
 MSD Sample ID: 1150932 MSD

Analysis Date: 06/04/2013 17:27  
 Analysis Date: 06/04/2013 17:32  
 Analysis Date: 06/04/2013 17:34  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110020

## Results by SW6020

Parameter	Sample	Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Arsenic	4.73	48.9	54.8	102	49.6	56.1	103	80-120	2.39	(< 20 )
Barium	33.0	48.9	94.1	125 *	49.6	99.1	133 *	80-120	5.20	(< 20 )
Cadmium	0.192U	4.89	5.21	107	4.96	5.26	106	80-120	0.95	(< 20 )
Chromium	47.1	19.6	58.6	58 *	19.9	54.9	39 *	80-120	6.35	(< 20 )
Lead	4.78	48.9	59.5	112	49.6	60.0	111	80-120	0.86	(< 20 )
Mercury	0.0384U	0.489	0.509	104	0.496	0.515	104	80-120	1.30	(< 20 )
Selenium	0.480U	48.9	52.0	106	49.6	53.5	108	80-120	2.61	(< 20 )
Silver	0.0959U	4.89	5.04	103	4.96	5.20	105	80-120	3.18	(< 20 )

## Batch Information

Analytical Batch: MMS7983  
 Analytical Method: SW6020  
 Instrument: Perkin Elmer Sciex ICP-MS P3  
 Analyst: HKS  
 Analytical Date/Time: 6/4/2013 5:32:15PM

Prep Batch: MXX26523  
 Prep Method: Soils/Solids Digest for Metals by ICP-MS  
 Prep Date/Time: 6/4/2013 9:35:00AM  
 Prep Initial Wt./Vol.: 1.04g  
 Prep Extract Vol: 50.00mL



### Bench Spike Summary

Original Sample ID: 1132110006  
MS Sample ID: 1150933 BND  
MSD Sample ID:

Analysis Date: 06/04/2013 17:27  
Analysis Date: 06/04/2013 17:36  
Analysis Date:  
Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110020

### Results by SW6020

Parameter	Sample	Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Barium	33.0	239	280	103				75-125		
Chromium	47.1	120	167	100				75-125		

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Instrument: Perkin Elmer Sciex ICP-MS P3  
Analyst: HKS  
Analytical Date/Time: 6/4/2013 5:36:46PM

Prep Batch: MXX26523  
Prep Method: Soils/Solids Digest for Metals by ICP-MS  
Prep Date/Time: 6/4/2013 9:35:00AM  
Prep Initial Wt./Vol.: 1.06g  
Prep Extract Vol: 50.00mL

Print Date: 06/27/2013 5:39:23PM

## Method Blank

Blank ID: MB for HBN 1453097 [MXX/26524]

Blank Lab ID: 1150935

QC for Samples:

1132110021, 1132110022

Matrix: Soil/Solid (dry weight)

## Results by SW6020

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Arsenic	0.620U	1.00	0.310	mg/Kg
Barium	0.188U	0.300	0.0940	mg/Kg
Cadmium	0.124U	0.200	0.0620	mg/Kg
Chromium	0.240U	0.400	0.120	mg/Kg
Lead	0.124U	0.200	0.0620	mg/Kg
Mercury	0.0240U	0.0400	0.0120	mg/Kg
Selenium	0.300U	0.500	0.150	mg/Kg
Silver	0.0620U	0.100	0.0310	mg/Kg

## Batch Information

Analytical Batch: MMS7983

Analytical Method: SW6020

Instrument: Perkin Elmer Sciex ICP-MS P3

Analyst: HKS

Analytical Date/Time: 6/4/2013 2:33:57PM

Prep Batch: MXX26524

Prep Method: SW3050B

Prep Date/Time: 6/4/2013 9:35:00AM

Prep Initial Wt./Vol.: 1 g

Prep Extract Vol: 50 mL

Print Date: 06/27/2013 5:39:24PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [MXX26524]

Blank Spike Lab ID: 1150936

Date Analyzed: 06/04/2013 14:36

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110021, 1132110022

## Results by SW6020

Parameter	Blank Spike (mg/Kg)			CL
	Spike	Result	Rec (%)	
Arsenic	50	54.4	109	( 80-120 )
Barium	50	56.1	112	( 80-120 )
Cadmium	5	5.38	108	( 80-120 )
Chromium	20	22.7	113	( 80-120 )
Lead	50	58.1	116	( 80-120 )
Mercury	0.5	0.505	101	( 80-120 )
Selenium	50	57.0	114	( 80-120 )
Silver	5	5.43	109	( 80-120 )

## Batch Information

Analytical Batch: **MMS7983**

Analytical Method: **SW6020**

Instrument: **Perkin Elmer Sciex ICP-MS P3**

Analyst: **HKS**

Prep Batch: **MXX26524**

Prep Method: **SW3050B**

Prep Date/Time: **06/04/2013 09:35**

Spike Init Wt./Vol.: 50 mg/Kg Extract Vol: 50 mL

Dupe Init Wt./Vol.: Extract Vol:



### Matrix Spike Summary

Original Sample ID: 1131859001  
MS Sample ID: 1150937 MS  
MSD Sample ID: 1150938 MSD

Analysis Date: 06/04/2013 14:38  
Analysis Date: 06/04/2013 14:40  
Analysis Date: 06/04/2013 14:42  
Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110021, 1132110022

### Results by SW6020

Parameter	Sample	Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Lead	4.43	55.3	68.6	116	52.8	65.0	115	80-120	5.25	(< 20 )

### Batch Information

Analytical Batch: MMS7983  
Analytical Method: SW6020  
Instrument: Perkin Elmer Sciex ICP-MS P3  
Analyst: HKS  
Analytical Date/Time: 6/4/2013 2:40:36PM

Prep Batch: MXX26524  
Prep Method: Soils/Solids Digest for Metals by ICP-MS  
Prep Date/Time: 6/4/2013 9:35:00AM  
Prep Initial Wt./Vol.: 1.05g  
Prep Extract Vol: 50.00mL

Print Date: 06/27/2013 5:39:25PM



### Method Blank

Blank ID: MB for HBN 1453073 [SPT/9033]  
Blank Lab ID: 1150850

Matrix: Soil/Solid (dry weight)

#### QC for Samples:

1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009,  
1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018,  
1132110019, 1132110020, 1132110021, 1132110022

### Results by SM21 2540G

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Solids	100			%

### Batch Information

Analytical Batch: SPT9033  
Analytical Method: SM21 2540G  
Instrument:  
Analyst: KRL  
Analytical Date/Time: 6/4/2013 5:02:00PM

Print Date: 06/27/2013 5:39:26PM



### Duplicate Sample Summary

Original Sample ID: 1132130002

Analysis Date: 06/04/2013 17:02

Duplicate Sample ID: 1151077

Matrix: Soil/Solid (dry weight)

QC for Samples:

1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110020, 1132110021, 1132110022

### Results by SM21 2540G

<u>NAME</u>	<u>Original (15.00)</u>	<u>Duplicate (15.00)</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Solids	95.4	95.2	0.22	15.00

### Batch Information

Analytical Batch: SPT9033

Analytical Method: SM21 2540G

Instrument:

Analyst: KRL

Print Date: 06/27/2013 5:39:26PM

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## Method Blank

Blank ID: MB for HBN 1453074 [VXX/24765]

Matrix: Soil/Solid (dry weight)

Blank Lab ID: 1150852

QC for Samples:

1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110023

## Results by SW8260B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
1,1,1,2-Tetrachloroethane	15.6U	25.0	7.80	ug/Kg
1,1,1-Trichloroethane	15.6U	25.0	7.80	ug/Kg
1,1,2,2-Tetrachloroethane	30.0U	50.0	15.0	ug/Kg
1,1,2-Trichloroethane	15.6U	25.0	7.80	ug/Kg
1,1-Dichloroethane	15.6U	25.0	7.80	ug/Kg
1,1-Dichloroethene	15.6U	25.0	7.80	ug/Kg
1,1-Dichloropropene	15.6U	25.0	7.80	ug/Kg
1,2,3-Trichlorobenzene	30.0U	50.0	15.0	ug/Kg
1,2,3-Trichloropropane	15.6U	25.0	7.80	ug/Kg
1,2,4-Trichlorobenzene	15.6U	25.0	7.80	ug/Kg
1,2,4-Trimethylbenzene	30.0U	50.0	15.0	ug/Kg
1,2-Dibromo-3-chloropropane	62.0U	100	31.0	ug/Kg
1,2-Dibromoethane	15.6U	25.0	7.80	ug/Kg
1,2-Dichlorobenzene	15.6U	25.0	7.80	ug/Kg
1,2-Dichloroethane	15.6U	25.0	7.80	ug/Kg
1,2-Dichloropropane	15.6U	25.0	7.80	ug/Kg
1,3,5-Trimethylbenzene	15.6U	25.0	7.80	ug/Kg
1,3-Dichlorobenzene	15.6U	25.0	7.80	ug/Kg
1,3-Dichloropropane	15.6U	25.0	7.80	ug/Kg
1,4-Dichlorobenzene	15.6U	25.0	7.80	ug/Kg
2,2-Dichloropropane	15.6U	25.0	7.80	ug/Kg
2-Butanone (MEK)	156U	250	78.0	ug/Kg
2-Chlorotoluene	15.6U	25.0	7.80	ug/Kg
2-Hexanone	156U	250	78.0	ug/Kg
4-Chlorotoluene	15.6U	25.0	7.80	ug/Kg
4-Isopropyltoluene	15.6U	25.0	7.80	ug/Kg
4-Methyl-2-pentanone (MIBK)	156U	250	78.0	ug/Kg
Benzene	7.80U	12.5	3.90	ug/Kg
Bromobenzene	15.6U	25.0	7.80	ug/Kg
Bromochloromethane	15.6U	25.0	7.80	ug/Kg
Bromodichloromethane	15.6U	25.0	7.80	ug/Kg
Bromoform	15.6U	25.0	7.80	ug/Kg
Bromomethane	124U	200	62.0	ug/Kg
Carbon disulfide	62.0U	100	31.0	ug/Kg
Carbon tetrachloride	15.6U	25.0	7.80	ug/Kg
Chlorobenzene	15.6U	25.0	7.80	ug/Kg
Chloroethane	124U	200	62.0	ug/Kg
Chloroform	15.6U	25.0	7.80	ug/Kg

Print Date: 06/27/2013 5:39:28PM

## Method Blank

Blank ID: MB for HBN 1453074 [VXX/24765]

Matrix: Soil/Solid (dry weight)

Blank Lab ID: 1150852

QC for Samples:

1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110023

## Results by SW8260B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Chloromethane	15.6U	25.0	7.80	ug/Kg
cis-1,2-Dichloroethene	15.6U	25.0	7.80	ug/Kg
cis-1,3-Dichloropropene	15.6U	25.0	7.80	ug/Kg
Dibromochloromethane	15.6U	25.0	7.80	ug/Kg
Dibromomethane	15.6U	25.0	7.80	ug/Kg
Dichlorodifluoromethane	30.0U	50.0	15.0	ug/Kg
Ethylbenzene	15.6U	25.0	7.80	ug/Kg
Hexachlorobutadiene	30.0U	50.0	15.0	ug/Kg
Isopropylbenzene (Cumene)	15.6U	25.0	7.80	ug/Kg
Methylene chloride	62.0U	100	31.0	ug/Kg
Methyl-t-butyl ether	62.0U	100	31.0	ug/Kg
Naphthalene	30.0U	50.0	15.0	ug/Kg
n-Butylbenzene	15.6U	25.0	7.80	ug/Kg
n-Propylbenzene	15.6U	25.0	7.80	ug/Kg
o-Xylene	15.6U	25.0	7.80	ug/Kg
P & M -Xylene	30.0U	50.0	15.0	ug/Kg
sec-Butylbenzene	15.6U	25.0	7.80	ug/Kg
Styrene	15.6U	25.0	7.80	ug/Kg
tert-Butylbenzene	15.6U	25.0	7.80	ug/Kg
Tetrachloroethene	7.80U	12.5	3.90	ug/Kg
Toluene	15.6U	25.0	7.80	ug/Kg
trans-1,2-Dichloroethene	15.6U	25.0	7.80	ug/Kg
trans-1,3-Dichloropropene	15.6U	25.0	7.80	ug/Kg
Trichloroethene	7.80U	12.5	3.90	ug/Kg
Trichlorofluoromethane	30.0U	50.0	15.0	ug/Kg
Vinyl chloride	15.6U	25.0	7.80	ug/Kg
Xylenes (total)	62.0U	100	31.0	ug/Kg
<b>Surrogates</b>				
1,2-Dichloroethane-D4	113	79-118		%
4-Bromofluorobenzene	97.7	67-138		%
Toluene-d8	105	85-115		%

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**Method Blank**

Blank ID: MB for HBN 1453074 [VXX/24765]  
Blank Lab ID: 1150852

Matrix: Soil/Solid (dry weight)

QC for Samples:

1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009,  
1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018,  
1132110019, 1132110023

Results by **SW8260B**

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
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**Batch Information**

Analytical Batch: VMS13531  
Analytical Method: SW8260B  
Instrument: Agilent 7890-75MS  
Analyst: HM  
Analytical Date/Time: 6/3/2013 12:58:01PM

Prep Batch: VXX24765  
Prep Method: SW5035A  
Prep Date/Time: 6/3/2013 8:00:00AM  
Prep Initial Wt./Vol.: 50 g  
Prep Extract Vol: 25 mL

Print Date: 06/27/2013 5:39:28PM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [VXX24765]

Blank Spike Lab ID: 1150853

Date Analyzed: 06/03/2013 13:19

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110023

### Results by SW8260B

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
1,1,1,2-Tetrachloroethane	750	796	106	( 75-125 )
1,1,1-Trichloroethane	750	836	112	( 70-135 )
1,1,2,2-Tetrachloroethane	750	837	112	( 55-130 )
1,1,2-Trichloroethane	750	833	111	( 60-125 )
1,1-Dichloroethane	750	828	110	( 75-125 )
1,1-Dichloroethene	750	816	109	( 65-135 )
1,1-Dichloropropene	750	829	111	( 70-135 )
1,2,3-Trichlorobenzene	750	771	103	( 60-135 )
1,2,3-Trichloropropane	750	827	110	( 65-130 )
1,2,4-Trichlorobenzene	750	766	102	( 65-130 )
1,2,4-Trimethylbenzene	750	782	104	( 65-135 )
1,2-Dibromo-3-chloropropane	750	891	119	( 40-135 )
1,2-Dibromoethane	750	790	105	( 70-125 )
1,2-Dichlorobenzene	750	768	102	( 75-120 )
1,2-Dichloroethane	750	814	109	( 70-135 )
1,2-Dichloropropane	750	823	110	( 70-120 )
1,3,5-Trimethylbenzene	750	786	105	( 65-135 )
1,3-Dichlorobenzene	750	775	103	( 70-125 )
1,3-Dichloropropane	750	802	107	( 75-125 )
1,4-Dichlorobenzene	750	775	103	( 70-125 )
2,2-Dichloropropane	750	866	115	( 65-135 )
2-Butanone (MEK)	2250	2760	122	( 30-160 )
2-Chlorotoluene	750	797	106	( 70-130 )
2-Hexanone	2250	2790	124	( 45-145 )
4-Chlorotoluene	750	766	102	( 75-125 )
4-Isopropyltoluene	750	789	105	( 75-135 )
4-Methyl-2-pentanone (MIBK)	2250	2710	120	( 45-145 )
Benzene	750	763	102	( 75-125 )
Bromobenzene	750	781	104	( 65-120 )
Bromochloromethane	750	792	106	( 70-125 )
Bromodichloromethane	750	822	110	( 70-130 )
Bromoform	750	817	109	( 55-135 )
Bromomethane	750	892	119	( 30-160 )
Carbon disulfide	1130	1180	104	( 45-160 )

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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [VXX24765]

Blank Spike Lab ID: 1150853

Date Analyzed: 06/03/2013 13:19

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110023

## Results by SW8260B

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
Carbon tetrachloride	750	768	102	(65-135)
Chlorobenzene	750	791	105	(75-125)
Chloroethane	750	979	130	(40-155)
Chloroform	750	816	109	(70-125)
Chloromethane	750	919	122	(50-130)
cis-1,2-Dichloroethene	750	811	108	(65-125)
cis-1,3-Dichloropropene	750	825	110	(70-125)
Dibromochloromethane	750	816	109	(65-130)
Dibromomethane	750	808	108	(75-130)
Dichlorodifluoromethane	750	868	116	(35-135)
Ethylbenzene	750	795	106	(75-125)
Hexachlorobutadiene	750	799	107	(55-140)
Isopropylbenzene (Cumene)	750	788	105	(75-130)
Methyl-t-butyl ether	1130	1220	108	(63-149)
Methylene chloride	750	756	101	(55-140)
n-Butylbenzene	750	785	105	(65-140)
n-Propylbenzene	750	796	106	(65-135)
Naphthalene	750	806	108	(40-125)
o-Xylene	750	786	105	(75-125)
P & M -Xylene	1500	1580	105	(80-125)
sec-Butylbenzene	750	787	105	(65-130)
Styrene	750	778	104	(75-125)
tert-Butylbenzene	750	782	104	(65-130)
Tetrachloroethene	750	813	108	(65-140)
Toluene	750	793	106	(70-125)
trans-1,2-Dichloroethene	750	808	108	(65-135)
trans-1,3-Dichloropropene	750	817	109	(65-125)
Trichloroethene	750	766	102	(75-125)
Trichlorofluoromethane	750	846	113	(25-185)
Vinyl chloride	750	935	125	(60-125)
Xylenes (total)	2250	2370	105	(80-125)
<b>Surrogates</b>				
1,2-Dichloroethane-D4	750	109	109	(79-118)

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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [VXX24765]

Blank Spike Lab ID: 1150853

Date Analyzed: 06/03/2013 13:19

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110023

## Results by SW8260B

Parameter	Blank Spike (%)			CL
	Spike	Result	Rec (%)	
4-Bromofluorobenzene	750	98.2	98	( 67-138 )
Toluene-d8	750	103	103	( 85-115 )

## Batch Information

Analytical Batch: VMS13531

Analytical Method: SW8260B

Instrument: Agilent 7890-75MS

Analyst: HM

Prep Batch: VXX24765

Prep Method: SW5035A

Prep Date/Time: 06/03/2013 08:00

Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL

Dupe Init Wt./Vol.: Extract Vol:



### Matrix Spike Summary

Original Sample ID: 1132110001  
 MS Sample ID: 1150854 MS  
 MSD Sample ID: 1150855 MSD

Analysis Date: 06/03/2013 15:04  
 Analysis Date: 06/03/2013 13:40  
 Analysis Date: 06/03/2013 13:57  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110023

### Results by SW8260B

Parameter	Sample	Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
1,1,1,2-Tetrachloroethane	27.6U	771	798	103	771	826	107	75-125	3.50	(< 20 )
1,1,1-Trichloroethane	27.6U	771	836	108	771	862	112	70-135	3.10	(< 20 )
1,1,2,2-Tetrachloroethane	55.3U	771	843	109	771	844	110	55-130	0.18	(< 20 )
1,1,2-Trichloroethane	27.6U	771	819	106	771	852	110	60-125	3.80	(< 20 )
1,1-Dichloroethane	27.6U	771	820	106	771	846	110	75-125	3.20	(< 20 )
1,1-Dichloroethene	27.6U	771	823	107	771	838	109	65-135	1.80	(< 20 )
1,1-Dichloropropene	27.6U	771	846	110	771	864	112	70-135	2.20	(< 20 )
1,2,3-Trichlorobenzene	55.3U	771	870	113	771	849	110	60-135	2.40	(< 20 )
1,2,3-Trichloropropane	27.6U	771	842	109	771	842	109	65-130	0.09	(< 20 )
1,2,4-Trichlorobenzene	27.6U	771	836	108	771	837	109	65-130	0.06	(< 20 )
1,2,4-Trimethylbenzene	55.3U	771	803	104	771	821	107	65-135	2.30	(< 20 )
1,2-Dibromo-3-chloropropane	111U	771	944	122	771	910	118	40-135	3.70	(< 20 )
1,2-Dibromoethane	27.6U	771	793	103	771	814	106	70-125	2.50	(< 20 )
1,2-Dichlorobenzene	27.6U	771	773	100	771	802	104	75-120	3.70	(< 20 )
1,2-Dichloroethane	27.6U	771	810	105	771	841	109	70-135	3.80	(< 20 )
1,2-Dichloropropane	27.6U	771	818	106	771	850	110	70-120	3.90	(< 20 )
1,3,5-Trimethylbenzene	27.6U	771	800	104	771	823	107	65-135	2.90	(< 20 )
1,3-Dichlorobenzene	27.6U	771	790	103	771	795	103	70-125	0.62	(< 20 )
1,3-Dichloropropane	27.6U	771	795	103	771	820	106	75-125	3.10	(< 20 )
1,4-Dichlorobenzene	27.6U	771	786	102	771	805	104	70-125	2.40	(< 20 )
2,2-Dichloropropane	27.6U	771	874	113	771	897	116	65-135	2.50	(< 20 )
2-Butanone (MEK)	276U	2316	2980	129	2316	2949	128	30-160	0.98	(< 20 )
2-Chlorotoluene	27.6U	771	813	105	771	817	106	70-130	0.57	(< 20 )
2-Hexanone	276U	2316	2908	126	2316	2887	125	45-145	0.76	(< 20 )
4-Chlorotoluene	27.6U	771	803	104	771	852	111	75-125	6.00	(< 20 )
4-Isopropyltoluene	27.6U	771	821	107	771	836	108	75-135	1.80	(< 20 )
4-Methyl-2-pentanone (MIBK)	276U	2316	2773	120	2316	2793	121	45-145	0.92	(< 20 )
Benzene	13.8U	771	766	99	771	791	103	75-125	3.10	(< 20 )
Bromobenzene	27.6U	771	784	102	771	807	105	65-120	2.80	(< 20 )
Bromochloromethane	27.6U	771	791	103	771	820	106	70-125	3.60	(< 20 )
Bromodichloromethane	27.6U	771	813	106	771	848	110	70-130	4.20	(< 20 )
Bromoform	27.6U	771	822	107	771	846	110	55-135	2.80	(< 20 )
Bromomethane	221U	771	820	106	771	819	106	30-160	0.13	(< 20 )
Carbon disulfide	111U	1153	1288	111	1153	1298	112	45-160	0.66	(< 20 )
Carbon tetrachloride	27.6U	771	772	100	771	787	102	65-135	2.00	(< 20 )
Chlorobenzene	27.6U	771	793	103	771	814	106	75-125	2.60	(< 20 )
Chloroethane	221U	771	934	121	771	865	112	40-155	7.60	(< 20 )

Print Date: 06/27/2013 5:39:29PM



### Matrix Spike Summary

Original Sample ID: 1132110001  
 MS Sample ID: 1150854 MS  
 MSD Sample ID: 1150855 MSD

Analysis Date: 06/03/2013 15:04  
 Analysis Date: 06/03/2013 13:40  
 Analysis Date: 06/03/2013 13:57  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110023

### Results by SW8260B

Parameter	Sample	Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Chloroform	27.6U	771	820	106	771	846	110	70-125	3.10	(< 20 )
Chloromethane	27.6U	771	910	118	771	919	119	50-130	0.98	(< 20 )
cis-1,2-Dichloroethene	27.6U	771	812	105	771	838	109	65-125	3.10	(< 20 )
cis-1,3-Dichloropropene	27.6U	771	823	107	771	860	112	70-125	4.20	(< 20 )
Dibromochloromethane	27.6U	771	810	105	771	833	108	65-130	2.80	(< 20 )
Dibromomethane	27.6U	771	808	105	771	835	108	75-130	3.30	(< 20 )
Dichlorodifluoromethane	55.3U	771	850	110	771	859	111	35-135	1.10	(< 20 )
Ethylbenzene	27.6U	771	809	105	771	830	108	75-125	2.50	(< 20 )
Hexachlorobutadiene	55.3U	771	936	121	771	931	121	55-140	0.44	(< 20 )
Isopropylbenzene (Cumene)	27.6U	771	823	107	771	843	109	75-130	2.30	(< 20 )
Methyl-t-butyl ether	111U	1153	1194	103	1153	1246	108	63-149	4.60	(< 20 )
Methylene chloride	111U	771	757	98	771	790	103	55-140	4.30	(< 20 )
n-Butylbenzene	27.6U	771	849	110	771	856	111	65-140	0.72	(< 20 )
n-Propylbenzene	27.6U	771	819	106	771	828	107	65-135	1.10	(< 20 )
Naphthalene	55.3U	771	892	116	771	856	111	40-125	4.20	(< 20 )
o-Xylene	27.6U	771	794	103	771	818	106	75-125	3.00	(< 20 )
P & M -Xylene	55.3U	1537	1599	104	1537	1661	108	80-125	3.40	(< 20 )
sec-Butylbenzene	27.6U	771	822	107	771	841	109	65-130	2.30	(< 20 )
Styrene	27.6U	771	789	102	771	832	108	75-125	5.20	(< 20 )
tert-Butylbenzene	27.6U	771	801	104	771	830	108	65-130	3.50	(< 20 )
Tetrachloroethene	13.8U	771	842	109	771	860	112	65-140	2.10	(< 20 )
Toluene	27.6U	771	810	105	771	830	108	70-125	2.40	(< 20 )
trans-1,2-Dichloroethene	27.6U	771	840	109	771	856	111	65-135	1.80	(< 20 )
trans-1,3-Dichloropropene	27.6U	771	826	107	771	847	110	65-125	2.60	(< 20 )
Trichloroethene	13.8U	771	772	100	771	798	103	75-125	3.20	(< 20 )
Trichlorofluoromethane	55.3U	771	834	108	771	839	109	25-185	0.71	(< 20 )
Vinyl chloride	27.6U	771	947	123	771	961	125	60-125	1.40	(< 20 )
Xylenes (total)	111U	2316	2399	104	2316	2471	107	80-125	3.30	(< 20 )
<b>Surrogates</b>										
1,2-Dichloroethane-D4		771	832	108	771	832	108	79-118	0.09	
4-Bromofluorobenzene		2056	1952	95	2056	1952	95	67-138	0.12	
Toluene-d8		771	803	104	771	796	103	85-115	0.74	

Print Date: 06/27/2013 5:39:29PM





### Matrix Spike Summary

Original Sample ID: 1132110001  
MS Sample ID: 1150854 MS  
MSD Sample ID: 1150855 MSD

Analysis Date:  
Analysis Date: 06/03/2013 13:40  
Analysis Date: 06/03/2013 13:57  
Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110023

### Results by SW8260B

Parameter	Sample	Matrix Spike (%)			Spike Duplicate (%)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			

### Batch Information

Analytical Batch: VMS13531  
Analytical Method: SW8260B  
Instrument: Agilent 7890-75MS  
Analyst: HM  
Analytical Date/Time: 6/3/2013 1:40:00PM

Prep Batch: VXX24765  
Prep Method: Vol. Extraction SW8260 Field Extracted L  
Prep Date/Time: 6/3/2013 8:00:00AM  
Prep Initial Wt./Vol.: 50.51g  
Prep Extract Vol: 25.00mL

Print Date: 06/27/2013 5:39:29PM



### Method Blank

Blank ID: MB for HBN 1453161 [VXX/24768]

Blank Lab ID: 1151052

QC for Samples:

1132110020

Matrix: Soil/Solid (dry weight)

### Results by AK101

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Gasoline Range Organics	0.946J	2.50	0.750	mg/Kg
<b>Surrogates</b>				
4-Bromofluorobenzene	82.3	50-150		%

### Batch Information

Analytical Batch: VFC11446

Analytical Method: AK101

Instrument: Agilent 7890 PID/FID

Analyst: ST

Analytical Date/Time: 6/4/2013 8:00:00PM

Prep Batch: VXX24768

Prep Method: SW5035A

Prep Date/Time: 6/4/2013 8:00:00AM

Prep Initial Wt./Vol.: 50 g

Prep Extract Vol: 25 mL

Print Date: 06/27/2013 5:39:30PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [VXX24768]  
 Blank Spike Lab ID: 1151062  
 Date Analyzed: 06/04/2013 20:56

Spike Duplicate ID: LCSD for HBN 1132110 [VXX24768]  
 Spike Duplicate Lab ID: 1151063  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110020

## Results by AK101

Parameter	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Gasoline Range Organics	10.0	9.65	97	10.0	8.79	88	( 60-120 )	9.40	(< 20 )
<b>Surrogates</b>									
4-Bromofluorobenzene	1.25	82.3	82	1.25	74.4	74	( 50-150 )	10.20	

## Batch Information

Analytical Batch: **VFC11446**  
 Analytical Method: **AK101**  
 Instrument: **Agilent 7890 PID/FID**  
 Analyst: **ST**

Prep Batch: **VXX24768**  
 Prep Method: **SW5035A**  
 Prep Date/Time: **06/04/2013 08:00**  
 Spike Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL  
 Dupe Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL

## Method Blank

Blank ID: MB for HBN 1453193 [VXX/24769]

Blank Lab ID: 1151212

QC for Samples:

1132110020, 1132110021, 1132110022

Matrix: Soil/Solid (dry weight)

## Results by SW8260B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
1,1,1,2-Tetrachloroethane	15.6U	25.0	7.80	ug/Kg
1,1,1-Trichloroethane	15.6U	25.0	7.80	ug/Kg
1,1,2,2-Tetrachloroethane	30.0U	50.0	15.0	ug/Kg
1,1,2-Trichloroethane	15.6U	25.0	7.80	ug/Kg
1,1-Dichloroethane	15.6U	25.0	7.80	ug/Kg
1,1-Dichloroethene	15.6U	25.0	7.80	ug/Kg
1,1-Dichloropropene	15.6U	25.0	7.80	ug/Kg
1,2,3-Trichlorobenzene	30.0U	50.0	15.0	ug/Kg
1,2,3-Trichloropropane	15.6U	25.0	7.80	ug/Kg
1,2,4-Trichlorobenzene	15.6U	25.0	7.80	ug/Kg
1,2,4-Trimethylbenzene	30.0U	50.0	15.0	ug/Kg
1,2-Dibromo-3-chloropropane	62.0U	100	31.0	ug/Kg
1,2-Dibromoethane	15.6U	25.0	7.80	ug/Kg
1,2-Dichlorobenzene	15.6U	25.0	7.80	ug/Kg
1,2-Dichloroethane	15.6U	25.0	7.80	ug/Kg
1,2-Dichloropropane	15.6U	25.0	7.80	ug/Kg
1,3,5-Trimethylbenzene	15.6U	25.0	7.80	ug/Kg
1,3-Dichlorobenzene	15.6U	25.0	7.80	ug/Kg
1,3-Dichloropropane	15.6U	25.0	7.80	ug/Kg
1,4-Dichlorobenzene	15.6U	25.0	7.80	ug/Kg
2,2-Dichloropropane	15.6U	25.0	7.80	ug/Kg
2-Butanone (MEK)	156U	250	78.0	ug/Kg
2-Chlorotoluene	15.6U	25.0	7.80	ug/Kg
2-Hexanone	156U	250	78.0	ug/Kg
4-Chlorotoluene	15.6U	25.0	7.80	ug/Kg
4-Isopropyltoluene	15.6U	25.0	7.80	ug/Kg
4-Methyl-2-pentanone (MIBK)	156U	250	78.0	ug/Kg
Benzene	7.80U	12.5	3.90	ug/Kg
Bromobenzene	15.6U	25.0	7.80	ug/Kg
Bromochloromethane	15.6U	25.0	7.80	ug/Kg
Bromodichloromethane	15.6U	25.0	7.80	ug/Kg
Bromoform	15.6U	25.0	7.80	ug/Kg
Bromomethane	124U	200	62.0	ug/Kg
Carbon disulfide	62.0U	100	31.0	ug/Kg
Carbon tetrachloride	15.6U	25.0	7.80	ug/Kg
Chlorobenzene	15.6U	25.0	7.80	ug/Kg
Chloroethane	124U	200	62.0	ug/Kg
Chloroform	15.6U	25.0	7.80	ug/Kg

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## Method Blank

Blank ID: MB for HBN 1453193 [VXX/24769]

Blank Lab ID: 1151212

QC for Samples:

1132110020, 1132110021, 1132110022

Matrix: Soil/Solid (dry weight)

## Results by SW8260B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Chloromethane	15.6U	25.0	7.80	ug/Kg
cis-1,2-Dichloroethene	15.6U	25.0	7.80	ug/Kg
cis-1,3-Dichloropropene	15.6U	25.0	7.80	ug/Kg
Dibromochloromethane	15.6U	25.0	7.80	ug/Kg
Dibromomethane	15.6U	25.0	7.80	ug/Kg
Dichlorodifluoromethane	30.0U	50.0	15.0	ug/Kg
Ethylbenzene	15.6U	25.0	7.80	ug/Kg
Hexachlorobutadiene	30.0U	50.0	15.0	ug/Kg
Isopropylbenzene (Cumene)	15.6U	25.0	7.80	ug/Kg
Methylene chloride	62.0U	100	31.0	ug/Kg
Methyl-t-butyl ether	62.0U	100	31.0	ug/Kg
Naphthalene	30.0U	50.0	15.0	ug/Kg
n-Butylbenzene	15.6U	25.0	7.80	ug/Kg
n-Propylbenzene	15.6U	25.0	7.80	ug/Kg
o-Xylene	15.6U	25.0	7.80	ug/Kg
P & M -Xylene	30.0U	50.0	15.0	ug/Kg
sec-Butylbenzene	15.6U	25.0	7.80	ug/Kg
Styrene	15.6U	25.0	7.80	ug/Kg
tert-Butylbenzene	15.6U	25.0	7.80	ug/Kg
Tetrachloroethene	7.80U	12.5	3.90	ug/Kg
Toluene	15.6U	25.0	7.80	ug/Kg
trans-1,2-Dichloroethene	15.6U	25.0	7.80	ug/Kg
trans-1,3-Dichloropropene	15.6U	25.0	7.80	ug/Kg
Trichloroethene	7.80U	12.5	3.90	ug/Kg
Trichlorofluoromethane	30.0U	50.0	15.0	ug/Kg
Vinyl chloride	15.6U	25.0	7.80	ug/Kg
Xylenes (total)	62.0U	100	31.0	ug/Kg
<b>Surrogates</b>				
1,2-Dichloroethane-D4	111	79-118		%
4-Bromofluorobenzene	90.7	67-138		%
Toluene-d8	98.5	85-115		%

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**Method Blank**

Blank ID: MB for HBN 1453193 [VXX/24769]  
Blank Lab ID: 1151212

Matrix: Soil/Solid (dry weight)

QC for Samples:  
1132110020, 1132110021, 1132110022

**Results by SW8260B**

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
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**Batch Information**

Analytical Batch: VMS13532  
Analytical Method: SW8260B  
Instrument: Agilent 7890-75MS  
Analyst: HM  
Analytical Date/Time: 6/4/2013 11:48:01AM

Prep Batch: VXX24769  
Prep Method: SW5035A  
Prep Date/Time: 6/4/2013 8:00:00AM  
Prep Initial Wt./Vol.: 50 g  
Prep Extract Vol: 25 mL

Print Date: 06/27/2013 5:39:31PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [VXX24769]

Blank Spike Lab ID: 1151213

Date Analyzed: 06/04/2013 12:22

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110020, 1132110021, 1132110022

## Results by SW8260B

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
1,1,1,2-Tetrachloroethane	750	744	99	( 75-125 )
1,1,1-Trichloroethane	750	808	108	( 70-135 )
1,1,2,2-Tetrachloroethane	750	747	100	( 55-130 )
1,1,2-Trichloroethane	750	762	102	( 60-125 )
1,1-Dichloroethane	750	794	106	( 75-125 )
1,1-Dichloroethene	750	815	109	( 65-135 )
1,1-Dichloropropene	750	816	109	( 70-135 )
1,2,3-Trichlorobenzene	750	736	98	( 60-135 )
1,2,3-Trichloropropane	750	740	99	( 65-130 )
1,2,4-Trichlorobenzene	750	727	97	( 65-130 )
1,2,4-Trimethylbenzene	750	725	97	( 65-135 )
1,2-Dibromo-3-chloropropane	750	811	108	( 40-135 )
1,2-Dibromoethane	750	737	98	( 70-125 )
1,2-Dichlorobenzene	750	714	95	( 75-120 )
1,2-Dichloroethane	750	789	105	( 70-135 )
1,2-Dichloropropane	750	781	104	( 70-120 )
1,3,5-Trimethylbenzene	750	726	97	( 65-135 )
1,3-Dichlorobenzene	750	715	95	( 70-125 )
1,3-Dichloropropane	750	740	99	( 75-125 )
1,4-Dichlorobenzene	750	699	93	( 70-125 )
2,2-Dichloropropane	750	825	110	( 65-135 )
2-Butanone (MEK)	2250	2750	122	( 30-160 )
2-Chlorotoluene	750	736	98	( 70-130 )
2-Hexanone	2250	2620	117	( 45-145 )
4-Chlorotoluene	750	726	97	( 75-125 )
4-Isopropyltoluene	750	733	98	( 75-135 )
4-Methyl-2-pentanone (MIBK)	2250	2570	114	( 45-145 )
Benzene	750	718	96	( 75-125 )
Bromobenzene	750	711	95	( 65-120 )
Bromochloromethane	750	752	100	( 70-125 )
Bromodichloromethane	750	776	103	( 70-130 )
Bromoform	750	748	100	( 55-135 )
Bromomethane	750	828	110	( 30-160 )
Carbon disulfide	1130	1180	105	( 45-160 )

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### Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [VXX24769]

Blank Spike Lab ID: 1151213

Date Analyzed: 06/04/2013 12:22

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110020, 1132110021, 1132110022

### Results by SW8260B

Parameter	Blank Spike (ug/Kg)			CL
	Spike	Result	Rec (%)	
Carbon tetrachloride	750	746	99	( 65-135 )
Chlorobenzene	750	736	98	( 75-125 )
Chloroethane	750	894	119	( 40-155 )
Chloroform	750	792	106	( 70-125 )
Chloromethane	750	801	107	( 50-130 )
cis-1,2-Dichloroethene	750	765	102	( 65-125 )
cis-1,3-Dichloropropene	750	777	104	( 70-125 )
Dibromochloromethane	750	743	99	( 65-130 )
Dibromomethane	750	769	103	( 75-130 )
Dichlorodifluoromethane	750	751	100	( 35-135 )
Ethylbenzene	750	759	101	( 75-125 )
Hexachlorobutadiene	750	786	105	( 55-140 )
Isopropylbenzene (Cumene)	750	767	102	( 75-130 )
Methyl-t-butyl ether	1130	1150	102	( 63-149 )
Methylene chloride	750	732	98	( 55-140 )
n-Butylbenzene	750	756	101	( 65-140 )
n-Propylbenzene	750	748	100	( 65-135 )
Naphthalene	750	735	98	( 40-125 )
o-Xylene	750	745	99	( 75-125 )
P & M -Xylene	1500	1500	100	( 80-125 )
sec-Butylbenzene	750	744	99	( 65-130 )
Styrene	750	740	99	( 75-125 )
tert-Butylbenzene	750	729	97	( 65-130 )
Tetrachloroethene	750	783	104	( 65-140 )
Toluene	750	742	99	( 70-125 )
trans-1,2-Dichloroethene	750	779	104	( 65-135 )
trans-1,3-Dichloropropene	750	750	100	( 65-125 )
Trichloroethene	750	731	97	( 75-125 )
Trichlorofluoromethane	750	791	105	( 25-185 )
Vinyl chloride	750	835	111	( 60-125 )
Xylenes (total)	2250	2250	100	( 80-125 )
<b>Surrogates</b>				
1,2-Dichloroethane-D4	750	106	106	( 79-118 )

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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [VXX24769]

Blank Spike Lab ID: 1151213

Date Analyzed: 06/04/2013 12:22

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110020, 1132110021, 1132110022

## Results by SW8260B

Parameter	Blank Spike (%)			CL
	Spike	Result	Rec (%)	
4-Bromofluorobenzene	750	90.7	91	( 67-138 )
Toluene-d8	750	97.2	97	( 85-115 )

## Batch Information

Analytical Batch: VMS13532

Analytical Method: SW8260B

Instrument: Agilent 7890-75MS

Analyst: HM

Prep Batch: VXX24769

Prep Method: SW5035A

Prep Date/Time: 06/04/2013 08:00

Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL

Dupe Init Wt./Vol.: Extract Vol:



### Matrix Spike Summary

Original Sample ID: 1151214  
 MS Sample ID: 1151215 MS  
 MSD Sample ID: 1151216 MSD

Analysis Date: 06/04/2013 14:10  
 Analysis Date: 06/04/2013 12:46  
 Analysis Date: 06/04/2013 13:03  
 Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1132110020, 1132110021, 1132110022

### Results by SW8260B

Parameter	Sample	Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
1,1,1,2-Tetrachloroethane	15.3U	735	678	92	735	824	112	75-125	19.40	(< 20)
1,1,1-Trichloroethane	15.3U	735	699	95	735	856	116	70-135	20.20	* (< 20)
1,1,2,2-Tetrachloroethane	29.4U	735	683	93	735	840	114	55-130	20.60	* (< 20)
1,1,2-Trichloroethane	15.3U	735	708	96	735	861	117	60-125	19.60	(< 20)
1,1-Dichloroethane	15.3U	735	714	97	735	864	117	75-125	19.00	(< 20)
1,1-Dichloroethene	15.3U	735	692	94	735	837	114	65-135	19.00	(< 20)
1,1-Dichloropropene	15.3U	735	699	95	735	858	117	70-135	20.40	* (< 20)
1,2,3-Trichlorobenzene	29.4U	735	660	90	735	848	115	60-135	24.80	* (< 20)
1,2,3-Trichloropropane	15.3U	735	682	93	735	823	112	65-130	18.80	(< 20)
1,2,4-Trichlorobenzene	15.3U	735	654	89	735	828	113	65-130	23.50	* (< 20)
1,2,4-Trimethylbenzene	29.4U	735	642	87	735	792	108	65-135	20.90	* (< 20)
1,2-Dibromo-3-chloropropane	60.8U	735	726	99	735	906	123	40-135	22.00	* (< 20)
1,2-Dibromoethane	15.3U	735	686	93	735	834	113	70-125	19.60	(< 20)
1,2-Dichlorobenzene	15.3U	735	642	87	735	792	108	75-120	20.80	* (< 20)
1,2-Dichloroethane	15.3U	735	740	101	735	895	122	70-135	18.90	(< 20)
1,2-Dichloropropane	15.3U	735	726	99	735	879	120	70-120	19.00	(< 20)
1,3,5-Trimethylbenzene	15.3U	735	633	86	735	786	107	65-135	21.60	* (< 20)
1,3-Dichlorobenzene	15.3U	735	639	87	735	785	107	70-125	20.50	* (< 20)
1,3-Dichloropropane	15.3U	735	690	94	735	833	113	75-125	18.70	(< 20)
1,4-Dichlorobenzene	15.3U	735	636	87	735	792	108	70-125	21.70	* (< 20)
2,2-Dichloropropane	15.3U	735	715	97	735	872	119	65-135	19.70	(< 20)
2-Butanone (MEK)	153U	2210	2480	112	2210	3090	140	30-160	22.10	* (< 20)
2-Chlorotoluene	15.3U	735	575	78	735	713	97	70-130	21.40	* (< 20)
2-Hexanone	153U	2210	2390	109	2210	2930	133	45-145	20.10	* (< 20)
4-Chlorotoluene	15.3U	735	666	91	735	790	107	75-125	17.00	(< 20)
4-Isopropyltoluene	15.3U	735	635	86	735	795	108	75-135	22.50	* (< 20)
4-Methyl-2-pentanone (MIBK)	153U	2210	2420	110	2210	2930	133	45-145	19.20	(< 20)
Benzene	7.64U	735	664	90	735	814	111	75-125	20.30	* (< 20)
Bromobenzene	15.3U	735	640	87	735	787	107	65-120	20.60	* (< 20)
Bromochloromethane	15.3U	735	713	97	735	861	117	70-125	18.70	(< 20)
Bromodichloromethane	15.3U	735	728	99	735	877	119	70-130	18.50	(< 20)
Bromoform	15.3U	735	698	95	735	832	113	55-135	17.60	(< 20)
Bromomethane	122U	735	758	103	735	894	122	30-160	16.40	(< 20)
Carbon disulfide	60.8U	1100	1090	99	1100	1280	116	45-160	15.70	(< 20)
Carbon tetrachloride	15.3U	735	637	87	735	770	105	65-135	18.90	(< 20)
Chlorobenzene	15.3U	735	663	90	735	829	113	75-125	22.30	* (< 20)
Chloroethane	122U	735	828	113	735	935	127	40-155	12.20	(< 20)

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### Matrix Spike Summary

Original Sample ID: 1151214  
 MS Sample ID: 1151215 MS  
 MSD Sample ID: 1151216 MSD

Analysis Date: 06/04/2013 14:10  
 Analysis Date: 06/04/2013 12:46  
 Analysis Date: 06/04/2013 13:03  
 Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1132110020, 1132110021, 1132110022

### Results by SW8260B

Parameter	Sample	Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Chloroform	15.3U	735	721	98	735	876	119	70-125	19.40	(< 20 )
Chloromethane	15.3U	735	785	107	735	951	129	50-130	19.10	(< 20 )
cis-1,2-Dichloroethene	15.3U	735	715	97	735	869	118	65-125	19.40	(< 20 )
cis-1,3-Dichloropropene	15.3U	735	722	98	735	880	120	70-125	19.70	(< 20 )
Dibromochloromethane	15.3U	735	685	93	735	838	114	65-130	20.20	* (< 20 )
Dibromomethane	15.3U	735	732	100	735	875	119	75-130	17.90	(< 20 )
Dichlorodifluoromethane	29.4U	735	687	93	735	834	113	35-135	19.30	(< 20 )
Ethylbenzene	15.3U	735	668	91	735	826	112	75-125	21.20	* (< 20 )
Hexachlorobutadiene	29.4U	735	667	91	735	822	112	55-140	20.80	* (< 20 )
Isopropylbenzene (Cumene)	15.3U	735	667	91	735	810	110	75-130	19.50	(< 20 )
Methyl-t-butyl ether	60.8U	1100	1080	98	1100	1300	118	63-149	18.70	(< 20 )
Methylene chloride	60.8U	735	694	94	735	831	113	55-140	18.00	(< 20 )
n-Butylbenzene	15.3U	735	647	88	735	783	107	65-140	19.10	(< 20 )
n-Propylbenzene	15.3U	735	626	85	735	790	107	65-135	23.20	* (< 20 )
Naphthalene	29.4U	735	678	92	735	869	118	40-125	24.70	* (< 20 )
o-Xylene	15.3U	735	672	91	735	824	112	75-125	20.30	* (< 20 )
P & M -Xylene	29.4U	1470	1320	90	1470	1620	110	80-125	20.50	* (< 20 )
sec-Butylbenzene	15.3U	735	636	87	735	793	108	65-130	22.00	* (< 20 )
Styrene	15.3U	735	673	92	735	831	113	75-125	20.90	* (< 20 )
tert-Butylbenzene	15.3U	735	628	85	735	776	106	65-130	21.00	* (< 20 )
Tetrachloroethene	7.64U	735	658	89	735	815	111	65-140	21.40	* (< 20 )
Toluene	15.3U	735	666	91	735	818	111	70-125	20.40	* (< 20 )
trans-1,2-Dichloroethene	15.3U	735	711	97	735	865	118	65-135	19.50	(< 20 )
trans-1,3-Dichloropropene	15.3U	735	699	95	735	843	115	65-125	18.70	(< 20 )
Trichloroethene	7.64U	735	659	90	735	805	109	75-125	19.90	(< 20 )
Trichlorofluoromethane	29.4U	735	695	95	735	841	114	25-185	19.00	(< 20 )
Vinyl chloride	15.3U	735	789	107	735	953	130	* 60-125	18.80	(< 20 )
Xylenes (total)	60.8U	2210	1990	90	2210	2450	111	80-125	20.40	* (< 20 )
<b>Surrogates</b>										
1,2-Dichloroethane-D4		735	752	102	735	911	124	* 79-118	19.10	
4-Bromofluorobenzene		1960	1540	79	1960	1930	98	67-138	22.00	
Toluene-d8		735	663	90	735	812	110	85-115	20.20	

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### Matrix Spike Summary

Original Sample ID: 1151214  
MS Sample ID: 1151215 MS  
MSD Sample ID: 1151216 MSD

Analysis Date:  
Analysis Date: 06/04/2013 12:46  
Analysis Date: 06/04/2013 13:03  
Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1132110020, 1132110021, 1132110022

### Results by SW8260B

Parameter	Sample	Matrix Spike (%)			Spike Duplicate (%)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			

### Batch Information

Analytical Batch: VMS13532  
Analytical Method: SW8260B  
Instrument: Agilent 7890-75MS  
Analyst: HM  
Analytical Date/Time: 6/4/2013 12:46:00PM

Prep Batch: VXX24769  
Prep Method: Vol. Extraction SW8260 Field Extracted L  
Prep Date/Time: 6/4/2013 8:00:00AM  
Prep Initial Wt./Vol.: 50.99g  
Prep Extract Vol: 25.00mL

Print Date: 06/27/2013 5:39:33PM



### Method Blank

Blank ID: MB for HBN 1453288 [VXX/24775]  
Blank Lab ID: 1151394

Matrix: Soil/Solid (dry weight)

QC for Samples:  
1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007

### Results by AK101

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Gasoline Range Organics	0.936J	2.50	0.750	mg/Kg
<b>Surrogates</b>				
4-Bromofluorobenzene	82.3	50-150		%

### Batch Information

Analytical Batch: VFC11449  
Analytical Method: AK101  
Instrument: Agilent 7890 PID/FID  
Analyst: ST  
Analytical Date/Time: 6/5/2013 10:40:00AM

Prep Batch: VXX24775  
Prep Method: SW5035A  
Prep Date/Time: 6/5/2013 8:00:00AM  
Prep Initial Wt./Vol.: 50 g  
Prep Extract Vol: 25 mL

Print Date: 06/27/2013 5:39:33PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [VXX24775]  
 Blank Spike Lab ID: 1151395  
 Date Analyzed: 06/05/2013 11:36

Spike Duplicate ID: LCSD for HBN 1132110 [VXX24775]  
 Spike Duplicate Lab ID: 1151396  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007

## Results by AK101

Parameter	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Gasoline Range Organics	10.0	9.80	98	10.0	9.50	95	( 60-120 )	3.00	(< 20 )
<b>Surrogates</b>									
4-Bromofluorobenzene	1.25	83.3	83	1.25	82.9	83	( 50-150 )	0.46	

## Batch Information

Analytical Batch: **VFC11449**  
 Analytical Method: **AK101**  
 Instrument: **Agilent 7890 PID/FID**  
 Analyst: **ST**

Prep Batch: **VXX24775**  
 Prep Method: **SW5035A**  
 Prep Date/Time: **06/05/2013 08:00**  
 Spike Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL  
 Dupe Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL



### Method Blank

Blank ID: MB for HBN 1453364 [VXX/24779]  
Blank Lab ID: 1151507

Matrix: Soil/Solid (dry weight)

#### QC for Samples:

1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016,  
1132110017, 1132110018, 1132110023

### Results by AK101

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Gasoline Range Organics	1.30J	2.50	0.750	mg/Kg
<b>Surrogates</b>				
4-Bromofluorobenzene	97.7	50-150		%

### Batch Information

Analytical Batch: VFC11451  
Analytical Method: AK101  
Instrument: Agilent 7890A PID/FID  
Analyst: ST  
Analytical Date/Time: 6/6/2013 7:33:00PM

Prep Batch: VXX24779  
Prep Method: SW5035A  
Prep Date/Time: 6/6/2013 8:00:00AM  
Prep Initial Wt./Vol.: 50 g  
Prep Extract Vol: 25 mL

Print Date: 06/27/2013 5:39:35PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [VXX24779]  
 Blank Spike Lab ID: 1151508  
 Date Analyzed: 06/06/2013 19:52

Spike Duplicate ID: LCSD for HBN 1132110 [VXX24779]  
 Spike Duplicate Lab ID: 1151509  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110023

## Results by AK101

Parameter	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Gasoline Range Organics	10.0	10.2	102	10.0	9.96	100	( 60-120 )	2.50	(< 20 )
<b>Surrogates</b>									
4-Bromofluorobenzene	1.25	100	100	1.25	98.6	99	( 50-150 )	1.40	

## Batch Information

Analytical Batch: **VFC11451**  
 Analytical Method: **AK101**  
 Instrument: **Agilent 7890A PID/FID**  
 Analyst: **ST**

Prep Batch: **VXX24779**  
 Prep Method: **SW5035A**  
 Prep Date/Time: **06/06/2013 08:00**  
 Spike Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL  
 Dupe Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL





### Method Blank

Blank ID: MB for HBN 1453763 [VXX/24787]

Blank Lab ID: 1151734

QC for Samples:

1132110019, 1132110021, 1132110022

Matrix: Soil/Solid (dry weight)

### Results by AK101

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Gasoline Range Organics	0.906J	2.50	0.750	mg/Kg
<b>Surrogates</b>				
4-Bromofluorobenzene	83.7	50-150		%

### Batch Information

Analytical Batch: VFC11454

Analytical Method: AK101

Instrument: Agilent 7890 PID/FID

Analyst: ST

Analytical Date/Time: 6/7/2013 10:09:00AM

Prep Batch: VXX24787

Prep Method: SW5035A

Prep Date/Time: 6/7/2013 8:00:00AM

Prep Initial Wt./Vol.: 50 g

Prep Extract Vol: 25 mL

Print Date: 06/27/2013 5:39:37PM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [VXX24787]  
 Blank Spike Lab ID: 1151737  
 Date Analyzed: 06/07/2013 11:05

Spike Duplicate ID: LCSD for HBN 1132110 [VXX24787]  
 Spike Duplicate Lab ID: 1151738  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110019, 1132110021, 1132110022

### Results by AK101

Parameter	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Gasoline Range Organics	10.0	9.43	94	10.0	9.14	91	( 60-120 )	3.10	(< 20 )
<b>Surrogates</b>									
4-Bromofluorobenzene	1.25	82.6	83	1.25	79.6	80	( 50-150 )	3.80	

### Batch Information

Analytical Batch: **VFC11454**  
 Analytical Method: **AK101**  
 Instrument: **Agilent 7890 PID/FID**  
 Analyst: **ST**

Prep Batch: **VXX24787**  
 Prep Method: **SW5035A**  
 Prep Date/Time: **06/07/2013 08:00**  
 Spike Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL  
 Dupe Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL

Print Date: 06/27/2013 5:39:37PM



### Method Blank

Blank ID: MB for HBN 1453077 [XXX/29091]  
Blank Lab ID: 1150863

Matrix: Soil/Solid (dry weight)

#### QC for Samples:

1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009,  
1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018,  
1132110019, 1132110020

### Results by AK102

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Diesel Range Organics	12.4U	20.0	6.20	mg/Kg
<b>Surrogates</b>				
5a Androstane	97.3	60-120		%

### Batch Information

Analytical Batch: XFC10918  
Analytical Method: AK102  
Instrument: HP 6890 Series II FID SV D R  
Analyst: MCM  
Analytical Date/Time: 6/8/2013 7:23:00PM

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 6/4/2013 9:10:00AM  
Prep Initial Wt./Vol.: 30 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:38PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [XXX29091]  
 Blank Spike Lab ID: 1150864  
 Date Analyzed: 06/08/2013 19:32

Spike Duplicate ID: LCSD for HBN 1132110 [XXX29091]  
 Spike Duplicate Lab ID: 1150865  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110020

## Results by AK102

Parameter	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Diesel Range Organics	167	177	106	167	159	95	( 75-125 )	10.40	(< 20 )
<b>Surrogates</b>									
5a Androstane	3.33	116	116	3.33	119	119	( 60-120 )	2.70	

## Batch Information

Analytical Batch: **XFC10918**  
 Analytical Method: **AK102**  
 Instrument: **HP 6890 Series II FID SV D R**  
 Analyst: **MCM**

Prep Batch: **XXX29091**  
 Prep Method: **SW3550C**  
 Prep Date/Time: **06/04/2013 09:10**  
 Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL  
 Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL



### Method Blank

Blank ID: MB for HBN 1453077 [XXX/29091]  
Blank Lab ID: 1150863

Matrix: Soil/Solid (dry weight)

#### QC for Samples:

1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009,  
1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018,  
1132110019, 1132110020

### Results by AK103

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Residual Range Organics	7.22J	20.0	6.20	mg/Kg
<b>Surrogates</b>				
n-Triacontane-d62	129*	60-120		%

### Batch Information

Analytical Batch: XFC10918  
Analytical Method: AK103  
Instrument: HP 6890 Series II FID SV D R  
Analyst: MCM  
Analytical Date/Time: 6/8/2013 7:23:00PM

Prep Batch: XXX29091  
Prep Method: SW3550C  
Prep Date/Time: 6/4/2013 9:10:00AM  
Prep Initial Wt./Vol.: 30 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:40PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [XXX29091]  
 Blank Spike Lab ID: 1150864  
 Date Analyzed: 06/08/2013 19:32

Spike Duplicate ID: LCSD for HBN 1132110 [XXX29091]  
 Spike Duplicate Lab ID: 1150865  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110020

## Results by AK103

Parameter	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Residual Range Organics	167	184	110	167	164	98	( 60-120 )	11.40	(< 20 )
<b>Surrogates</b>									
n-Triacontane-d62	3.33	123	123	* 3.33	114	114	( 60-120 )	7.60	

## Batch Information

Analytical Batch: **XFC10918**  
 Analytical Method: **AK103**  
 Instrument: **HP 6890 Series II FID SV D R**  
 Analyst: **MCM**

Prep Batch: **XXX29091**  
 Prep Method: **SW3550C**  
 Prep Date/Time: **06/04/2013 09:10**  
 Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL  
 Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL



**Method Blank**

Blank ID: MB for HBN 1453090 [XXX/29093]  
Blank Lab ID: 1150899  
QC for Samples:  
1132110021, 1132110022

Matrix: Soil/Solid (dry weight)

**Results by AK102**

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Diesel Range Organics	12.4U	20.0	6.20	mg/Kg
<b>Surrogates</b>				
5a Androstane	99.8	60-120		%

**Batch Information**

Analytical Batch: XFC10918  
Analytical Method: AK102  
Instrument: HP 6890 Series II FID SV D R  
Analyst: MCM  
Analytical Date/Time: 6/8/2013 11:19:00PM

Prep Batch: XXX29093  
Prep Method: SW3550C  
Prep Date/Time: 6/4/2013 11:15:00AM  
Prep Initial Wt./Vol.: 30 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:41PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [XXX29093]  
 Blank Spike Lab ID: 1150900  
 Date Analyzed: 06/08/2013 23:29

Spike Duplicate ID: LCSD for HBN 1132110 [XXX29093]  
 Spike Duplicate Lab ID: 1150901  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110021, 1132110022

## Results by AK102

Parameter	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Diesel Range Organics	167	168	101	167	156	94	( 75-125 )	7.20	(< 20 )
<b>Surrogates</b>									
5a Androstane	3.33	110	110	3.33	109	109	( 60-120 )	1.30	

## Batch Information

Analytical Batch: **XFC10918**  
 Analytical Method: **AK102**  
 Instrument: **HP 6890 Series II FID SV D R**  
 Analyst: **MCM**

Prep Batch: **XXX29093**  
 Prep Method: **SW3550C**  
 Prep Date/Time: **06/04/2013 11:15**  
 Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL  
 Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL



## Method Blank

Blank ID: MB for HBN 1453090 [XXX/29093]

Blank Lab ID: 1150899

QC for Samples:

1132110021, 1132110022

Matrix: Soil/Solid (dry weight)

## Results by AK103

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Residual Range Organics	12.4U	20.0	6.20	mg/Kg
<b>Surrogates</b>				
n-Triacontane-d62	114	60-120		%

## Batch Information

Analytical Batch: XFC10918

Analytical Method: AK103

Instrument: HP 6890 Series II FID SV D R

Analyst: MCM

Analytical Date/Time: 6/8/2013 11:19:00PM

Prep Batch: XXX29093

Prep Method: SW3550C

Prep Date/Time: 6/4/2013 11:15:00AM

Prep Initial Wt./Vol.: 30 g

Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:43PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [XXX29093]  
 Blank Spike Lab ID: 1150900  
 Date Analyzed: 06/08/2013 23:29

Spike Duplicate ID: LCSD for HBN 1132110 [XXX29093]  
 Spike Duplicate Lab ID: 1150901  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110021, 1132110022

## Results by AK103

Parameter	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Residual Range Organics	167	171	103	167	164	98	( 60-120 )	4.40	(< 20 )
<b>Surrogates</b>									
n-Triacontane-d62	3.33	119	119	3.33	110	110	( 60-120 )	7.50	

## Batch Information

Analytical Batch: **XFC10918**  
 Analytical Method: **AK103**  
 Instrument: **HP 6890 Series II FID SV D R**  
 Analyst: **MCM**

Prep Batch: **XXX29093**  
 Prep Method: **SW3550C**  
 Prep Date/Time: **06/04/2013 11:15**  
 Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL  
 Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL

## Method Blank

Blank ID: MB for HBN 1453106 [XXX/29094]

Matrix: Soil/Solid (dry weight)

Blank Lab ID: 1150980

QC for Samples:

1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110021

## Results by SW8270D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
1,2,4-Trichlorobenzene	0.156U	0.250	0.0780	mg/Kg
1,2-Dichlorobenzene	0.156U	0.250	0.0780	mg/Kg
1,3-Dichlorobenzene	0.156U	0.250	0.0780	mg/Kg
1,4-Dichlorobenzene	0.156U	0.250	0.0780	mg/Kg
1-Chloronaphthalene	0.156U	0.250	0.0780	mg/Kg
2,4,5-Trichlorophenol	0.156U	0.250	0.0780	mg/Kg
2,4,6-Trichlorophenol	0.156U	0.250	0.0780	mg/Kg
2,4-Dichlorophenol	0.156U	0.250	0.0780	mg/Kg
2,4-Dimethylphenol	0.156U	0.250	0.0780	mg/Kg
2,4-Dinitrophenol	1.88U	3.00	0.940	mg/Kg
2,4-Dinitrotoluene	0.156U	0.250	0.0780	mg/Kg
2,6-Dichlorophenol	0.156U	0.250	0.0780	mg/Kg
2,6-Dinitrotoluene	0.156U	0.250	0.0780	mg/Kg
2-Chloronaphthalene	0.156U	0.250	0.0780	mg/Kg
2-Chlorophenol	0.156U	0.250	0.0780	mg/Kg
2-Methyl-4,6-dinitrophenol	1.24U	2.00	0.620	mg/Kg
2-Methylnaphthalene	0.156U	0.250	0.0780	mg/Kg
2-Methylphenol (o-Cresol)	0.156U	0.250	0.0780	mg/Kg
2-Nitroaniline	0.156U	0.250	0.0780	mg/Kg
2-Nitrophenol	0.156U	0.250	0.0780	mg/Kg
3&4-Methylphenol (p&m-Cresol)	0.620U	1.00	0.310	mg/Kg
3,3-Dichlorobenzidine	0.156U	0.250	0.0780	mg/Kg
3-Nitroaniline	0.300U	0.500	0.150	mg/Kg
4-Bromophenyl-phenylether	0.156U	0.250	0.0780	mg/Kg
4-Chloro-3-methylphenol	0.156U	0.250	0.0780	mg/Kg
4-Chloroaniline	0.300U	0.500	0.150	mg/Kg
4-Chlorophenyl-phenylether	0.156U	0.250	0.0780	mg/Kg
4-Nitroaniline	1.88U	3.00	0.940	mg/Kg
4-Nitrophenol	0.620U	1.00	0.310	mg/Kg
Acenaphthene	0.156U	0.250	0.0780	mg/Kg
Acenaphthylene	0.156U	0.250	0.0780	mg/Kg
Aniline	1.24U	2.00	0.620	mg/Kg
Anthracene	0.156U	0.250	0.0780	mg/Kg
Azobenzene	0.156U	0.250	0.0780	mg/Kg
Benzo(a)Anthracene	0.156U	0.250	0.0780	mg/Kg
Benzo[a]pyrene	0.156U	0.250	0.0780	mg/Kg
Benzo[b]Fluoranthene	0.156U	0.250	0.0780	mg/Kg
Benzo[g,h,i]perylene	0.156U	0.250	0.0780	mg/Kg

Print Date: 06/27/2013 5:39:45PM

## Method Blank

Blank ID: MB for HBN 1453106 [XXX/29094]  
 Blank Lab ID: 1150980

Matrix: Soil/Solid (dry weight)

### QC for Samples:

1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009,  
 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018,  
 1132110019, 1132110021

## Results by SW8270D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Benzo[k]fluoranthene	0.156U	0.250	0.0780	mg/Kg
Benzoic acid	1.50U	1.50	0.750	mg/Kg
Benzyl alcohol	0.156U	0.250	0.0780	mg/Kg
Bis(2chloro1methylethyl)Ether	0.156U	0.250	0.0780	mg/Kg
Bis(2-Chloroethoxy)methane	0.156U	0.250	0.0780	mg/Kg
Bis(2-Chloroethyl)ether	0.156U	0.250	0.0780	mg/Kg
bis(2-Ethylhexyl)phthalate	0.156U	0.250	0.0780	mg/Kg
Butylbenzylphthalate	0.156U	0.250	0.0780	mg/Kg
Carbazole	0.156U	0.250	0.0780	mg/Kg
Chrysene	0.156U	0.250	0.0780	mg/Kg
Dibenzo[a,h]anthracene	0.156U	0.250	0.0780	mg/Kg
Dibenzofuran	0.156U	0.250	0.0780	mg/Kg
Diethylphthalate	0.156U	0.250	0.0780	mg/Kg
Dimethylphthalate	0.156U	0.250	0.0780	mg/Kg
Di-n-butylphthalate	0.156U	0.250	0.0780	mg/Kg
di-n-Octylphthalate	0.300U	0.500	0.150	mg/Kg
Fluoranthene	0.156U	0.250	0.0780	mg/Kg
Fluorene	0.156U	0.250	0.0780	mg/Kg
Hexachlorobenzene	0.156U	0.250	0.0780	mg/Kg
Hexachlorobutadiene	0.156U	0.250	0.0780	mg/Kg
Hexachlorocyclopentadiene	0.400U	0.700	0.200	mg/Kg
Hexachloroethane	0.156U	0.250	0.0780	mg/Kg
Indeno[1,2,3-c,d] pyrene	0.156U	0.250	0.0780	mg/Kg
Isophorone	0.156U	0.250	0.0780	mg/Kg
Naphthalene	0.156U	0.250	0.0780	mg/Kg
Nitrobenzene	0.156U	0.250	0.0780	mg/Kg
N-Nitrosodimethylamine	0.156U	0.250	0.0780	mg/Kg
N-Nitroso-di-n-propylamine	0.156U	0.250	0.0780	mg/Kg
N-Nitrosodiphenylamine	0.156U	0.250	0.0780	mg/Kg
Pentachlorophenol	1.24U	2.00	0.620	mg/Kg
Phenanthrene	0.156U	0.250	0.0780	mg/Kg
Phenol	0.156U	0.250	0.0780	mg/Kg
Pyrene	0.156U	0.250	0.0780	mg/Kg
<b>Surrogates</b>				
2,4,6-Tribromophenol	71.9	35-125		%
2-Fluorobiphenyl	86.6	45-105		%
2-Fluorophenol	69.5	35-105		%
Nitrobenzene-d5	77.3	35-100		%

Print Date: 06/27/2013 5:39:45PM



### Method Blank

Blank ID: MB for HBN 1453106 [XXX/29094]  
Blank Lab ID: 1150980

Matrix: Soil/Solid (dry weight)

#### QC for Samples:

1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009,  
1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018,  
1132110019, 1132110021

### Results by SW8270D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Phenol-d6	77.7	40-100		%
Terphenyl-d14	103	30-125		%

### Batch Information

Analytical Batch: XMS7354  
Analytical Method: SW8270D  
Instrument: HP 6890/5973 SSA  
Analyst: RTS  
Analytical Date/Time: 6/5/2013 7:43:00PM

Prep Batch: XXX29094  
Prep Method: SW3550C  
Prep Date/Time: 6/4/2013 2:00:00PM  
Prep Initial Wt./Vol.: 22.5 g  
Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:45PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [XXX29094]

Blank Spike Lab ID: 1150982

Date Analyzed: 06/05/2013 20:17

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110021

## Results by SW8270D

Parameter	Blank Spike (mg/Kg)			CL
	Spike	Result	Rec (%)	
1,2,4-Trichlorobenzene	4.44	3.37	76	(45-110)
1,2-Dichlorobenzene	4.44	3.11	70	(45-100)
1,3-Dichlorobenzene	4.44	3.03	68	(40-100)
1,4-Dichlorobenzene	4.44	3.10	70	(35-105)
1-Chloronaphthalene	1.78	1.67	94	(44-105)
2,4,5-Trichlorophenol	4.44	4.12	93	(50-110)
2,4,6-Trichlorophenol	4.44	3.89	88	(45-110)
2,4-Dichlorophenol	4.44	3.82	86	(45-110)
2,4-Dimethylphenol	4.44	3.66	82	(30-105)
2,4-Dinitrophenol	8	6.05	76	(15-130)
2,4-Dinitrotoluene	4.44	4.45	100	(50-115)
2,6-Dichlorophenol	1.78	1.51	85	(52-102)
2,6-Dinitrotoluene	4.44	4.03	91	(50-110)
2-Chloronaphthalene	4.44	3.79	85	(45-105)
2-Chlorophenol	4.44	3.31	75	(45-105)
2-Methyl-4,6-dinitrophenol	8	7.91	99	(30-135)
2-Methylnaphthalene	4.44	3.74	84	(45-105)
2-Methylphenol (o-Cresol)	4.44	3.51	79	(40-105)
2-Nitroaniline	4.44	4.44	100	(45-120)
2-Nitrophenol	4.44	3.71	84	(40-110)
3&4-Methylphenol (p&m-Cresol)	6.22	5.87	94	(40-105)
3,3-Dichlorobenzidine	4.44	3.87	87	(10-130)
3-Nitroaniline	4.44	4.26	96	(25-110)
4-Bromophenyl-phenylether	4.44	4.41	99	(45-115)
4-Chloro-3-methylphenol	4.44	4.25	96	(45-115)
4-Chloroaniline	4.44	3.82	86	(10-100)
4-Chlorophenyl-phenylether	4.44	4.37	98	(45-110)
4-Nitroaniline	4.44	4.62	104	(35-115)
4-Nitrophenol	6.22	5.72	92	(15-140)
Acenaphthene	4.44	3.91	88	(45-110)
Acenaphthylene	4.44	4.11	93	(45-105)
Aniline	4.44	3.24	73	(20-84)
Anthracene	4.44	4.15	94	(55-105)
Azobenzene	4.44	4.23	95	(63-117)

Print Date: 06/27/2013 5:39:46PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [XXX29094]

Blank Spike Lab ID: 1150982

Date Analyzed: 06/05/2013 20:17

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110021

## Results by SW8270D

Parameter	Blank Spike (mg/Kg)			CL
	Spike	Result	Rec (%)	
Benzo(a)Anthracene	4.44	4.21	95	(50-110)
Benzo[a]pyrene	4.44	4.30	97	(50-110)
Benzo[b]Fluoranthene	4.44	4.65	105	(45-115)
Benzo[g,h,i]perylene	4.44	4.21	95	(40-125)
Benzo[k]fluoranthene	4.44	4.58	103	(45-125)
Benzoic acid	6.22	4.75	76	(10-110)
Benzyl alcohol	4.44	3.70	83	(20-125)
Bis(2-Chloroethoxy)methane	4.44	4.07	92	(45-110)
Bis(2-Chloroethyl)ether	4.44	4.09	92	(40-105)
bis(2-Ethylhexyl)phthalate	4.44	4.78	107	(45-125)
Bis(2chloro1methylethyl)Ether	4.44	3.50	79	(20-115)
Butylbenzylphthalate	4.44	4.94	111	(50-125)
Carbazole	4.44	4.55	102	(45-115)
Chrysene	4.44	4.35	98	(55-110)
Di-n-butylphthalate	4.44	4.52	102	(55-110)
di-n-Octylphthalate	4.44	4.45	100	(40-130)
Dibenzo[a,h]anthracene	4.44	4.18	94	(40-125)
Dibenzofuran	4.44	4.17	94	(50-105)
Diethylphthalate	4.44	4.62	104	(50-115)
Dimethylphthalate	4.44	4.53	102	(50-110)
Fluoranthene	4.44	4.33	98	(55-115)
Fluorene	4.44	4.22	95	(50-110)
Hexachlorobenzene	4.44	4.35	98	(45-120)
Hexachlorobutadiene	4.44	3.65	82	(40-115)
Hexachlorocyclopentadiene	4.44	3.87	87	(48-108)
Hexachloroethane	4.44	3.09	69	(35-110)
Indeno[1,2,3-c,d] pyrene	4.44	4.06	91	(40-120)
Isophorone	4.44	4.11	93	(45-110)
N-Nitroso-di-n-propylamine	4.44	3.99	90	(40-115)
N-Nitrosodimethylamine	4.44	3.31	75	(20-115)
N-Nitrosodiphenylamine	4.44	3.63	82	(50-115)
Naphthalene	4.44	3.47	78	(40-105)
Nitrobenzene	4.44	3.67	83	(40-115)
Pentachlorophenol	6.22	5.67	91	(25-120)

Print Date: 06/27/2013 5:39:46PM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [XXX29094]

Blank Spike Lab ID: 1150982

Date Analyzed: 06/05/2013 20:17

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110021

### Results by SW8270D

Parameter	Blank Spike (mg/Kg)			CL
	Spike	Result	Rec (%)	
Phenanthrene	4.44	4.24	95	( 50-110 )
Phenol	4.44	3.45	78	( 40-100 )
Pyrene	4.44	4.84	109	( 45-125 )
<b>Surrogates</b>				
2,4,6-Tribromophenol	8.89	93	93	( 35-125 )
2-Fluorobiphenyl	4.44	84.9	85	( 45-105 )
2-Fluorophenol	8.89	69.5	70	( 35-105 )
Nitrobenzene-d5	4.44	78.2	78	( 35-100 )
Phenol-d6	8.89	78.2	78	( 40-100 )
Terphenyl-d14	4.44	113	113	( 30-125 )

### Batch Information

Analytical Batch: XMS7354

Analytical Method: SW8270D

Instrument: HP 6890/5973 SSA

Analyst: RTS

Prep Batch: XXX29094

Prep Method: SW3550C

Prep Date/Time: 06/04/2013 14:00

Spike Init Wt./Vol.: 4.44 mg/Kg Extract Vol: 1 mL

Dupe Init Wt./Vol.: Extract Vol:

Print Date: 06/27/2013 5:39:46PM





### Matrix Spike Summary

Original Sample ID: 1132110021  
 MS Sample ID: 1150984 MS  
 MSD Sample ID: 1150985 MSD

Analysis Date: 06/06/2013 2:29  
 Analysis Date: 06/06/2013 2:46  
 Analysis Date: 06/06/2013 3:03  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110021

### Results by SW8270D

Parameter	Sample	Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
1,2,4-Trichlorobenzene	0.271U	4.85	3.47	72	4.97	3.69	74	45-110	6.40	(< 30)
1,2-Dichlorobenzene	0.271U	4.85	3.18	66	4.97	3.48	70	45-100	9.00	(< 30)
1,3-Dichlorobenzene	0.271U	4.85	3.14	65	4.97	3.37	68	40-100	7.00	(< 30)
1,4-Dichlorobenzene	0.271U	4.85	3.15	65	4.97	3.33	67	35-105	5.50	(< 30)
1-Chloronaphthalene	0.271U	1.94	1.65	85	1.99	1.88	95	44-105	13.30	(< 30)
2,4,5-Trichlorophenol	0.271U	4.85	4.24	88	4.97	4.42	89	50-110	3.90	(< 30)
2,4,6-Trichlorophenol	0.271U	4.85	4.07	84	4.97	4.43	89	45-110	8.40	(< 30)
2,4-Dichlorophenol	0.271U	4.85	4.04	83	4.97	4.12	83	45-110	2.00	(< 30)
2,4-Dimethylphenol	0.271U	4.85	3.85	80	4.97	3.95	80	30-105	2.70	(< 30)
2,4-Dinitrophenol	3.26U	8.71	5.97	69	8.95	6.09	68	15-130	2.00	(< 30)
2,4-Dinitrotoluene	0.271U	4.85	4.66	96	4.97	4.65	94	50-115	0.26	(< 30)
2,6-Dichlorophenol	0.271U	1.94	1.63	84	1.99	1.66	84	52-102	1.90	(< 30)
2,6-Dinitrotoluene	0.271U	4.85	4.33	90	4.97	4.67	94	50-110	7.50	(< 30)
2-Chloronaphthalene	0.271U	4.85	4.02	83	4.97	4.25	86	45-105	5.60	(< 30)
2-Chlorophenol	0.271U	4.85	3.38	70	4.97	3.63	73	45-105	7.30	(< 30)
2-Methyl-4,6-dinitrophenol	2.17U	8.71	8.40	96	8.95	9.02	101	30-135	7.10	(< 30)
2-Methylnaphthalene	0.271U	4.85	4.02	83	4.97	4.15	84	45-105	3.40	(< 30)
2-Methylphenol (o-Cresol)	0.271U	4.85	3.66	76	4.97	3.83	77	40-105	4.80	(< 30)
2-Nitroaniline	0.271U	4.85	4.59	95	4.97	4.74	95	45-120	2.90	(< 30)
2-Nitrophenol	0.271U	4.85	4.10	85	4.97	4.36	88	40-110	6.10	(< 30)
3&4-Methylphenol (p&m-Cresol)	1.09U	6.77	6.28	93	6.96	6.55	94	40-105	4.30	(< 30)
3,3-Dichlorobenzidine	0.271U	4.85	3.85	80	4.97	4.35	88	10-130	12.20	(< 30)
3-Nitroaniline	0.543U	4.85	4.25	88	4.97	4.24	85	25-110	0.42	(< 30)
4-Bromophenyl-phenylether	0.271U	4.85	4.77	99	4.97	5.45	110	45-115	13.20	(< 30)
4-Chloro-3-methylphenol	0.271U	4.85	4.44	92	4.97	4.36	88	45-115	1.90	(< 30)
4-Chloroaniline	0.543U	4.85	3.98	82	4.97	4.03	81	10-100	1.40	(< 30)
4-Chlorophenyl-phenylether	0.271U	4.85	4.49	93	4.97	4.77	96	45-110	6.00	(< 30)
4-Nitroaniline	3.26U	4.85	4.02	83	4.97	3.99	80	35-115	0.91	(< 30)
4-Nitrophenol	1.09U	6.77	4.78	71	6.96	4.80	69	15-140	0.28	(< 30)
Acenaphthene	0.271U	4.85	4.03	83	4.97	4.31	87	45-110	6.70	(< 30)
Acenaphthylene	0.271U	4.85	4.20	87	4.97	4.53	91	45-105	7.70	(< 30)
Aniline	2.17U	4.85	3.41	71	4.97	3.68	74	20-84	7.40	(< 30)
Anthracene	0.271U	4.85	4.26	88	4.97	4.61	93	55-105	8.00	(< 30)
Azobenzene	0.271U	4.85	4.61	95	4.97	5.26	106	63-117	13.20	(< 30)
Benzo(a)Anthracene	0.271U	4.85	4.24	88	4.97	4.83	97	50-110	13.20	(< 30)
Benzo[a]pyrene	0.271U	4.85	4.26	88	4.97	4.74	95	50-110	10.50	(< 30)
Benzo[b]Fluoranthene	0.271U	4.85	4.37	90	4.97	4.65	93	45-115	6.00	(< 30)

Print Date: 06/27/2013 5:39:46PM

## Matrix Spike Summary

Original Sample ID: 1132110021  
 MS Sample ID: 1150984 MS  
 MSD Sample ID: 1150985 MSD

Analysis Date: 06/06/2013 2:29  
 Analysis Date: 06/06/2013 2:46  
 Analysis Date: 06/06/2013 3:03  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007, 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014, 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110021

## Results by SW8270D

Parameter	Sample	Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Benzo[g,h,i]perylene	0.271U	4.85	4.61	95	4.97	5.25	106	40-125	13.00	(< 30 )
Benzo[k]fluoranthene	0.271U	4.85	4.42	91	4.97	4.68	94	45-125	5.90	(< 30 )
Benzoic acid	1.63U	6.77	6.35	94	6.96	6.06	87	10-110	4.70	(< 30 )
Benzyl alcohol	0.271U	4.85	4.00	83	4.97	4.22	85	20-125	5.50	(< 30 )
Bis(2-Chloroethoxy)methane	0.271U	4.85	4.25	88	4.97	4.53	91	45-110	6.20	(< 30 )
Bis(2-Chloroethyl)ether	0.271U	4.85	4.34	90	4.97	4.75	96	40-105	8.90	(< 30 )
bis(2-Ethylhexyl)phthalate	0.271U	4.85	4.87	101	4.97	4.91	99	45-125	0.79	(< 30 )
Bis(2chloro1methylethyl)Ether	0.271U	4.85	3.81	79	4.97	4.02	81	20-115	5.40	(< 30 )
Butylbenzylphthalate	0.271U	4.85	4.97	103	4.97	5.25	106	50-125	5.70	(< 30 )
Carbazole	0.271U	4.85	3.89	80	4.97	4.13	83	45-115	6.00	(< 30 )
Chrysene	0.271U	4.85	4.36	90	4.97	5.03	101	55-110	14.40	(< 30 )
Di-n-butylphthalate	0.271U	4.85	4.44	92	4.97	4.57	92	55-110	2.90	(< 30 )
di-n-Octylphthalate	0.543U	4.85	4.52	93	4.97	4.69	95	40-130	3.90	(< 30 )
Dibenzo[a,h]anthracene	0.271U	4.85	4.64	96	4.97	5.17	104	40-125	10.70	(< 30 )
Dibenzofuran	0.271U	4.85	4.19	87	4.97	4.52	91	50-105	7.60	(< 30 )
Diethylphthalate	0.271U	4.85	4.74	98	4.97	4.99	100	50-115	5.10	(< 30 )
Dimethylphthalate	0.271U	4.85	4.72	98	4.97	5.14	103	50-110	8.50	(< 30 )
Fluoranthene	0.271U	4.85	3.50	72	4.97	3.74	75	55-115	6.70	(< 30 )
Fluorene	0.271U	4.85	4.11	85	4.97	4.27	86	50-110	3.90	(< 30 )
Hexachlorobenzene	0.271U	4.85	4.60	95	4.97	5.23	105	45-120	12.60	(< 30 )
Hexachlorobutadiene	0.271U	4.85	3.73	77	4.97	4.04	81	40-115	7.80	(< 30 )
Hexachlorocyclopentadiene	0.760U	4.85	3.05	63	4.97	3.90	78	48-108	24.20	(< 30 )
Hexachloroethane	0.271U	4.85	3.16	65	4.97	3.40	69	35-110	7.30	(< 30 )
Indeno[1,2,3-c,d] pyrene	0.271U	4.85	4.46	92	4.97	5.09	102	40-120	13.30	(< 30 )
Isophorone	0.271U	4.85	4.37	90	4.97	4.74	95	45-110	8.00	(< 30 )
N-Nitroso-di-n-propylamine	0.271U	4.85	4.36	90	4.97	4.85	97	40-115	10.40	(< 30 )
N-Nitrosodimethylamine	0.271U	4.85	3.44	71	4.97	3.56	71	20-115	3.40	(< 30 )
N-Nitrosodiphenylamine	0.271U	4.85	4.01	83	4.97	4.58	92	50-115	13.50	(< 30 )
Naphthalene	0.271U	4.85	3.58	74	4.97	3.78	76	40-105	5.30	(< 30 )
Nitrobenzene	0.271U	4.85	3.85	80	4.97	4.01	81	40-115	4.10	(< 30 )
Pentachlorophenol	2.17U	6.77	5.26	78	6.96	5.41	78	25-120	2.60	(< 30 )
Phenanthrene	0.271U	4.85	4.15	86	4.97	4.63	93	50-110	10.90	(< 30 )
Phenol	0.271U	4.85	3.60	75	4.97	3.79	76	40-100	4.90	(< 30 )
Pyrene	0.271U	4.85	5.30	109	4.97	5.74	115	45-125	8.00	(< 30 )
<b>Surrogates</b>										
2,4,6-Tribromophenol		9.68	8.55	88	9.94	9.47	95	35-125	10.20	
2-Fluorobiphenyl		4.85	4.09	85	4.97	4.54	91	45-105	10.30	

Print Date: 06/27/2013 5:39:46PM

## Matrix Spike Summary

Original Sample ID: 1132110021  
 MS Sample ID: 1150984 MS  
 MSD Sample ID: 1150985 MSD

Analysis Date:  
 Analysis Date: 06/06/2013 2:46  
 Analysis Date: 06/06/2013 3:03  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110001, 1132110002, 1132110003, 1132110004, 1132110005, 1132110006, 1132110007,  
 1132110008, 1132110009, 1132110010, 1132110011, 1132110012, 1132110013, 1132110014,  
 1132110015, 1132110016, 1132110017, 1132110018, 1132110019, 1132110021

## Results by SW8270D

Parameter	Sample	Matrix Spike (%)			Spike Duplicate (%)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
2-Fluorophenol		9.68	6.33	65	9.94	6.60	66	35-105	4.10	
Nitrobenzene-d5		4.85	3.74	77	4.97	3.94	79	35-100	5.20	
Phenol-d6		9.68	7.24	75	9.94	7.59	76	40-100	4.70	
Terphenyl-d14		4.85	5.52	114	4.97	6.00	121	30-125	8.40	

## Batch Information

Analytical Batch: XMS7354  
 Analytical Method: SW8270D  
 Instrument: HP 6890/5973 SSA  
 Analyst: RTS  
 Analytical Date/Time: 6/6/2013 2:46:00AM

Prep Batch: XXX29094  
 Prep Method: Sonication Extraction Soil SW8270  
 Prep Date/Time: 6/4/2013 2:00:00PM  
 Prep Initial Wt./Vol.: 22.75g  
 Prep Extract Vol: 1.00mL

## Method Blank

Blank ID: MB for HBN 1453190 [XXX/29103]

Blank Lab ID: 1151196

QC for Samples:

1132110020, 1132110022

Matrix: Soil/Solid (dry weight)

## Results by SW8270D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
1,2,4-Trichlorobenzene	0.156U	0.250	0.0780	mg/Kg
1,2-Dichlorobenzene	0.156U	0.250	0.0780	mg/Kg
1,3-Dichlorobenzene	0.156U	0.250	0.0780	mg/Kg
1,4-Dichlorobenzene	0.156U	0.250	0.0780	mg/Kg
1-Chloronaphthalene	0.156U	0.250	0.0780	mg/Kg
2,4,5-Trichlorophenol	0.156U	0.250	0.0780	mg/Kg
2,4,6-Trichlorophenol	0.156U	0.250	0.0780	mg/Kg
2,4-Dichlorophenol	0.156U	0.250	0.0780	mg/Kg
2,4-Dimethylphenol	0.156U	0.250	0.0780	mg/Kg
2,4-Dinitrophenol	1.88U	3.00	0.940	mg/Kg
2,4-Dinitrotoluene	0.156U	0.250	0.0780	mg/Kg
2,6-Dichlorophenol	0.156U	0.250	0.0780	mg/Kg
2,6-Dinitrotoluene	0.156U	0.250	0.0780	mg/Kg
2-Chloronaphthalene	0.156U	0.250	0.0780	mg/Kg
2-Chlorophenol	0.156U	0.250	0.0780	mg/Kg
2-Methyl-4,6-dinitrophenol	1.24U	2.00	0.620	mg/Kg
2-Methylnaphthalene	0.156U	0.250	0.0780	mg/Kg
2-Methylphenol (o-Cresol)	0.156U	0.250	0.0780	mg/Kg
2-Nitroaniline	0.156U	0.250	0.0780	mg/Kg
2-Nitrophenol	0.156U	0.250	0.0780	mg/Kg
3&4-Methylphenol (p&m-Cresol)	0.620U	1.00	0.310	mg/Kg
3,3-Dichlorobenzidine	0.156U	0.250	0.0780	mg/Kg
3-Nitroaniline	0.300U	0.500	0.150	mg/Kg
4-Bromophenyl-phenylether	0.156U	0.250	0.0780	mg/Kg
4-Chloro-3-methylphenol	0.156U	0.250	0.0780	mg/Kg
4-Chloroaniline	0.300U	0.500	0.150	mg/Kg
4-Chlorophenyl-phenylether	0.156U	0.250	0.0780	mg/Kg
4-Nitroaniline	1.88U	3.00	0.940	mg/Kg
4-Nitrophenol	0.620U	1.00	0.310	mg/Kg
Acenaphthene	0.156U	0.250	0.0780	mg/Kg
Acenaphthylene	0.156U	0.250	0.0780	mg/Kg
Aniline	1.24U	2.00	0.620	mg/Kg
Anthracene	0.156U	0.250	0.0780	mg/Kg
Azobenzene	0.156U	0.250	0.0780	mg/Kg
Benzo(a)Anthracene	0.156U	0.250	0.0780	mg/Kg
Benzo[a]pyrene	0.156U	0.250	0.0780	mg/Kg
Benzo[b]Fluoranthene	0.156U	0.250	0.0780	mg/Kg
Benzo[g,h,i]perylene	0.156U	0.250	0.0780	mg/Kg

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## Method Blank

Blank ID: MB for HBN 1453190 [XXX/29103]

Blank Lab ID: 1151196

QC for Samples:

1132110020, 1132110022

Matrix: Soil/Solid (dry weight)

## Results by SW8270D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Benzo[k]fluoranthene	0.156U	0.250	0.0780	mg/Kg
Benzoic acid	1.50U	1.50	0.750	mg/Kg
Benzyl alcohol	0.156U	0.250	0.0780	mg/Kg
Bis(2chloro1methylethyl)Ether	0.156U	0.250	0.0780	mg/Kg
Bis(2-Chloroethoxy)methane	0.156U	0.250	0.0780	mg/Kg
Bis(2-Chloroethyl)ether	0.156U	0.250	0.0780	mg/Kg
bis(2-Ethylhexyl)phthalate	0.156U	0.250	0.0780	mg/Kg
Butylbenzylphthalate	0.156U	0.250	0.0780	mg/Kg
Carbazole	0.156U	0.250	0.0780	mg/Kg
Chrysene	0.156U	0.250	0.0780	mg/Kg
Dibenzo[a,h]anthracene	0.156U	0.250	0.0780	mg/Kg
Dibenzofuran	0.156U	0.250	0.0780	mg/Kg
Diethylphthalate	0.156U	0.250	0.0780	mg/Kg
Dimethylphthalate	0.156U	0.250	0.0780	mg/Kg
Di-n-butylphthalate	0.156U	0.250	0.0780	mg/Kg
di-n-Octylphthalate	0.300U	0.500	0.150	mg/Kg
Fluoranthene	0.156U	0.250	0.0780	mg/Kg
Fluorene	0.156U	0.250	0.0780	mg/Kg
Hexachlorobenzene	0.156U	0.250	0.0780	mg/Kg
Hexachlorobutadiene	0.156U	0.250	0.0780	mg/Kg
Hexachlorocyclopentadiene	0.400U	0.700	0.200	mg/Kg
Hexachloroethane	0.156U	0.250	0.0780	mg/Kg
Indeno[1,2,3-c,d] pyrene	0.156U	0.250	0.0780	mg/Kg
Isophorone	0.156U	0.250	0.0780	mg/Kg
Naphthalene	0.156U	0.250	0.0780	mg/Kg
Nitrobenzene	0.156U	0.250	0.0780	mg/Kg
N-Nitrosodimethylamine	0.156U	0.250	0.0780	mg/Kg
N-Nitroso-di-n-propylamine	0.156U	0.250	0.0780	mg/Kg
N-Nitrosodiphenylamine	0.156U	0.250	0.0780	mg/Kg
Pentachlorophenol	1.24U	2.00	0.620	mg/Kg
Phenanthrene	0.156U	0.250	0.0780	mg/Kg
Phenol	0.156U	0.250	0.0780	mg/Kg
Pyrene	0.156U	0.250	0.0780	mg/Kg
<b>Surrogates</b>				
2,4,6-Tribromophenol	88.9	35-125		%
2-Fluorobiphenyl	84.3	45-105		%
2-Fluorophenol	60.4	35-105		%
Nitrobenzene-d5	62.4	35-100		%

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## Method Blank

Blank ID: MB for HBN 1453190 [XXX/29103]

Blank Lab ID: 1151196

QC for Samples:

1132110020, 1132110022

Matrix: Soil/Solid (dry weight)

## Results by SW8270D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Phenol-d6	69.9	40-100		%
Terphenyl-d14	100	30-125		%

## Batch Information

Analytical Batch: XMS7361

Analytical Method: SW8270D

Instrument: HP 6890/5973 SSA

Analyst: DSH

Analytical Date/Time: 6/11/2013 8:12:00PM

Prep Batch: XXX29103

Prep Method: SW3550C

Prep Date/Time: 6/5/2013 12:00:00PM

Prep Initial Wt./Vol.: 22.5 g

Prep Extract Vol: 1 mL

Print Date: 06/27/2013 5:39:47PM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [XXX29103]  
Blank Spike Lab ID: 1151198  
Date Analyzed: 06/11/2013 20:29

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110020, 1132110022

### Results by SW8270D

Parameter	Blank Spike (mg/Kg)			CL
	Spike	Result	Rec (%)	
1,2,4-Trichlorobenzene	4.44	3.07	69	( 45-110 )
1,2-Dichlorobenzene	4.44	2.73	61	( 45-100 )
1,3-Dichlorobenzene	4.44	2.70	61	( 40-100 )
1,4-Dichlorobenzene	4.44	2.77	62	( 35-105 )
1-Chloronaphthalene	1.78	1.67	94	( 44-105 )
2,4,5-Trichlorophenol	4.44	4.16	94	( 50-110 )
2,4,6-Trichlorophenol	4.44	3.71	83	( 45-110 )
2,4-Dichlorophenol	4.44	3.40	77	( 45-110 )
2,4-Dimethylphenol	4.44	3.49	78	( 30-105 )
2,4-Dinitrophenol	8	6.67	83	( 15-130 )
2,4-Dinitrotoluene	4.44	4.07	92	( 50-115 )
2,6-Dichlorophenol	1.78	1.41	79	( 52-102 )
2,6-Dinitrotoluene	4.44	4.11	92	( 50-110 )
2-Chloronaphthalene	4.44	3.66	82	( 45-105 )
2-Chlorophenol	4.44	2.91	66	( 45-105 )
2-Methyl-4,6-dinitrophenol	8	8.00	100	( 30-135 )
2-Methylnaphthalene	4.44	3.42	77	( 45-105 )
2-Methylphenol (o-Cresol)	4.44	3.08	69	( 40-105 )
2-Nitroaniline	4.44	4.17	94	( 45-120 )
2-Nitrophenol	4.44	3.25	73	( 40-110 )
3&4-Methylphenol (p&m-Cresol)	6.22	5.19	83	( 40-105 )
3,3-Dichlorobenzidine	4.44	3.90	88	( 10-130 )
3-Nitroaniline	4.44	4.16	94	( 25-110 )
4-Bromophenyl-phenylether	4.44	4.21	95	( 45-115 )
4-Chloro-3-methylphenol	4.44	3.93	89	( 45-115 )
4-Chloroaniline	4.44	3.46	78	( 10-100 )
4-Chlorophenyl-phenylether	4.44	4.14	93	( 45-110 )
4-Nitroaniline	4.44	4.16	94	( 35-115 )
4-Nitrophenol	6.22	6.05	97	( 15-140 )
Acenaphthene	4.44	3.87	87	( 45-110 )
Acenaphthylene	4.44	3.90	88	( 45-105 )
Aniline	4.44	2.74	62	( 20-84 )
Anthracene	4.44	4.02	91	( 55-105 )
Azobenzene	4.44	4.16	94	( 63-117 )

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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [XXX29103]

Blank Spike Lab ID: 1151198

Date Analyzed: 06/11/2013 20:29

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110020, 1132110022

## Results by SW8270D

Parameter	Blank Spike (mg/Kg)			CL
	Spike	Result	Rec (%)	
Benzo(a)Anthracene	4.44	4.19	94	( 50-110 )
Benzo[a]pyrene	4.44	3.99	90	( 50-110 )
Benzo[b]Fluoranthene	4.44	4.10	92	( 45-115 )
Benzo[g,h,i]perylene	4.44	4.33	97	( 40-125 )
Benzo[k]fluoranthene	4.44	4.02	90	( 45-125 )
Benzoic acid	6.22	5.31	85	( 10-110 )
Benzyl alcohol	4.44	3.36	76	( 20-125 )
Bis(2-Chloroethoxy)methane	4.44	3.69	83	( 45-110 )
Bis(2-Chloroethyl)ether	4.44	3.58	81	( 40-105 )
bis(2-Ethylhexyl)phthalate	4.44	4.41	99	( 45-125 )
Bis(2chloro1methylethyl)Ether	4.44	2.95	66	( 20-115 )
Butylbenzylphthalate	4.44	4.50	101	( 50-125 )
Carbazole	4.44	4.27	96	( 45-115 )
Chrysene	4.44	4.35	98	( 55-110 )
Di-n-butylphthalate	4.44	4.47	101	( 55-110 )
di-n-Octylphthalate	4.44	4.44	100	( 40-130 )
Dibenzo[a,h]anthracene	4.44	4.36	98	( 40-125 )
Dibenzofuran	4.44	4.08	92	( 50-105 )
Diethylphthalate	4.44	4.31	97	( 50-115 )
Dimethylphthalate	4.44	4.33	97	( 50-110 )
Fluoranthene	4.44	4.08	92	( 55-115 )
Fluorene	4.44	3.97	89	( 50-110 )
Hexachlorobenzene	4.44	4.27	96	( 45-120 )
Hexachlorobutadiene	4.44	3.28	74	( 40-115 )
Hexachlorocyclopentadiene	4.44	3.76	85	( 48-108 )
Hexachloroethane	4.44	2.65	60	( 35-110 )
Indeno[1,2,3-c,d] pyrene	4.44	4.30	97	( 40-120 )
Isophorone	4.44	3.81	86	( 45-110 )
N-Nitroso-di-n-propylamine	4.44	3.67	83	( 40-115 )
N-Nitrosodimethylamine	4.44	3.16	71	( 20-115 )
N-Nitrosodiphenylamine	4.44	3.55	80	( 50-115 )
Naphthalene	4.44	3.16	71	( 40-105 )
Nitrobenzene	4.44	3.25	73	( 40-115 )
Pentachlorophenol	6.22	5.72	92	( 25-120 )

Print Date: 06/27/2013 5:39:48PM



## Blank Spike Summary

Blank Spike ID: LCS for HBN 1132110 [XXX29103]

Blank Spike Lab ID: 1151198

Date Analyzed: 06/11/2013 20:29

Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110020, 1132110022

## Results by SW8270D

Parameter	Blank Spike (mg/Kg)			CL
	Spike	Result	Rec (%)	
Phenanthrene	4.44	4.17	94	( 50-110 )
Phenol	4.44	3.21	72	( 40-100 )
Pyrene	4.44	4.25	96	( 45-125 )
<b>Surrogates</b>				
2,4,6-Tribromophenol	8.89	91.3	91	( 35-125 )
2-Fluorobiphenyl	4.44	81.7	82	( 45-105 )
2-Fluorophenol	8.89	59.6	60	( 35-105 )
Nitrobenzene-d5	4.44	69.6	70	( 35-100 )
Phenol-d6	8.89	69.6	70	( 40-100 )
Terphenyl-d14	4.44	95.1	95	( 30-125 )

## Batch Information

Analytical Batch: XMS7361

Analytical Method: SW8270D

Instrument: HP 6890/5973 SSA

Analyst: DSH

Prep Batch: XXX29103

Prep Method: SW3550C

Prep Date/Time: 06/05/2013 12:00

Spike Init Wt./Vol.: 4.44 mg/Kg Extract Vol: 1 mL

Dupe Init Wt./Vol.: Extract Vol:



### Matrix Spike Summary

Original Sample ID: 1132110020  
 MS Sample ID: 1151201 MS  
 MSD Sample ID: 1151202 MSD

Analysis Date: 06/11/2013 20:47  
 Analysis Date: 06/11/2013 21:04  
 Analysis Date: 06/11/2013 21:22  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110020, 1132110022

### Results by SW8270D

Parameter	Sample	Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
1,2,4-Trichlorobenzene	0.254U	4.55	3.29	72	4.57	3.44	75	45-110	4.50	(< 30 )
1,2-Dichlorobenzene	0.254U	4.55	2.85	63	4.57	3.10	68	45-100	8.40	(< 30 )
1,3-Dichlorobenzene	0.254U	4.55	2.87	63	4.57	3.02	66	40-100	5.40	(< 30 )
1,4-Dichlorobenzene	0.254U	4.55	2.89	63	4.57	3.07	67	35-105	6.00	(< 30 )
1-Chloronaphthalene	0.254U	1.83	1.70	94	1.83	1.79	98	44-105	4.70	(< 30 )
2,4,5-Trichlorophenol	0.254U	4.55	4.34	95	4.57	4.37	96	50-110	0.50	(< 30 )
2,4,6-Trichlorophenol	0.254U	4.55	3.98	87	4.57	4.02	88	45-110	1.00	(< 30 )
2,4-Dichlorophenol	0.254U	4.55	3.45	76	4.57	3.81	83	45-110	9.80	(< 30 )
2,4-Dimethylphenol	0.254U	4.55	3.17	70	4.57	3.29	72	30-105	3.90	(< 30 )
2,4-Dinitrophenol	3.05U	8.19	5.67	69	8.22	6.01	73	15-130	5.70	(< 30 )
2,4-Dinitrotoluene	0.254U	4.55	4.17	92	4.57	4.30	94	50-115	3.10	(< 30 )
2,6-Dichlorophenol	0.254U	1.83	1.46	80	1.83	1.53	84	52-102	5.00	(< 30 )
2,6-Dinitrotoluene	0.254U	4.55	4.13	91	4.57	4.48	98	50-110	8.20	(< 30 )
2-Chloronaphthalene	0.254U	4.55	3.87	85	4.57	3.97	87	45-105	2.70	(< 30 )
2-Chlorophenol	0.254U	4.55	2.96	65	4.57	3.18	70	45-105	7.00	(< 30 )
2-Methyl-4,6-dinitrophenol	2.03U	8.19	7.81	95	8.22	8.44	103	30-135	7.70	(< 30 )
2-Methylnaphthalene	0.254U	4.55	3.43	75	4.57	3.64	80	45-105	5.90	(< 30 )
2-Methylphenol (o-Cresol)	0.254U	4.55	3.10	68	4.57	3.33	73	40-105	7.40	(< 30 )
2-Nitroaniline	0.254U	4.55	4.38	96	4.57	4.59	100	45-120	4.70	(< 30 )
2-Nitrophenol	0.254U	4.55	3.40	75	4.57	3.58	78	40-110	5.20	(< 30 )
3&4-Methylphenol (p&m-Cresol)	1.02U	6.38	5.16	81	6.40	5.44	85	40-105	5.20	(< 30 )
3,3-Dichlorobenzidine	0.254U	4.55	3.94	87	4.57	4.09	89	10-130	3.50	(< 30 )
3-Nitroaniline	0.508U	4.55	4.31	95	4.57	4.42	97	25-110	2.40	(< 30 )
4-Bromophenyl-phenylether	0.254U	4.55	4.29	94	4.57	4.61	101	45-115	7.10	(< 30 )
4-Chloro-3-methylphenol	0.254U	4.55	3.94	87	4.57	4.07	89	45-115	3.20	(< 30 )
4-Chloroaniline	0.508U	4.55	3.62	80	4.57	3.74	82	10-100	2.90	(< 30 )
4-Chlorophenyl-phenylether	0.254U	4.55	4.23	93	4.57	4.36	95	45-110	2.90	(< 30 )
4-Nitroaniline	3.05U	4.55	4.33	95	4.57	4.42	97	35-115	1.90	(< 30 )
4-Nitrophenol	1.02U	6.38	6.02	94	6.40	5.96	93	15-140	0.83	(< 30 )
Acenaphthene	0.254U	4.55	3.99	88	4.57	4.05	89	45-110	1.50	(< 30 )
Acenaphthylene	0.254U	4.55	4.11	90	4.57	4.21	92	45-105	2.50	(< 30 )
Aniline	2.03U	4.55	2.98	66	4.57	3.08	67	20-84	2.80	(< 30 )
Anthracene	0.254U	4.55	4.11	90	4.57	4.33	95	55-105	5.50	(< 30 )
Azobenzene	0.254U	4.55	4.30	95	4.57	4.38	96	63-117	1.50	(< 30 )
Benzo(a)Anthracene	0.254U	4.55	4.14	91	4.57	4.28	94	50-110	3.30	(< 30 )
Benzo[a]pyrene	0.254U	4.55	3.99	88	4.57	4.13	90	50-110	3.30	(< 30 )
Benzo[b]Fluoranthene	0.254U	4.55	4.19	92	4.57	4.30	94	45-115	2.50	(< 30 )

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### Matrix Spike Summary

Original Sample ID: 1132110020  
 MS Sample ID: 1151201 MS  
 MSD Sample ID: 1151202 MSD

Analysis Date: 06/11/2013 20:47  
 Analysis Date: 06/11/2013 21:04  
 Analysis Date: 06/11/2013 21:22  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110020, 1132110022

### Results by SW8270D

Parameter	Sample	Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Benzo[g,h,i]perylene	0.254U	4.55	3.92	86	4.57	3.77	82	40-125	4.20	(< 30 )
Benzo[k]fluoranthene	0.254U	4.55	3.94	87	4.57	4.19	92	45-125	6.10	(< 30 )
Benzoic acid	1.53U	6.38	2.09	33	6.40	2.40	38	10-110	13.50	(< 30 )
Benzyl alcohol	0.254U	4.55	3.38	74	4.57	3.50	77	20-125	3.40	(< 30 )
Bis(2-Chloroethoxy)methane	0.254U	4.55	3.82	84	4.57	3.99	87	45-110	4.50	(< 30 )
Bis(2-Chloroethyl)ether	0.254U	4.55	3.70	81	4.57	3.93	86	40-105	6.00	(< 30 )
bis(2-Ethylhexyl)phthalate	0.254U	4.55	4.50	99	4.57	4.64	102	45-125	3.10	(< 30 )
Bis(2chloro1methylethyl)Ether	0.254U	4.55	3.03	67	4.57	3.17	69	20-115	4.30	(< 30 )
Butylbenzylphthalate	0.254U	4.55	4.53	100	4.57	4.77	104	50-125	5.00	(< 30 )
Carbazole	0.254U	4.55	4.27	94	4.57	4.48	98	45-115	4.60	(< 30 )
Chrysene	0.254U	4.55	4.29	94	4.57	4.45	97	55-110	3.70	(< 30 )
Di-n-butylphthalate	0.254U	4.55	4.54	100	4.57	4.73	103	55-110	4.10	(< 30 )
di-n-Octylphthalate	0.508U	4.55	4.53	99	4.57	4.65	102	40-130	2.70	(< 30 )
Dibenzo[a,h]anthracene	0.254U	4.55	4.08	90	4.57	3.93	86	40-125	3.60	(< 30 )
Dibenzofuran	0.254U	4.55	4.08	90	4.57	4.26	93	50-105	4.40	(< 30 )
Diethylphthalate	0.254U	4.55	4.50	99	4.57	4.66	102	50-115	3.50	(< 30 )
Dimethylphthalate	0.254U	4.55	4.47	98	4.57	4.57	100	50-110	2.30	(< 30 )
Fluoranthene	0.254U	4.55	3.97	87	4.57	4.16	91	55-115	4.60	(< 30 )
Fluorene	0.254U	4.55	4.04	89	4.57	4.14	90	50-110	2.50	(< 30 )
Hexachlorobenzene	0.254U	4.55	4.15	91	4.57	4.47	98	45-120	7.40	(< 30 )
Hexachlorobutadiene	0.254U	4.55	3.41	75	4.57	3.64	80	40-115	6.80	(< 30 )
Hexachlorocyclopentadiene	0.712U	4.55	3.97	87	4.57	4.18	91	48-108	5.00	(< 30 )
Hexachloroethane	0.254U	4.55	2.76	61	4.57	2.99	66	35-110	8.30	(< 30 )
Indeno[1,2,3-c,d] pyrene	0.254U	4.55	3.97	87	4.57	3.89	85	40-120	2.00	(< 30 )
Isophorone	0.254U	4.55	3.83	84	4.57	3.99	87	45-110	4.30	(< 30 )
N-Nitroso-di-n-propylamine	0.254U	4.55	3.67	81	4.57	3.78	83	40-115	2.90	(< 30 )
N-Nitrosodimethylamine	0.254U	4.55	3.10	68	4.57	3.20	70	20-115	3.20	(< 30 )
N-Nitrosodiphenylamine	0.254U	4.55	3.58	79	4.57	3.83	84	50-115	6.80	(< 30 )
Naphthalene	0.254U	4.55	3.24	71	4.57	3.40	74	40-105	4.70	(< 30 )
Nitrobenzene	0.254U	4.55	3.24	71	4.57	3.32	73	40-115	2.30	(< 30 )
Pentachlorophenol	2.03U	6.38	5.25	82	6.40	5.55	87	25-120	5.50	(< 30 )
Phenanthrene	0.254U	4.55	4.13	91	4.57	4.42	97	50-110	6.80	(< 30 )
Phenol	0.254U	4.55	3.18	70	4.57	3.33	73	40-100	4.70	(< 30 )
Pyrene	0.254U	4.55	4.15	91	4.57	4.45	97	45-125	7.00	(< 30 )
<b>Surrogates</b>										
2,4,6-Tribromophenol		9.11	8.34	92	9.14	8.85	97	35-125	5.90	
2-Fluorobiphenyl		4.55	3.80	83	4.57	3.99	87	45-105	5.00	

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## Matrix Spike Summary

Original Sample ID: 1132110020  
 MS Sample ID: 1151201 MS  
 MSD Sample ID: 1151202 MSD

Analysis Date:  
 Analysis Date: 06/11/2013 21:04  
 Analysis Date: 06/11/2013 21:22  
 Matrix: Soil/Solid (dry weight)

QC for Samples: 1132110020, 1132110022

## Results by SW8270D

Parameter	Sample	Matrix Spike (%)			Spike Duplicate (%)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
2-Fluorophenol		9.11	5.47	60	9.14	5.89	65	35-105	7.50	
Nitrobenzene-d5		4.55	3.09	68	4.57	3.24	71	35-100	4.90	
Phenol-d6		9.11	6.23	68	9.14	6.60	72	40-100	5.80	
Terphenyl-d14		4.55	4.22	93	4.57	4.48	98	30-125	6.00	

## Batch Information

Analytical Batch: XMS7361  
 Analytical Method: SW8270D  
 Instrument: HP 6890/5973 SSA  
 Analyst: DSH  
 Analytical Date/Time: 6/11/2013 9:04:00PM

Prep Batch: XXX29103  
 Prep Method: Sonication Extraction Soil SW8270  
 Prep Date/Time: 6/5/2013 12:00:00PM  
 Prep Initial Wt./Vol.: 22.66g  
 Prep Extract Vol: 1.00mL

Print Date: 06/27/2013 5:39:48PM



SGS North America Inc.  
CHAIN OF CUSTODY RECORD

1132110



**Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.**

Page 1 of 3

Section 1		Section 2		Section 3		Section 4		Section 5	
CLIENT:	CONTACT:	PROJECT NAME:	REPORTS TO:	INVOICE TO:	RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE
R+M Consultants, Inc.	Kristi McLean	SMIC Improvements	K. McLean	K. McLean		SMIC-K (Ø)	5/30/13	10:29	Soil
						SMIC-K (1.5)	5/30/13	10:37	Soil
						SMIC-K (10)	5/30/13	10:58	Soil
						SMIC-K (40)	5/30/13	12:28	Soil
						SMIC-L (Ø)	5/30/13	15:44	Soil
						SMIC-L (1.5)	5/30/13	15:52	Soil
						SMIC-L (15)	5/30/13	16:13	Soil
						SMIC-L (35)	5/30/13	16:54	Soil
						SMIC-O (Ø)	5/31/13	08:44	Soil
						SMIC-O (Ø)D	5/31/13	08:47	Soil
Relinquished By: (1)		Relinquished By: (2)		Relinquished By: (3)		Relinquished By: (4)		Received By:	
<i>K. McLean</i>		<i>[Signature]</i>		<i>[Signature]</i>		<i>[Signature]</i>		6/3/13 925	
Date		Date		Date		Date		Time	
6/3/13		6/3/13		6/3/13		6/3/13		8925	
Received For Laboratory By:		Received For Laboratory By:		Received For Laboratory By:		Received For Laboratory By:		Received For Laboratory By:	
<i>[Signature]</i>		<i>[Signature]</i>		<i>[Signature]</i>		<i>[Signature]</i>		<i>[Signature]</i>	

Section 3		Section 4		Section 5	
#	Type	Matrix	Matrix	Matrix	Matrix
3	G <sub>n</sub>	Soil	Soil	Soil	Soil
3	G <sub>n</sub>	Soil	Soil	Soil	Soil
2	G	Soil	Soil	Soil	Soil
2	G	Soil	Soil	Soil	Soil
3	G	Soil	Soil	Soil	Soil
3	G	Soil	Soil	Soil	Soil
2	G	Soil	Soil	Soil	Soil
2	G	Soil	Soil	Soil	Soil
3	G	Soil	Soil	Soil	Soil
3	G	Soil	Soil	Soil	Soil

Section 3		Section 4		Section 5	
CONTAINERS	Type	Matrix	Matrix	Matrix	Matrix
3	G <sub>n</sub>	Soil	Soil	Soil	Soil
3	G <sub>n</sub>	Soil	Soil	Soil	Soil
2	G	Soil	Soil	Soil	Soil
2	G	Soil	Soil	Soil	Soil
3	G	Soil	Soil	Soil	Soil
3	G	Soil	Soil	Soil	Soil
2	G	Soil	Soil	Soil	Soil
2	G	Soil	Soil	Soil	Soil
3	G	Soil	Soil	Soil	Soil
3	G	Soil	Soil	Soil	Soil

Section 3		Section 4		Section 5	
#	Type	Matrix	Matrix	Matrix	Matrix
3	G <sub>n</sub>	Soil	Soil	Soil	Soil
3	G <sub>n</sub>	Soil	Soil	Soil	Soil
2	G	Soil	Soil	Soil	Soil
2	G	Soil	Soil	Soil	Soil
3	G	Soil	Soil	Soil	Soil
3	G	Soil	Soil	Soil	Soil
2	G	Soil	Soil	Soil	Soil
2	G	Soil	Soil	Soil	Soil
3	G	Soil	Soil	Soil	Soil
3	G	Soil	Soil	Soil	Soil

Relinquished By: (1) *[Signature]* Date: 6/3/13

Relinquished By: (2) *[Signature]* Date: 6/3/13

Relinquished By: (3) *[Signature]* Date: 6/3/13

Relinquished By: (4) *[Signature]* Date: 6/3/13

Received By: *[Signature]* Time: 925

Received By: *[Signature]* Time: 8925

Received For Laboratory By: *[Signature]*

Temp Blank °C: \_\_\_\_\_ or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

(See attached Sample Receipt Form) (See attached Sample Receipt Form)

Requested Turnaround Time and/or Special Instructions:

Data Deliverable Requirements:

http://www.sgs.com/terms-and-conditions

[ ] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301

[ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

F083-Kit\_Request\_and\_COC\_Templates-Blank Revised 2013-03-24

C388



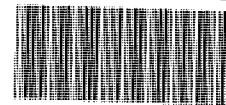
Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.									
Section 3					Preservative				
#	Type	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix
C	O	N	T	A	I	N	E	R	S
1	UVR (8270)	X	X	X	X	X	X	X	X
2	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
3	TBT (Krone 1989)	X	X	X	X	X	X	X	X
4	GRE (AK101)	X	X	X	X	X	X	X	X
5	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
6	DRD (AK102)	X	X	X	X	X	X	X	X
7	RES (AK103)	X	X	X	X	X	X	X	X
8	UVR (8270)	X	X	X	X	X	X	X	X
9	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
10	TBT (Krone 1989)	X	X	X	X	X	X	X	X
11	GRE (AK101)	X	X	X	X	X	X	X	X
12	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
13	DRD (AK102)	X	X	X	X	X	X	X	X
14	RES (AK103)	X	X	X	X	X	X	X	X
15	UVR (8270)	X	X	X	X	X	X	X	X
16	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
17	TBT (Krone 1989)	X	X	X	X	X	X	X	X
18	GRE (AK101)	X	X	X	X	X	X	X	X
19	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
20	DRD (AK102)	X	X	X	X	X	X	X	X
21	RES (AK103)	X	X	X	X	X	X	X	X
22	UVR (8270)	X	X	X	X	X	X	X	X
23	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
24	TBT (Krone 1989)	X	X	X	X	X	X	X	X
25	GRE (AK101)	X	X	X	X	X	X	X	X
26	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
27	DRD (AK102)	X	X	X	X	X	X	X	X
28	RES (AK103)	X	X	X	X	X	X	X	X
29	UVR (8270)	X	X	X	X	X	X	X	X
30	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
31	TBT (Krone 1989)	X	X	X	X	X	X	X	X
32	GRE (AK101)	X	X	X	X	X	X	X	X
33	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
34	DRD (AK102)	X	X	X	X	X	X	X	X
35	RES (AK103)	X	X	X	X	X	X	X	X
36	UVR (8270)	X	X	X	X	X	X	X	X
37	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
38	TBT (Krone 1989)	X	X	X	X	X	X	X	X
39	GRE (AK101)	X	X	X	X	X	X	X	X
40	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
41	DRD (AK102)	X	X	X	X	X	X	X	X
42	RES (AK103)	X	X	X	X	X	X	X	X
43	UVR (8270)	X	X	X	X	X	X	X	X
44	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
45	TBT (Krone 1989)	X	X	X	X	X	X	X	X
46	GRE (AK101)	X	X	X	X	X	X	X	X
47	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
48	DRD (AK102)	X	X	X	X	X	X	X	X
49	RES (AK103)	X	X	X	X	X	X	X	X
50	UVR (8270)	X	X	X	X	X	X	X	X
51	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
52	TBT (Krone 1989)	X	X	X	X	X	X	X	X
53	GRE (AK101)	X	X	X	X	X	X	X	X
54	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
55	DRD (AK102)	X	X	X	X	X	X	X	X
56	RES (AK103)	X	X	X	X	X	X	X	X
57	UVR (8270)	X	X	X	X	X	X	X	X
58	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
59	TBT (Krone 1989)	X	X	X	X	X	X	X	X
60	GRE (AK101)	X	X	X	X	X	X	X	X
61	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
62	DRD (AK102)	X	X	X	X	X	X	X	X
63	RES (AK103)	X	X	X	X	X	X	X	X
64	UVR (8270)	X	X	X	X	X	X	X	X
65	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
66	TBT (Krone 1989)	X	X	X	X	X	X	X	X
67	GRE (AK101)	X	X	X	X	X	X	X	X
68	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
69	DRD (AK102)	X	X	X	X	X	X	X	X
70	RES (AK103)	X	X	X	X	X	X	X	X
71	UVR (8270)	X	X	X	X	X	X	X	X
72	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
73	TBT (Krone 1989)	X	X	X	X	X	X	X	X
74	GRE (AK101)	X	X	X	X	X	X	X	X
75	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
76	DRD (AK102)	X	X	X	X	X	X	X	X
77	RES (AK103)	X	X	X	X	X	X	X	X
78	UVR (8270)	X	X	X	X	X	X	X	X
79	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
80	TBT (Krone 1989)	X	X	X	X	X	X	X	X
81	GRE (AK101)	X	X	X	X	X	X	X	X
82	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
83	DRD (AK102)	X	X	X	X	X	X	X	X
84	RES (AK103)	X	X	X	X	X	X	X	X
85	UVR (8270)	X	X	X	X	X	X	X	X
86	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
87	TBT (Krone 1989)	X	X	X	X	X	X	X	X
88	GRE (AK101)	X	X	X	X	X	X	X	X
89	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
90	DRD (AK102)	X	X	X	X	X	X	X	X
91	RES (AK103)	X	X	X	X	X	X	X	X
92	UVR (8270)	X	X	X	X	X	X	X	X
93	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
94	TBT (Krone 1989)	X	X	X	X	X	X	X	X
95	GRE (AK101)	X	X	X	X	X	X	X	X
96	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
97	DRD (AK102)	X	X	X	X	X	X	X	X
98	RES (AK103)	X	X	X	X	X	X	X	X
99	UVR (8270)	X	X	X	X	X	X	X	X
100	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
101	TBT (Krone 1989)	X	X	X	X	X	X	X	X
102	GRE (AK101)	X	X	X	X	X	X	X	X
103	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
104	DRD (AK102)	X	X	X	X	X	X	X	X
105	RES (AK103)	X	X	X	X	X	X	X	X
106	UVR (8270)	X	X	X	X	X	X	X	X
107	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
108	TBT (Krone 1989)	X	X	X	X	X	X	X	X
109	GRE (AK101)	X	X	X	X	X	X	X	X
110	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
111	DRD (AK102)	X	X	X	X	X	X	X	X
112	RES (AK103)	X	X	X	X	X	X	X	X
113	UVR (8270)	X	X	X	X	X	X	X	X
114	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
115	TBT (Krone 1989)	X	X	X	X	X	X	X	X
116	GRE (AK101)	X	X	X	X	X	X	X	X
117	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
118	DRD (AK102)	X	X	X	X	X	X	X	X
119	RES (AK103)	X	X	X	X	X	X	X	X
120	UVR (8270)	X	X	X	X	X	X	X	X
121	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
122	TBT (Krone 1989)	X	X	X	X	X	X	X	X
123	GRE (AK101)	X	X	X	X	X	X	X	X
124	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
125	DRD (AK102)	X	X	X	X	X	X	X	X
126	RES (AK103)	X	X	X	X	X	X	X	X
127	UVR (8270)	X	X	X	X	X	X	X	X
128	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
129	TBT (Krone 1989)	X	X	X	X	X	X	X	X
130	GRE (AK101)	X	X	X	X	X	X	X	X
131	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
132	DRD (AK102)	X	X	X	X	X	X	X	X
133	RES (AK103)	X	X	X	X	X	X	X	X
134	UVR (8270)	X	X	X	X	X	X	X	X
135	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
136	TBT (Krone 1989)	X	X	X	X	X	X	X	X
137	GRE (AK101)	X	X	X	X	X	X	X	X
138	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
139	DRD (AK102)	X	X	X	X	X	X	X	X
140	RES (AK103)	X	X	X	X	X	X	X	X
141	UVR (8270)	X	X	X	X	X	X	X	X
142	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
143	TBT (Krone 1989)	X	X	X	X	X	X	X	X
144	GRE (AK101)	X	X	X	X	X	X	X	X
145	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
146	DRD (AK102)	X	X	X	X	X	X	X	X
147	RES (AK103)	X	X	X	X	X	X	X	X
148	UVR (8270)	X	X	X	X	X	X	X	X
149	RCK Metals (EPA 6020)	X	X	X	X	X	X	X	X
150	TBT (Krone 1989)	X	X	X	X	X	X	X	X
151	GRE (AK101)	X	X	X	X	X	X	X	X
152	VOC (EPA 8260B)	X	X	X	X	X	X	X	X
153	DRD (AK102)	X	X	X	X	X	X	X	X
154	RES (AK103)	X	X	X	X	X			



**Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.**

Page 3 of 3

CLIENT: <i>RAM Consultants, Inc</i> CONTACT: <i>Kath McLean</i> PHONE NO: <i>646.9689</i> PROJECT PWSID/ PERMIT#: <i>SMIC 1770.01</i> NAME: <i>Improvements</i> REPORTS TO: <i>K. McLean</i> E-MAIL: <i>kmclean@rmconsult.com</i> INVOICE TO: <i>K. McLean</i> QUOTE #: <i>1770.01</i> P.O. #: <i>1770.01</i>		Section 3 # CONTAINERS Type C = COMP G = GRAB MI = Multi Incr = Incremental Soils		Section 4 Section 4 Cooler ID: Requested Turnaround Time and/or Special Instructions:		Section 5 Relinquished By: (1) Relinquished By: (2) Relinquished By: (3) Relinquished By: (4)		Section 2 RESERVED for lab use SAMPLE IDENTIFICATION DATE mm/dd/yy TIME HH:MM MATRIX/MATRIX CODE PRESERVATIVE (AK103) P20 (AK162) P20 (EPA 8260B) VOL (AK101) G20 (Kane 1989) (AK101) TBT (EPA 8260) REACTANTS (EPA 8270) SVOC		Data Deliverable Requirements: Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT (See attached Sample Receipt Form) (See attached Sample Receipt Form)	
		Section 4 Section 4 Cooler ID: Requested Turnaround Time and/or Special Instructions:		Section 5 Relinquished By: (1) Relinquished By: (2) Relinquished By: (3) Relinquished By: (4)		Section 2 RESERVED for lab use SAMPLE IDENTIFICATION DATE mm/dd/yy TIME HH:MM MATRIX/MATRIX CODE PRESERVATIVE (AK103) P20 (AK162) P20 (EPA 8260B) VOL (AK101) G20 (Kane 1989) (AK101) TBT (EPA 8260) REACTANTS (EPA 8270) SVOC		Data Deliverable Requirements: Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT (See attached Sample Receipt Form) (See attached Sample Receipt Form)			



## SAMPLE RECEIPT FORM

Review Criteria:	Condition:	Comments/Action Taken:
Were custody seals intact? Note # & location, if applicable. COC accompanied samples?	Yes No <u>N/A</u> <u>Yes</u> No N/A	
<b>Temperature blank compliant*</b> (i.e., 0-6°C after CF)? <i>* Note: Exemption permitted for chilled samples collected less than 8 hours ago.</i> Cooler ID: <u>1</u> @ <u>2.5</u> w/ Therm.ID: <u>239</u> Cooler ID: <u>2</u> @ <u>2.4</u> w/ Therm.ID: <u>239</u> Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ <i>Note: If non-compliant, use form FS-0029 to document affected samples/analyses.</i> If samples are received <u>without</u> a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "COOLER TEMP" will be noted to the right. In cases where neither a temp blank <u>nor</u> cooler temp can be obtained, note "ambient" or "chilled."	<u>Yes</u> No N/A	
<b>If temperature(s) &lt;0°C, were all sample containers ice free?</b>	Yes No <u>N/A</u>	
Delivery method (specify all that apply): <u>Client</u> USPS Alert Courier C&D Delivery AK Air Lynden Carlile ERA PenAir FedEx UPS NAC Other: → For WO# with airbills, was the WO# & airbill info recorded in the Front Counter eLog?	Note ABN/tracking #  See Attached or N/A  Yes No <u>N/A</u>	
→ For samples received with payment, note amount (\$) and cash / check / CC (circle one) or note: → For samples received in FBKS, ANCH staff will verify all criteria are reviewed.		SRF Initiated by: <u>MD</u> <u>N/A</u> <u>N/A</u>
Were samples received within hold time? <i>Note: Refer to form F-083 "Sample Guide" for hold time information.</i> Do samples match COC* (i.e., sample IDs, dates/times collected)? <i>* Note: Exemption permitted if times differ &lt;1hr; in that case, use times on COC.</i> Were analyses requested unambiguous?	<u>Yes</u> No N/A <u>Yes</u> No N/A <u>Yes</u> No N/A	
Were samples in good condition (no leaks/cracks/breakage)? Packing material used (specify all that apply): Bubble Wrap Separate plastic bags Vermiculite Other: <u>Boxes</u>	<u>Yes</u> No N/A <u>Yes</u> No N/A	
Were all VOA vials free of headspace (i.e., bubbles ≤6 mm)? Were all soil VOAs field extracted with MeOH+BFB?	<u>Yes</u> No <u>N/A</u> <u>Yes</u> No <u>N/A</u>	
Were proper containers (type/mass/volume/preservative*) used? <i>* Note: Exemption permitted for waters to be analyzed for metals.</i> Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	<u>Yes</u> No N/A <u>Yes</u> No N/A	
For special handling (e.g., "MP" or foreign soils, lab filter, limited volume <u>Ref Lab</u> ), were bottles/paperwork flagged (e.g., sticker)?	<u>Yes</u> No N/A	<u>TBT</u>
For preserved waters (other than VOA vials, LL-Mercury or microbiological analyses), was pH verified and compliant? If pH was adjusted, were bottles flagged (i.e., stickers)?	Yes No <u>N/A</u> Yes No <u>N/A</u>	
For RUSH/SHORT Hold Time, were COC/Bottles flagged accordingly? Was Rush/Short HT email sent, if applicable?	Yes No <u>N/A</u>	
For SITE-SPECIFIC QC, e.g. BMS/BMSD/BDUP, were containers / paperwork flagged accordingly?	Yes No <u>N/A</u>	
For any question answered "No," has the PM been notified and the problem resolved (or paperwork put in their bin)?	Yes No <u>N/A</u>	SRF Completed by: <u>MD</u> PM = <u>N/A</u>
Was PEER REVIEW of sample numbering/labeling completed?	<u>Yes</u> No N/A	Peer Reviewed by: <u>HLG</u> N/A
Additional notes (if applicable):		

*Note to Client: Any "no" circled above indicates non-compliance with standard procedures and may impact data quality.*





June 20, 2013

Analytical Report for Service Request No: K1305397

Julie Shumway  
SGS Environmental Services, Inc.  
200 West Potter Drive  
Anchorage, AK 99518

**RE: 1132110**

Dear Julie:

Enclosed are the results of the samples submitted to our laboratory on June 06, 2013. For your reference, these analyses have been assigned our service request number K1305397.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3364. You may also contact me via Email at [Howard.Holmes@alsglobal.com](mailto:Howard.Holmes@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Howard Holmes  
Project Manager

HH/mj

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## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

### **Inorganic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

### **Metals Data Qualifiers**

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.  
  
i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Organic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Additional Petroleum Hydrocarbon Specific Qualifiers**

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**Columbia Analytical Services, Inc. dba ALS Environmental (ALS) - Kelso  
State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Web Site</b>	<b>Number</b>
Alaska DEC UST	<a href="http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx">http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2286
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L12-28
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Georgia DNR	<a href="http://www.gaepd.org/Documents/techguide_pcb.html#cel">http://www.gaepd.org/Documents/techguide_pcb.html#cel</a>	881
Hawaii DOH	Not available	-
Idaho DHW	<a href="http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx">http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx</a>	-
Indiana DOH	<a href="http://www.in.gov/isdh/24859.htm">http://www.in.gov/isdh/24859.htm</a>	C-WA-01
ISO 17025	<a href="http://www.pjlabs.com/">http://www.pjlabs.com/</a>	L12-27
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx">http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx</a>	3016
Louisiana DHH	Not available	LA110003
Maine DHS	Not available	WA0035
Michigan DEQ	<a href="http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html">http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html</a>	9949
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-368
Montana DPHHS	<a href="http://www.dphhs.mt.gov/publichealth/">http://www.dphhs.mt.gov/publichealth/</a>	CERT0047
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/labservice.htm">http://ndep.nv.gov/bsdw/labservice.htm</a>	WA35
New Jersey DEP	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	WA005
New Mexico ED	<a href="http://www.nmenv.state.nm.us/dwb/Index.htm">http://www.nmenv.state.nm.us/dwb/Index.htm</a>	-
North Carolina DWQ	<a href="http://www.dwqlab.org/">http://www.dwqlab.org/</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA200001
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/envserv/">http://www.scdhec.gov/environment/envserv/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	4704427-08-TX
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C1203
Wisconsin DNR	<a href="http://dnr.wi.gov/">http://dnr.wi.gov/</a>	998386840
Wyoming (EPA Region 8)	<a href="http://www.epa.gov/region8/water/dwhome/wyomingdi.html">http://www.epa.gov/region8/water/dwhome/wyomingdi.html</a>	-
Kelso Laboratory Website	<a href="http://www.caslab.com">www.caslab.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.caslab.com](http://www.caslab.com) or at the accreditation bodies web site  
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

## ALS ENVIRONMENTAL

**Client:** SGS Environmental, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request No.:** K1305397  
**Date Received:** 06/06/13

### Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Matrix/Duplicate Matrix Spike (MS/DMS), and Laboratory Control Sample (LCS).

### Sample Receipt

Twelve soil samples were received for analysis at ALS Environmental on 06/06/13. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

### Organotin Compounds

#### **Matrix Spike Recovery Exceptions:**

The matrix spike recovery of Tri-n-butyltin for sample batch QC was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicated the analytical batch was in control. No further corrective action was appropriate.

No other anomalies associated with the analysis of these samples were observed.

Approved by \_\_\_\_\_



K1305347



SGS North America Inc.  
CHAIN OF CUSTODY RECORD

Locations Nationwide

- Alaska
- New Jersey
- North Carolina
- West Virginia
- Maryland
- New York
- Indiana
- Kentucky

www.us.sgs.com

1 CLIENT: SGS - AK					SGS Reference: ALS Kelso					Page <u>1</u> of <u>2</u>			
CONTACT: Julie Shumway PHONE NO: (907) 562-2343					Additional Comments:								
PROJECT NAME: 1132110 PROJECT/ PWSID/ PERMIT#:					# C O N T A I N E R S	3 Preservative Used: None							
REPORTS TO: Julie Shumway E-MAIL: Julie.Shumway@sgs.com						TYPE: C = COMP G = GRAB Multi Incremental Soils							
INVOICE TO: QUOTE #: 1132110 P.O. #:						TBT Krone 1989							
2 RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX								REMARKS	
	SMIC-K (0)	05/30/13	1029	S	1	GRAB	x					1132110001	
	SMIC-K (1.5)	05/30/13	1037	S	1	GRAB	x					1132110002	
	SMIC-L (0)	05/30/13	1544	S	1	GRAB	x					1132110005	
	SMIC-L (1.5)	05/30/13	1552	S	1	GRAB	x					1132110006	
	SMIC-O (0)	05/31/13	844	S	1	GRAB	x					1132110009	
	SMIC-O (0) D	05/31/13	847	S	1	GRAB	x					1132110010	
	SMIC-O (1.5)	05/31/13	855	S	1	GRAB	x					1132110011	
	SMIC-M (0)	05/31/13	1323	S	1	GRAB	x					1132110014	
	SMIC-M (1.5)	05/31/13	1329	S	1	GRAB	x					1132110015	
	SMIC-M (1.5) D	05/31/13	1331	S	1	GRAB	x					1132110018	
5 Relinquished By: (1) <i>Justin Taylor</i>		Date: 06/07/13	Time: 1007	Received By: <i>DAVID ALSKEISO</i>		4 DOD Project? YES <input type="radio"/> NO <input checked="" type="radio"/>			Data Deliverable Requirements: Level II report + csv Excel EDD				
Relinquished By: (2)		Date:	Time:	Received By:		Requested Turnaround Time and-or Special Instructions:							
Relinquished By: (3)		Date:	Time:	Received By:		Temp Blank °C: _____			Chain of Custody Seal: (Circle)				
Relinquished By: (4)		Date:	Time:	Received For Laboratory By:		or Ambient [ ]			INTACT BROKEN ABSENT				
(See attached Sample Receipt Form)						(See attached Sample Receipt Form)							

[ ] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301  
 [ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

<http://www.sgs.com/terms and conditions.htm>



SGS North America Inc.  
CHAIN OF CUSTODY RECORD

K130 5397

Locations Nationwide

Alaska Maryland  
New Jersey New York  
North Carolina Indiana  
West Virginia Kentucky  
[www.us.sgs.com](http://www.us.sgs.com)

1 CLIENT: SGS - AK					SGS Reference: ALS Kelso										Page 2 of 2			
CONTACT: Julie Shumway PHONE NO: (907) 562-2343					Additional Comments:													
PROJECT NAME: 1132110 PROJECT/PWSID/PERMIT#:					# 3 Preservative Used: None TYPE C = COMP G = GRAB Multi Incremental Soils TBT Krone 1989													
REPORTS TO: Julie Shumway E-MAIL: Julie.Shumway@sgs.com																		
INVOICE TO: QUOTE #: 1132110 P.O. #:																		
2 RESERVED for lab use	SAMPLE IDENTIFICATION				DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX	#	TYPE	MS	MSD	SGS lab #	Loc ID	REMARKS				
	SMIC-N (0)				05/31/13	1049	S	1	GRAB	x		1132110019						
	SMIC-N (1.5)				05/31/13	1056	S	1	GRAB	x		1132110020						
5 Relinquished By: (1) <i>Just Taylor</i>					Date 06/07/13	Time 1007	Received By: <i>S. Davis/ALS-Kelso</i>	4 DOD Project? YES <input type="radio"/> NO <input checked="" type="radio"/>					Data Deliverable Requirements: Level II report + csv Excel EDD					
Relinquished By: (2)					Date	Time	Received By:	Requested Turnaround Time and-or Special Instructions:										
Relinquished By: (3)					Date	Time	Received By:	Temp Blank °C: _____				Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT						
Relinquished By: (4)					Date	Time	Received For Laboratory By:	(See attached Sample Receipt Form)				(See attached Sample Receipt Form)						

[ ] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301  
 [ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

<http://www.sgs.com/terms and conditions.htm>



PC #2

### Cooler Receipt and Preservation Form

Client / Project: SGS Service Request K13 05397  
 Received: June 10, 2013 Opened: June 14, 2013 By: SD Unloaded: June 10, 2013 By: SD

1. Samples were received via? Mail Fed Ex UPS DHL PDX Courier Hand Delivered  
 2. Samples were received in: (circle) Cooler Box Envelope Other NA  
 3. Were custody seals on coolers? NA Y N If yes, how many and where? 2 = 1 ea. side  
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
7.3	7.3	5.9	5.9	0	307	NA	12A9619W015793222		

4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves Alg. peanuts  
 5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N  
 6. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N  
 7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N  
 8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N  
 9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N  
 10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? *Indicate in the table below.* NA Y N  
 11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N  
 12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: Gel packs were thawed



Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397

**Total Solids**

**Prep Method:** NONE  
**Analysis Method:** 160.3M  
**Test Notes:**

**Units:** PERCENT  
**Basis:** Wet

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
SMIC-K (0)	K1305397-001	05/30/2013	06/06/2013	06/13/2013	96.1	
SMIC-K (1.5)	K1305397-002	05/30/2013	06/06/2013	06/13/2013	97.5	
SMIC-L (0)	K1305397-003	05/30/2013	06/06/2013	06/13/2013	95.4	
SMIC-L (1.5)	K1305397-004	05/30/2013	06/06/2013	06/13/2013	97.7	
SMIC-O (0)	K1305397-005	05/31/2013	06/06/2013	06/13/2013	96.8	
SMIC-O (0) D	K1305397-006	05/31/2013	06/06/2013	06/13/2013	97.3	
SMIC-O (1.5)	K1305397-007	05/31/2013	06/06/2013	06/13/2013	97.2	
SMIC-M (0)	K1305397-008	05/31/2013	06/06/2013	06/13/2013	97.6	
SMIC-M (1.5)	K1305397-009	05/31/2013	06/06/2013	06/13/2013	98.2	
SMIC-M (1.5) D	K1305397-010	05/31/2013	06/06/2013	06/13/2013	98.2	
SMIC-N (0)	K1305397-011	05/31/2013	06/06/2013	06/13/2013	97.2	
SMIC-N (1.5)	K1305397-012	05/31/2013	06/06/2013	06/13/2013	97.1	

QA/QC Report

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/30/2013  
**Date Received:** 06/06/2013  
**Date Analyzed:** 06/13/2013

**Duplicate Sample Summary**  
**Total Solids**

**Prep Method:** NONE  
**Analysis Method:** 160.3M  
**Test Notes:**

**Units:** PERCENT  
**Basis:** Wet

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
SMIC-K (0)	K1305397-001	96.1	96.4	96.3	<1	

QA/QC Report

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/31/2013  
**Date Received:** 06/06/2013  
**Date Analyzed:** 06/13/2013

**Duplicate Sample Summary**  
**Total Solids**

**Prep Method:** NONE  
**Analysis Method:** 160.3M  
**Test Notes:**

**Units:** PERCENT  
**Basis:** Wet

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
SMIC-N (0)	K1305397-011	97.2	97.3	97.3	<1	

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/30/2013  
**Date Received:** 06/06/2013

Butyltins (as cation)

**Sample Name:** SMIC-K (0)  
**Lab Code:** K1305397-001  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.1	1	06/13/13	06/19/13	KWG1305915	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	86	10-120	06/19/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/30/2013  
**Date Received:** 06/06/2013

Butyltins (as cation)

**Sample Name:** SMIC-K (1.5)  
**Lab Code:** K1305397-002  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.1	1	06/13/13	06/19/13	KWG1305915	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	85	10-120	06/19/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/30/2013  
**Date Received:** 06/06/2013

Butyltins (as cation)

**Sample Name:** SMIC-L (0)  
**Lab Code:** K1305397-003  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	1.4		1.1	1	06/13/13	06/19/13	KWG1305915	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	85	10-120	06/19/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/30/2013  
**Date Received:** 06/06/2013

Butyltins (as cation)

**Sample Name:** SMIC-L (1.5)  
**Lab Code:** K1305397-004  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.1	1	06/13/13	06/19/13	KWG1305915	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	57	10-120	06/19/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/31/2013  
**Date Received:** 06/06/2013

Butyltins (as cation)

**Sample Name:** SMIC-O (0)  
**Lab Code:** K1305397-005  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.1	1	06/13/13	06/19/13	KWG1305915	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	69	10-120	06/19/13	Acceptable

**Comments:** \_\_\_\_\_



Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/31/2013  
**Date Received:** 06/06/2013

Butyltins (as cation)

**Sample Name:** SMIC-O (0) D  
**Lab Code:** K1305397-006  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.1	1	06/13/13	06/19/13	KWG1305915	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	75	10-120	06/19/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/31/2013  
**Date Received:** 06/06/2013

Butyltins (as cation)

**Sample Name:** SMIC-O (1.5)  
**Lab Code:** K1305397-007  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.1	1	06/13/13	06/19/13	KWG1305915	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	60	10-120	06/19/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/31/2013  
**Date Received:** 06/06/2013

Butyltins (as cation)

**Sample Name:** SMIC-M (0)  
**Lab Code:** K1305397-008  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	3.3		1.1	1	06/13/13	06/19/13	KWG1305915	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	78	10-120	06/19/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/31/2013  
**Date Received:** 06/06/2013

Butyltins (as cation)

**Sample Name:** SMIC-M (1.5)  
**Lab Code:** K1305397-009  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.1	1	06/13/13	06/19/13	KWG1305915	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	72	10-120	06/19/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/31/2013  
**Date Received:** 06/06/2013

Butyltins (as cation)

**Sample Name:** SMIC-M (1.5) D  
**Lab Code:** K1305397-010  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.1	1	06/13/13	06/19/13	KWG1305915	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	69	10-120	06/19/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/31/2013  
**Date Received:** 06/06/2013

Butyltins (as cation)

**Sample Name:** SMIC-N (0)  
**Lab Code:** K1305397-011  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.1	1	06/13/13	06/19/13	KWG1305915	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	66	10-120	06/19/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** 05/31/2013  
**Date Received:** 06/06/2013

Butyltins (as cation)

**Sample Name:** SMIC-N (1.5)  
**Lab Code:** K1305397-012  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	1.1	1	06/13/13	06/19/13	KWG1305915	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	71	10-120	06/19/13	Acceptable

**Comments:** \_\_\_\_\_

Analytical Results

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Collected:** NA  
**Date Received:** NA

**Butyltins (as cation)**

**Sample Name:** Method Blank  
**Lab Code:** KWG1305915-4  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tri-n-butyltin Cation	ND	U	0.98	1	06/13/13	06/19/13	KWG1305915	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tri-n-propyltin	89	10-120	06/19/13	Acceptable

**Comments:** \_\_\_\_\_



**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397

**Surrogate Recovery Summary**  
**Butyltins (as cation)**

**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** Percent  
**Level:** Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
SMIC-K (0)	K1305397-001	86
SMIC-K (1.5)	K1305397-002	85
SMIC-L (0)	K1305397-003	85
SMIC-L (1.5)	K1305397-004	57
SMIC-O (0)	K1305397-005	69
SMIC-O (0) D	K1305397-006	75
SMIC-O (1.5)	K1305397-007	60
SMIC-M (0)	K1305397-008	78
SMIC-M (1.5)	K1305397-009	72
SMIC-M (1.5) D	K1305397-010	69
SMIC-N (0)	K1305397-011	66
SMIC-N (1.5)	K1305397-012	71
Batch QC	K1305491-001	66
Method Blank	KWG1305915-4	89
Batch QCMS	KWG1305915-1	69
Batch QCDMS	KWG1305915-2	69
Lab Control Sample	KWG1305915-3	84

**Surrogate Recovery Control Limits (%)**

---

Sur1 = Tri-n-propyltin 10-120

---

Results flagged with an asterisk (\*) indicate values outside control criteria.  
 Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Extracted:** 06/13/2013  
**Date Analyzed:** 06/19/2013

**Matrix Spike/Duplicate Matrix Spike Summary**  
**Butyltins (as cation)**

**Sample Name:** Batch QC  
**Lab Code:** K1305491-001  
**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low  
**Extraction Lot:** KWG1305915

Analyte Name	Sample Result	Batch QCMS KWG1305915-1 Matrix Spike			Batch QCDMS KWG1305915-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Spike Amount	%Rec	Result	Spike Amount	%Rec			
Tri-n-butyltin Cation	12	13.6	29.7	6 *	13.1	29.6	4 *	10-115	4	40

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

**Client:** SGS Environmental Services, Inc.  
**Project:** 1132110  
**Sample Matrix:** Soil

**Service Request:** K1305397  
**Date Extracted:** 06/13/2013  
**Date Analyzed:** 06/19/2013

**Lab Control Spike Summary**  
**Butyltins (as cation)**

**Extraction Method:** Method  
**Analysis Method:** Krone

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low  
**Extraction Lot:** KWG1305915

Lab Control Sample  
 KWG1305915-3  
**Lab Control Spike**

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
Tri-n-butyltin Cation	11.4	22.2	51	10-122

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

# Laboratory Data Review Checklist

Completed by:	Kristi McLean		
Title:	Environmental Specialist	Date:	24 July 2013
CS Report Name:	SMIC Improvements 1770.01	Report Date:	27 June 2013
Consultant Firm:	R&M Consultants, Inc.		
Laboratory Name:	SGS North America, Inc.	Laboratory Report Number:	1132110
ADEC File Number:	NA	ADEC RecKey Number:	NA

## 1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

Yes     No     NA (Please explain.)    Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

Yes     No     NA (Please explain)    Comments:

Columbia Analytical Services, Inc. dba ALS Environmental is certified by the State of Alaska

## 2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

Yes     No     NA (Please explain)    Comments:

b. Correct analyses requested?

Yes     No     NA (Please explain)    Comments:

## 3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt ( $4^{\circ} \pm 2^{\circ}$  C)?

Yes     No     NA (Please explain)    Comments:

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

Yes       No       NA (Please explain)      Comments:

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

Yes       No       NA (Please explain)      Comments:

All samples were received in good condition

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

Yes       No       NA (Please explain)      Comments:

No discrepancies were documented.

e. Data quality or usability affected? (Please explain)

Comments:

NA

#### 4. Case Narrative

a. Present and understandable?

Yes       No       NA (Please explain)      Comments:

b. Discrepancies, errors or QC failures identified by the lab?

Yes       No       NA (Please explain)      Comments:

c. Were all corrective actions documented?

Yes       No       NA (Please explain)      Comments:

No corrective actions were identified.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

NA

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

Yes     No     NA (Please explain)

Comments:

b. All applicable holding times met?

Yes     No     NA (Please explain)

Comments:

c. All soils reported on a dry weight basis?

Yes     No     NA (Please explain)

Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

Yes     No     NA (Please explain)

Comments:

e. Data quality or usability affected? (Please explain)

Comments:

Sample handling and results did not result in an issue that would have affected data quality or usability.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

Yes     No     NA (Please explain)

Comments:

ii. All method blank results less than PQL?

Yes     No     NA (Please explain)

Comments:

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes     No     NA (Please explain)    Comments:

No samples were affected

v. Data quality or usability affected? (Please explain)    Comments:

No samples were affected; data quality and usability was not compromised.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

Yes     No     NA (Please explain)    Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes     No     NA (Please explain)    Comments:

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes     No     NA (Please explain)    Comments:

LCS recovery for n-Triacontane is outside of QC criteria in one sample.

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes     No     NA (Please explain)    Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

No samples were affected.

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

Yes     No     NA (Please explain)    Comments:

The samples were not affected and therefore not flagged.

vii. Data quality or usability affected? (Please explain)    Comments:

QC criteria was biased high and the identified analytes were not detected in the associated samples.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

Yes     No     NA (Please explain)    Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

Yes     No     NA (Please explain)    Comments:

Percent recoveries fell outside laboratory limits for 7 samples; QC was biased high and the identified analytes were not detected in the associated samples, therefore the data was not flagged.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

Yes     No     NA (Please explain)    Comments:

No samples with failed surrogate recoveries were flagged.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

QC criteria was biased high and the identified analytes were not detected in the associated samples.

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

Yes     No     NA (Please explain.)    Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

Yes     No     NA (Please explain.)    Comments:



iii. All results less than PQL?

Yes     No     NA (Please explain.)

Comments:

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

NA

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

Yes     No     NA (Please explain.)

Comments:

ii. Submitted blind to lab?

Yes     No     NA (Please explain.)

Comments:

iii. Precision - All relative percent differences (RPD) less than specified DQOs?  
(Recommended: 30% water, 50% soil)

$$RPD (\%) = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where  $R_1$  = Sample Concentration

$R_2$  = Field Duplicate Concentration

Yes     No     NA (Please explain.)

Comments:

The RPD for sample SMIC-M(1.5) was 200% for DRO and 140% for RRO. DRO was detected in the sample but not the duplicate. All other RPDs were well below 20%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Yes     No     NA (Please explain.)

Comments:

There is often variability with grab soil samples.

f. Decontamination or Equipment Blank (if applicable)

Yes     No     NA (Please explain)

Comments:

No decontamination sample was submitted to the lab.

i. All results less than PQL?

Yes     No     NA (Please explain)

Comments:

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? (Please explain.)

Comments:

NA

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

Yes     No     NA (Please explain)

Comments:

No data flags/qualifiers were associated with the samples.

Reset Form

## **APPENDIX D**

### **2013 SAMPLING AND ANALYSIS PLAN**

Sampling and Analysis Plan For Dredge Sediment Characterization:  
Seward Marine Industrial Center Improvements, Seward, Alaska;  
Prepared by R&M Consultants, Inc., May 2013..... 11 Pages

**SAMPLING AND ANALYSIS PLAN**  
**for**  
**DREDGE SEDIMENT CHARACTERIZATION:**  
**SEWARD MARINE INDUSTRIAL CENTER IMPROVEMENTS**  
**SEWARD, ALASKA**



Prepared for:

City of Seward  
P.O. Box 167  
Seward, Alaska 99664

Prepared by:

R&M Consultants, Inc.  
9101 Vanguard Drive  
Anchorage, Alaska 99507

May 15, 2013

**SAMPLING AND ANALYSIS PLAN**  
**for**  
**DREDGE SEDIMENT CHARACTERIZATION:**  
**SEWARD MARINE INDUSTRIAL CENTER IMPROVEMENTS**

**SEWARD, ALASKA**

**BACKGROUND AND OBJECTIVES**

R&M Consultants, Inc. (R&M) has been retained by the City of Seward to design and permit improvements to the existing Seward Marine Industrial Center (SMIC). The existing SMIC is a fairly open industrial harbor on the east side of Resurrection Bay (Figures 1 and 2); it was constructed in the early 1980's, and has been in operation since. The Seward Ships Drydock Inc. (SSDI) is a lessor at SMIC who offers upland storage and maintenance/repair areas for vessels and a 5,000-ton Syncrolift vessel haul out facility. The SMIC also hosts Polar Seafoods (a seafood processor) and the City's 250-ton marine Travelift. The North Dock, which is a sheetpile cargo dock, has a fuel header (owned/operated by Shoreside Petroleum, Inc.) that is connected via subsurface 6-inch diameter pipeline to an aboveground fuel storage tank (AST), located on the north side of Morris Avenue just east of the intersection of Nash Road and Morris Avenue (Figure 2). The header and pipeline were reportedly constructed in the early 1980's along with the rest of the SMIC. They have been used intermittently since construction.

The existing SMIC basin has an approximate depth of -20 feet to -24 feet mean lower low water (MLLW). Proposed SMIC improvements generally include partially enclosing the harbor with a new breakwater on the west side, extending both the existing North Dock and East Dock, significantly enlarging the harbor basin by excavating/dredging inland, and adding moorage floats, gangways, utilities, and associated amenities.

The purpose of this sampling and analysis plan is to set forth the dredge sediment characterization efforts that will be performed for this project, to inform both the permitting process and disposal considerations. Two disposal scenarios are being considered for this project, offshore disposal (offshore area to be determined) and upland disposal (location or locations to be determined), or a combination thereof. For offshore disposal, the U.S. Army Corps of Engineers (USACE) will have primary permitting authority, while for upland disposal options the Alaska Department of Environmental Conservation (ADEC) would be chiefly involved. For the actual permitting of the dredging and other SMIC improvements, the USACE will have primary permitting authority, while the ADEC will provide Section 401 water quality certification.

**SITE CONDITIONS AND "REASON TO BELIEVE ANALYSIS"**

**Geology and Subsurface Conditions**

The site is located on the fan-delta of Fourth of July Creek. Fan-deltas are complex deposits consisting of sand, gravel and cobbles with minor amounts of fines. The deposits grade to finer sand and silt farther from shore. The density of the material is typically loose to medium dense. Fan-deltas are produced by rapid deposition of material on a steep slope at the angle-of-repose. The angle-of-repose is by definition at the limiting natural angle of gravitational stability. The following references comprise existing subsurface information available for the SMIC site. The boreholes from these references confirm that the deposits at the site generally consist of poorly graded gravel

with sand interlayered with silty sand and silty gravel. Scattered thin layers of silt containing organic material were noted on some borehole logs.

H4M Corporation, “Preliminary Report Soils Exploration, Fourth of July Creek, Seward, Alaska”, August 17, 1981. This investigation included drilling 11 test borings to depths ranging from 22 to 90 feet. The locations of the borings were not included in the available copies of the report. Most of the borings appear to have been drilled onshore, or in shallow water. The maximum water depth on any of the logs was 10 feet.

Tetrattech Limited, “Report of Geotechnical Investigations, Fourth of July Creek Marine Industrial Park, Seward, Alaska”, October 4, 1985. This investigation was performed to evaluate the stability of the cellular breakwater constructed in 1982. The report includes the logs of six borings by Quadra Engineering, Inc. from 1981, four borings by Golder and Associates from 1983, and five borings by Tetrattech LTD from 1984. All of the these borings appear to have been drilled within the existing cellular breakwater, however, no drawing showing the borehole locations was included in the report.

Peratrovich, Nottingham & Drage, Inc., “Seward Marine Industrial Center, North Dock Geotechnical Study” November, 1987. This investigation included two test pits on the beach, and five test borings in upland areas, all in the vicinity of the “North Dock”. The drilling method was not described in the report, however the logs indicate that “heaving sand” caused problems with sampling below the water table.

## **Proximity to Potential Pollutant Sources**

### *ADEC Contaminated Sites*

Two sites listed in the ADEC contaminated sites database exist within 0.5-miles of the SMIC, and both are on the 165+ acre SMIC property. They are described below.

- During removal of a 1,000-gallon diesel underground storage tank in 1998, minor amounts of petroleum-based soil contamination were encountered, but at levels far below ADEC cleanup levels. A UST Assessment report was prepared in 2000, and ADEC closed the site without institutional controls in 2002.
- SSDI is an active boat refurbishing facility that has operated at the SMIC since 1985, offering services including sandblasting and painting of commercial ships. In 2007, Ecology and Environment, Incorporated, performed a site inspection at the SSDI facility, under contract to the United States Environmental Protection Agency (EPA). A total of 19 soil samples were collected at the SSDI facility in locations ranging from surface soils across the site to within the transfer pit (Figure 2) and from stockpiles of sandblast media. Diesel range organics (DRO), tributyltin (TBT), arsenic, copper, benzo[a]pyrene, polychlorinated biphenyls (PCB), nickel, benzo[b]fluoranthene, dibenzo[a,h]anthracene, barium, chromium and thallium were detected above the ADEC soil cleanup levels, and were evaluated as contaminants of potential concern. Following the site inspection, soils visibly impacted by spent sandblast media, and stockpiles of spent sandblast media, were removed from the site and disposed of at the Kenai Peninsula Borough landfill near Soldotna, Alaska. In 2009, soil sampling was performed at twelve areas across the SSDI site (at depths of 1.5 to 2.5 feet) to characterize any petroleum hydrocarbon contamination (DRO, gasoline range organics or

GRO, and residual range organics or RRO, and benzene, toluene, ethylbenzene, and xylenes or BTEX); none was detected.

In summary, during the investigations at this site soil samples were analyzed for contaminants of potential concern with the following laboratory analyses; DRO, GRO, RRO, volatile organic compounds (VOC) including BTEX, polycyclic aromatic hydrocarbons (PAH), semivolatile organic compounds (SVOC), metals, PCB, and TBT; these analyses identified the contaminants of potential concern mentioned previously. Based on this data and the subsequent cleanup actions at the site (hauling away affected materials), ADEC issued a Cleanup Complete letter in March of 2013.

#### *Other Environmental Considerations*

Shoreside Petroleum, Inc. owns and operates an 8-inch diameter fuel header with three risers at the North Dock. The header is connected to the AST via an approximately 1,200-foot long, 6-inch diameter, buried fuel pipeline. Based on a search of the ADEC SPILLS and contaminated sites databases, there are no known leaks or spills associated with either the AST or the pipeline or header. This system is reportedly used only intermittently, as needed to supplement Shoreside Petroleum's main operation in the City of Seward.

#### **Reason to Believe**

Based on available information, none of the environmental conditions noted above are expected to have directly impacted offshore sediments and upland soils targeted for dredging and excavation as part of the SMIC Improvements project. However, given their proximity and the industrial character of the area, there is sufficient "reason to believe" that contaminants may be present in the discharge material to warrant sampling and chemical testing.

PCB were detected only in one general location in 2007, among debris in the bottom of the "transfer pit" (Figure 2). Given the subsurface, contained nature of the pit and the lack of any detected PCB in other 2007 surface soil samples near the transfer pit, there is no reason to believe that PCB are a contaminant of concern for this project, which involves excavation/dredging in areas significantly removed from the transfer pit.

Petroleum constituents (DRO, GRO, RRO), VOC's, and SVOC's have been detected in prior investigations (E&E, 2007), but at discrete locations in upland work areas of the SSDI facility. The absence of any spill history and lack of sources (except the buried fuel pipeline and North Dock header) indicates a low likelihood that these contaminants are widespread across upland or offshore areas. However, the possibility of their presence cannot be ruled out with available information, so sampling for these constituents is included at a screening level in this sampling plan.

TBT and metals have the greatest potential for being carried (e.g. in sandblast grit) by wind and water at the SMIC, and so sampling for these constituents is included throughout the methodology outlined below.

The following sampling and analysis methods are proposed.

## SCOPE AND METHODS

### General Scope of Work

Environmental sampling and analysis will be conducted in conjunction with a geotechnical drilling and sampling program. A truck-mounted drill rig will be used to advance borings, both offshore (from a large landing craft) and onshore. In addition, a Petersen grab sampler (clamshell-style) will be used from the landing craft to gather seafloor surface sediments. General locations of proposed drilling and grab-sampling operations are depicted in Figure 2, and summarized below in Table 1. Missing letters in the sequence reflect the fact that other geotechnical-specific boreholes are also being drilled, but are not designated for environmental sampling.

**Table 1: Summary of Proposed Boreholes and Grab Samples**

PRELIMINARY BOREHOLE/GRAB ID	TYPE, PURPOSE	PLANNED TOTAL DEPTH (FEET)	ENVIRONMENTAL SAMPLES	GEOTECH SAMPLES
E	Drill, Full Dredge Prism Characterization	100	0-10 feet	15-100
F	Drill, Full Dredge Prism Characterization	100	0-10 feet	15-100
K	Drill, Full Dredge Prism Characterization	65	0-40 feet	45-65
L	Drill, Full Dredge Prism Characterization	65	0-40 feet	45-65
M	Drill, Full Dredge Prism Characterization	40	0-40 feet	NA
N	Drill, Full Dredge Prism Characterization	40	0-40 feet	NA
O	Drill, Full Dredge Prism Characterization	40	0-40 feet	NA
P	Grab, Seafloor Surface Characterization	1	0-1	NA
Q	Grab, Seafloor Surface Characterization	1	0-1	NA
R	Grab, Seafloor Surface Characterization	1	0-1	NA
S	Grab, Seafloor Surface Characterization	1	0-1	NA
T	Grab, Seafloor Surface Characterization	1	0-1	NA

Full-dredge prism boreholes have been located in uplands, where access is straightforward, and offshore in areas where contamination might be most likely (i.e. nearshore in heavily used areas). The combination of borehole and grab sampler methods is being used to control the extremely high cost of drilling from a large landing craft. Boring/grab locations may be adjusted in the field depending on site conditions.

The general work plan is as follows:

- The drillers will be prepared to drill with hollow stem augers, driven casing, or rotary wash methods as conditions warrant. Large split-spoon samplers (2.4" ID) will be used for collecting soils for environmental sampling in order to obtain sufficient sample volume for environmental testing. Sampling below the dredge prism will be performed by other geotechnical methods. This will be a 24-hour drilling operation while offshore.
- R&M's geologist will directly supervise all drilling and associated activities, and will maintain a field log for each boring; recording the drilling progress, soil sampling intervals and recovery, soil sampler penetration rates, soil and descriptions (following ASTM D 2488, and DOT&PF 2003), and interpretation of the geotechnical conditions between sampled intervals. After drilling, R&M's geologist will document the actual location of



each test hole, using a recreational GPS unit.

- R&M’s on-site environmental specialist (an ADEC-qualified person) will conduct or oversee all environmental sampling.

### Sampling and Analysis Methods

Seafloor surface sediment samples will be initially collected with a Petersen grab sampler at each offshore drill site. At upland locations, surface soil samples will be collected by hand from approximately 0 to 6 inches below grade, after the surface soil has been broken by the drill auger. For offshore and upland locations, split-spoon soil samples will generally be collected as close as possible (depending on wind/wave/tidal action) to 2.5 feet (1.5 feet in uplands) below the seafloor or ground surface, then at 5 feet below the seafloor or ground surface, then every 5 feet to the bottom of the dredge prism; a detailed sampling scheme is presented in Table 2. Soil samples from each boring will be screened for contaminants. In addition to physical screening methods of visual and olfactory observation to detect the presence/absence of petroleum contaminants, heated headspace field screening (using a photoionization detector, or PID) will be performed, but only on soil samples from upland borings that are not saturated. Field screening with a PID will be conducted by sealing soil within a zip-top bag, agitating it, and warming it to a minimum of five degrees Celsius prior to screening with a PID. Screening with the PID will be conducted at least 10 minutes, but no longer than one hour, after soil collection.

Analytical soil sample collection depths and proposed test methods are described below in Table 2. These apply to both offshore and upland boreholes and grab sample locations.

**Table 2: Analytical Soil Sample Collection and Testing**

BOREHOLE/GRAB LOCATIONS	DEPTH (FEET) BELOW GROUND SURFACE OR SEAFLOOR	ANALYSIS	TEST METHOD
E	S*,5,10 S*,5,10 S*,5,10 S*,5,10 S*,5,10	GRO/DRO/RRO VOC SVOC RCRA Metals TBT	AK101/AK102/AK103 EPA 8260B EPA 8270 EPA 6020 Krone 1989
F	S*,5,10 S*,5,10 S*,5,10 S*,5,10 S*,5	GRO/DRO/RRO VOC SVOC RCRA Metals TBT	AK101/AK102/AK103 EPA 8260B EPA 8270 EPA 6020 Krone 1989
K	S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5	GRO/DRO/RRO VOC SVOC RCRA Metals TBT	AK101/AK102/AK103 EPA 8260B EPA 8270 EPA 6020 Krone 1989
L	S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5	GRO/DRO/RRO VOC SVOC RCRA Metals TBT	AK101/AK102/AK103 EPA 8260B EPA 8270 EPA 6020 Krone 1989

M	S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5	GRO/DRO/RRO VOC SVOC RCRA Metals TBT	AK101/AK102/AK103 EPA 8260B EPA 8270 EPA 6020 Krone 1989
N	S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5	GRO/DRO/RRO VOC SVOC RCRA Metals TBT	AK101/AK102/AK103 EPA 8260B EPA 8270 EPA 6020 Krone 1989
O	S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5, 5-40** S*,1.5	GRO/DRO/RRO VOC SVOC RCRA Metals TBT	AK101/AK102/AK103 EPA 8260B EPA 8270 EPA 6020 Krone 1989
P	NA NA S* S* S*	GRO/DRO/RRO VOC SVOC RCRA Metals TBT	AK101/AK102/AK103 EPA 8260B EPA 8270 EPA 6020 Krone 1989
Q	NA NA S* S* S*	GRO/DRO/RRO VOC SVOC RCRA Metals TBT	AK101/AK102/AK103 EPA 8260B EPA 8270 EPA 6020 Krone 1989
R	NA NA S* S* S*	GRO/DRO/RRO VOC SVOC RCRA Metals TBT	AK101/AK102/AK103 EPA 8260B EPA 8270 EPA 6020 Krone 1989
S	S* S* S* S* S*	GRO/DRO/RRO VOC SVOC RCRA Metals TBT	AK101/AK102/AK103 EPA 8260B EPA 8270 EPA 6020 Krone 1989
T	NA NA NA S* S*	GRO/DRO/RRO VOC SVOC RCRA Metals TBT	AK101/AK102/AK103 EPA 8260B EPA 8270 EPA 6020 Krone 1989

\*S denotes surface sediment sample (0-1 feet)

\*\*Up to two additional analytical samples will be collected between 5 and 40 feet based on field screening (visual, olfactory, PID). If no indications of contamination are encountered, sample depths will be assigned to ensure a relatively even distribution of sample depths across the site. If groundwater table is encountered, then one of those samples will be collected from saturated soils just above the groundwater table.

Analytical soil samples will be collected immediately after opening the split-spoon sampler, in order of decreasing volatility, beginning with GRO and VOC, followed by DRO/RRO, SVOC, RCRA Metals, and TBT. Physical and field screening (described above) results will be used to identify which samples are to be submitted for laboratory analysis, in accordance with the scheme set forth in Table 2.

A dedicated stainless steel sample spoon and nitrile gloves will be used for each sample. Soil samples will be placed in new laboratory-grade glass jars, and sealed with teflon-lined (as appropriate) screw caps. Each analytical soil sample will be given a unique identifier with the site ID, location, and sample depth, namely SMIC-E (5'). All sample containers will be labeled immediately upon or prior to filling, and placed in a cooler on frozen gel packs along with a Chain-of-Custody form, which will identify the sample location, date, time, and collection personnel for all samples. Samples will be maintained at a temperature of two to six degrees Celsius by R&M until delivery to SGS Laboratories in Anchorage. Sample storage may occur as necessary, when sample shipping to the laboratory cannot be accomplished the same day. Samples will be delivered to the laboratory as rapidly as possible in order to comply with holding time requirements.

### **Decontamination**

Split-spoon samplers and stainless steel tubs (for handling larger Petersen grab samples) will be decontaminated in a 3-step process. First the item will be washed with sea water or fresh potable water to remove soil and residue, then washed with a 1% Alconox solution in seawater or potable water, then the item will be rinsed with seawater (offshore work) or deionized water (uplands work).

### **Investigation Derived Wastes**

Unused soil will be discarded over the side of the vessel or spread on uplands adjacent to each sampling site. Decontamination water will be discharged onsite. Solid waste will be bagged and placed in an appropriate dumpster or refuse container.

## **QUALITY CONTROL**

Duplicate samples will be collected at specific locations at the rate of one duplicate per 10 samples collected, and will be submitted for laboratory analysis in a manner identical to regular samples. Results of duplicate samples will be examined for variation in analytical results. The report will comment on the accuracy of the laboratory analyses. A completed ADEC Laboratory Data Review Checklist will accompany final analytical results submission to ADEC.

Chain-of-Custody documentation will accompany all laboratory samples throughout the analytical process.

A soil trip blank preserved in methanol will accompany each cooler, and will be analyzed in conjunction with all samples being analyzed for GRO and VOC.

## **SCHEDULE**

At the present time, field work is scheduled to begin the week May 20, 2013. It is anticipated that the total field program will be completed in approximately two weeks or less.

## **REPORTING**

A report will be prepared by an ADEC-qualified person documenting the work performed, photos of the work, laboratory data, and an ADEC laboratory data review checklist.

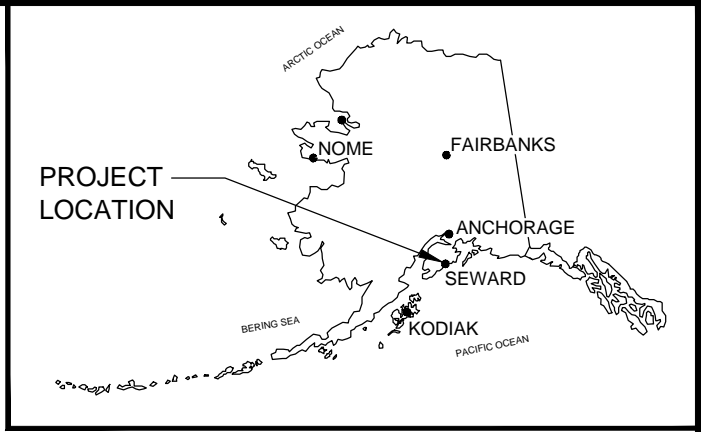
## **REFERENCES**

Alaska Department of Environmental Conservation, "18 AAC 75, Oil and Other Hazardous Substances Pollution Control," As Amended Through October 9, 2008.

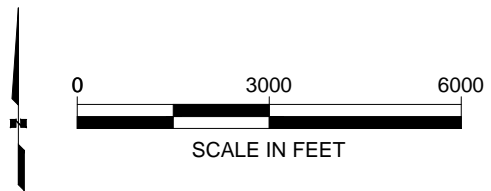
Alaska Department of Environmental Conservation, Division of Spill Prevention and Response, Contaminated Sires Program, "Draft Field Sampling Guidance," May, 2010.

Alaska Department of Environmental Conservation, Division of Spill Prevention and Response, Contaminated Sires Program, "ADEC Decision Document: Seward Ship's Drydock Cleanup Complete Determination", March 11, 2013.

Ecology and Environment, Inc. (E&E), "Seward Ship's Drydock Site Inspection, Seward, Alaska" September 2007.

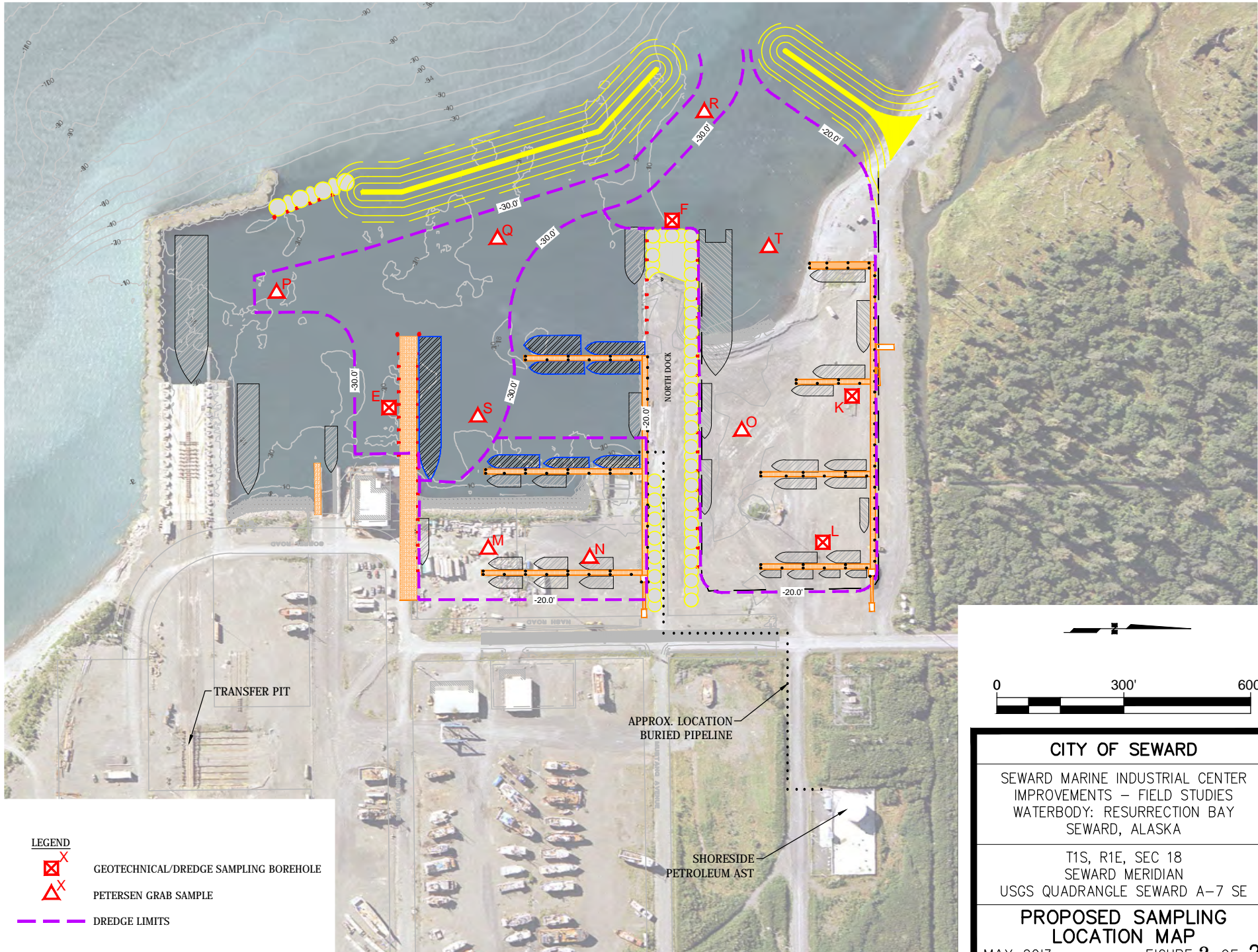





**PROJECT  
AREA**

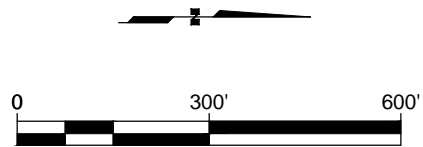


<b>CITY OF SEWARD</b>	
SEWARD MARINE INDUSTRIAL CENTER IMPROVEMENTS – FIELD STUDIES WATERBODY: RESURRECTION BAY SEWARD, ALASKA	
T1S, R1E, SEC 18 SEWARD MERIDIAN USGS QUADRANGLE SEWARD A-7 SE	
<b>LOCATION &amp; VICINITY MAP</b>	
APRIL 2013	FIGURE 1 OF 2





- LEGEND**
-  GEOTECHNICAL/DREDGE SAMPLING BOREHOLE
  -  PETERSEN GRAB SAMPLE
  -  DREDGE LIMITS



<b>CITY OF SEWARD</b>	
SEWARD MARINE INDUSTRIAL CENTER IMPROVEMENTS – FIELD STUDIES WATERBODY: RESURRECTION BAY SEWARD, ALASKA	
T1S, R1E, SEC 18 SEWARD MERIDIAN USGS QUADRANGLE SEWARD A-7 SE	
<b>PROPOSED SAMPLING LOCATION MAP</b>	
MAY 2013	FIGURE 2 OF 2