

**PHASE II ENVIRONMENTAL SITE ASSESSMENT  
(ASTM E1903-11)**

Project No. 12MS104.5

Kensington Heights  
1827 Fillmore Avenue  
Buffalo, New York

**SUBMITTED TO:**

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## 1. EXECUTIVE SUMMARY

MS Analytical, LLC (MSA), was contracted to complete a Phase II Environmental Site Assessment at 1827 Fillmore Avenue, City of Buffalo, Erie County, New York, the Site. The Site was historically used as a stone quarry and fill of unknown nature was brought to the Site to bring the former quarry areas, which covered the majority of the Site, to grade. The purpose of the assessment was to assess the nature of the on-site fill and to assess whether the Site qualifies to be entered into the New York State Brownfield Cleanup Program (BCP). Additional information relative to the work completed at the Site is provided below.

A total of 50 soil borings were completed on-site using a hydraulically driven rig (PowerProbe) until equipment refusal, likely due to bedrock and the fill material, was reached between 2 and 23 feet below grade (ftbg).

All of the field photoionization detector (PID) readings (indicators of volatile organic compounds) were above ambient air (0.0 ppm). The highest PID reading was 37.6 ppm at SB-43 (6-8' interval) located at the eastern portion of the Site. Slight suspect petroleum odors were noted at one soil boring, SB-21, completed on the eastern portion of the Site.

Twenty-one soil samples were selected for laboratory analysis consisting of volatile organic compounds (VOCs), semi-volatile organic compounds (S-VOCs), TAL Metals, poly-chlorinated biphenyls (PCBs), pesticides and/or herbicides.

Acetone, a VOC compound, exceeded the Unrestricted Use SCO in 12 of the soil samples collected from the Site. One or more SVOC compound concentrations exceeded Unrestricted Use SCOs in 11 of the soil samples collected from the Site. Several metals were detected at concentrations above Unrestricted Use SCOs in all but one soil sample. The VOC, S-VOC and metal impacted soil samples were collected from various locations and depths across the Site.

In conclusion, while determination of whether a Site can be accepted into the BCP, contaminant concentrations appear to be elevated above state guidance values. Thus the Site appears to meet this BCP criteria.

## 2. INTRODUCTION

### a. Purpose

The Site, 1827 Fillmore Avenue, City of Buffalo, Erie County, New York, was historically used as a stone quarry prior to redevelopment into multi-family housing. Fill of unknown nature was brought to the Site to bring the former quarry areas, which covered the majority of the Site and extended to adjacent properties, to grade. MS Analytical, LLC (MSA), was contracted by the Client to assess the nature of the on-site fill and to assess whether the Site qualifies to be entered into the New York State Brownfield Cleanup Program (BCP). Additional information relative to the work completed at the Site is provided below.

### b. Special Terms and Conditions

The scope of work for this project was approved by the Client on August 2, 2012.

### c. Limitations and Exceptions

The following limitations/exceptions should be noted.

- The intrusive study was limited to specific areas of the Site due to the presence of numerous buried utilities and known asbestos impacts throughout much of the Site.
- Equipment refusal, likely due to bedrock, was encountered at six of the 15 total boring locations. As such, desired depths could not be reached at these locations.

### d. Limiting Conditions and Methodologies Used

The study was completed using standard methodologies, as described below, and is generally consistent with ASTM E1903-11. Such would typically include collection of representative samples from various locations and/or at various depths. As with any study, it is possible that additional impact is present at locations not sampled in this study.

### 3. BACKGROUND

#### a. Site Description and Features

The Site is one parcel, measuring approximately 17.14 acres, addressed at 1827 Fillmore Avenue, City of Buffalo, Erie County, New York. The Site includes vacant residential high rise apartment buildings. There were historically six total residential structures on-site, one building has recently been demolished and the remaining buildings are proposed to be demolished in the future. Exterior portions of the Site were noted to include asphalt paved areas, grassy areas, overgrown vegetation and sidewalks.

#### b. Physical Setting

The Site is located between approximately 680 (northeastern portion of the Site) and 660 (southwestern portion of the Site) feet above mean sea level. Groundwater flow would be anticipated southwest, consistent with site topography. It should be noted that localized subsurface variations and man-made structures can modify flow directions, a site-specific study would be required to confirm groundwater flow direction. The topographic map is provided as Figure 1.

#### c. Site History and Land Use

MSA reviewed historic aerial photographs and Sanborn maps for historical information relative to the Site. According to these historical sources, the Site was utilized as a stone quarry from at least 1917 through at least 1927. Numerous disturbances from quarry activities appear on-site on the 1927 aerial photograph. Initially, the Site was developed into military housing. The Site appears to be level at grade and developed with the current six (now five due to recent demolition) apartment buildings by 1958.

#### d. Adjacent Property Uses

Direction	Current Use	Apparent Past Use	Comments/Concerns
North:	Kensington Expressway (Route 33) followed by commercial	Vacant and commercial	None
South:	Dr Lydia T Wright School, athletic fields	Quarry	Backfill used in quarry is unknown
East:	Erie County Medical Center and a school	Commercial	None
West:	Kensington Expressway (Route 33) and a machine shop	Vacant and quarry	Backfill used in quarry is unknown.

#### e. Summary of Previous Study

As indicated above, MSA reviewed historic aerial photographs and Sanborn maps for historical information relative to the Site. MSA is unaware of a previous Phase I completed in connection with the Site. The historical sources reviewed by MSA suggest that the Site was utilized as a stone quarry from at least 1917 through at least 1927.

Previous studies associated with an adjacent property, Dr. Lydia T. Wright School of Excellence, Campus East School #89, 106 Appenheimer Avenue, Buffalo, NY, were provided to MSA. The previous studies associated with the adjacent property include the following:

- Phase II Environmental Site Assessment, completed by Panamerican Environmental, Inc. (PEI) and URS Corporation (URS), dated June 2001.
- Soils Management Plan, completed by PEI and URS Corporation, dated March 2002.

It should be noted that the previous studies reference additional intrusive work completed by others at the adjacent property.

This adjacent property was historically utilized as a stone quarry of which the Site was a part. The previous studies suggest that the quarry operated from at least 1919 until the 1950s. Similar to the Site, fill was brought to the adjacent property to bring it to grade. Fill consisting of sand, gravel, clay, silt and miscellaneous building debris (brick, concrete, wood and glass) was encountered during the investigation. Ash was also encountered. Soil testing was completed at the adjacent property to assess the nature of the fill; PAH and metal concentrations were identified above NYSDEC guidance values. [It does not appear that these studies involved sampling/testing at the Site; however, it should be noted that the subsurface materials encountered at the adjacent property are similar to the materials encountered at the Site.]

#### 4. PHASE II ACTIVITIES

##### a. Scope of Assessment

This assessment included the following scope of work.

##### i. Site Conceptual Model and Sampling Plan

As previously indicated, the Site was historically used as a stone quarry. Fill of unknown nature was brought to the Site to bring the former quarry areas, which covered the majority of the Site and extended to adjacent properties, to grade. The purpose of this investigation was to assess the nature of the on-site fill.

A total of 50 soil borings were completed on-site using a hydraulically driven rig (PowerProbe) until equipment refusal, likely due to bedrock and the fill material, was reached between 2 and 23 feet below grade (ftbg). Sampling locations are depicted on the site map provided in the Appendix as Figure 2.

## ii. Chemical Testing/Laboratory Analysis Plan

Twenty-one soil samples were selected for laboratory analysis consisting of VOCs, S-VOCs, TAL Metals, PCBs, pesticides and/or herbicides via United States Environmental Protection Agency (USEPA) test methods 8260, 8270, 6010B/3050/7471A, 8082, 8081, 8151, respectively. The soil samples selected for laboratory analysis provided coverage across the Site and varied in depths. Soil samples selected for laboratory analysis were skewed to the ash, elevated PID readings and olfactory evidence of impact. See below for additional information relative to the samples and field observations.

## iii. Deviations from Work Plan

There were no significant deviations from the work plan prepared by MSA with exception to equipment refusal and limited boring placement on-site due to the presence of buried utilities and known asbestos impacts.

### b. Field Explorations and Methods

#### i. Test Borings

Fifty test borings (SB-1 through SB-50) were completed between August 7 and 13, 2012, by Russo Development, Inc. (Russo), using a hydraulically driven percussion soil sampler manufactured by PowerProbe. The borings were advanced in four foot intervals until equipment refusal was encountered between 2 and 23 ftbg. Upon completion, each boring was backfilled with soil cuttings and gravel.

Boring logs are included in Appendix A.

#### ii. Monitoring Well Installations

No monitoring wells were installed on-site as part of the work.

### c. Sampling and Chemical Analyses and Methods

#### i. Soil

Soil samples were characterized using visual and olfactory senses as well as screened using a photo-ionization detector (PID) during completion of each soil boring. The test borings utilized pre-cleaned/decontaminated macrocore samplers, equipped with a new plastic inner liner, advanced by the PowerProbe rig. The four foot liner was removed from the macrocore and opened with a utility knife followed by placing the soil in sample bags (prior to being screened). The soil characterization and PID information were recorded on the boring logs, which are included in Appendix A.

Soil samples selected for laboratory analysis were placed into the appropriate laboratory-supplied sample containers. The containers were sealed and labeled with the project name, sample location identifier, date and technician initials. The sample was then placed into an iced cooler for storage prior to delivery to Chemtech, a MBE certified laboratory in Mountainside, New Jersey; Chemtech is included in the National Environmental Laboratory Accreditation Program (NELAP).

A standard chain-of-custody form was completed to document the samples submitted to the laboratory; such identified the sample, location identification, date/time collected and analyses to be completed. The form was then signed by the sampling technician when the samples were relinquished to the laboratory.

MSA selected 21 soil samples for laboratory analysis. The rationale for the samples and testing completed are presented below.

Sample ID	PID Reading (ppm) <sup>1</sup>	Reason Sample Selected for Analysis	Analyses Completed
SB-2 (4-8')	0.4	Subsurface fill conditions across the Site.	VOCs, S-VOCs, Metals, PCBs, Pesticides, Herbicides
SB-5 (8-12')	1.0		VOCs, S-VOCs, Metals, PCBs, Pesticides, Herbicides
SB-9 (4-7')	17.6		S-VOCs and Metals
SB-10 (8-12')	2.4		VOCs, S-VOCs, Metals, PCBs, Pesticides, Herbicides
SB-11 (12-16')	1.1		S-VOCs and Metals
SB-15 (12-16')	2.1		VOCs, S-VOCs, Metals, PCBs, Pesticides, Herbicides
SB-18 (4-8')	17.0		S-VOCs and Metals
SB-19 (12-18')	2.7		VOCs, S-VOCs, Metals, PCBs, Pesticides, Herbicides
SB-21 (12-16')	3.9		S-VOCs and Metals
SB-21 (16-19')	3.5		VOCs, S-VOCs, Metals, PCBs, Pesticides, Herbicides
SB-22 (12-19')	3.0		S-VOCs and Metals
SB-27 (8-12')	1.9		VOCs, S-VOCs, Metals, PCBs, Pesticides, Herbicides
SB-37 (8-10')	2.2		S-VOCs and Metals
SB-39 (6-8')	16.2		VOCs, S-VOCs, Metals, PCBs, Pesticides, Herbicides
SB-41 (8-11')	1.8		S-VOCs and Metals
SB-42 (14-16')	2.5		VOCs, S-VOCs, Metals, PCBs, Pesticides, Herbicides
SB-43 (6-8')	37.6		S-VOCs and Metals
SB-43 (10-12')	1.5		VOCs, S-VOCs, Metals, PCBs, Pesticides, Herbicides
SB-43 (16-20')	1.6		S-VOCs and Metals
SB-45 (10-12')	1.2		VOCs, S-VOCs, Metals, PCBs, Pesticides, Herbicides
SB-46 (12-16')	1.4		S-VOCs and Metals

Analytical results associated with the above samples are discussed below.

ii. Groundwater

Groundwater sampling was not part of the scope of work and apparent groundwater was only encountered at five boring locations.

<sup>1</sup> ppm = parts per million

## 5. EVALUATION AND PRESENTATION OF RESULTS

The results of this Phase II study are summarized as follows.

### a. Subsurface Conditions

Details of the subsurface soil conditions are described within the boring logs included in Appendix A. Generally, all of the borings encountered fill material consisting of clay, sand and gravel was encountered at all soil boring locations. Ash material was also encountered sporadically across the Site.

During drilling, groundwater was encountered at five locations (SB-15, SB-27, SB-37, SB-43, and SB-44) at approximately between 14 and 18 ftbg.

Based on the boring refusal depth, the historic quarry appears to have been deeper near the center of the Site and becomes shallower toward the edges of the Site.

### b. Field Observations and Screening

All of the PID readings were above ambient air (0.0 ppm). The highest PID reading was 37.6 ppm at SB-43 (6-8' interval). While this reading is not considered excessive, based on the nature of the fill material (ash, etc.), significantly elevated PID readings were not expected.

Slight suspect petroleum odors were noted at one soil boring, SB-21 (12-16') and (16-19'), completed on the eastern portion of the Site.

Analytical results associated with samples selected for analysis are described below.

### c. Analytical Data

Tabulated soil analytical testing results are included in Tables 1A through 1G. The complete laboratory analytical data report is provided in Appendix B.

#### i. Soil

MSA utilized NYSDEC Unrestricted Use (6NYCRR 375-6 12/06) soil cleanup objectives (SCOs) for comparison of the soil samples selected for analysis on-site. Unrestricted Use SCOs are the most stringent SCOs, they were designed for use at BCP sites.

No PCBs, herbicides or pesticides were detected at concentrations above laboratory detection limits.

With the exception of acetone, the VOC concentrations were either below applicable SCOs or below laboratory detection limits. Acetone exceeded the Unrestricted Use SCO in 12 of the soil samples collected from the Site.

S-VOC compounds (2-methylphenol, benzo(a)anthracene, chrysene, naphthalene, phenol, etc.) were detected at concentrations above laboratory detection limits in the majority of the soil samples selected for laboratory analysis. One or more SVOC concentrations exceeded Unrestricted Use SCOs in 11 of the soil samples collected from the Site.

Metals (arsenic, barium, cadmium, lead, mercury, zinc, etc.) were detected above laboratory detection limits in all of the soil samples selected for laboratory analysis. All but one sample had

metal concentrations that exceed Unrestricted Use SCOs.

The S-VOC and metal impacted soil samples were collected from various locations and depths across the Site. There does not appear to be an obvious trend in the contaminant concentrations across the Site.

## ii. Groundwater

As indicated above, groundwater sampling was not part of the scope of work and apparent groundwater was encountered at five boring location.

## 6. DISCUSSION OF FINDINGS AND CONCLUSIONS

The results of the Phase II environmental site assessment are presented below.

### a. Recognized Environmental Conditions

Based on the analytical results and field observations, elevated concentrations (as compared to BCP guidance values) of S-VOCs and metals have been detected on-site. Such would be considered a recognized environmental condition.

### b. Affected Media

The impacted media appears to be the fill used as backfill on-site. However, this level of effort did not include groundwater sampling.

### c. Evaluation of Media Quality

S-VOCs and metals present in the fill on-site above BCP guidance values suggest that the Site may be eligible for the BCP.

### d. Other Concerns

See recommendations below.



## 7. RECOMMENDATIONS

This report should be provided to the NYSDEC as part of the BCP application.

## 8. SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

We trust that this report satisfies your current needs. Should you have any questions, please contact the undersigned at 716-649-9718.

MS Analytical

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## TABLES

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VOC Analytical Results Table 1

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12MS104 Kensington Heights 1827 Fillmore Avenue, Buffalo, New York

Sample ID	Unit of Measurement	Part 375 Unrestricted Use SCOs	SB-2(4-8)		SB-2(4-8)RE		SB-5(8-12)		SB-5(8-12)RE		SB-9(4-7)		SB-9(4-7)RE		SB-11(12-16)		SB-11(12-16)RE		SB-15(12-16)		SB-15(12-16)RE		SB-18(4-8)		SB-18(4-8)RE		SB-21(16-19)		SB-21(16-19)RE		SB-22(12-19)		SB-22(12-19)RE	
Sampling Date			8/7/2012		8/7/2012		8/7/2012		8/7/2012		8/7/2012		8/7/2012		8/7/2012		8/7/2012		8/8/2012		8/8/2012		8/8/2012		8/8/2012		8/9/2012		8/9/2012		8/9/2012		8/9/2012	
Matrix			SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
1,2,4-Trimethylbenzene	mg/Kg	3.6	0.00057	U	0.00057	U	0.00061	U	0.00061	U	0.0006	U	0.00059	U	0.00068	U	0.00067	U	0.00069	U	0.0007	U	0.0006	U	0.0006	U	0.003	J	0.00074	U	0.00056	U	0.00056	U
2-Butanone	mg/Kg	0.12	0.0036	U	0.0036	U	0.0038	U	0.0038	U	0.0037	U	0.0037	U	0.0042	U	0.0042	U	0.0043	U	0.0043	U	0.0037	U	0.0037	U	0.0700		0.0630		0.0035	U	0.0035	U
Acetone	mg/Kg	0.05	0.013	J	0.045	Q	0.035		0.045	Q	0.0036	U	0.049	Q	0.041		0.049	Q	0.02	J	0.053	Q	0.0036	U	0.045	Q	0.15		0.15	Q	0.074		0.045	Q
Carbon Disulfide	mg/Kg	NS	0.0012	U	0.0012	U	0.0013	U	0.0013	U	0.0013	U	0.0012	U	0.0014	U	0.0014	U	0.0015	U	0.0015	U	0.0013	U	0.0013	U	0.01		0.0046	J	0.0012	U	0.0012	U
Methylcyclohexane	mg/Kg	NS	0.0012	U	0.0012	U	0.0013	U	0.0013	U	0.0013	U	0.0012	U	0.0014	U	0.0014	U	0.0015	U	0.0015	U	0.0013	U	0.0013	U	0.0025	J	0.0016	U	0.0012	U	0.0012	U
Naphthalene	mg/Kg	12	0.00052	U	0.00052	UQ	0.00055	U	0.00055	UQ	0.00054	U	0.00053	UQ	0.00061	U	0.00061	UQ	0.044		0.0039	JQ	0.00054	U	0.003	JQ	0.019		0.0039	JQ	0.0005	U	0.0005	UQ
p-Isopropyltoluene	mg/Kg	NS	0.00033	U	0.00033	U	0.0013	J	0.00036	U	0.00035	U	0.00034	U	0.00039	U	0.00039	U	0.0004	U	0.0004	U	0.00035	U	0.00035	U	0.0032	J	0.00043	U	0.00032	U	0.00032	U
Toluene	mg/Kg	0.7	0.00074	U	0.00073	U	0.00079	U	0.00078	U	0.00076	U	0.00075	U	0.00087	U	0.00086	U	0.00088	U	0.00089	U	0.00077	U	0.00077	U	0.00094	U	0.00095	U	0.00071	U	0.00071	U

Total Concentration.0.0130.0450.03630.04500.0490.0410.0490.0640.056900.0480.25770.22150.0740.045

Notes:  
Only the analytes detected are shown in the table above. Refer to laboratory report for a complete list of analytes.  
=analyte detected above Part 375 Unrestricted Use SCOs.

NS = not specified.

Qualifiers

- U - The compound was not detected above laboratory detection limits.
- Q - indicates LCS control criteria did not meet requirements
- N - Presumptive Evidence of a Compound
- J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.  
The concentration given is an approximate value.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- \* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
- E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
- E (Inorganics) - The reported value is estimated because of the presence of interference.
- D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
- \* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
- NR - Not analyzed

VOC Analytical Results Table 2

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12MS104 Kensington Heights 1827 Fillmore Avenue, Buffalo, New York

Sample ID	Unit of Measurement	Part 375 Unrestricted Use SCOs	SB-37(8-10)		SB-37(8-10)RE		SB-39(6-8)		SB-39(6-8)RE		SB-41(8-11)		SB-41(8-11)RE		SB-43(6-8)		SB-43(6-8)RE		SB-43(10-12)		SB-43(10-12)RE		SB-43(16-20)		SB-43(16-20)RE		SB-46(12-16)		SB-46(12-16)RE	
Sampling Date			8/10/2012		8/10/2012		8/10/2012		8/10/2012		8/10/2012		8/10/2012		8/13/2012		8/13/2012		8/13/2012		8/13/2012		8/13/2012		8/13/2012		8/13/2012		8/13/2012	
Matrix			SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
1,2,4-Trimethylbenzene	mg/Kg	3.6	0.00071	U	0.00071	U	0.00054	U	0.00054	U	0.00062	U	0.00062	U	0.00054	U	0.00054	U	0.00061	U	0.0006	U	0.0007	U	0.0007	U	0.00069	U	0.00069	U
2-Butanone	mg/Kg	0.12	0.0044	U	0.0044	U	0.0033	U	0.0033	U	0.0038	U	0.0038	UQ	0.0034	U	0.0034	UQ	0.0038	U	0.0038	UQ	0.0044	U	0.0044	UQ	0.0043	U	0.0043	UQ
Acetone	mg/Kg	0.05	0.025	J	0.044	Q	0.066		0.035	Q	0.03	J	0.074	Q	0.037		0.045	Q	0.075		0.069	Q	0.097		0.056	Q	0.13		0.085	Q
Carbon Disulfide	mg/Kg	NS	0.0015	U	0.0015	U	0.0011	U	0.0011	U	0.0013	U	0.0013	U	0.0011	U	0.0011	U	0.0013	U	0.0013	U	0.0015	J	0.0015	U	0.0019	J	0.0015	U
Methylcyclohexane	mg/Kg	NS	0.0015	U	0.0015	U	0.0011	U	0.0011	U	0.0013	U	0.0013	U	0.0011	U	0.0011	U	0.0013	U	0.0013	U	0.0015	U	0.0015	U	0.0015	U	0.0015	U
Naphthalene	mg/Kg	12	0.00064	U	0.00064	UQ	0.00048	U	0.00048	UQ	0.00056	U	0.00055	UQ	0.00049	U	0.00049	UQ	0.00055	U	0.00054	UQ	0.00063	U	0.00063	UQ	0.00062	U	0.00062	UQ
p-Isopropytoluene	mg/Kg	NS	0.00041	U	0.00041	U	0.00031	U	0.00031	U	0.00036	U	0.00036	U	0.00031	U	0.00031	U	0.00035	U	0.00035	U	0.00041	U	0.00041	U	0.0004	U	0.0004	U
Toluene	mg/Kg	0.7	0.00091	U	0.00091	U	0.0026	J	0.00069	U	0.00079	U	0.00079	U	0.0019	J	0.00069	U	0.00078	U	0.00077	U	0.0009	U	0.0009	U	0.00089	U	0.00089	U

0.0250.0440.06860.0350.030.0740.03890.0450.0750.0690.1020.0560.13190.085

Notes:  
Only the analytes detected are shown in the table above. Refer to laboratory report for a complete list of analytes.  
=analyte detected above Part 375 Unrestricted Use SCOs.  
NS = not specified.

- Qualifiers
- U - The compound was not detected above laboratory detection limits.
  - Q - indicates LCS control criteria did not meet requirements
  - N - Presumptive Evidence of a Compound
  - J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.  
The concentration given is an approximate value.
  - B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
  - P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
  - \* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
  - E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
  - E (Inorganics) - The reported value is estimated because of the presence of interference.
  - D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
  - \* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
  - NR - Not analyzed

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12MS104 Kensington Heights 1827 Fillmore Avenue, Buffalo, New York

Sample ID	Unit of Measurement	Part 375 Unrestricted Use SCOs	SB-2(4-8)	SB-5(8-12)	SB-9(4-7)	SB-10(8-12)	SB-11(12-16)	SB-15(12-16)	SB-15(12-16)DL	SB-15(12-16)DL2	SB-18(4-8)	SB-19(12-18)	SB-21(12-16)	SB-21(16-19)	SB-21(16-19)DL	SB-22(12-19)	SB-27(8-12)	SB-37(8-10)	SB-37(8-10)DL	SB-39(6-8)	SB-41(8-11)	SB-42(14-16)	SB-43(6-8)	SB-43(10-12)	SB-43(16-20)	SB-45(10-12)	SB-46(12-16)	SB-46(12-16)RX																												
Sampling Date			8/7/2012	8/7/2012	8/7/2012	8/7/2012	8/7/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/8/2012	8/9/2012	8/9/2012	8/9/2012	8/9/2012	8/9/2012	8/10/2012	8/10/2012	8/10/2012	8/10/2012	8/13/2012	8/13/2012	8/13/2012	8/13/2012	8/13/2012	8/13/2012	8/13/2012																												
Matrix			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL																												
Dilution Factor			1	1	1	5	1	5	25	50	1	1	1	5	10	1	1	5	10	1	1	1	1	5	1	5	1	1																												
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg																												
1,1-Biphenyl	mg/Kg	NS	0.014	U	0.016	U	0.015	U	0.085	U	0.017	U	2.3	J	0.44	UD	0.87	UD	0.015	U	0.02	U	0.018	U	0.092	U	0.18	UD	0.014	U	0.016	U	0.015	U	0.014	U	0.077	U	0.018	U	0.087	U	0.017	UQ	0.017	U										
2-Methylnaphthalene	mg/Kg	NS	0.0096	U	0.01	U	0.01	U	0.057	U	0.011	U	8.7		9.4	JD	0.58	UD	0.01	U	0.014	U	0.26	J	0.062	U	0.12	UD	0.0092	U	0.01	U	0.06	U	0.12	UD	0.0091	U	0.01	U	0.01	U	0.0091	U	0.051	U	0.012	U	0.012	U						
2-Methylphenol	mg/Kg	0.33	0.021	U	0.022	U	0.022	U	0.12	U	0.024	U	0.13	U	0.63	UD	1.3	UD	0.021	U	0.029	U	0.026	U	0.13	U	0.27	UD	0.02	U	0.022	U	0.13	U	0.26	UD	0.02	U	0.022	U	0.02	U	0.11	U	0.025	U	0.13	U	0.025	U	0.025	U				
3+4-Methylphenols	mg/Kg	0.33	0.02	U	0.021	U	0.021	U	0.12	U	0.023	U	0.12	U	0.6	UD	1.2	UD	0.021	U	0.028	U	0.025	U	0.13	U	0.25	UD	0.019	U	0.021	U	0.12	U	0.25	UD	0.019	U	0.021	U	0.019	U	0.11	U	0.024	U	0.12	U	0.024	U	0.34	J				
Acenaphthene	mg/Kg	20	0.011	U	0.012	U	0.011	U	0.063	U	0.013	U	8.6		8.7	JD	0.65	UD	0.011	U	0.015	U	0.24	J	0.069	U	0.14	UD	0.01	U	0.012	U	0.067	U	0.13	UD	0.01	U	0.19	J	0.011	U	0.01	U	0.057	U	0.013	U	0.065	U	0.013	UQ	0.013	U		
Acenaphthylene	mg/Kg	100	0.0096	U	0.01	U	0.01	U	0.057	U	0.011	U	2.9		0.29	UD	0.58	UD	0.01	U	0.014	U	0.012	U	2	J	0.12	UD	0.0092	U	0.01	U	0.47		3.2	JD	0.0091	U	0.01	U	0.01	U	0.0091	U	0.051	U	0.012	U	0.058	U	0.012	UQ	0.012	U		
Anthracene	mg/Kg	100	0.0078	U	0.0084	U	0.0081	U	0.046	U	0.0092	U	24	E	28	D	28	D	0.0081	U	0.011	U	0.46	J	11		11	D	0.0074	U	0.0084	U	4.1		3.5	JD	0.0074	U	0.38	J	0.0082	U	0.0074	U	0.041	U	0.0096	U	0.047	U	0.0094	U	0.0094	U		
Benzo(a)anthracene	mg/Kg	1	0.016	U	0.02	U	0.019	U	0.11	U	0.021	U	29	E	32	D	32	D	0.019	U	0.026	U	0.89		13		13	D	0.017	U	0.53		15		15	D	0.017	U	0.88		0.16	J	0.017	U	0.097	U	0.022	U	0.11	U	0.022	UQ	0.32	J		
Benzo(a)pyrene	mg/Kg	1	0.0083	U	0.0089	U	0.0086	U	0.049	U	0.0097	U	24	E	25	D	25	D	0.0086	U	0.012	U	0.84		11		11	D	0.0079	U	0.72		18		18	D	0.0078	U	0.91		0.17	J	0.0078	U	0.044	U	0.01	UQ	0.05	U	0.01	UQ	0.39	J		
Benzo(b)fluoranthene	mg/Kg	1	0.013	U	0.013	U	0.013	U	0.074	U	0.015	U	29	E	32	D	30		D	0.013	U	0.018	U	1		13		13	D	0.15	J	1.1		22	E	22	D	0.012	U	1.1		0.2	J	0.012	U	0.066	U	0.015	U	0.076	U	0.015	UQ	0.53		
Benzo(g,h,i)perylene	mg/Kg	100	0.015	U	0.017	U	0.028	J	0.091	U	0.018	U	12		12	D	12	JD	0.016	U	0.022	U	0.46	J	5.5		5	D	0.015	U	0.58		12		11	D	0.015	U	0.47		0.016	U	0.015	U	0.082	U	0.019	U	0.094	U	0.019	U	0.21	J		
Benzo(k)fluoranthene	mg/Kg	0.8	0.018	U	0.019	U	0.019	U	0.11	U	0.021	U	11		11	JD	12		JD	0.019	U	0.025	U	0.36	J	5.4		5.1	D	0.017	U	0.28	J	7.9		8.9	D	0.017	U	0.37	J	0.019	U	0.017	U	0.096	U	0.022	U	0.11	U	0.022	UQ	0.22	J	
Benzoic acid	mg/Kg	NS	0.076	U	0.081	U	0.078	U	0.45	U	0.089	U	0.46	U	2.3	UD	4.6	UD	0.078	U	0.11	U	0.094	U	0.48	U	0.97	UD	0.072	U	0.081	U	0.47	U	0.94	UD	0.072	U	0.71	J	0.079	U	0.072	U	0.4	U	0.093	U	0.46	U	0.092	U	0.092	U		
Carbazole	mg/Kg	NS	0.0084	U	0.009	U	0.0087	U	0.049	U	0.0098	U	12		13	D	13	JD	0.0087	U	0.012	U	0.36	J	1.3	J	0.11	UD	0.008	U	0.009	U	0.009	U	0.052	U	0.1	UD	0.0079	U	0.009	U	0.0088	U	0.0079	U	0.044	U	0.01	UQ	0.01	UQ	0.01	U		
Chrysene	mg/Kg	1	0.017	U	0.019	U	0.016	U	0.1	U	0.02	U	27	E	30	D	30	D	0.018	U	0.024	U	1		12		12	D	0.017	U	0.64		17		17	D	0.016	U	0.89		0.17	J	0.016	U	0.092	U	0.021	U	0.1	U	0.021	UQ	0.42	J		
Dibenz(a,h)anthracene	mg/Kg	0.33	0.011	U	0.012	U	0.2	J	0.065	U	0.013	U	4.4		0.33	UD	0.66	UD	0.011	U	0.015	U	0.014	U	1.8	J	0.14	UD	0.011	U	0.19	J	3.6		2.3	JD	0.01	U	0.012	U	0.012	U	0.01	U	0.058	U	0.013	U	0.067	U	0.013	U	0.013	U		
Dibenzofuran	mg/Kg	7	0.015	U	0.016	U	0.015	U	0.088	U	0.018	U	14		14	D	13	JD	0.015	U	0.021	U	0.36	J	0.095	U	0.19	UD	0.014	U	0.016	U	0.093	U	0.19	UD	0.014	U	0.016	U	0.014	U	0.079	U	0.018	U	0.09	U	0.018	UQ	0.018	U				
Dimethylphthalate	mg/Kg	NS	0.23	J	0.29	J	0.53		0.061	U	0.38	J	0.062	U	0.31	UD	0.62	UD	0.37	J	0.49	J	0.49		0.066	U	0.13	UD	0.35	J	0.46		0.064	U	0.13	UD	0.36		0.36	J	0.31	J	0.36		0.055	U	0.42	J	0.062	U	0.42	UQ	0.58			
Fluoranthene	mg/Kg	100	0.0077	U	0.0083	U	0.008	U	0.045	U	0.009	U	43	E	74	D	75	D	0.008	U	0.011	U	2.4		26	E	26	D	0.21	J	0.59		23	E	24	D	0.0073	U	1.7		0.27	J	0.0073	U	0.041	U	0.0094	U	0.046	U	0.2	UQ	0.69			
Fluorene	mg/Kg	30	0.014	U	0.016	U	0.015	U	0.085	U	0.017	U	20	E	21	D	20	JD	0.015	U	0.02	U	0.55		3.6		3.6	JD	0.014	U	0.016	U	1.4	J	0.18	UD	0.014	U	0.016	U	0.015	U	0.014	U	0.077	U	0.018	U	0.087	U	0.017	UQ	0.017	U		
Hexachlorobenzene	mg/Kg	0.33	0.016	U	0.017	U	0.016	U	0.092	U	0.018	U	0.094	U	0.47	UD	0.94	UD	0.016	U	0.022	U	0.019	U	0.1	U	0.2	D	0.015	U	0.017	U	0.097	U	0.19	UD	0.015	U	0.017	U	0.016	U	0.015	U	0.083	U	0.019	U	0.094	U	0.019	UQ	0.019	U		
Indeno(1,2,3-cd)pyrene	mg/Kg	0.5	0.013	U	0.014	U	0.19	J	0.075	U	0.015	U	13		11	JD	11	JD	0.013	U	0.018	U	0.46	J	5.7		5	D	0.012	U	0.56		12		10	D	0.012	U	0.5		0.013	U	0.012	U	0.068	U	0.016	UQ	0.077	U	0.015	U	0.19	J		
Naphthalene	mg/Kg	12	0.013	U	0.014	U	0.014	U	0.078	U	0.015	U	23	E	25	D	25	D	0.014	U	0.019	U	0.9		0.084	U	0.17	UD	0.013	U	0.014	U	0.082	U	0.16	UD	0.012	U	0.29	J	0.014	U	0.012	U	0.07	U	0.016	U	0.08	U	0.016	U	0.016	U		
Pentachlorophenol	mg/Kg	0.8	0.026	U	0.028	U	0.027	U	0.15	U	0.031	U	0.16	U	0.79	UD	1.6	UD	0.027	U	0.037	U	0.033	U	0.17	U	0.33	UD	0.025	U	0.028	U	0.16	U	0.33	UD	0.025	U	0.028	U	0.027	U	0.025	U	0.14	U	0.032	U	0.16	U	0.032	UQ	0.032	U		
Phenanthrene	mg/Kg	100	0.01	U	0.011	U	0.011	U	0.061	U	0.012	U	54	E	95	ED	100	D	0.011	U	0.015	U	3.2		27	E	29	D	0.19	J	0.011	U	0.095	U	0.055	U	0.11	UD	0.0098	U	0.0095	U	0.0095	U	0.0098	U	0.047	U	0.011	U	0.053	U	0.011	UQ	0.011	U
Phenol	mg/Kg	0.33	0.0088	U	0.0095	U	0.0092	U	0.052	U	0.01	U	0.053	U	0.27	UD	0.53	UD	0.0091	U	0.012	U	0.011	U	0.056	U	0.11	UD	0.0094	U	0.0095	U	0.055	U	0.11	UD	0.0083	U	0.0095	U	0.0093	U	0.0084	U	0.047	U	0.011	U								

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12MS104 Kensington Heights, 1827 Fillmore Avenue, Buffalo, New York

Sample ID	Unit of Measurement	Part 375 Unrestricted Use SCOs	SB-2(4-8)	SB-5(8-12)	SB-9(4-7)	SB-10(8-12)	SB-11(12-16)	SB-15(12-16)	SB-18(4-8)	SB-19(12-18)	SB-21(12-16)	SB-21(12-16)DL	SB-21(16-19)	SB-22(12-19)	SB-27(8-12)	SB-37(8-10)	SB-39(6-8)	SB-41(6-11)	SB-42(14-16)	SB-43(6-8)	SB-43(10-12)	SB-43(16-20)	SB-45(10-12)	SB-46(12-16)										
Sampling Date			8/7/2012	8/7/2012	8/7/2012	8/7/2012	8/7/2012	8/8/2012	8/8/2012	8/8/2012	8/9/2012	8/9/2012	8/9/2012	8/9/2012	8/9/2012	8/10/2012	8/10/2012	8/10/2012	8/10/2012	8/13/2012	8/13/2012	8/13/2012	8/13/2012	8/13/2012										
Matrix			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL									
Aluminum	mg/kg	NS	6300	4290	4550	2730	3370	5640	4890	5650	3700		3920	5180	2420	5290	7000	8490	3910	5650	4210	4020	5350	3460										
Antimony	mg/kg	NS	1.17 J	1.2 J	0.47 U	4.45	0.549 U	2.49 J	1.96 J	0.891 J	174		146	1.61 J	3.71	0.904 J	1.63 J	42	0.712 J	7.64	2.11 J	1.05 J	1.11 J	2.09 J										
Arsenic	mg/kg	13	10.2	9	4.95	13.3	13.7	15.4	7.35	31.6	23.8		27.4	5.24	11.7	12	5.37	73	8.79	6.91	18.7	14.4	23.3	12.2										
Barium	mg/kg	350	84.4	190	36.5	252	62.8	128	97.1	597	461		977	65.9	675	71.4	85.9	113	90.2	36.3	973	174	266	113										
Beryllium	mg/kg	7.2	0.207 J	0.283	0.067 J	0.126 J	0.146 J	0.18 J	0.05 U	0.065 U	0.13 J		0.062 U	0.048 U	0.054 U	0.356	0.047 U	16	0.338	0.049 U	0.315	0.537	0.422	0.294										
Cadmium	mg/kg	2.5	0.432	1.31	0.345	0.948	0.48	0.878	0.849	0.814	2.72		2.55	0.315	2.04	0.452	0.459	17	0.398	1.47	1.14	0.284 J	82.3	0.392										
Calcium	mg/kg	NS	5970	87400	18900	20400	10500	5340	14800	11900	20800		56100	26500	9710	54000	14200	6530	4420	30300	20600	2300	16200	12100										
Chromium*	mg/kg	30	8.95 N	10.3 N	8.68 N	7.85 N	7.05 N	13 N	25.4 N	12.8 N	14.2 N		29.9 N	9.53 N	46.4 N	7.42 N	9.25 N	41.1 N	8.63 N	7.9 N	6.87 N	7.06 N	15.2 N	8.07										
Cobalt	mg/kg	NS	6.54	5.59	8.47	4.91	6.26	7.83	6.21	8.59	4.25		9.98	4.76	5.27	5.41	11.8	24.7	7.89	4.24	6.07	6.4	7.8	6.47										
Copper	mg/kg	50	40.2 N	46.7 N	19 N	120	51.5	42.9 N	54 N	110	425		130	89.2 N	407	39.5 N	59.2 N	62.3 N	33.1 N	34.1 N	38.4 N	43.1 N	139	47.4										
Iron	mg/kg	NS	21600	9790	26400	24900	37300	44400	61200	20500	27600		74700	28900	56600	8300	35700	34600	11200	22400	26200	8690	20700	8440										
Lead	mg/kg	63	1040	628	22.7	263	59	236	96.1	410	20455	OR	21800	D	6540	68.1	1910	290	27.4	527	99.5	63.5	1100	606	481	246								
Magnesium	mg/kg	NS	921	2580	10700	884	1280	954	3580	1080	3880		7890	2200	1240	3610	1150	1360	517	3190	536	317	473	1560										
Manganese	mg/kg	1600	379	143	416	159	255	190	793	6770	238		583	776	452	121	1500	498	140	1390	135	80.9	208	142										
Mercury	mg/kg	0.18	1.54	D	0.132	0.111	0.15	0.13	0.054	0.222	0.125		0.598	0.014	0.464	0.091	0.024	0.145	0.155	0.007 J	0.157	0.04	0.119	0.044										
Nickel	mg/kg	30	13.7	39.8	11.2	12.2	11	15.2	17.2	28.1	12.4		22.1	14	29.4	12.7	7.79	56.4	13.5	8.75	15.6	12.8	18.1	14.4										
Potassium	mg/kg	NS	488	576	N	774	N	397	N	526	N	724	N	733	N	834	N	593	N	830	N	1430	N	553	N	621	N	446	N	497	N	494	N	359
Selenium	mg/kg	3.9	0.338 U	0.363 U	0.344 U	1.78	0.402 U	0.412 U	0.345 U	1.45	2.15		0.421 U	0.326 U	0.371 U	0.438 U	0.321 U	149	0.346 U	0.336 U	0.365 U	1.58	0.413 U	1.42										
Silver	mg/kg	2	0.561	0.213 J	0.592	0.715	0.808	2.45	1.33	1.51	3.11		2.33	0.692	1.36	0.214 J	0.92	6.33	0.294 J	0.659	0.604	0.328 J	0.607	0.312 J										
Sodium	mg/kg	NS	301	N	83.6 JN	2.12 UN	4930	N	13.7 JN	2.53 UN	2.12 UN	240	N	2.49 UN	2.59 UN	2	2.28 UN	118	N	1.97 UN	432	N	90.4	N	2.06 UN	49.7 JN	988	N	78.2 JN	82	JN	82	JN	
Thallium	mg/kg	NS	0.562 J	0.239 U	1.39 J	0.804 J	1.52 J	1.81 J	3.28	7.02	0.897 J		4.54	1.24 J	3.3	0.288 U	2.16	158	0.228 U	1.46 J	0.693 J	0.283 U	0.272 U	0.263 U										
Vanadium	mg/kg	NS	18.9	15.4	8.98	14.9	19.8	26	22	28.1	15.5		10.9	11.9	6.92	18.7	15.1	47.7	19.9	12.2	22.1	25.8	29.7	20.5										
Zinc	mg/kg	109	97.1	273	33	341	101	308	101	790	941		1120	339	712	165	50.3	121	128	1610	935	109		169	N									

Total Concentration. 37283.5 106083.5 61898.1 55438.13 53579.894 58050.722 86431.92 49002.094 79232.772 21800 153083.89 64793.501 74492.84 72656.15 60659.27 54794.68 21241.807 65348.2 55297.459 17895.279 44567.858 26784.592

Notes:  
Only the analytes detected are shown in the table above. Refer to laboratory report for a complete list of analytes  
=analyte detected above Part 375 Unrestricted Use SCOs  
NS = Not specified.  
\*While testing results would represent total chromium, the tri-valent chromium standard was used as most chromium in the environment is tri- and not hexa-valent

Qualifiers

U - The compound was not detected above laboratory detection limits.  
Q - indicates LCS control criteria did not meet requirements  
N - Presumptive Evidence of a Compound  
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.  
The concentration given is an approximate value.  
B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.  
P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.  
\* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.  
E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.  
E (Inorganics) - The reported value is estimated because of the presence of interference.  
D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.  
\* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.  
NR - Not analyzed

PCB Analytical Results

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12MS104 Kensington Heights 1827 Fillmore Avenue, Buffalo, New York

Sample ID		SB-2(4-8)	SB-5(8-12)	SB-9(4-7)	SB-11(12-16)	SB-15(12-16)	SB-18(4-8)	SB-21(16-19)	SB-21(16-19)RE	SB-22(12-19)	SB-37(8-10)	SB-39(6-8)	SB-41(8-11)	SB-43(6-8)	SB-43(10-12)	SB-43(10-12)RE	SB-43(16-20)	SB-46(12-16)
Sampling Date		8/7/2012	8/7/2012	8/7/2012	8/7/2012	8/8/2012	8/8/2012	8/9/2012	8/9/2012	8/9/2012	8/10/2012	8/10/2012	8/10/2012	8/13/2012	8/13/2012	8/13/2012	8/13/2012	8/13/2012
Matrix		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
No PCB analytes were detected above laboratory detection limits.																		
Total Concentration.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:  
Only analytes detected are shown in the table above. Please refer to laboratory report for a complete list of analytes

**Pesticide Analytical Results**

DRAFT

12MS104 Kensington Heights 1827 Fillmore Avenue, Buffalo, New York

Sample ID		SB-2(4-8)	SB-5(8-12)	SB-9(4-7)	SB-11(12-16)	SB-15(12-16)	SB-18(4-8)	SB-21(16-19)	SB-22(12-19)	SB-37(8-10)	SB-39(6-8)	SB-41(8-11)	SB-43(6-8)	SB-43(10-12)	SB-43(16-20)	SB-46(12-16)
Sampling Date		8/7/2012	8/7/2012	8/7/2012	8/7/2012	8/8/2012	8/8/2012	8/9/2012	8/9/2012	8/10/2012	8/10/2012	8/10/2012	8/13/2012	8/13/2012	8/13/2012	8/13/2012
Matrix		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
No Pesticide analytes were detected above laboratory detection limits.																
Total Concentration.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:  
Only analytes detected are shown in the table above. Please refer to laboratory report for a complete list of analytes.



Herbicide Analytical Results

DRAFT

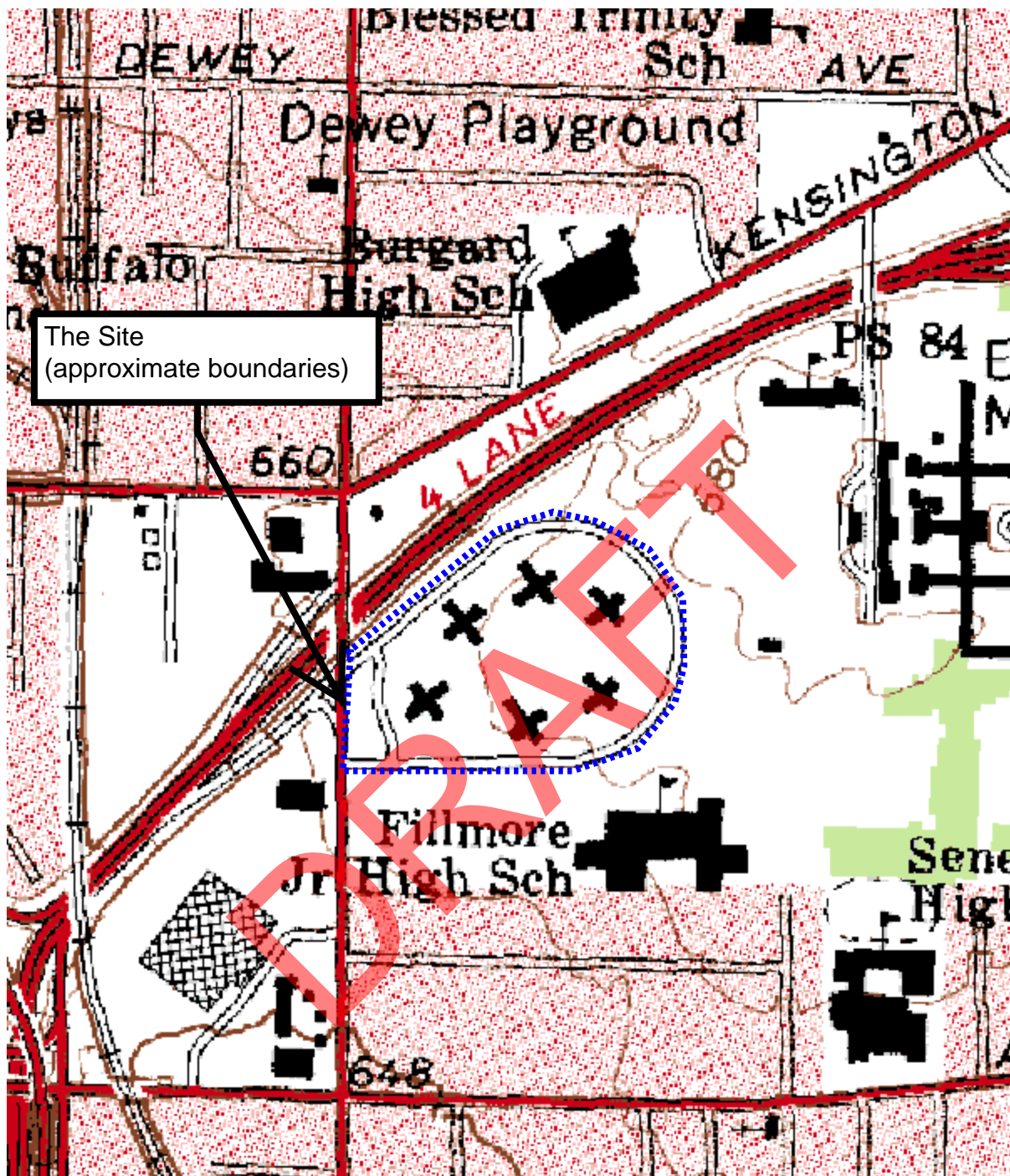
12MS104 Kensington Heights 1827 Fillmore Avenue, Buffalo, New York

Sample ID		SB-2(4-8)	SB-5(8-12)	SB-9(4-7)	SB-11(12-16)	SB-15(12-16)	SB-18(4-8)	SB-21(16-19)	SB-22(12-19)	SB-37(8-10)	SB-39(6-8)	SB-41(8-11)	SB-43(6-8)	SB-43(10-12)	SB-43(16-20)	SB-46(12-16)
Sampling Date		8/7/2012	8/7/2012	8/7/2012	8/7/2012	8/8/2012	8/8/2012	8/9/2012	8/9/2012	8/10/2012	8/10/2012	8/10/2012	8/13/2012	8/13/2012	8/13/2012	8/13/2012
Matrix		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Units		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
No Herbicide analytes detected above laboratory detection limits.																
Total Concentration.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:  
Only analytes detected are shown in the table above. Please refer to laboratory report for a complete list of analytes

FIGURES

DRAFT



Center: 42.9266°N 78.8371°W  
Elevation at center: 676 feet (206 meters)  
Quad: USGS Buffalo NE  
Drg Name: o42078h7  
Drg Source Scale: 1:24,000

Topo Map  
12MS104.6  
1827 Fillmore Avenue  
Buffalo, New York



**Boring Location Map**

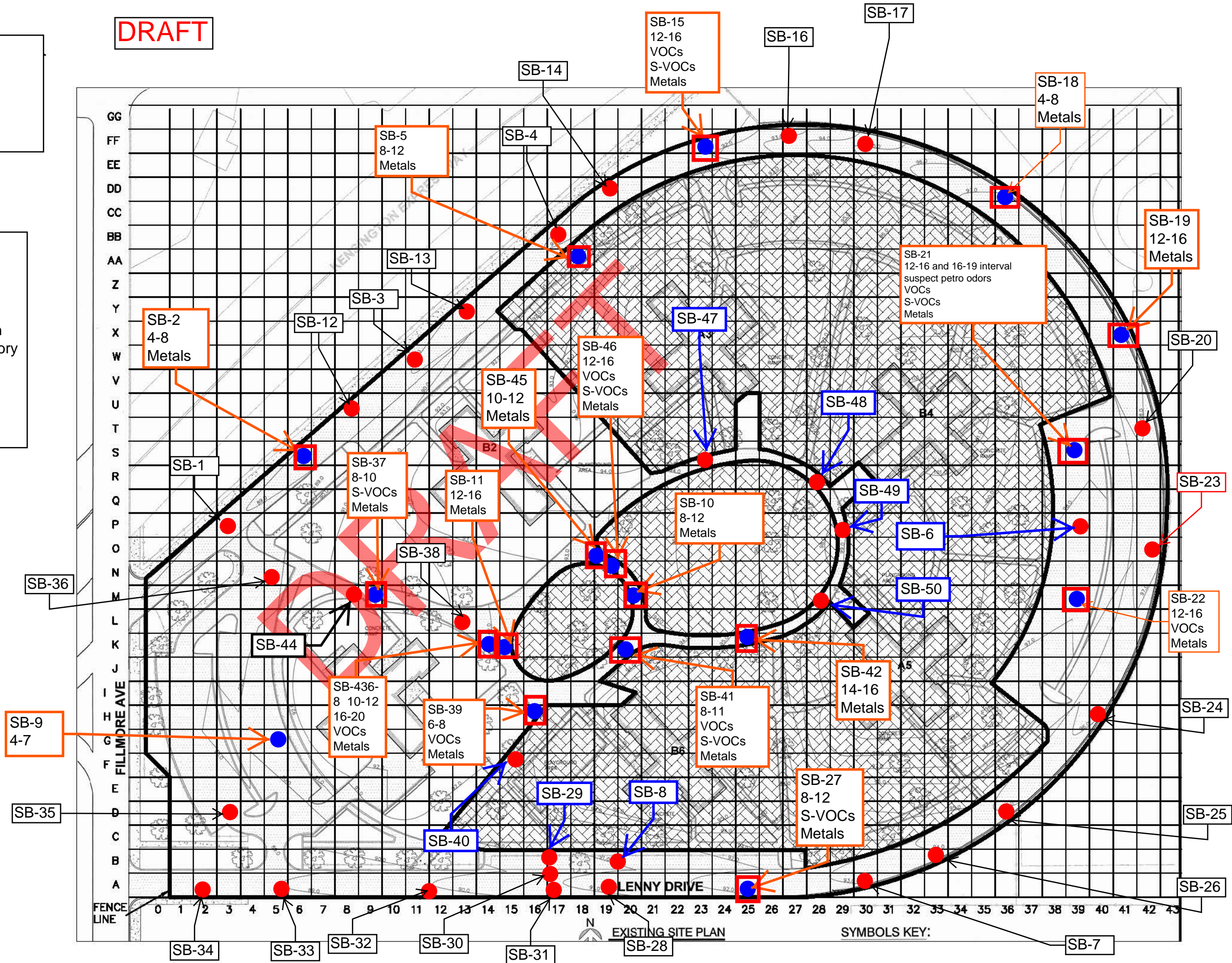
12MS104  
Kensington Height  
1827 Fillmore Avenue  
Buffalo, New York

**DRAFT**

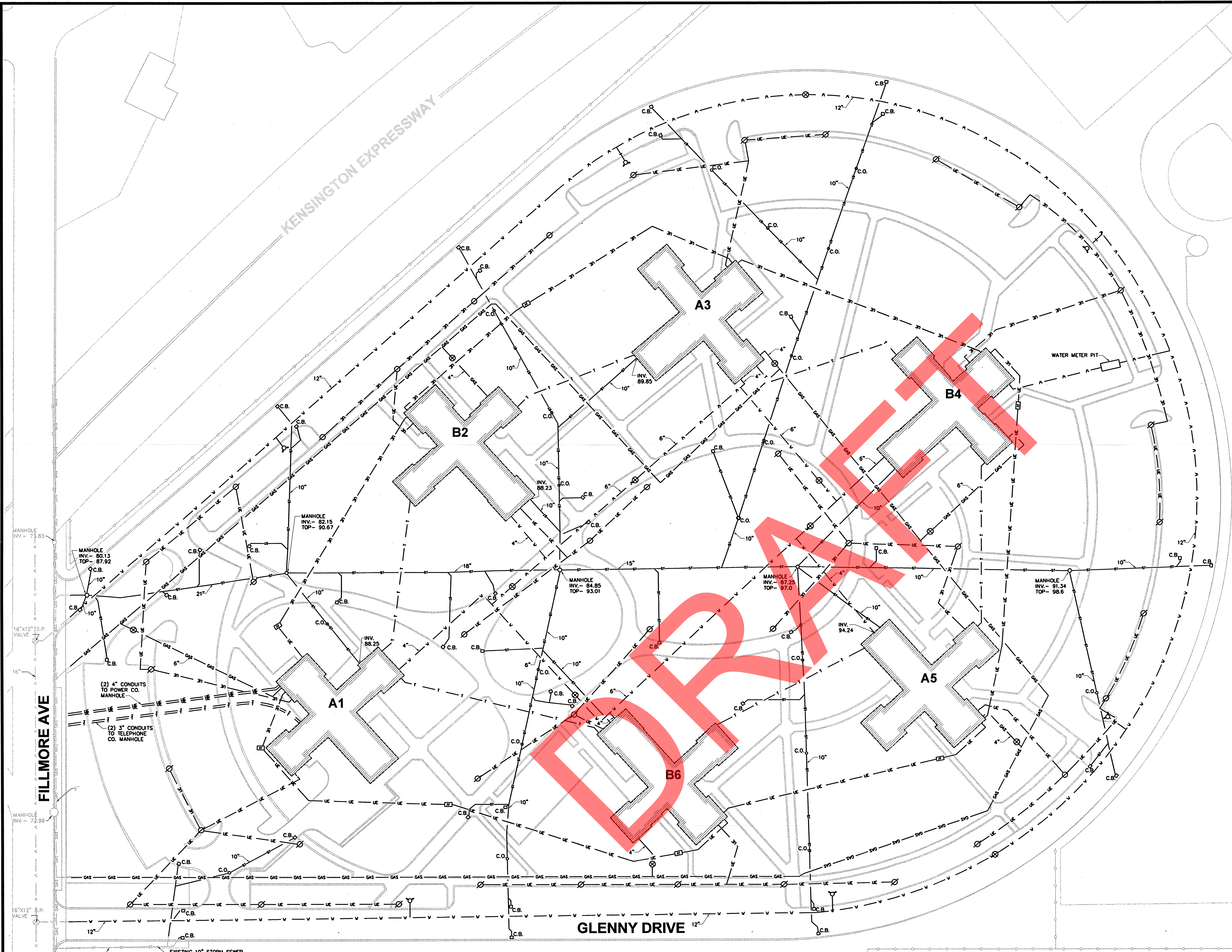
**Legend**

- Approx. Soil Boring Location.
- Aprox. Soil Boring Location with soil sample selected for laboratory analysis.
- ☐ Analytes exceed Part 375 Unrestricted Use SCOs

Note that the orange text box depicts the sample interval chosen for lab analysis along with the analyses with exceedences.







**SYMBOLS KEY:**

- UE — UE — UNDERGROUND ELECTRIC LINE TO BE REMOVED
- T — T — UNDERGROUND TELEPHONE LINE TO BE REMOVED
- GAS — GAS — UNDERGROUND GAS LINE TO BE REMOVED
- V — V — UNDERGROUND WATER LINE TO BE REMOVED
- S — S — UNDERGROUND SANITATION/SEWER LINE TO BE REMOVED
- F — FIRE HYDRANT TO BE REMOVED
- L — LIGHT STANDARD TO BE REMOVED
- C.B. — CATCH BASIN TO BE REMOVED
- C.O. — CLEAN OUT TO BE REMOVED
- ⊗ — VALVE TO BE REMOVED
- H — HAND HOLE TO BE REMOVED

**NOTE:**

THESE DRAWINGS HAVE BEEN PREPARED BY UTILIZING THE OWNERS ORIGINAL CONSTRUCTION DOCUMENTS IN ORDER TO ILLUSTRATE THE EXISTING CONDITIONS OF THE SITE AND STRUCTURES THEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACTUAL VERIFICATION OF ALL EXISTING CONDITIONS IN THE FIELD.

**GENERAL NOTES:**

- REMOVE COMPLETELY ALL UTILITIES INDICATED. BACKFILL ALL EXCAVATIONS.
- REFER TO PROJECT MANUAL FOR COMPLETE SCOPE OF WORK.

Project: KENSINGTON HEIGHTS ENVIRONMENTAL ABATEMENT & DEMOLITION OF BUILDINGS & SITE		Drawing Title: DEMOLITION CIVIL SITE UTILITY PLAN	
Owner: Buffalo Municipal Housing Authority		Architect: EIT Team, Inc. Architect, Engineering, Planning & Construction 2060 Sheridan Drive Buffalo, New York 14223-1470 (716) 876 4669 Fax (716) 876 8004	
Designated by: DLB		Drawn by: JMS	
Checked by: DLB		Approved by: HM	
Date: MAY 1, 2008		Scale: SCALE AS NOTED	
Project No. 030024.01		Drawing No. DC102	
CAD File No. 0304-01-00102-Demo Site Utility.dwg			

Warning: It is a violation of Section 7206, Subdivision 2 of the New York State Education Law for any person, unless acting under the direction of a Licensed Architect or Professional Engineer to alter in any way, plans, specifications, or reports to which the seal of a Licensed Architect or Professional Engineer has been applied.

NOT FOR CONSTRUCTION



## PREVIOUS STUDIES

DRAFT

**DRAFT**

SECTION 01901

**SOILS MANAGEMENT PLAN**

**DR. LYDIA T. WRIGHT SCHOOL OF EXCELLENCE  
CAMPUS EAST SCHOOL #89  
106 APPENHEIMER AVENUE  
CITY OF BUFFALO, ERIE COUNTY, NEW YORK**

**Prepared for:**

**Buffalo Public Schools  
Buffalo Board of Education**

**Prepared by:**

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**AND**

**URS Corporation  
282 Delaware Avenue  
Buffalo, New York 14202-1805**

**March 2002**

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## APPENDICES

Appendix A	Phase II Environmental Site Assessment Report (Minus Appendix B-D)
Appendix B	Site Health and Safety Plan Requirements

## **1.0 INTRODUCTION**

### **1.1 General Description of Project**

The Dr. Lydia T. Wright School of Excellence (Campus East School - School #89) Site (the "Site") is located at 109 Appenheimer Street in the City of Buffalo. The Site encompasses approximately 9-acres of land see Figure 1-1. As part of a renovation project at the Site, the City of Buffalo Board of Education plans to construct several additions onto the current structure.

Re-development plans include leaving the existing structure in its present form and regrading the Site as necessary to allow for the construction of four (4) new additions which will abut the current school building. As part of the redevelopment, it will be necessary to excavate soil from various areas of the Site for installation of utilities and building foundations. Additionally, onsite soils will be utilized for regrading areas of the Site.

### **1.2 Objectives of the Soils Management Plan**

The primary objective of this Soils Management Plan (SMP) is to provide a description of how environmentally impacted soils/fill materials at the site will be handled during construction/excavation to minimize any potential risks to human health and the environment. Any subsequent additions, expansions or alterations at the Dr. Lydia T. Wright School will result in a new, or revised SMP.

### **1.3 Organization of the Soils Management Plan**

Section 2 of this SMP presents a brief description of the site and site history and a discussion of previous environmental investigations. Section 3 presents an overview of existing site conditions and discusses the nature and extent of contaminants detected in the surface and subsurface materials. Section 4 provides an overview of the proposed site development. The soils management strategies are outlined in Section 5 and the Contractor requirements are outlined in Section 6.

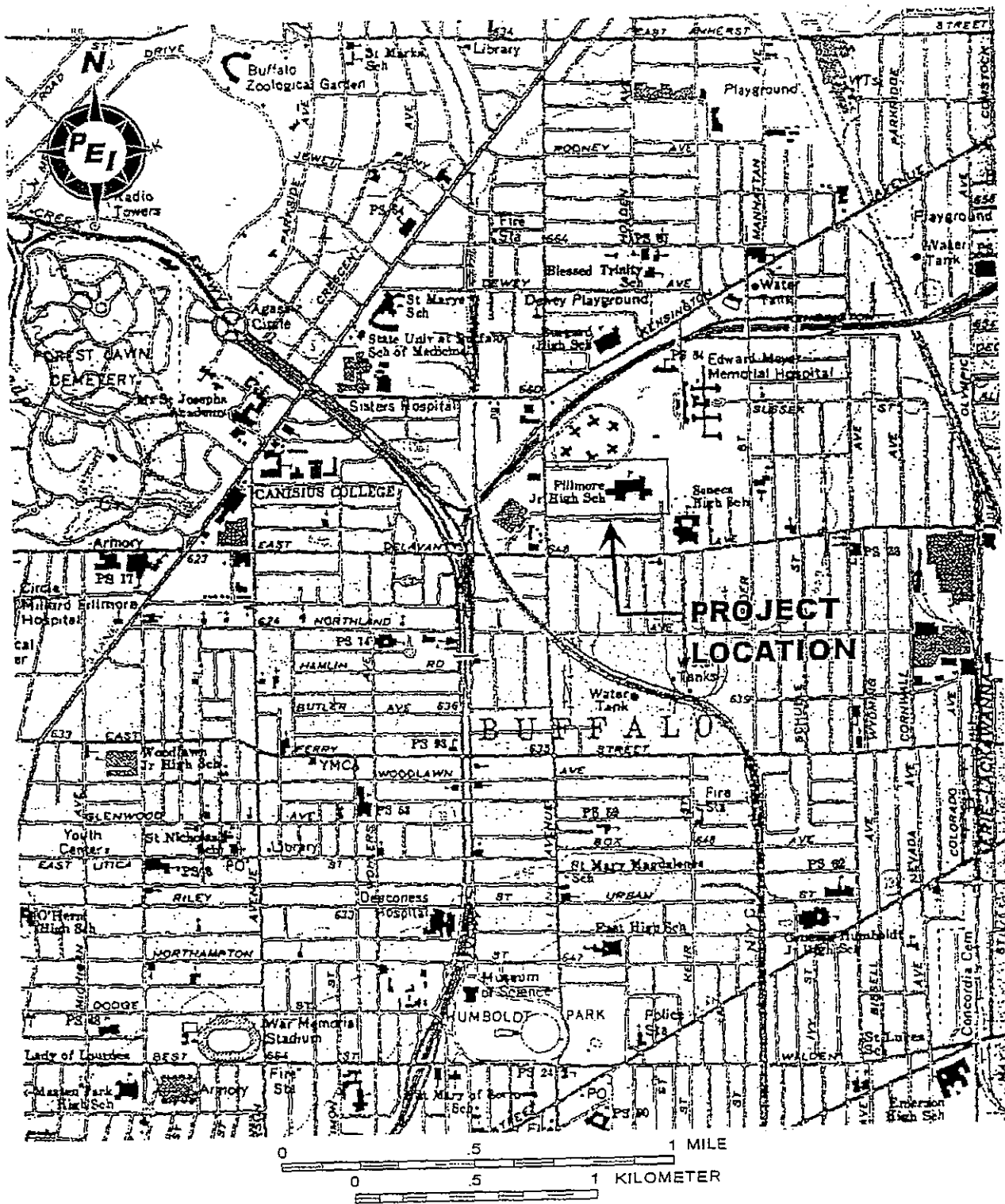


Figure 1-1 Project Location (USGS 7.5' Quadrangle, Buffalo SW, NY 1989 [1965]).

## 2.0 SITE DESCRIPTION AND PREVIOUS INVESTIGATIONS

### 2.1 Site Description and History

The Dr. Lydia T. Wright School of Excellence (Campus East School - School #89) was constructed about 1959 on property that previously was utilized as a limestone quarry from at least 1919 to the 1950's. Filled prior to construction of the school, the quarry extended from near Appenheimer Avenue, north to Kensington Avenue and west almost to Fillmore Avenue.

During recent assessments for planned additions to the school, contractors for the Buffalo Board of Education performed a Phase I Environmental Site Assessment and a series of geotechnical and engineering design studies ("*Geotechnical Engineering Report, Public School 89 Additions, Buffalo, New York. Prepared for Buffalo Board of Education, Prepared by McMahon & Mann Consulting Engineers, P.C. December 2000*"). These studies suggested that the quarry was filled with ash and cinders that are covered by a layer of soil fill/topsoil. The topsoil varies from as much as approximately 6-7 feet to as little as less than 1 foot. The ash and cinders appear to extend from below the cover to the bottom of the quarry which was measured to be as much as 27 feet deep. Limited samples of the ash and cinder collected during these geotechnical/engineering design studies indicated elevated levels of polynuclear aromatic hydrocarbons (PAHs) and metals at concentrations, that in some cases, exceed the New York State Department of Environmental Conservation (NYSDEC) Technical Assistance and Guidance Memorandum #4046 (TAGM #4046, revised 1994) soil cleanup value guidelines. Of particular concern to the NYSDEC was that the investigation identified subsurface lead levels in two samples (24 to 26 feet and 14 to 18 feet bgs, respectively) at 5,030 mg/kg and 1,310 mg/kg.

A Phase II Surface and Subsurface Soil Environmental Assessment (*Phase II Environmental Site Assessment Campus East School #89, 106 Appenheimer Avenue, City of Buffalo, Erie County, New York, PEI/URS February 2001*) has been completed on the Site. The Phase II Investigation confirmed that certain surface and subsurface soils at the Site contain low levels of PAHs and metals from historic activities conducted on or in the vicinity of the site such as the development and backfilling of a rock quarry and fossil fuel burning for heat and manufacturing. Many of the compounds found at the Site are widely distributed in the environment, and are typical of older urban environments.

A review of historical records and aerial photographs confirm that the current building was

constructed in the mid-late 1950's. Earlier historical maps and records indicate that the property was used primarily for a rock quarry and an area of discharge for incinerator ash prior to the development of the school.

## **2.2 Previous Environmental Investigations**

### **2.2.1 Geotechnical Engineering Report**

In December 2000, a Geotechnical Engineering Report ("*Geotechnical Engineering Report, Public School 89 Additions, Buffalo, New York. Prepared for Buffalo Board of Education, Prepared by McMahon & Mann Consulting Engineers, P.C. December 2000*") was performed on the site by McMahon and Mann with Earth Dimensions, Inc. The work included:

- Review of subsurface data contained on plans for the existing school;
- A subsurface soil investigation with Earth Dimensions, Inc. to make four test borings and five test pits within the proposed addition limits;
- Testing of selected samples of fill from within the quarry limits to identify the composition of the fill;
- Testing of selected environmental samples from the four test borings;
- Analysis of subsurface conditions relative to the effect of the static loads applied by the proposed buildings;
- Preparation of a report summarizing the subsurface conditions and presenting the recommendations for foundation design.

The Geotechnical Report's review of historical records identified that the current use of the property as a school began in the mid 1950's. Prior to the middle 1950's, the property was used primarily for rock quarrying and disposal of incinerator ash purposes. Analytical testing conducted on ash and cinder samples indicated elevated concentrations of metals, such as lead, and PAHs. Borehole and test pit locations installed during the Geotechnical Program are shown on Figure 2-1.

The report recommended that additional environmental sampling be conducted to plan the requirements for construction worker health and safety during construction and for planning fill disposal requirements.

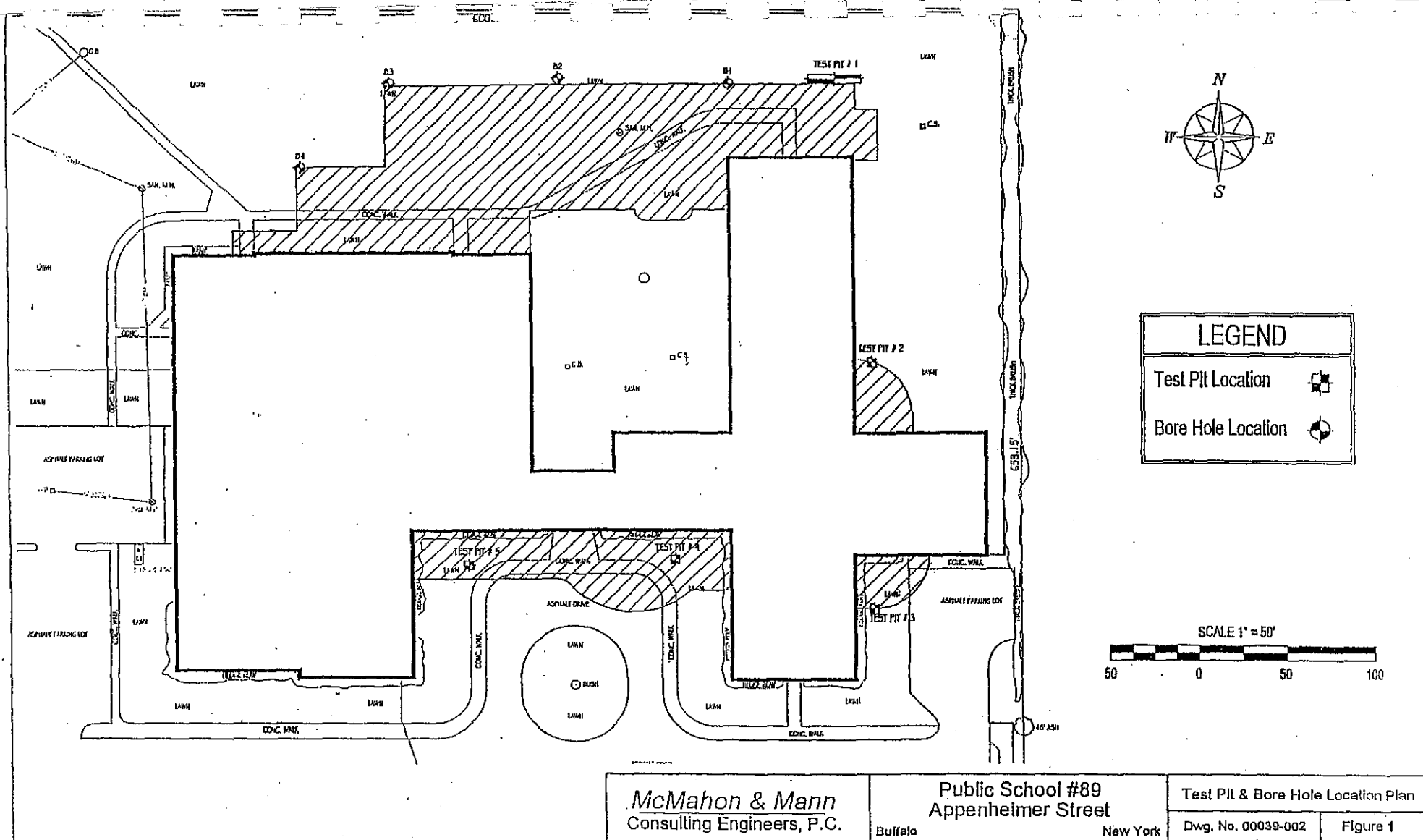


Figure 2-1

### 2.2.2 Phase II Environmental Site Assessment

The purpose of the surface and subsurface environmental assessment conducted by PEI/URS (*Phase II Environmental Site Assessment, Campus East School #89, 106 Appenheimer Avenue, City of Buffalo, Erie County, New York, PEI/URS, April - June 2001*) was to further identify potential environmental impairment at the Site and the associated impacts on planned construction activities associated with the additions to the existing school. The work included:

- An investigation of surface soils on school property, adjacent property including the park/ball field and playground area west of the school;
- An assessment of the subsurface soil/fill across the property;
- An assessment of the air quality inside the existing school building;
- The development of a report of findings and recommendations.

The field program consisted of surface and subsurface soil sampling. A total of nineteen (19) test trenches were advanced, at the surveyed locations shown on Figure 2-2, to an average depth of 6 feet below ground surface (range between 2.5 and 8 feet) using a rubber tire backhoe.

A total of thirteen (13) surface samples and five (5) subsurface samples were submitted for laboratory analysis. Soil samples submitted for analysis were selected from the test trenches exhibiting the highest organic vapor readings or based on visual appearance (i.e., stained or discolored fill material). It should be noted, however, in general no elevated organic vapor readings were observed during the subsurface program. Based on the past use of the property (limestone rock quarry filled with miscellaneous debris/ash), the samples were submitted to a laboratory for analysis of the full Target Compound List/Target Analyte List (TCL/TAL) compounds including PCBs.

These Investigations indicated the presence of detectable levels of semi-volatile organic compounds (SVOCs-primarily PAHs) and metals in both the surface soils and the fill materials (see Tables 3-2 and 3-3). With the exception of one location (tar-like materials in subsurface ash in TP-19), no PID readings above ambient levels were recorded on any of the samples and no volatile organic compounds were detected in samples.

J:\35693\CAD 1=100 6/22/01-2 PAL

CC-6815

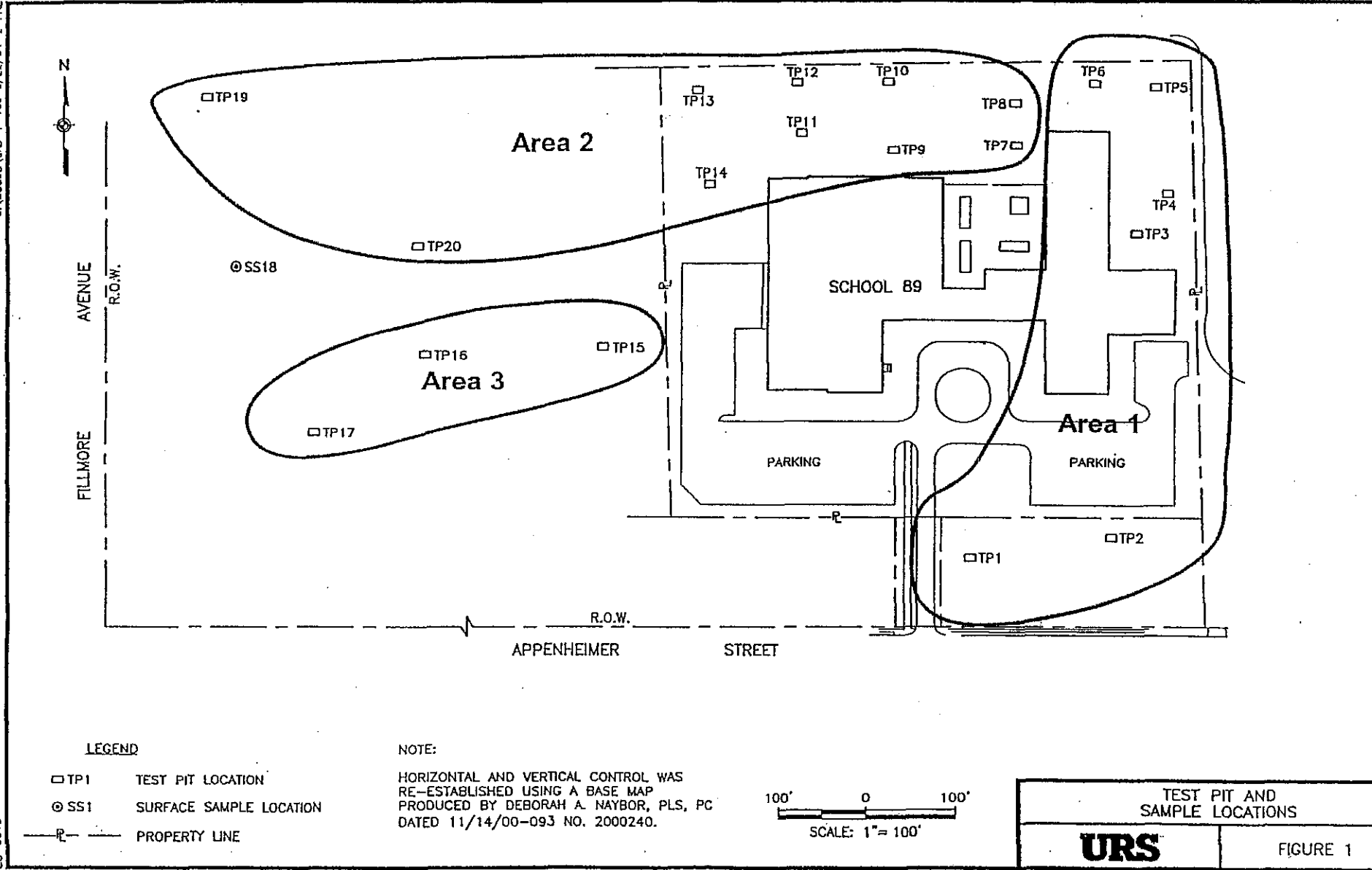


Figure 2-2



PAHs and metals can be introduced into the environment by natural (e.g., soil chemistry, forest fires) and human (e.g., automobile, coal or other heating fuel combustion, industry, or stone quarrying) processes. These compounds are typically bound up in the soil/fill materials and are not very mobile. They have low solubilities and do not leach readily to groundwater, even at relatively high concentrations. Chronic exposure to PAHs and metals in surface soils is not likely to occur under current conditions.

Three distinct areas of subsurface conditions were observed at the property as follows (refer to Figure 2-2).

#### Area 1

The area along the southeast and northeast portion of the property appeared to be outside the former quarry area. This area consists of topsoil, fill and a thin ash layer (note, this is not the same ash found in the quarry areas), and bedrock at a shallow depth (bedrock at depths of less than 3-4 feet). Surface soils (0-2 inch) in this area indicated elevated levels of PAHs and some metals particularly in the southeast portion of the property. Subsurface soils did not appear to be significantly elevated.

#### Area 2

The area behind and to the north of the school and within the center and northern portions of the park/ball field is within the former quarry. This area consisted of a topsoil layer, a fill layer consisting of soil, brick, pipe, wood and building fragments over an ash layer. Previous studies indicate that the ash fill was found to be at depths down to 26 to 30 feet to the top of bedrock. Surface and subsurface soils in this area had detectable levels of PAHs and metals above regulatory guidelines, but generally at much lower levels than test pits in the southeast and northeast. The exception, however, was Test Pit TP-19 which had levels significantly higher and was associated with a "tar like" material that appeared to be buried roofing materials. This test pit was located along the roadway near the adjacent residential housing complex.

#### Area 3

The area to the southwest of the school and along the southern end of the park/ball field contained

about ½ foot of topsoil over approximately 8 feet of fill consisting of silt and sand with some clay, wood, and brick fragments. No ash was encountered in the test pits in this area and only surface samples were collected. Although detectable levels of metals and PAHs in surface soil samples were indicated above regulatory guidelines, levels were relatively low. Total SVOCs and carcinogenic PAHs ( cPAH) were well below 10ppm and two of the locations were below 1ppm cPAHs.

With the exception of a few isolated samples (i.e. TP-19), the concentrations of the various PAHs and metal compounds detected are slightly above the NYSDEC TAGM 4046 recommended soil cleanup objectives. This would indicate that the associated health risks, assuming workers/students and pedestrians are actually subjected to substantial long-term exposure, are also minimal. Considering the nature of the proposed continued use of the property as a school and park/ball field, the potential exposure of students and residents to surface soil and workers to subsurface fill materials via the above potential exposure routes is low and will be virtually eliminated if engineering and administrative controls are instituted.

The complete results of the Phase II Investigation (minus Appendix B-D) are presented in Appendix A.

### 3.0 EXISTING SITE CONDITIONS

#### 3.1 Soil and Fill Materials

The surface of the property, including the school area; area adjacent to the asphalt covered playground; and park/ball field, consists primarily of a relatively flat grass lawn with some side walks and asphalt drive areas.

Generally, the fill overburden consists of a mixture of sand and clayey silt with some gravel and miscellaneous building debris including brick, concrete, wood, and glass under a layer of topsoil. The soil fill separates the topsoil from the underlying ash fill in most locations. The ash fill extends from beneath the soil fill to the top of bedrock in the former quarry area.

Top soil covering fill material was observed at all locations across the property and a soil fill separating a ash layer was observed at most locations. However, the depth of topsoil and the type of fill varied across the property (refer to Table 3-1).

#### 3.2 Nature and Extent of Contamination

Investigations conducted at the Site have indicated the presence of detectable levels of SVOCs and metals in the fill materials that comprise the upper 0 to 8 feet of soils. In both the surface (0-2") and subsurface soils the concentrations of several PAHs and metals exceed the NYSDEC TAGM 4046. A summary of the Phase II analytical data is presented in Tables 3-2 and 3-3.

There were no VOCs detected above the detection limits. Low levels of PCB Aroclor 1260 was detected in test pits TP-16 and TP-18 at 0.027 ppm and 0.024 ppm respectively. These levels are well below the NYSDEC TAGM guidelines.

As indicated on Table 3-2, the chemical constituents in the surface soils are generally distributed uniformly across the site, and fall within fairly narrow ranges of concentration. This is most likely a result of wind borne dispersion of chemical constituents from historical industrial and/or residential activities in the area, such as, historic use of coal, fuel oil or other fossil fuel burning for heat.

Table 3-1

## Campus School Subsurface Conditions

Test Pit	Location	Cover Thickness (ft.)	Fill Thickness (ft.)	Top of Ash Layer (ft.)	Top of Bedrock Layer (ft.)	Final Depth of Test Pit (ft.)
AREA 1						
TP-1	Southeast - Front of School	1.5	2.5	1.5*	4	4
TP-2	Southeast - Front of School	0.5	2	0.5*	2.5	2.5
TP-3	East of School	2	2.5	2*	4.5	4.5
TP-4	East of School	1	2	1*	3	3
TP-5	Northeast of School	1.5	1.5	1.5*	2.5	2.5
TP-6	Northeast of School	2	2.6	2*	NA	4.6
AREA 2						
TP-7	North of School	1	5	6	NA	8
TP-8	North of School	1	5	6	NA	7.5
TP-9	North of School	1	4	4	NA	8
TP-10	North of School	3	0.5	3.5	NA	6
TP-11	North of School	0.5	3.5	4	NA	6
TP-12	North of School	3.5	1	4.5	NA	6
TP-13	Northwest of School	2.5	0.9	3.4	NA	4.5
TP-14	West of School	0.5	5.1	5.6	NA	6.5
TP-19	Northwest corner of Park/Ball field	0.5	3.5	4	NA	5
TP-20	Middle of the Field	0.2	3.8	4	NA	6
AREA 3						
TP-15	Northeast corner of playground	0.5	7.5	NA	NA	8
TP-16	Northwest of Basketball Court	0.5	3.5	NA	NA	4
TP-17	South side of Park/Ball Field	0.5	4.5	NA	NA	5
SS-18	Middle of the Field	NA	NA	NA	NA	0.5

\*TP-1 thru 6 not within quarry area - different type of ash encountered

TP-7 thru 14, 19 and 20 were within the former Quarry and had gray ash and debris

TP-15, 16, and 17 contained different type of fill - no ash

Fill includes soil, brick, wood, building fragments and other miscellaneous construction debris

Table 3-2

**SURFACE SOIL SAMPLING ANALYTICAL RESULTS SUMMARY**  
**CAMPUS SCHOOL #89, BUFFALO, NEW YORK**

	Surface Soils TP-2	Surface Soils TP-3	Surface Soils TP-4	Surface Soils TP-7	Surface Soils TP-8	Surface Soils TP-9	Surface Soils TP-12	Surface Soils TP-13	Surface Soils TP-15	Surface Soils TP-16	Surface Soils TP-17	Surface Soils TP-18	Surface Soils TP-19	Eastern USA Background	Average Background	Rec. Soil Cleanup Values
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Metals	U	U	U	U	U	U	U	U	U	U	U	U	U	N/A	1.52	***
Cyanide	U	U	U	U	U	U	U	U	U	U	U	U	U	0.782	0.645	SB
Aluminum	13300	11600	5820	10700	8480	10800	7420	4180	8140	7260	6480	8530	10200	33,000	10,870	SB
Antimony	4.26 B	U	U	U	3.39 B	U	7.44	5.25 B	U	4.19 B	3.64 B	3.21 B	3.46 B	N/A	U	SB
Arsenic	6.6	5.1	3.5	4.7	4	5.5	4.4	4.3	4.8	2.9	3.9	6	18	3 to 12	9.93	7.5 or SB
Barium	72.3	86.6	56.6	79.7	81.7	83.3	91.9	59.2	78.1	60.1	35.4	79.1	231	15 to 600	92.56	300 or SB
Beryllium	0.624 B	0.593 B	0.312 B	0.568 B	0.435 B	0.568 B	0.4 B	0.24 B	0.511 B	0.355 B	0.29 B	0.48 B	0.671	0-1.75	0.573 B	0.16 or SB
Cadmium	U	U	U	0.655 B	0.631	0.518 B	U	U	U	U	U	U	2.86	0.1-1	0.681	10 or SB
Calcium	2080	3850	3950	4700	14900	9870	52800	61400	28000	78300	23700	31900	25300	130 to 35000	29700	SB
Chromium	14.4	17.2	8.92	22.7	11.6	21.6	8.77	6.12	9.68	8.41	8.64	14.4	20.1	1.5 to 40	15.3	50 or SB
Cobalt	9	11.3	5.42 B	9.54	6.13	8.71	5.82	3.01 B	5.27 B	4.56 B	6.69	6.51	7.56	2.5 to 40	7.72	30 or SB
Copper	22.1	30	23.5	28.8	21.1	27.8	25.2	24.4	31.4	22.9	19.8	33	126	1 to 50	25.7	25 or SB
Iron	21800	22700	15000	21400	14800	20500	14200	8280	13300	13500	13800	17400	21500	2000 to 550000	18100	2,000 or SB
Lead	61.9	46	42	71	80.1	59.8	76.4	73.5	125	63	12	234	506	200 to 500	551.3	SB****200-500
Magnesium	2930	4360	2240	4390	7010	7080	19200	7420	7780	11500	7170	13500	8130	100 to 5000	1027.6	SB
Manganese	497	588	367	492	340	460	329	216	449	324	341	409	1600	50 to 5000	427.3	SB
Mercury	0.08	0.27	0.2	0.086	0.17	0.11	0.32	0.14	0.16	0.073	U	0.1	0.9	0.001 to 0.2	0.145	0.1
Nickel	24.3	32.6	17.2	30.4	16.9	26.8	14	9.29	15.3	12.2	16.1	18.3	29.3	0.5 to 25	18.03	13 or SB
Potassium	1080	1280	641	1290	879	1410	1260	727	969	1050	784	1640	1320	8500 to 43000	1633.3	SB
Selenium	UW	UW	UW	U	U	UW	U	UW	U	U	U	UW	0.66	0.1 to 3.9	U	2 or SB
Sodium	56.5 B	42 B	48.2 B	37.7 B	61.4 B	51.3 B	138 B	107 B	84.6 B	142 B	71.6 B	125 B	188 B	6000 to 8000	220.3	SB
Thallium	0.78 B	0.69 B	0.52 B	0.69 B	0.46 B	0.74 B	0.43 B	0.6 B	0.47 B	0.28 B	0.56 B	0.55 B	0.8 B	N/A	0.51 B	SB
Vanadium	23.5	22.2	11.8	21.7	17.4	21.1	19.9	11.1	17.5	16.2	13.2	20.7	24.4	1 to 300	24.83	150 or SB
Zinc	118	114	78.2	126	456	132	108	90.4	141	161	60.6	159	465	9 to 50	239.3	20 or SB
PCB's																
PBB 1260	*	*	*	*	*	*	*	*	*	0.027	*	0.024	*	N/A	N/A	1 Surface
Semi-Volatile Organics																
Naphthalene	3 J	0.77 J	U	U	0.83 J	U	U	U	U	U	U	U	U	N/A	U	13
4-Chloroaniline	U	U	U	U	U	U	U	U	U	U	U	U	U	N/A	U	0.22
2-Methylnaphthalene	1.1 J	0.57 J	U	U	0.3 J	U	U	U	U	U	U	U	U	N/A	U	36.4
Acenaphthene	3.9 J	2.3	U	0.12 J	0.58 J	0.081 J	0.056 J	0.065 J	U	U	U	U	0.1 J	N/A	0.05 J	50
Dibenzofuran	2.6 J	1.2 J	U	U	0.55 J	U	U	U	U	U	U	U	U	N/A	U	6.2
Fluorene	4.2 J	2.4	U	0.1 J	0.68 J	U	U	U	U	U	U	U	0.13 J	N/A	U	50
Phenanthrene	26	13	0.19 J	0.91	4.6	0.66	0.54	0.63	0.31 J	0.058 J	0.54 J	0.47 J	1.7	N/A	0.88	50

## Key:

TP- Test Pit

U- Not Detected

SB- Site Background

\* - No tests done for the sample

\*\*\*\*- Lead Range is 200-500 ppm in Urban Areas

B - Analyte Detected in Method or Trip Blank

W - Post Spike recovery is out of limits

N/A - Not Available

Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

**Table 3-2** continued

	TP-2	TP-3	TP-4	TP-7	TP-8	TP-9	TP-12	TP-13	TP-15	TP-16	TP-17	TP-18	TP-19	Eastern USA	Average	NYSDEC
Semi-Volatile Organics	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Background	Background	TAGM
Anthracene	7.9	3.7	U	0.21 J	1.3	0.15 J	0.13 J	0.15 J	0.07 J	U	U	0.095 J	0.37 J	N/A	0.1499	50
Carbazole	4.1 J	2.1 J	U	0.13 J	0.7 J	0.087 J	0.045 J	0.071 J	U	U	U	0.06 J	0.18 J	N/A	U	N/A
Fluoranthene	24	9.6	0.35 J	1	3.8	0.65	0.76	0.97	0.58	0.11 J	0.12 J	0.75	2.4	N/A	1.19	50
Pyrene	25	11	0.42	1	3.1	1.1	0.98	1.1	0.64	U	U	0.78	3.3	N/A	1.29	50
Benzo(a)anthracene	12	6.6	0.21 J	0.56	1.7	0.4 J	0.46	0.54	0.35 J	0.049 J	0.04 J	0.38 J	1.7	N/A	0.89 J	0.224 / MDL
Chrysene	11	6.5	0.24 J	0.58	1.6	0.46	0.46	0.6	0.38 J	0.062 J	0.06 J	0.45 J	1.7	N/A	2.183 J	0.4
Bis-2-ethylhexyl phthalate	U	U	U	0.17 J	U	0.22 J	0.056 J	0.77 J	0.32 J	U	U	0.09 J	0.081 J	N/A	1.24	50
Benzo(b)fluoranthene	18	9.2	0.51	1.1	2.6	0.68	0.89	1.4	0.67	0.13 J	0.12 J	0.98	3.1	N/A	1.2	1.1
Benzo(k)fluoranthene	8.4	3.4	0.23 J	0.45 J	1.2	0.29 J	0.33 J	0.34 J	0.23 J	0.049 J	0.06 J	0.35 J	0.92	N/A	0.51 J	1.1
Benzo(a)pyrene	14	6.6	0.38 J	0.8	1.9	0.52	0.69	0.76	0.49	0.084 J	0.079 J	0.59	1.9	N/A	0.83 J	0.061 / MDL
Indeno(1,2,3-cd)pyrene	7.4	3	0.29 J	0.3 J	0.74 J	0.36 J	0.29 J	0.33 J	0.26 J	0.046 J	0.045 J	0.26 J	1	N/A	0.64 J	3.2
Dibenzo(a,h)anthracene	U	U	0.083 J	U	0.096 J	U	U	U	U	U	U	0.079 J	0.029 J	N/A	0.055 J	0.014
Benzo(g,h,i)perylene	4.2 J	1.6 J	0.21 J	0.22 J	0.43 J	0.25 J	0.22 J	0.21 J	0.18 J	U	U	0.2 J	0.69	N/A	0.42 J	50
Total cPAH	70.8	35.3	1.943	3.79	9.836	2.93	3.176	3.97	2.38	0.42	0.404	3.289	10.61	N/A	6.308	*
Total SVOC	179	83.54	3.113	7.65	26.706	5.898	5.907	7.936	4.48	0.588	1.064	5.734	19.581	N/A	11.5279	*
Unknown	1.7	0.2	0.19	0.86	0.27	0.16	*	0.11	0.35	0.14	0.25	0.19	0.21	N/A	N/A	N/A
Unknown	2.3	0.3	0.11	2	0.2	0.1	*	0.16	0.23	0.092	0.16	0.16	0.22	N/A	N/A	N/A
Unknown	2.8	0.39	0.081	1.3	1.3	0.14	*	0.16	0.22	0.21	0.097	0.15	0.16	N/A	N/A	N/A
Unknown	1.7	0.19	0.18	*	0.94	0.11	*	0.18	0.16	0.26	0.17	0.3	0.15	N/A	N/A	N/A
Unknown	4.7	0.49	0.28	*	1.6	0.33	*	0.18	0.2	0.098	0.18	0.19	0.15	N/A	N/A	N/A
Unknown	1.5	0.15	0.1	*	0.87	0.26	*	0.17	0.24	0.1	0.12	0.099	0.15	N/A	N/A	N/A
Unknown	2.1	0.21	0.16	*	1.3	1.6	*	0.64	0.58	0.24	0.25	0.12	0.16	N/A	N/A	N/A
Unknown	1.6	0.16	0.31	*	*	0.22	*	0.82	0.81	0.22	0.19	0.17	0.16	N/A	N/A	N/A
Unknown	1.4	0.33	0.14	*	*	0.22	*	0.9	*	0.25	0.24	0.14	0.99	N/A	N/A	N/A
Unknown	2.9	0.2	0.21	*	*	0.23	*	1.3	*	0.45	0.17	0.2	0.97	N/A	N/A	N/A
Unknown	1.7	0.13	0.16	*	*	0.93	*	1.4	*	1.4	0.18	0.72	0.88	N/A	N/A	N/A
Unknown	1.1	0.11	0.41	*	*	0.23	*	*	*	0.55	0.22	0.74	*	N/A	N/A	N/A
Unknown	0.96	0.13	0.13	*	*	0.27	*	*	*	*	0.17	1	*	N/A	N/A	N/A
Unknown	1.5	0.12	0.3	*	*	0.4	*	*	*	*	*	0.4	*	N/A	N/A	N/A
Unknown	1.1	0.59	0.4	*	*	0.23	*	*	*	*	*	0.29	*	N/A	N/A	N/A
Unknown	*	*	0.48	*	*	0.42	*	*	*	*	*	1.3	*	N/A	N/A	N/A
Unknown	*	*	0.97	*	*	0.46	*	*	*	*	*	0.38	*	N/A	N/A	N/A
Unknown	*	*	1	*	*	0.88	*	*	*	*	*	0.39	*	N/A	N/A	N/A
Unknown	*	*	0.42	*	*	0.92	*	*	*	*	*	*	*	N/A	N/A	N/A
Unknown	*	*	0.75	*	*	*	*	*	*	*	*	*	*	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.36	*	*	*	*	*	*	*	0.28	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.44	*	*	*	*	*	*	*	0.39	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.63	*	*	*	*	*	*	*	0.17	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.41	*	*	*	*	*	*	*	0.15	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.19	*	*	*	*	*	*	*	0.15	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.2	*	*	*	*	*	*	*	0.16	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.22	*	*	*	*	*	*	*	0.18	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	0.18	*	*	*	*	*	*	*	0.14	N/A	N/A	N/A
Unknown (PAH)	*	*	*	*	*	*	*	*	*	*	*	*	1.1	N/A	N/A	N/A
LBS#9	*	*	*	*	*	*	*	*	0.83	*	*	*	*	N/A	N/A	N/A

Key:

TP- Test Pit

\* - No tests done for the sample

W - Post Spike recovery is out of limits

U- Not Detected

\*\*\*\*- Lead Range is 200-500 ppm in Urban Areas

N/A - Not Available

SB- Site Background

B - Analyte Detected in Method or Trip Blank

Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

Table 3-3

**SUBSURFACE SOIL SAMPLING ANALYTICAL RESULTS SUMMARY  
CAMPUS SCHOOL #89, BUFFALO, NEW YORK**

	Sub Surface TP-2	Sub Surface TP-7	Sub Surface TP-12	Sub Surface TP-13	Sub Surface TP-19	Eastern USA Background	Average Background	NYSDEC Cleanup Values
Final Depth of TP's	2.5 ft.	8 ft.	6 ft.	4.5 ft.	5 ft.	N/A	N/A	N/A
Compounds	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Metals								
Cyanide	U	U	U	U	0.764	N/A	1.52	Site Specific
Aluminum	11000	5390	6200	11100	9970	33,000	10,870	SB
Antimony	3.85 B	6.51 B	8	U	4 B	N/A	U	SB
Arsenic	1.1	7	1.4	9.9	19.5	3 to 12	9.93	7.5 or SB
Barium	160	116	126	169	211	15 to 600	92.56	300 or SB
Beryllium	0.529 B	0.584 B	0.483 B	1.18	0.724	0-1.75	0.573 B	0.16 or SB
Cadmium	0.907	U	1.06	U	1.85	0.1-1	0.681	10 or SB
Calcium	2390	6890	19500	18400	36000	130 to 35000	29700	SB
Chromium	12.1	15	12.9	10.2	18.4	1.5 to 40	15.3	50 or SB
Cobalt	6.69	5.81 B	5.04 B	8.85	5.51 B	2.5 to 40	7.72	30 or SB
Copper	25.5	115	44.4	41.2	147	1 to 50	25.7	25 or SB
Iron	21100	16600	11400	17400	20500	2000 to 550000	18100	2,000 or SB
Lead	233	3810	392	199	425	200 to 500	551.3	SB****200-500
Magnesium	1900	1940	4020	4110	9910	100 to 5000	1027.6	SB
Manganese	482	137	275	293	366	50 to 5000	427.3	SB
Mercury	0.1	0.38	0.15	U	1.4	0.001 to 0.2	0.145	0.1
Nickel	17.4	14.3	16.7	18.2	19.5	0.5 to 25	18.03	13 or SB
Potassium	549 B	507 B	660	1080	1270	8500 to 43000	1633.3	SB
Selenium	0.38 WB	0.67	0.39 B	0.64 B	U	0.1 to 3.9	U	2 or SB
Sodium	105 B	159 B	160 B	280 B	217 B	6000 to 8000	220.3	SB
Thallium	0.81 B	0.46 B	0.63 B	0.75 B	0.65 B	Not Available	0.51 B	SB
Vanadium	21.6	23.6	18.3	46.6	22.1	1 to 300	24.83	150 or SB
Zinc	1879	280	188	188	353	9 to 50	239.3	20 or SB

## Key:

TP- Test Pit

U- Not Detected

SB- Site Background

Total cPAH value Includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

\* - No tests done for the sample

W - Post Spike recovery is out of limits

\*\*\*\*- Lead Range is 200-500 ppm in Urban Areas N/A - Not Available

B - Analyte Detected in Method or Trip Blank

Table 3-3 continued

	TP-2	TP-7	TP-12	TP-13	TP-19	East USA Background	Average Background	NYSDEC TAGM
<b>Volatile Organics</b>								
Methylene chloride	0.004 J	0.005 J	0.005 J	0.006 J	0.004 J	N/A	N/A	0.1
Acetone	*	0.011 J	0.006 J	0.01 J	*	N/A	N/A	0.2
Benzene	*	*	*	*	0.035	N/A	N/A	0.08
Toluene	*	*	*	*	0.12	N/A	N/A	1.5
Ethylbenzene	*	*	*	*	0.025	N/A	N/A	5.5
p-Xylene/m-Xylene	*	*	*	*	0.16	N/A	N/A	1.2
o-Xylene	*	*	*	*	0.088	N/A	N/A	1.2
Styrene	*	*	*	*	0.033	N/A	N/A	N/A
<b>Unknowns</b>								
Unknown	0.006	0.009	0.007	0.014	0.087	N/A	N/A	N/A
Unknown	0.008	0.008	0.008	0.013	0.34	N/A	N/A	N/A
Unknown	0.007	0.014	0.026	0.009	0.081	N/A	N/A	N/A
Unknown	0.028	0.013	*	0.008	0.13	N/A	N/A	N/A
Unknown	*	0.048	*	0.032	0.045	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.061	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.12	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.092	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.05	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.056	N/A	N/A	N/A

**Key:**

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Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

\* - No tests done for the sample

\*\*\*\*- Lead Range is 200-500 ppm in Urban Areas

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N/A - Not Available



Table 3-3 continued

Semi-Volatile Organics	East USA					Average		NYSDEC TAGM
	TP-2	TP-7	TP-12	TP-13	TP-19	Background	Background	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
4-Methylphenol	U	U	U	U	5.9 J	N/A	U	0.9
Naphthalene	U	U	0.079 J	U	7.5	N/A	U	13
2-Methylnaphthalene	U	U	U	U	26 J	N/A	U	36.4
Acenaphthylene	U	U	U	U	8.3 J	N/A	U	41
Acenaphthene	U	U	0.15 J	U	38 J	N/A	0.05 J	50
Dibenzofuran	U	U	0.098 J	U	28 J	N/A	U	6.2
Fluorene	U	U	0.18 J	U	46	N/A	U	50
Phenanthrene	0.13 J	0.17 J	1.6	0.087 J	240	N/A	0.88	50
Anthracene	U	U	0.35 J	U	75	N/A	0.1499	50
Carbazole	U	U	0.22 J	U	27 J	N/A	U	
Fluoranthene	0.23 J	0.22 J	1.8	0.12 J	150	N/A	1.19	50
Pyrene	0.22 J	0.21 J	2.9	U	160	N/A	1.29	50
Benzo(a)anthracene	0.11 J	0.11 J	3.7	0.06 J	72	N/A	0.89 J	0.224 / MDL
Chrysene	0.13 J	0.12 J	3.1	0.063 J	66	N/A	2.183 J	0.4
Bis-2-ethylhexyl phthalate	U	U	0.067 J	U	U	N/A	1.24	50
Benzo(b)fluoranthene	0.27 J	0.22 J	1.2	0.13 J	97	N/A	1.2	1.1
Benzo(k)fluoranthene	0.12 J	0.098 J	0.69	0.05 J	35 J	N/A	0.51 J	1.1
Benzo(a)pyrene	0.18 J	0.16 J	1.4	0.086 J	87	N/A	0.83 J	0.061 / MDL
Indeno(1,2,3-cd)pyrene	0.12 J	0.081 J	0.88	U	34 J	N/A	0.64 J	3.2
Dibenzo(a,h)anthracene	U	U	0.19 J	U	19 J	N/A	0.055 J	0.014
Benzo(g,h,i)perylene	0.075 J	0.051 J	0.61	U	26 J	N/A	0.42 J	50
Total cPAH	0.93	0.789	7.36	0.389	397.9	N/A	6.308	*
Total SVOC	2.515	2.229	15.414	0.568	1301.1	N/A	11.5279	*
Unknown	0.15	*	0.16	0.92	16	N/A	N/A	N/A
Unknown	0.21	*	0.12	*	9.6	N/A	N/A	N/A
Unknown	0.28	*	0.16	*	13	N/A	N/A	N/A
Unknown	0.19	*	0.16	*	14	N/A	N/A	N/A
Unknown	0.51	*	0.25	*	30	N/A	N/A	N/A
Unknown	0.45	*	0.29	*	32	N/A	N/A	N/A
Unknown	0.58	*	0.48	*	20	N/A	N/A	N/A
Unknown	0.59	*	0.14	*	51	N/A	N/A	N/A
Unknown	0.6	*	0.15	*	20	N/A	N/A	N/A
Unknown	0.5	*	1.2	*	17	N/A	N/A	N/A
Unknown	*	*	0.15	*	15	N/A	N/A	N/A
Unknown	*	*	0.16	*	10	N/A	N/A	N/A
Unknown	*	*	0.21	*	25	N/A	N/A	N/A
Unknown	*	*	0.16	*	17	N/A	N/A	N/A
Unknown	*	*	0.14	*	10	N/A	N/A	N/A
Unknown	*	*	0.76	*	9.9	N/A	N/A	N/A
Unknown	*	*	0.16	*	36	N/A	N/A	N/A
Unknown	*	*	0.2	*	*	N/A	N/A	N/A
Unknown	*	*	*	*	*	N/A	N/A	N/A
Unknown	*	*	*	*	*	N/A	N/A	N/A
Unknown (PAH)	*	*	1.9	*	*	N/A	N/A	N/A
Unknown (PAH)	*	*	2.3	*	*	N/A	N/A	N/A

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B - Analyte Detected in Method or Trip Blank

Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

All five subsurface soil samples analyzed had detectable levels of PAHs (refer to Table 3-3). However, only two locations, TP-12 and TP-19 contained levels consistently above TAGM levels. It should be noted that the sample collected from TP-19 at between 4 and 5-feet included tar and shingle materials within the ash material. In general, subsurface PAH levels were less than surface soil levels with the exception of the sample collected from TP-19. This sample, as noted above, contained shingle and roofing tar-like materials which typically contain PAH compounds.

All other test pit samples had total SVOC's significantly below 100 ppm and total cPAHs below 10 ppm. A number of unknown compounds were also detected in test pit samples TP-2, TP 12, and TP-19. Unknown compounds in TP-19 were at levels significantly higher than the other samples and are most likely due to the tar materials.

Various metals were detected in samples from all test pits. Most results were well below the TAGM criteria. Similar to PAH concentrations, metal concentrations were generally higher in surface samples. The highest metal concentration was for calcium at 78300.0 mg/kg in the surface sample at test pit location TP-16. The highest metal concentration above the TAGM cleanup values was for Iron at 22700.0 mg/kg in the surface sample at test pit TP-3. Lead was detected in surface soil sample TP- 19 slightly above urban background at 506 mg/kg (this location is near a road and near snow piles created from street plowing) and in subsurface sample TP-7 at 3,810 mg/kg. The Geotechnical Investigation conducted in November 2000 identified subsurface lead levels in two samples (24 to 26 feet and 14 to 18 feet bgs respectively) at 5,030 mg/kg and 1,310 mg/kg.

### 3.3 Risk Assessment

As indicated above, the primary constituents of concern identified at the Site are cPAHs and metals in the surface and subsurface soils. The primary potential exposure routes associated with the PAHs, and metals in the onsite soils include:

- Dermal contact
- Ingestion
- Inhalation

With the exception of a few isolated samples (i.e. TP-19 Tables 3-2 and 3-3), the concentrations of the various PAHs and metal compounds detected were slightly above the NYSDEC TAGM 4046 recommended soil cleanup objectives. This would indicate that the associated health risks, assuming workers/students and pedestrians are actually subjected to substantial long-term exposure, are also minimal. It should be noted that, during the Phase II investigation, lead was detected in two samples above NYSDEC guidance values at 3,810 mg/kg in one subsurface sample and 506 mg/kg in one surface soil sample near a road way and snow piles. Also, elevated lead levels were detected in two of the boreholes sampled during the Geotechnical Investigation ( see Table 3-4). These results indicate that lead above NYSDEC guidelines is not widespread across the property and is most likely limited to localized hot spots.

### 3.3.1 Soils

Samples collected from surface soils best represent the zone to which the public could routinely be exposed under current Site conditions. People could be exposed to surface soils in all areas of the Site by sitting on the ground, playing, mowing the grass, or landscaping activities. People would only be exposed to subsurface soils if they dig below the surface and/or the subsurface soil is left at the surface.

#### **Surface Soils**

PAHs and metals can be introduced into the environment by natural (e.g., soil chemistry, forest fires) and human (e.g., automobile, coal or other heating fuel combustion, industry, or stone quarrying) processes. These compounds are typically bound up in the soil/fill materials and are not very mobile. They have low solubilities and do not leach readily to groundwater, even at relatively high concentrations. People using or maintaining the school could be exposure to PAHs and metals in surface soils by sitting on the ground, playing, gardening, landscaping, or other improvement activities. Students or other members of the community using the play areas could be exposed to surface soils through participating in sports or by sitting on the ground. Since large areas of the school property are paved, the public would not be exposed to surface soil in these areas. The grass on most of the rest of the property was observed to be thick and well-established. Well-established and maintained grass cover usually minimizes human exposure to soil by acting as a barrier to direct contact with soil and minimizes generation of wind blown dust and erosion/transport by surface run-off.

**Table 3-4 ( Geotechnical Engineering Report - Dec. 2000)**

School 89 Campus East  
Buffalo, New York

Summary of November 1 & 2, 2000  
Analytical Test Results

	Concentration (PPM)				NYSDEC Cleanup Objective (PPM)	Eastern U.S.A Background (PPM)
	BH-1 (14'-16')	BH-2 (24'-26')	BH-3 (14'-18')	BH-4 (14'-20')		
Aluminum	7,790	4,580	7,120	4,480	SB	33,000
Antimony	U (6.94)	8.21	8.13	U (6.03)	SB	N/A
Arsenic	U (16.7)	29.7	28.4	U (14.5)	7.5 or SB	3-12
Barium	150	621	1630	342	300 or SB	15-600
Beryllium	0.96	0.678	0.744	0.651	0.16 (Heast) or SB	0-1.75
Cadmium	1.17	U (13.9)	U (12.8)	0.722	1 or SB	0.1-1
Calcium	6,560	16,600	40,600	8,520	SB	130-35,000*
Chromium	9.83	30.8	23.1	11.6	10 or SB	1.5-40*
Cobalt	8.55	9.05	10.5	4.64	30 or SB	2.5-60*
Copper	63.6	185	132	60.6	25 or SB	1-50
Iron	10,700	75,800	39,500	14,500	2,000 or SB	2,000-550,000
Lead	378	5,030	1,310	436	SB	**
Magnesium	1,040	1,690	7,500	730	SB	100-5,000
Manganese	250	383	329	1,100	SB	50-5,000
Mercury	0.048	0.039	0.49	0.24-E	0.1	0.001-0.2
Nickel	18.6	59.6	33.3	19.8	13 or SB	0.5-25
Potassium	624	341	979	446	SB	8,500-43,000*
Selenium	U (9.72)	U (9.72)	11.1	U (8.45)	2 or SB	0.1-3.9
Sodium	326	333	424	250	SB	6,000-8,000
Vanadium	42.4	28.4	28.2	18	150 or SB	1-300
Zinc	207	501	3,610	290	20 or SB	9-50

	Concentration (PPM)				NYSDEC Cleanup Objective (PPM)	Eastern U.S.A Background (PPM)
	BH-1 (14'-16')	BH-2 (24'-26')	BH-3 (14'-18')	BH-4 (14'-20')		
Acetone	U (0.034)	U (0.037)	U (0.033)	0.045	0.2	-
Methylene chloride	U (0.007)	U (0.007)	0.007	U (0.006)	0.1	-
Benzene	U (0.0009)	U (0.001)	0.001	U (0.0008)	0.06	-
Phenanthrene	U (1.80)	0.11 J	U (0.34)	U (1.60)	50 ***	-
Fluoranthene	1.30 J	0.57	U (0.34)	U (1.60)	50 ***	-
Pyrene	2.00	0.76	0.13 J	0.79 J	50 ***	-
Benzo(a) anthracene	2.30	0.53	U (0.34)	1.10 J	0.224 or MDL	-
Chrysene	2.20	0.46	U (0.34)	1.50 J	0.4	-
Bis-2-ethylhexyl phthalate	U (1.80)	U (0.40)	0.680	U (1.60)	50 ***	-
Benzo(b) fluoranthene	5.30	0.84	U (0.34)	3.60	1.1	-
Benzo(k) fluoranthene	1.80 J	0.32 J	U (0.34)	1.20 J	1.1	-
Benzo(a) pyrene	3.50	0.57	U (0.34)	2.00	0.061 or MDL	-
Indeno (1,2,3-cd) pyrene	2.50	0.25 J	U (0.34)	1.80	3.2	-
Benzo(g,h,i) perylene	2.60	0.28 J	U (0.34)	1.90	50 ***	-

PPM – parts per million or mg/kg

U (#) – compound undetected (detection limit)

N/A – not available

SB – site background

E – estimated result due to poor duplicate recovery

J – result estimated below the quantitation limit

MDL – method detection limit

NYSDEC Cleanup Objectives listed in Technical Administrative Guidance Memorandum # 4046 dated January 1994.

\* New York State background

\*\* background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.

\*\*\* as per TAGM #4046, total VOC's < 10 ppm, total semi-VOC's < 500ppm and individual semi-VOC's < 50ppm

### Subsurface Soils

Evaluation of site data indicates that the concentrations of several metals and cPAHs in the subsurface soils exceed the levels that are typically found in native soils, but are similar to the concentrations found in subsurface soils at other Buffalo neighborhoods.

Exposure to the PAHs and metals in the subsurface is not likely to occur under most conditions. Exposure would only occur if excavations occurred below the surface and if the subsurface soil is left at the surface. In general, potential for exposure to the fill materials at the site will be limited to onsite excavations (i.e. piers, utilities, foundations, etc.) and/or fugitive dust generated at the site during excavations.

The concentrations of total cPAHs in the subsurface soil samples from the Site (Table 3-3) range from 0.389 to 397.9 mg/kg, collected at depths of 4.5 and 5 feet. The highest concentration is associated with the sample from TP-19 which included a tar like substance that appeared to be buried roofing material. The average concentrations of cPAHs in samples with detectable levels (excluding the highest concentration) is 2.367 mg/kg. The average concentration is at the upper end of the range for urban background (1-3 mg/kg) reported by Menzie et. al. (1992).

Most of the metals detected in subsurface soil were within typical background levels, with the exception of arsenic, beryllium, copper, iron, mercury, nickel, lead and zinc. The average concentrations in subsurface soils are very similar to those in the surface soils at the Site and are generally slightly above or well below eastern USA background values with the exception of the isolated pockets of elevated lead concentrations.

### Summary

The primary potential exposure routes associated with the PAHs and metals in the onsite fill materials include dermal contact, ingestion and inhalation.

With a few exceptions, all surface and subsurface samples analyzed had concentrations of various PAHs and metal compounds only slightly above the NYSDEC TAGM #4046 recommended soil

cleanup objectives. This would indicate that the associated health risks, assuming workers/students and pedestrians are actually subjected to substantial long-term exposure, are also minimal. It should be noted that lead was detected in four samples at relatively high concentrations above NYSDEC guidance values: 3,810 mg/kg (Phase II ESA, TP-7 subsurface sample); 506 mg/kg (Phase II ESA, TP-19 surface sample); 5,030 mg/kg ( Geotechnical Report, BH-2 sample); and 1,310 mg/kg ( Geotechnical Report, BH-3 sample). However, these results indicate that lead above NYSDEC guidelines is not widespread across the property and is most likely limited to hot spots.

Considering the nature of the proposed continued use of the property as a school and park/ball field, the potential exposure of students/faculty to surface soil and workers to subsurface fill materials via the above potential exposure routes is low and will be virtually eliminated if engineering and administrative controls are instituted.

The situation at the Site is that the fill materials are typically overlain by 0.5 to 3.5 feet of topsoil. Since the levels of cPAHs and metals in subsurface soils at the Site are below the surface, chronic human contact (e.g., regular, continuous, long-term contact, the kind of exposure that forms the basis for the residential comparison values) to these contaminants is unlikely. Due to their location and that exposure is unlikely, the detected levels of cPAHs and metals in subsurface soils at the Site are not expected to pose a public health hazard. However, if these soils were brought to the surface and the constituents were made available for long-term human contact, risks for adverse health effects for exposure could increase. Consequently, the subsurface soils do not present an apparent health hazard.

### **3.3.2 Groundwater**

There is minimal potential for groundwater contamination at the site due to the low solubility of PAHs and metals in the fill materials. Additionally, there is minimal potential for exposure of workers and/or students/faculty to groundwater, as the groundwater table is estimated to be at least 13 to 16 feet bgs in the non-quarry area of the Site. The four borings installed in the quarry area to the north of the school during the Geotechnical Program indicate groundwater levels between 19.7 and 22.3 feet bgs. Also, all water required for the development, both during and post construction, will be obtained from municipal sources. It should also be noted, that, all water used at the school is from a municipal source.

#### 4.0 PROPOSED SITE DEVELOPMENT

The project consists of the renovation and construction of additions to School #89 and associated site work.

In general, the proposed development incorporates the following items:

- The school building additions will be supported on piles and/or piers with concrete slabs on grade;
- There will be no basements or other subgrade features, with the exception of utility lines;
- The Site will be graded such that the floor slabs of the buildings will be at or above the existing ground elevation. The remainder of the Site will be graded as shown on the bid construction drawings;
- All imported fill materials to be used on Site will be obtained from offsite sources and will be certified "clean";
- Utilities will be bundled and installed in dedicated corridors, as opposed to running them individually;
- Other site improvements include roadways, parking lots, pedestrian paved areas and landscaping;
- Possible underground storage tank replacement (Alternate Item);
- Implementation of stormwater and erosion control measures.



## 5.0 SOILS MANAGEMENT STRATEGIES

### 5.1 General

This section presents a discussion of the soil management approaches that will be utilized in conjunction with the construction of the school additions at the Site. Whereas the soils at the Site pose only minimal potential risk to construction workers and/or faculty/students, this potential risk can be further reduced and/or eliminated if proper soil management strategies are employed.

As described in Section 3.3, the primary potential exposure routes associated with the PAHs, and metals in the onsite soils include:

- Dermal contact
- Ingestion
- Inhalation

Considering the nature of the proposed development (i.e., additions to the present school structure), the potential exposure of workers and/or faculty/students to fill materials at the site via the above exposure routes is low. This is primarily due to the fact that the primary chemicals of concern are some metals (lead) at hot spots and cPAHs. These compounds are typically bound up in the soil/fill materials and are not very mobile. They have low solubilities and do not leach readily to groundwater, even at relatively high concentrations. In general, potential for exposure to the fill materials at the site will be limited to onsite excavations (i.e., utilities, foundations, gardens, etc.) and/or fugitive dust generated at the Site.

Consequently, the soils management/handling procedures need to focus on reducing or eliminating the potential for workers and faculty/students to come in contact with the contaminated site soils. Based on a review of the investigation data and the proposed Site development plans, it has been determined that the following general approach will be utilized in managing contaminated soils at the site.

- Existing areas of the Site which are covered with asphalt/concrete or have well established grass should be maintained to the maximum extent practicable. Well-established and maintained grass cover usually minimizes human exposures to soil by acting as a barrier to direct contact with the soil.

- All soil materials excavated at the Site (during and post construction) should be managed as if they are contaminated. This means that any fill materials excavated at the Site should be disposed off-site at a facility permitted to accept non-hazardous contaminated soils or should be utilized in regrading the site in accordance with 6 NYCRR Part 360-1.15 (b)(8) and capped with clean soils and/or concrete asphalt. An exception would be identified hot spots of lead which should be disposed of off-site as discussed above.
- All imported fill materials should be obtained from "virgin" sources and/or be tested to ensure they are clean and free of contaminants.
- No basements or other unnecessary excavations should be incorporated in the development, if possible. Utilities should be "bundled" and run in dedicated corridors to minimize soil excavation. All utility trenches should be backfilled with clean soils.
- Covenants for the school property should incorporate this Soils Management Plan. Additionally, language prohibiting the school from performing any subsurface excavations without managing soils in accordance with the SMP following completion of construction should be included.
- Dust control measures with full-time air monitoring (work areas and site perimeter) should be implemented during all intrusive activities to minimize inhalation exposures and create a public record.
- Full-time oversight should be provided during all intrusive activities to provide air monitoring and to document compliance with the SMP. A final construction monitoring report should be prepared upon project completion.
- Where possible, the existing site grade should be raised rather than lowered. Clean soils from off-site sources should be utilized (approximately twelve inches) in all areas where soil will be left exposed (i.e., not capped with asphalt/concrete) at the surface.

## 5.2 Soil Management/Handling Procedures

Specific soil management/handling procedures to be implemented at the site are described below. Additionally, prior to the commencement of any construction activities, the Contractor shall develop a Site Health and Safety Plan that meets the requirements outlined in Appendix B.

### 5.2.1 Building Addition Foundations

The materials to be excavated for the piers/footings will consist of existing fill materials. The fill materials will be managed as if they are non-hazardous contaminated soils. Consequently, the fill materials will be transported and disposed offsite in a permitted disposal facility. Alternatively, the fill materials may be utilized onsite (subsurface only) to re-grade the site. If the fill materials are retained onsite, placement during regrading will be limited to those areas of the site that will be capped with a minimum of 12-inches of clean soil, and/or concrete/asphalt, in order to limit potential exposure to future workers/faculty/students.

### **5.2.2 Utility Trenches**

To ensure worker safety during installation and for future repair of buried Utility services, the following procedures have been established to ensure proper management of the soils:

- Fill/native materials will be excavated to create a minimum two foot wide trench and one foot below the proposed invert elevation of the deepest utility. The fill materials will be utilized onsite for backfilling and/or regrading as applicable and/or disposed offsite;
- The resultant trench will be backfilled and compacted with clean soils imported from offsite;
- The utilities may be installed prior to backfilling and/or through the clean compacted soils, as necessary.

### **5.2.3 Site Grading**

In areas to be re-graded, the existing soils/fill will be excavated and repositioned as necessary to achieve the desired subgrade. The subgrade elevation will be maintained 12-inches below the final design elevations except in areas that will be capped with asphalt and/or concrete. In these areas the subgrade and final grade elevations will be the same. The upper 12-inches in the remaining areas will be filled to final grade with clean soils/topsoil imported from offsite sources.

Under no circumstances will the fill materials occupy the final elevation at the end of construction in any area of the site, except under the asphalt driveways and/or parking lots or concrete building slabs.

#### **5.2.4 Construction Observation**

An on-site, independent Environmental Inspector will be provided throughout the excavation and grading activities to evaluate the soil/fill materials encountered, and verify compliance with this SMP. This individual will be experienced with identification and screening of non-hazardous contaminated soils. The primary role will be to examine the fill and soils continuously during the footer installation, utility trench excavation and site grading operations to ensure that conditions are not substantially different than what has been anticipated. Additionally, this individual or a second individual will monitor air quality to document conditions during construction activities involving movement of soils.

Implementation of a perimeter air quality monitoring program will be required. Perimeter air quality will be measured at upwind and downwind locations to determine the potential offsite impact from onsite construction activities. At a minimum, monitoring for fugitive dust will be required. Real-time fugitive dust monitors should be used continuously throughout the work day. If downwind levels exceed 15.00 mg/m<sup>3</sup> above ambient levels, dust suppression measures shall be implemented.

Throughout the construction, the observer will prepare daily field reports that document activities performed, equipment and manpower onsite, screening and/or testing results, weather conditions, progress, changes or variances from the SMP, etc.

Following completion of the site activities related to the SMP, a brief Engineering Certification Report will be prepared. This report will summarize the construction activities and certify that the work was performed in accordance with the approved SMP. The field reports and other supporting documentation will be appended as necessary. The report will be signed and sealed by an engineer licensed to practice in New York State.

#### **5.2.5 Clean Fill Requirements**

It is anticipated that the fill materials and topsoil to be imported from off site will be

obtained from existing commercial suppliers and will be certified "clean" by the suppliers. However, should the contractor propose to import materials from other non-certifiable sources, one representative sample of the material from each proposed source will be obtained and analyzed for TCL Volatile/Semi-Volatile organics, TCL Pesticides/PCBs, Target Analyte List (TAL) metals and Cyanide analysis.

#### **5.2.6 Manifesting of Excavated Fill Materials**

The analytical data indicates that the fill materials are slightly impacted by PAHs and metals and are non-hazardous. Consequently, the fill materials will be handled as contaminated, non-hazardous soil. Should it be determined that any of the excavated fill materials are to be disposed off site, each truck will be provided with a "bill of lading" indicating that the soil/fill is non-hazardous.

## 6.0 CONTRACTOR REQUIREMENTS

During construction, the Contractor will be required to provide an onsite soils manager who will be responsible for the implementation of this SMP. The responsibilities of the onsite soils manager include:

- As a requirement of the SMP, the City of Buffalo Board of Education, will provide a full-time, on-site environmental inspector to oversee the contractor's compliance with the SMP. To that end, the contractor will need to coordinate all soil excavation activities with the inspector.
- Prior to the start of construction, the contractor will be required to prepare a site-specific Health and Safety Plan (HASP) per Appendix D requirements for this project. The HASP must be prepared in accordance with applicable USEPA, Occupational Safety and Health Administration (OSHA), American Council of Government Industrial Hygienists (ACGIH), and National Institute of Occupational Safety and Health (NIOSH) standards. The HASP should focus on reducing or eliminating the potential for workers/residents to come in contact with contaminated soils and/or inhale fugitive dust during construction. The HASP must identify any potential hazards related to excavating, handling and working around soils contaminated with PAHs and metals. The HASP must address all the normal items related to construction activities as well as the environmental issues specific to this project. Additionally, the contractor will need to determine the appropriate level of safety training required for personnel working on this project with respect to the contaminated nature of the materials to be excavated. Although it is not expected that 40-hour HAZWOPER training will be required, it is strongly suggested that the contractor's supervisory personnel, at a minimum, be trained and experienced in working with contaminated soils. The contractor must provide a qualified Health and Safety Officer onsite during all excavation and disposal operations.
- The contractor will be responsible for conducting his own air quality monitoring, or other monitoring, as deemed necessary by the HASP. This will be independent of any monitoring performed by the onsite Environmental Inspector.

- The Contractor must also address erosion and sediment control procedures to be implemented in order to prevent runoff from contaminated areas from impacting adjacent areas.
- The Contractor must develop a work plan which details the excavation, handling, and procedures he will utilize to meet the objectives of this soil management plan. This plan must be reviewed and approved by the City of Buffalo Board of Education prior to implementation of the project.

**APPENDIX A**  
**PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT**  
**(MINUS APPENDIX B - D)**



**PHASE II ENVIRONMENTAL SITE ASSESSMENT  
CAMPUS EAST SCHOOL #89  
106 APPENHEIMER AVENUE  
CITY OF BUFFALO, ERIE COUNTY, NEW YORK**

**Prepared for:**

**Buffalo Public Schools  
Buffalo Board Of Education**

**Attention:**

**Mr. Thaddeus J. Fyda, R.A.**

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**April-June 2001**

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## 1.0 INTRODUCTION AND BACKGROUND

### 1.1 INTRODUCTION AND PURPOSE

A surface and subsurface environmental assessment was completed by Panamerican Environmental, Inc. (PEI) and URS Corp. (URS) at the subject property located at 106 Appenheimer Avenue in the City of Buffalo, Erie County, New York. The assessment was conducted in general accordance with the scope of work provided with the proposal dated January 2, 2001 and Project Work Plan dated February 2001. A portion of the property historically was the site of a stone quarry which was filled with incinerator ash most likely from the incineration of household trash (based on the contents of the ash - i.e., bottles, metal cans, porcelain). Currently, a portion of the property contains Campus East School (Public School 89). The northwest portion of the existing school is located over the former quarry. The purpose of the assessment was to identify potential environmental impairment at the property and the associated impacts on planned construction activities associated with additions to the existing school.

### 1.2 SCOPE

The scope of the assessment focused on the following tasks:

- Investigation of surface soils on school property, adjacent property including the park/ball field and playground area west of the school
- Assessing subsurface soil/fill across the property
- Assessing air quality inside the building
- Developing a report of findings and recommendations

The investigation activities included a review of the proposed school addition footprint, as well as a surface and subsurface soil sampling and analysis program to assess surface and near surface soil conditions and to determine the depth to ash across the property. All work was conducted in general accordance with a site-specific Work Plan dated February 2001. This plan was reviewed and approved by the Buffalo Board of Education and included a Site Investigation Work Plan, Site-Specific Field Sampling Plan, a Quality Assurance/Quality Control Plan, and a Health and Safety Plan. The scope also included surveying sample locations and completion of a map identifying locations on an existing base map in accordance with best engineering practice and prepared under the direct supervision of a NYS licensed land surveyor.

### 1.3 BACKGROUND

The Campus East School was constructed about 1959 on property that previously was utilized as a limestone quarry from at least 1919 to the 1950s. Filled prior to construction of the school, the quarry extended from near Appenheimer Avenue, north to Kensington Avenue and west almost to Fillmore Avenue.

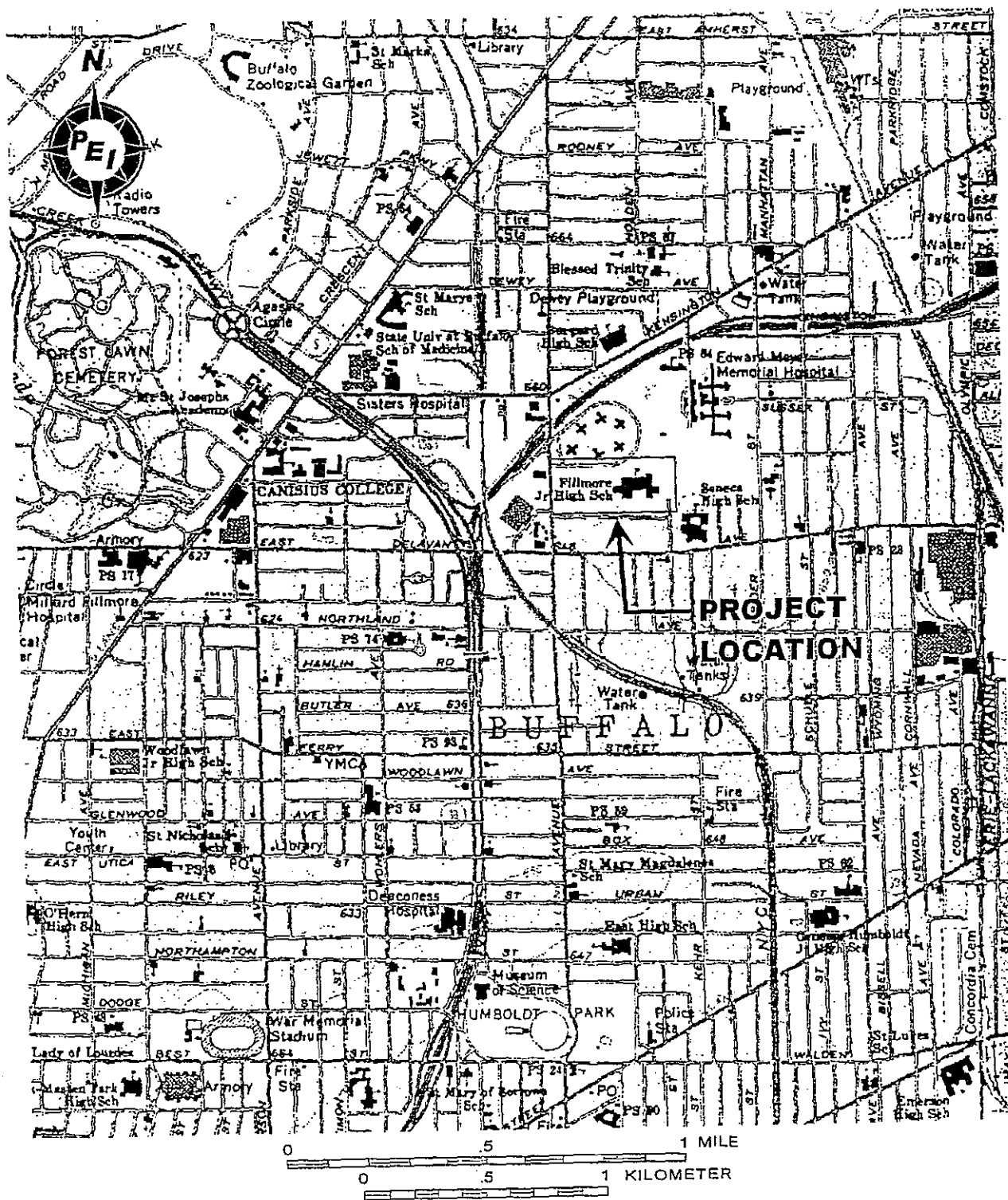


Figure 1. Project Location (USGS 7.5' Quadrangle, Buffalo SW, NY 1989 [1965]).

During recent assessments for planned additions to the school, contractors for the Buffalo Board of Education performed a Phase I Environmental Site Assessment and a series of geotechnical and engineering design studies ("*Geotechnical Engineering Report, Public School 89 Additions, Buffalo, New York. Prepared for Buffalo Board of Education, Prepared by McMahon & Mann Consulting Engineers, P.C. December 2000*") These studies suggested that the quarry was filled with ash and cinders that are covered by a layer of soil fill/topsoil. The topsoil varies from as much as approximately 6-7 feet to as little as less than 1 foot. The ash and cinders appear to extend from below the cover to the bottom of the quarry which was measured to be as much as 27 feet deep. Limited samples of the ash and cinder collected during these geotechnical/engineering design studies indicated elevated levels of polynuclear aromatic hydrocarbons (PAHs) and metals at concentrations, that in some cases, exceeded the New York State Department of Environmental Conservation (NYSDEC) Technical Assistance and Guidance Memorandum 4046 (TAGM 4046, revised 1994) soil cleanup value guidelines.

## **2.0 FIELD INVESTIGATIONS**

The Phase II was designed to provide a more detailed assessment of the approximately 9-acre school property, as well as the adjoining park/ball field property, and to further investigate the preliminary findings of the geotechnical/engineering design studies.

PEI/URS performed an assessment of the surface and subsurface environment across the property with a series of subsurface test pits using a tire mounted backhoe with a 1-2 foot bucket. Surface soil samples (0-2") were collected as 20 discrete samples at each test trench location. A total of nineteen (19) test trenches were advanced to the top of the bedrock layer or within the upper ash zone. One additional surface sample was collected in the middle of the field.

A soil gas screening and limited soil sampling was performed to investigate surface and subsurface conditions at the property. Excavated soils were screened using an direct reading organic vapor analyzer, as the trench was advanced the soil was placed on 6-mil plastic. Each test pit was then backfilled and compacted prior to moving to the next. During the test pit operations, the top soil fill material was segregated from observable ash fill. The trenches were then backfilled with the excavated materials in reverse order from how they were removed (i.e., ash fill placed on the bottom of the pit and covered with the top soil). Special care was made to prevent the subsurface ash material from remaining on the surface. Soil samples were sent to a laboratory and analyzed for Target Compound List/Target Analyte List (TCL/TAL) compounds including PCBs.

A summary of the field investigation methodology and findings is presented in Sections 2.1 through 2.5 below.

## 2.1 Soil Sampling and Test Pit Program

Sources of possible soil contamination on the property were investigated by obtaining a series of surface and subsurface soil samples. A total of nineteen (19) test pits were advanced at the approximate locations shown on Figure 2, to an average depth of 5 to 6 feet below ground surface (range between 2½ and 8 feet) using a tire mounted backhoe with a 1-2 foot bucket. Additionally, twenty (20) surface soil samples were collected; one at each test pit location prior to excavation, and one in the middle of the open ball field where a test trench was not advanced (refer to Photograph 28). The locations of the test trenches were subject to accessibility and the location of underground utility lines. The final locations and sample frequencies for the soil survey points were chosen based on field conditions and in general compliance with the approved work plan. All test trenches were advanced at a minimum distance of 2.5 feet away from marked utilities, where present, to reduce the possibility of accidentally damaging an underground line.

The test pits were terminated at natural soil/bedrock, or within the top of the ash layer. Soil from each slit-trench was visually described and screened using an organic vapor analyzer (HNU PI-101 with a 10.2 eV Lamp). Stratification of material in the trenches and observations were noted on the trench logs (refer to test pit logs provided in Appendix A). Photographs of field activities and test pits are contained in Appendix C. Prior to conducting the subsurface investigation, all utilities were located and areas identified as noted above. The backhoe bucket was cleaned and decontaminated prior to excavation of each test pit.

A total of thirteen (13) surface samples and five (5) subsurface samples were submitted for laboratory analysis. Soil samples submitted for analysis were selected from the test trenches exhibiting the highest soil gas readings or based on visual appearance (i.e., stained or discolored fill material). Based on the past use of the property (limestone rock quarry filled with miscellaneous debris/ash), the samples were submitted to a laboratory for analysis of the full Target Compound List/Target Analyte List (TCL/TAL) compounds including PCBs.

The surface of the property, including the school area; area adjacent to the asphalt covered playground; and park/ball field, consists primarily of a relatively flat grass lawn with some side walks and asphalt drive areas.

Generally, the fill overburden consists of a mixture of sand and clayey silt with some gravel and miscellaneous building debris including brick, concrete, wood, and glass under a layer of topsoil. The soil fill separates the topsoil from the underlying ash fill in most locations. The ash fill extends from beneath the soil fill to the top of bedrock in the former quarry area.

Top soil covering fill material was observed at all locations across the property and a soil fill separating a ash layer was observed at most locations. However, the depth of topsoil

and the type of fill varied across the property (refer to Table 1). In general, from a soil/fill perspective, the area of property assessed included three distinct subsurface conditions as follows:

#### Area 1

- The area along the southeast and northeast side of the building, including the areas investigated with test pits TP-1 thru TP-6 included top soil from 0 to between 0.5 and 2 feet, a fill layer containing sandy silt and silty sand with brick and glass and a thin layer of ash from between 0.5 and 6 feet below ground surface (bgs), and bedrock at between 2.5 and 4.6 feet bgs. Some variations existed between excavations (refer to test pit logs)

#### Area 2

- The area north of the school and central and northern park/field area, including the area investigated by test pits TP-7 thru TP-14 and TP-19 and TP-20 included topsoil from 0 to 3.5-feet bgs (mostly between 0 and 0.5-feet); a fill layer consisting of clay and silt with brick, wood, building fragments, and pipe at between 0.5 and 6.0-feet bgs; and an ash, metal and glass layer at between 6 and 8 feet bgs. Based on previous studies, this ash layer extends to the bottom of the quarry and the top of rock (at least 30-feet). Some variation existed between test pits. Test Pit TP-19, for example, contained some debris including hardened tar and tar shingles.

#### Area 3

- The southern park/ball field area and adjacent to the playground investigated by test pits TP-15, TP-16, and TP17 included topsoil from 0 to .5 feet bgs and a fill layer consisting of silt and sand with some clay, wood, brick, and building fragments from 0.5 to 8 feet bgs. No ash was found in this fill material.

Included in the fill materials (located below the top soil and above the incinerator ash - when it is present) are varying amounts of the following; wood and brick fragments, metals, concrete and asphalt fragments, glass, and a fine ash material in several of the pits. The ash layer contained complete glassware, clothing items, and metal products. Groundwater was not encountered in any of these test pits.

The bedrock underlying the area is the Onondaga Formation, an undeformed limestone with black chert inclusions, dipping one to two degrees to the south, and striking approximately east-west. Underlying the Onondaga Formation in this area are, in descending order, the Akron Dolostone Formation, and the Bertie Limestone Formation.

Large snow piles were present along the northwest corner of the park/ball field, in the proximity of test pit TP-19 and adjacent to the road that services the Buffalo Municipal



**Table 1**  
**Campus School Subsurface Conditions**

Test Pit	Location	Cover Thickness (ft.)	Fill Thickness (ft.)	Top of Ash Layer (ft.)	Top of Bedrock Layer (ft.)	Final Depth of Test Pit (ft.)
<b>AREA 1</b>						
TP-1	Southeast - Front of School	1.5	2.5	1.5*	4	4
TP-2	Southeast - Front of School	0.5	2	0.5*	2.5	2.5
TP-3	East of School	2	2.5	2*	4.5	4.5
TP-4	East of School	1	2	1*	3	3
TP-5	Northeast of School	1.5	1.5	1.5*	2.5	2.5
TP-6	Northeast of School	2	2.6	2*	NA	4.6
<b>AREA 2</b>						
TP-7	North of School	1	5	6	NA	8
TP-8	North of School	1	5	6	NA	7.5
TP-9	North of School	1	4	4	NA	8
TP-10	North of School	3	0.5	3.5	NA	6
TP-11	North of School	0.5	3.5	4	NA	6
TP-12	North of School	3.5	1	4.5	NA	6
TP-13	Northwest of School	2.5	0.9	3.4	NA	4.5
TP-14	West of School	0.5	5.1	5.6	NA	6.5
TP-19	Northwest corner of Park/Ball field	0.5	3.5	4	NA	5
TP-20	Middle of the Field	0.2	3.8	4	NA	6
<b>AREA 3</b>						
TP-15	Northeast corner of playground	0.5	7.5	NA	NA	8
TP-16	Northwest of Basketball Court	0.5	3.5	NA	NA	4
TP-17	South side of Park/Ball Field	0.5	4.5	NA	NA	5
SS-18	Middle of the Field	NA	NA	NA	NA	0.5

\*TP-1 thru 6 not within quarry area - different type of ash encountered

TP-7 thru 14, 19 and 20 were within the former Quarry and had gray ash and debris

TP-15, 16, and 17 contained different type of fill - no ash

Fill includes soil, brick, wood, building fragments and other miscellaneous construction debris

proximity of test pit TP-19 and adjacent to the road that services the Buffalo Municipal Housing Authority property. This pile was approximately 8 feet above grade and 50 feet in diameter and included a large amount of snow with dirt and rocks associated with street snow removal process.

## **2.2 Soil Sampling and Analytical Program**

Surface and subsurface samples were collected in accordance with the approved work plan. Surface soil samples were obtained from the upper two inches at the slit trench locations. Subsurface samples were selected from ash layers.

A total of five (5) subsurface soil samples were selected from test pits indicating the highest total volatile organic vapor readings and/or based on visual appearance (i.e., stained or discolored fill material), as well as at selected locations which would provide coverage across the investigation area. Thirteen (13) surface soil samples were selected for analysis. Five of the thirteen were selected at locations which also had subsurface soil samples submitted for analysis. The remaining eight samples were selected at locations which would provide coverage across the investigation area.

Surface soil samples were collected at test pit locations TP-2, TP-3, TP-4, TP-7, TP-8, TP-9, TP-12, TP-13, TP-17, SS-18 and TP-19. Subsurface soil samples were collected from Test Pits TP-2, TP-7, TP-12, TP-13, TP-19. Samples were submitted to a New York State Laboratory for analysis for TCL Volatiles (subsurface samples only), TCL Semi-Volatiles, TCL Pesticides/PCBs, TAL metals, and Cyanide analysis. Analytical results are discussed in Section 3.0.

## **2.3 Site Map Generation**

A site map was generated by URS Corp. (refer to Figure 2). The map was completed in accordance with best engineering practice and was prepared under the direct supervision of a NYS licensed land surveyor. All test pits and sample locations associated with the investigation were surveyed and are shown on the map. The base map was obtained from Kideney Architects. Mapping was prepared using Auto CADD release 14.

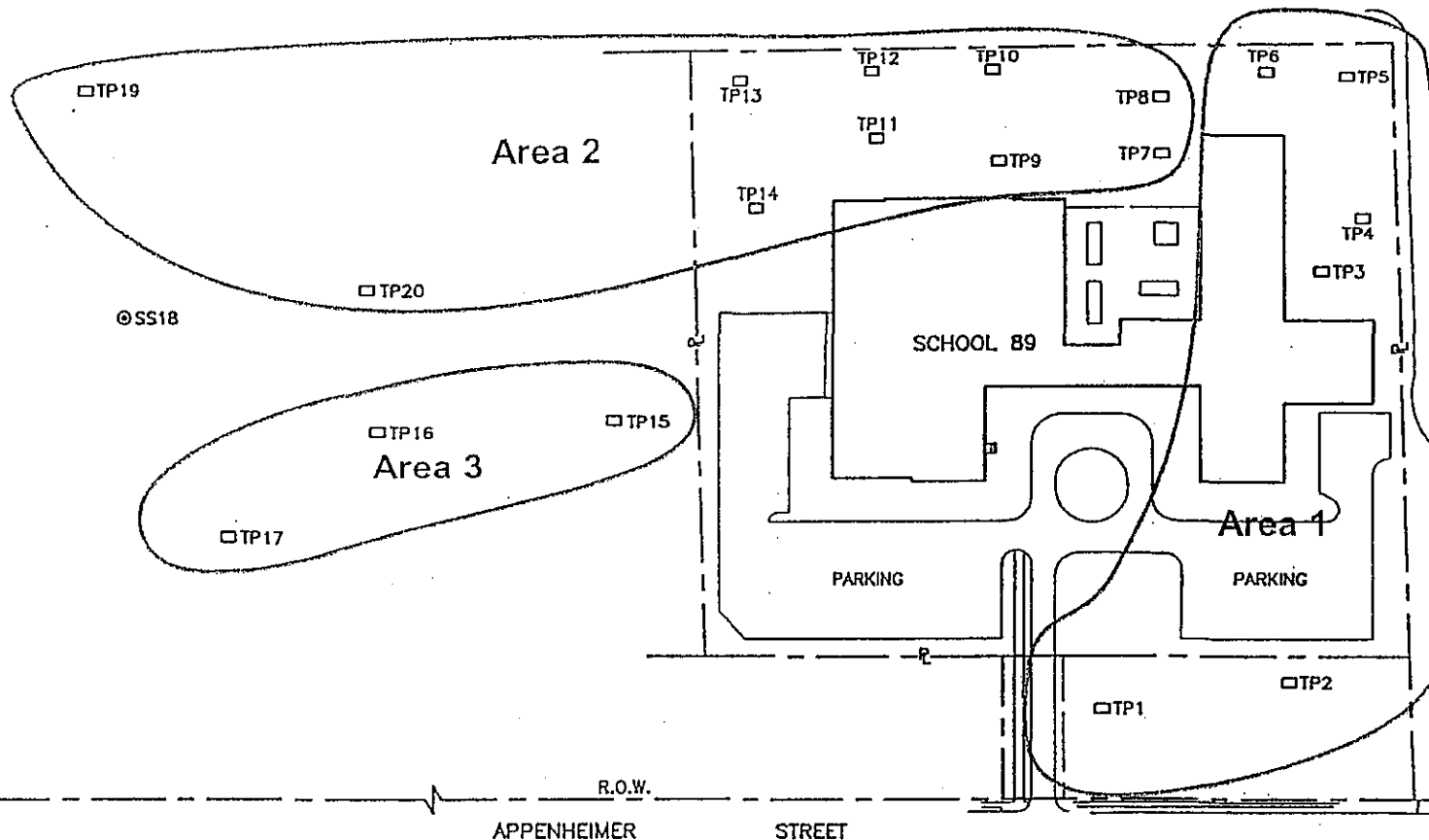
## **2.4 Air Quality Assessment**

On March 9, 2001, an air monitoring program was carried out in the basement crawl space below the school, in accordance with the February 2001 Work Plan. The sampling protocol was modified to substitute the use of ultra low-level Summa canisters in lieu of the Tedlar bag method originally proposed. The use of Summa canisters generally allows for more reliable shipping and extremely low (< 1.0 ppb) laboratory detection limits.

Two 6-liter Summa canisters were staged at ground level at the east and west ends of the crawl space (S89-01 east, S89-02 west). At the time of sampling, the basement, which has



FILLMORE AVENUE  
R.O.W.

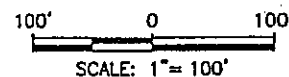


**LEGEND**

- TP1 TEST PIT LOCATION
- ⊙ SS1 SURFACE SAMPLE LOCATION
- P — PROPERTY LINE

**NOTE:**

HORIZONTAL AND VERTICAL CONTROL WAS  
RE-ESTABLISHED USING A BASE MAP  
PRODUCED BY DEBORAH A. NAYBOR, PLS, PC  
DATED 11/14/00-093 NO. 2000240.



TEST PIT AND  
SAMPLE LOCATIONS

**URS**

FIGURE 1

a soil floor, was observed to be dry. No notable odors were present except very near to the water treatment equipment for the swimming pool, where a chlorine odor was noted. The sampling collection period was approximately seven hours. Standard chain-of-custody procedures were followed, with FedEx transport of the samples to the laboratory.

During the canister sampling period, real-time sampling throughout the crawl space was also performed using a MiniRAE Model 2000 (10.6 eV) photoionization detector calibrated to a benzene-equivalent. This instrument has a detection limit of 0.1 ppm (benzene-equivalents) for a select group of volatile organic compounds. It cannot measure methane.

Following receipt of the Summa canisters by the analytical laboratory, analysis was performed using USEPA Method TO-14 which uses gas chromatography/mass spectroscopy (GC/MS) in the "full scan" mode. Up to 0.5 liters of air are concentrated, vaporized, dehumidified, and then injected into the analytical instrument. A total of 60 compounds are included in the TO-14 scan.

A second analytical run was made with each canister's contents using the American Society for Testing and Materials (ASTM) Method D-1946. This method measures for eight gases, including methane.

### **3.0 ANALYTICAL RESULTS**

Compounds detected in the soil sampling program are summarized in Tables 2 (subsurface) and 3 (surface). These tables present data from each sample submitted for analysis and provides a comparison with the TAGM 4046 soil cleanup values. Eastern USA background values are also provided for comparison with metal results. Analytical results for background surface soil samples collected at a nearby property investigated recently by the City (Trinidad Place and Kensington Avenue) are provided for comparison purposes only. There are other recent investigations both within the City of Buffalo and other urban areas where typical levels have been established (refer to Section 4). The complete set of analytical data is provided in Appendix B. Analytical results are discussed below.

#### **3.1 Volatile Organic Compounds**

There were no volatile organic results detected above the detection limits.

#### **3.2 Semi-Volatile Organic Compounds**

Semi-Volatile organic compounds are organic compounds that will slowly and partially evaporate when exposed to the atmosphere at room temperature and pressure. These compounds tend to attach to solid surfaces. Numerous semi-volatile organic compounds (SVOC) consisting primarily of polynuclear aromatic hydrocarbons (PAHs) were detected in the surface and subsurface samples.

gas, garbage or other organic substances and are widely distributed in the environment and particularly in older urban environments where coal, gas, and petroleum were burned for heat and other energy uses. PAH compounds are common constituents of fill material found in urban environments, and are typically associated with both fill material, coal tar and asphalt based materials or ash.

In general, PAHs and metals are not very mobile in soils, in that they have low solubilities with water (these compounds are practically insoluble in water) and tend to adsorb to the soil grains. These compounds do not readily breakdown in the environment and PAHs deposited from combustion of coal or other fuels years ago would most likely still be present today. Based on the low volatility and their association with soil, the primary concern for potential human exposure to PAHs include inhalation or ingestion of contaminated dust as well as dermal contact.

The SVOC results were compared to NYSDEC guideline levels and a total carcinogenic PAH (cPAH) level and total SVOC level was calculated (refer to Tables 2 and 3). The PAH compounds identified as being carcinogenic (given a sufficient dose over a long period of time) include the following seven compounds: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene. As would be expected in an urban environment, results from the soils sampled (both surface and subsurface) indicated that several SVOCs were identified at concentrations above the NYSDEC TAGMs, including PAH's.

#### Surface Soil

Surface soil samples were collected below the grass surface and within the top two inches of soil (0-2 inch level) at each test pit excavation location prior to excavation. All surface soil samples had detectable levels of PAHs above NYSDEC TAGMs (refer to Table 3), however, only four sample locations contained levels consistently above TAGM levels including TP- 2, TP-3, TP-8, and TP-19. Total SVOCs for the surface samples from Test Trench locations TP-2, TP-3, TP-8, and TP-19 were as follows:

- 179 ppm for TP-2,
- 83.54 ppm for TP-3,
- 26.7 ppm for TP-8, and
- 19.56 ppm for TP-19

Total cPAHs for these four locations were as follows:

- 70.8 ppm for TP-2,
- 35.3 ppm for TP-3,
- 9.8 ppm for TP- 8, and
- 10.61 ppm for TP-19.

Eleven of the thirteen surface soil samples had total detectable cPAH levels above 1 ppm and three had total cPAH level above 10 ppm. Surface soil sample locations TP-2 (70.8 ppm), TP-3 (35.3 ppm), and TP-19 (10.61 ppm) had detected levels of cPAHs above 10 ppm. Surface soil sample locations TP-4 (1.9 ppm), TP-7 (3.8 ppm), TP-8 (9.8 ppm), TP-9 (2.9 ppm), TP-12 (3.1 ppm), TP-13 (4.0 ppm), TP-15 (2.4 ppm), and TP-18 (3.3 ppm) had detectable total cPAH levels above 1 ppm.

A number of unknown SVOC compounds were also detected in the surface soil samples. Samples taken at locations TP-8 and TP-19 contained unknown PAH compounds at relatively low levels. All other sample locations (except location TP-12) had low levels of unknown non PAH compounds. Levels at TP-2 were at levels a few orders of magnitude above those indicated at other locations.

### Subsurface

All five subsurface soil samples analyzed had detectable levels of PAHs (refer to Table 2). However, only two locations, TP-12 and TP-19 contained levels consistently above TAGM levels. It should be noted that the sample collected from TP-19 at between 4 and 5-feet included tar and shingle materials within the ash material. In general, subsurface PAH levels were less than surface soil levels with the exception of the sample collected from TP-19. This sample, as noted above, contained shingle and roofing tar-like materials which typically contain PAH compounds. Total SVOC's for the subsurface samples from test pit TP-12 and TP-19 were as follows:

- 15.41 ppm for TP-12
- 1,301.1 ppm for TP-19

Total cPAH's for these locations were as follows:

- 7.36 ppm for TP-12
- 397.9 ppm for TP-19

All other test pit samples had total SVOC's significantly below 100 ppm and total cPAHs below 10 ppm. A number of unknown compounds were also detected in test pit samples TP-2, TP-12, and TP-19. Unknown compounds in TP-19 were at levels significantly higher than the other samples and are most likely due to the tar materials.

### **3.3 Pesticides and PCBs**

Low levels of PCB Aroclor 1260 was detected in test pits TP-16 and TP-18 at 0.027 ppm and 0.024 ppm respectively. These levels are well below the NYSDEC TAGM guidelines.

### **3.4 Metals**

Various metals were detected in samples from all test pits. Most results were well below

Various metals were detected in samples from all test pits. Most results were well below the TAGM criteria. Similar to PAH concentrations, metal concentrations were generally higher in surface samples. The highest metal concentration was for calcium at 78300.0 mg/kg in the surface sample at test pit location TP-16. The highest metal concentration above the TAGM cleanup values was for Iron at 22700.0 mg/kg in the surface sample at test pit TP-3. Lead was detected in surface soil sample TP- 19 slightly above urban background at 506 mg/kg (this location is near a road and near snow piles created from street plowing) and in subsurface sample TP-7 at 3,810 mg/kg. The previous investigation conducted in November 2000 identified subsurface lead levels in two samples (24 to 26 feet and 14 to 18 feet bgs respectively) at 5,030 mg/kg and 1,310 mg/kg.

The concentrations of most metals were within the cited ranges for Eastern U.S. soils and TAGM values. The exceptions were zinc in test pit TP-2 (surface and subsurface); mercury (surface), nickel (surface), and zinc (surface) in test pit TP-3; mercury (surface) in test pit TP-4; copper (subsurface), mercury (subsurface), nickel (surface), and zinc (surface and subsurface) in test pit TP-7; zinc (surface) in test pit TP-8; nickel (surface) and zinc (surface) in test pit TP-9; arsenic (subsurface), mercury (subsurface), and zinc (surface and subsurface) in test pit TP-12; zinc (surface and subsurface) in test pit TP-13; zinc (surface) in test pit TP-15; zinc (surface) in test pit TP-16; zinc (surface) in test pit TP-17; zinc (surface) in surface soil SS- 18; arsenic (surface), copper (surface and subsurface), lead (surface), mercury (surface and subsurface), nickel (surface), and zinc (surface and subsurface) in test pit TP-19. With the exception of some specific results, the metals were not significantly higher than the eastern US range.

Most metals occur in nature and their concentrations in fill and natural soil will exhibit considerable variability both stratigraphically and spatially. This variability is related to the variable composition of the fill, natural soils' protolith, weathering processes that chemically and physically modify soil, and groundwater interactions that modify the geochemistry.

### **Section 3.5 Indoor Air Quality**

Real-time total VOC measurements made throughout the crawl space showed the concentration to be at or below ambient background levels of 0.0 ppm (benzene equivalents). Of the sixty VOCs screened using EPA Method TO-14, most were not measurable at the detection limits of 0.21-1.0 ppb. Methane was not detectable at a detection limit of 21 ppm. Measurable VOCs were in the range 0.41-56.0 ppb, which is consistent with trace concentrations typically associated with indoor building activities. The crawl space in this building is used as the exhaust for at least one fan on the first floor, therefore activities such as use of photocopiers, office and art supplies, as well as custodial activities, could all be contributors to the observed trace concentrations. All VOC concentrations detectable above the reported detection limits were nonetheless below 10% of the current OSHA PELs or ACGIH TLV®, which is a generally accepted (though not ACGIH-endorsed) action level for the general population.

**TABLE 2**  
**SUBSURFACE SOIL SAMPLING ANALYTICAL RESULTS SUMMARY**  
**CAMPUS SCHOOL #89, BUFFALO, NEW YORK**

	Sub Surface	Sub Surface	Sub Surface	Sub Surface	Sub Surface	Eastern USA Background	Average Background	NYSDEC Cleanup Values
TP-2	TP-7	TP-12	TP-13	TP-19				
Final Depth of TP's	2.5 ft.	8 ft.	6 ft.	4.5 ft.	5 ft.	N/A	N/A	N/A
Compounds	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<b>Metals</b>								
Cyanide	U	U	U	U	0.764	N/A	1.52	Site Specific
Aluminum	11000	5390	6200	11100	9970	33,000	10,870	SB
Antimony	3.85 B	6.51 B	8	U	4 B	N/A	U	SB
Arsenic	3.44	7	14	20.9	9.5	3 to 12	9.93	7.5 or SB
Barium	160	116	126	169	211	15 to 600	92.56	300 or SB
Beryllium	0.529 B	0.584 B	0.481 B	1.13	0.724	0-1.75	0.573 B	0.16 or SB
Cadmium	0.907	U	1.06	U	1.85	0.1-1	0.681	10 or SB
Calcium	2390	6890	19500	18400	36000	130 to 35000	29700	SB
Chromium	12.1	15	12.9	10.2	18.4	1.5 to 40	15.3	50 or SB
Cobalt	6.69	5.81 B	5.04 B	8.85	5.51 B	2.5 to 40	7.72	30 or SB
Copper	25.5	115	144	112	147	1 to 50	25.7	25 or SB
Iron	21100	16600	11400	17100	20500	2000 to 550000	18100	2,000 or SB
Lead	233	3810	392	199	425	200 to 500	551.3	SB****200-500
Magnesium	1900	1940	4020	4110	9910	100 to 5000	1027.6	SB
Manganese	482	137	275	293	386	50 to 5000	427.3	SB
Mercury	0.1	0.38	0.15	U	0.14	0.001 to 0.2	0.145	0.1
Nickel	17.4	14.3	18.7	18.2	19.5	0.5 to 25	18.03	13 or SB
Potassium	549 B	507 B	660	1080	1270	8500 to 43000	1633.3	SB
Selenium	0.38 WB	0.67	0.39 B	0.64 B	U	0.1 to 3.9	U	2 or SB
Sodium	105 B	159 B	160 B	280 B	217 B	6000 to 8000	220.3	SB
Thallium	0.81 B	0.46 B	0.63 B	0.75 B	0.65 B	Not Available	0.51 B	SB
Vanadium	21.6	23.6	18.3	46.6	22.1	1 to 300	24.83	150 or SB
Zinc	379	230	188	166	353	9 to 50	239.3	20 or SB

Key:

TP- Test Pit

U- Not Detected

SB- Site Background

Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

\* - No tests done for the sample

W - Post Spike recovery is out of limits

\*\*\*\*- Lead Range is 200-500 ppm in Urban Areas

N/A - Not Available

B - Analyte Detected in Method or Trip Blank



Table 2, continued

	TP-2	TP-7	TP-12	TP-13	TP-19	East USA Background	Average Background	NYSDEC TAGM
Semi-Volatile Organics	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
4-Methylphenol	U	U	U	U	5.9 J	N/A	U	0.9
Naphthalene	U	U	0.079 J	U	7.5	N/A	U	13
2-Methylnaphthalene	U	U	U	U	26 J	N/A	U	36.4
Acenaphthylene	U	U	U	U	6.3 J	N/A	U	41
Acenaphthene	U	U	0.15 J	U	38 J	N/A	0.05 J	50
Dibenzofuran	U	U	0.098 J	U	28 J	N/A	U	6.2
Fluorene	U	U	0.18 J	U	46	N/A	U	50
Phenanthrene	0.13 J	0.17 J	1.6	0.087 J	22 J	N/A	0.88	50
Anthracene	U	U	0.35 J	U	73	N/A	0.1499	50
Carbazole	U	U	0.22 J	U	27 J	N/A	U	
Fluoranthene	0.23 J	0.22 J	1.8	0.12 J	150	N/A	1.19	50
Pyrene	0.22 J	0.21 J	2.9	U	160	N/A	1.29	50
Benzo(a)anthracene	0.11 J	0.11 J	1.1	0.06 J	72	N/A	0.89 J	0.224 / MDL
Chrysene	0.13 J	0.12 J	1.1	0.063 J	166	N/A	2.183 J	0.4
Bis-2-ethylhexyl phthalate	U	U	0.067 J	U	U	N/A	1.24	50
Benzo(b)fluoranthene	0.27 J	0.22 J	1.2	0.13 J	107	N/A	1.2	1.1
Benzo(k)fluoranthene	0.12 J	0.098 J	0.69	0.05 J	33 J	N/A	0.51 J	1.1
Benzo(a)pyrene	0.18 J	0.16 J	1.4	0.086 J	187	N/A	0.83 J	0.061 / MDL
Indeno(1,2,3-cd)pyrene	0.12 J	0.081 J	0.88	U	34 J	N/A	0.64 J	3.2
Dibenzo(a,h)anthracene	U	U	0.19 J	U	69 J	N/A	0.055 J	0.014
Benzo(g,h,i)perylene	0.075 J	0.051 J	0.61	U	26 J	N/A	0.42 J	50
Total cPAH	0.93	0.789	7.36	0.389	397.9	N/A	6.308	*
Total SVOC	2.515	2.229	15.414	0.566	1301.1	N/A	11.5279	*
Unknown	0.15	*	0.16	0.92	16	N/A	N/A	N/A
Unknown	0.21	*	0.12	*	9.6	N/A	N/A	N/A
Unknown	0.28	*	0.16	*	13	N/A	N/A	N/A
Unknown	0.19	*	0.16	*	14	N/A	N/A	N/A
Unknown	0.51	*	0.25	*	30	N/A	N/A	N/A
Unknown	0.45	*	0.29	*	32	N/A	N/A	N/A
Unknown	0.58	*	0.48	*	20	N/A	N/A	N/A
Unknown	0.59	*	0.14	*	51	N/A	N/A	N/A
Unknown	0.6	*	0.15	*	20	N/A	N/A	N/A
Unknown	0.5	*	1.2	*	17	N/A	N/A	N/A
Unknown	*	*	0.15	*	15	N/A	N/A	N/A
Unknown	*	*	0.16	*	10	N/A	N/A	N/A
Unknown	*	*	0.21	*	25	N/A	N/A	N/A
Unknown	*	*	0.16	*	17	N/A	N/A	N/A
Unknown	*	*	0.14	*	10	N/A	N/A	N/A
Unknown	*	*	0.76	*	9.9	N/A	N/A	N/A
Unknown	*	*	0.16	*	36	N/A	N/A	N/A
Unknown	*	*	0.2	*	*	N/A	N/A	N/A
Unknown	*	*	*	*	*	N/A	N/A	N/A
Unknown	*	*	*	*	*	N/A	N/A	N/A
Unknown (PAH)	*	*	1.9	*	*	N/A	N/A	N/A
Unknown (PAH)	*	*	2.3	*	*	N/A	N/A	N/A

## Key:

TP- Test Pit

U- Not Detected

SB- Site Background

Total cPAH value includes:

\* - No tests done for the sample

\*\*\*\*- Lead Range is 200-500 ppm in Urban Areas

B - Analyte Detected in Method or Trip Blank

benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene,  
benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

W - Post Spike recovery is out of limits

N/A - Not Available

Table 2, continued

	TP-2	TP-7	TP-12	TP-13	TP-19	East USA Background	Average Background	NYSDEC TAGM
<b>Volatile Organics</b>								
Methylene chloride	0.004 J	0.005 J	0.005 J	0.006 J	0.004 J	N/A	N/A	0.1
Acetone	*	0.011 J	0.006 J	0.01 J	*	N/A	N/A	0.2
Benzene	*	*	*	*	0.035	N/A	N/A	0.08
Toluene	*	*	*	*	0.12	N/A	N/A	1.5
Ethylbenzene	*	*	*	*	0.025	N/A	N/A	5.5
p-Xylene/m-Xylene	*	*	*	*	0.16	N/A	N/A	1.2
o-Xylene	*	*	*	*	0.088	N/A	N/A	1.2
Styrene	*	*	*	*	0.033	N/A	N/A	N/A
<b>Unknowns</b>								
Unknown	0.006	0.009	0.007	0.014	0.087	N/A	N/A	N/A
Unknown	0.008	0.008	0.008	0.013	0.34	N/A	N/A	N/A
Unknown	0.007	0.014	0.026	0.009	0.081	N/A	N/A	N/A
Unknown	0.028	0.013	*	0.008	0.13	N/A	N/A	N/A
Unknown	*	0.048	*	0.032	0.045	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.061	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.12	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.092	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.05	N/A	N/A	N/A
Unknown (aromatic)	*	*	*	*	0.056	N/A	N/A	N/A

**Key:**

TP- Test Pit

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Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene,  
benzo (a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

\* - No tests done for the sample

\*\*\*\*- Lead Range is 200-500 ppm In Urban Areas N/A - Not Available

B - Analyte Detected In Method or Trip Blank

W - Post Spike recovery is out of limits

**TABLE 3**  
**SURFACE SOIL SAMPLING ANALYTICAL RESULTS SUMMARY**  
**CAMPUS SCHOOL #89, BUFFALO, NEW YORK**

	Surface Soils TP-2	Surface Soils TP-3	Surface Soils TP-4	Surface Soils TP-7	Surface Soils TP-8	Surface Soils TP-9	Surface Soils TP-12	Surface Soils TP-13	Surface Soils TP-15	Surface Soils TP-16	Surface Soils TP-17	Surface Soils TP-18	Surface Soils TP-19	Eastern USA Background	Average Background	Rec. Soil Cleanup Values
Metals	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Cyanide	U	U	U	U	U	U	U	U	U	U	U	0.782	0.645	N/A	1.52	***
Aluminum	13300	11600	5820	10700	8480	10800	7420	4180	8140	7260	6480	8530	10200	33,000	10,870	SE
Antimony	4.26 B	U	U	U	3.39 B	U	7.44	5.25 B	U	4.19 B	3.64 B	3.21 B	3.46 B	N/A	U	SE
Arsenic	6.6	5.1	3.5	4.7	4	5.5	4.4	4.3	4.8	2.9	3.9	6	18	3 to 12	9.93	7.5 or SE
Barium	72.3	86.6	56.6	79.7	81.7	83.3	91.9	59.2	78.1	60.1	35.4	79.1	231	15 to 600	92.56	300 or SE
Beryllium	0.624 B	0.593 B	0.312 B	0.568 B	0.435 B	0.568 B	0.4 B	0.24 B	0.511 B	0.355 B	0.29 B	0.48 B	0.671	0-1.75	0.573 B	0.16 or SE
Cadmium	U	U	U	0.655 B	0.631	0.518 B	U	U	U	U	U	U	U	0.1-1	0.681	10 or SE
Calcium	2080	3850	3950	4700	14900	9870	52800	61400	28000	78300	23700	31900	25300	130 to 35000	29700	SE
Chromium	14.4	17.2	8.92	22.7	11.6	21.6	8.77	6.12	9.68	8.41	8.64	14.4	20.1	1.5 to 40	15.3	50 or SE
Cobalt	9	11.3	5.42 B	9.54	6.13	8.71	5.82	3.01 B	5.27 B	4.56 B	6.69	6.51	7.56	2.5 to 40	7.72	30 or SE
Copper	22.1	30	23.5	28.8	21.1	27.8	25.2	24.4	31.4	22.9	19.8	33	126	1 to 50	25.7	25 or SE
Iron	21800	22700	15000	21400	14800	20500	14200	8280	13300	13500	13800	17400	21500	2000 to 55000	18100	2,000 or SE
Lead	61.9	46	42	71	80.1	59.8	76.4	73.5	125	63	12	234	506	200 to 500	551.3	SB****200-500
Magnesium	2930	4360	2240	4390	7010	7080	19200	7420	7780	11500	7170	13500	8130	100 to 5000	1027.6	SE
Manganese	497	588	367	492	340	460	329	216	449	324	341	409	1600	50 to 5000	427.3	SE
Mercury	0.08	0.27	0.2	0.086	0.17	0.11	0.32	0.14	0.16	0.073	U	0.1	0.9	0.001 to 0.2	0.145	0.1
Nickel	24.3	32.6	17.2	30.4	16.9	26.8	14	9.29	15.3	12.2	16.1	18.3	29.3	0.5 to 25	18.03	13 or SE
Potassium	1080	1280	641	1290	879	1410	1260	727	969	1050	784	1640	1320	8500 to 43000	1633.3	SE
Selenium	UW	UW	UW	U	U	UW	U	UW	U	U	U	UW	0.66	0.1 to 3.9	U	2 or SE
Sodium	56.5 B	42 B	48.2 B	37.7 B	61.4 B	51.3 B	138 B	107 B	84.6 B	142 B	71.6 B	125 B	188 B	6000 to 8000	220.3	SE
Thallium	0.78 B	0.69 B	0.52 B	0.69 B	0.46 B	0.74 B	0.43 B	0.6 B	0.47 B	0.28 B	0.56 B	0.55 B	0.8 B	N/A	0.51 B	SE
Vanadium	23.5	22.2	11.8	21.7	17.4	21.1	19.9	11.1	17.5	16.2	13.2	20.7	24.4	1 to 300	24.83	150 or SE
Zinc	118	114	78.2	126	456	132	108	90.4	111	161	60.6	159	465	9 to 50	239.3	20 or SE
PCB's																
PBB 1260	*	*	*	*	*	*	*	*	*	0.027	*	0.024	*	N/A	N/A	1 Surface
Semi-Volatile Organics																
Naphthalene	3 J	0.77 J	U	U	0.83 J	U	U	U	U	U	U	U	U	N/A	U	1
4-Chloroaniline	2.2 J	U	U	U	U	U	U	U	U	U	U	U	U	N/A	U	0.2
2-Methylnaphthalene	1.1 J	0.57 J	U	U	0.3 J	U	U	U	U	U	U	U	U	N/A	U	36
Acenaphthene	3.9 J	2.3	U	0.12 J	0.58 J	0.081 J	0.056 J	0.065 J	U	U	U	U	0.1 J	N/A	0.05 J	5
Dibenzofuran	2.6 J	1.2 J	U	U	0.55 J	U	U	U	U	U	U	U	U	N/A	U	6
Fluorene	4.2 J	2.4	U	0.1 J	0.68 J	U	U	U	U	U	U	U	0.13 J	N/A	U	5
Phenanthrene	26	13	0.19 J	0.91	4.6	0.65	0.54	0.63	0.31 J	0.058 J	0.54 J	0.47 J	1.7	N/A	0.88	5

Key:

TP- Test Pit

U- Not Detected

SB- Site Background

Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

\* - No tests done for the sample

\*\*\*\*- Lead Range is 200-500 ppm In Urban Areas

B - Analyte Detected in Method or Trip Blank

W - Post Spike recovery is out of limits

N/A - Not Available

Table 3, continued																	
	TP-2	TP-3	TP-4	TP-7	TP-8	TP-9	TP-12	TP-13	TP-15	TP-16	TP-17	TP-18	TP-19	Eastern USA	Average	NYSDEC	
Semi-Volatile Organics	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Background	Background	TAGM	
Anthracene	7.9	3.7	U	0.21 J	1.3	0.15 J	0.13 J	0.15 J	0.07 J	U	U	0.095 J	0.37 J	N/A	0.1499	50	
Carbazole	4.1 J	2.1 J	U	0.13 J	0.7 J	0.087 J	0.045 J	0.071 J	U	U	U	0.06 J	0.18 J	N/A	U	N/A	
Fluoranthene	24	9.6	0.35 J	1	3.8	0.65	0.76	0.97	0.58	0.11 J	0.12 J	0.75	2.4	N/A	1.19	50	
Pyrene	25	11	0.42	1	3.1	1.1	0.98	1.1	0.64	U	U	0.78	3.3	N/A	1.29	50	
Benzo(a)anthracene	12	6.6	0.21 J	0.56	1.7	0.4 J	0.46	0.54	0.35 J	0.049 J	0.04 J	0.38 J	1.7	N/A	0.89 J	0.224 / MDL	
Chrysene	11	6.5	0.24 J	0.58	1.6	0.46	0.46	0.6	0.38 J	0.062 J	0.06 J	0.45 J	1.7	N/A	2.183 J	0.4	
Bis-2-ethylhexyl phthalate	U	U	U	0.17 J	U	0.22 J	0.056 J	0.77 J	0.32 J	U	U	0.09 J	0.081 J	N/A	1.24	50	
Benzo(b)fluoranthene	18	9.2	0.51	1.1	2.6	0.68	0.89	1.4	0.67	0.13 J	0.12 J	0.98	3.1	N/A	1.2	1.1	
Benzo(k)fluoranthene	8.4	3.4	0.23 J	0.45 J	1.2	0.29 J	0.33 J	0.34 J	0.23 J	0.049 J	0.06 J	0.35 J	0.92	N/A	0.51 J	1.1	
Benzo(a)pyrene	14	6.6	0.38 J	0.8	1.9	0.52	0.69	0.76	0.49	0.084 J	0.079 J	0.59	1.9	N/A	0.83 J	0.061 / MDL	
Indeno(1,2,3-cd)pyrene	7.4	3	0.29 J	0.3 J	0.74 J	0.36 J	0.29 J	0.33 J	0.26 J	0.046 J	0.045 J	0.26 J	1	N/A	0.64 J	3.2	
Dibenzo(a,h)anthracene	U	U	0.083 J	U	0.096 J	U	U	U	U	U	U	0.079 J	0.29 J	N/A	0.055 J	0.014	
Benzo(g,h,i)perylene	4.2 J	1.6 J	0.21 J	0.22 J	0.43 J	0.25 J	0.22 J	0.21 J	0.18 J	U	U	0.2 J	0.69	N/A	0.42 J	50	
Total cPAH	70.8	35.3	1.943	3.79	9.836	2.93	3.176	3.97	2.38	0.42	0.404	3.289	10.61	N/A	6.308	*	
Total SVOC	179	83.54	3.113	7.65	26.706	5.898	5.907	7.936	4.48	0.588	1.064	5.734	19.561	N/A	11.5279	*	
Unknown	1.7	0.2	0.19	0.86	0.27	0.16	*	0.11	0.35	0.14	0.25	0.19	0.21	N/A	N/A	N/A	
Unknown	2.3	0.3	0.11	2	0.2	0.1	*	0.16	0.23	0.092	0.16	0.16	0.22	N/A	N/A	N/A	
Unknown	2.8	0.39	0.081	1.3	1.3	0.14	*	0.16	0.22	0.21	0.097	0.15	0.16	N/A	N/A	N/A	
Unknown	1.7	0.19	0.18	*	0.94	0.11	*	0.18	0.16	0.26	0.17	0.3	0.15	N/A	N/A	N/A	
Unknown	4.7	0.49	0.28	*	1.6	0.33	*	0.18	0.2	0.098	0.18	0.19	0.15	N/A	N/A	N/A	
Unknown	1.5	0.15	0.1	*	0.87	0.26	*	0.17	0.24	0.1	0.12	0.099	0.15	N/A	N/A	N/A	
Unknown	2.1	0.21	0.16	*	1.3	1.6	*	0.64	0.58	0.24	0.25	0.12	0.16	N/A	N/A	N/A	
Unknown	1.6	0.16	0.31	*	*	0.22	*	0.82	0.81	0.22	0.19	0.17	0.16	N/A	N/A	N/A	
Unknown	1.4	0.33	0.14	*	*	0.22	*	0.9	*	0.25	0.24	0.14	0.99	N/A	N/A	N/A	
Unknown	2.9	0.2	0.21	*	*	0.23	*	1.3	*	0.45	0.17	0.2	0.97	N/A	N/A	N/A	
Unknown	1.7	0.13	0.16	*	*	0.93	*	1.4	*	1.4	0.18	0.72	0.88	N/A	N/A	N/A	
Unknown	1.1	0.11	0.41	*	*	0.23	*	*	*	0.55	0.22	0.74	*	N/A	N/A	N/A	
Unknown	0.96	0.13	0.13	*	*	0.27	*	*	*	*	0.17	1	*	N/A	N/A	N/A	
Unknown	1.5	0.12	0.3	*	*	0.4	*	*	*	*	*	0.4	*	N/A	N/A	N/A	
Unknown	1.1	0.59	0.4	*	*	0.23	*	*	*	*	*	0.29	*	N/A	N/A	N/A	
Unknown	*	*	0.48	*	*	0.42	*	*	*	*	*	1.3	*	N/A	N/A	N/A	
Unknown	*	*	0.97	*	*	0.46	*	*	*	*	*	0.38	*	N/A	N/A	N/A	
Unknown	*	*	1	*	*	0.88	*	*	*	*	*	0.39	*	N/A	N/A	N/A	
Unknown	*	*	0.42	*	*	0.92	*	*	*	*	*	*	*	N/A	N/A	N/A	
Unknown	*	*	0.75	*	*	*	*	*	*	*	*	*	*	N/A	N/A	N/A	
Unknown (PAH)	*	*	*	*	0.36	*	*	*	*	*	*	*	0.28	N/A	N/A	N/A	
Unknown (PAH)	*	*	*	*	0.44	*	*	*	*	*	*	*	0.39	N/A	N/A	N/A	
Unknown (PAH)	*	*	*	*	0.63	*	*	*	*	*	*	*	0.17	N/A	N/A	N/A	
Unknown (PAH)	*	*	*	*	0.41	*	*	*	*	*	*	*	0.15	N/A	N/A	N/A	
Unknown (PAH)	*	*	*	*	0.19	*	*	*	*	*	*	*	0.15	N/A	N/A	N/A	
Unknown (PAH)	*	*	*	*	0.2	*	*	*	*	*	*	*	0.16	N/A	N/A	N/A	
Unknown (PAH)	*	*	*	*	0.22	*	*	*	*	*	*	*	0.18	N/A	N/A	N/A	
Unknown (PAH)	*	*	*	*	0.18	*	*	*	*	*	*	*	0.14	N/A	N/A	N/A	
Unknown (PAH)	*	*	*	*	*	*	*	*	*	*	*	*	1.1	N/A	N/A	N/A	
LBS#9	*	*	*	*	*	*	*	*	0.83	*	*	*	*	N/A	N/A	N/A	

Key:

TP- Test Pit

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Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo (a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

\* - No tests done for the sample

W - Post Spike recovery is out of limits

\*\*\*- Lead Range is 200-500 ppm in Urban Areas

N/A - Not Available

## 4.0 CONCLUSIONS AND RECOMMENDATIONS

Investigations conducted at the property have indicated the presence of detectable levels of SVOCs (primarily carcinogenic PAHs) and metals in both the surface soils and the fill materials. With the exception of one location (tar-like materials in subsurface ash in TP-19), no PID readings above ambient levels were recorded on any of the samples and no volatile organic compounds were detected in samples.

Three distinct areas of subsurface conditions were observed at the property as follows (refer to Figure 2).

### Area 1

The area along the southeast and northeast portion of the property appeared to be outside the former quarry area. This area consists of topsoil, fill and a thin ash layer (note, this is not the same ash found in the quarry areas), and bedrock at a shallow depth (bedrock at depths of less than 3-4 feet). Surface soils (0-2 inch) in this area indicated elevated levels of PAHs and some metals particularly in the southeast portion of the property. Subsurface soils did not appear to be significantly elevated.

### Area 2

The area behind and to the north of the school and within the center and northern portions of the park/ball field is within the former quarry. This area consisted of a topsoil layer, a fill layer consisting of brick, pipe, wood and building fragments over an ash layer. Previous studies indicate that the ash fill was found to be at depths down to 26 to 30 feet to the top of bedrock. Surface and subsurface soils in this area had detectable levels of PAHs and metals above regulatory guidelines, but, generally at much lower levels than test pits in the southeast and northeast. The exception, however, was Test Pit TP-19 which had levels significantly higher and was associated with a "tar like" material.

### Area 3

The area to the south west of the school and along the southern end of the park/ball field contained about ½ foot of topsoil over approximately 8 feet of fill consisting of silt and sand with some clay, wood, brick, and building fragments. No ash was encountered in the test pits in this area and only surface samples were. Although detectable levels of metals and PAHs in surface soil samples were indicated above regulatory guidelines, levels were relatively low. Total SVOCs and cPAHs were well below 10 ppm and two of the locations were below 1 ppm cPAHs.

PAHs and metals can be introduced into the environment by natural (e.g., soil chemistry, forest fires) and human (e.g., automobile, coal or other heating fuel combustion, industry, or stone quarrying) processes. In general, PAHs and metals are not very mobile in soils,

in that they have low solubilities with water and tend to adsorb to the soil grains. The primary routes of human exposure to PAHs and metals include inhalation or ingestion of contaminated dust as well as dermal contact. Because of their ubiquitous nature, studies have been performed to determine typical levels of PAHs in urban environments.

The Journal of Soil Contamination published an article entitled, "Background Levels of Polycyclic Aromatic Hydrocarbons and Selected Metals in New England Urban Soils" in which soil samples from urban locations in three New England cities were collected at a depth of 0-6 inches and analyzed for PAHs (Bradley et al. 1994). The result of these three studies reported that background concentrations of total cPAHs ranged from 0.68 ppm to 78 ppm, with an average concentration of 9 ppm. Detectable levels of PAH compounds at the property fall within or below this range. Additionally, the levels of PAHs observed in surface soils are similar to concentrations found in other areas of the City of Buffalo.

With the exception of a few isolated samples (i.e. TP-19), the concentrations of the various PAHs and metal compounds detected are slightly above the NYSDEC TAGM 4046 recommended soil cleanup objectives. This would indicate that the associated health risks, assuming workers/students and pedestrians are actually subjected to substantial long-term exposure, are also minimal. Considering the nature of the proposed continued use of the property as a school and park/ball field, the potential exposure of students and residents to surface soil and workers to subsurface fill materials via the above potential exposure routes is low and will be virtually eliminated if engineering and administrative controls are instituted.

Chronic exposure to PAHs and metals in surface soils is not likely to occur under current conditions. People using or maintaining the school could be exposed to PAHs and metals in surface soils by sitting on the ground, playing, gardening, landscaping, or other improvement activities. Students or other members of the community using the play areas could be exposed to surface soils through participating in sports or by sitting on the ground. Since large areas of the school property are paved, the public would not be exposed to surface soil in these areas. The grass on most of the rest of the property was observed to be thick and well-established. Well-established and maintained grass cover usually minimizes human exposure to soil by acting as a barrier to direct contact with soil. Chronic exposure, therefore, appears to be limited.

Exposure to the PAHs and metals in the subsurface is not likely to occur under most conditions. Exposure would only occur if excavations occurred below the surface and if the subsurface soil is left at the surface. In general, potential for exposure to the fill materials at the site will be limited to onsite excavations (i.e. caissons, utilities, foundations, etc.) and/or fugitive dust generated at the site during excavations.

Even though the risk of exposure appear minimal, minor remedial activities aimed at preventing inhalation, ingestion, or dermal contact with potential contaminants can be applied to reduce the risk further. These remedial activities may include capping the elevated PAH containing soils with clean fill and re-establishing adequate grass cover

and/or paving as an acceptable means of minimizing any potential health risks. Should a higher risk reduction be required, then removal of the fill or stabilization in place are potential alternatives.

Institutional controls, consisting of deed restrictions and guidelines/restrictions pertaining to potential future construction activities on the property should also be part of the process if subsurface fill and elevated surface soils are left in place. These suggested approaches will require input from the involved agencies. A soils management program is recommended to meet these needs. The soils management/handling procedures need to focus on reducing or eliminating the potential for workers, students and park users to come in contact (chronic inhalation, ingestion, skin contact) with the impacted site soils.

In summary, whereas the surface soils and fill materials pose only a minimal potential risk to construction workers and/or students and park users in their present condition, this potential risk can be further reduced and/or eliminated if proper management strategies are employed. Based on a review of the investigation data and the proposed site development plans, the following are possible alternatives:

- Develop a detailed soils management plan for the property which would apply to future intrusive activities such as maintenance for utilities.
- All fill materials not excavated can be capped with at least six-inches of clean soil and/or covered with concrete/asphalt to prevent direct contact or generation of fugitive dust.
- All fill materials excavated at the site (during and post construction) should be managed as if they are contaminated. This means that any fill materials excavated at the site will be disposed offsite at a facility permitted to accept non-hazardous contaminated soils or will be utilized in regrading the site in accordance with 6NYCRR Part 360-1.15(b)(8) and capped with clean soils and/or concrete/asphalt.
- Covenants should incorporate the Soils Management Plan.

Based on the sampling program used, no significant levels of indoor air contamination was found in the crawl space area.

## **5.0 LIMITATIONS**

This report is based on information from a limited soil sampling investigation, organic vapor screening, and visual observations of the soils, as described within this report. This report is intended exclusively for the purpose outlined herein at the site location and project indicated. The property and this site assessment is limited to the footprint of the lot.

This report is intended for the sole use of the Buffalo Board of Education. The scope of

services performed in this assessment may not be appropriate to satisfy the needs of other users and any use or re-use of this document or the findings, conclusions, or recommendations presented, is at the sole risk of the user. The conclusions set forth in this report are based upon, and limited by, the analytical data and other information available to PEI/URS.

It should be noted that all surface and subsurface environmental assessments are inherently limited in the sense that conclusions are drawn and recommendations developed from information obtained from limited data and site evaluation at a specific time. The passage of time may result in a change in environmental circumstances at this site and surrounding properties, or hazardous materials beneath the surface may be present but undetectable during this limited Phase II assessment.

Opinions and recommendations presented herein apply to the site conditions existing at the time of the subsurface assessment and those reasonably foreseeable. They cannot necessarily apply to site changes of which PEI/URS is not aware and has not had the opportunity to evaluate.



## APPENDIX A

### Test Pit Logs

## TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-1	GEOLOGIST: Karen Wehn	
	GROUND WATER:	

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
	SI-1		
1			0-.5' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay
2			0.5- 1.5' BGS; Moist dark brown sandy silt and silty sand; 15-25% coarse brick, glass and other FILL
3			1.5- 2.0' BGS; Moist black ash and wood fibers. Compact Sample was derived from this layer.
4			2.0-4.0' BGS; same as 0.5 -1.5' BGS
5			4.0' BGS; Onondaga Limestone Formation was encountered. Bottom of pit.
6			
7			
8			
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location  
no sample was taken

# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1	
CLIENT: Buffalo Board of Education		JOB NUMBER:	
CONTRACTOR:		LOCATION:	
DATE STARTED: Feb. 12, 2001		GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001		OPERATOR:	
T NUMBER: TP-2		GEOLOGIST: Karen Wehn	
		GROUND WATER:	

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
	ST-2		
0-1			Below ground surface (BGS) moist dark brown clay and silt
1			Top soil with little clay
1-1.5			BGS; moist black ash; FILL
2			BGS; Onondaga Limestone was encountered
			Bottom of pit.
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,  
Bedrock was shallow.

Surface and subsurface samples were taken

# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-3	GEOLOGIST: Karen Wehn	
	GROUND WATER:	





DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
1	SS-1		0-.5-2.0' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay
2			2.5' BGS; Moist black ash; FILL This layer was sampled.
3			2.5-4.5' BGS; FILL, soil
4			4.5' BGS; Onondaga Limestone Formation was encountered. Bottom of pit.
5			
6			
7			
8			
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,  
Surface sample was taken

# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-4	GEOLOGIST: Karen Wehn	
	GROUND WATER:	

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
1	SS-4		0-1' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay
2			1-2' BGS; Layer of black ash-FILL This layer was sampled.
3			2-3' BGS; light brown soil (FILL) and some clay
4			3' BGS: Onondaga Limestone Formation was encountered.
5			Bottom of pit.
6			
7			
8			
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,  
Surface sample was taken

# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1	
CLIENT: Buffalo Board of Education		JOB NUMBER:	
CONTRACTOR:		LOCATION:	
DATE STARTED: Feb. 12, 2001		GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001		OPERATOR:	
T NUMBER: TP-5		GEOLOGIST: Karen Wehn	
		GROUND WATER:	

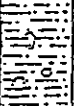


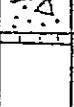
DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
1	SS-5		0 -1.5" BGS; Top soil (moist, dark brown clay, silt)
2			1.5" BGS; Black ash
3			2 -2.5' BGS; light brown soil (FILL)
4			2.5' BGS; bedrock. Bottom of pit.
5			
6			
7			
8			
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,  
 Bedrock is shallow; possible ledge  
 No sample was taken

# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-6	GEOLOGIST: Karen Wehn	
		GROUND WATER:

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
1	SS-6		0-.5- 2.0' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay
2			2-4.6' BGS; Moist black soil-contains tiles, porcelain, pipe and wire fragments, wood, ash, cinders; FILL
3			This portion was sampled.
4			4.6' BGS; termination of test pit
5			
6			
7			
8			
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,  
No sample was taken

# TEST PIT LOG

PROJECT: Public School 89 Additions

SHEET: 1 OF 1

CLIENT: Buffalo Board of Education

JOS NUMBER:

CONTRACTOR:

LOCATION:

DATE STARTED: Feb. 12, 2001

GROUND ELEVATION:

DATE COMPLETED: Feb. 12, 2001









OPERATOR:

PIT NUMBER:

TP-7

GEOLOGIST: Karen Wehn

GROUND WATER:

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
1	SS-7		0-.5- 1.0' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay
2			1-6.0' BGS; Moist black soil- contains tiles, porcelain, pipe and wire fragments, wood, ash, cinders; FILL
3			This portion was sampled.
4			
5			
6			6 - 8' BGS; ash
7			
8			8.0' BGS; termination of test pit
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,  
Surface and subsurface samples were taken.



# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-8	GEOLOGIST: Karen Wehn	
	GROUND WATER:	

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
1		SS-S	0-.5- 1.0' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay
2			1-6.0' BGS; Moist black Soil-contains tiles, porcelain, pipe and wire fragments, wood, ash, cinders; <u>FILL</u>
3			
4			
5			
6			6.0 - 7.5' BGS; ash. This portion was sampled.
7			
8			7.5' BGS; termination of test pit
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,  
Bedrock is shallow; possible ledge

Surface sample was taken

# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-9	GEOLOGIST: Karen Wehn	
	GROUND WATER:	

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
1	SS-1		0-.5- 1.0' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay
2			1-4.0' BGS; Moist, light brown silt and clay
3			
4			4.0 -8.0' BGS; Moist black and gray ash. Contains wire, tiles, porcelain, pipe, wood, ash, cinders (FILL)
5			This portion was sampled.
6			
7			
8			8.0' BGS; Bottom of pit.
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,

Surface sample was taken

# TEST PIT LOG

PROJECT: Public School 89 Additions

SHEET: 1 OF 1

CLIENT: Buffalo Board of Education

JOS NUMBER:

CONTRACTOR:

LOCATION:

DATE STARTED: Feb. 12, 2001

GROUND ELEVATION:

DATE COMPLETED: Feb. 12, 2001








OPERATOR:

PIT NUMBER:

TP-10

GEOLOGIST: Karen Wehn

GROUND WATER:

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
	SS-10		
1			0-0.5' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay
2			0.5-3.0' BGS; Moist, light brown silt and f-c sand; little clay. Contains brick, wood and building fragments
3			3.0-3.5 BGS; Moist black ash
4			3.5 - 6.0' BGS; Ash encountered. Contains tiles, porcelain, pipe, wire fragments, wood, cinders; (FILL) This portion was sampled.
5			
6			6.0' BGS; bottom of pit
7			
8			
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,  
No Sample was taken.

# TEST PIT LOG

PROJECT: Public School 89 Additions

SHEET: 1 OF 1

CLIENT: Buffalo Board of Education

JOB NUMBER:

CONTRACTOR:

LOCATION:

DATE STARTED: Feb. 12, 2001

GROUND ELEVATION:

DATE COMPLETED: Feb. 12, 2001

OPERATOR:

PIT NUMBER:

TP-11

GEOLOGIST: Karen Wehn

GROUND WATER:

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
1	SS-11		0-0.5' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay
2			0.5 - 4.0' BGS; (FILL) building debris, assorted rubble
3			
4			4.0 - 6.0' BGS; gray and white ash layer. Brick, wood and assorted building rubble was encountered.
5			
6			6.0' BGS; Termination of test pit
7			
8			
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,  
No sample was taken.

# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-12	GEOLOGIST: Karen Wehn	
		GROUND WATER:

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
1	SS-12		0-3.5' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay; brick fragments
2			
3			3.5 - 4.5' BGS; moist ash, silt and f-c sand, little clay. Contains brick, wood and building fragments. At 4.5' BGS, ash sample was collected
4			
5			4.5 - 6.0' BGS; Same as above
6			
7			6.0' BGS; Termination of test pit.
8			
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,

Surface and sub-surface samples were collected.

# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-13	GEOLOGIST: Karen Wehn	
	GROUND WATER:	

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
	ST-13		
1			0-0.5' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay; brick fragments
2			0.5-2.5' BGS ; Moist, brown fill, silt and f-c sand; little clay. Contains brick, wood and building fragments
3			2.5'-3.4' BGS- black ash was encountered.
4			3.4-4.5' BGS; Moist gray ash
5			4.5' BGS: Termination of test pit
6			
7			
8			
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,  
Surface and sub-surface samples were taken.

# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
TEST NUMBER: TP-14	GEOLOGIST: Karen Wehn	
	GROUND WATER:	

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
1	55-14		0-0.5' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay; brick fragments
2			0.5-5.6' BGS ; Moist, brown fill, silt and f-c sand; little clay. Contains brick, wood and building fragments.
3			
4			
5			5.6 - 6.5' BGS; Moist gray ash layer
6			6.5' BGS; Termination of test pit
7			
8			
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,  
 No samples were taken

# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-15	GEOLOGIST: Karen Wehn	
	GROUND WATER:	

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
1			0-0.5' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay; brick fragments
2			0.5-8.0' BGS ; Moist, brown fill, silt and f-c sand; little clay. Contains brick, wood and building fragments. Gravel close to the surface. All FILL. Little or no ash here.
3			
4			
5			
6			8.0' BGS; Natural f-c sand, silt and clay.
7			Bottom of pit @ 8.0' BGS
8			
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,  
Surface sample was taken



# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-16	GEOLOGIST: Karen Wehn	
	GROUND WATER:	

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
	SS-16		
1			0 - 2.0' below ground surface (BGS), moist dark brown (clay and silt). Top soil w/ little clay, brick fragments
2			2.0 - 4.0' BGS; Moist, brown fill, silt and f-c sand; little clay. Contains brick, wood and building fragments.
3			No subsurface sample was taken.
4			4.0' BGS; Natural f-c sand, silt and clay.
5			Bottom of pit
6			
7			
8			
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,  
Surface sample was taken

# TEST PIT LOG

PROJECT: Public School 89 Additions

SHEET: 1 OF 1

CLIENT: Buffalo Board of Education

JOB NUMBER:

CONTRACTOR:

LOCATION:

DATE STARTED: Feb. 12, 2001

GROUND ELEVATION:

DATE COMPLETED: Feb. 12, 2001

OPERATOR:

PIT NUMBER:

TP-17

GEOLOGIST: Karen Wehn

GROUND WATER:

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
	SS-17		
1			0 - 0.2' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay; brick fragments
2			2.0 - 5.0' BGS; Moist, brown fill, silt and f-c sand; little clay. Contains brick, wood and building fragments.
3			
4			
5			5.0' BGS; Bedrock Bottom of pit @ 5.0' BGS
6			
7			
8			
9			
10			
11			
12			

COMMENTS:

Groundwater was not encountered @ this location,  
No sample was taken

# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-18	GEOLOGIST: Karen Wehn	
	GROUND WATER:	

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
1	SS-18		Only a surface sample was taken. No pit at this location.
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

COMMENTS:

# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-19	GEOLOGIST: Karen Wehn	
	GROUND WATER:	

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
	SS-11		
1			0-0.5' below ground surface (BGS), moist dark brown (clay and silt) . Top soil w/ little clay; brick fragments
2			0.5 - 4.0' BGS; (FILL) building debris, assorted rubble
3			
4			4.0 - 5.0' BGS; Moist gray ash, cinders, tar paper, brick, wood. (FILL) 1 ppm over background reading for Hnu.
5			5.0' BGS; Termination of test pit
6			
7			
8			
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,  
Surface and sub-surface samples were collected

# TEST PIT LOG

PROJECT: Public School 89 Additions		SHEET: 1 OF 1
CLIENT: Buffalo Board of Education	JOB NUMBER:	
CONTRACTOR:	LOCATION:	
DATE STARTED: Feb. 12, 2001	GROUND ELEVATION:	
DATE COMPLETED: Feb. 12, 2001	OPERATOR:	
PIT NUMBER: TP-20	GEOLOGIST: Karen Wehn	
	GROUND WATER:	

DEPTH (FT)	SAMPLE		DESCRIPTION
	NO.	TYPE	
1			0 - 0.2' below ground surface (BGS), concrete; To side of concrete; 2.0 - 4.0' BGS; ; Moist, gray soil wood, black cinders. Contains brick, wood and building fragments. All FILL
2			
3			
4			4.0- 6.0' BGS; All, ash
5			6.0' BGS;
6			
7			
8			
9			
10			
11			
12			

## COMMENTS:

Groundwater was not encountered @ this location,  
No sample was taken

**APPENDIX B**  
**SITE HEALTH AND SAFETY PLAN REQUIREMENTS**

**SITE HEALTH AND SAFETY PLAN**  
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### ATTACHMENTS

C1 COMMUNITY AIR MONITORING PLAN	
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## SITE HEALTH AND SAFETY PLAN

### 1.0 SCOPE

This section specifies the minimum requirements for health, safety, and emergency response for the project. The Contractor shall develop and implement a written Site Health and Safety Plan (SHASP) which at a minimum meets the requirements of this item and complies with applicable Federal and State regulations. The SHASP shall be submitted for review to the Engineer before any onsite work can be initiated. The SHASP, complete with all comments addressed, will be made a part of the Contract Documents.

### 1.1 References

The Site Health and Safety Plan shall meet applicable requirements contained in the following publications.

- 29 CFR 1910, General Industry, Occupational Safety and Health Administration (OSHA) Safety and Health Standards.
- 29 CFR 1926, Construction Industry, OSHA Safety and Health Standards.
- USEPA Order 1440.2, Health and Safety Requirements for Employees Engaged in Field Activities, July 12, 1981.
- NIOSH/OSHA/USCG/USEPA, Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, October 1985.
- Standard Operating Safety Guides, United States Environmental Protection Agency, Office of Emergency and Remedial Response, November 1984.

- "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices." American Conference of Governmental Industrial Hygienists, Cincinnati, Ohio, Current Edition.
- "Guide to Occupational Exposure Values." American Conference of Governmental Industrial Hygienists, Cincinnati, Ohio, Current Edition.
- Department of Labor, Occupational Safety and Health Administration, 29 CFR, Part 1910, Air Contaminants; Final Rule, January 19, 1989.
- "Pocket Guide to Chemical Hazards" National Institute for Occupational Safety and Health and Occupational Safety and Health Administration, current edition.

## 1.2 Definitions

- Onsite Personnel: Onsite personnel shall include the Contractor, Subcontractor(s), the Owner and his representatives, and the local, state, and federal government representatives having jurisdiction over the work performed under this contract, as well as all employees/agents of these parties.
- Visitors: All personnel present on site not qualifying as Onsite Personnel.
- Health and Safety Manager: The Health and Safety Manager (HSM) must have a formal education and training in occupational health and safety with a minimum of three years experience in hazardous waste site operations. The HSM must have a working knowledge of State and Federal Occupational Safety and Health Regulations. He shall be responsible for the development, implementation, and oversight of the SHASP and shall provide necessary direction and supervision to the Site Health and Safety Officer. He shall also be responsible for site- specific training, review of air monitoring data, and review of any accident reports. The HSM shall be available during normal working hours.

- Site Health and Safety Officer: The Site Health and Safety Officer (SHSO) must have a minimum of two years of related experience. He must have a working knowledge of State and Federal Occupational Safety and Health Regulations and must have demonstrable experience in the proper use of air monitoring instrumentation used at the site. The SHSO shall be certified in CPR and first aid. The SHSO must be on site during active working hours. The responsibilities of the SHSO are as follows:

- a. Implement the SHASP on site
- b. Enforce day-to-day health and safety protocols in effect on site
- c. Require that all workers involved in intrusive activities on the site have had appropriate waste site worker training and medical examinations, and review and maintain training and medical certifications on site
- d. Require that all personnel entering the site understand the provisions of the SHASP
- e. Conduct daily health and safety inspections and prepare weekly reports
- f. Conduct periodic training sessions in proper use and maintenance of personal protective equipment and safety practices
- g. Check the condition of all emergency equipment weekly and its availability on a daily basis
- h. Conduct periodic emergency response drills
- i. Conduct daily health and safety meetings each morning
- j. Direct and advise Contractor personnel, visitors, and Subcontractor(s) on all aspects, especially changes, related to health and safety requirements at the site
- k. Conduct necessary health and safety monitoring
- l. Conduct air monitoring program
- m. Monitor site and perimeter conditions and determine all necessary changes in levels of personal protection and, if warranted, execute work stoppages
- n. Report changes in site conditions and changes in personal protection requirements to the Engineer
- o. Prepare accident/incident reports

p. Prepare and maintain all Field Activities Forms in an orderly fashion

- **Monitoring:** Monitoring includes the use of real-time direct reading field instruments to provide necessary information for the selection of proper personal protective equipment for onsite personnel and visitors and for the protection of general public health and the environment during the performance of the work on site.
- **Medical Consultant:** The Medical Consultant must be a physician that is certified in occupational medicine and familiar with potential site hazards of the project. The Medical Consultant shall be available to consult with local emergency medical services and will provide medical evaluations of personnel assigned to the project.

### 1.3 Site Health and Safety Plan Requirements

This contract will require work which may involve exposure to physical and chemical hazards. The Contractor shall ensure adequate protection for all onsite personnel and implement a complete Site Health and Safety Plan for all personnel working on or visiting the site. The Site Health and Safety Plan shall address, as a minimum, the following subject areas in accordance with 29 CFR, 1910.120:

- Health and safety organization (responsibilities, qualifications, and chain-of-command).
- A health and safety risk or hazard analysis for each site task and operation to be performed.
- Provisions for employee training to assure compliance with 1910.120(e).
- Personal protective equipment (PPE) to be used by employees for each of the site tasks and operations being conducted to eliminate potential exposures as required by the personal protective equipment program in 1910.120(g)(5).

- Medical surveillance requirements in accordance with 1910.120(f).
- Real-time air monitoring to identify and monitor exposures to onsite personnel and offsite receptors; personnel and environmental sampling techniques and instrumentation to be used.
- Site control measures in accordance with 1910.120(d).
- Personnel and equipment decontamination procedures in accordance with 1910.120(k).
- Standard Operating Safety Procedures, engineering controls, and work practices.
- An Emergency Response Plan meeting the requirements of 1910.120(l) for safe and effective responses to emergencies, including communications, emergency rescue, fire protection, ambulance service, first aid, spill/release response, PPE, and other equipment.
- First aid requirements.
- Confined space entry procedures meeting the requirements of 1910.146.
- A spill containment program meeting the requirements of 1910.120(j).
- Heat/cold stress monitoring.
- Logs, reports, and record keeping.
- Site description and contamination evaluation.

#### **1.4     Submittals**

- The Contractor's Site Health and Safety Plan (SHASP) submitted to the Engineer prior to the startup of work.
- Written certification of hazardous waste site worker training (initial and refresher), site-specific health and safety training, first aid training, and medical surveillance for all personnel participating in intrusive construction activities.

#### **1.5     Compliance**

- Consistent disregard for the provisions of the SHASP by the Contractor or his Subcontractor(s), or employees shall be deemed just and sufficient cause for stoppage of work. Such work stoppage shall not form the basis of claim for either extra payment or extension of time for the project completion.
- The Contractor's compliance with the minimum requirements in these specifications does not relieve the Contractor from the responsibility of implementing proper health and safety procedures under unforeseen conditions.

### **2.0     EXECUTION OF WORK**

The Contractor shall: (a) develop and submit for review a Site Health and Safety Plan; (b) employ a Health and Safety Manager, Site Health and Safety Officer, and a Medical Consultant; and (c) conduct all necessary monitoring activities to protect his onsite personnel and others in the area.

#### **2.1     Site Health and Safety Plan Implementation**

The SHASP shall be developed and implemented by the Contractor's HSM. The requirements described herein shall be used as a minimum outline description of the SHASP. The SHASP shall be site-specific and incorporate an assessment of the hazards associated with the remediation work

to be performed under this Contract. The SHASP shall address potential hazards associated with the performance of work.

## **2.2 Site Health and Safety Plan Elements**

### **2.2.1 Health and Safety Organization**

The Contractor shall submit a health and safety organization chart naming key project personnel, defining their duties, responsibilities, and presenting a structure to implement the SHASP as well as address problems and take corrective actions. Key project personnel will at a minimum include the Contractor's Project Manager, Health and Safety Manager, Site Health and Safety Officer, and field team personnel.

### **2.2.2 Hazard Assessment**

The purpose of the Hazard Assessment is to provide information necessary for selecting personal protective equipment, establishing air monitoring requirements, and determining health and safety procedures necessary to protect all onsite personnel, the environment, and the public.

- Chemical Hazards: A qualitative evaluation of chemical hazards shall be based on the following:
  - a. Nature of potential contaminants
  - b. Locations of potential contaminants at the project site
  - c. Levels of contaminants
  - d. Potential for personnel/public exposure during various site activities
  - e. Effects of potential contaminants on human health
- Physical Hazards: The Contractor shall assess the potential for physical hazards affecting personnel during the performance of work.

### 2.2.3 Training

- General: The Contractor shall certify that all personnel assigned to or regularly entering areas of intrusive activity beyond the Support Zone for the purpose of performing or supervising work, for health, safety, security, or administrative purposes, for maintenance, or for any other site-related function, have received appropriate health and safety training in accordance with 29 CFR 1910.120 (e). Training shall consist of a minimum of 40 hours initial off-site training and three (3) days onsite experience. Twenty-four (24) hours of initial off-site training is acceptable for workers on site only occasionally for a specific limited task and who are unlikely to be exposed over Permissible Exposure Limits (PELs). In addition, the Contractor's supervisory personnel shall have a minimum of eight (8) hours additional specialized training on managing hazardous waste operations. Documentation of all such training shall be submitted to the Engineer before any employees will be allowed beyond the Support Zone.
- Site-Specific Training: All personnel assigned to or entering active intrusive work areas of the site shall complete one site-specific training session to guarantee that all such personnel are familiar with the use of health and safety, respiratory, and protective equipment and with the safety and security procedures required for the site. The initial site-specific training session shall be conducted by the HSM. The Contractor shall notify the Engineer at least five (5) days prior to the initial site-specific training session so that the Owner and Government personnel involved in the project may attend. Follow-up site-specific training sessions for new personnel or visitors shall be conducted by the SHSO. The Contractor shall provide site-specific training to all Contractor's and Subcontractor's employees and Government representatives consistent with the requirements of OSHA Standard 29 CFR 1910.120, prior to the commencement of work. The site-specific training program shall address all elements of the SHASP.
- Records: The Contractor shall keep records of all training periods, documenting date, attendance, and topics covered. Additionally, the Contractor shall be



responsible for, and shall guarantee that, only personnel successfully completing the required training are permitted to enter active intrusive work areas of the site.

#### **2.2.4 Medical Surveillance**

The Contractor shall provide the services of a Medical Consultant who is a physician board certified in occupational medicine to perform the medical examinations for all employees who perform intrusive work in the Exclusion Zone, in accordance with 29 CFR 1910.120(f). The Medical Consultant shall review the medical examination results to certify if Contractor's personnel are fit to perform assigned tasks using personal protective equipment. The medical surveillance protocol to be implemented is the Medical Consultant's responsibility but shall meet the requirements of USEPA, OSHA Standards 29 CFR 1910.134, and ANSI Z88.2-1980. The components of the Contractor's medical examination shall be included in the SHASP. The Contractor shall maintain and preserve medical records on workers permitted to enter beyond the Support Zone for 30 years after they leave employment as per 29 CFR Part 1910.20.

Onsite personnel entering the Exclusion Zone, and not employed by the Contractor or his Subcontractor shall be required to sign a declaration that he/she has undergone a physical examination of the same or similar scope and has been certified fit to enter contaminated areas requiring personal protective equipment necessary for this project.

Lost-Time Injuries: Any employee who develops a lost-time injury or illness during the period of the contract as a result of work in the Exclusion Zone must be evaluated by the Medical Consultant. The employee's supervisor shall be provided with a written statement indicating the employee's fitness (ability to return to work), signed by the Medical Consultant prior to allowing the employee to re-enter the Exclusion Zone. A copy of this written statement shall be submitted to the Engineer. An accident report describing the events leading up to and causing the injury or illness shall be submitted to the Engineer.

### 2.3 Site Control

The Contractor shall establish a system to control access to the site. This system shall be incorporated into the layout of the site into work zones. The work zones shall include the Support Zone, Contamination Reduction Zones, and Exclusion Zones (active intrusive work areas). The system shall assure that only authorized persons enter active intrusive work areas.

- The Contractor shall restrict access and mark the outer limits of the active intrusive work areas with high visibility barrier tape or flagging and signs warning unauthorized personnel not to enter.
- If construction is concurrent, the Contractor will be responsible for establishing a means of communication between the active work areas. The Contractor will also be responsible for establishing a means of communication between workers within the same work area.
- Site security shall be established and maintained.

### 2.4 Standard Safety Practices

The Contractor shall develop, implement, and enforce safe work practices and engineering safeguards for the work covered under these specifications. General site health and safety directives for conducting onsite work which shall be included in the SHASP and enforced during site activities include but are not limited to:

- Eating and smoking shall be prohibited except in designated areas outside the Exclusion Zone and Contamination Reduction Zone as identified by the SHSO.
- Before initiating any non-routine operation in any restricted area, all personnel shall consult the SHSO about health and safety requirements for the operations.

- A buddy system shall be implemented for all activities involving the use of respiratory protective equipment.
- The Contractor shall implement protocols for loading and unloading material on site. These protocols shall include DOT requirements covering such items as grounding, placarding, driver qualifications, and the use of wheel locks. Operation of other heavy construction equipment shall be in accordance with OSHA Standard 29 CFR Part 1926.

## **2.5 Personal Protective Equipment**

The Contractor shall provide all onsite personnel with appropriate personal protective equipment and protective clothing as required by the SHASP. The Contractor shall ensure that all safety equipment and protective clothing is kept clean and well-maintained.

Selection of personal protective equipment is based on the potential toxicity or physical dangers associated with hazardous materials and possible routes of exposure. Based on known or anticipated hazards, personnel will be required to wear a minimum of Level D protection. The adequacy of personal protection shall be confirmed through air monitoring conducted by the Contractor's Site Health and Safety Officer (SHSO). If the need to upgrade the level of personal protection arises, the SHSO will provide his personnel with the appropriate equipment. PPE selection, evaluation, and re-evaluation is an on-going process directly related to the change in conditions as encountered at the site.

Various levels of PPE must be made available on site during construction activities. It is anticipated that Level D and Level D-Modified PPE will be required.

## **2.6 Decontamination**

- Equipment Decontamination: The Contractor shall construct a decontamination pad within the Contamination Reduction Zone(s) for removing soil from all vehicles and equipment leaving the exclusion zone(s). The decontamination pad(s) shall include

a high-pressure water wash area for equipment and vehicles. A designated clean area shall be established within the Contamination Reduction Zone(s) for performing equipment maintenance.

Any item taken into the Exclusion Zone must be assumed to be contaminated and must be carefully inspected and/or decontaminated before the item leaves the area. All contaminated vehicles, equipment, and materials shall be cleaned and decontaminated to the satisfaction of the Engineer prior to leaving the area. All construction material shall be handled and brought on site in such a way as to minimize the potential for contaminants being carried off site. Separate, clearly-marked parking and delivery areas shall be established.

- Water used for personnel and equipment decontamination will be collected and pumped into a recharge trench which will allow the water to seep into the ground within the limits of the final cover system.
- Personnel Decontamination: Personnel shall be required to go through a thorough decontamination procedure in the Contamination Reduction Zone prior to entering the Support Zone. Decontamination shall consist of soap and water washing of worker's hands, and face, and wet wiping of worker's boots or shoes.

## **2.7 Air Monitoring**

The Contractor shall perform continuous real-time monitoring during active work at each work area and at site perimeter stations. Real-time organic vapor monitoring shall be conducted using Photoionization and/or Flame Ionization Detectors at each active work area within the breathing zone. All real-time monitoring shall be run continuously during active work. Real-time monitoring for combustibles, oxygen, hydrogen sulfide, and particulates shall also be run continuously along with the organic vapor monitoring. In addition, real-time, direct reading monitors shall be used at least hourly at one upwind and three downwind perimeter stations to monitor releases resulting from onsite activity and to provide information necessary to determine work rates and the implementation of

control measures to prevent unacceptable contaminations from leaving the site. Results of the real-time monitoring shall be logged and reported to the Engineer daily.

### **3.0 EMERGENCY EQUIPMENT AND FIRST AID REQUIREMENTS**

- **Fire Extinguishers:** The type and number of fire extinguishers shall be determined by the Contractor. Inspection and maintenance shall be the responsibility of the Contractor. At least one 20-lb type ABC fire extinguisher shall be located at each entrance to each active work area with additional units located in onsite offices, and on each piece of heavy equipment. These fire extinguishers shall be utilized for putting out equipment or personnel fires and not to be employed as sole fire fighting equipment for large site fire.
- **Emergency Eye Wash:** Portable emergency eye wash units shall be provided by the Contractor. These portable units must be protected from freezing and shall be located close to the work area and at each equipment decontamination station. The emergency eye wash units shall meet the requirements specified in ANSI Z358.1-1981.
- **First Aid Kits:** The size and number of kits shall be sufficient for the maximum number of people on site at one time. The kits shall be equipped as per the recommendations of the Medical Consultant and shall be able to provide stabilization for patients requiring offsite treatment and general first aid. The first aid kit locations shall be specially marked and provided with adequate water and other supplies necessary to cleanse and decontaminate burns, wounds, or lesions.
- **Onsite Emergency Vehicle:** The Contractor shall provide at all times while onsite work proceeds, a designated emergency vehicle which will be used to transport injured personnel to the hospital for treatment. This vehicle shall contain a map showing the route and written directions to the hospital.

#### 4.0 EMERGENCY RESPONSE PLAN AND PROCEDURES

The Contractor shall develop an Emergency Response Plan which shall be submitted as part of the SHASP. This plan shall be designed to delineate contingency procedures to be used in the event of injuries to employees or other site-related accidents. The Emergency Response Plan shall include the procedures to be used to mitigate the harmful effects of chemical exposure as well as rescue and first aid services to be rendered. The Contractor shall coordinate with local agencies (fire department, police department, emergency medical services, etc.) prior to beginning work.

Emergency response agencies and current telephone numbers shall be included in the SHASP.

#### 4.1 Contingency Procedures

The Contractor shall include in the SHASP a set of contingency procedures. At a minimum, these procedures shall describe:

- a) The actions that the Contractor will take in response to a worker injury or illness, a heavy equipment related accidents, fires, explosions, or any spill of contaminated materials;
- b) The name, address, and phone number (home and office) of the person(s) designated by the Contractor to act as emergency coordinator;
- c) A list of all emergency equipment at the site;
- d) Fires: The Contractor shall develop procedures for responding to both small and large fires which shall address the following minimum actions:
  - Evacuation procedures.
  - Extinguishing methods.

- Notification of emergency response services, Engineer, and Owner.
- e) Escape routes which will be used in the event of a sudden release, explosion, fire, etc.;
- f) A map showing the route to the nearest hospital;

The Contractor shall prepare a Contingency Plan designed to prevent the spread of contaminants to adjacent areas. The plan shall incorporate a comprehensive air monitoring program which will follow NYSDEC and NYSDOH guidelines for a Community Air Monitoring Plan and shall meet the minimum requirements of the Project Contingency Plan. The Community Air Monitoring Plan particulate limits shall be modified for this project as follows:

- An action level of 150 micrograms per cubic meter (integrated over a maximum period of 15 minutes) shall be established.
- If the site particulate levels exceed the 150 micrograms/cubic meter limit, then particulate measurements upwind of the site will be recorded. If the waste site level exceeds background by more than 100 micrograms/cubic meter, then remedial site activities must be performed.

The NYSDEC and NYSDOH Community Air Monitoring Plan has been provided as an attachment to this section.

The Contractor shall promptly report in writing to the Engineer and Owner all accidents arising out of, or in connection with, the performance of the work, whether on or adjacent to the site, which caused death, personal injury, or property damage, giving full details and statements of witnesses.

#### **4.2     Accident Investigation and Reporting**

The Contractor shall develop a system, including forms, on which the pertinent details about accidents, damage, existing hazards, and actions taken to alleviate problems can be listed . These forms shall be appended to the Contractor's SHASP.

#### **5.0     HEAT/COLD STRESS MONITORING**

As a minimum, the Contractor shall establish work/rest schedules based on ambient conditions and the level of protection being utilized and identify necessary physiological monitoring requirements.

Procedures to monitor, avoid, and treat heat/cold stress shall be established in accordance with "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities," NIOSH/OSHA/USCG/EPA, October 1985; U.S. Dept. of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety Health; Publication No. 85-115.

Field implementation of the Heat/Cold Stress Prevention Plan shall be performed by a person with current first aid/CPR certification who is trained to recognize symptoms of heat and cold stress.

#### **6.0     SPILL CONTROL PLAN**

The Contractor shall provide spill control measures; including methods, means, and facilities required to prevent contamination by site wastes, contaminated groundwater, equipment fuels, oils, and greases, and any other potentially hazardous materials. If a spill occurs, the following actions, at a minimum, shall be taken by the Contractor.

- a.     Notify the Owner and Engineer immediately.
- b.     Take immediate measures to control and contain the spill within the site boundaries.
- c.     Keep unnecessary people away, isolate the hazardous area, and deny entry.
- d.     Stay upwind; keep out of low lying areas.



- e. Allow no flares, smoking, or flames in hazard area.
- f. For liquids, keep combustibles away from the spilled material.

## **7.0 DOCUMENTATION**

### **7.1 Logs, Reports, and Recordkeeping**

The Contractor shall maintain logs and reports covering the implementation of the SHASP. The format shall be developed by the Contractor to include Daily Safety Logs, Air Monitoring Logs, and a Close-Out Safety Report. These logs and reports shall be appended to the Contractor's SHASP.

### **7.2 Daily Safety Logs**

Daily Safety Logs shall be completed by the SHSO and submitted to the Engineer on a daily basis. These logs shall include:

- a. Date.
- b. Work area(s) checked.
- c. Employees present in work areas.
- d. Equipment being utilized by employees.
- e. Protective clothing being worn by employees.
- f. Protective devices being used by employees.
- g. Accidents or breaches of procedure.

### **7.3 Air Monitoring Logs**

Air Monitoring Logs shall be completed by the SHSO and submitted to the Engineer on a daily basis. These logs shall include:

- a. Date of report.
- b. Equipment utilized for air monitoring.
- c. Real-time air monitoring readings from each work location.

- d. Calibration records.
- e. Signature of individual taking readings.
- f. Specific locations of real-time readings.
- g. Exact time monitoring was conducted.
- h. Meteorological conditions.
- i. Any required equipment repair.

#### **7.4 Close-out Safety Report**

At the completion of the work, the Contractor shall submit a Close-out Safety Report. The report shall be signed and dated by the Site Health and Safety Officer and submitted to the Engineer. The report shall include procedures and techniques used to decontaminate equipment, vehicles, and decontamination facilities. The report shall include a summary of safety aspects of the entire project.

#### **8.0 COMMUNICATIONS**

A hardline or cellular telephone communications system shall be established by the Contractor. Two way radios shall be utilized for onsite communication. A map giving directions to the nearest hospital and a list of emergency numbers, including the Owner, Engineer, police, fire, ambulance, hospital, and the NYSDEC shall be prominently posted near the telephone.

#### **9.0 POSTED REGULATIONS**

The Contractor shall develop a series of posted regulations which shall address onsite protocols regarding use of personal protective equipment, personal hygiene, and provisions for smoking and eating on the site.

These protocols shall be posted at various locations on site and shall be reviewed with the Contractor's personnel.

## **Community Air Monitoring Plan (Ground Intrusive Activities)**

Real-time air monitoring, for volatile compounds and particulate levels at the perimeter of the work area is necessary. The plan must include the following:

- Volatile organic compounds must be monitored at the downwind perimeter of the work area on a continuous basis. If total organic vapor levels exceed 5 ppm above background, work activities must be halted and monitoring continued under the provisions of a Vapor Emission Response Plan. All readings must be recorded and be available for State (DEC & DOH) personnel to review.
- Particulates should be continuously monitored upwind, downwind and within the work area at temporary particulate monitoring stations. If the downwind particulate level is  $100^* \mu\text{g}/\text{m}^3$  greater than the upwind particulate level, then dust suppression techniques must be employed. All readings must be recorded and be available for State (DEC & DOH) personnel to review.

(\*See Section 4.1 for revised particulate requirements - a level of  $150 \mu\text{g}/\text{m}^3$  is normally specified)

### **Vapor Emission Response Plan**

If the ambient air concentration of organic vapors exceeds 5 ppm above background at the perimeter of the work area, activities will be halted and monitoring continued. If the organic vapor level decreases below 5 ppm above background, work activities can resume. If the organic vapor levels are greater than 5 ppm over background but less than 25 ppm over background at the perimeter of the work area, activities can resume provided:

- The organic vapor level 200 ft. downwind of the work area or half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over background.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown. When work shutdown occurs, downwind air monitoring as directed by the Safety

Officer will be implemented to ensure that vapor emission does not impact the nearest residential or commercial structure at levels exceeding those specified in the Major Vapor Emission section.

### **Major Vapor Emission**

If any organic levels greater than 5 ppm over background are identified 200 feet downwind from the work area or half the distance to the nearest residential or commercial property, whichever is less, all work activities must be halted.

If, following the cessation of the work activities, or as the result of an emergency, organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest residential or commercial property from the work area, then the air quality must be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20 Foot Zone).

If efforts to abate the emission source are unsuccessful and if the following levels persist for more than 30 minutes in the 20-Foot Zones, then the Major Vapor Emission Response Plan shall automatically be placed into effect;

- if organic vapor levels are approaching 5 ppm above background.

However, the Major Vapor Emission Response Plan shall be immediately placed into effect if organic vapor levels are greater than 10 ppm above background.

### **Major Vapor Emission Response Plan**

Upon activation, the following activities will be undertaken:

1. All Emergency Response Contacts as listed in the Health and Safety Plan of the Work Plan will go into effect.
2. The local police authorities will immediately be contacted by the Safety Officer and advised of the situation.

3. Frequent air monitoring will be conducted at 30 minutes intervals within the 20 Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the Safety Officer.



APPENDIX A

SUBSURFACE EXPLORATION LOGS

DRAFT

**DRILLING LOG OF WELL/BORING NO. SB-1**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 12 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: Northwest corner of property	Water Encountered: NA
Date Start/Finished: August 7, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P I D R e c o v e r y	Comments
Ground Surface				(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.25 ftbg: Asphalt and subbase	0-4	6.5	20	Equipment refusal encountered at approximately 12 ftbg
	5		0.25-2 ftbg: gray gravelly clayey Fill Material (stiff, no plasticity, dry) 2-4 ftbg: brown gravelly clayey Fill Material (med stiff, low plasticity, moist)				
	10		4-9 ftbg: dark brown gravelly clayey Fill Material (medium stiff, low plasticity, moist)	4-8	0.7	20	
			9-10 ftbg: brown clayey Fill Material (soft, medium plasticity, moist) 10-11 ftbg: gray gravelly Fill Material (angular, medium dense, dry) 11-12 ftbg: dark brown gravelly sandy clayey Fill Material (low plasticity, medium stiff, moist)	8-12	2.7	15	





Project Number: 12MS-104(.5)	Total Depth of Hole: 10 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: North of building A1	Water Encountered: NA
Date Start/Finished: August 7, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u m b i n g	R e c o v e r y	Comments
Ground Surface				(Feet)	Parts Per Million (PPM)	(Inches)		
NA	1	NA	0-0.5 ftbg: Asphalt and subbase					Equipment refusal encountered at approximately 10 ftbg
			0.5-4 ftbg: brown gravelly sandy clayey Fill Material (medium stiff, no plasticity, moist)	0-4	0.9	15		
	5		4-5 ftbg: gray Ash (soft, moist) with gravel	NA				
			5-8 ftbg: brown gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist)	4-8	0.4	15		
	10		8-10 ftbg: brown gravelly Clay (stiff, no plasticity, moist)	8-10	0.7	15		

Project Number: 12MS-104(.5)

Total Depth of Hole: 5 feet below grade (ftbg)

Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York

Ground Elevation: NA

Boring Location: Northwest of Building B2

Water Encountered: NA

Date Start/Finished: August 7, 2012


Water At End of Drilling: NA

Drilling Contractor: Russo Development, Inc.

Equipment: PowerProbe

Drilling Method: Hydraulically driven system (PowerProbe)

Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n t e r v a l	P I D R e c o v e r y	R e c o v e r y	Comments
Ground Surface								
					(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-2	1.2	10	Equipment refusal encountered at approximately 5 ftbg
			0.5-4 ftbg: brown gravelly clayey Fill Material (stiff, no plastic, moist)		2-4	1.2	10	
	5		4-5 ftbg: gray sandy gravelly Fill Material (angular, medium dense, moist)		4-5	1.2	6	
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**DRILLING LOG OF WELL/BORING NO. SB-4**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 6 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: Northwest of Building A3	Water Encountered: NA
Date Start/Finished: August 7, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o r d	Comments
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Ground Surface			(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	0-0.5 ftbg: Asphalt and subbase				
		0.5-3.5 ftbg: brown gravelly clayey Fill Material (stiff, no plasticity, moist)	0-4	9.9	15	
		3.5-4.5 ftbg: gray gravelly Sand (coarse and medium grain, medium dense, dry)				
	5	4.5-6 ftbg: brown gravelly Clay (stiff, low plasticity, moist)	4-6	0.8	15	Equipment refusal encountered at approximately 6 ftbg

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**DRILLING LOG OF WELL/BORING NO. SB-5**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 12.5 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: Northwest of Building A3	Water Encountered: NA
Date Start/Finished: August 7, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P I D R e c o v e r y	Comments
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Ground Surface			(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	0-0.5 ftbg: Asphalt and subbase	0-4	1.6	15	Equipment refusal encountered at approximately 12.5 ftbg
	5	0.5-8 ftbg: brown gravelly sandy clayey Fill Material (medium stiff, no plasticity, moist)	4-8	0.9	15	
	10	8-12 ftbg: gray sandy clayey gravelly Fill Material (angular, medium dense, moist)	8-12	1.0	15	
		12-12.5 ftbg: brown gravelly Clay (stiff, low plasticity, moist)	12-12.5	0.7	6	

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**DRILLING LOG OF WELL/BORING NO. SB-6**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 12 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: Southeast of Building B4	Water Encountered: NA
Date Start/Finished: August 7, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n t e r v a l	P l o t R e a d i n g	R e c o v e r y	Comments
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Ground Surface			Parts Per Million (PPM)			(Inches)	
			(Feet)				
NA	1	NA	0-0.5 ftbg: Asphalt and subbase				
	5		0.5-8 ftbg: brown gravelly Clay (medium stiff, low plasticity, moist)	0-4	1.1	15	
	10		8-12 ftbg: brown clayey Gravel (angular, medium dense, moist)	4-8	0.8	15	
				8-12	1.2	6	Equipment refusal encountered at approximately 12 ftbg



Project Number: 12MS-104(.5) Total Depth of Hole: 10 feet below grade (ftbg)

Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York Ground Elevation: NA

Boring Location: Southeast of Building B6 Water Encountered: NA

Date Start/Finished: August 7, 2012 Water At End of Drilling: NA


Drilling Contractor: Russo Development, Inc. Equipment: PowerProbe

Drilling Method: Hydraulically driven system (PowerProbe) Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n t e r v a l	P I D R e c o v e r y	R e c o v e r y	Comments
Ground Surface				(Feet)		Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-4	1.3	15	Equipment refusal encountered at approximately 10 ftbg
	5		0.5-10 ftbg: brown gravelly sandy clayey Fill Material (medium stiff, no plasticity, moist)		4-8	1.4	15	
	10				8-10	0.5	15	

Project Number: 12MS-104(.5)	Total Depth of Hole: 7 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South of Building B6	Water Encountered: NA
Date Start/Finished: August 7, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u m b i n g	R e c o r d i n g	Comments
Ground Surface				(Feet)	Parts Per Million (PPM)	(Inches)		
NA	1	NA	0-0.5 ftbg: Asphalt and subbase					
			0.5-4 ftbg: brown sandy gravelly Clay (medium stiff, low plasticity, moist)	NA	0-4	0.3	15	
	5		4-7 ftbg: brown clayey gravel Fill Material (angular, medium dense, moist)		4-7	0.4	20	Equipment refusal encountered at approximately 7 ftbg



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Project Number: 12MS-104(.5)

Total Depth of Hole: 7 feet below grade (ftbg)

Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York

Ground Elevation: NA

Boring Location: West of Building A1

Water Encountered: NA

Date Start/Finished: August 7, 2012

Water At End of Drilling: NA

Drilling Contractor: Russo Development, Inc.

Equipment: PowerProbe

Drilling Method: Hydraulically driven system (PowerProbe)

Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w  C o u n t s	I n c r e a s e	P I D  R e c o v e r y	Comments	
Ground Surface								
					(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-2	2.7	15	Equipment refusal encountered at approximately 7 ftbg
			0.25-4 ftbg: brown/black sandy gravelly clayey Fill Material (stiff, no plasticity, moist)		2-4	1.3	15	
			4-6 ftbg: black/tan gravelly clayey Sand (coarse and medium grain, dense, moist)		4-7	17.6	15	
	5		6-7 ftbg: brown gravelly Clay (stiff, no plasticity, moist)					





**DRILLING LOG OF WELL/BORING NO. SB-10**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 15 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South East of Building B2	Water Encountered: NA
Date Start/Finished: August 7, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o v e r y	Comments
Ground Surface				(Feet)	Parts Per Million (PPM)	(Inches)		
NA	1	NA	0-0.25 ftbg: Asphalt and subbase	NA				Equipment refusal encountered at approximately 15 ftbg
	5		0.25-4 ftbg: dark brown gravelly Sand (coarse, medium and fine grain, dense, moist)		0-4	7.3	15	
	10		4-11.5 ftbg: dark brown gravelly Sand (coarse, medium and fine grain, dense, moist) with white ash		4-8	0.8	10	
	15		11.5-15 ftbg: white/beige Ash (soft, moist)		8-12	2.4	15	
					12-15	1.3	15	

**DRILLING LOG OF WELL/BORING NO. SB-11**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 20 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: East of Building A1	Water Encountered: NA
Date Start/Finished: August 7, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o v e r y	Comments
Ground Surface								
					(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.25 ftbg: Asphalt and subbase	NA	0-4	2.2	15	
	5		0.25-4 ftbg: tan/black Sand (coarse, medium and fine grain, dense, moist)		4-8	5.4	15	
			4-8 ftbg: black gravelly clayey Sand (coarse, medium and fine grain, medium dense, moist)		8-10	1.7	10	
			8-10 ftbg: black/tan gravelly Sand (coarse grain, medium grain, fine grain, medium dense, moist)		10-12	1.2	10	
			10-12 ftbg: black/tan gravelly Sand (coarse grain, medium grain, fine grain, medium dense, moist)		12-16	1.1	15	
			12-16 ftbg: black/tan gravelly Sand (coarse grain, medium grain, fine grain, medium dense, moist)		16-20	1.1	6	
	15		10-20 ftbg: gray gravelly Clay (stiff, medium plasticity, moist) with ash					

**DRILLING LOG OF WELL/BORING NO. SB-12**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 10 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: West of Building B2	Water Encountered: NA
Date Start/Finished: August 8, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n t e r v a l	P I D R e c o v e r y	Comments
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Ground Surface			(Feet)	Parts Per Million (PPM)	(Inches)	Equipment refusal encountered at approximately 10 ftbg
NA	1	0-0.5 ftbg: Asphalt and subbase	0-4	0.2	24	
	5	0.5-7.5 ftbg: gray/dark brown gravelly sandy clayey Fill Material (stiff, medium to low Plasticity, moist) with some ash	4-8	0.3	20	
	10	7.5-8 ftbg: gray Ash (moist)	8-10	0.6	15	
		8-10 ftbg: gray/dark brown gravelly sand Fill Material (coarse and medium grain, medium dense, moist) with ash and rock fragments				



**DRILLING LOG OF WELL/BORING NO. SB-13**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 5 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: North of Building B2	Water Encountered: NA
Date Start/Finished: August 8, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u m b i n g	R e c o r d i n g	Comments
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Ground Surface			(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	0-0.5 ftbg: Asphalt and subbase				
		0.5-4 ftbg: gray/dark brown gravelly sandy clayey Fill Material (medium stiff, medium plasticity, moist) with some ash	NA	0-4	1.0	12
	5	4-5 ftbg: brown/black gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist) with some ash and fractured rock		4-5	0.3	12
Equipment refusal encountered at approximately 5 ftbg						



**DRILLING LOG OF WELL/BORING NO. SB-14**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 13 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: North West of Building A2	Water Encountered: NA
Date Start/Finished: August 8, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o r d	Comments
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Ground Surface			(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	0-0.5 ftbg: Asphalt and subbase				
	5	0.5-4 ftbg: brown gravelly sandy clayey Fill Material (medium stiff, low to medium plasticity, moist) with some ash	0-4	1.2	20	
		4-6 ftbg: brown/black sandy clayey Fill Material (medium stiff, low to medium plasticity, moist) with some ash and brick debris	4-6	1.2	15	
		6-8 ftbg: brown Clay (medium stiff, medium plasticity, moist)	6-8	0.9	15	
	10	8-12 ftbg: brown/black clayey Fill Material (medium stiff, medium plasticity, moist) with gray ash	8-12	1.3	20	
		12-13 ftbg: brown sandy Clay (medium stiff, low plasticity, moist)	12-13	1.4	12	Equipment refusal encountered at approximately 13 ftbg



**DRILLING LOG OF WELL/BORING NO. SB-15**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 19 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: North of Building A3	Water Encountered: 18 ftbg
Date Start/Finished: August 8, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u m b e r	R e c o r d	Comments
					(Feet)	Parts Per Million (PPM)	(Inches)	
			Ground Surface					
	1		0-0.5 ftbg: Asphalt and subbase					
	5		0.5-1 ftbg: brown sandy Clay Fill Material (medium stiff, low plasticity, moist)		0-4	2.9	20	
	10		1-8 ftbg: dark brown sandy Fill Material (coarse, medium fine grain, medium dense, moist) with some gravel		4-8	2.8	22	
	15		8-10 ftbg: brown sandy clayey Fill Material (medium stiff, low plasticity, moist)		8-12	1.7	15	
			10-12 ftbg: brown Clay (medium stiff, medium plasticity, moist)					
			12-18 ftbg: brown gravelly sandy clayey Fill material (medium stiff, low plasticity, moist) with gray ash		12-16	2.1	15	
			18-19 ftbg: brown gravelly sandy Clay Fill (medium stiff, low plasticity, wet) with gray ash, metal debris and fractured rock		16-19	1.1	12	Equipment refusal encountered at approximately 19 ftbg



**DRILLING LOG OF WELL/BORING NO. SB-16**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 7 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: NE of Building A3	Water Encountered: NA
Date Start/Finished: August 8, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P I D R e c o v e r y	Comments
Ground Surface				(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase				Equipment refusal encountered at approximately 7 ftbg
				0-4	1.3	20	
	5		0.5-6 ftbg: brown gravely sandy clayey Fill Material (medium stiff, low plasticity, moist)	NA			
			6-7 ftbg: brown gravely sandy clayey Fill Material (medium stiff, low plasticity, moist) with fractured rock	4-7	1.2	20	



**DRILLING LOG OF WELL/BORING NO. SB-17**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 11 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: North West of Building B4	Water Encountered: NA
Date Start/Finished: August 8, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u m b i n g	R e c o r d i n g	Comments
Ground Surface (Feet)      Parts Per Million (PPM)      (Inches)								
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-2	1.4	15	Equipment refusal encountered at approximately 11 ftbg
			0.5-2 ftbg: brown sandy Clay (stiff, low plasticity, moist)					
			2-4 ftbg: brown Clay (medium stiff, medium plasticity, moist)		2-4	1.4	15	
	5		4-8 ftbg: brown Clay (medium stiff, medium plasticity, moist) with black sand		4-6	1.9	15	
			8-10.5 ftbg: brown/ black mottled Clay (medium stiff, medium plasticity, moist)		6-8	2.3	15	
	10		10.5-11 ftbg: brown Sand (coarse, medium and fine grain, medium dense, moist)		8-11	0.9	22	





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Total Depth of Hole: 11 feet below grade (ftbg)

Ground Elevation: NA

Water Encountered: NA

Water At End of Drilling: NA

Equipment: PowerProbe

Technician: Ryan Welch

0-0.5 ftbg: Asphalt and subbase			
gray/brown gravelly sandy clayey Fill Material (stiff, no plasticity, moist)		0-4	2.9
tan/brown Sand Fill (coarse, medium and fine grain, medium dense, moist)	NA	4-8	17
gray/brown sandy Clay Fill (medium stiff, low plasticity, moist) with some ash		8-11	4.9



**DRILLING LOG OF WELL/BORING NO. SB-19**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 18 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: North East of Building B4	Water Encountered: NA
Date Start/Finished: August 8, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u m b e r	R e c o v e r y	Comments			
Ground Surface					(Feet)	Parts Per Million (PPM)	(Inches)				
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA				Equipment refusal encountered at approximately 18 ftbg			
	5		0.5-2 ftbg: brown gravelly sandy clayey Fill Material (stiff, low plasticity, moist) with ash						0-4	2.4	18
			2-5 ftbg: brown/black gravelly sandy Fill Material (medium and fine grain, medium dense, moist) with ash						4-6	3.5	12
			5-10 ftbg: black gravelly sandy Fill Material (medium and fine grain, medium dense, moist) with ash						6-8	2.0	12
	10		10-15 ftbg: gray Ash (moist)						8-10	2.5	12
			15-16 ftbg: black Clay (low plasticity, medium stiff, moist) with ash						10-12	1.7	12
			16-18 ftbg: black sandy Clay (soft, low plasticity, moist) with wood debris						12-16	2.7	15
	15								16-18	1.7	6


**DRILLING LOG OF WELL/BORING NO. SB-20**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 8 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: East of Building B4	Water Encountered: NA
Date Start/Finished: August 8, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u m b i n g	R e c o r d i n g	Comments
Ground Surface (Feet)      Parts Per Million (PPM)      (Inches)								
NA	1	NA	0-0.5 ftbg: Asphalt and subbase		0-4	1.2	18	Equipment refusal encountered at approximately 8 ftbg
	5		0.5-8 ftbg: brown gravely sandy clayey Fill Material (stiff, low plasticity, moist)	NA	4-8	1.8	18	

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**DRILLING LOG OF WELL/BORING NO. SB-21**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 19 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: East of Building B4	Water Encountered: NA
Date Start/Finished: August 9, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w  C o u n t s	I n c e r v a l	P l u m b e r	R e c o v e r y	Comments			
Ground Surface											
					(Feet)	Parts Per Million (PPM)	(Inches)				
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	NA	NA	NA	Equipment refusal encountered at approximately 19 ftbg			
	5		0.5-3 ftbg: brown gravelly sandy Fill Material (coarse, medium and fine grain, medium dense, moist)						0-4	1.8	15
	10		3-9 ftbg: dark brown/black gravelly sandy Fill Material (coarse, medium and fine grain, medium dense, moist) with brick debris						4-8	2.5	18
	15		9-11 ftbg: gray/brown gravelly sandy Fill Material (coarse and medium grain, medium dense, moist)						8-12	1.5	12
			11-12 ftbg: dark brown sandy Clay Fill (medium stiff, low plasticity, moist) with ash								
			12-16 ftbg: black sandy Clay Fill (medium stiff, low plasticity, moist) with ash						12-16	3.9	15
			16-19 ftbg: black sandy Clay Fill (medium stiff, low plasticity, moist) with ash and wood debris	16-19	3.5	12					



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**DRILLING LOG OF WELL/BORING NO. SB-22**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 19 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: North East of Building A5	Water Encountered: NA
Date Start/Finished: August 9, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o r d	Comments
					(Feet)	Parts Per Million (PPM)	(Inches)	
			Ground Surface					
	1		0-0.5 ftbg: Asphalt and subbase					
			0.5-4 ftbg: brown/dark brown sandy Fill Material (medium and fine grain, medium dense, moist)		0-4	1.1	12	
	5		4-8 ftbg: dark brown gravelly sandy Fill Material (coarse, medium and fine grain, medium dense, moist) with trace ash		4-8	2.1	18	
NA	10	NA	8-12 ftbg: brown/dark brown sandy Fill Material (coarse, medium and fine grain, medium dense, moist)	NA	8-12	2.1	12	
			12-16 ftbg: brown/dark brown gravelly Sand Fill (coarse, medium and fine grain, medium dense, moist) with trace ash		10-12	3.0	12	
	15		16-19 ftbg: dark brown sandy Fill Material (coarse, medium and fine grain, medium dense, moist) with brick debris		14-16	1.3	10	
								Equipment refusal encountered at approximately 19 ftbg

Project Number: 12MS-104(.5)

Total Depth of Hole: 9 feet below grade (ftbg)

Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York

Ground Elevation: NA

Boring Location: South East of Building B4

Water Encountered: NA

Date Start/Finished: August 9, 2012


Water At End of Drilling: NA

Drilling Contractor: Russo Development, Inc.

Equipment: PowerProbe

Drilling Method: Hydraulically driven system (PowerProbe)

Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P I D R e c o v e r y	Comments	
Ground Surface								
				(Feet)	Parts Per Million (PPM)	(Inches)		
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-4	2.3	15	Equipment refusal encountered at approximately 9 ftbg
			0.5-4 ftbg: brown gravelly sandy clayey Fill Material (stiff, no plasticity, moist)					
	5		4-8 ftbg: dark brown gravelly sandy Fill Material (coarse, medium and fine grain, medium dense, moist) with brick debris and wire debris		4-8	1.8	20	
			8-9 ftbg: dark brown gravelly sandy Fill Material (coarse, medium and fine grain, medium dense, moist) with brick debris with fractured rock		8-9	1.6	10	
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**DRILLING LOG OF WELL/BORING NO. SB-24**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 3 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: East of Building A5	Water Encountered: NA
Date Start/Finished: August 9, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P I D R e c o v e r y	Comments
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Ground Surface					(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-3	0.8	10	Equipment refusal encountered at approximately 3 ftbg
			0.5-3 ftbg: brown gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist)					

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**DRILLING LOG OF WELL/BORING NO. SB-25**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 19 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South East of Building A5	Water Encountered: NA
Date Start/Finished: August 9, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w  C o u n t s	I n c r e a s e	P I D  R e a d i n g	R e c o v e r y	Comments			
Ground Surface											
				(Feet)	Parts Per Million (PPM)	(Inches)					
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	NA	NA	NA	Equipment refusal encountered at approximately 19 ftbg			
	5		0.5-4 ftbg: brown gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist) with brick debris						0-4	1.7	15
			4-7 ftbg: brown gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist)						4-8	1.7	15
			7-8 ftbg: brown Clay (medium stiff, medium plasticity, moist)								
	10		8-12 ftbg: brown/dark brown gravelly sandy clayey Fill Material (stiff, low plasticity, moist)						8-12	2.1	12
	15		12-16 ftbg: brown/dark brown gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist)						12-16	2.2	15
			16-17.5 ftbg: brown/ black mottled Clay (medium stiff, medium plasticity, moist)						16-19	2.2	15
	17.5-19 ftbg: brown/black sandy Fill Material (medium and fine grain, medium dense, moist)										



Project Number: 12MS-104(.5)	Total Depth of Hole: 14 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South of building A5	Water Encountered: NA
Date Start/Finished: August 9, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w  C o u n t s	I n c r e a s e v a l g	P I D  R e a d i n g	R e c o v e r y	Comments
Ground Surface								
				(Feet)	Parts Per Million (PPM)	(Inches)		
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA				Equipment refusal encountered at approximately 14 ftbg
	5		0.5-3 ftbg: brown gravelly sandy clayey Fill Material (stiff, low plasticity, moist)		0-4	1.1	18	
			3-5 ftbg: tan/brown gravelly sandy Fill Material (coarse and medium grain, medium dense, moist)		4-8	0.7	18	
			5-14 ftbg: brown gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist)		8-12	1.4	15	
	10				12-14	2.3	6	

**DRILLING LOG OF WELL/BORING NO. SB-27**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 14 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South East of Building B6	Water Encountered: NA
Date Start/Finished: August 9, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P I D R e c o v e r y	Comments
Ground Surface							
				(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-4	1.8	15
			0.5-1.5 ftbg: gray gravelly sandy clayey Fill Material (stiff, no plasticity, moist)				
			1.5-4 ftbg: black gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist) with ash		4-8	1.7	15
			4-5 ftbg: dark brown gravelly sandy Fill Material (coarse, medium and fine grain, medium dense, moist) with ash				
	5		5-9 ftbg: dark brown gravelly sandy Fill Material (coarse, medium and fine grain, medium dense, moist)		8-12	1.9	18
			9-11 ftbg: brown sandy clayey Fill Material (medium stiff, low plasticity, moist) with some ash				
			11-13 ftbg: black sandy Fill Material (coarse, medium and fine grain, medium dense, moist) with brick debris and wood debris		12-14	1.3	15
10	13-14 ftbg: brown gravelly Clay Fill (medium stiff, low plasticity, moist)						
Equipment refusal encountered at approximately 14 ftbg							



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**DRILLING LOG OF WELL/BORING NO. SB-28**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 8 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South West of Building B6	Water Encountered: NA
Date Start/Finished: August 9, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c e r v a l	P l u m b e r i n g	R e c o v e r y	Comments
Ground Surface (Feet)      Parts Per Million (PPM)      (Inches)								
NA	1	NA	0-0.5 ftbg: Asphalt and subbase					
			0.5-5 ftbg: brown/dark brown gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist) with some ash	NA	0-4	1.6	12	
	5		5-8 ftbg: dark brown/black gravelly Sand Fill (coarse, medium and fine grain, medium dense, moist)		4-8	1.8	12	Equipment refusal encountered at approximately 8 ftbg




**DRILLING LOG OF WELL/BORING NO. SB-29**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 1.5 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South West of Building B6	Water Encountered: NA
Date Start/Finished: August 9, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P I D R e c o v e r y	R e c o v e r y	Comments
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Ground Surface					(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase 0.5-1.5 ftbg: gray/brown sandy Clay Fill (medium stiff, low plasticity, moist) with some ash	NA	0-1.5	1.2	12	Equipment refusal encountered at approximately 1.5 ftbg

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**DRILLING LOG OF WELL/BORING NO. SB-30**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 2 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South West of Building B6	Water Encountered: NA
Date Start/Finished: August 9, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch


E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P I D R e c o v e r y	R e c o v e r y	Comments
Ground Surface				(Feet)	Parts Per Million (PPM)	(Inches)		
NA	1	NA	0-0.5 ftbg: Asphalt and subbase 0.5-2 ftbg: dark brown gravelly sandy clayey Fill Material (stiff, low plasticity, moist) with some ash	NA	0-2	0.7	15	Equipment refusal encountered at approximately 2 ftbg
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Project Number: 12MS-104(.5)	Total Depth of Hole: 2 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South West of Building B6	Water Encountered: NA
Date Start/Finished: August 9, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o v e r y	Comments
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Ground Surface	(Feet)	Parts Per Million (PPM)	(Inches)
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NA	1	NA	No Recovery	NA	0-2	-	-	Equipment refusal encountered at approximately 2 ftbg
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**DRILLING LOG OF WELL/BORING NO. SB-32**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 5 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South East of Building A1	Water Encountered: NA
Date Start/Finished: August 10, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u m b i n g	R e c o r d	Comments
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Ground Surface			(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	0-0.5 ftbg: Asphalt and subbase				
		0.5-3 ftbg: brown sandy clayey Fill Material (medium stiff, no plasticity, moist)	NA	0-4	1.4	15
	5	3-5 ftbg: brown gravelly sandy clayey Fill Material (medium stiff, no plasticity, moist)		4-5	0.8	9
Equipment refusal encountered at approximately 5 ftbg						



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Total Depth of Hole: 6 feet below grade (ftbg)

Ground Elevation: NA

Water Encountered: NA

Water At End of Drilling: NA

Equipment: PowerProbe

Technician: Ryan Welch


Elemention	Depth	Well Completion Diagram	Soil/Rock Description	B l o w  C o u n t s	I n t e r v a l	P I D  R e a d i n g	R e c o v e r y	Comments
<div>Ground Surface</div> <div>Parts Per Million (PPM)</div> <div>(Feet)</div> <div>(Inches)</div>								
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-4	1.4	20	Equipment refusal encountered at approximately 6 ftbg
	5		2-5 ftbg: brown gravelly clayey Fill Material (medium stiff, medium plasticity, moist)		4-6	1.0	15	
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**DRILLING LOG OF WELL/BORING NO. SB-34**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 5 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South West of Building A1	Water Encountered: NA
Date Start/Finished: August 10, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u m b e r	R e c o r d	Comments
Ground Surface								
				(Feet)	Parts Per Million (PPM)	(Inches)		
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-4	2.6	10	Equipment refusal encountered at approximately 5 ftbg
	5		4-5 ftbg: brown/dark brown gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist)		4-5	2.2	12	
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**DRILLING LOG OF WELL/BORING NO. SB-35**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 12 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South West of Building A1	Water Encountered: NA
Date Start/Finished: August 10, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u m b e r	R e c o r d	Comments
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Ground Surface				(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase				Equipment refusal encountered at approximately 12 ftbg
	5		0.5-2 ftbg: dark brown gravelly sandy clayey Fill Material (stiff, no plasticity, moist)	0-2	1.8	12	
			2-4 ftbg: brown sandy clayey Fill Material (medium stiff, low plasticity, moist)	2-4	2.4	12	
			4-8 ftbg: brown gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist)	4-8	2.7	12	
			8-12 ftbg: brown gravelly sandy clayey Fill Material (stiff, no plasticity, moist)	8-12	3.2	10	



**DRILLING LOG OF WELL/BORING NO. SB-36**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 9 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: North West of Building A1	Water Encountered: NA
Date Start/Finished: August 10, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P I D R e c o v e r y	Comments
Ground Surface				(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-2	1.7	12
			0.5-3 ftbg: dark brown/black gravelly sandy clayey Fill Material (stiff, no plasticity, moist) with brick debris				
			3-4 ftbg: brown gravelly sandy clayey Fill Material (stiff, no plasticity, moist)		2-4	1.8	12
			4-7 ftbg: brown sandy clayey Fill Material (medium stiff, low to medium plasticity, moist)		4-8	2.1	15
	5		7-8 ftbg: brown gravelly sandy clayey Fill Material (medium stiff, no plasticity, moist)				
			8-9 ftbg: brown sandy gravelly Fill Material (angular, medium dense, moist)		8-9	4.5	6
				Equipment refusal encountered at approximately 9 ftbg			



**DRILLING LOG OF WELL/BORING NO. SB-37**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 20 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: North of Building A1	Water Encountered: 16 ftbg
Date Start/Finished: August 10, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u m b i n g	R e c o r d	Comments
Ground Surface				(Feet)	Parts Per Million (PPM)	(Inches)		
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-4	1.7	20	Equipment refusal encountered at approximately 20 ftbg
			0.5-2 ftbg: gray gravelly sandy clayey Fill Material (stiff, no plasticity, moist)					
			2-4 ftbg: dark brown gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist)					
	5		4-6 ftbg: dark brown gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist) with some ash		4-6	1.7	12	
			6-9 ftbg: dark brown gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist) with ash and brick debris		6-8	1.4	12	
	10		9-10 ftbg: gray Ash (moist)		8-10	2.2	12	
			10-12 ftbg: brown sandy Clay (soft, medium plasticity, moist)		10-12	2.1	12	
	15		12-16 ftbg: brown gravelly sandy clayey Fill Material (medium stiff, low plasticity, moist)		12-16	2.2	15	
			16-20 ftbg: gray Gravel (angular and subrounded, medium dense, wet)		16-20	1.2	2	

**DRILLING LOG OF WELL/BORING NO. SB-38**


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Project Number: 12MS-104(.5)	Total Depth of Hole: 4 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: North East of Building A1	Water Encountered: NA
Date Start/Finished: August 10, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o r d	Comments
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Ground Surface			(Feet)	Parts Per Million (PPM)	(Inches)	Equipment refusal encountered at approximately 4 ftbg
NA	1	NA	0-0.5 ftbg: Asphalt and subbase			
			0.5-2 ftbg: gray/brown gravelly sandy Fill Material (coarse, medium and fine grain, medium dense, moist)	0-2	1.3	
			2-3 ftbg: brown gravelly Sand Fill (coarse, medium and, fine grain, medium dense, moist) with brick debris	NA		
			3-3.5 ftbg: brown gravelly sandy Fill Material (coarse grain, medium dense, moist) with brick debris	2-4	1.9	
			3.5-4 ftbg: brown sandy clayey Fill Material (stiff, no plasticity, moist)			

--

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**DRILLING LOG OF WELL/BORING NO. SB-39**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 10 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: East of Building A1	Water Encountered: NA
Date Start/Finished: August 10, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o r d	Comments
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Ground Surface			Parts Per Million (PPM)			(Inches)	
			(Feet)				
NA	1	NA	0-0.5 ftbg: Asphalt and subbase				
			0.5-4 ftbg: dark brown sandy Fill Material (coarse, medium and fine grain, medium dense, moist)	0-4	5.1	18	
	5		4-6 ftbg: dark brown/black sandy Fill Material (coarse, medium and fine grain, medium dense, moist)	4-6	1.5	12	
			6-8 ftbg: dark brown/black gravelly sandy Fill Material (coarse, medium and fine grain, medium dense, moist)	6-8	16.2	12	
	10		8-10 ftbg: dark brown/black gravelly sandy Fill Material (coarse, medium and fine grain, medium dense, moist) with rock fragments	8-10	2.9	6	Equipment refusal encountered at approximately 10 ftbg



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**DRILLING LOG OF WELL/BORING NO. SB-40**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 3 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South East of Building A1	Water Encountered: NA
Date Start/Finished: August 10, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o r d	Comments
---	-----------------------	-------------------------------	-----------------------	--	--------------------------------------	------------------	----------------------------	----------

Ground Surface			(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-3	3.6
			0.5-3 ftbg: gray/black gravelly sandy Clay (stiff, no plasticity, moist)			15
Equipment refusal encountered at approximately 3 ftbg						



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Project Number: 12MS-104(.5)

Total Depth of Hole: 11 feet below grade (ftbg)

Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York

Ground Elevation: NA

Boring Location: North of Building B6

Water Encountered: NA

Date Start/Finished: August 10, 2012


Water At End of Drilling: NA

Drilling Contractor: Russo Development, Inc.

Equipment: PowerProbe

Drilling Method: Hydraulically driven system (PowerProbe)

Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o r d	Comments
Ground Surface								
				(Feet)	Parts Per Million (PPM)	(Inches)		
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-2	1.5	15	Slight organic odor observed between approximately 9.5-11 ftbg  Equipment refusal encountered at approximately 11 ftbg
			0.5-6 ftbg: black sandy Fill Material (coarse, medium and fine grain, medium dense, moist) with some brick debris		2-4	2.0	15	
	5		6-8 ftbg: black sandy Fill Material (coarse, medium and fine grain, medium dense, moist) with brick debris		4-6	1.7	12	
			8-9.5 ftbg: black sandy Fill Material (coarse, medium and fine grain, medium dense, moist)		6-8	2.9	12	
	10		9.5-11 ftbg: black sandy clayey Fill Material (medium stiff, no plasticity, moist) with ash		8-11	1.8	18	
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**DRILLING LOG OF WELL/BORING NO. SB-42**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 16 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: North East of Building B6	Water Encountered: NA
Date Start/Finished: August 10, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Ryan Welch

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o r d	Comments
					(Feet)	Parts Per Million (PPM)	(Inches)	
			Ground Surface					
	1		0-0.5 ftbg: Asphalt and subbase		0-2	5.8	12	
			0.5-2.5 ftbg: dark brown/black sandy Fill Material (coarse, medium and fine grain, medium dense, moist)					
			2.5-3 ftbg: brown clayey Fill Material (medium stiff, low plasticity, moist)		2-4	6.1	12	
	5		3-6 ftbg: dark brown/black sandy Fill Material (coarse, medium and fine grain, medium dense, moist)		4-6	2.1	12	
			6-6.5 ftbg: brown Clay (stiff, no plasticity, moist)					
			6.5-8 ftbg: dark brown/black sandy Fill Material (coarse, medium and fine grain, medium dense, moist) with brick debris		6-8	6.1	12	
					8-10	3.9	12	
	10		8-13 ftbg: tan sandy Fill Material (coarse, medium and fine grain, medium dense, moist) with brick debris		10-12	3.2	12	
			13-14 ftbg: brown gravelly sandy Fill Material (coarse, medium and fine grain, medium dense, moist) with some ash and brick debris		12-14	4.2	12	
	15		14-15.5 ftbg: gray/brown Ash (moist)		14-16	2.5	12	
			15.5-16 ftbg: brown Clay (stiff, no plasticity, moist)					Equipment refusal encountered at approximately 16 ftbg



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Project Number: 12MS-104(.5)	Total Depth of Hole: 22 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: East of Building A1	Water Encountered: 16 ftbg
Date Start/Finished: August 13, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w  C o u n t s	I n c r e a s i n g	P e r c e n t a g e	R e c o v e r y	Comments
Ground Surface								
					(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-2	2.4	15	Equipment refusal encountered at approximately 22 ftbg
	5		2-4		6.8	15		
			4-6		2.4	20		
			6-8		37.6	20		
			8-10		2.6	15		
	10		10-12 ftbg: gray/black sandy clayey gravelly Fill Material (angular and subrounded, medium dense, moist)		10-12	1.5	15	
	15		12-14		1.5	15		
			14-16		1.7	15		
			16-20		1.6	10		
	20		20-21.5 ftbg: gray clayey silty Ash (medium stiff, wet)		20-22	2.1	10	
21.5-22 ftbg: brown Clay (medium stiff, medium plasticity, moist)								

Project Number: 12MS-104(.5)	Total Depth of Hole: 23 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: North of Building A1	Water Encountered: 16 ftbg
Date Start/Finished: August 13, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w  C o u n t s	I n t e r v a l	P l o t t e d  R e a d i n g	R e c o r d e d  I n c h e s	Comments
Ground Surface				(Feet)		Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-4	1.3	15	Equipment refusal encountered at approximately 23 ftbg
	5		0.5-7 ftbg: black/brown sandy gravelly clayey Fill Material (stiff, low plasticity, moist)		4-8	2.0	15	
	10		7-8 ftbg: black/brown sandy gravelly clayey Fill Material (stiff, low plasticity, moist) with ash		8-12	1.0	15	
			8-12 ftbg: brown sandy gravelly Clay (medium stiff, low plasticity, moist) with some ash		12-16	1.0	6	
			12-16 ftbg: brown gravelly Clay (medium stiff, low plasticity, moist)		16-20	0.7	6	
	20		16-20 ftbg: brown silty sandy Gravel (angular and subrounded, medium dense, wet)		20-23	0.7	6	
			20-23 ftbg: gray silty Gravel (angular and subrounded, loose, wet)					

**DRILLING LOG OF WELL/BORING NO. SB-45**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 20 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South East of Building B2	Water Encountered: NA
Date Start/Finished: August 13, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o v e r y	Comments
					(Feet)	Parts Per Million (PPM)	(Inches)	
			Ground Surface					
	1		0-0.5 ftbg: Asphalt and subbase					
			0.5-4 ftbg: black/brown/tan clayey Sand (coarse, medium and fine grain, medium dense, moist)		0-4	1.3	15	
	5		4-6 ftbg: black/tan Sand (coarse, medium and fine grain, medium dense, moist)		4-8	4.6	15	
NA		NA	6-10 ftbg: brown gravelly clayey Sand (coarse and medium grain, dense, moist)	NA	8-10	1.6	15	
	10		10-12 ftbg: gray/black Ash (soft, moist)		10-12	1.2	15	
	15		12-20 ftbg: no recovery, boring terminated		12-20	-	-	Boring terminated due to obstruction in boring at approximately 20 ftbg

Project Number: 12MS-104(.5)	Total Depth of Hole: 21 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South East of Building B2	Water Encountered: NA
Date Start/Finished: August 13, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w  C o u n t s	I n c r e a s i n g	P e r c e n t a g e	R e c o r d	Comments
Ground Surface								
NA	1	NA	0-0.5 ftbg: Asphalt and subbase	NA	0-4	1.6	15	Equipment refusal encountered at approximately 21 ftbg
	5		0.5-6 ftbg: black/tan Sand (course, medium and fine grain, medium dense, moist)		4-6	1.1	15	
	10		6-9 ftbg: black sandy clayey Gravel (angular, medium dense, moist)		6-8	2.4	15	
	15		9-20 ftbg: gray clayey Ash (soft, moist) with gravel		8-10	1.8	15	
	20		20-21 ftbg: black clayey Gravel (angular, medium dense, moist) with wood debris		10-12	1.0	15	
					12-16	1.4	20	
					16-20	1.6	15	
					20-21	1.5	12	

**DRILLING LOG OF WELL/BORING NO. SB-47**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 10 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South of Building A3	Water Encountered: NA
Date Start/Finished: August 12, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o v e r y	Comments
Ground Surface				(Feet)	Parts Per Million (PPM)	(Inches)		
NA	1	NA	0-0.5 ftbg: Asphalt and subbase		0-2	1.6	15	Equipment refusal encountered at approximately 10 ftbg
					2-4	2.1	15	
	5		0.5-9.5 ftbg: black/tan Sand (coarse, medium and fine grain, medium dense, moist)	NA	4-6	2.0	15	
					6-8	2.8	15	
	10		9.5-10 ftbg: gray Ash (stiff, moist)		8-10	2.3	20	



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**DRILLING LOG OF WELL/BORING NO. SB-48**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 7 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South West of Building B4	Water Encountered: NA
Date Start/Finished: August 13, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o r d	Comments
Ground Surface				(Feet)	Parts Per Million (PPM)		(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase					
			0.5-4 ftbg: black/tan gravelly Sand (coarse, medium and fine grain, medium dense, moist)	NA	0-4	8.8	15	
	5		4-7 ftbg: black/tan gravelly Sand (coarse, medium and fine grain, medium dense, moist) with brick in end of macrocore		4-7	4.1	15	Equipment refusal encountered at approximately 7 ftbg



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**DRILLING LOG OF WELL/BORING NO. SB-49**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 3.5 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: South West of Building B4	Water Encountered: NA
Date Start/Finished: August 13, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o r d	Comments
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Ground Surface					(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase 0.5-3.5 ftbg: brown/tan gravelly Sand (coarse, medium and fine grain, medium dense, moist)	NA	0-3.5	4.2	20	Equipment refusal encountered at approximately 3.5 ftbg

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**DRILLING LOG OF WELL/BORING NO. SB-50**

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Project Number: 12MS-104(.5)	Total Depth of Hole: 13 feet below grade (ftbg)
Project Location: Kensington Heights 1827 Fillmore Avenue, Buffalo, New York	Ground Elevation: NA
Boring Location: North West of Building A5	Water Encountered: NA
Date Start/Finished: August 13, 2012	Water At End of Drilling: NA
Drilling Contractor: Russo Development, Inc.	Equipment: PowerProbe
Drilling Method: Hydraulically driven system (PowerProbe)	Technician: Joseph Mecca

E l e v a t i o n	D e p t h	Well Completion Diagram	Soil/Rock Description	B l o w C o u n t s	I n c r e a s e	P l u s	R e c o r d	Comments
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Ground Surface			(Feet)	Parts Per Million (PPM)	(Inches)	
NA	1	NA	0-0.5 ftbg: Asphalt and subbase			
				0-4	1.2	15
	5		0.5-4.5 ftbg: brown/black gravelly Sand (coarse, medium and fine grain, medium dense, moist)			
				4-8	5.9	15
	10		4.5-12 ftbg: black/brown Sand (coarse, medium and fine grain, medium dense, moist)			
				8-12	1.7	15
			12-13 ftbg: black/brown gravelly Sand (coarse, medium and fine grain, medium dense, moist) with pieces of glass			
				12-13	1.5	12
Equipment refusal encountered at approximately 13 ftbg						



APPENDIX B

LABORATORY ANALYTICAL REPORTS

DRAFT

**DATA PACKAGE**

METALS  
GC SEMI-VOLATILES  
SEMI-VOLATILE ORGANICS  
VOLATILE ORGANICS

**PROJECT NAME : 12MS104 KENSINGTON HEIGHTS****MS ANALYTICAL****4169 Allendale Parkway, Suite 200****Blasdell, NY - 14219****Phone No: 716-649-9718****ORDER ID : D3811****ATTENTION : Bryan Mayback****DoD ELAP**

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## Cover Page

**Order ID :** D3811**Project ID :** 12MS104 Kensington Heights**Client :** MS Analytical**Lab Sample Number****Client Sample Number**

D3811-01	SB-2(4-8)
D3811-02	SB-5(8-12)
D3811-03	SB-9(4-7)
D3811-04	SB-10(8-12)
D3811-05	SB-11(12-16)
D3811-06	SB-15(12-16)
D3811-07	SB-18(4-8)
D3811-08	SB-19(12-18)
D3811-09	SB-21(12-16)
D3811-10	SB-21(16-19)
D3811-11	SB-22(12-19)
D3811-12	SB-27(8-12)
D3811-13	SB-37(8-10)
D3811-14	SB-39(6-8)
D3811-15	SB-41(8-11)
D3811-16	SB-42(14-16)
D3811-17	SB-43(6-8)
D3811-18	SB-43(10-12)
D3811-19	SB-43(16-20)
D3811-20	SB-45(10-12)
D3811-21	SB-46(12-16)

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : \_\_\_\_\_

Date: 8/30/2012

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

## **CASE NARRATIVE**

### **MS Analytical**

**Project Name: 12MS104 Kensington Heights**

**Project # N/A**

**Chemtech Project # D3811**

**Test Name: VOC-Chemtech Full -15**

### **A. Number of Samples and Date of Receipt:**

21 Solid samples were received on 08/15/2012.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Herbicide, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SVOC-Chemtech Full -25 and VOC-Chemtech Full -15. This data package contains results for VOC-Chemtech Full -15.

### **C. Analytical Techniques:**

The analysis performed on instrument MSVOA\_D were done using GC column RTX-VMS which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied by SUPELCO, K (VOACARB 3000) , TEKMAR LSC-2000 Concentrator. The analysis performed on instrument MSVOA\_F were done using GC column RTX-VMS, which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied by Supelco, VOCARB 3000, Tekmar 2000 Concentrator. The analysis of VOC-Chemtech Full -15 was based on method 8260C.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for SB-22(12-19)

[Dibromofluoromethane - 138%], SB-39(6-8) [1 and 2-Dichloroethane-d4 - 123%].

The Internal Standards Areas met the acceptable requirements except for SB-9(4-7), SB-11(12-16), SB-18(4-8), SB-21(16-19), SB-22(12-19), SB-37(8-10), SB-39(6-8), SB-41(8-11), SB-43(6-8), SB-43(10-12), SB-43(16-20) and SB-46(12-16).

The Retention Times were acceptable for all samples.

The MS {D3814-04MS} with File ID: VF034815.D recoveries met the requirements for all compounds except for Diethyl Ether[176%] .

The MSD {D3814-04MSD} with File ID: VF034816.D recoveries met the acceptable requirements except for 1,1-Dichloroethane[128%], Chloroform[126%] and Diethyl Ether[176%] .

The RPD for {D3814-04MSD} with File ID: VF034816.D recoveries met criteria except for Acrolein[46%] .

The Blank Spike for {VD0815SBS01} with File ID: VD036739.D met requirements for all samples except for Acetone[150%], Methacrylonitrile[125%], Naphthalene[29%] and Vinyl Acetate[140%] .

The Blank Spike for { VD0816SBS01 } with File ID: VD036756.D met requirements for all samples except for 2-Butanone[140%], Carbon Tetrachloride[75%], Isopropylacetate[125%], Methacrylonitrile[130%], Naphthalene[28%] and Vinyl Acetate[150%] .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration File ID VD036737.D met the requirements except for Naphthalene and Methyl Iodide but they were not detected in any sample .The Continuous Calibration File ID VD036754.D met the requirements except for 1,2,3-Trichlorobenzene,Naphthalene,Chloroethane and Vinyl Acetate but they were not detected in any sample.The Continuous Calibration File ID VF034766.D met the requirements except for Diethyl Ether,2-Butanone and Methacrylonitrile but they were not detected in any sample.The Continuous Calibration File ID VF034789.D met the requirements except for Diethyl Ether but it was not detected in any sample. The Tuning criteria met requirements.

**E. Additional Comments:****F. Manual Integration Comments:**

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I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature\_\_\_\_\_

## CASE NARRATIVE

### MS Analytical

**Project Name: 12MS104 Kensington Heights**

**Project # N/A**

**Chemtech Project # D3811**

**Test Name: SVOC-Chemtech Full -25**

### **A. Number of Samples and Date of Receipt:**

21 Solid samples were received on 08/15/2012.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Herbicide, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SVOC-Chemtech Full -25 and VOC-Chemtech Full -15. This data package contains results for SVOC-Chemtech Full -25.

### **C. Analytical Techniques:**

The samples were analyzed on instrument BNA\_F using GC Column RTX-5 SILMS which is 20 meters, 0.18 mm ID, 0.36 um df, Catalog # 42704. The samples were analyzed on instrument BNA\_G using GC Column RXI-5 SILMS which is 30 meters, 0.25 mm ID, 0.50 um df, Catalog # 13638-124. The analysis of SVOC-Chemtech Full -25 was based on method 8270D and extraction was done based on method 3541.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS {D3813-01MSRX} with File ID: BF058476.D recoveries met the requirements for all compounds except for 2,3,4,6-Tetrachlorophenol[38%] and Benzoic acid[0%] .

The MS {D3813-01MS} with File ID: BF058265.D recoveries met the requirements for all compounds except for 1,4-Dioxane[105%], 2,3,4,6-Tetrachlorophenol[33%], Hexachlorocyclopentadiene[2%], Phenanthrene[143%] and Pyridine[100%] .

The MSD {D3813-01MSD} with File ID: BF058266.D recoveries met the acceptable requirements except for 2,3,4,6-Tetrachlorophenol[44%],

Hexachlorocyclopentadiene[7%] and Pyridine[100%] . The MSD {D3813-01MSDRX} with File ID: BF058477.D recoveries met the acceptable requirements except for 2,3,4,6-Tetrachlorophenol[34%] and Benzoic acid[0%] .

The RPD for {D3813-01MSD} with File ID: BF058266.D recoveries met criteria except for 2,3,4,6-Tetrachlorophenol[29%], 2,4,5-Trichlorophenol[27%], 2,4,6-Trichlorophenol[29%], 2,4-Dichlorophenol[33%], 2,4-Dinitrophenol[32%], 2-Nitrophenol[24%], 4,6-Dinitro-2-methylphenol[26%], 4-Nitrophenol[32%], Benzo(g,h,i)perylene[31%], Benzoic acid[24%], Hexachlorocyclopentadiene[111%], Pentachlorophenol[37%] and Phenanthrene[30%] .



The RPD for {D3811-02MSD} with File ID: BF058275.D recoveries met criteria except for 1,2,4-Trichlorobenzene[29%], 2,3,4,6-Tetrachlorophenol[22%], 2,4,6-Trichlorophenol[22%], 2,4-Dichlorophenol[22%], 2,4-Dinitrophenol[49%], 2-Methylnaphthalene[27%], 3,3-Dichlorobenzidine[35%], 4,6-Dinitro-2-methylphenol[39%], 4-Bromophenyl-phenylether[22%], 4-Chloro-3-methylphenol[22%], 4-Nitroaniline[22%], 4-Nitrophenol[22%], Aniline[21%], Anthracene[25%], Benzidine[32%], Benzo(a)anthracene[25%], Benzo(b)fluoranthene[25%], Benzoic acid[41%], Butylbenzylphthalate[22%], Caprolactam[22%], Chrysene[27%], Dimethylphthalate[22%], Di-n-butylphthalate[22%], Hexachlorobenzene[22%], Hexachlorobutadiene[22%], Hexachlorocyclopentadiene[24%], Hexachloroethane[22%], Isophorone[25%], Nitrobenzene[25%], n-Nitrosodimethylamine[21%], Pentachlorophenol[24%], Phenanthrene[27%], Pyrene[27%] and Pyridine[24%] .

The RPD for {D3813-01MSDRX} with File ID: BF058477.D recoveries met criteria except for 4-Chloroaniline[83%], Aniline[47%], Benzidine[27%] and Pentachlorophenol[27%] .

The Blank Spike for {PB65121BS} with File ID: BF058256.D met requirements for all samples except for 1,1-Biphenyl[55%], 2,3,4,6-Tetrachlorophenol[44%], 2,4,5-Trichlorophenol[49%], 2,4,6-Trichlorophenol[48%], 2,4-Dichlorophenol[48%], 2,4-Dimethylphenol[51%], 2,4-Dinitrotoluene[51%], 2,6-Dinitrotoluene[52%], 2-Chloronaphthalene[53%], 2-Chlorophenol[49%], 2-Nitroaniline[49%], 2-Nitrophenol[49%], 4,6-Dinitro-2-methylphenol[43%], 4-Bromophenyl-phenylether[52%], 4-Chloro-3-methylphenol[47%], 4-Chlorophenyl-phenylether[51%], 4-Nitroaniline[46%], 4-Nitrophenol[45%], Acenaphthene[55%], Acenaphthylene[55%], Azobenzene[53%], Benzaldehyde[9%], Benzo(a)anthracene[55%], Benzo(a)pyrene[55%], Benzo(b)fluoranthene[52%], Benzo(k)fluoranthene[54%], bis(2-Ethylhexyl)phthalate[46%], Butylbenzylphthalate[47%], Carbazole[51%], Chrysene[52%], Dibenzofuran[50%], Diethylphthalate[44%], Dimethylphthalate[44%], Di-n-butylphthalate[47%], Di-n-octyl phthalate[49%], Fluoranthene[52%], Fluorene[54%], Hexachlorobenzene[50%], Hexachloroethane[51%], N-Nitrosodiphenylamine[55%], Pentachlorophenol[45%], Phenanthrene[55%], Phenol[49%] and Pyrene[55%] .

The Blank Spike Duplicate met requirements for all samples .The Blank Spike for {PB65125BS} with File ID: BG006797.D met requirements for all samples except for Benzaldehyde[8%] .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration File ID BF058255.D met the requirements except for n-Nitrosodimethylamine,Pyridine and Acetophenone but they were not detected in any sample .The Continuous Calibration File ID BF058340.D met the requirements except for n-Nitrosodimethylamine,2,2-oxybis(1-Chloropropane) and Acetophenone but they were not detected in any sample.The Continuous Calibration File ID BF058388.D met the requirements except for n-Nitrosodimethylamine,2,2-oxybis(1-Chloropropane),Acetophenone,2-Nitroaniline,Benzaldehyde,Benzoic acid and 2,4-Dinitrophenol but they were not detected in any sample.The Continuous Calibration File ID BF058464.D met the requirements except for Acetophenone and Benzoic acid but they were not detected in any sample.The Continuous Calibration File ID BG006779.D & BG006796.D met the requirements except for Acetophenone it was not detected in any

sample. The Continuous Calibration File ID BG006813.D met the requirements except for Acetophenone and 2,4-Dinitrophenol but they were not detected in any sample .

The Tuning criteria met requirements.

Samples SB-15(12-16), SB-21(16-19), SB-37(8-10) and SB-15(12-16)DL were diluted due to bad matrices.

Samples SB-15(12-16), SB-15(12-16)DL, SB-21(16-19) and SB-37(8-10) were diluted due to high concentrations.

**E. Additional Comments:**

Many compounds fail in PB65121BS at lower side, whole prep batch will be re-extract. SB-46(12-16), D3813-01MSMSD will be re-extracted due to LCS failed report both run in hardcopy.

File ID BG006787.D having sample ID SB-41(8-11) has a time error, sample will be run again.

**F. Manual Integration Comments:**

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Signature\_\_\_\_\_

## **CASE NARRATIVE**

### **MS Analytical**

**Project Name: 12MS104 Kensington Heights**

**Project # N/A**

**Chemtech Project # D3811**

**Test Name: Pesticide-TCL**

### **A. Number of Samples and Date of Receipt:**

21 Solid samples were received on 08/15/2012.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Herbicide, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SVOC-Chemtech Full -25 and VOC-Chemtech Full -15. This data package contains results for Pesticide-TCL.

### **C. Analytical Techniques:**

The analyses were performed on instrument GCECD\_D. The front column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 7HM-G017-11 . The rear column is ZBMR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalog # 7HM-G016-17. The analysis of Pesticide-TCLs was based on method 8081B and extraction was done based on method 3541.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for SB-2(4-8) [Decachlorobiphenyl(1) - 202%], SB-15(12-16) [Tetrachloro-m-xylene(2) - 28%] and SB-21(16-19) [Tetrachloro-m-xylene(2) - 24%].

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements .

The RPD for {D3811-06MSD} with File ID: PD012367.D recoveries met criteria except for Heptachlor epoxide[21%] .

The Blank Spike met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration File ID PD012345.D met the requirements except for Methoxychlor is failing in 2nd column but passing in 1st column. The Continuous Calibration File ID PD012358.D met the requirements except for Endosulfan I,4,4-DDE,Endrin,Endosulfan II,Endosulfan Sulfate,4,4-DDT,Endrin ketone,Endrin aldehyde,alpha-Chlordane,gamma-Chlordane and Decachlorobiphenyl are failing in 2nd column but passing in 1st column. The Continuous Calibration File ID PD012369.D met the requirements except for Endosulfan I,4,4-DDE,Endrin,Endosulfan II,Endosulfan

Sulfate,4,4-DDT,Endrin ketone,Endrin aldehyde,alpha-Chlordane,gamma-Chlordane and Decachlorobiphenyl are failing in 2nd column but passing in 1st column.

**E. Additional Comments:**

**F. Manual Integration Comments:**

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Signature\_\_\_\_\_

## CASE NARRATIVE

### MS Analytical

**Project Name:** 12MS104 Kensington Heights

**Project #** N/A

**Chemtech Project #** D3811

**Test Name:** PCB

### **A. Number of Samples and Date of Receipt:**

21 Solid samples were received on 08/15/2012.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Herbicide, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SVOC-Chemtech Full -25 and VOC-Chemtech Full -15. This data package contains results for PCB.

### **C. Analytical Techniques:**

The analyses were performed on instrument GCECD\_C. The front column is RTX-CLPest which is 30 meters, 0.32 mm ID, 0.5 um df, Catalog # 11139. The rear column is RTX-CLPestII which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog # 11324. The analysis of PCBs was based on method 8082A and extraction was done based on method 3541.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for SB-15(12-16) [Decachlorobiphenyl(2) - 59%], SB-21(16-19) [Decachlorobiphenyl(1) - 292%, Decachlorobiphenyl(2) - 55%], SB-21(16-19)RE [Decachlorobiphenyl(1) - 326%, Decachlorobiphenyl(2) - 50%], SB-22(12-19) [Decachlorobiphenyl(2) - 57%], SB-37(8-10) [Decachlorobiphenyl(1) - 412%], SB-41(8-11) [Decachlorobiphenyl(2) - 42%], SB-43(10-12) [Decachlorobiphenyl(1) - 50%, Decachlorobiphenyl(2) - 33%], SB-43(10-12)RE [Decachlorobiphenyl(1) - 50%, Decachlorobiphenyl(2) - 31%], SB-43(16-20) [Decachlorobiphenyl(2) - 53%] and SB-46(12-16) [Decachlorobiphenyl(2) - 43%].

The Retention Times were acceptable for all samples.

The MS {D3811-01MS} with File ID: PC009906.D recoveries met the requirements for all compounds except for AR1260[131%].

The MSD recoveries met the acceptable requirements.

The RPD recoveries met criteria.

The Blank Spike met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration File ID PC009903.D met the requirements except for Decachlorobiphenyl is failing in 2nd column but passing in 1st column.

**E. Additional Comments:****F. Manual Integration Comments:**

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Signature\_\_\_\_\_

**CASE NARRATIVE****MS Analytical****Project Name: 12MS104 Kensington Heights****Project # N/A****Chemtech Project # D3811****Test Name: Herbicide****A. Number of Samples and Date of Receipt:**

21 Solid samples were received on 08/15/2012.

**B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Herbicide, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SVOC-Chemtech Full -25 and VOC-Chemtech Full -15. This data package contains results for Herbicide.

**C. Analytical Techniques:**

The analyses were performed on instrument GCECD\_E. The front column is ZB-35-HT Inferno which is 30 meters, 0.25 mm ID, 0.25 um df, Catalog # 7HG-G025-11. The rear column is ZB-XLB-HT Inferno which is 30 meters, 0.25 mm ID, 0.25 um df, Catalog # 7HG-G024-11. The analysis of Herbicides was based on method 8151A and extraction was done based on method 3541.

**D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements .

The RPD recoveries met criteria .

The Blank Spike met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration met the requirements .

**E. Additional Comments:****F. Manual Integration Comments:**

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Signature\_\_\_\_\_

**CASE NARRATIVE****MS Analytical****Project Name: 12MS104 Kensington Heights****Project # N/A****Chemtech Project # D3811****Test Name: Mercury, Metals ICP-TAL****A. Number of Samples and Date of Receipt:**

21 Solid samples were received on 08/15/2012.

**B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Herbicide, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SVOC-Chemtech Full -25 and VOC-Chemtech Full -15. This data package contains results for Mercury, Metals ICP-TAL.

**C. Analytical Techniques:**

The analysis of Metals ICP-TAL was based on method 6010B, digestion based on method 3050 (soils). The analysis of Mercury was based on method 7471A and digestion was based on method 7471B (soils).

**D. QA/ QC Samples:**

The Holding Times were met for all analysis.

Samples SB-2(4-8) was diluted due to high concentrations for Mercury. Sample SB-21(12-16) was diluted due to high concentrations for Lead.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike analysis met criteria for all samples except for Chromium, Copper, Potassium, Sodium and Zinc.

The Matrix Spike Duplicate analysis met criteria for all samples except for Chromium, Copper, Potassium, Sodium and Zinc.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Serial Dilution met criteria for all samples except for Aluminum, Arsenic, Barium, Calcium, Chromium, Copper, Iron, Magnesium, Manganese, Potassium, Vanadium and Zinc.

**E. Additional Comments:**

ICV01 is failing for Aluminum in LB62171. CRI01 is failing for Aluminum in LB62171. CRI01 is failing for Aluminum in LB62172.



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Signature\_\_\_\_\_

**DATA REPORTING QUALIFIERS- INORGANIC**

For reporting results, the following “ Results Qualifiers” are used:

<b>J</b>	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
<b>U</b>	Indicates the analyte was analyzed for, but not detected.
<b>ND</b>	Indicates the analyte was analyzed for, but not detected
<b>E</b>	Indicates the reported value is estimated because of the presence of interference
<b>M</b>	Indicates Duplicate injection precision not met.
<b>N</b>	Indicates the spiked sample recovery is not within control limits.
<b>S</b>	Indicates the reported value was determined by the Method of Standard Addition (MSA).
<b>*</b>	Indicates that the duplicate analysis is not within control limits.
<b>+</b>	Indicates the correlation coefficient for the MSA is less than 0.995.
<b>D</b>	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
<b>M</b>	Method qualifiers “P” for ICP instrument “PM” for ICP when Microwave Digestion is used “CV” for Manual Cold Vapor AA “AV” for automated Cold Vapor AA “CA” for MIDI-Distillation Spectrophotometric “AS” for Semi -Automated Spectrophotometric “C” for Manual Spectrophotometric “T” for Titrimetric “NR” for analyte not required to be analyzed
<b>OR</b>	Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>Q</b>	Indicates the LCS did not meet the control limits requirements

**DATA REPORTING QUALIFIERS- ORGANIC**

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
<b>U</b>	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
<b>ND</b>	Indicates the analyte was analyzed for, but not detected
<b>J</b>	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
<b>B</b>	Indicates the analyte was found in the blank as well as the sample report as "12 B".
<b>E</b>	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>D</b>	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
<b>P</b>	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
<b>N</b>	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
<b>A</b>	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
<b>Q</b>	Indicates the LCS did not meet the control limits requirements

## APPENDIX A

### QA REVIEW GENERAL DOCUMENTATION

Project #: D3811

Completed

For thorough review, the report must have the following:

#### GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

#### COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

#### CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

#### ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

1st Level QA Review Signature: HIRAL PATEL

Date: 08/30/2012

2nd Level QA Review Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# LAB CHRONICLE

<b>OrderID:</b>	D3811	<b>OrderDate:</b>	8/15/2012 11:38:54 AM					
<b>Client:</b>	MS Analytical	<b>Project:</b>	12MS104 Kensington Heights					
<b>Contact:</b>	Bryan Mayback	<b>Location:</b>	I23					

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
D3811-01	SB-2(4-8)	SOIL	VOC-Chemtech Full -15	8260C	08/07/12		08/15/12	08/15/12
D3811-01RE	SB-2(4-8)RE	SOIL	VOC-Chemtech Full -15	8260C	08/07/12		08/15/12	08/15/12
D3811-02	SB-5(8-12)	SOIL	VOC-Chemtech Full -15	8260C	08/07/12		08/15/12	08/15/12
D3811-02RE	SB-5(8-12)RE	SOIL	VOC-Chemtech Full -15	8260C	08/07/12		08/15/12	08/15/12
D3811-03	SB-9(4-7)	SOIL	VOC-Chemtech Full -15	8260C	08/07/12		08/15/12	08/15/12
D3811-03RE	SB-9(4-7)RE	SOIL	VOC-Chemtech Full -15	8260C	08/07/12		08/15/12	08/15/12
D3811-05	SB-11(12-16)	SOIL	VOC-Chemtech Full -15	8260C	08/07/12		08/15/12	08/15/12
D3811-05RE	SB-11(12-16)RE	SOIL	VOC-Chemtech Full -15	8260C	08/07/12		08/15/12	08/15/12
D3811-06	SB-15(12-16)	SOIL	VOC-Chemtech Full -15	8260C	08/08/12		08/15/12	08/15/12
D3811-06RE	SB-15(12-16)RE	SOIL	VOC-Chemtech Full -15	8260C	08/08/12		08/15/12	08/15/12
D3811-07	SB-18(4-8)	SOIL	VOC-Chemtech Full -15	8260C	08/08/12		08/15/12	08/15/12
D3811-07RE	SB-18(4-8)RE	SOIL	VOC-Chemtech Full -15	8260C	08/08/12		08/15/12	08/15/12

**LAB CHRONICLE**

<b>D3811-10</b>	<b>SB-21(16-19)</b>	<b>SOIL</b>			<b>08/09/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/15/12	
<b>D3811-10RE</b>	<b>SB-21(16-19)RE</b>	<b>SOIL</b>			<b>08/09/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/15/12	
<b>D3811-11</b>	<b>SB-22(12-19)</b>	<b>SOIL</b>			<b>08/09/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/15/12	
<b>D3811-11RE</b>	<b>SB-22(12-19)RE</b>	<b>SOIL</b>			<b>08/09/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/15/12	
<b>D3811-13</b>	<b>SB-37(8-10)</b>	<b>SOIL</b>			<b>08/10/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/15/12	
<b>D3811-13RE</b>	<b>SB-37(8-10)RE</b>	<b>SOIL</b>			<b>08/10/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/15/12	
<b>D3811-14</b>	<b>SB-39(6-8)</b>	<b>SOIL</b>			<b>08/10/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/15/12	
<b>D3811-14RE</b>	<b>SB-39(6-8)RE</b>	<b>SOIL</b>			<b>08/10/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/15/12	
<b>D3811-15</b>	<b>SB-41(8-11)</b>	<b>SOIL</b>			<b>08/10/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/16/12	
<b>D3811-15RE</b>	<b>SB-41(8-11)RE</b>	<b>SOIL</b>			<b>08/10/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/16/12	
<b>D3811-17</b>	<b>SB-43(6-8)</b>	<b>SOIL</b>			<b>08/13/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/16/12	
<b>D3811-17RE</b>	<b>SB-43(6-8)RE</b>	<b>SOIL</b>			<b>08/13/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/16/12	
<b>D3811-18</b>	<b>SB-43(10-12)</b>	<b>SOIL</b>			<b>08/13/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/16/12	
<b>D3811-18RE</b>	<b>SB-43(10-12)RE</b>	<b>SOIL</b>			<b>08/13/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/16/12	
<b>D3811-19</b>	<b>SB-43(16-20)</b>	<b>SOIL</b>			<b>08/13/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/16/12	

**LAB CHRONICLE**

<b>D3811-19RE</b>	<b>SB-43(16-20)RE</b>	<b>SOIL</b>			<b>08/13/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/16/12	
<b>D3811-21</b>	<b>SB-46(12-16)</b>	<b>SOIL</b>			<b>08/13/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/16/12	
<b>D3811-21RE</b>	<b>SB-46(12-16)RE</b>	<b>SOIL</b>			<b>08/13/12</b>		<b>08/15/12</b>
			VOC-Chemtech Full -15	8260C		08/16/12	

# Hit Summary Sheet SW-846

SDG No.: D3811

Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
<b>Client ID:</b> D3811-05	<b>SB-11(12-16)</b> SB-11(12-16)	SOIL	Acetone	41.00		4.1	17	34	ug/Kg
<b>Total Voc :</b>						<b>41.00</b>			
<b>Total Concentration:</b>						<b>41.00</b>			
<b>Client ID:</b> D3811-05RE	<b>SB-11(12-16)RE</b> SB-11(12-16)RE	SOIL	Acetone	49.00	Q	4.1	17	34	ug/Kg
<b>Total Voc :</b>						<b>49.00</b>			
<b>Total Concentration:</b>						<b>49.00</b>			
<b>Client ID:</b> D3811-06	<b>SB-15(12-16)</b> SB-15(12-16)	SOIL	Acetone	20.00	J	4.1	17	34	ug/Kg
D3811-06	SB-15(12-16)	SOIL	Naphthalene	44.00		0.62	3.45	6.9	ug/Kg
<b>Total Voc :</b>						<b>64.00</b>			
<b>Total Concentration:</b>						<b>64.00</b>			
<b>Client ID:</b> D3811-06RE	<b>SB-15(12-16)RE</b> SB-15(12-16)RE	SOIL	Acetone	53.00	Q	4.2	17.5	35	ug/Kg
D3811-06RE	SB-15(12-16)RE	SOIL	Naphthalene	3.90	JQ	0.63	3.5	7.0	ug/Kg
<b>Total Voc :</b>						<b>56.90</b>			
<b>Total Concentration:</b>						<b>56.90</b>			
<b>Client ID:</b> D3811-07	<b>SB-18(4-8)</b> SB-18(4-8)	SOIL	unknown2.26	* 6.10	J	0		0	ug/Kg
D3811-07	SB-18(4-8)	SOIL	Pentane	* 9.70	J	0		0	ug/Kg
D3811-07	SB-18(4-8)	SOIL	Hexane	* 15.00	J	0		0	ug/Kg
<b>Total Tics :</b>						<b>30.80</b>			
<b>Total Concentration:</b>						<b>30.80</b>			
<b>Client ID:</b> D3811-07RE	<b>SB-18(4-8)RE</b> SB-18(4-8)RE	SOIL	Acetone	45.00	Q	3.6	15	30	ug/Kg
D3811-07RE	SB-18(4-8)RE	SOIL	Naphthalene	3.00	JQ	0.54	3	6.0	ug/Kg
<b>Total Voc :</b>						<b>48.00</b>			
<b>Total Concentration:</b>						<b>48.00</b>			
<b>Client ID:</b> D3811-01	<b>SB-2(4-8)</b> SB-2(4-8)	SOIL	Acetone	13.00	J	3.5	14.5	29	ug/Kg
<b>Total Voc :</b>						<b>13.00</b>			
<b>Total Concentration:</b>						<b>13.00</b>			
<b>Client ID:</b> D3811-01RE	<b>SB-2(4-8)RE</b> SB-2(4-8)RE	SOIL	Acetone	45.00	Q	3.5	14.5	29	ug/Kg
<b>Total Voc :</b>						<b>45.00</b>			
<b>Total Concentration:</b>						<b>45.00</b>			
<b>Client ID:</b> D3811-10	<b>SB-21(16-19)</b> SB-21(16-19)	SOIL	Acetone	150.00		4.4	18.5	37	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Carbon Disulfide	10.00		1.5	3.65	7.3	ug/Kg
D3811-10	SB-21(16-19)	SOIL	2-Butanone	70.00		4.5	18.5	37	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Methylcyclohexane	2.50	J	1.5	3.65	7.3	ug/Kg



# Hit Summary Sheet SW-846

SDG No.: D3811

Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-10	SB-21(16-19)	SOIL	1,2,4-Trimethylbenzene	3.00	J	0.73	3.65	7.3	ug/Kg
D3811-10	SB-21(16-19)	SOIL	p-Isopropyltoluene	3.20	J	0.42	3.65	7.3	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Naphthalene	19.00		0.66	3.65	7.3	ug/Kg
Total Voc :					257.70				
D3811-10	SB-21(16-19)	SOIL	unknown10.29	* 39.00	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	unknown12.55	* 33.00	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	unknown13.57	* 53.00	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Octane	* 45.00	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Benzene, 1-methyl-3-(1-methylet	* 26.00	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Cyclohexane, 1,3-dimethyl-, tran	* 24.00	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Decane, 4-methyl-	* 38.00	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Cyclohexane, 1,1,2,3-tetramethyl	* 36.00	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Bicyclo[2.2.1]heptane, 2,2,3-trim	* 63.00	J	0		0	ug/Kg
Total Tics :					357.00				
Total Concentration:					614.70				
Client ID:	SB-21(16-19)RE								
D3811-10RE	SB-21(16-19)RE	SOIL	Acetone	150.00	Q	4.5	18.5	37	ug/Kg
D3811-10RE	SB-21(16-19)RE	SOIL	Carbon Disulfide	4.60	J	1.6	3.7	7.4	ug/Kg
D3811-10RE	SB-21(16-19)RE	SOIL	2-Butanone	63.00		4.6	18.5	37	ug/Kg
D3811-10RE	SB-21(16-19)RE	SOIL	Naphthalene	3.90	JQ	0.67	3.7	7.4	ug/Kg
Total Voc :					221.50				
Total Concentration:					221.50				
Client ID:	SB-22(12-19)								
D3811-11	SB-22(12-19)	SOIL	Acetone	74.00		3.4	14	28	ug/Kg
Total Voc :					74.00				
Total Concentration:					74.00				
Client ID:	SB-22(12-19)RE								
D3811-11RE	SB-22(12-19)RE	SOIL	Acetone	45.00	Q	3.4	14	28	ug/Kg
Total Voc :					45.00				
Total Concentration:					45.00				
Client ID:	SB-37(8-10)								
D3811-13	SB-37(8-10)	SOIL	Acetone	25.00	J	4.3	18	36	ug/Kg
Total Voc :					25.00				
Total Concentration:					25.00				
Client ID:	SB-37(8-10)RE								
D3811-13RE	SB-37(8-10)RE	SOIL	Acetone	44.00	Q	4.3	18	36	ug/Kg
Total Voc :					44.00				
Total Concentration:					44.00				
Client ID:	SB-39(6-8)								
D3811-14	SB-39(6-8)	SOIL	Acetone	66.00		3.2	13.5	27	ug/Kg
D3811-14	SB-39(6-8)	SOIL	Toluene	2.60	J	0.69	2.7	5.4	ug/Kg

Hit Summary Sheet  
SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Total Voc :					68.60				
D3811-14	SB-39(6-8)	SOIL	unknown3.12	* 5.50	J	0		0	ug/Kg
D3811-14	SB-39(6-8)	SOIL	Hexane	* 11.00	J	0		0	ug/Kg
D3811-14	SB-39(6-8)	SOIL	Hexane, 2,4-dimethyl-	* 6.40	J	0		0	ug/Kg
D3811-14	SB-39(6-8)	SOIL	Furan, 2,5-dihydro-	* 7.30	J	0		0	ug/Kg
Total Tics :					30.20				
Total Concentration:					98.80				
Client ID: D3811-14RE	SB-39(6-8)RE	SB-39(6-8)RE	SOIL	Acetone	35.00	Q 3.2	13.5	27	ug/Kg
Total Voc :					35.00				
Total Concentration:					35.00				
Client ID: D3811-15	SB-41(8-11)	SB-41(8-11)	SOIL	Acetone	30.00	J 3.7	15.5	31	ug/Kg
Total Voc :					30.00				
Total Concentration:					30.00				
Client ID: D3811-15RE	SB-41(8-11)RE	SB-41(8-11)RE	SOIL	Acetone	74.00	Q 3.7	15.5	31	ug/Kg
Total Voc :					74.00				
Total Concentration:					74.00				
Client ID: D3811-18	SB-43(10-12)	SB-43(10-12)	SOIL	Acetone	75.00	3.7	15	30	ug/Kg
Total Voc :					75.00				
Total Concentration:					75.00				
Client ID: D3811-18RE	SB-43(10-12)RE	SB-43(10-12)RE	SOIL	Acetone	69.00	Q 3.7	15	30	ug/Kg
Total Voc :					69.00				
Total Concentration:					69.00				
Client ID: D3811-19	SB-43(16-20)	SB-43(16-20)	SOIL	Acetone	97.00	4.2	17.5	35	ug/Kg
D3811-19	SB-43(16-20)	SOIL	Carbon Disulfide	5.00	J 1.5	3.5		7.0	ug/Kg
Total Voc :					102.00				
Total Concentration:					102.00				
Client ID: D3811-19RE	SB-43(16-20)RE	SB-43(16-20)RE	SOIL	Acetone	56.00	Q 4.3	17.5	35	ug/Kg
Total Voc :					56.00				
Total Concentration:					56.00				
Client ID: D3811-17	SB-43(6-8)	SB-43(6-8)	SOIL	Acetone	37.00	3.3	13.5	27	ug/Kg
D3811-17	SB-43(6-8)	SOIL	Toluene	1.90	J 0.69	2.7		5.4	ug/Kg
Total Voc :					38.90				
Total Concentration:					38.90				
Client ID: D3811-17RE	SB-43(6-8)RE	SB-43(6-8)RE	SOIL	Acetone	45.00	Q 3.3	13.5	27	ug/Kg

Hit Summary Sheet  
SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Total Voc :					45.00				
Total Concentration:					45.00				
Client ID:	SB-46(12-16)								
D3811-21	SB-46(12-16)	SOIL	Acetone	130.00		4.2	17.5	35	ug/Kg
D3811-21	SB-46(12-16)	SOIL	Carbon Disulfide	1.90	J	1.5	3.45	6.9	ug/Kg
Total Voc :					131.90				
Total Concentration:					131.90				
Client ID:	SB-46(12-16)RE								
D3811-21RE	SB-46(12-16)RE	SOIL	Acetone	85.00	Q	4.2	17.5	35	ug/Kg
Total Voc :					85.00				
Total Concentration:					85.00				
Client ID:	SB-5(8-12)								
D3811-02	SB-5(8-12)	SOIL	Acetone	35.00		3.7	15.5	31	ug/Kg
D3811-02	SB-5(8-12)	SOIL	p-Isopropyltoluene	1.30	J	0.36	3.05	6.1	ug/Kg
Total Voc :					36.30				
Total Concentration:					36.30				
Client ID:	SB-5(8-12)RE								
D3811-02RE	SB-5(8-12)RE	SOIL	Acetone	45.00	Q	3.7	15.5	31	ug/Kg
Total Voc :					45.00				
Total Concentration:					45.00				
Client ID:	SB-9(4-7)								
D3811-03	SB-9(4-7)	SOIL	unknown1.39	* 8.10	J	0		0	ug/Kg
D3811-03	SB-9(4-7)	SOIL	Pentane, 3-methyl-	* 14.00	J	0		0	ug/Kg
D3811-03	SB-9(4-7)	SOIL	Pentane, 2-methyl-	* 9.40	J	0		0	ug/Kg
D3811-03	SB-9(4-7)	SOIL	Pentane	* 21.00	J	0		0	ug/Kg
D3811-03	SB-9(4-7)	SOIL	2-Pentene, (E)-	* 14.00	J	0		0	ug/Kg
D3811-03	SB-9(4-7)	SOIL	1-Pentene, 2-methyl-	* 9.20	J	0		0	ug/Kg
D3811-03	SB-9(4-7)	SOIL	Cyclopropane, 1,1-dimethyl-	* 14.00	J	0		0	ug/Kg
D3811-03	SB-9(4-7)	SOIL	2-[2-Hydroxyethyl]-9-[.beta.-d-ri	* 18.00	J	0		0	ug/Kg
Total Tics :					107.70				
Total Concentration:					107.70				
Client ID:	SB-9(4-7)RE								
D3811-03RE	SB-9(4-7)RE	SOIL	Acetone	49.00	Q	3.6	14.5	29	ug/Kg
Total Voc :					49.00				
Total Concentration:					49.00				

# SAMPLE DATA

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	13
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034776.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.85	U	0.75	2.85	5.7	ug/Kg
74-87-3	Chloromethane	2.85	U	0.99	2.85	5.7	ug/Kg
75-01-4	Vinyl Chloride	2.85	U	1.4	2.85	5.7	ug/Kg
141-78-6	Ethyl Acetate	2.85	U	1	2.85	5.7	ug/Kg
108-21-4	Isopropyl Acetate	2.85	U	1.4	2.85	5.7	ug/Kg
628-63-7	N-amyl acetate	2.85	U	1.1	2.85	5.7	ug/Kg
74-83-9	Bromomethane	2.85	U	2.8	2.85	5.7	ug/Kg
75-00-3	Chloroethane	2.85	U	1.6	2.85	5.7	ug/Kg
75-69-4	Trichlorofluoromethane	2.85	U	1.5	2.85	5.7	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.85	U	1.5	2.85	5.7	ug/Kg
75-65-0	Tert butyl alcohol	14.5	U	8.5	14.5	29	ug/Kg
60-29-7	Diethyl Ether	2.85	U	2.2	2.85	5.7	ug/Kg
75-35-4	1,1-Dichloroethene	2.85	U	1.7	2.85	5.7	ug/Kg
107-02-8	Acrolein	14.5	U	4.6	14.5	29	ug/Kg
107-13-1	Acrylonitrile	14.5	U	5.6	14.5	29	ug/Kg
67-64-1	Acetone	13	J	3.5	14.5	29	ug/Kg
75-15-0	Carbon Disulfide	2.85	U	1.2	2.85	5.7	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.85	U	1.1	2.85	5.7	ug/Kg
79-20-9	Methyl Acetate	2.85	U	1.7	2.85	5.7	ug/Kg
75-09-2	Methylene Chloride	2.85	U	1.6	2.85	5.7	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.85	U	0.79	2.85	5.7	ug/Kg
108-05-4	Vinyl Acetate	14.5	U	4	14.5	29	ug/Kg
75-34-3	1,1-Dichloroethane	2.85	U	1.1	2.85	5.7	ug/Kg
110-82-7	Cyclohexane	2.85	U	1.2	2.85	5.7	ug/Kg
78-93-3	2-Butanone	14.5	U	3.6	14.5	29	ug/Kg
56-23-5	Carbon Tetrachloride	2.85	U	1.1	2.85	5.7	ug/Kg
594-20-7	2,2-Dichloropropane	2.85	U	1.2	2.85	5.7	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.85	U	1	2.85	5.7	ug/Kg
74-97-5	Bromochloromethane	2.85	U	0.91	2.85	5.7	ug/Kg
67-66-3	Chloroform	2.85	U	0.85	2.85	5.7	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.85	U	1	2.85	5.7	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	13
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034776.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.85	U	1.2	2.85	5.7	ug/Kg
563-58-6	1,1-Dichloropropene	2.85	U	0.53	2.85	5.7	ug/Kg
71-43-2	Benzene	2.85	U	0.44	2.85	5.7	ug/Kg
107-06-2	1,2-Dichloroethane	2.85	U	0.74	2.85	5.7	ug/Kg
79-01-6	Trichloroethene	2.85	U	0.99	2.85	5.7	ug/Kg
78-87-5	1,2-Dichloropropane	2.85	U	0.3	2.85	5.7	ug/Kg
74-95-3	Dibromomethane	2.85	U	0.9	2.85	5.7	ug/Kg
75-27-4	Bromodichloromethane	2.85	U	0.71	2.85	5.7	ug/Kg
108-10-1	4-Methyl-2-Pentanone	14.5	U	3.4	14.5	29	ug/Kg
108-88-3	Toluene	2.85	U	0.74	2.85	5.7	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.85	U	0.91	2.85	5.7	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.85	U	0.83	2.85	5.7	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.85	U	1	2.85	5.7	ug/Kg
142-28-9	1,3-Dichloropropane	2.85	U	0.85	2.85	5.7	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	14.5	U	13	14.5	29	ug/Kg
591-78-6	2-Hexanone	14.5	U	4.5	14.5	29	ug/Kg
124-48-1	Dibromochloromethane	2.85	U	0.62	2.85	5.7	ug/Kg
106-93-4	1,2-Dibromoethane	2.85	U	0.74	2.85	5.7	ug/Kg
127-18-4	Tetrachloroethene	2.85	U	1.2	2.85	5.7	ug/Kg
108-90-7	Chlorobenzene	2.85	U	0.57	2.85	5.7	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	2.85	U	0.49	2.85	5.7	ug/Kg
67-72-1	Hexachloroethane	2.85	U	0.87	2.85	5.7	ug/Kg
100-41-4	Ethyl Benzene	2.85	U	0.71	2.85	5.7	ug/Kg
179601-23-1	m/p-Xylenes	5.5	U	0.83	5.5	11	ug/Kg
95-47-6	o-Xylene	2.85	U	0.78	2.85	5.7	ug/Kg
100-42-5	Styrene	2.85	U	0.52	2.85	5.7	ug/Kg
75-25-2	Bromoform	2.85	U	0.85	2.85	5.7	ug/Kg
98-82-8	Isopropylbenzene	2.85	U	0.55	2.85	5.7	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.85	U	0.53	2.85	5.7	ug/Kg
96-18-4	1,2,3-Trichloropropane	2.85	U	0.56	2.85	5.7	ug/Kg
108-86-1	Bromobenzene	2.85	U	0.6	2.85	5.7	ug/Kg
103-65-1	n-propylbenzene	2.85	U	0.41	2.85	5.7	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	13
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034776.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	2.85	U	0.85	2.85	5.7	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	2.85	U	0.52	2.85	5.7	ug/Kg
106-43-4	4-Chlorotoluene	2.85	U	0.71	2.85	5.7	ug/Kg
98-06-6	tert-Butylbenzene	2.85	U	0.68	2.85	5.7	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.85	U	0.57	2.85	5.7	ug/Kg
135-98-8	sec-Butylbenzene	2.85	U	0.6	2.85	5.7	ug/Kg
99-87-6	p-Isopropyltoluene	2.85	U	0.33	2.85	5.7	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.85	U	0.43	2.85	5.7	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.85	U	0.47	2.85	5.7	ug/Kg
104-51-8	n-Butylbenzene	2.85	U	0.53	2.85	5.7	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.85	U	0.71	2.85	5.7	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.85	U	1	2.85	5.7	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.85	U	0.8	2.85	5.7	ug/Kg
87-68-3	Hexachlorobutadiene	2.85	U	0.91	2.85	5.7	ug/Kg
91-20-3	Naphthalene	2.85	U	0.52	2.85	5.7	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.85	U	0.57	2.85	5.7	ug/Kg
74-88-4	Methyl Iodide	5.7	U	5.7	5.7	5.7	ug/Kg
107-05-1	Allyl chloride	5.7	U	5.7	5.7	5.7	ug/Kg
126-98-7	Methacrylonitrile	5.7	U	5.7	5.7	5.7	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	5.7	U	5.7	5.7	5.7	ug/Kg
97-63-2	Ethyl methacrylate	5.7	U	5.7	5.7	5.7	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	47.6		56 - 120		95%	SPK: 50
1868-53-7	Dibromofluoromethane	51		57 - 135		102%	SPK: 50
2037-26-5	Toluene-d8	49.9		67 - 123		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.3		33 - 141		101%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	179640	4.4				
540-36-3	1,4-Difluorobenzene	341497	5.15				
3114-55-4	Chlorobenzene-d5	350200	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	166776	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	13
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034776.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-01RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	13
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036743.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.85	U	0.75	2.85	5.7	ug/Kg
74-87-3	Chloromethane	2.85	U	0.99	2.85	5.7	ug/Kg
75-01-4	Vinyl Chloride	2.85	U	1.4	2.85	5.7	ug/Kg
141-78-6	Ethyl Acetate	2.85	U	1	2.85	5.7	ug/Kg
108-21-4	Isopropyl Acetate	2.85	U	1.4	2.85	5.7	ug/Kg
628-63-7	N-amyl acetate	2.85	U	1.1	2.85	5.7	ug/Kg
74-83-9	Bromomethane	2.85	U	2.8	2.85	5.7	ug/Kg
75-00-3	Chloroethane	2.85	U	1.6	2.85	5.7	ug/Kg
75-69-4	Trichlorofluoromethane	2.85	U	1.5	2.85	5.7	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.85	U	1.5	2.85	5.7	ug/Kg
75-65-0	Tert butyl alcohol	14.5	U	8.5	14.5	29	ug/Kg
60-29-7	Diethyl Ether	2.85	U	2.2	2.85	5.7	ug/Kg
75-35-4	1,1-Dichloroethene	2.85	U	1.7	2.85	5.7	ug/Kg
107-02-8	Acrolein	14.5	U	4.6	14.5	29	ug/Kg
107-13-1	Acrylonitrile	14.5	U	5.6	14.5	29	ug/Kg
67-64-1	Acetone	45	Q	3.5	14.5	29	ug/Kg
75-15-0	Carbon Disulfide	2.85	U	1.2	2.85	5.7	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.85	U	1.1	2.85	5.7	ug/Kg
79-20-9	Methyl Acetate	2.85	U	1.7	2.85	5.7	ug/Kg
75-09-2	Methylene Chloride	2.85	U	1.6	2.85	5.7	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.85	U	0.79	2.85	5.7	ug/Kg
108-05-4	Vinyl Acetate	14.5	UQ	4	14.5	29	ug/Kg
75-34-3	1,1-Dichloroethane	2.85	U	1.1	2.85	5.7	ug/Kg
110-82-7	Cyclohexane	2.85	U	1.2	2.85	5.7	ug/Kg
78-93-3	2-Butanone	14.5	U	3.6	14.5	29	ug/Kg
56-23-5	Carbon Tetrachloride	2.85	U	1.1	2.85	5.7	ug/Kg
594-20-7	2,2-Dichloropropane	2.85	U	1.2	2.85	5.7	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.85	U	1	2.85	5.7	ug/Kg
74-97-5	Bromochloromethane	2.85	U	0.91	2.85	5.7	ug/Kg
67-66-3	Chloroform	2.85	U	0.85	2.85	5.7	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.85	U	1	2.85	5.7	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-01RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	13
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036743.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.85	U	1.2	2.85	5.7	ug/Kg
563-58-6	1,1-Dichloropropene	2.85	U	0.53	2.85	5.7	ug/Kg
71-43-2	Benzene	2.85	U	0.44	2.85	5.7	ug/Kg
107-06-2	1,2-Dichloroethane	2.85	U	0.73	2.85	5.7	ug/Kg
79-01-6	Trichloroethene	2.85	U	0.99	2.85	5.7	ug/Kg
78-87-5	1,2-Dichloropropane	2.85	U	0.3	2.85	5.7	ug/Kg
74-95-3	Dibromomethane	2.85	U	0.89	2.85	5.7	ug/Kg
75-27-4	Bromodichloromethane	2.85	U	0.71	2.85	5.7	ug/Kg
108-10-1	4-Methyl-2-Pentanone	14.5	U	3.3	14.5	29	ug/Kg
108-88-3	Toluene	2.85	U	0.73	2.85	5.7	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.85	U	0.91	2.85	5.7	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.85	U	0.83	2.85	5.7	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.85	U	1	2.85	5.7	ug/Kg
142-28-9	1,3-Dichloropropane	2.85	U	0.85	2.85	5.7	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	14.5	U	13	14.5	29	ug/Kg
591-78-6	2-Hexanone	14.5	U	4.5	14.5	29	ug/Kg
124-48-1	Dibromochloromethane	2.85	U	0.62	2.85	5.7	ug/Kg
106-93-4	1,2-Dibromoethane	2.85	U	0.73	2.85	5.7	ug/Kg
127-18-4	Tetrachloroethene	2.85	U	1.2	2.85	5.7	ug/Kg
108-90-7	Chlorobenzene	2.85	U	0.57	2.85	5.7	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	2.85	U	0.49	2.85	5.7	ug/Kg
67-72-1	Hexachloroethane	2.85	U	0.87	2.85	5.7	ug/Kg
100-41-4	Ethyl Benzene	2.85	U	0.71	2.85	5.7	ug/Kg
179601-23-1	m/p-Xylenes	5.5	U	0.83	5.5	11	ug/Kg
95-47-6	o-Xylene	2.85	U	0.78	2.85	5.7	ug/Kg
100-42-5	Styrene	2.85	U	0.52	2.85	5.7	ug/Kg
75-25-2	Bromoform	2.85	U	0.85	2.85	5.7	ug/Kg
98-82-8	Isopropylbenzene	2.85	U	0.55	2.85	5.7	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.85	U	0.53	2.85	5.7	ug/Kg
96-18-4	1,2,3-Trichloropropane	2.85	U	0.56	2.85	5.7	ug/Kg
108-86-1	Bromobenzene	2.85	U	0.6	2.85	5.7	ug/Kg
103-65-1	n-propylbenzene	2.85	U	0.41	2.85	5.7	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-01RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	13
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036743.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	2.85	U	0.85	2.85	5.7	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	2.85	U	0.52	2.85	5.7	ug/Kg
106-43-4	4-Chlorotoluene	2.85	U	0.71	2.85	5.7	ug/Kg
98-06-6	tert-Butylbenzene	2.85	U	0.68	2.85	5.7	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.85	U	0.57	2.85	5.7	ug/Kg
135-98-8	sec-Butylbenzene	2.85	U	0.6	2.85	5.7	ug/Kg
99-87-6	p-Isopropyltoluene	2.85	U	0.33	2.85	5.7	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.85	U	0.42	2.85	5.7	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.85	U	0.47	2.85	5.7	ug/Kg
104-51-8	n-Butylbenzene	2.85	U	0.53	2.85	5.7	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.85	U	0.71	2.85	5.7	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.85	U	1	2.85	5.7	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.85	U	0.8	2.85	5.7	ug/Kg
87-68-3	Hexachlorobutadiene	2.85	U	0.91	2.85	5.7	ug/Kg
91-20-3	Naphthalene	2.85	UQ	0.52	2.85	5.7	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.85	U	0.57	2.85	5.7	ug/Kg
74-88-4	Methyl Iodide	5.7	U	5.7	5.7	5.7	ug/Kg
107-05-1	Allyl chloride	5.7	U	5.7	5.7	5.7	ug/Kg
126-98-7	Methacrylonitrile	5.7	UQ	5.7	5.7	5.7	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	5.7	U	5.7	5.7	5.7	ug/Kg
97-63-2	Ethyl methacrylate	5.7	U	5.7	5.7	5.7	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	57.5		56 - 120		115%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		57 - 135		97%	SPK: 50
2037-26-5	Toluene-d8	49.4		67 - 123		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	58.8		33 - 141		118%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	385457	4.74				
540-36-3	1,4-Difluorobenzene	689375	5.45				
3114-55-4	Chlorobenzene-d5	673224	9.58				
3855-82-1	1,4-Dichlorobenzene-d4	321813	12.48				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-01RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	13
Sample Wt/Vol:	5.01      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624      ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036743.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034777.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.05	U	0.8	3.05	6.1	ug/Kg
74-87-3	Chloromethane	3.05	U	1.1	3.05	6.1	ug/Kg
75-01-4	Vinyl Chloride	3.05	U	1.5	3.05	6.1	ug/Kg
141-78-6	Ethyl Acetate	3.05	U	1.1	3.05	6.1	ug/Kg
108-21-4	Isopropyl Acetate	3.05	U	1.5	3.05	6.1	ug/Kg
628-63-7	N-amyl acetate	3.05	U	1.2	3.05	6.1	ug/Kg
74-83-9	Bromomethane	3.05	U	3	3.05	6.1	ug/Kg
75-00-3	Chloroethane	3.05	U	1.7	3.05	6.1	ug/Kg
75-69-4	Trichlorofluoromethane	3.05	U	1.6	3.05	6.1	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.05	U	1.6	3.05	6.1	ug/Kg
75-65-0	Tert butyl alcohol	15.5	U	9.1	15.5	31	ug/Kg
60-29-7	Diethyl Ether	3.05	U	2.4	3.05	6.1	ug/Kg
75-35-4	1,1-Dichloroethene	3.05	U	1.8	3.05	6.1	ug/Kg
107-02-8	Acrolein	15.5	U	4.9	15.5	31	ug/Kg
107-13-1	Acrylonitrile	15.5	U	6	15.5	31	ug/Kg
67-64-1	Acetone	35		3.7	15.5	31	ug/Kg
75-15-0	Carbon Disulfide	3.05	U	1.3	3.05	6.1	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.05	U	1.2	3.05	6.1	ug/Kg
79-20-9	Methyl Acetate	3.05	U	1.9	3.05	6.1	ug/Kg
75-09-2	Methylene Chloride	3.05	U	1.7	3.05	6.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.05	U	0.85	3.05	6.1	ug/Kg
108-05-4	Vinyl Acetate	15.5	U	4.3	15.5	31	ug/Kg
75-34-3	1,1-Dichloroethane	3.05	U	1.2	3.05	6.1	ug/Kg
110-82-7	Cyclohexane	3.05	U	1.2	3.05	6.1	ug/Kg
78-93-3	2-Butanone	15.5	U	3.8	15.5	31	ug/Kg
56-23-5	Carbon Tetrachloride	3.05	U	1.2	3.05	6.1	ug/Kg
594-20-7	2,2-Dichloropropane	3.05	U	1.3	3.05	6.1	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.05	U	1.1	3.05	6.1	ug/Kg
74-97-5	Bromochloromethane	3.05	U	0.97	3.05	6.1	ug/Kg
67-66-3	Chloroform	3.05	U	0.91	3.05	6.1	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.05	U	1.1	3.05	6.1	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034777.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.05	U	1.3	3.05	6.1	ug/Kg
563-58-6	1,1-Dichloropropene	3.05	U	0.56	3.05	6.1	ug/Kg
71-43-2	Benzene	3.05	U	0.47	3.05	6.1	ug/Kg
107-06-2	1,2-Dichloroethane	3.05	U	0.79	3.05	6.1	ug/Kg
79-01-6	Trichloroethene	3.05	U	1.1	3.05	6.1	ug/Kg
78-87-5	1,2-Dichloropropane	3.05	U	0.32	3.05	6.1	ug/Kg
74-95-3	Dibromomethane	3.05	U	0.96	3.05	6.1	ug/Kg
75-27-4	Bromodichloromethane	3.05	U	0.76	3.05	6.1	ug/Kg
108-10-1	4-Methyl-2-Pentanone	15.5	U	3.6	15.5	31	ug/Kg
108-88-3	Toluene	3.05	U	0.79	3.05	6.1	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.05	U	0.97	3.05	6.1	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.05	U	0.88	3.05	6.1	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.05	U	1.1	3.05	6.1	ug/Kg
142-28-9	1,3-Dichloropropane	3.05	U	0.91	3.05	6.1	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	15.5	U	14	15.5	31	ug/Kg
591-78-6	2-Hexanone	15.5	U	4.8	15.5	31	ug/Kg
124-48-1	Dibromochloromethane	3.05	U	0.66	3.05	6.1	ug/Kg
106-93-4	1,2-Dibromoethane	3.05	U	0.79	3.05	6.1	ug/Kg
127-18-4	Tetrachloroethene	3.05	U	1.2	3.05	6.1	ug/Kg
108-90-7	Chlorobenzene	3.05	U	0.61	3.05	6.1	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.05	U	0.53	3.05	6.1	ug/Kg
67-72-1	Hexachloroethane	3.05	U	0.93	3.05	6.1	ug/Kg
100-41-4	Ethyl Benzene	3.05	U	0.76	3.05	6.1	ug/Kg
179601-23-1	m/p-Xylenes	6	U	0.88	6	12	ug/Kg
95-47-6	o-Xylene	3.05	U	0.83	3.05	6.1	ug/Kg
100-42-5	Styrene	3.05	U	0.55	3.05	6.1	ug/Kg
75-25-2	Bromoform	3.05	U	0.91	3.05	6.1	ug/Kg
98-82-8	Isopropylbenzene	3.05	U	0.59	3.05	6.1	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.05	U	0.56	3.05	6.1	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.05	U	0.6	3.05	6.1	ug/Kg
108-86-1	Bromobenzene	3.05	U	0.64	3.05	6.1	ug/Kg
103-65-1	n-propylbenzene	3.05	U	0.44	3.05	6.1	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034777.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.05	U	0.91	3.05	6.1	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.05	U	0.55	3.05	6.1	ug/Kg
106-43-4	4-Chlorotoluene	3.05	U	0.76	3.05	6.1	ug/Kg
98-06-6	tert-Butylbenzene	3.05	U	0.72	3.05	6.1	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.05	U	0.61	3.05	6.1	ug/Kg
135-98-8	sec-Butylbenzene	3.05	U	0.64	3.05	6.1	ug/Kg
99-87-6	p-Isopropyltoluene	1.3	J	0.36	3.05	6.1	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.05	U	0.45	3.05	6.1	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.05	U	0.5	3.05	6.1	ug/Kg
104-51-8	n-Butylbenzene	3.05	U	0.56	3.05	6.1	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.05	U	0.76	3.05	6.1	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.05	U	1.1	3.05	6.1	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.05	U	0.86	3.05	6.1	ug/Kg
87-68-3	Hexachlorobutadiene	3.05	U	0.97	3.05	6.1	ug/Kg
91-20-3	Naphthalene	3.05	U	0.55	3.05	6.1	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.05	U	0.61	3.05	6.1	ug/Kg
74-88-4	Methyl Iodide	6.1	U	6.1	6.1	6.1	ug/Kg
107-05-1	Allyl chloride	6.1	U	6.1	6.1	6.1	ug/Kg
126-98-7	Methacrylonitrile	6.1	U	6.1	6.1	6.1	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6.1	U	6.1	6.1	6.1	ug/Kg
97-63-2	Ethyl methacrylate	6.1	U	6.1	6.1	6.1	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	45.6		56 - 120		91%	SPK: 50
1868-53-7	Dibromofluoromethane	50.5		57 - 135		101%	SPK: 50
2037-26-5	Toluene-d8	47		67 - 123		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.9		33 - 141		86%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	174967	4.4				
540-36-3	1,4-Difluorobenzene	323673	5.14				
3114-55-4	Chlorobenzene-d5	306225	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	112351	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5.03      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS      ID :    0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034777.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)RE	SDG No.:	D3811
Lab Sample ID:	D3811-02RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036744.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.05	U	0.8	3.05	6.1	ug/Kg
74-87-3	Chloromethane	3.05	U	1.1	3.05	6.1	ug/Kg
75-01-4	Vinyl Chloride	3.05	U	1.5	3.05	6.1	ug/Kg
141-78-6	Ethyl Acetate	3.05	U	1.1	3.05	6.1	ug/Kg
108-21-4	Isopropyl Acetate	3.05	U	1.5	3.05	6.1	ug/Kg
628-63-7	N-amyl acetate	3.05	U	1.2	3.05	6.1	ug/Kg
74-83-9	Bromomethane	3.05	U	3	3.05	6.1	ug/Kg
75-00-3	Chloroethane	3.05	U	1.7	3.05	6.1	ug/Kg
75-69-4	Trichlorofluoromethane	3.05	U	1.6	3.05	6.1	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.05	U	1.6	3.05	6.1	ug/Kg
75-65-0	Tert butyl alcohol	15.5	U	9.1	15.5	31	ug/Kg
60-29-7	Diethyl Ether	3.05	U	2.4	3.05	6.1	ug/Kg
75-35-4	1,1-Dichloroethene	3.05	U	1.8	3.05	6.1	ug/Kg
107-02-8	Acrolein	15.5	U	4.9	15.5	31	ug/Kg
107-13-1	Acrylonitrile	15.5	U	6	15.5	31	ug/Kg
67-64-1	Acetone	45		3.7	15.5	31	ug/Kg
75-15-0	Carbon Disulfide	3.05	U	1.3	3.05	6.1	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.05	U	1.2	3.05	6.1	ug/Kg
79-20-9	Methyl Acetate	3.05	U	1.8	3.05	6.1	ug/Kg
75-09-2	Methylene Chloride	3.05	U	1.7	3.05	6.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.05	U	0.85	3.05	6.1	ug/Kg
108-05-4	Vinyl Acetate	15.5	U	4.2	15.5	31	ug/Kg
75-34-3	1,1-Dichloroethane	3.05	U	1.2	3.05	6.1	ug/Kg
110-82-7	Cyclohexane	3.05	U	1.2	3.05	6.1	ug/Kg
78-93-3	2-Butanone	15.5	U	3.8	15.5	31	ug/Kg
56-23-5	Carbon Tetrachloride	3.05	U	1.2	3.05	6.1	ug/Kg
594-20-7	2,2-Dichloropropane	3.05	U	1.3	3.05	6.1	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.05	U	1.1	3.05	6.1	ug/Kg
74-97-5	Bromochloromethane	3.05	U	0.97	3.05	6.1	ug/Kg
67-66-3	Chloroform	3.05	U	0.91	3.05	6.1	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.05	U	1.1	3.05	6.1	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)RE	SDG No.:	D3811
Lab Sample ID:	D3811-02RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036744.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.05	U	1.3	3.05	6.1	ug/Kg
563-58-6	1,1-Dichloropropene	3.05	U	0.56	3.05	6.1	ug/Kg
71-43-2	Benzene	3.05	U	0.47	3.05	6.1	ug/Kg
107-06-2	1,2-Dichloroethane	3.05	U	0.78	3.05	6.1	ug/Kg
79-01-6	Trichloroethene	3.05	U	1.1	3.05	6.1	ug/Kg
78-87-5	1,2-Dichloropropane	3.05	U	0.32	3.05	6.1	ug/Kg
74-95-3	Dibromomethane	3.05	U	0.96	3.05	6.1	ug/Kg
75-27-4	Bromodichloromethane	3.05	U	0.76	3.05	6.1	ug/Kg
108-10-1	4-Methyl-2-Pentanone	15.5	U	3.6	15.5	31	ug/Kg
108-88-3	Toluene	3.05	U	0.78	3.05	6.1	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.05	U	0.97	3.05	6.1	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.05	U	0.88	3.05	6.1	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.05	U	1.1	3.05	6.1	ug/Kg
142-28-9	1,3-Dichloropropane	3.05	U	0.91	3.05	6.1	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	15.5	U	14	15.5	31	ug/Kg
591-78-6	2-Hexanone	15.5	U	4.8	15.5	31	ug/Kg
124-48-1	Dibromochloromethane	3.05	U	0.66	3.05	6.1	ug/Kg
106-93-4	1,2-Dibromoethane	3.05	U	0.78	3.05	6.1	ug/Kg
127-18-4	Tetrachloroethene	3.05	U	1.2	3.05	6.1	ug/Kg
108-90-7	Chlorobenzene	3.05	U	0.61	3.05	6.1	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.05	U	0.53	3.05	6.1	ug/Kg
67-72-1	Hexachloroethane	3.05	U	0.93	3.05	6.1	ug/Kg
100-41-4	Ethyl Benzene	3.05	U	0.76	3.05	6.1	ug/Kg
179601-23-1	m/p-Xylenes	6	U	0.88	6	12	ug/Kg
95-47-6	o-Xylene	3.05	U	0.83	3.05	6.1	ug/Kg
100-42-5	Styrene	3.05	U	0.55	3.05	6.1	ug/Kg
75-25-2	Bromoform	3.05	U	0.91	3.05	6.1	ug/Kg
98-82-8	Isopropylbenzene	3.05	U	0.59	3.05	6.1	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.05	U	0.56	3.05	6.1	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.05	U	0.6	3.05	6.1	ug/Kg
108-86-1	Bromobenzene	3.05	U	0.64	3.05	6.1	ug/Kg
103-65-1	n-propylbenzene	3.05	U	0.44	3.05	6.1	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)RE	SDG No.:	D3811
Lab Sample ID:	D3811-02RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5.04      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624              ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036744.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.05	U	0.91	3.05	6.1	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.05	U	0.55	3.05	6.1	ug/Kg
106-43-4	4-Chlorotoluene	3.05	U	0.76	3.05	6.1	ug/Kg
98-06-6	tert-Butylbenzene	3.05	U	0.72	3.05	6.1	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.05	U	0.61	3.05	6.1	ug/Kg
135-98-8	sec-Butylbenzene	3.05	U	0.64	3.05	6.1	ug/Kg
99-87-6	p-Isopropyltoluene	3.05	U	0.36	3.05	6.1	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.05	U	0.45	3.05	6.1	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.05	U	0.5	3.05	6.1	ug/Kg
104-51-8	n-Butylbenzene	3.05	U	0.56	3.05	6.1	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.05	U	0.76	3.05	6.1	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.05	U	1.1	3.05	6.1	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.05	U	0.86	3.05	6.1	ug/Kg
87-68-3	Hexachlorobutadiene	3.05	U	0.97	3.05	6.1	ug/Kg
91-20-3	Naphthalene	3.05	U	0.55	3.05	6.1	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.05	U	0.61	3.05	6.1	ug/Kg
74-88-4	Methyl Iodide	6.1	U	6.1	6.1	6.1	ug/Kg
107-05-1	Allyl chloride	6.1	U	6.1	6.1	6.1	ug/Kg
126-98-7	Methacrylonitrile	6.1	U	6.1	6.1	6.1	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6.1	U	6.1	6.1	6.1	ug/Kg
97-63-2	Ethyl methacrylate	6.1	U	6.1	6.1	6.1	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	58.6		56 - 120		117%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		57 - 135		97%	SPK: 50
2037-26-5	Toluene-d8	51.5		67 - 123		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	59.9		33 - 141		120%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	373874	4.73				
540-36-3	1,4-Difluorobenzene	659037	5.45				
3114-55-4	Chlorobenzene-d5	666922	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	318263	12.47				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)RE	SDG No.:	D3811
Lab Sample ID:	D3811-02RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5.04      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624      ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036744.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)	SDG No.:	D3811
Lab Sample ID:	D3811-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034778.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3	U	0.77	3	6	ug/Kg
74-87-3	Chloromethane	3	U	1	3	6	ug/Kg
75-01-4	Vinyl Chloride	3	U	1.5	3	6	ug/Kg
141-78-6	Ethyl Acetate	3	U	1	3	6	ug/Kg
108-21-4	Isopropyl Acetate	3	U	1.4	3	6	ug/Kg
628-63-7	N-amyl acetate	3	U	1.1	3	6	ug/Kg
74-83-9	Bromomethane	3	U	2.9	3	6	ug/Kg
75-00-3	Chloroethane	3	U	1.7	3	6	ug/Kg
75-69-4	Trichlorofluoromethane	3	U	1.6	3	6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3	U	1.6	3	6	ug/Kg
75-65-0	Tert butyl alcohol	15	U	8.8	15	30	ug/Kg
60-29-7	Diethyl Ether	3	U	2.3	3	6	ug/Kg
75-35-4	1,1-Dichloroethene	3	U	1.8	3	6	ug/Kg
107-02-8	Acrolein	15	U	4.7	15	30	ug/Kg
107-13-1	Acrylonitrile	15	U	5.8	15	30	ug/Kg
67-64-1	Acetone	15	U	3.6	15	30	ug/Kg
75-15-0	Carbon Disulfide	3	U	1.3	3	6	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3	U	1.1	3	6	ug/Kg
79-20-9	Methyl Acetate	3	U	1.8	3	6	ug/Kg
75-09-2	Methylene Chloride	3	U	1.7	3	6	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3	U	0.82	3	6	ug/Kg
108-05-4	Vinyl Acetate	15	U	4.1	15	30	ug/Kg
75-34-3	1,1-Dichloroethane	3	U	1.1	3	6	ug/Kg
110-82-7	Cyclohexane	3	U	1.2	3	6	ug/Kg
78-93-3	2-Butanone	15	U	3.7	15	30	ug/Kg
56-23-5	Carbon Tetrachloride	3	U	1.2	3	6	ug/Kg
594-20-7	2,2-Dichloropropane	3	U	1.2	3	6	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3	U	1.1	3	6	ug/Kg
74-97-5	Bromochloromethane	3	U	0.94	3	6	ug/Kg
67-66-3	Chloroform	3	U	0.88	3	6	ug/Kg
71-55-6	1,1,1-Trichloroethane	3	U	1	3	6	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)	SDG No.:	D3811
Lab Sample ID:	D3811-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034778.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3	U	1.3	3	6	ug/Kg
563-58-6	1,1-Dichloropropene	3	U	0.55	3	6	ug/Kg
71-43-2	Benzene	3	U	0.45	3	6	ug/Kg
107-06-2	1,2-Dichloroethane	3	U	0.76	3	6	ug/Kg
79-01-6	Trichloroethene	3	U	1	3	6	ug/Kg
78-87-5	1,2-Dichloropropane	3	U	0.31	3	6	ug/Kg
74-95-3	Dibromomethane	3	U	0.93	3	6	ug/Kg
75-27-4	Bromodichloromethane	3	U	0.74	3	6	ug/Kg
108-10-1	4-Methyl-2-Pentanone	15	U	3.5	15	30	ug/Kg
108-88-3	Toluene	3	U	0.76	3	6	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3	U	0.94	3	6	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3	U	0.86	3	6	ug/Kg
79-00-5	1,1,2-Trichloroethane	3	U	1.1	3	6	ug/Kg
142-28-9	1,3-Dichloropropane	3	U	0.88	3	6	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	15	U	14	15	30	ug/Kg
591-78-6	2-Hexanone	15	U	4.7	15	30	ug/Kg
124-48-1	Dibromochloromethane	3	U	0.64	3	6	ug/Kg
106-93-4	1,2-Dibromoethane	3	U	0.76	3	6	ug/Kg
127-18-4	Tetrachloroethene	3	U	1.2	3	6	ug/Kg
108-90-7	Chlorobenzene	3	U	0.6	3	6	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3	U	0.51	3	6	ug/Kg
67-72-1	Hexachloroethane	3	U	0.9	3	6	ug/Kg
100-41-4	Ethyl Benzene	3	U	0.74	3	6	ug/Kg
179601-23-1	m/p-Xylenes	6	U	0.86	6	12	ug/Kg
95-47-6	o-Xylene	3	U	0.81	3	6	ug/Kg
100-42-5	Styrene	3	U	0.54	3	6	ug/Kg
75-25-2	Bromoform	3	U	0.88	3	6	ug/Kg
98-82-8	Isopropylbenzene	3	U	0.57	3	6	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3	U	0.55	3	6	ug/Kg
96-18-4	1,2,3-Trichloropropane	3	U	0.58	3	6	ug/Kg
108-86-1	Bromobenzene	3	U	0.62	3	6	ug/Kg
103-65-1	n-propylbenzene	3	U	0.43	3	6	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)	SDG No.:	D3811
Lab Sample ID:	D3811-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034778.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3	U	0.88	3	6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3	U	0.54	3	6	ug/Kg
106-43-4	4-Chlorotoluene	3	U	0.74	3	6	ug/Kg
98-06-6	tert-Butylbenzene	3	U	0.7	3	6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3	U	0.6	3	6	ug/Kg
135-98-8	sec-Butylbenzene	3	U	0.62	3	6	ug/Kg
99-87-6	p-Isopropyltoluene	3	U	0.35	3	6	ug/Kg
541-73-1	1,3-Dichlorobenzene	3	U	0.44	3	6	ug/Kg
106-46-7	1,4-Dichlorobenzene	3	U	0.49	3	6	ug/Kg
104-51-8	n-Butylbenzene	3	U	0.55	3	6	ug/Kg
95-50-1	1,2-Dichlorobenzene	3	U	0.74	3	6	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3	U	1	3	6	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3	U	0.83	3	6	ug/Kg
87-68-3	Hexachlorobutadiene	3	U	0.94	3	6	ug/Kg
91-20-3	Naphthalene	3	U	0.54	3	6	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3	U	0.6	3	6	ug/Kg
74-88-4	Methyl Iodide	6	U	6	6	6	ug/Kg
107-05-1	Allyl chloride	6	U	6	6	6	ug/Kg
126-98-7	Methacrylonitrile	6	U	6	6	6	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6	U	6	6	6	ug/Kg
97-63-2	Ethyl methacrylate	6	U	6	6	6	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	50.2		56 - 120		100%	SPK: 50
1868-53-7	Dibromofluoromethane	50.7		57 - 135		101%	SPK: 50
2037-26-5	Toluene-d8	48.5		67 - 123		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	31.4		33 - 141		63%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	177303	4.39				
540-36-3	1,4-Difluorobenzene	332082	5.14				
3114-55-4	Chlorobenzene-d5	274620	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	71302	12.25				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)	SDG No.:	D3811
Lab Sample ID:	D3811-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034778.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
110851-59-7	2-[2-Hydroxyethyl]-9-[.beta.-d-rib	18	J			1.15	ug/Kg
000109-66-0	Pentane	21	J			1.25	ug/Kg
001630-94-0	Cyclopropane, 1,1-dimethyl-	14	J			1.33	ug/Kg
	unknown1.39	8.1	J			1.39	ug/Kg
000646-04-8	2-Pentene, (E)-	14	J			1.43	ug/Kg
000107-83-5	Pentane, 2-methyl-	9.4	J			1.77	ug/Kg
000096-14-0	Pentane, 3-methyl-	14	J			1.93	ug/Kg
000763-29-1	1-Pentene, 2-methyl-	9.2	J			2.1	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)RE	SDG No.:	D3811
Lab Sample ID:	D3811-03RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036745.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.95	U	0.76	2.95	5.9	ug/Kg
74-87-3	Chloromethane	2.95	U	1	2.95	5.9	ug/Kg
75-01-4	Vinyl Chloride	2.95	U	1.4	2.95	5.9	ug/Kg
141-78-6	Ethyl Acetate	2.95	U	1	2.95	5.9	ug/Kg
108-21-4	Isopropyl Acetate	2.95	U	1.4	2.95	5.9	ug/Kg
628-63-7	N-amyl acetate	2.95	U	1.1	2.95	5.9	ug/Kg
74-83-9	Bromomethane	2.95	U	2.9	2.95	5.9	ug/Kg
75-00-3	Chloroethane	2.95	U	1.6	2.95	5.9	ug/Kg
75-69-4	Trichlorofluoromethane	2.95	U	1.6	2.95	5.9	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.95	U	1.6	2.95	5.9	ug/Kg
75-65-0	Tert butyl alcohol	14.5	U	8.7	14.5	29	ug/Kg
60-29-7	Diethyl Ether	2.95	U	2.3	2.95	5.9	ug/Kg
75-35-4	1,1-Dichloroethene	2.95	U	1.7	2.95	5.9	ug/Kg
107-02-8	Acrolein	14.5	U	4.7	14.5	29	ug/Kg
107-13-1	Acrylonitrile	14.5	U	5.8	14.5	29	ug/Kg
67-64-1	Acetone	49	Q	3.6	14.5	29	ug/Kg
75-15-0	Carbon Disulfide	2.95	U	1.2	2.95	5.9	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.95	U	1.1	2.95	5.9	ug/Kg
79-20-9	Methyl Acetate	2.95	U	1.8	2.95	5.9	ug/Kg
75-09-2	Methylene Chloride	2.95	U	1.7	2.95	5.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.95	U	0.81	2.95	5.9	ug/Kg
108-05-4	Vinyl Acetate	14.5	UQ	4.1	14.5	29	ug/Kg
75-34-3	1,1-Dichloroethane	2.95	U	1.1	2.95	5.9	ug/Kg
110-82-7	Cyclohexane	2.95	U	1.2	2.95	5.9	ug/Kg
78-93-3	2-Butanone	14.5	U	3.7	14.5	29	ug/Kg
56-23-5	Carbon Tetrachloride	2.95	U	1.2	2.95	5.9	ug/Kg
594-20-7	2,2-Dichloropropane	2.95	U	1.2	2.95	5.9	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.95	U	1	2.95	5.9	ug/Kg
74-97-5	Bromochloromethane	2.95	U	0.93	2.95	5.9	ug/Kg
67-66-3	Chloroform	2.95	U	0.87	2.95	5.9	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.95	U	1	2.95	5.9	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)RE	SDG No.:	D3811
Lab Sample ID:	D3811-03RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036745.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.95	U	1.2	2.95	5.9	ug/Kg
563-58-6	1,1-Dichloropropene	2.95	U	0.54	2.95	5.9	ug/Kg
71-43-2	Benzene	2.95	U	0.45	2.95	5.9	ug/Kg
107-06-2	1,2-Dichloroethane	2.95	U	0.75	2.95	5.9	ug/Kg
79-01-6	Trichloroethene	2.95	U	1	2.95	5.9	ug/Kg
78-87-5	1,2-Dichloropropane	2.95	U	0.31	2.95	5.9	ug/Kg
74-95-3	Dibromomethane	2.95	U	0.92	2.95	5.9	ug/Kg
75-27-4	Bromodichloromethane	2.95	U	0.73	2.95	5.9	ug/Kg
108-10-1	4-Methyl-2-Pentanone	14.5	U	3.4	14.5	29	ug/Kg
108-88-3	Toluene	2.95	U	0.75	2.95	5.9	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.95	U	0.93	2.95	5.9	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.95	U	0.85	2.95	5.9	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.95	U	1.1	2.95	5.9	ug/Kg
142-28-9	1,3-Dichloropropane	2.95	U	0.87	2.95	5.9	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	14.5	U	14	14.5	29	ug/Kg
591-78-6	2-Hexanone	14.5	U	4.6	14.5	29	ug/Kg
124-48-1	Dibromochloromethane	2.95	U	0.64	2.95	5.9	ug/Kg
106-93-4	1,2-Dibromoethane	2.95	U	0.75	2.95	5.9	ug/Kg
127-18-4	Tetrachloroethene	2.95	U	1.2	2.95	5.9	ug/Kg
108-90-7	Chlorobenzene	2.95	U	0.59	2.95	5.9	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	2.95	U	0.51	2.95	5.9	ug/Kg
67-72-1	Hexachloroethane	2.95	U	0.89	2.95	5.9	ug/Kg
100-41-4	Ethyl Benzene	2.95	U	0.73	2.95	5.9	ug/Kg
179601-23-1	m/p-Xylenes	6	U	0.85	6	12	ug/Kg
95-47-6	o-Xylene	2.95	U	0.8	2.95	5.9	ug/Kg
100-42-5	Styrene	2.95	U	0.53	2.95	5.9	ug/Kg
75-25-2	Bromoform	2.95	U	0.87	2.95	5.9	ug/Kg
98-82-8	Isopropylbenzene	2.95	U	0.56	2.95	5.9	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.95	U	0.54	2.95	5.9	ug/Kg
96-18-4	1,2,3-Trichloropropane	2.95	U	0.58	2.95	5.9	ug/Kg
108-86-1	Bromobenzene	2.95	U	0.61	2.95	5.9	ug/Kg
103-65-1	n-propylbenzene	2.95	U	0.42	2.95	5.9	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)RE	SDG No.:	D3811
Lab Sample ID:	D3811-03RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036745.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	2.95	U	0.87	2.95	5.9	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	2.95	U	0.53	2.95	5.9	ug/Kg
106-43-4	4-Chlorotoluene	2.95	U	0.73	2.95	5.9	ug/Kg
98-06-6	tert-Butylbenzene	2.95	U	0.69	2.95	5.9	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.95	U	0.59	2.95	5.9	ug/Kg
135-98-8	sec-Butylbenzene	2.95	U	0.61	2.95	5.9	ug/Kg
99-87-6	p-Isopropyltoluene	2.95	U	0.34	2.95	5.9	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.95	U	0.44	2.95	5.9	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.95	U	0.48	2.95	5.9	ug/Kg
104-51-8	n-Butylbenzene	2.95	U	0.54	2.95	5.9	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.95	U	0.73	2.95	5.9	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.95	U	1	2.95	5.9	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.95	U	0.82	2.95	5.9	ug/Kg
87-68-3	Hexachlorobutadiene	2.95	U	0.93	2.95	5.9	ug/Kg
91-20-3	Naphthalene	2.95	UQ	0.53	2.95	5.9	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.95	U	0.59	2.95	5.9	ug/Kg
74-88-4	Methyl Iodide	5.9	U	5.9	5.9	5.9	ug/Kg
107-05-1	Allyl chloride	5.9	U	5.9	5.9	5.9	ug/Kg
126-98-7	Methacrylonitrile	5.9	UQ	5.9	5.9	5.9	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	5.9	U	5.9	5.9	5.9	ug/Kg
97-63-2	Ethyl methacrylate	5.9	U	5.9	5.9	5.9	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	58.9		56 - 120		118%	SPK: 50
1868-53-7	Dibromofluoromethane	47.6		57 - 135		95%	SPK: 50
2037-26-5	Toluene-d8	50.9		67 - 123		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	58		33 - 141		116%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	367175	4.73				
540-36-3	1,4-Difluorobenzene	663814	5.45				
3114-55-4	Chlorobenzene-d5	651235	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	292898	12.47				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)RE	SDG No.:	D3811
Lab Sample ID:	D3811-03RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	5.06      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624      ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036745.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	26
Sample Wt/Vol:	4.97 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034779.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.4	U	0.88	3.4	6.8	ug/Kg
74-87-3	Chloromethane	3.4	U	1.2	3.4	6.8	ug/Kg
75-01-4	Vinyl Chloride	3.4	U	1.7	3.4	6.8	ug/Kg
141-78-6	Ethyl Acetate	3.4	U	1.2	3.4	6.8	ug/Kg
108-21-4	Isopropyl Acetate	3.4	U	1.6	3.4	6.8	ug/Kg
628-63-7	N-amyl acetate	3.4	U	1.3	3.4	6.8	ug/Kg
74-83-9	Bromomethane	3.4	U	3.3	3.4	6.8	ug/Kg
75-00-3	Chloroethane	3.4	U	1.9	3.4	6.8	ug/Kg
75-69-4	Trichlorofluoromethane	3.4	U	1.8	3.4	6.8	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.4	U	1.8	3.4	6.8	ug/Kg
75-65-0	Tert butyl alcohol	17	U	10	17	34	ug/Kg
60-29-7	Diethyl Ether	3.4	U	2.6	3.4	6.8	ug/Kg
75-35-4	1,1-Dichloroethene	3.4	U	2	3.4	6.8	ug/Kg
107-02-8	Acrolein	17	U	5.4	17	34	ug/Kg
107-13-1	Acrylonitrile	17	U	6.7	17	34	ug/Kg
67-64-1	Acetone	41		4.1	17	34	ug/Kg
75-15-0	Carbon Disulfide	3.4	U	1.4	3.4	6.8	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.4	U	1.3	3.4	6.8	ug/Kg
79-20-9	Methyl Acetate	3.4	U	2.1	3.4	6.8	ug/Kg
75-09-2	Methylene Chloride	3.4	U	1.9	3.4	6.8	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.4	U	0.94	3.4	6.8	ug/Kg
108-05-4	Vinyl Acetate	17	U	4.7	17	34	ug/Kg
75-34-3	1,1-Dichloroethane	3.4	U	1.3	3.4	6.8	ug/Kg
110-82-7	Cyclohexane	3.4	U	1.4	3.4	6.8	ug/Kg
78-93-3	2-Butanone	17	U	4.2	17	34	ug/Kg
56-23-5	Carbon Tetrachloride	3.4	U	1.3	3.4	6.8	ug/Kg
594-20-7	2,2-Dichloropropane	3.4	U	1.4	3.4	6.8	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.4	U	1.2	3.4	6.8	ug/Kg
74-97-5	Bromochloromethane	3.4	U	1.1	3.4	6.8	ug/Kg
67-66-3	Chloroform	3.4	U	1	3.4	6.8	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.4	U	1.2	3.4	6.8	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	26
Sample Wt/Vol:	4.97 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034779.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.4	U	1.4	3.4	6.8	ug/Kg
563-58-6	1,1-Dichloropropene	3.4	U	0.63	3.4	6.8	ug/Kg
71-43-2	Benzene	3.4	U	0.52	3.4	6.8	ug/Kg
107-06-2	1,2-Dichloroethane	3.4	U	0.87	3.4	6.8	ug/Kg
79-01-6	Trichloroethene	3.4	U	1.2	3.4	6.8	ug/Kg
78-87-5	1,2-Dichloropropane	3.4	U	0.35	3.4	6.8	ug/Kg
74-95-3	Dibromomethane	3.4	U	1.1	3.4	6.8	ug/Kg
75-27-4	Bromodichloromethane	3.4	U	0.84	3.4	6.8	ug/Kg
108-10-1	4-Methyl-2-Pentanone	17	U	4	17	34	ug/Kg
108-88-3	Toluene	3.4	U	0.87	3.4	6.8	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.4	U	1.1	3.4	6.8	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.4	U	0.98	3.4	6.8	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.4	U	1.2	3.4	6.8	ug/Kg
142-28-9	1,3-Dichloropropane	3.4	U	1	3.4	6.8	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	17	U	16	17	34	ug/Kg
591-78-6	2-Hexanone	17	U	5.3	17	34	ug/Kg
124-48-1	Dibromochloromethane	3.4	U	0.73	3.4	6.8	ug/Kg
106-93-4	1,2-Dibromoethane	3.4	U	0.87	3.4	6.8	ug/Kg
127-18-4	Tetrachloroethene	3.4	U	1.4	3.4	6.8	ug/Kg
108-90-7	Chlorobenzene	3.4	U	0.68	3.4	6.8	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.4	U	0.58	3.4	6.8	ug/Kg
67-72-1	Hexachloroethane	3.4	U	1	3.4	6.8	ug/Kg
100-41-4	Ethyl Benzene	3.4	U	0.84	3.4	6.8	ug/Kg
179601-23-1	m/p-Xylenes	7	U	0.98	7	14	ug/Kg
95-47-6	o-Xylene	3.4	U	0.92	3.4	6.8	ug/Kg
100-42-5	Styrene	3.4	U	0.61	3.4	6.8	ug/Kg
75-25-2	Bromoform	3.4	U	1	3.4	6.8	ug/Kg
98-82-8	Isopropylbenzene	3.4	U	0.65	3.4	6.8	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.4	U	0.63	3.4	6.8	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.4	U	0.67	3.4	6.8	ug/Kg
108-86-1	Bromobenzene	3.4	U	0.71	3.4	6.8	ug/Kg
103-65-1	n-propylbenzene	3.4	U	0.49	3.4	6.8	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	26
Sample Wt/Vol:	4.97 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034779.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.4	U	1	3.4	6.8	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.4	U	0.61	3.4	6.8	ug/Kg
106-43-4	4-Chlorotoluene	3.4	U	0.84	3.4	6.8	ug/Kg
98-06-6	tert-Butylbenzene	3.4	U	0.8	3.4	6.8	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.4	U	0.68	3.4	6.8	ug/Kg
135-98-8	sec-Butylbenzene	3.4	U	0.71	3.4	6.8	ug/Kg
99-87-6	p-Isopropyltoluene	3.4	U	0.39	3.4	6.8	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.4	U	0.5	3.4	6.8	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.4	U	0.56	3.4	6.8	ug/Kg
104-51-8	n-Butylbenzene	3.4	U	0.63	3.4	6.8	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.4	U	0.84	3.4	6.8	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.4	U	1.2	3.4	6.8	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.4	U	0.95	3.4	6.8	ug/Kg
87-68-3	Hexachlorobutadiene	3.4	U	1.1	3.4	6.8	ug/Kg
91-20-3	Naphthalene	3.4	U	0.61	3.4	6.8	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.4	U	0.68	3.4	6.8	ug/Kg
74-88-4	Methyl Iodide	6.8	U	6.8	6.8	6.8	ug/Kg
107-05-1	Allyl chloride	6.8	U	6.8	6.8	6.8	ug/Kg
126-98-7	Methacrylonitrile	6.8	U	6.8	6.8	6.8	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6.8	U	6.8	6.8	6.8	ug/Kg
97-63-2	Ethyl methacrylate	6.8	U	6.8	6.8	6.8	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	53		56 - 120		106%	SPK: 50
1868-53-7	Dibromofluoromethane	54.9		57 - 135		110%	SPK: 50
2037-26-5	Toluene-d8	47.3		67 - 123		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	33.4		33 - 141		67%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	146028	4.4				
540-36-3	1,4-Difluorobenzene	268965	5.14				
3114-55-4	Chlorobenzene-d5	229671	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	68504	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	26
Sample Wt/Vol:	4.97      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS      ID :    0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034779.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)RE	SDG No.:	D3811
Lab Sample ID:	D3811-05RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	26
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036746.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.35	U	0.87	3.35	6.7	ug/Kg
74-87-3	Chloromethane	3.35	U	1.2	3.35	6.7	ug/Kg
75-01-4	Vinyl Chloride	3.35	U	1.7	3.35	6.7	ug/Kg
141-78-6	Ethyl Acetate	3.35	U	1.2	3.35	6.7	ug/Kg
108-21-4	Isopropyl Acetate	3.35	U	1.6	3.35	6.7	ug/Kg
628-63-7	N-amyl acetate	3.35	U	1.3	3.35	6.7	ug/Kg
74-83-9	Bromomethane	3.35	U	3.3	3.35	6.7	ug/Kg
75-00-3	Chloroethane	3.35	U	1.9	3.35	6.7	ug/Kg
75-69-4	Trichlorofluoromethane	3.35	U	1.8	3.35	6.7	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.35	U	1.8	3.35	6.7	ug/Kg
75-65-0	Tert butyl alcohol	17	U	10	17	34	ug/Kg
60-29-7	Diethyl Ether	3.35	U	2.6	3.35	6.7	ug/Kg
75-35-4	1,1-Dichloroethene	3.35	U	2	3.35	6.7	ug/Kg
107-02-8	Acrolein	17	U	5.4	17	34	ug/Kg
107-13-1	Acrylonitrile	17	U	6.6	17	34	ug/Kg
67-64-1	Acetone	49	Q	4.1	17	34	ug/Kg
75-15-0	Carbon Disulfide	3.35	U	1.4	3.35	6.7	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.35	U	1.3	3.35	6.7	ug/Kg
79-20-9	Methyl Acetate	3.35	U	2	3.35	6.7	ug/Kg
75-09-2	Methylene Chloride	3.35	U	1.9	3.35	6.7	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.35	U	0.93	3.35	6.7	ug/Kg
108-05-4	Vinyl Acetate	17	UQ	4.7	17	34	ug/Kg
75-34-3	1,1-Dichloroethane	3.35	U	1.3	3.35	6.7	ug/Kg
110-82-7	Cyclohexane	3.35	U	1.4	3.35	6.7	ug/Kg
78-93-3	2-Butanone	17	U	4.2	17	34	ug/Kg
56-23-5	Carbon Tetrachloride	3.35	U	1.3	3.35	6.7	ug/Kg
594-20-7	2,2-Dichloropropane	3.35	U	1.4	3.35	6.7	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.35	U	1.2	3.35	6.7	ug/Kg
74-97-5	Bromochloromethane	3.35	U	1.1	3.35	6.7	ug/Kg
67-66-3	Chloroform	3.35	U	1	3.35	6.7	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.35	U	1.2	3.35	6.7	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)RE	SDG No.:	D3811
Lab Sample ID:	D3811-05RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	26
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036746.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.35	U	1.4	3.35	6.7	ug/Kg
563-58-6	1,1-Dichloropropene	3.35	U	0.62	3.35	6.7	ug/Kg
71-43-2	Benzene	3.35	U	0.51	3.35	6.7	ug/Kg
107-06-2	1,2-Dichloroethane	3.35	U	0.86	3.35	6.7	ug/Kg
79-01-6	Trichloroethene	3.35	U	1.2	3.35	6.7	ug/Kg
78-87-5	1,2-Dichloropropane	3.35	U	0.35	3.35	6.7	ug/Kg
74-95-3	Dibromomethane	3.35	U	1	3.35	6.7	ug/Kg
75-27-4	Bromodichloromethane	3.35	U	0.83	3.35	6.7	ug/Kg
108-10-1	4-Methyl-2-Pentanone	17	U	3.9	17	34	ug/Kg
108-88-3	Toluene	3.35	U	0.86	3.35	6.7	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.35	U	1.1	3.35	6.7	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.35	U	0.97	3.35	6.7	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.35	U	1.2	3.35	6.7	ug/Kg
142-28-9	1,3-Dichloropropane	3.35	U	1	3.35	6.7	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	17	U	15	17	34	ug/Kg
591-78-6	2-Hexanone	17	U	5.3	17	34	ug/Kg
124-48-1	Dibromochloromethane	3.35	U	0.73	3.35	6.7	ug/Kg
106-93-4	1,2-Dibromoethane	3.35	U	0.86	3.35	6.7	ug/Kg
127-18-4	Tetrachloroethene	3.35	U	1.4	3.35	6.7	ug/Kg
108-90-7	Chlorobenzene	3.35	U	0.67	3.35	6.7	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.35	U	0.58	3.35	6.7	ug/Kg
67-72-1	Hexachloroethane	3.35	U	1	3.35	6.7	ug/Kg
100-41-4	Ethyl Benzene	3.35	U	0.83	3.35	6.7	ug/Kg
179601-23-1	m/p-Xylenes	6.5	U	0.97	6.5	13	ug/Kg
95-47-6	o-Xylene	3.35	U	0.92	3.35	6.7	ug/Kg
100-42-5	Styrene	3.35	U	0.61	3.35	6.7	ug/Kg
75-25-2	Bromoform	3.35	U	1	3.35	6.7	ug/Kg
98-82-8	Isopropylbenzene	3.35	U	0.65	3.35	6.7	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.35	U	0.62	3.35	6.7	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.35	U	0.66	3.35	6.7	ug/Kg
108-86-1	Bromobenzene	3.35	U	0.7	3.35	6.7	ug/Kg
103-65-1	n-propylbenzene	3.35	U	0.48	3.35	6.7	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)RE	SDG No.:	D3811
Lab Sample ID:	D3811-05RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	26
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036746.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.35	U	1	3.35	6.7	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.35	U	0.61	3.35	6.7	ug/Kg
106-43-4	4-Chlorotoluene	3.35	U	0.83	3.35	6.7	ug/Kg
98-06-6	tert-Butylbenzene	3.35	U	0.79	3.35	6.7	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.35	U	0.67	3.35	6.7	ug/Kg
135-98-8	sec-Butylbenzene	3.35	U	0.7	3.35	6.7	ug/Kg
99-87-6	p-Isopropyltoluene	3.35	U	0.39	3.35	6.7	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.35	U	0.5	3.35	6.7	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.35	U	0.55	3.35	6.7	ug/Kg
104-51-8	n-Butylbenzene	3.35	U	0.62	3.35	6.7	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.35	U	0.83	3.35	6.7	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.35	U	1.2	3.35	6.7	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.35	U	0.94	3.35	6.7	ug/Kg
87-68-3	Hexachlorobutadiene	3.35	U	1.1	3.35	6.7	ug/Kg
91-20-3	Naphthalene	3.35	UQ	0.61	3.35	6.7	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.35	U	0.67	3.35	6.7	ug/Kg
74-88-4	Methyl Iodide	6.7	U	6.7	6.7	6.7	ug/Kg
107-05-1	Allyl chloride	6.7	U	6.7	6.7	6.7	ug/Kg
126-98-7	Methacrylonitrile	6.7	UQ	6.7	6.7	6.7	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6.7	U	6.7	6.7	6.7	ug/Kg
97-63-2	Ethyl methacrylate	6.7	U	6.7	6.7	6.7	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	54.7		56 - 120		109%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		57 - 135		97%	SPK: 50
2037-26-5	Toluene-d8	51.2		67 - 123		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	59.2		33 - 141		119%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	363702	4.73				
540-36-3	1,4-Difluorobenzene	642960	5.45				
3114-55-4	Chlorobenzene-d5	636362	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	287340	12.48				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)RE	SDG No.:	D3811
Lab Sample ID:	D3811-05RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	26
Sample Wt/Vol:	5.02      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624      ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036746.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034780.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.45	U	0.89	3.45	6.9	ug/Kg
74-87-3	Chloromethane	3.45	U	1.2	3.45	6.9	ug/Kg
75-01-4	Vinyl Chloride	3.45	U	1.7	3.45	6.9	ug/Kg
141-78-6	Ethyl Acetate	3.45	U	1.2	3.45	6.9	ug/Kg
108-21-4	Isopropyl Acetate	3.45	U	1.6	3.45	6.9	ug/Kg
628-63-7	N-amyl acetate	3.45	U	1.3	3.45	6.9	ug/Kg
74-83-9	Bromomethane	3.45	U	3.4	3.45	6.9	ug/Kg
75-00-3	Chloroethane	3.45	U	1.9	3.45	6.9	ug/Kg
75-69-4	Trichlorofluoromethane	3.45	U	1.8	3.45	6.9	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.45	U	1.8	3.45	6.9	ug/Kg
75-65-0	Tert butyl alcohol	17	U	10	17	34	ug/Kg
60-29-7	Diethyl Ether	3.45	U	2.6	3.45	6.9	ug/Kg
75-35-4	1,1-Dichloroethene	3.45	U	2	3.45	6.9	ug/Kg
107-02-8	Acrolein	17	U	5.5	17	34	ug/Kg
107-13-1	Acrylonitrile	17	U	6.7	17	34	ug/Kg
67-64-1	Acetone	20	J	4.1	17	34	ug/Kg
75-15-0	Carbon Disulfide	3.45	U	1.5	3.45	6.9	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.45	U	1.3	3.45	6.9	ug/Kg
79-20-9	Methyl Acetate	3.45	U	2.1	3.45	6.9	ug/Kg
75-09-2	Methylene Chloride	3.45	U	1.9	3.45	6.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.45	U	0.95	3.45	6.9	ug/Kg
108-05-4	Vinyl Acetate	17	U	4.8	17	34	ug/Kg
75-34-3	1,1-Dichloroethane	3.45	U	1.3	3.45	6.9	ug/Kg
110-82-7	Cyclohexane	3.45	U	1.4	3.45	6.9	ug/Kg
78-93-3	2-Butanone	17	U	4.3	17	34	ug/Kg
56-23-5	Carbon Tetrachloride	3.45	U	1.4	3.45	6.9	ug/Kg
594-20-7	2,2-Dichloropropane	3.45	U	1.4	3.45	6.9	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.45	U	1.2	3.45	6.9	ug/Kg
74-97-5	Bromochloromethane	3.45	U	1.1	3.45	6.9	ug/Kg
67-66-3	Chloroform	3.45	U	1	3.45	6.9	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.45	U	1.2	3.45	6.9	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034780.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.45	U	1.5	3.45	6.9	ug/Kg
563-58-6	1,1-Dichloropropene	3.45	U	0.63	3.45	6.9	ug/Kg
71-43-2	Benzene	3.45	U	0.52	3.45	6.9	ug/Kg
107-06-2	1,2-Dichloroethane	3.45	U	0.88	3.45	6.9	ug/Kg
79-01-6	Trichloroethene	3.45	U	1.2	3.45	6.9	ug/Kg
78-87-5	1,2-Dichloropropane	3.45	U	0.36	3.45	6.9	ug/Kg
74-95-3	Dibromomethane	3.45	U	1.1	3.45	6.9	ug/Kg
75-27-4	Bromodichloromethane	3.45	U	0.85	3.45	6.9	ug/Kg
108-10-1	4-Methyl-2-Pentanone	17	U	4	17	34	ug/Kg
108-88-3	Toluene	3.45	U	0.88	3.45	6.9	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.45	U	1.1	3.45	6.9	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.45	U	0.99	3.45	6.9	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.45	U	1.2	3.45	6.9	ug/Kg
142-28-9	1,3-Dichloropropane	3.45	U	1	3.45	6.9	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	17	U	16	17	34	ug/Kg
591-78-6	2-Hexanone	17	U	5.4	17	34	ug/Kg
124-48-1	Dibromochloromethane	3.45	U	0.74	3.45	6.9	ug/Kg
106-93-4	1,2-Dibromoethane	3.45	U	0.88	3.45	6.9	ug/Kg
127-18-4	Tetrachloroethene	3.45	U	1.4	3.45	6.9	ug/Kg
108-90-7	Chlorobenzene	3.45	U	0.69	3.45	6.9	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.45	U	0.59	3.45	6.9	ug/Kg
67-72-1	Hexachloroethane	3.45	U	1	3.45	6.9	ug/Kg
100-41-4	Ethyl Benzene	3.45	U	0.85	3.45	6.9	ug/Kg
179601-23-1	m/p-Xylenes	7	U	0.99	7	14	ug/Kg
95-47-6	o-Xylene	3.45	U	0.93	3.45	6.9	ug/Kg
100-42-5	Styrene	3.45	U	0.62	3.45	6.9	ug/Kg
75-25-2	Bromoform	3.45	U	1	3.45	6.9	ug/Kg
98-82-8	Isopropylbenzene	3.45	U	0.66	3.45	6.9	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.45	U	0.63	3.45	6.9	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.45	U	0.67	3.45	6.9	ug/Kg
108-86-1	Bromobenzene	3.45	U	0.71	3.45	6.9	ug/Kg
103-65-1	n-propylbenzene	3.45	U	0.49	3.45	6.9	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034780.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.45	U	1	3.45	6.9	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.45	U	0.62	3.45	6.9	ug/Kg
106-43-4	4-Chlorotoluene	3.45	U	0.85	3.45	6.9	ug/Kg
98-06-6	tert-Butylbenzene	3.45	U	0.81	3.45	6.9	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.45	U	0.69	3.45	6.9	ug/Kg
135-98-8	sec-Butylbenzene	3.45	U	0.71	3.45	6.9	ug/Kg
99-87-6	p-Isopropyltoluene	3.45	U	0.4	3.45	6.9	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.45	U	0.51	3.45	6.9	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.45	U	0.56	3.45	6.9	ug/Kg
104-51-8	n-Butylbenzene	3.45	U	0.63	3.45	6.9	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.45	U	0.85	3.45	6.9	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.45	U	1.2	3.45	6.9	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.45	U	0.96	3.45	6.9	ug/Kg
87-68-3	Hexachlorobutadiene	3.45	U	1.1	3.45	6.9	ug/Kg
91-20-3	Naphthalene	44		0.62	3.45	6.9	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.45	U	0.69	3.45	6.9	ug/Kg
74-88-4	Methyl Iodide	6.9	U	6.9	6.9	6.9	ug/Kg
107-05-1	Allyl chloride	6.9	U	6.9	6.9	6.9	ug/Kg
126-98-7	Methacrylonitrile	6.9	U	6.9	6.9	6.9	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6.9	U	6.9	6.9	6.9	ug/Kg
97-63-2	Ethyl methacrylate	6.9	U	6.9	6.9	6.9	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	45.4		56 - 120		91%	SPK: 50
1868-53-7	Dibromofluoromethane	48.1		57 - 135		96%	SPK: 50
2037-26-5	Toluene-d8	48.8		67 - 123		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.7		33 - 141		95%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	184647	4.4				
540-36-3	1,4-Difluorobenzene	344512	5.15				
3114-55-4	Chlorobenzene-d5	331795	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	153744	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	5.06      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS      ID :    0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034780.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)RE	SDG No.:	D3811
Lab Sample ID:	D3811-06RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	4.98 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036747.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.5	U	0.91	3.5	7	ug/Kg
74-87-3	Chloromethane	3.5	U	1.2	3.5	7	ug/Kg
75-01-4	Vinyl Chloride	3.5	U	1.7	3.5	7	ug/Kg
141-78-6	Ethyl Acetate	3.5	U	1.2	3.5	7	ug/Kg
108-21-4	Isopropyl Acetate	3.5	U	1.7	3.5	7	ug/Kg
628-63-7	N-amyl acetate	3.5	U	1.3	3.5	7	ug/Kg
74-83-9	Bromomethane	3.5	U	3.4	3.5	7	ug/Kg
75-00-3	Chloroethane	3.5	U	2	3.5	7	ug/Kg
75-69-4	Trichlorofluoromethane	3.5	U	1.8	3.5	7	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.5	U	1.9	3.5	7	ug/Kg
75-65-0	Tert butyl alcohol	17.5	U	10	17.5	35	ug/Kg
60-29-7	Diethyl Ether	3.5	U	2.7	3.5	7	ug/Kg
75-35-4	1,1-Dichloroethene	3.5	U	2	3.5	7	ug/Kg
107-02-8	Acrolein	17.5	U	5.5	17.5	35	ug/Kg
107-13-1	Acrylonitrile	17.5	U	6.8	17.5	35	ug/Kg
67-64-1	Acetone	53	Q	4.2	17.5	35	ug/Kg
75-15-0	Carbon Disulfide	3.5	U	1.5	3.5	7	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.5	U	1.3	3.5	7	ug/Kg
79-20-9	Methyl Acetate	3.5	U	2.1	3.5	7	ug/Kg
75-09-2	Methylene Chloride	3.5	U	2	3.5	7	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.5	U	0.96	3.5	7	ug/Kg
108-05-4	Vinyl Acetate	17.5	UQ	4.8	17.5	35	ug/Kg
75-34-3	1,1-Dichloroethane	3.5	U	1.3	3.5	7	ug/Kg
110-82-7	Cyclohexane	3.5	U	1.4	3.5	7	ug/Kg
78-93-3	2-Butanone	17.5	U	4.3	17.5	35	ug/Kg
56-23-5	Carbon Tetrachloride	3.5	U	1.4	3.5	7	ug/Kg
594-20-7	2,2-Dichloropropane	3.5	U	1.5	3.5	7	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.5	U	1.2	3.5	7	ug/Kg
74-97-5	Bromochloromethane	3.5	U	1.1	3.5	7	ug/Kg
67-66-3	Chloroform	3.5	U	1	3.5	7	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.5	U	1.2	3.5	7	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)RE	SDG No.:	D3811
Lab Sample ID:	D3811-06RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	4.98 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036747.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.5	U	1.5	3.5	7	ug/Kg
563-58-6	1,1-Dichloropropene	3.5	U	0.64	3.5	7	ug/Kg
71-43-2	Benzene	3.5	U	0.53	3.5	7	ug/Kg
107-06-2	1,2-Dichloroethane	3.5	U	0.89	3.5	7	ug/Kg
79-01-6	Trichloroethene	3.5	U	1.2	3.5	7	ug/Kg
78-87-5	1,2-Dichloropropane	3.5	U	0.36	3.5	7	ug/Kg
74-95-3	Dibromomethane	3.5	U	1.1	3.5	7	ug/Kg
75-27-4	Bromodichloromethane	3.5	U	0.86	3.5	7	ug/Kg
108-10-1	4-Methyl-2-Pentanone	17.5	U	4.1	17.5	35	ug/Kg
108-88-3	Toluene	3.5	U	0.89	3.5	7	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.5	U	1.1	3.5	7	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.5	U	1	3.5	7	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.5	U	1.3	3.5	7	ug/Kg
142-28-9	1,3-Dichloropropane	3.5	U	1	3.5	7	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	17.5	U	16	17.5	35	ug/Kg
591-78-6	2-Hexanone	17.5	U	5.5	17.5	35	ug/Kg
124-48-1	Dibromochloromethane	3.5	U	0.75	3.5	7	ug/Kg
106-93-4	1,2-Dibromoethane	3.5	U	0.89	3.5	7	ug/Kg
127-18-4	Tetrachloroethene	3.5	U	1.4	3.5	7	ug/Kg
108-90-7	Chlorobenzene	3.5	U	0.7	3.5	7	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.5	U	0.6	3.5	7	ug/Kg
67-72-1	Hexachloroethane	3.5	U	1.1	3.5	7	ug/Kg
100-41-4	Ethyl Benzene	3.5	U	0.86	3.5	7	ug/Kg
179601-23-1	m/p-Xylenes	7	U	1	7	14	ug/Kg
95-47-6	o-Xylene	3.5	U	0.95	3.5	7	ug/Kg
100-42-5	Styrene	3.5	U	0.63	3.5	7	ug/Kg
75-25-2	Bromoform	3.5	U	1	3.5	7	ug/Kg
98-82-8	Isopropylbenzene	3.5	U	0.67	3.5	7	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.5	U	0.64	3.5	7	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.5	U	0.68	3.5	7	ug/Kg
108-86-1	Bromobenzene	3.5	U	0.73	3.5	7	ug/Kg
103-65-1	n-propylbenzene	3.5	U	0.5	3.5	7	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)RE	SDG No.:	D3811
Lab Sample ID:	D3811-06RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	4.98 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036747.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.5	U	1	3.5	7	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.5	U	0.63	3.5	7	ug/Kg
106-43-4	4-Chlorotoluene	3.5	U	0.86	3.5	7	ug/Kg
98-06-6	tert-Butylbenzene	3.5	U	0.82	3.5	7	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.5	U	0.7	3.5	7	ug/Kg
135-98-8	sec-Butylbenzene	3.5	U	0.73	3.5	7	ug/Kg
99-87-6	p-Isopropyltoluene	3.5	U	0.4	3.5	7	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.5	U	0.52	3.5	7	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.5	U	0.57	3.5	7	ug/Kg
104-51-8	n-Butylbenzene	3.5	U	0.64	3.5	7	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.5	U	0.86	3.5	7	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.5	U	1.2	3.5	7	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.5	U	0.98	3.5	7	ug/Kg
87-68-3	Hexachlorobutadiene	3.5	U	1.1	3.5	7	ug/Kg
91-20-3	Naphthalene	3.9	JQ	0.63	3.5	7	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.5	U	0.7	3.5	7	ug/Kg
74-88-4	Methyl Iodide	7	U	7	7	7	ug/Kg
107-05-1	Allyl chloride	7	U	7	7	7	ug/Kg
126-98-7	Methacrylonitrile	7	UQ	7	7	7	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	7	U	7	7	7	ug/Kg
97-63-2	Ethyl methacrylate	7	U	7	7	7	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	58.1		56 - 120		116%	SPK: 50
1868-53-7	Dibromofluoromethane	47.4		57 - 135		95%	SPK: 50
2037-26-5	Toluene-d8	49.9		67 - 123		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	59.9		33 - 141		120%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	376372	4.73				
540-36-3	1,4-Difluorobenzene	675723	5.45				
3114-55-4	Chlorobenzene-d5	653962	9.58				
3855-82-1	1,4-Dichlorobenzene-d4	312532	12.48				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)RE	SDG No.:	D3811
Lab Sample ID:	D3811-06RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	4.98      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624      ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036747.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	4.97 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034781.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3	U	0.78	3	6	ug/Kg
74-87-3	Chloromethane	3	U	1	3	6	ug/Kg
75-01-4	Vinyl Chloride	3	U	1.5	3	6	ug/Kg
141-78-6	Ethyl Acetate	3	U	1	3	6	ug/Kg
108-21-4	Isopropyl Acetate	3	U	1.4	3	6	ug/Kg
628-63-7	N-amyl acetate	3	U	1.1	3	6	ug/Kg
74-83-9	Bromomethane	3	U	2.9	3	6	ug/Kg
75-00-3	Chloroethane	3	U	1.7	3	6	ug/Kg
75-69-4	Trichlorofluoromethane	3	U	1.6	3	6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3	U	1.6	3	6	ug/Kg
75-65-0	Tert butyl alcohol	15	U	8.9	15	30	ug/Kg
60-29-7	Diethyl Ether	3	U	2.3	3	6	ug/Kg
75-35-4	1,1-Dichloroethene	3	U	1.8	3	6	ug/Kg
107-02-8	Acrolein	15	U	4.8	15	30	ug/Kg
107-13-1	Acrylonitrile	15	U	5.9	15	30	ug/Kg
67-64-1	Acetone	15	U	3.6	15	30	ug/Kg
75-15-0	Carbon Disulfide	3	U	1.3	3	6	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3	U	1.1	3	6	ug/Kg
79-20-9	Methyl Acetate	3	U	1.8	3	6	ug/Kg
75-09-2	Methylene Chloride	3	U	1.7	3	6	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3	U	0.83	3	6	ug/Kg
108-05-4	Vinyl Acetate	15	U	4.2	15	30	ug/Kg
75-34-3	1,1-Dichloroethane	3	U	1.1	3	6	ug/Kg
110-82-7	Cyclohexane	3	U	1.2	3	6	ug/Kg
78-93-3	2-Butanone	15	U	3.7	15	30	ug/Kg
56-23-5	Carbon Tetrachloride	3	U	1.2	3	6	ug/Kg
594-20-7	2,2-Dichloropropane	3	U	1.2	3	6	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3	U	1.1	3	6	ug/Kg
74-97-5	Bromochloromethane	3	U	0.95	3	6	ug/Kg
67-66-3	Chloroform	3	U	0.89	3	6	ug/Kg
71-55-6	1,1,1-Trichloroethane	3	U	1.1	3	6	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	4.97 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034781.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3	U	1.3	3	6	ug/Kg
563-58-6	1,1-Dichloropropene	3	U	0.55	3	6	ug/Kg
71-43-2	Benzene	3	U	0.46	3	6	ug/Kg
107-06-2	1,2-Dichloroethane	3	U	0.77	3	6	ug/Kg
79-01-6	Trichloroethene	3	U	1	3	6	ug/Kg
78-87-5	1,2-Dichloropropane	3	U	0.31	3	6	ug/Kg
74-95-3	Dibromomethane	3	U	0.93	3	6	ug/Kg
75-27-4	Bromodichloromethane	3	U	0.74	3	6	ug/Kg
108-10-1	4-Methyl-2-Pentanone	15	U	3.5	15	30	ug/Kg
108-88-3	Toluene	3	U	0.77	3	6	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3	U	0.95	3	6	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3	U	0.86	3	6	ug/Kg
79-00-5	1,1,2-Trichloroethane	3	U	1.1	3	6	ug/Kg
142-28-9	1,3-Dichloropropane	3	U	0.89	3	6	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	15	U	14	15	30	ug/Kg
591-78-6	2-Hexanone	15	U	4.7	15	30	ug/Kg
124-48-1	Dibromochloromethane	3	U	0.65	3	6	ug/Kg
106-93-4	1,2-Dibromoethane	3	U	0.77	3	6	ug/Kg
127-18-4	Tetrachloroethene	3	U	1.2	3	6	ug/Kg
108-90-7	Chlorobenzene	3	U	0.6	3	6	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3	U	0.51	3	6	ug/Kg
67-72-1	Hexachloroethane	3	U	0.91	3	6	ug/Kg
100-41-4	Ethyl Benzene	3	U	0.74	3	6	ug/Kg
179601-23-1	m/p-Xylenes	6	U	0.86	6	12	ug/Kg
95-47-6	o-Xylene	3	U	0.81	3	6	ug/Kg
100-42-5	Styrene	3	U	0.54	3	6	ug/Kg
75-25-2	Bromoform	3	U	0.89	3	6	ug/Kg
98-82-8	Isopropylbenzene	3	U	0.57	3	6	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3	U	0.55	3	6	ug/Kg
96-18-4	1,2,3-Trichloropropane	3	U	0.59	3	6	ug/Kg
108-86-1	Bromobenzene	3	U	0.62	3	6	ug/Kg
103-65-1	n-propylbenzene	3	U	0.43	3	6	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	4.97 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034781.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3	U	0.89	3	6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3	U	0.54	3	6	ug/Kg
106-43-4	4-Chlorotoluene	3	U	0.74	3	6	ug/Kg
98-06-6	tert-Butylbenzene	3	U	0.71	3	6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3	U	0.6	3	6	ug/Kg
135-98-8	sec-Butylbenzene	3	U	0.62	3	6	ug/Kg
99-87-6	p-Isopropyltoluene	3	U	0.35	3	6	ug/Kg
541-73-1	1,3-Dichlorobenzene	3	U	0.44	3	6	ug/Kg
106-46-7	1,4-Dichlorobenzene	3	U	0.49	3	6	ug/Kg
104-51-8	n-Butylbenzene	3	U	0.55	3	6	ug/Kg
95-50-1	1,2-Dichlorobenzene	3	U	0.74	3	6	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3	U	1	3	6	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3	U	0.84	3	6	ug/Kg
87-68-3	Hexachlorobutadiene	3	U	0.95	3	6	ug/Kg
91-20-3	Naphthalene	3	U	0.54	3	6	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3	U	0.6	3	6	ug/Kg
74-88-4	Methyl Iodide	6	U	6	6	6	ug/Kg
107-05-1	Allyl chloride	6	U	6	6	6	ug/Kg
126-98-7	Methacrylonitrile	6	U	6	6	6	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6	U	6	6	6	ug/Kg
97-63-2	Ethyl methacrylate	6	U	6	6	6	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	51.2		56 - 120		102%	SPK: 50
1868-53-7	Dibromofluoromethane	54.7		57 - 135		109%	SPK: 50
2037-26-5	Toluene-d8	51.8		67 - 123		104%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.7		33 - 141		103%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	78092	4.41				
540-36-3	1,4-Difluorobenzene	159364	5.15				
3114-55-4	Chlorobenzene-d5	177213	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	74335	12.25				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	4.97 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034781.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000109-66-0	Pentane	9.7	J			1.26	ug/Kg
000110-54-3	Hexane	15	J			2.11	ug/Kg
	unknown2.26	6.1	J			2.26	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-07RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	4.96 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036748.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3	U	0.78	3	6	ug/Kg
74-87-3	Chloromethane	3	U	1	3	6	ug/Kg
75-01-4	Vinyl Chloride	3	U	1.5	3	6	ug/Kg
141-78-6	Ethyl Acetate	3	U	1	3	6	ug/Kg
108-21-4	Isopropyl Acetate	3	U	1.4	3	6	ug/Kg
628-63-7	N-amyl acetate	3	U	1.1	3	6	ug/Kg
74-83-9	Bromomethane	3	U	2.9	3	6	ug/Kg
75-00-3	Chloroethane	3	U	1.7	3	6	ug/Kg
75-69-4	Trichlorofluoromethane	3	U	1.6	3	6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3	U	1.6	3	6	ug/Kg
75-65-0	Tert butyl alcohol	15	U	8.9	15	30	ug/Kg
60-29-7	Diethyl Ether	3	U	2.3	3	6	ug/Kg
75-35-4	1,1-Dichloroethene	3	U	1.8	3	6	ug/Kg
107-02-8	Acrolein	15	U	4.8	15	30	ug/Kg
107-13-1	Acrylonitrile	15	U	5.9	15	30	ug/Kg
67-64-1	Acetone	45	Q	3.6	15	30	ug/Kg
75-15-0	Carbon Disulfide	3	U	1.3	3	6	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3	U	1.2	3	6	ug/Kg
79-20-9	Methyl Acetate	3	U	1.8	3	6	ug/Kg
75-09-2	Methylene Chloride	3	U	1.7	3	6	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3	U	0.83	3	6	ug/Kg
108-05-4	Vinyl Acetate	15	UQ	4.2	15	30	ug/Kg
75-34-3	1,1-Dichloroethane	3	U	1.1	3	6	ug/Kg
110-82-7	Cyclohexane	3	U	1.2	3	6	ug/Kg
78-93-3	2-Butanone	15	U	3.7	15	30	ug/Kg
56-23-5	Carbon Tetrachloride	3	U	1.2	3	6	ug/Kg
594-20-7	2,2-Dichloropropane	3	U	1.2	3	6	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3	U	1.1	3	6	ug/Kg
74-97-5	Bromochloromethane	3	U	0.95	3	6	ug/Kg
67-66-3	Chloroform	3	U	0.89	3	6	ug/Kg
71-55-6	1,1,1-Trichloroethane	3	U	1.1	3	6	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-07RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	4.96 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036748.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3	U	1.3	3	6	ug/Kg
563-58-6	1,1-Dichloropropene	3	U	0.55	3	6	ug/Kg
71-43-2	Benzene	3	U	0.46	3	6	ug/Kg
107-06-2	1,2-Dichloroethane	3	U	0.77	3	6	ug/Kg
79-01-6	Trichloroethene	3	U	1	3	6	ug/Kg
78-87-5	1,2-Dichloropropane	3	U	0.31	3	6	ug/Kg
74-95-3	Dibromomethane	3	U	0.94	3	6	ug/Kg
75-27-4	Bromodichloromethane	3	U	0.74	3	6	ug/Kg
108-10-1	4-Methyl-2-Pentanone	15	U	3.5	15	30	ug/Kg
108-88-3	Toluene	3	U	0.77	3	6	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3	U	0.95	3	6	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3	U	0.86	3	6	ug/Kg
79-00-5	1,1,2-Trichloroethane	3	U	1.1	3	6	ug/Kg
142-28-9	1,3-Dichloropropane	3	U	0.89	3	6	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	15	U	14	15	30	ug/Kg
591-78-6	2-Hexanone	15	U	4.7	15	30	ug/Kg
124-48-1	Dibromochloromethane	3	U	0.65	3	6	ug/Kg
106-93-4	1,2-Dibromoethane	3	U	0.77	3	6	ug/Kg
127-18-4	Tetrachloroethene	3	U	1.2	3	6	ug/Kg
108-90-7	Chlorobenzene	3	U	0.6	3	6	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3	U	0.52	3	6	ug/Kg
67-72-1	Hexachloroethane	3	U	0.91	3	6	ug/Kg
100-41-4	Ethyl Benzene	3	U	0.74	3	6	ug/Kg
179601-23-1	m/p-Xylenes	6	U	0.86	6	12	ug/Kg
95-47-6	o-Xylene	3	U	0.82	3	6	ug/Kg
100-42-5	Styrene	3	U	0.54	3	6	ug/Kg
75-25-2	Bromoform	3	U	0.89	3	6	ug/Kg
98-82-8	Isopropylbenzene	3	U	0.58	3	6	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3	U	0.55	3	6	ug/Kg
96-18-4	1,2,3-Trichloropropane	3	U	0.59	3	6	ug/Kg
108-86-1	Bromobenzene	3	U	0.62	3	6	ug/Kg
103-65-1	n-propylbenzene	3	U	0.43	3	6	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-07RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	4.96 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036748.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3	U	0.89	3	6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3	U	0.54	3	6	ug/Kg
106-43-4	4-Chlorotoluene	3	U	0.74	3	6	ug/Kg
98-06-6	tert-Butylbenzene	3	U	0.71	3	6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3	U	0.6	3	6	ug/Kg
135-98-8	sec-Butylbenzene	3	U	0.62	3	6	ug/Kg
99-87-6	p-Isopropyltoluene	3	U	0.35	3	6	ug/Kg
541-73-1	1,3-Dichlorobenzene	3	U	0.44	3	6	ug/Kg
106-46-7	1,4-Dichlorobenzene	3	U	0.49	3	6	ug/Kg
104-51-8	n-Butylbenzene	3	U	0.55	3	6	ug/Kg
95-50-1	1,2-Dichlorobenzene	3	U	0.74	3	6	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3	U	1	3	6	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3	U	0.84	3	6	ug/Kg
87-68-3	Hexachlorobutadiene	3	U	0.95	3	6	ug/Kg
91-20-3	Naphthalene	3	JQ	0.54	3	6	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3	U	0.6	3	6	ug/Kg
74-88-4	Methyl Iodide	6	U	6	6	6	ug/Kg
107-05-1	Allyl chloride	6	U	6	6	6	ug/Kg
126-98-7	Methacrylonitrile	6	UQ	6	6	6	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6	U	6	6	6	ug/Kg
97-63-2	Ethyl methacrylate	6	U	6	6	6	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	52.2		56 - 120		104%	SPK: 50
1868-53-7	Dibromofluoromethane	45.8		57 - 135		92%	SPK: 50
2037-26-5	Toluene-d8	52.1		67 - 123		104%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.3		33 - 141		113%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	367385	4.74				
540-36-3	1,4-Difluorobenzene	641257	5.45				
3114-55-4	Chlorobenzene-d5	623963	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	293188	12.48				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-07RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	16
Sample Wt/Vol:	4.96      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624      ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036748.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)	SDG No.:	D3811
Lab Sample ID:	D3811-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	32
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034782.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.65	U	0.95	3.65	7.3	ug/Kg
74-87-3	Chloromethane	3.65	U	1.3	3.65	7.3	ug/Kg
75-01-4	Vinyl Chloride	3.65	U	1.8	3.65	7.3	ug/Kg
141-78-6	Ethyl Acetate	3.65	U	1.3	3.65	7.3	ug/Kg
108-21-4	Isopropyl Acetate	3.65	U	1.7	3.65	7.3	ug/Kg
628-63-7	N-amyl acetate	3.65	U	1.4	3.65	7.3	ug/Kg
74-83-9	Bromomethane	3.65	U	3.6	3.65	7.3	ug/Kg
75-00-3	Chloroethane	3.65	U	2	3.65	7.3	ug/Kg
75-69-4	Trichlorofluoromethane	3.65	U	1.9	3.65	7.3	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.65	U	1.9	3.65	7.3	ug/Kg
75-65-0	Tert butyl alcohol	18.5	U	11	18.5	37	ug/Kg
60-29-7	Diethyl Ether	3.65	U	2.8	3.65	7.3	ug/Kg
75-35-4	1,1-Dichloroethene	3.65	U	2.1	3.65	7.3	ug/Kg
107-02-8	Acrolein	18.5	U	5.8	18.5	37	ug/Kg
107-13-1	Acrylonitrile	18.5	U	7.2	18.5	37	ug/Kg
67-64-1	Acetone	150		4.4	18.5	37	ug/Kg
75-15-0	Carbon Disulfide	10		1.5	3.65	7.3	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.65	U	1.4	3.65	7.3	ug/Kg
79-20-9	Methyl Acetate	3.65	U	2.2	3.65	7.3	ug/Kg
75-09-2	Methylene Chloride	3.65	U	2.1	3.65	7.3	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.65	U	1	3.65	7.3	ug/Kg
108-05-4	Vinyl Acetate	18.5	U	5.1	18.5	37	ug/Kg
75-34-3	1,1-Dichloroethane	3.65	U	1.4	3.65	7.3	ug/Kg
110-82-7	Cyclohexane	3.65	U	1.5	3.65	7.3	ug/Kg
78-93-3	2-Butanone	70		4.5	18.5	37	ug/Kg
56-23-5	Carbon Tetrachloride	3.65	U	1.4	3.65	7.3	ug/Kg
594-20-7	2,2-Dichloropropane	3.65	U	1.5	3.65	7.3	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.65	U	1.3	3.65	7.3	ug/Kg
74-97-5	Bromochloromethane	3.65	U	1.2	3.65	7.3	ug/Kg
67-66-3	Chloroform	3.65	U	1.1	3.65	7.3	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.65	U	1.3	3.65	7.3	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)	SDG No.:	D3811
Lab Sample ID:	D3811-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	32
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034782.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.5	J	1.5	3.65	7.3	ug/Kg
563-58-6	1,1-Dichloropropene	3.65	U	0.67	3.65	7.3	ug/Kg
71-43-2	Benzene	3.65	U	0.56	3.65	7.3	ug/Kg
107-06-2	1,2-Dichloroethane	3.65	U	0.94	3.65	7.3	ug/Kg
79-01-6	Trichloroethene	3.65	U	1.3	3.65	7.3	ug/Kg
78-87-5	1,2-Dichloropropane	3.65	U	0.38	3.65	7.3	ug/Kg
74-95-3	Dibromomethane	3.65	U	1.1	3.65	7.3	ug/Kg
75-27-4	Bromodichloromethane	3.65	U	0.91	3.65	7.3	ug/Kg
108-10-1	4-Methyl-2-Pentanone	18.5	U	4.3	18.5	37	ug/Kg
108-88-3	Toluene	3.65	U	0.94	3.65	7.3	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.65	U	1.2	3.65	7.3	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.65	U	1.1	3.65	7.3	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.65	U	1.3	3.65	7.3	ug/Kg
142-28-9	1,3-Dichloropropane	3.65	U	1.1	3.65	7.3	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	18.5	U	17	18.5	37	ug/Kg
591-78-6	2-Hexanone	18.5	U	5.7	18.5	37	ug/Kg
124-48-1	Dibromochloromethane	3.65	U	0.79	3.65	7.3	ug/Kg
106-93-4	1,2-Dibromoethane	3.65	U	0.94	3.65	7.3	ug/Kg
127-18-4	Tetrachloroethene	3.65	U	1.5	3.65	7.3	ug/Kg
108-90-7	Chlorobenzene	3.65	U	0.73	3.65	7.3	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.65	U	0.63	3.65	7.3	ug/Kg
67-72-1	Hexachloroethane	3.65	U	1.1	3.65	7.3	ug/Kg
100-41-4	Ethyl Benzene	3.65	U	0.91	3.65	7.3	ug/Kg
179601-23-1	m/p-Xylenes	7.5	U	1.1	7.5	15	ug/Kg
95-47-6	o-Xylene	3.65	U	0.99	3.65	7.3	ug/Kg
100-42-5	Styrene	3.65	U	0.66	3.65	7.3	ug/Kg
75-25-2	Bromoform	3.65	U	1.1	3.65	7.3	ug/Kg
98-82-8	Isopropylbenzene	3.65	U	0.7	3.65	7.3	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.65	U	0.67	3.65	7.3	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.65	U	0.72	3.65	7.3	ug/Kg
108-86-1	Bromobenzene	3.65	U	0.76	3.65	7.3	ug/Kg
103-65-1	n-propylbenzene	3.65	U	0.53	3.65	7.3	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)	SDG No.:	D3811
Lab Sample ID:	D3811-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	32
Sample Wt/Vol:	5.03      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS      ID :    0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034782.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.65	U	1.1	3.65	7.3	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.65	U	0.66	3.65	7.3	ug/Kg
106-43-4	4-Chlorotoluene	3.65	U	0.91	3.65	7.3	ug/Kg
98-06-6	tert-Butylbenzene	3.65	U	0.86	3.65	7.3	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3	J	0.73	3.65	7.3	ug/Kg
135-98-8	sec-Butylbenzene	3.65	U	0.76	3.65	7.3	ug/Kg
99-87-6	p-Isopropyltoluene	3.2	J	0.42	3.65	7.3	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.65	U	0.54	3.65	7.3	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.65	U	0.6	3.65	7.3	ug/Kg
104-51-8	n-Butylbenzene	3.65	U	0.67	3.65	7.3	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.65	U	0.91	3.65	7.3	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.65	U	1.3	3.65	7.3	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.65	U	1	3.65	7.3	ug/Kg
87-68-3	Hexachlorobutadiene	3.65	U	1.2	3.65	7.3	ug/Kg
91-20-3	Naphthalene	19		0.66	3.65	7.3	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.65	U	0.73	3.65	7.3	ug/Kg
74-88-4	Methyl Iodide	7.3	U	7.3	7.3	7.3	ug/Kg
107-05-1	Allyl chloride	7.3	U	7.3	7.3	7.3	ug/Kg
126-98-7	Methacrylonitrile	7.3	U	7.3	7.3	7.3	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	7.3	U	7.3	7.3	7.3	ug/Kg
97-63-2	Ethyl methacrylate	7.3	U	7.3	7.3	7.3	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	45.9		56 - 120		92%	SPK: 50
1868-53-7	Dibromofluoromethane	52.9		57 - 135		106%	SPK: 50
2037-26-5	Toluene-d8	42.4		67 - 123		85%	SPK: 50
460-00-4	4-Bromofluorobenzene	41.4		33 - 141		83%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	144739	4.4				
540-36-3	1,4-Difluorobenzene	252434	5.14				
3114-55-4	Chlorobenzene-d5	196090	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	69856	12.25				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)	SDG No.:	D3811
Lab Sample ID:	D3811-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	32
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034782.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
	unknown10.29	39	J			10.29	ug/Kg
006783-92-2	Cyclohexane, 1,1,2,3-tetramethyl-	36	J			10.92	ug/Kg
002207-03-6	Cyclohexane, 1,3-dimethyl-, trans-	24	J			11.24	ug/Kg
020536-40-7	Bicyclo[2.2.1]heptane, 2,2,3-trime	63	J			11.3	ug/Kg
002847-72-5	Decane, 4-methyl-	38	J			11.7	ug/Kg
	unknown12.55	33	J			12.55	ug/Kg
000535-77-3	Benzene, 1-methyl-3-(1-methylethyl	26	J			12.86	ug/Kg
000111-65-9	Octane	45	J			13.43	ug/Kg
	unknown13.57	53	J			13.57	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)RE	SDG No.:	D3811
Lab Sample ID:	D3811-10RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	32
Sample Wt/Vol:	4.96 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036749.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.7	U	0.96	3.7	7.4	ug/Kg
74-87-3	Chloromethane	3.7	U	1.3	3.7	7.4	ug/Kg
75-01-4	Vinyl Chloride	3.7	U	1.8	3.7	7.4	ug/Kg
141-78-6	Ethyl Acetate	3.7	U	1.3	3.7	7.4	ug/Kg
108-21-4	Isopropyl Acetate	3.7	U	1.8	3.7	7.4	ug/Kg
628-63-7	N-amyl acetate	3.7	U	1.4	3.7	7.4	ug/Kg
74-83-9	Bromomethane	3.7	U	3.6	3.7	7.4	ug/Kg
75-00-3	Chloroethane	3.7	U	2.1	3.7	7.4	ug/Kg
75-69-4	Trichlorofluoromethane	3.7	U	2	3.7	7.4	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.7	U	2	3.7	7.4	ug/Kg
75-65-0	Tert butyl alcohol	18.5	U	11	18.5	37	ug/Kg
60-29-7	Diethyl Ether	3.7	U	2.8	3.7	7.4	ug/Kg
75-35-4	1,1-Dichloroethene	3.7	U	2.2	3.7	7.4	ug/Kg
107-02-8	Acrolein	18.5	U	5.9	18.5	37	ug/Kg
107-13-1	Acrylonitrile	18.5	U	7.3	18.5	37	ug/Kg
67-64-1	Acetone	150	Q	4.5	18.5	37	ug/Kg
75-15-0	Carbon Disulfide	4.6	J	1.6	3.7	7.4	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.7	U	1.4	3.7	7.4	ug/Kg
79-20-9	Methyl Acetate	3.7	U	2.2	3.7	7.4	ug/Kg
75-09-2	Methylene Chloride	3.7	U	2.1	3.7	7.4	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.7	U	1	3.7	7.4	ug/Kg
108-05-4	Vinyl Acetate	18.5	UQ	5.1	18.5	37	ug/Kg
75-34-3	1,1-Dichloroethane	3.7	U	1.4	3.7	7.4	ug/Kg
110-82-7	Cyclohexane	3.7	U	1.5	3.7	7.4	ug/Kg
78-93-3	2-Butanone	63		4.6	18.5	37	ug/Kg
56-23-5	Carbon Tetrachloride	3.7	U	1.5	3.7	7.4	ug/Kg
594-20-7	2,2-Dichloropropane	3.7	U	1.5	3.7	7.4	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.7	U	1.3	3.7	7.4	ug/Kg
74-97-5	Bromochloromethane	3.7	U	1.2	3.7	7.4	ug/Kg
67-66-3	Chloroform	3.7	U	1.1	3.7	7.4	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.7	U	1.3	3.7	7.4	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)RE	SDG No.:	D3811
Lab Sample ID:	D3811-10RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	32
Sample Wt/Vol:	4.96 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036749.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.7	U	1.6	3.7	7.4	ug/Kg
563-58-6	1,1-Dichloropropene	3.7	U	0.68	3.7	7.4	ug/Kg
71-43-2	Benzene	3.7	U	0.56	3.7	7.4	ug/Kg
107-06-2	1,2-Dichloroethane	3.7	U	0.95	3.7	7.4	ug/Kg
79-01-6	Trichloroethene	3.7	U	1.3	3.7	7.4	ug/Kg
78-87-5	1,2-Dichloropropane	3.7	U	0.39	3.7	7.4	ug/Kg
74-95-3	Dibromomethane	3.7	U	1.2	3.7	7.4	ug/Kg
75-27-4	Bromodichloromethane	3.7	U	0.92	3.7	7.4	ug/Kg
108-10-1	4-Methyl-2-Pentanone	18.5	U	4.3	18.5	37	ug/Kg
108-88-3	Toluene	3.7	U	0.95	3.7	7.4	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.7	U	1.2	3.7	7.4	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.7	U	1.1	3.7	7.4	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.7	U	1.3	3.7	7.4	ug/Kg
142-28-9	1,3-Dichloropropane	3.7	U	1.1	3.7	7.4	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	18.5	U	17	18.5	37	ug/Kg
591-78-6	2-Hexanone	18.5	U	5.8	18.5	37	ug/Kg
124-48-1	Dibromochloromethane	3.7	U	0.8	3.7	7.4	ug/Kg
106-93-4	1,2-Dibromoethane	3.7	U	0.95	3.7	7.4	ug/Kg
127-18-4	Tetrachloroethene	3.7	U	1.5	3.7	7.4	ug/Kg
108-90-7	Chlorobenzene	3.7	U	0.74	3.7	7.4	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.7	U	0.64	3.7	7.4	ug/Kg
67-72-1	Hexachloroethane	3.7	U	1.1	3.7	7.4	ug/Kg
100-41-4	Ethyl Benzene	3.7	U	0.92	3.7	7.4	ug/Kg
179601-23-1	m/p-Xylenes	7.5	U	1.1	7.5	15	ug/Kg
95-47-6	o-Xylene	3.7	U	1	3.7	7.4	ug/Kg
100-42-5	Styrene	3.7	U	0.67	3.7	7.4	ug/Kg
75-25-2	Bromoform	3.7	U	1.1	3.7	7.4	ug/Kg
98-82-8	Isopropylbenzene	3.7	U	0.71	3.7	7.4	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.7	U	0.68	3.7	7.4	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.7	U	0.73	3.7	7.4	ug/Kg
108-86-1	Bromobenzene	3.7	U	0.77	3.7	7.4	ug/Kg
103-65-1	n-propylbenzene	3.7	U	0.53	3.7	7.4	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)RE	SDG No.:	D3811
Lab Sample ID:	D3811-10RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	32
Sample Wt/Vol:	4.96 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036749.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.7	U	1.1	3.7	7.4	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.7	U	0.67	3.7	7.4	ug/Kg
106-43-4	4-Chlorotoluene	3.7	U	0.92	3.7	7.4	ug/Kg
98-06-6	tert-Butylbenzene	3.7	U	0.87	3.7	7.4	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.7	U	0.74	3.7	7.4	ug/Kg
135-98-8	sec-Butylbenzene	3.7	U	0.77	3.7	7.4	ug/Kg
99-87-6	p-Isopropyltoluene	3.7	U	0.43	3.7	7.4	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.7	U	0.55	3.7	7.4	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.7	U	0.61	3.7	7.4	ug/Kg
104-51-8	n-Butylbenzene	3.7	U	0.68	3.7	7.4	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.7	U	0.92	3.7	7.4	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.7	U	1.3	3.7	7.4	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.7	U	1	3.7	7.4	ug/Kg
87-68-3	Hexachlorobutadiene	3.7	U	1.2	3.7	7.4	ug/Kg
91-20-3	Naphthalene	3.9	JQ	0.67	3.7	7.4	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.7	U	0.74	3.7	7.4	ug/Kg
74-88-4	Methyl Iodide	7.4	U	7.4	7.4	7.4	ug/Kg
107-05-1	Allyl chloride	7.4	U	7.4	7.4	7.4	ug/Kg
126-98-7	Methacrylonitrile	7.4	UQ	7.4	7.4	7.4	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	7.4	U	7.4	7.4	7.4	ug/Kg
97-63-2	Ethyl methacrylate	7.4	U	7.4	7.4	7.4	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	59.6		56 - 120		119%	SPK: 50
1868-53-7	Dibromofluoromethane	48		57 - 135		96%	SPK: 50
2037-26-5	Toluene-d8	50.8		67 - 123		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	59.4		33 - 141		119%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	347038	4.73				
540-36-3	1,4-Difluorobenzene	625041	5.45				
3114-55-4	Chlorobenzene-d5	618007	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	284686	12.47				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)RE	SDG No.:	D3811
Lab Sample ID:	D3811-10RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	32
Sample Wt/Vol:	4.96      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624      ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036749.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)	SDG No.:	D3811
Lab Sample ID:	D3811-11	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9
Sample Wt/Vol:	4.95 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034783.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.8	U	0.72	2.8	5.6	ug/Kg
74-87-3	Chloromethane	2.8	U	0.95	2.8	5.6	ug/Kg
75-01-4	Vinyl Chloride	2.8	U	1.4	2.8	5.6	ug/Kg
141-78-6	Ethyl Acetate	2.8	U	0.97	2.8	5.6	ug/Kg
108-21-4	Isopropyl Acetate	2.8	U	1.3	2.8	5.6	ug/Kg
628-63-7	N-amyl acetate	2.8	U	1	2.8	5.6	ug/Kg
74-83-9	Bromomethane	2.8	U	2.7	2.8	5.6	ug/Kg
75-00-3	Chloroethane	2.8	U	1.6	2.8	5.6	ug/Kg
75-69-4	Trichlorofluoromethane	2.8	U	1.5	2.8	5.6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.8	U	1.5	2.8	5.6	ug/Kg
75-65-0	Tert butyl alcohol	14	U	8.2	14	28	ug/Kg
60-29-7	Diethyl Ether	2.8	U	2.1	2.8	5.6	ug/Kg
75-35-4	1,1-Dichloroethene	2.8	U	1.6	2.8	5.6	ug/Kg
107-02-8	Acrolein	14	U	4.4	14	28	ug/Kg
107-13-1	Acrylonitrile	14	U	5.5	14	28	ug/Kg
67-64-1	Acetone	74		3.4	14	28	ug/Kg
75-15-0	Carbon Disulfide	2.8	U	1.2	2.8	5.6	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.8	U	1.1	2.8	5.6	ug/Kg
79-20-9	Methyl Acetate	2.8	U	1.7	2.8	5.6	ug/Kg
75-09-2	Methylene Chloride	2.8	U	1.6	2.8	5.6	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.8	U	0.77	2.8	5.6	ug/Kg
108-05-4	Vinyl Acetate	14	U	3.9	14	28	ug/Kg
75-34-3	1,1-Dichloroethane	2.8	U	1	2.8	5.6	ug/Kg
110-82-7	Cyclohexane	2.8	U	1.1	2.8	5.6	ug/Kg
78-93-3	2-Butanone	14	U	3.5	14	28	ug/Kg
56-23-5	Carbon Tetrachloride	2.8	U	1.1	2.8	5.6	ug/Kg
594-20-7	2,2-Dichloropropane	2.8	U	1.2	2.8	5.6	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.8	U	0.99	2.8	5.6	ug/Kg
74-97-5	Bromochloromethane	2.8	U	0.88	2.8	5.6	ug/Kg
67-66-3	Chloroform	2.8	U	0.82	2.8	5.6	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.8	U	0.98	2.8	5.6	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)	SDG No.:	D3811
Lab Sample ID:	D3811-11	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9
Sample Wt/Vol:	4.95      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS      ID :    0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034783.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.8	U	1.2	2.8	5.6	ug/Kg
563-58-6	1,1-Dichloropropene	2.8	U	0.51	2.8	5.6	ug/Kg
71-43-2	Benzene	2.8	U	0.42	2.8	5.6	ug/Kg
107-06-2	1,2-Dichloroethane	2.8	U	0.71	2.8	5.6	ug/Kg
79-01-6	Trichloroethene	2.8	U	0.95	2.8	5.6	ug/Kg
78-87-5	1,2-Dichloropropane	2.8	U	0.29	2.8	5.6	ug/Kg
74-95-3	Dibromomethane	2.8	U	0.87	2.8	5.6	ug/Kg
75-27-4	Bromodichloromethane	2.8	U	0.69	2.8	5.6	ug/Kg
108-10-1	4-Methyl-2-Pentanone	14	U	3.2	14	28	ug/Kg
108-88-3	Toluene	2.8	U	0.71	2.8	5.6	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.8	U	0.88	2.8	5.6	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.8	U	0.8	2.8	5.6	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.8	U	1	2.8	5.6	ug/Kg
142-28-9	1,3-Dichloropropane	2.8	U	0.82	2.8	5.6	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	14	U	13	14	28	ug/Kg
591-78-6	2-Hexanone	14	U	4.4	14	28	ug/Kg
124-48-1	Dibromochloromethane	2.8	U	0.6	2.8	5.6	ug/Kg
106-93-4	1,2-Dibromoethane	2.8	U	0.71	2.8	5.6	ug/Kg
127-18-4	Tetrachloroethene	2.8	U	1.1	2.8	5.6	ug/Kg
108-90-7	Chlorobenzene	2.8	U	0.56	2.8	5.6	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	2.8	U	0.48	2.8	5.6	ug/Kg
67-72-1	Hexachloroethane	2.8	U	0.84	2.8	5.6	ug/Kg
100-41-4	Ethyl Benzene	2.8	U	0.69	2.8	5.6	ug/Kg
179601-23-1	m/p-Xylenes	5.5	U	0.8	5.5	11	ug/Kg
95-47-6	o-Xylene	2.8	U	0.75	2.8	5.6	ug/Kg
100-42-5	Styrene	2.8	U	0.5	2.8	5.6	ug/Kg
75-25-2	Bromoform	2.8	U	0.82	2.8	5.6	ug/Kg
98-82-8	Isopropylbenzene	2.8	U	0.53	2.8	5.6	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.8	U	0.51	2.8	5.6	ug/Kg
96-18-4	1,2,3-Trichloropropane	2.8	U	0.54	2.8	5.6	ug/Kg
108-86-1	Bromobenzene	2.8	U	0.58	2.8	5.6	ug/Kg
103-65-1	n-propylbenzene	2.8	U	0.4	2.8	5.6	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)	SDG No.:	D3811
Lab Sample ID:	D3811-11	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9
Sample Wt/Vol:	4.95 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034783.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	2.8	U	0.82	2.8	5.6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	2.8	U	0.5	2.8	5.6	ug/Kg
106-43-4	4-Chlorotoluene	2.8	U	0.69	2.8	5.6	ug/Kg
98-06-6	tert-Butylbenzene	2.8	U	0.65	2.8	5.6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.8	U	0.56	2.8	5.6	ug/Kg
135-98-8	sec-Butylbenzene	2.8	U	0.58	2.8	5.6	ug/Kg
99-87-6	p-Isopropyltoluene	2.8	U	0.32	2.8	5.6	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.8	U	0.41	2.8	5.6	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.8	U	0.46	2.8	5.6	ug/Kg
104-51-8	n-Butylbenzene	2.8	U	0.51	2.8	5.6	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.8	U	0.69	2.8	5.6	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.8	U	0.97	2.8	5.6	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.8	U	0.78	2.8	5.6	ug/Kg
87-68-3	Hexachlorobutadiene	2.8	U	0.88	2.8	5.6	ug/Kg
91-20-3	Naphthalene	2.8	U	0.5	2.8	5.6	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.8	U	0.56	2.8	5.6	ug/Kg
74-88-4	Methyl Iodide	5.6	U	5.6	5.6	5.6	ug/Kg
107-05-1	Allyl chloride	5.6	U	5.6	5.6	5.6	ug/Kg
126-98-7	Methacrylonitrile	5.6	U	5.6	5.6	5.6	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	5.6	U	5.6	5.6	5.6	ug/Kg
97-63-2	Ethyl methacrylate	5.6	U	5.6	5.6	5.6	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	48.5		56 - 120		97%	SPK: 50
1868-53-7	Dibromofluoromethane	69.1	*	57 - 135		138%	SPK: 50
2037-26-5	Toluene-d8	52.5		67 - 123		105%	SPK: 50
460-00-4	4-Bromofluorobenzene	38.7		33 - 141		77%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	41989	4.41				
540-36-3	1,4-Difluorobenzene	70942	5.14				
3114-55-4	Chlorobenzene-d5	64882	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	17979	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)	SDG No.:	D3811
Lab Sample ID:	D3811-11	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9
Sample Wt/Vol:	4.95      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS      ID :    0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034783.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)RE	SDG No.:	D3811
Lab Sample ID:	D3811-11RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9
Sample Wt/Vol:	4.95 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036750.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.8	U	0.72	2.8	5.6	ug/Kg
74-87-3	Chloromethane	2.8	U	0.95	2.8	5.6	ug/Kg
75-01-4	Vinyl Chloride	2.8	U	1.4	2.8	5.6	ug/Kg
141-78-6	Ethyl Acetate	2.8	U	0.97	2.8	5.6	ug/Kg
108-21-4	Isopropyl Acetate	2.8	U	1.3	2.8	5.6	ug/Kg
628-63-7	N-amyl acetate	2.8	U	1	2.8	5.6	ug/Kg
74-83-9	Bromomethane	2.8	U	2.7	2.8	5.6	ug/Kg
75-00-3	Chloroethane	2.8	U	1.6	2.8	5.6	ug/Kg
75-69-4	Trichlorofluoromethane	2.8	U	1.5	2.8	5.6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.8	U	1.5	2.8	5.6	ug/Kg
75-65-0	Tert butyl alcohol	14	U	8.2	14	28	ug/Kg
60-29-7	Diethyl Ether	2.8	U	2.1	2.8	5.6	ug/Kg
75-35-4	1,1-Dichloroethene	2.8	U	1.6	2.8	5.6	ug/Kg
107-02-8	Acrolein	14	U	4.4	14	28	ug/Kg
107-13-1	Acrylonitrile	14	U	5.5	14	28	ug/Kg
67-64-1	Acetone	45	Q	3.4	14	28	ug/Kg
75-15-0	Carbon Disulfide	2.8	U	1.2	2.8	5.6	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.8	U	1.1	2.8	5.6	ug/Kg
79-20-9	Methyl Acetate	2.8	U	1.7	2.8	5.6	ug/Kg
75-09-2	Methylene Chloride	2.8	U	1.6	2.8	5.6	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.8	U	0.77	2.8	5.6	ug/Kg
108-05-4	Vinyl Acetate	14	UQ	3.9	14	28	ug/Kg
75-34-3	1,1-Dichloroethane	2.8	U	1	2.8	5.6	ug/Kg
110-82-7	Cyclohexane	2.8	U	1.1	2.8	5.6	ug/Kg
78-93-3	2-Butanone	14	U	3.5	14	28	ug/Kg
56-23-5	Carbon Tetrachloride	2.8	U	1.1	2.8	5.6	ug/Kg
594-20-7	2,2-Dichloropropane	2.8	U	1.2	2.8	5.6	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.8	U	0.99	2.8	5.6	ug/Kg
74-97-5	Bromochloromethane	2.8	U	0.88	2.8	5.6	ug/Kg
67-66-3	Chloroform	2.8	U	0.82	2.8	5.6	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.8	U	0.98	2.8	5.6	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)RE	SDG No.:	D3811
Lab Sample ID:	D3811-11RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9
Sample Wt/Vol:	4.95 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036750.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.8	U	1.2	2.8	5.6	ug/Kg
563-58-6	1,1-Dichloropropene	2.8	U	0.51	2.8	5.6	ug/Kg
71-43-2	Benzene	2.8	U	0.42	2.8	5.6	ug/Kg
107-06-2	1,2-Dichloroethane	2.8	U	0.71	2.8	5.6	ug/Kg
79-01-6	Trichloroethene	2.8	U	0.95	2.8	5.6	ug/Kg
78-87-5	1,2-Dichloropropane	2.8	U	0.29	2.8	5.6	ug/Kg
74-95-3	Dibromomethane	2.8	U	0.87	2.8	5.6	ug/Kg
75-27-4	Bromodichloromethane	2.8	U	0.69	2.8	5.6	ug/Kg
108-10-1	4-Methyl-2-Pentanone	14	U	3.2	14	28	ug/Kg
108-88-3	Toluene	2.8	U	0.71	2.8	5.6	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.8	U	0.88	2.8	5.6	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.8	U	0.8	2.8	5.6	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.8	U	1	2.8	5.6	ug/Kg
142-28-9	1,3-Dichloropropane	2.8	U	0.82	2.8	5.6	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	14	U	13	14	28	ug/Kg
591-78-6	2-Hexanone	14	U	4.4	14	28	ug/Kg
124-48-1	Dibromochloromethane	2.8	U	0.6	2.8	5.6	ug/Kg
106-93-4	1,2-Dibromoethane	2.8	U	0.71	2.8	5.6	ug/Kg
127-18-4	Tetrachloroethene	2.8	U	1.1	2.8	5.6	ug/Kg
108-90-7	Chlorobenzene	2.8	U	0.56	2.8	5.6	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	2.8	U	0.48	2.8	5.6	ug/Kg
67-72-1	Hexachloroethane	2.8	U	0.84	2.8	5.6	ug/Kg
100-41-4	Ethyl Benzene	2.8	U	0.69	2.8	5.6	ug/Kg
179601-23-1	m/p-Xylenes	5.5	U	0.8	5.5	11	ug/Kg
95-47-6	o-Xylene	2.8	U	0.75	2.8	5.6	ug/Kg
100-42-5	Styrene	2.8	U	0.5	2.8	5.6	ug/Kg
75-25-2	Bromoform	2.8	U	0.82	2.8	5.6	ug/Kg
98-82-8	Isopropylbenzene	2.8	U	0.53	2.8	5.6	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.8	U	0.51	2.8	5.6	ug/Kg
96-18-4	1,2,3-Trichloropropane	2.8	U	0.54	2.8	5.6	ug/Kg
108-86-1	Bromobenzene	2.8	U	0.58	2.8	5.6	ug/Kg
103-65-1	n-propylbenzene	2.8	U	0.4	2.8	5.6	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)RE	SDG No.:	D3811
Lab Sample ID:	D3811-11RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9
Sample Wt/Vol:	4.95 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036750.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	2.8	U	0.82	2.8	5.6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	2.8	U	0.5	2.8	5.6	ug/Kg
106-43-4	4-Chlorotoluene	2.8	U	0.69	2.8	5.6	ug/Kg
98-06-6	tert-Butylbenzene	2.8	U	0.65	2.8	5.6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.8	U	0.56	2.8	5.6	ug/Kg
135-98-8	sec-Butylbenzene	2.8	U	0.58	2.8	5.6	ug/Kg
99-87-6	p-Isopropyltoluene	2.8	U	0.32	2.8	5.6	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.8	U	0.41	2.8	5.6	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.8	U	0.46	2.8	5.6	ug/Kg
104-51-8	n-Butylbenzene	2.8	U	0.51	2.8	5.6	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.8	U	0.69	2.8	5.6	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.8	U	0.97	2.8	5.6	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.8	U	0.78	2.8	5.6	ug/Kg
87-68-3	Hexachlorobutadiene	2.8	U	0.88	2.8	5.6	ug/Kg
91-20-3	Naphthalene	2.8	UQ	0.5	2.8	5.6	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.8	U	0.56	2.8	5.6	ug/Kg
74-88-4	Methyl Iodide	5.6	U	5.6	5.6	5.6	ug/Kg
107-05-1	Allyl chloride	5.6	U	5.6	5.6	5.6	ug/Kg
126-98-7	Methacrylonitrile	5.6	UQ	5.6	5.6	5.6	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	5.6	U	5.6	5.6	5.6	ug/Kg
97-63-2	Ethyl methacrylate	5.6	U	5.6	5.6	5.6	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	57.4		56 - 120		115%	SPK: 50
1868-53-7	Dibromofluoromethane	48.2		57 - 135		96%	SPK: 50
2037-26-5	Toluene-d8	51.6		67 - 123		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	58.9		33 - 141		118%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	354693	4.74				
540-36-3	1,4-Difluorobenzene	635091	5.45				
3114-55-4	Chlorobenzene-d5	638670	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	290123	12.47				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)RE	SDG No.:	D3811
Lab Sample ID:	D3811-11RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	9
Sample Wt/Vol:	4.95      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624      ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036750.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)	SDG No.:	D3811
Lab Sample ID:	D3811-13	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	30
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034784.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.55	U	0.93	3.55	7.1	ug/Kg
74-87-3	Chloromethane	3.55	U	1.2	3.55	7.1	ug/Kg
75-01-4	Vinyl Chloride	3.55	U	1.8	3.55	7.1	ug/Kg
141-78-6	Ethyl Acetate	3.55	U	1.2	3.55	7.1	ug/Kg
108-21-4	Isopropyl Acetate	3.55	U	1.7	3.55	7.1	ug/Kg
628-63-7	N-amyl acetate	3.55	U	1.3	3.55	7.1	ug/Kg
74-83-9	Bromomethane	3.55	U	3.5	3.55	7.1	ug/Kg
75-00-3	Chloroethane	3.55	U	2	3.55	7.1	ug/Kg
75-69-4	Trichlorofluoromethane	3.55	U	1.9	3.55	7.1	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.55	U	1.9	3.55	7.1	ug/Kg
75-65-0	Tert butyl alcohol	18	U	11	18	36	ug/Kg
60-29-7	Diethyl Ether	3.55	U	2.7	3.55	7.1	ug/Kg
75-35-4	1,1-Dichloroethene	3.55	U	2.1	3.55	7.1	ug/Kg
107-02-8	Acrolein	18	U	5.7	18	36	ug/Kg
107-13-1	Acrylonitrile	18	U	7	18	36	ug/Kg
67-64-1	Acetone	25	J	4.3	18	36	ug/Kg
75-15-0	Carbon Disulfide	3.55	U	1.5	3.55	7.1	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.55	U	1.4	3.55	7.1	ug/Kg
79-20-9	Methyl Acetate	3.55	U	2.2	3.55	7.1	ug/Kg
75-09-2	Methylene Chloride	3.55	U	2	3.55	7.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.55	U	0.99	3.55	7.1	ug/Kg
108-05-4	Vinyl Acetate	18	U	5	18	36	ug/Kg
75-34-3	1,1-Dichloroethane	3.55	U	1.3	3.55	7.1	ug/Kg
110-82-7	Cyclohexane	3.55	U	1.4	3.55	7.1	ug/Kg
78-93-3	2-Butanone	18	U	4.4	18	36	ug/Kg
56-23-5	Carbon Tetrachloride	3.55	U	1.4	3.55	7.1	ug/Kg
594-20-7	2,2-Dichloropropane	3.55	U	1.5	3.55	7.1	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.55	U	1.3	3.55	7.1	ug/Kg
74-97-5	Bromochloromethane	3.55	U	1.1	3.55	7.1	ug/Kg
67-66-3	Chloroform	3.55	U	1.1	3.55	7.1	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.55	U	1.3	3.55	7.1	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)	SDG No.:	D3811
Lab Sample ID:	D3811-13	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	30
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034784.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.55	U	1.5	3.55	7.1	ug/Kg
563-58-6	1,1-Dichloropropene	3.55	U	0.66	3.55	7.1	ug/Kg
71-43-2	Benzene	3.55	U	0.54	3.55	7.1	ug/Kg
107-06-2	1,2-Dichloroethane	3.55	U	0.91	3.55	7.1	ug/Kg
79-01-6	Trichloroethene	3.55	U	1.2	3.55	7.1	ug/Kg
78-87-5	1,2-Dichloropropane	3.55	U	0.37	3.55	7.1	ug/Kg
74-95-3	Dibromomethane	3.55	U	1.1	3.55	7.1	ug/Kg
75-27-4	Bromodichloromethane	3.55	U	0.89	3.55	7.1	ug/Kg
108-10-1	4-Methyl-2-Pentanone	18	U	4.2	18	36	ug/Kg
108-88-3	Toluene	3.55	U	0.91	3.55	7.1	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.55	U	1.1	3.55	7.1	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.55	U	1	3.55	7.1	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.55	U	1.3	3.55	7.1	ug/Kg
142-28-9	1,3-Dichloropropane	3.55	U	1.1	3.55	7.1	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	18	U	16	18	36	ug/Kg
591-78-6	2-Hexanone	18	U	5.6	18	36	ug/Kg
124-48-1	Dibromochloromethane	3.55	U	0.77	3.55	7.1	ug/Kg
106-93-4	1,2-Dibromoethane	3.55	U	0.91	3.55	7.1	ug/Kg
127-18-4	Tetrachloroethene	3.55	U	1.4	3.55	7.1	ug/Kg
108-90-7	Chlorobenzene	3.55	U	0.71	3.55	7.1	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.55	U	0.61	3.55	7.1	ug/Kg
67-72-1	Hexachloroethane	3.55	U	1.1	3.55	7.1	ug/Kg
100-41-4	Ethyl Benzene	3.55	U	0.89	3.55	7.1	ug/Kg
179601-23-1	m/p-Xylenes	7	U	1	7	14	ug/Kg
95-47-6	o-Xylene	3.55	U	0.97	3.55	7.1	ug/Kg
100-42-5	Styrene	3.55	U	0.64	3.55	7.1	ug/Kg
75-25-2	Bromoform	3.55	U	1.1	3.55	7.1	ug/Kg
98-82-8	Isopropylbenzene	3.55	U	0.69	3.55	7.1	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.55	U	0.66	3.55	7.1	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.55	U	0.7	3.55	7.1	ug/Kg
108-86-1	Bromobenzene	3.55	U	0.74	3.55	7.1	ug/Kg
103-65-1	n-propylbenzene	3.55	U	0.51	3.55	7.1	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)	SDG No.:	D3811
Lab Sample ID:	D3811-13	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	30
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034784.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.55	U	1.1	3.55	7.1	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.55	U	0.64	3.55	7.1	ug/Kg
106-43-4	4-Chlorotoluene	3.55	U	0.89	3.55	7.1	ug/Kg
98-06-6	tert-Butylbenzene	3.55	U	0.84	3.55	7.1	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.55	U	0.71	3.55	7.1	ug/Kg
135-98-8	sec-Butylbenzene	3.55	U	0.74	3.55	7.1	ug/Kg
99-87-6	p-Isopropyltoluene	3.55	U	0.41	3.55	7.1	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.55	U	0.53	3.55	7.1	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.55	U	0.59	3.55	7.1	ug/Kg
104-51-8	n-Butylbenzene	3.55	U	0.66	3.55	7.1	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.55	U	0.89	3.55	7.1	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.55	U	1.2	3.55	7.1	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.55	U	1	3.55	7.1	ug/Kg
87-68-3	Hexachlorobutadiene	3.55	U	1.1	3.55	7.1	ug/Kg
91-20-3	Naphthalene	3.55	U	0.64	3.55	7.1	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.55	U	0.71	3.55	7.1	ug/Kg
74-88-4	Methyl Iodide	7.1	U	7.1	7.1	7.1	ug/Kg
107-05-1	Allyl chloride	7.1	U	7.1	7.1	7.1	ug/Kg
126-98-7	Methacrylonitrile	7.1	U	7.1	7.1	7.1	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	7.1	U	7.1	7.1	7.1	ug/Kg
97-63-2	Ethyl methacrylate	7.1	U	7.1	7.1	7.1	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	42.7		56 - 120		85%	SPK: 50
1868-53-7	Dibromofluoromethane	50.6		57 - 135		101%	SPK: 50
2037-26-5	Toluene-d8	48.1		67 - 123		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	39		33 - 141		78%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	175264	4.4				
540-36-3	1,4-Difluorobenzene	318607	5.14				
3114-55-4	Chlorobenzene-d5	283921	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	96800	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)	SDG No.:	D3811
Lab Sample ID:	D3811-13	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	30
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034784.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)RE	SDG No.:	D3811
Lab Sample ID:	D3811-13RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	30
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036751.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.55	U	0.92	3.55	7.1	ug/Kg
74-87-3	Chloromethane	3.55	U	1.2	3.55	7.1	ug/Kg
75-01-4	Vinyl Chloride	3.55	U	1.7	3.55	7.1	ug/Kg
141-78-6	Ethyl Acetate	3.55	U	1.2	3.55	7.1	ug/Kg
108-21-4	Isopropyl Acetate	3.55	U	1.7	3.55	7.1	ug/Kg
628-63-7	N-amyl acetate	3.55	U	1.3	3.55	7.1	ug/Kg
74-83-9	Bromomethane	3.55	U	3.5	3.55	7.1	ug/Kg
75-00-3	Chloroethane	3.55	U	2	3.55	7.1	ug/Kg
75-69-4	Trichlorofluoromethane	3.55	U	1.9	3.55	7.1	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.55	U	1.9	3.55	7.1	ug/Kg
75-65-0	Tert butyl alcohol	18	U	11	18	36	ug/Kg
60-29-7	Diethyl Ether	3.55	U	2.7	3.55	7.1	ug/Kg
75-35-4	1,1-Dichloroethene	3.55	U	2.1	3.55	7.1	ug/Kg
107-02-8	Acrolein	18	U	5.7	18	36	ug/Kg
107-13-1	Acrylonitrile	18	U	7	18	36	ug/Kg
67-64-1	Acetone	44	Q	4.3	18	36	ug/Kg
75-15-0	Carbon Disulfide	3.55	U	1.5	3.55	7.1	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.55	U	1.4	3.55	7.1	ug/Kg
79-20-9	Methyl Acetate	3.55	U	2.1	3.55	7.1	ug/Kg
75-09-2	Methylene Chloride	3.55	U	2	3.55	7.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.55	U	0.98	3.55	7.1	ug/Kg
108-05-4	Vinyl Acetate	18	UQ	4.9	18	36	ug/Kg
75-34-3	1,1-Dichloroethane	3.55	U	1.3	3.55	7.1	ug/Kg
110-82-7	Cyclohexane	3.55	U	1.4	3.55	7.1	ug/Kg
78-93-3	2-Butanone	18	U	4.4	18	36	ug/Kg
56-23-5	Carbon Tetrachloride	3.55	U	1.4	3.55	7.1	ug/Kg
594-20-7	2,2-Dichloropropane	3.55	U	1.5	3.55	7.1	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.55	U	1.3	3.55	7.1	ug/Kg
74-97-5	Bromochloromethane	3.55	U	1.1	3.55	7.1	ug/Kg
67-66-3	Chloroform	3.55	U	1.1	3.55	7.1	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.55	U	1.2	3.55	7.1	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)RE	SDG No.:	D3811
Lab Sample ID:	D3811-13RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	30
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036751.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.55	U	1.5	3.55	7.1	ug/Kg
563-58-6	1,1-Dichloropropene	3.55	U	0.65	3.55	7.1	ug/Kg
71-43-2	Benzene	3.55	U	0.54	3.55	7.1	ug/Kg
107-06-2	1,2-Dichloroethane	3.55	U	0.91	3.55	7.1	ug/Kg
79-01-6	Trichloroethene	3.55	U	1.2	3.55	7.1	ug/Kg
78-87-5	1,2-Dichloropropane	3.55	U	0.37	3.55	7.1	ug/Kg
74-95-3	Dibromomethane	3.55	U	1.1	3.55	7.1	ug/Kg
75-27-4	Bromodichloromethane	3.55	U	0.88	3.55	7.1	ug/Kg
108-10-1	4-Methyl-2-Pentanone	18	U	4.1	18	36	ug/Kg
108-88-3	Toluene	3.55	U	0.91	3.55	7.1	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.55	U	1.1	3.55	7.1	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.55	U	1	3.55	7.1	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.55	U	1.3	3.55	7.1	ug/Kg
142-28-9	1,3-Dichloropropane	3.55	U	1.1	3.55	7.1	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	18	U	16	18	36	ug/Kg
591-78-6	2-Hexanone	18	U	5.6	18	36	ug/Kg
124-48-1	Dibromochloromethane	3.55	U	0.77	3.55	7.1	ug/Kg
106-93-4	1,2-Dibromoethane	3.55	U	0.91	3.55	7.1	ug/Kg
127-18-4	Tetrachloroethene	3.55	U	1.4	3.55	7.1	ug/Kg
108-90-7	Chlorobenzene	3.55	U	0.71	3.55	7.1	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.55	U	0.61	3.55	7.1	ug/Kg
67-72-1	Hexachloroethane	3.55	U	1.1	3.55	7.1	ug/Kg
100-41-4	Ethyl Benzene	3.55	U	0.88	3.55	7.1	ug/Kg
179601-23-1	m/p-Xylenes	7	U	1	7	14	ug/Kg
95-47-6	o-Xylene	3.55	U	0.97	3.55	7.1	ug/Kg
100-42-5	Styrene	3.55	U	0.64	3.55	7.1	ug/Kg
75-25-2	Bromoform	3.55	U	1.1	3.55	7.1	ug/Kg
98-82-8	Isopropylbenzene	3.55	U	0.68	3.55	7.1	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.55	U	0.65	3.55	7.1	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.55	U	0.7	3.55	7.1	ug/Kg
108-86-1	Bromobenzene	3.55	U	0.74	3.55	7.1	ug/Kg
103-65-1	n-propylbenzene	3.55	U	0.51	3.55	7.1	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)RE	SDG No.:	D3811
Lab Sample ID:	D3811-13RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	30
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036751.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.55	U	1.1	3.55	7.1	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.55	U	0.64	3.55	7.1	ug/Kg
106-43-4	4-Chlorotoluene	3.55	U	0.88	3.55	7.1	ug/Kg
98-06-6	tert-Butylbenzene	3.55	U	0.84	3.55	7.1	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.55	U	0.71	3.55	7.1	ug/Kg
135-98-8	sec-Butylbenzene	3.55	U	0.74	3.55	7.1	ug/Kg
99-87-6	p-Isopropyltoluene	3.55	U	0.41	3.55	7.1	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.55	U	0.53	3.55	7.1	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.55	U	0.58	3.55	7.1	ug/Kg
104-51-8	n-Butylbenzene	3.55	U	0.65	3.55	7.1	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.55	U	0.88	3.55	7.1	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.55	U	1.2	3.55	7.1	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.55	U	0.99	3.55	7.1	ug/Kg
87-68-3	Hexachlorobutadiene	3.55	U	1.1	3.55	7.1	ug/Kg
91-20-3	Naphthalene	3.55	UQ	0.64	3.55	7.1	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.55	U	0.71	3.55	7.1	ug/Kg
74-88-4	Methyl Iodide	7.1	U	7.1	7.1	7.1	ug/Kg
107-05-1	Allyl chloride	7.1	U	7.1	7.1	7.1	ug/Kg
126-98-7	Methacrylonitrile	7.1	UQ	7.1	7.1	7.1	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	7.1	U	7.1	7.1	7.1	ug/Kg
97-63-2	Ethyl methacrylate	7.1	U	7.1	7.1	7.1	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	57.4		56 - 120		115%	SPK: 50
1868-53-7	Dibromofluoromethane	49		57 - 135		98%	SPK: 50
2037-26-5	Toluene-d8	51.5		67 - 123		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	61		33 - 141		122%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	358464	4.74				
540-36-3	1,4-Difluorobenzene	636577	5.45				
3114-55-4	Chlorobenzene-d5	656307	9.58				
3855-82-1	1,4-Dichlorobenzene-d4	318833	12.47				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)RE	SDG No.:	D3811
Lab Sample ID:	D3811-13RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	30
Sample Wt/Vol:	5.03      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624      ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036751.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-14	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034785.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.7	U	0.7	2.7	5.4	ug/Kg
74-87-3	Chloromethane	2.7	U	0.92	2.7	5.4	ug/Kg
75-01-4	Vinyl Chloride	2.7	U	1.3	2.7	5.4	ug/Kg
141-78-6	Ethyl Acetate	2.7	U	0.93	2.7	5.4	ug/Kg
108-21-4	Isopropyl Acetate	2.7	U	1.3	2.7	5.4	ug/Kg
628-63-7	N-amyl acetate	2.7	U	1	2.7	5.4	ug/Kg
74-83-9	Bromomethane	2.7	U	2.6	2.7	5.4	ug/Kg
75-00-3	Chloroethane	2.7	U	1.5	2.7	5.4	ug/Kg
75-69-4	Trichlorofluoromethane	2.7	U	1.4	2.7	5.4	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.7	U	1.4	2.7	5.4	ug/Kg
75-65-0	Tert butyl alcohol	13.5	U	8	13.5	27	ug/Kg
60-29-7	Diethyl Ether	2.7	U	2.1	2.7	5.4	ug/Kg
75-35-4	1,1-Dichloroethene	2.7	U	1.6	2.7	5.4	ug/Kg
107-02-8	Acrolein	13.5	U	4.3	13.5	27	ug/Kg
107-13-1	Acrylonitrile	13.5	U	5.3	13.5	27	ug/Kg
67-64-1	Acetone	66		3.2	13.5	27	ug/Kg
75-15-0	Carbon Disulfide	2.7	U	1.1	2.7	5.4	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.7	U	1	2.7	5.4	ug/Kg
79-20-9	Methyl Acetate	2.7	U	1.6	2.7	5.4	ug/Kg
75-09-2	Methylene Chloride	2.7	U	1.5	2.7	5.4	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.7	U	0.74	2.7	5.4	ug/Kg
108-05-4	Vinyl Acetate	13.5	U	3.7	13.5	27	ug/Kg
75-34-3	1,1-Dichloroethane	2.7	U	1	2.7	5.4	ug/Kg
110-82-7	Cyclohexane	2.7	U	1.1	2.7	5.4	ug/Kg
78-93-3	2-Butanone	13.5	U	3.3	13.5	27	ug/Kg
56-23-5	Carbon Tetrachloride	2.7	U	1.1	2.7	5.4	ug/Kg
594-20-7	2,2-Dichloropropane	2.7	U	1.1	2.7	5.4	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.7	U	0.96	2.7	5.4	ug/Kg
74-97-5	Bromochloromethane	2.7	U	0.85	2.7	5.4	ug/Kg
67-66-3	Chloroform	2.7	U	0.79	2.7	5.4	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.7	U	0.95	2.7	5.4	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-14	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034785.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.7	U	1.1	2.7	5.4	ug/Kg
563-58-6	1,1-Dichloropropene	2.7	U	0.49	2.7	5.4	ug/Kg
71-43-2	Benzene	2.7	U	0.41	2.7	5.4	ug/Kg
107-06-2	1,2-Dichloroethane	2.7	U	0.69	2.7	5.4	ug/Kg
79-01-6	Trichloroethene	2.7	U	0.92	2.7	5.4	ug/Kg
78-87-5	1,2-Dichloropropane	2.7	U	0.28	2.7	5.4	ug/Kg
74-95-3	Dibromomethane	2.7	U	0.84	2.7	5.4	ug/Kg
75-27-4	Bromodichloromethane	2.7	U	0.67	2.7	5.4	ug/Kg
108-10-1	4-Methyl-2-Pentanone	13.5	U	3.1	13.5	27	ug/Kg
108-88-3	Toluene	2.6	J	0.69	2.7	5.4	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.7	U	0.85	2.7	5.4	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.7	U	0.77	2.7	5.4	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.7	U	0.97	2.7	5.4	ug/Kg
142-28-9	1,3-Dichloropropane	2.7	U	0.79	2.7	5.4	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	13.5	U	12	13.5	27	ug/Kg
591-78-6	2-Hexanone	13.5	U	4.2	13.5	27	ug/Kg
124-48-1	Dibromochloromethane	2.7	U	0.58	2.7	5.4	ug/Kg
106-93-4	1,2-Dibromoethane	2.7	U	0.69	2.7	5.4	ug/Kg
127-18-4	Tetrachloroethene	2.7	U	1.1	2.7	5.4	ug/Kg
108-90-7	Chlorobenzene	2.7	U	0.54	2.7	5.4	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	2.7	U	0.46	2.7	5.4	ug/Kg
67-72-1	Hexachloroethane	2.7	U	0.82	2.7	5.4	ug/Kg
100-41-4	Ethyl Benzene	2.7	U	0.67	2.7	5.4	ug/Kg
179601-23-1	m/p-Xylenes	5.5	U	0.77	5.5	11	ug/Kg
95-47-6	o-Xylene	2.7	U	0.73	2.7	5.4	ug/Kg
100-42-5	Styrene	2.7	U	0.48	2.7	5.4	ug/Kg
75-25-2	Bromoform	2.7	U	0.79	2.7	5.4	ug/Kg
98-82-8	Isopropylbenzene	2.7	U	0.52	2.7	5.4	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.7	U	0.49	2.7	5.4	ug/Kg
96-18-4	1,2,3-Trichloropropane	2.7	U	0.53	2.7	5.4	ug/Kg
108-86-1	Bromobenzene	2.7	U	0.56	2.7	5.4	ug/Kg
103-65-1	n-propylbenzene	2.7	U	0.39	2.7	5.4	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-14	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034785.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	2.7	U	0.79	2.7	5.4	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	2.7	U	0.48	2.7	5.4	ug/Kg
106-43-4	4-Chlorotoluene	2.7	U	0.67	2.7	5.4	ug/Kg
98-06-6	tert-Butylbenzene	2.7	U	0.63	2.7	5.4	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.7	U	0.54	2.7	5.4	ug/Kg
135-98-8	sec-Butylbenzene	2.7	U	0.56	2.7	5.4	ug/Kg
99-87-6	p-Isopropyltoluene	2.7	U	0.31	2.7	5.4	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.7	U	0.4	2.7	5.4	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.7	U	0.44	2.7	5.4	ug/Kg
104-51-8	n-Butylbenzene	2.7	U	0.49	2.7	5.4	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.7	U	0.67	2.7	5.4	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.7	U	0.93	2.7	5.4	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.7	U	0.75	2.7	5.4	ug/Kg
87-68-3	Hexachlorobutadiene	2.7	U	0.85	2.7	5.4	ug/Kg
91-20-3	Naphthalene	2.7	U	0.48	2.7	5.4	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.7	U	0.54	2.7	5.4	ug/Kg
74-88-4	Methyl Iodide	5.4	U	5.4	5.4	5.4	ug/Kg
107-05-1	Allyl chloride	5.4	U	5.4	5.4	5.4	ug/Kg
126-98-7	Methacrylonitrile	5.4	U	5.4	5.4	5.4	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	5.4	U	5.4	5.4	5.4	ug/Kg
97-63-2	Ethyl methacrylate	5.4	U	5.4	5.4	5.4	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	61.5	*	56 - 120		123%	SPK: 50
1868-53-7	Dibromofluoromethane	55.1		57 - 135		110%	SPK: 50
2037-26-5	Toluene-d8	55.8		67 - 123		112%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.9		33 - 141		86%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	47977	4.4				
540-36-3	1,4-Difluorobenzene	94838	5.14				
3114-55-4	Chlorobenzene-d5	100429	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	29408	12.25				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-14	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034785.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000110-54-3	Hexane	11	J			2.12	ug/Kg
	unknown3.12	5.5	J			3.12	ug/Kg
001708-29-8	Furan, 2,5-dihydro-	7.3	J			3.33	ug/Kg
000589-43-5	Hexane, 2,4-dimethyl-	6.4	J			6.4	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-14RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036752.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.7	U	0.7	2.7	5.4	ug/Kg
74-87-3	Chloromethane	2.7	U	0.92	2.7	5.4	ug/Kg
75-01-4	Vinyl Chloride	2.7	U	1.3	2.7	5.4	ug/Kg
141-78-6	Ethyl Acetate	2.7	U	0.93	2.7	5.4	ug/Kg
108-21-4	Isopropyl Acetate	2.7	U	1.3	2.7	5.4	ug/Kg
628-63-7	N-amyl acetate	2.7	U	1	2.7	5.4	ug/Kg
74-83-9	Bromomethane	2.7	U	2.6	2.7	5.4	ug/Kg
75-00-3	Chloroethane	2.7	U	1.5	2.7	5.4	ug/Kg
75-69-4	Trichlorofluoromethane	2.7	U	1.4	2.7	5.4	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.7	U	1.4	2.7	5.4	ug/Kg
75-65-0	Tert butyl alcohol	13.5	U	8	13.5	27	ug/Kg
60-29-7	Diethyl Ether	2.7	U	2.1	2.7	5.4	ug/Kg
75-35-4	1,1-Dichloroethene	2.7	U	1.6	2.7	5.4	ug/Kg
107-02-8	Acrolein	13.5	U	4.3	13.5	27	ug/Kg
107-13-1	Acrylonitrile	13.5	U	5.3	13.5	27	ug/Kg
67-64-1	Acetone	35	Q	3.2	13.5	27	ug/Kg
75-15-0	Carbon Disulfide	2.7	U	1.1	2.7	5.4	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.7	U	1	2.7	5.4	ug/Kg
79-20-9	Methyl Acetate	2.7	U	1.6	2.7	5.4	ug/Kg
75-09-2	Methylene Chloride	2.7	U	1.5	2.7	5.4	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.7	U	0.74	2.7	5.4	ug/Kg
108-05-4	Vinyl Acetate	13.5	UQ	3.7	13.5	27	ug/Kg
75-34-3	1,1-Dichloroethane	2.7	U	1	2.7	5.4	ug/Kg
110-82-7	Cyclohexane	2.7	U	1.1	2.7	5.4	ug/Kg
78-93-3	2-Butanone	13.5	U	3.3	13.5	27	ug/Kg
56-23-5	Carbon Tetrachloride	2.7	U	1.1	2.7	5.4	ug/Kg
594-20-7	2,2-Dichloropropane	2.7	U	1.1	2.7	5.4	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.7	U	0.96	2.7	5.4	ug/Kg
74-97-5	Bromochloromethane	2.7	U	0.85	2.7	5.4	ug/Kg
67-66-3	Chloroform	2.7	U	0.79	2.7	5.4	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.7	U	0.95	2.7	5.4	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-14RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036752.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.7	U	1.1	2.7	5.4	ug/Kg
563-58-6	1,1-Dichloropropene	2.7	U	0.49	2.7	5.4	ug/Kg
71-43-2	Benzene	2.7	U	0.41	2.7	5.4	ug/Kg
107-06-2	1,2-Dichloroethane	2.7	U	0.69	2.7	5.4	ug/Kg
79-01-6	Trichloroethene	2.7	U	0.92	2.7	5.4	ug/Kg
78-87-5	1,2-Dichloropropane	2.7	U	0.28	2.7	5.4	ug/Kg
74-95-3	Dibromomethane	2.7	U	0.84	2.7	5.4	ug/Kg
75-27-4	Bromodichloromethane	2.7	U	0.67	2.7	5.4	ug/Kg
108-10-1	4-Methyl-2-Pentanone	13.5	U	3.1	13.5	27	ug/Kg
108-88-3	Toluene	2.7	U	0.69	2.7	5.4	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.7	U	0.85	2.7	5.4	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.7	U	0.77	2.7	5.4	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.7	U	0.97	2.7	5.4	ug/Kg
142-28-9	1,3-Dichloropropane	2.7	U	0.79	2.7	5.4	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	13.5	U	12	13.5	27	ug/Kg
591-78-6	2-Hexanone	13.5	U	4.2	13.5	27	ug/Kg
124-48-1	Dibromochloromethane	2.7	U	0.58	2.7	5.4	ug/Kg
106-93-4	1,2-Dibromoethane	2.7	U	0.69	2.7	5.4	ug/Kg
127-18-4	Tetrachloroethene	2.7	U	1.1	2.7	5.4	ug/Kg
108-90-7	Chlorobenzene	2.7	U	0.54	2.7	5.4	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	2.7	U	0.46	2.7	5.4	ug/Kg
67-72-1	Hexachloroethane	2.7	U	0.82	2.7	5.4	ug/Kg
100-41-4	Ethyl Benzene	2.7	U	0.67	2.7	5.4	ug/Kg
179601-23-1	m/p-Xylenes	5.5	U	0.77	5.5	11	ug/Kg
95-47-6	o-Xylene	2.7	U	0.73	2.7	5.4	ug/Kg
100-42-5	Styrene	2.7	U	0.48	2.7	5.4	ug/Kg
75-25-2	Bromoform	2.7	U	0.79	2.7	5.4	ug/Kg
98-82-8	Isopropylbenzene	2.7	U	0.52	2.7	5.4	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.7	U	0.49	2.7	5.4	ug/Kg
96-18-4	1,2,3-Trichloropropane	2.7	U	0.53	2.7	5.4	ug/Kg
108-86-1	Bromobenzene	2.7	U	0.56	2.7	5.4	ug/Kg
103-65-1	n-propylbenzene	2.7	U	0.39	2.7	5.4	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-14RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036752.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	2.7	U	0.79	2.7	5.4	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	2.7	U	0.48	2.7	5.4	ug/Kg
106-43-4	4-Chlorotoluene	2.7	U	0.67	2.7	5.4	ug/Kg
98-06-6	tert-Butylbenzene	2.7	U	0.63	2.7	5.4	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.7	U	0.54	2.7	5.4	ug/Kg
135-98-8	sec-Butylbenzene	2.7	U	0.56	2.7	5.4	ug/Kg
99-87-6	p-Isopropyltoluene	2.7	U	0.31	2.7	5.4	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.7	U	0.4	2.7	5.4	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.7	U	0.44	2.7	5.4	ug/Kg
104-51-8	n-Butylbenzene	2.7	U	0.49	2.7	5.4	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.7	U	0.67	2.7	5.4	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.7	U	0.93	2.7	5.4	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.7	U	0.75	2.7	5.4	ug/Kg
87-68-3	Hexachlorobutadiene	2.7	U	0.85	2.7	5.4	ug/Kg
91-20-3	Naphthalene	2.7	UQ	0.48	2.7	5.4	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.7	U	0.54	2.7	5.4	ug/Kg
74-88-4	Methyl Iodide	5.4	U	5.4	5.4	5.4	ug/Kg
107-05-1	Allyl chloride	5.4	U	5.4	5.4	5.4	ug/Kg
126-98-7	Methacrylonitrile	5.4	UQ	5.4	5.4	5.4	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	5.4	U	5.4	5.4	5.4	ug/Kg
97-63-2	Ethyl methacrylate	5.4	U	5.4	5.4	5.4	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	56.6		56 - 120		113%	SPK: 50
1868-53-7	Dibromofluoromethane	49		57 - 135		98%	SPK: 50
2037-26-5	Toluene-d8	50.7		67 - 123		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	58.4		33 - 141		117%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	350159	4.73				
540-36-3	1,4-Difluorobenzene	629857	5.44				
3114-55-4	Chlorobenzene-d5	645094	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	283298	12.47				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-14RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.06      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624      ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036752.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)	SDG No.:	D3811
Lab Sample ID:	D3811-15	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034798.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.1	U	0.8	3.1	6.2	ug/Kg
74-87-3	Chloromethane	3.1	U	1.1	3.1	6.2	ug/Kg
75-01-4	Vinyl Chloride	3.1	U	1.5	3.1	6.2	ug/Kg
141-78-6	Ethyl Acetate	3.1	U	1.1	3.1	6.2	ug/Kg
108-21-4	Isopropyl Acetate	3.1	U	1.5	3.1	6.2	ug/Kg
628-63-7	N-amyl acetate	3.1	U	1.2	3.1	6.2	ug/Kg
74-83-9	Bromomethane	3.1	U	3	3.1	6.2	ug/Kg
75-00-3	Chloroethane	3.1	U	1.7	3.1	6.2	ug/Kg
75-69-4	Trichlorofluoromethane	3.1	U	1.6	3.1	6.2	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.1	U	1.6	3.1	6.2	ug/Kg
75-65-0	Tert butyl alcohol	15.5	U	9.1	15.5	31	ug/Kg
60-29-7	Diethyl Ether	3.1	U	2.4	3.1	6.2	ug/Kg
75-35-4	1,1-Dichloroethene	3.1	U	1.8	3.1	6.2	ug/Kg
107-02-8	Acrolein	15.5	U	4.9	15.5	31	ug/Kg
107-13-1	Acrylonitrile	15.5	U	6.1	15.5	31	ug/Kg
67-64-1	Acetone	30	J	3.7	15.5	31	ug/Kg
75-15-0	Carbon Disulfide	3.1	U	1.3	3.1	6.2	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.1	U	1.2	3.1	6.2	ug/Kg
79-20-9	Methyl Acetate	3.1	U	1.9	3.1	6.2	ug/Kg
75-09-2	Methylene Chloride	3.1	U	1.8	3.1	6.2	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.1	U	0.85	3.1	6.2	ug/Kg
108-05-4	Vinyl Acetate	15.5	U	4.3	15.5	31	ug/Kg
75-34-3	1,1-Dichloroethane	3.1	U	1.2	3.1	6.2	ug/Kg
110-82-7	Cyclohexane	3.1	U	1.2	3.1	6.2	ug/Kg
78-93-3	2-Butanone	15.5	U	3.8	15.5	31	ug/Kg
56-23-5	Carbon Tetrachloride	3.1	U	1.2	3.1	6.2	ug/Kg
594-20-7	2,2-Dichloropropane	3.1	U	1.3	3.1	6.2	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.1	U	1.1	3.1	6.2	ug/Kg
74-97-5	Bromochloromethane	3.1	U	0.98	3.1	6.2	ug/Kg
67-66-3	Chloroform	3.1	U	0.91	3.1	6.2	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.1	U	1.1	3.1	6.2	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)	SDG No.:	D3811
Lab Sample ID:	D3811-15	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034798.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.1	U	1.3	3.1	6.2	ug/Kg
563-58-6	1,1-Dichloropropene	3.1	U	0.57	3.1	6.2	ug/Kg
71-43-2	Benzene	3.1	U	0.47	3.1	6.2	ug/Kg
107-06-2	1,2-Dichloroethane	3.1	U	0.79	3.1	6.2	ug/Kg
79-01-6	Trichloroethene	3.1	U	1.1	3.1	6.2	ug/Kg
78-87-5	1,2-Dichloropropane	3.1	U	0.32	3.1	6.2	ug/Kg
74-95-3	Dibromomethane	3.1	U	0.96	3.1	6.2	ug/Kg
75-27-4	Bromodichloromethane	3.1	U	0.77	3.1	6.2	ug/Kg
108-10-1	4-Methyl-2-Pentanone	15.5	U	3.6	15.5	31	ug/Kg
108-88-3	Toluene	3.1	U	0.79	3.1	6.2	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.1	U	0.98	3.1	6.2	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.1	U	0.89	3.1	6.2	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.1	U	1.1	3.1	6.2	ug/Kg
142-28-9	1,3-Dichloropropane	3.1	U	0.91	3.1	6.2	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	15.5	U	14	15.5	31	ug/Kg
591-78-6	2-Hexanone	15.5	U	4.8	15.5	31	ug/Kg
124-48-1	Dibromochloromethane	3.1	U	0.67	3.1	6.2	ug/Kg
106-93-4	1,2-Dibromoethane	3.1	U	0.79	3.1	6.2	ug/Kg
127-18-4	Tetrachloroethene	3.1	U	1.2	3.1	6.2	ug/Kg
108-90-7	Chlorobenzene	3.1	U	0.62	3.1	6.2	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.1	U	0.53	3.1	6.2	ug/Kg
67-72-1	Hexachloroethane	3.1	U	0.94	3.1	6.2	ug/Kg
100-41-4	Ethyl Benzene	3.1	U	0.77	3.1	6.2	ug/Kg
179601-23-1	m/p-Xylenes	6	U	0.89	6	12	ug/Kg
95-47-6	o-Xylene	3.1	U	0.84	3.1	6.2	ug/Kg
100-42-5	Styrene	3.1	U	0.56	3.1	6.2	ug/Kg
75-25-2	Bromoform	3.1	U	0.91	3.1	6.2	ug/Kg
98-82-8	Isopropylbenzene	3.1	U	0.59	3.1	6.2	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.1	U	0.57	3.1	6.2	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.1	U	0.6	3.1	6.2	ug/Kg
108-86-1	Bromobenzene	3.1	U	0.64	3.1	6.2	ug/Kg
103-65-1	n-propylbenzene	3.1	U	0.44	3.1	6.2	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)	SDG No.:	D3811
Lab Sample ID:	D3811-15	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034798.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.1	U	0.91	3.1	6.2	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.1	U	0.56	3.1	6.2	ug/Kg
106-43-4	4-Chlorotoluene	3.1	U	0.77	3.1	6.2	ug/Kg
98-06-6	tert-Butylbenzene	3.1	U	0.73	3.1	6.2	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.1	U	0.62	3.1	6.2	ug/Kg
135-98-8	sec-Butylbenzene	3.1	U	0.64	3.1	6.2	ug/Kg
99-87-6	p-Isopropyltoluene	3.1	U	0.36	3.1	6.2	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.1	U	0.46	3.1	6.2	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.1	U	0.51	3.1	6.2	ug/Kg
104-51-8	n-Butylbenzene	3.1	U	0.57	3.1	6.2	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.1	U	0.77	3.1	6.2	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.1	U	1.1	3.1	6.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.1	U	0.86	3.1	6.2	ug/Kg
87-68-3	Hexachlorobutadiene	3.1	U	0.98	3.1	6.2	ug/Kg
91-20-3	Naphthalene	3.1	U	0.56	3.1	6.2	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.1	U	0.62	3.1	6.2	ug/Kg
74-88-4	Methyl Iodide	6.2	U	6.2	6.2	6.2	ug/Kg
107-05-1	Allyl chloride	6.2	U	6.2	6.2	6.2	ug/Kg
126-98-7	Methacrylonitrile	6.2	U	6.2	6.2	6.2	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6.2	U	6.2	6.2	6.2	ug/Kg
97-63-2	Ethyl methacrylate	6.2	U	6.2	6.2	6.2	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	49.6		56 - 120		99%	SPK: 50
1868-53-7	Dibromofluoromethane	60.1		57 - 135		120%	SPK: 50
2037-26-5	Toluene-d8	45.8		67 - 123		92%	SPK: 50
460-00-4	4-Bromofluorobenzene	22.2		33 - 141		44%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	133153	4.39				
540-36-3	1,4-Difluorobenzene	235559	5.14				
3114-55-4	Chlorobenzene-d5	159919	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	33978	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)	SDG No.:	D3811
Lab Sample ID:	D3811-15	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034798.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)RE	SDG No.:	D3811
Lab Sample ID:	D3811-15RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036758.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.1	U	0.8	3.1	6.2	ug/Kg
74-87-3	Chloromethane	3.1	U	1.1	3.1	6.2	ug/Kg
75-01-4	Vinyl Chloride	3.1	U	1.5	3.1	6.2	ug/Kg
141-78-6	Ethyl Acetate	3.1	U	1.1	3.1	6.2	ug/Kg
108-21-4	Isopropyl Acetate	3.1	UQ	1.5	3.1	6.2	ug/Kg
628-63-7	N-amyl acetate	3.1	U	1.2	3.1	6.2	ug/Kg
74-83-9	Bromomethane	3.1	U	3	3.1	6.2	ug/Kg
75-00-3	Chloroethane	3.1	U	1.7	3.1	6.2	ug/Kg
75-69-4	Trichlorofluoromethane	3.1	U	1.6	3.1	6.2	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.1	U	1.6	3.1	6.2	ug/Kg
75-65-0	Tert butyl alcohol	15.5	U	9.1	15.5	31	ug/Kg
60-29-7	Diethyl Ether	3.1	U	2.4	3.1	6.2	ug/Kg
75-35-4	1,1-Dichloroethene	3.1	U	1.8	3.1	6.2	ug/Kg
107-02-8	Acrolein	15.5	U	4.9	15.5	31	ug/Kg
107-13-1	Acrylonitrile	15.5	U	6	15.5	31	ug/Kg
67-64-1	Acetone	74	Q	3.7	15.5	31	ug/Kg
75-15-0	Carbon Disulfide	3.1	U	1.3	3.1	6.2	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.1	U	1.2	3.1	6.2	ug/Kg
79-20-9	Methyl Acetate	3.1	U	1.9	3.1	6.2	ug/Kg
75-09-2	Methylene Chloride	3.1	U	1.7	3.1	6.2	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.1	U	0.85	3.1	6.2	ug/Kg
108-05-4	Vinyl Acetate	15.5	UQ	4.3	15.5	31	ug/Kg
75-34-3	1,1-Dichloroethane	3.1	U	1.2	3.1	6.2	ug/Kg
110-82-7	Cyclohexane	3.1	U	1.2	3.1	6.2	ug/Kg
78-93-3	2-Butanone	15.5	UQ	3.8	15.5	31	ug/Kg
56-23-5	Carbon Tetrachloride	3.1	UQ	1.2	3.1	6.2	ug/Kg
594-20-7	2,2-Dichloropropane	3.1	U	1.3	3.1	6.2	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.1	U	1.1	3.1	6.2	ug/Kg
74-97-5	Bromochloromethane	3.1	U	0.97	3.1	6.2	ug/Kg
67-66-3	Chloroform	3.1	U	0.91	3.1	6.2	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.1	U	1.1	3.1	6.2	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)RE	SDG No.:	D3811
Lab Sample ID:	D3811-15RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036758.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.1	U	1.3	3.1	6.2	ug/Kg
563-58-6	1,1-Dichloropropene	3.1	U	0.57	3.1	6.2	ug/Kg
71-43-2	Benzene	3.1	U	0.47	3.1	6.2	ug/Kg
107-06-2	1,2-Dichloroethane	3.1	U	0.79	3.1	6.2	ug/Kg
79-01-6	Trichloroethene	3.1	U	1.1	3.1	6.2	ug/Kg
78-87-5	1,2-Dichloropropane	3.1	U	0.32	3.1	6.2	ug/Kg
74-95-3	Dibromomethane	3.1	U	0.96	3.1	6.2	ug/Kg
75-27-4	Bromodichloromethane	3.1	U	0.76	3.1	6.2	ug/Kg
108-10-1	4-Methyl-2-Pentanone	15.5	U	3.6	15.5	31	ug/Kg
108-88-3	Toluene	3.1	U	0.79	3.1	6.2	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.1	U	0.97	3.1	6.2	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.1	U	0.89	3.1	6.2	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.1	U	1.1	3.1	6.2	ug/Kg
142-28-9	1,3-Dichloropropane	3.1	U	0.91	3.1	6.2	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	15.5	U	14	15.5	31	ug/Kg
591-78-6	2-Hexanone	15.5	U	4.8	15.5	31	ug/Kg
124-48-1	Dibromochloromethane	3.1	U	0.67	3.1	6.2	ug/Kg
106-93-4	1,2-Dibromoethane	3.1	U	0.79	3.1	6.2	ug/Kg
127-18-4	Tetrachloroethene	3.1	U	1.2	3.1	6.2	ug/Kg
108-90-7	Chlorobenzene	3.1	U	0.62	3.1	6.2	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.1	U	0.53	3.1	6.2	ug/Kg
67-72-1	Hexachloroethane	3.1	U	0.94	3.1	6.2	ug/Kg
100-41-4	Ethyl Benzene	3.1	U	0.76	3.1	6.2	ug/Kg
179601-23-1	m/p-Xylenes	6	U	0.89	6	12	ug/Kg
95-47-6	o-Xylene	3.1	U	0.84	3.1	6.2	ug/Kg
100-42-5	Styrene	3.1	U	0.55	3.1	6.2	ug/Kg
75-25-2	Bromoform	3.1	U	0.91	3.1	6.2	ug/Kg
98-82-8	Isopropylbenzene	3.1	U	0.59	3.1	6.2	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.1	U	0.57	3.1	6.2	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.1	U	0.6	3.1	6.2	ug/Kg
108-86-1	Bromobenzene	3.1	U	0.64	3.1	6.2	ug/Kg
103-65-1	n-propylbenzene	3.1	U	0.44	3.1	6.2	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)RE	SDG No.:	D3811
Lab Sample ID:	D3811-15RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036758.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.1	U	0.91	3.1	6.2	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.1	U	0.55	3.1	6.2	ug/Kg
106-43-4	4-Chlorotoluene	3.1	U	0.76	3.1	6.2	ug/Kg
98-06-6	tert-Butylbenzene	3.1	U	0.73	3.1	6.2	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.1	U	0.62	3.1	6.2	ug/Kg
135-98-8	sec-Butylbenzene	3.1	U	0.64	3.1	6.2	ug/Kg
99-87-6	p-Isopropyltoluene	3.1	U	0.36	3.1	6.2	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.1	U	0.46	3.1	6.2	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.1	U	0.51	3.1	6.2	ug/Kg
104-51-8	n-Butylbenzene	3.1	U	0.57	3.1	6.2	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.1	U	0.76	3.1	6.2	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.1	U	1.1	3.1	6.2	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.1	U	0.86	3.1	6.2	ug/Kg
87-68-3	Hexachlorobutadiene	3.1	U	0.97	3.1	6.2	ug/Kg
91-20-3	Naphthalene	3.1	UQ	0.55	3.1	6.2	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.1	U	0.62	3.1	6.2	ug/Kg
74-88-4	Methyl Iodide	6.2	U	6.2	6.2	6.2	ug/Kg
107-05-1	Allyl chloride	6.2	U	6.2	6.2	6.2	ug/Kg
126-98-7	Methacrylonitrile	6.2	UQ	6.2	6.2	6.2	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6.2	U	6.2	6.2	6.2	ug/Kg
97-63-2	Ethyl methacrylate	6.2	U	6.2	6.2	6.2	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	59.9		56 - 120		120%	SPK: 50
1868-53-7	Dibromofluoromethane	47.2		57 - 135		95%	SPK: 50
2037-26-5	Toluene-d8	50.2		67 - 123		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.7		33 - 141		105%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	249008	4.73				
540-36-3	1,4-Difluorobenzene	452503	5.45				
3114-55-4	Chlorobenzene-d5	426686	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	173799	12.48				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)RE	SDG No.:	D3811
Lab Sample ID:	D3811-15RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	19
Sample Wt/Vol:	5.01      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624      ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036758.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-17	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034799.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.7	U	0.7	2.7	5.4	ug/Kg
74-87-3	Chloromethane	2.7	U	0.93	2.7	5.4	ug/Kg
75-01-4	Vinyl Chloride	2.7	U	1.3	2.7	5.4	ug/Kg
141-78-6	Ethyl Acetate	2.7	U	0.94	2.7	5.4	ug/Kg
108-21-4	Isopropyl Acetate	2.7	U	1.3	2.7	5.4	ug/Kg
628-63-7	N-amyl acetate	2.7	U	1	2.7	5.4	ug/Kg
74-83-9	Bromomethane	2.7	U	2.6	2.7	5.4	ug/Kg
75-00-3	Chloroethane	2.7	U	1.5	2.7	5.4	ug/Kg
75-69-4	Trichlorofluoromethane	2.7	U	1.4	2.7	5.4	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.7	U	1.4	2.7	5.4	ug/Kg
75-65-0	Tert butyl alcohol	13.5	U	8	13.5	27	ug/Kg
60-29-7	Diethyl Ether	2.7	U	2.1	2.7	5.4	ug/Kg
75-35-4	1,1-Dichloroethene	2.7	U	1.6	2.7	5.4	ug/Kg
107-02-8	Acrolein	13.5	U	4.3	13.5	27	ug/Kg
107-13-1	Acrylonitrile	13.5	U	5.3	13.5	27	ug/Kg
67-64-1	Acetone	37		3.3	13.5	27	ug/Kg
75-15-0	Carbon Disulfide	2.7	U	1.1	2.7	5.4	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.7	U	1	2.7	5.4	ug/Kg
79-20-9	Methyl Acetate	2.7	U	1.6	2.7	5.4	ug/Kg
75-09-2	Methylene Chloride	2.7	U	1.5	2.7	5.4	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.7	U	0.75	2.7	5.4	ug/Kg
108-05-4	Vinyl Acetate	13.5	U	3.7	13.5	27	ug/Kg
75-34-3	1,1-Dichloroethane	2.7	U	1	2.7	5.4	ug/Kg
110-82-7	Cyclohexane	2.7	U	1.1	2.7	5.4	ug/Kg
78-93-3	2-Butanone	13.5	U	3.4	13.5	27	ug/Kg
56-23-5	Carbon Tetrachloride	2.7	U	1.1	2.7	5.4	ug/Kg
594-20-7	2,2-Dichloropropane	2.7	U	1.1	2.7	5.4	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.7	U	0.96	2.7	5.4	ug/Kg
74-97-5	Bromochloromethane	2.7	U	0.85	2.7	5.4	ug/Kg
67-66-3	Chloroform	2.7	U	0.8	2.7	5.4	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.7	U	0.95	2.7	5.4	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-17	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034799.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.7	U	1.1	2.7	5.4	ug/Kg
563-58-6	1,1-Dichloropropene	2.7	U	0.5	2.7	5.4	ug/Kg
71-43-2	Benzene	2.7	U	0.41	2.7	5.4	ug/Kg
107-06-2	1,2-Dichloroethane	2.7	U	0.69	2.7	5.4	ug/Kg
79-01-6	Trichloroethene	2.7	U	0.93	2.7	5.4	ug/Kg
78-87-5	1,2-Dichloropropane	2.7	U	0.28	2.7	5.4	ug/Kg
74-95-3	Dibromomethane	2.7	U	0.84	2.7	5.4	ug/Kg
75-27-4	Bromodichloromethane	2.7	U	0.67	2.7	5.4	ug/Kg
108-10-1	4-Methyl-2-Pentanone	13.5	U	3.2	13.5	27	ug/Kg
108-88-3	Toluene	1.9	J	0.69	2.7	5.4	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.7	U	0.85	2.7	5.4	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.7	U	0.78	2.7	5.4	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.7	U	0.97	2.7	5.4	ug/Kg
142-28-9	1,3-Dichloropropane	2.7	U	0.8	2.7	5.4	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	13.5	U	12	13.5	27	ug/Kg
591-78-6	2-Hexanone	13.5	U	4.2	13.5	27	ug/Kg
124-48-1	Dibromochloromethane	2.7	U	0.58	2.7	5.4	ug/Kg
106-93-4	1,2-Dibromoethane	2.7	U	0.69	2.7	5.4	ug/Kg
127-18-4	Tetrachloroethene	2.7	U	1.1	2.7	5.4	ug/Kg
108-90-7	Chlorobenzene	2.7	U	0.54	2.7	5.4	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	2.7	U	0.46	2.7	5.4	ug/Kg
67-72-1	Hexachloroethane	2.7	U	0.82	2.7	5.4	ug/Kg
100-41-4	Ethyl Benzene	2.7	U	0.67	2.7	5.4	ug/Kg
179601-23-1	m/p-Xylenes	5.5	U	0.78	5.5	11	ug/Kg
95-47-6	o-Xylene	2.7	U	0.73	2.7	5.4	ug/Kg
100-42-5	Styrene	2.7	U	0.49	2.7	5.4	ug/Kg
75-25-2	Bromoform	2.7	U	0.8	2.7	5.4	ug/Kg
98-82-8	Isopropylbenzene	2.7	U	0.52	2.7	5.4	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.7	U	0.5	2.7	5.4	ug/Kg
96-18-4	1,2,3-Trichloropropane	2.7	U	0.53	2.7	5.4	ug/Kg
108-86-1	Bromobenzene	2.7	U	0.56	2.7	5.4	ug/Kg
103-65-1	n-propylbenzene	2.7	U	0.39	2.7	5.4	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-17	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034799.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	2.7	U	0.8	2.7	5.4	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	2.7	U	0.49	2.7	5.4	ug/Kg
106-43-4	4-Chlorotoluene	2.7	U	0.67	2.7	5.4	ug/Kg
98-06-6	tert-Butylbenzene	2.7	U	0.64	2.7	5.4	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.7	U	0.54	2.7	5.4	ug/Kg
135-98-8	sec-Butylbenzene	2.7	U	0.56	2.7	5.4	ug/Kg
99-87-6	p-Isopropyltoluene	2.7	U	0.31	2.7	5.4	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.7	U	0.4	2.7	5.4	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.7	U	0.44	2.7	5.4	ug/Kg
104-51-8	n-Butylbenzene	2.7	U	0.5	2.7	5.4	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.7	U	0.67	2.7	5.4	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.7	U	0.94	2.7	5.4	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.7	U	0.76	2.7	5.4	ug/Kg
87-68-3	Hexachlorobutadiene	2.7	U	0.85	2.7	5.4	ug/Kg
91-20-3	Naphthalene	2.7	U	0.49	2.7	5.4	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.7	U	0.54	2.7	5.4	ug/Kg
74-88-4	Methyl Iodide	5.4	U	5.4	5.4	5.4	ug/Kg
107-05-1	Allyl chloride	5.4	U	5.4	5.4	5.4	ug/Kg
126-98-7	Methacrylonitrile	5.4	U	5.4	5.4	5.4	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	5.4	U	5.4	5.4	5.4	ug/Kg
97-63-2	Ethyl methacrylate	5.4	U	5.4	5.4	5.4	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	49.7		56 - 120		99%	SPK: 50
1868-53-7	Dibromofluoromethane	55.5		57 - 135		111%	SPK: 50
2037-26-5	Toluene-d8	48.5		67 - 123		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	25.2		33 - 141		50%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	153180	4.4				
540-36-3	1,4-Difluorobenzene	277515	5.14				
3114-55-4	Chlorobenzene-d5	212608	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	48505	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-17	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.03      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS      ID :    0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034799.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-17RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036759.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.7	U	0.71	2.7	5.4	ug/Kg
74-87-3	Chloromethane	2.7	U	0.93	2.7	5.4	ug/Kg
75-01-4	Vinyl Chloride	2.7	U	1.3	2.7	5.4	ug/Kg
141-78-6	Ethyl Acetate	2.7	U	0.94	2.7	5.4	ug/Kg
108-21-4	Isopropyl Acetate	2.7	UQ	1.3	2.7	5.4	ug/Kg
628-63-7	N-amyl acetate	2.7	U	1	2.7	5.4	ug/Kg
74-83-9	Bromomethane	2.7	U	2.7	2.7	5.4	ug/Kg
75-00-3	Chloroethane	2.7	U	1.5	2.7	5.4	ug/Kg
75-69-4	Trichlorofluoromethane	2.7	U	1.4	2.7	5.4	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.7	U	1.4	2.7	5.4	ug/Kg
75-65-0	Tert butyl alcohol	13.5	U	8	13.5	27	ug/Kg
60-29-7	Diethyl Ether	2.7	U	2.1	2.7	5.4	ug/Kg
75-35-4	1,1-Dichloroethene	2.7	U	1.6	2.7	5.4	ug/Kg
107-02-8	Acrolein	13.5	U	4.3	13.5	27	ug/Kg
107-13-1	Acrylonitrile	13.5	U	5.3	13.5	27	ug/Kg
67-64-1	Acetone	45	Q	3.3	13.5	27	ug/Kg
75-15-0	Carbon Disulfide	2.7	U	1.1	2.7	5.4	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.7	U	1	2.7	5.4	ug/Kg
79-20-9	Methyl Acetate	2.7	U	1.6	2.7	5.4	ug/Kg
75-09-2	Methylene Chloride	2.7	U	1.5	2.7	5.4	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.7	U	0.75	2.7	5.4	ug/Kg
108-05-4	Vinyl Acetate	13.5	UQ	3.8	13.5	27	ug/Kg
75-34-3	1,1-Dichloroethane	2.7	U	1	2.7	5.4	ug/Kg
110-82-7	Cyclohexane	2.7	U	1.1	2.7	5.4	ug/Kg
78-93-3	2-Butanone	13.5	UQ	3.4	13.5	27	ug/Kg
56-23-5	Carbon Tetrachloride	2.7	UQ	1.1	2.7	5.4	ug/Kg
594-20-7	2,2-Dichloropropane	2.7	U	1.1	2.7	5.4	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.7	U	0.97	2.7	5.4	ug/Kg
74-97-5	Bromochloromethane	2.7	U	0.86	2.7	5.4	ug/Kg
67-66-3	Chloroform	2.7	U	0.8	2.7	5.4	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.7	U	0.95	2.7	5.4	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-17RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036759.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.7	U	1.1	2.7	5.4	ug/Kg
563-58-6	1,1-Dichloropropene	2.7	U	0.5	2.7	5.4	ug/Kg
71-43-2	Benzene	2.7	U	0.41	2.7	5.4	ug/Kg
107-06-2	1,2-Dichloroethane	2.7	U	0.69	2.7	5.4	ug/Kg
79-01-6	Trichloroethene	2.7	U	0.93	2.7	5.4	ug/Kg
78-87-5	1,2-Dichloropropane	2.7	U	0.28	2.7	5.4	ug/Kg
74-95-3	Dibromomethane	2.7	U	0.85	2.7	5.4	ug/Kg
75-27-4	Bromodichloromethane	2.7	U	0.67	2.7	5.4	ug/Kg
108-10-1	4-Methyl-2-Pentanone	13.5	U	3.2	13.5	27	ug/Kg
108-88-3	Toluene	2.7	U	0.69	2.7	5.4	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.7	U	0.86	2.7	5.4	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.7	U	0.78	2.7	5.4	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.7	U	0.98	2.7	5.4	ug/Kg
142-28-9	1,3-Dichloropropane	2.7	U	0.8	2.7	5.4	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	13.5	U	12	13.5	27	ug/Kg
591-78-6	2-Hexanone	13.5	U	4.3	13.5	27	ug/Kg
124-48-1	Dibromochloromethane	2.7	U	0.59	2.7	5.4	ug/Kg
106-93-4	1,2-Dibromoethane	2.7	U	0.69	2.7	5.4	ug/Kg
127-18-4	Tetrachloroethene	2.7	U	1.1	2.7	5.4	ug/Kg
108-90-7	Chlorobenzene	2.7	U	0.54	2.7	5.4	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	2.7	U	0.47	2.7	5.4	ug/Kg
67-72-1	Hexachloroethane	2.7	U	0.82	2.7	5.4	ug/Kg
100-41-4	Ethyl Benzene	2.7	U	0.67	2.7	5.4	ug/Kg
179601-23-1	m/p-Xylenes	5.5	U	0.78	5.5	11	ug/Kg
95-47-6	o-Xylene	2.7	U	0.74	2.7	5.4	ug/Kg
100-42-5	Styrene	2.7	U	0.49	2.7	5.4	ug/Kg
75-25-2	Bromoform	2.7	U	0.8	2.7	5.4	ug/Kg
98-82-8	Isopropylbenzene	2.7	U	0.52	2.7	5.4	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.7	U	0.5	2.7	5.4	ug/Kg
96-18-4	1,2,3-Trichloropropane	2.7	U	0.53	2.7	5.4	ug/Kg
108-86-1	Bromobenzene	2.7	U	0.56	2.7	5.4	ug/Kg
103-65-1	n-propylbenzene	2.7	U	0.39	2.7	5.4	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-17RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036759.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	2.7	U	0.8	2.7	5.4	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	2.7	U	0.49	2.7	5.4	ug/Kg
106-43-4	4-Chlorotoluene	2.7	U	0.67	2.7	5.4	ug/Kg
98-06-6	tert-Butylbenzene	2.7	U	0.64	2.7	5.4	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.7	U	0.54	2.7	5.4	ug/Kg
135-98-8	sec-Butylbenzene	2.7	U	0.56	2.7	5.4	ug/Kg
99-87-6	p-Isopropyltoluene	2.7	U	0.31	2.7	5.4	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.7	U	0.4	2.7	5.4	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.7	U	0.44	2.7	5.4	ug/Kg
104-51-8	n-Butylbenzene	2.7	U	0.5	2.7	5.4	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.7	U	0.67	2.7	5.4	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.7	U	0.94	2.7	5.4	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.7	U	0.76	2.7	5.4	ug/Kg
87-68-3	Hexachlorobutadiene	2.7	U	0.86	2.7	5.4	ug/Kg
91-20-3	Naphthalene	2.7	UQ	0.49	2.7	5.4	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.7	U	0.54	2.7	5.4	ug/Kg
74-88-4	Methyl Iodide	5.4	U	5.4	5.4	5.4	ug/Kg
107-05-1	Allyl chloride	5.4	U	5.4	5.4	5.4	ug/Kg
126-98-7	Methacrylonitrile	5.4	UQ	5.4	5.4	5.4	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	5.4	U	5.4	5.4	5.4	ug/Kg
97-63-2	Ethyl methacrylate	5.4	U	5.4	5.4	5.4	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	55.1		56 - 120		110%	SPK: 50
1868-53-7	Dibromofluoromethane	47.4		57 - 135		95%	SPK: 50
2037-26-5	Toluene-d8	49.1		67 - 123		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.9		33 - 141		108%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	391890	4.73				
540-36-3	1,4-Difluorobenzene	703056	5.45				
3114-55-4	Chlorobenzene-d5	663769	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	296903	12.47				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)RE	SDG No.:	D3811
Lab Sample ID:	D3811-17RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	8
Sample Wt/Vol:	5.01      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624      ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036759.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-18	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	18
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034800.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.05	U	0.79	3.05	6.1	ug/Kg
74-87-3	Chloromethane	3.05	U	1	3.05	6.1	ug/Kg
75-01-4	Vinyl Chloride	3.05	U	1.5	3.05	6.1	ug/Kg
141-78-6	Ethyl Acetate	3.05	U	1.1	3.05	6.1	ug/Kg
108-21-4	Isopropyl Acetate	3.05	U	1.4	3.05	6.1	ug/Kg
628-63-7	N-amyl acetate	3.05	U	1.1	3.05	6.1	ug/Kg
74-83-9	Bromomethane	3.05	U	3	3.05	6.1	ug/Kg
75-00-3	Chloroethane	3.05	U	1.7	3.05	6.1	ug/Kg
75-69-4	Trichlorofluoromethane	3.05	U	1.6	3.05	6.1	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.05	U	1.6	3.05	6.1	ug/Kg
75-65-0	Tert butyl alcohol	15	U	9	15	30	ug/Kg
60-29-7	Diethyl Ether	3.05	U	2.3	3.05	6.1	ug/Kg
75-35-4	1,1-Dichloroethene	3.05	U	1.8	3.05	6.1	ug/Kg
107-02-8	Acrolein	15	U	4.8	15	30	ug/Kg
107-13-1	Acrylonitrile	15	U	6	15	30	ug/Kg
67-64-1	Acetone	75		3.7	15	30	ug/Kg
75-15-0	Carbon Disulfide	3.05	U	1.3	3.05	6.1	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.05	U	1.2	3.05	6.1	ug/Kg
79-20-9	Methyl Acetate	3.05	U	1.8	3.05	6.1	ug/Kg
75-09-2	Methylene Chloride	3.05	U	1.7	3.05	6.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.05	U	0.84	3.05	6.1	ug/Kg
108-05-4	Vinyl Acetate	15	U	4.2	15	30	ug/Kg
75-34-3	1,1-Dichloroethane	3.05	U	1.1	3.05	6.1	ug/Kg
110-82-7	Cyclohexane	3.05	U	1.2	3.05	6.1	ug/Kg
78-93-3	2-Butanone	15	U	3.8	15	30	ug/Kg
56-23-5	Carbon Tetrachloride	3.05	U	1.2	3.05	6.1	ug/Kg
594-20-7	2,2-Dichloropropane	3.05	U	1.3	3.05	6.1	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.05	U	1.1	3.05	6.1	ug/Kg
74-97-5	Bromochloromethane	3.05	U	0.96	3.05	6.1	ug/Kg
67-66-3	Chloroform	3.05	U	0.9	3.05	6.1	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.05	U	1.1	3.05	6.1	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-18	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	18
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034800.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.05	U	1.3	3.05	6.1	ug/Kg
563-58-6	1,1-Dichloropropene	3.05	U	0.56	3.05	6.1	ug/Kg
71-43-2	Benzene	3.05	U	0.46	3.05	6.1	ug/Kg
107-06-2	1,2-Dichloroethane	3.05	U	0.78	3.05	6.1	ug/Kg
79-01-6	Trichloroethene	3.05	U	1	3.05	6.1	ug/Kg
78-87-5	1,2-Dichloropropane	3.05	U	0.32	3.05	6.1	ug/Kg
74-95-3	Dibromomethane	3.05	U	0.95	3.05	6.1	ug/Kg
75-27-4	Bromodichloromethane	3.05	U	0.75	3.05	6.1	ug/Kg
108-10-1	4-Methyl-2-Pentanone	15	U	3.6	15	30	ug/Kg
108-88-3	Toluene	3.05	U	0.78	3.05	6.1	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.05	U	0.96	3.05	6.1	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.05	U	0.88	3.05	6.1	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.05	U	1.1	3.05	6.1	ug/Kg
142-28-9	1,3-Dichloropropane	3.05	U	0.9	3.05	6.1	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	15	U	14	15	30	ug/Kg
591-78-6	2-Hexanone	15	U	4.8	15	30	ug/Kg
124-48-1	Dibromochloromethane	3.05	U	0.66	3.05	6.1	ug/Kg
106-93-4	1,2-Dibromoethane	3.05	U	0.78	3.05	6.1	ug/Kg
127-18-4	Tetrachloroethene	3.05	U	1.2	3.05	6.1	ug/Kg
108-90-7	Chlorobenzene	3.05	U	0.61	3.05	6.1	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.05	U	0.52	3.05	6.1	ug/Kg
67-72-1	Hexachloroethane	3.05	U	0.92	3.05	6.1	ug/Kg
100-41-4	Ethyl Benzene	3.05	U	0.75	3.05	6.1	ug/Kg
179601-23-1	m/p-Xylenes	6	U	0.88	6	12	ug/Kg
95-47-6	o-Xylene	3.05	U	0.83	3.05	6.1	ug/Kg
100-42-5	Styrene	3.05	U	0.55	3.05	6.1	ug/Kg
75-25-2	Bromoform	3.05	U	0.9	3.05	6.1	ug/Kg
98-82-8	Isopropylbenzene	3.05	U	0.58	3.05	6.1	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.05	U	0.56	3.05	6.1	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.05	U	0.6	3.05	6.1	ug/Kg
108-86-1	Bromobenzene	3.05	U	0.63	3.05	6.1	ug/Kg
103-65-1	n-propylbenzene	3.05	U	0.44	3.05	6.1	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-18	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	18
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034800.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.05	U	0.9	3.05	6.1	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.05	U	0.55	3.05	6.1	ug/Kg
106-43-4	4-Chlorotoluene	3.05	U	0.75	3.05	6.1	ug/Kg
98-06-6	tert-Butylbenzene	3.05	U	0.72	3.05	6.1	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.05	U	0.61	3.05	6.1	ug/Kg
135-98-8	sec-Butylbenzene	3.05	U	0.63	3.05	6.1	ug/Kg
99-87-6	p-Isopropyltoluene	3.05	U	0.35	3.05	6.1	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.05	U	0.45	3.05	6.1	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.05	U	0.5	3.05	6.1	ug/Kg
104-51-8	n-Butylbenzene	3.05	U	0.56	3.05	6.1	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.05	U	0.75	3.05	6.1	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.05	U	1.1	3.05	6.1	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.05	U	0.85	3.05	6.1	ug/Kg
87-68-3	Hexachlorobutadiene	3.05	U	0.96	3.05	6.1	ug/Kg
91-20-3	Naphthalene	3.05	U	0.55	3.05	6.1	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.05	U	0.61	3.05	6.1	ug/Kg
74-88-4	Methyl Iodide	6.1	U	6.1	6.1	6.1	ug/Kg
107-05-1	Allyl chloride	6.1	U	6.1	6.1	6.1	ug/Kg
126-98-7	Methacrylonitrile	6.1	U	6.1	6.1	6.1	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6.1	U	6.1	6.1	6.1	ug/Kg
97-63-2	Ethyl methacrylate	6.1	U	6.1	6.1	6.1	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	49		56 - 120		98%	SPK: 50
1868-53-7	Dibromofluoromethane	52.4		57 - 135		105%	SPK: 50
2037-26-5	Toluene-d8	48.6		67 - 123		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	37.5		33 - 141		75%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	160123	4.4				
540-36-3	1,4-Difluorobenzene	293506	5.14				
3114-55-4	Chlorobenzene-d5	264003	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	83166	12.24				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-18	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	18
Sample Wt/Vol:	5.01      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS      ID :    0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034800.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)RE	SDG No.:	D3811
Lab Sample ID:	D3811-18RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	18
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036760.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3	U	0.79	3	6	ug/Kg
74-87-3	Chloromethane	3	U	1	3	6	ug/Kg
75-01-4	Vinyl Chloride	3	U	1.5	3	6	ug/Kg
141-78-6	Ethyl Acetate	3	U	1.1	3	6	ug/Kg
108-21-4	Isopropyl Acetate	3	UQ	1.4	3	6	ug/Kg
628-63-7	N-amyl acetate	3	U	1.1	3	6	ug/Kg
74-83-9	Bromomethane	3	U	3	3	6	ug/Kg
75-00-3	Chloroethane	3	U	1.7	3	6	ug/Kg
75-69-4	Trichlorofluoromethane	3	U	1.6	3	6	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3	U	1.6	3	6	ug/Kg
75-65-0	Tert butyl alcohol	15	U	9	15	30	ug/Kg
60-29-7	Diethyl Ether	3	U	2.3	3	6	ug/Kg
75-35-4	1,1-Dichloroethene	3	U	1.8	3	6	ug/Kg
107-02-8	Acrolein	15	U	4.8	15	30	ug/Kg
107-13-1	Acrylonitrile	15	U	5.9	15	30	ug/Kg
67-64-1	Acetone	69	Q	3.7	15	30	ug/Kg
75-15-0	Carbon Disulfide	3	U	1.3	3	6	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3	U	1.2	3	6	ug/Kg
79-20-9	Methyl Acetate	3	U	1.8	3	6	ug/Kg
75-09-2	Methylene Chloride	3	U	1.7	3	6	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3	U	0.83	3	6	ug/Kg
108-05-4	Vinyl Acetate	15	UQ	4.2	15	30	ug/Kg
75-34-3	1,1-Dichloroethane	3	U	1.1	3	6	ug/Kg
110-82-7	Cyclohexane	3	U	1.2	3	6	ug/Kg
78-93-3	2-Butanone	15	UQ	3.8	15	30	ug/Kg
56-23-5	Carbon Tetrachloride	3	UQ	1.2	3	6	ug/Kg
594-20-7	2,2-Dichloropropane	3	U	1.3	3	6	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3	U	1.1	3	6	ug/Kg
74-97-5	Bromochloromethane	3	U	0.96	3	6	ug/Kg
67-66-3	Chloroform	3	U	0.9	3	6	ug/Kg
71-55-6	1,1,1-Trichloroethane	3	U	1.1	3	6	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)RE	SDG No.:	D3811
Lab Sample ID:	D3811-18RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	18
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036760.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3	U	1.3	3	6	ug/Kg
563-58-6	1,1-Dichloropropene	3	U	0.56	3	6	ug/Kg
71-43-2	Benzene	3	U	0.46	3	6	ug/Kg
107-06-2	1,2-Dichloroethane	3	U	0.77	3	6	ug/Kg
79-01-6	Trichloroethene	3	U	1	3	6	ug/Kg
78-87-5	1,2-Dichloropropane	3	U	0.31	3	6	ug/Kg
74-95-3	Dibromomethane	3	U	0.94	3	6	ug/Kg
75-27-4	Bromodichloromethane	3	U	0.75	3	6	ug/Kg
108-10-1	4-Methyl-2-Pentanone	15	U	3.5	15	30	ug/Kg
108-88-3	Toluene	3	U	0.77	3	6	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3	U	0.96	3	6	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3	U	0.87	3	6	ug/Kg
79-00-5	1,1,2-Trichloroethane	3	U	1.1	3	6	ug/Kg
142-28-9	1,3-Dichloropropane	3	U	0.9	3	6	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	15	U	14	15	30	ug/Kg
591-78-6	2-Hexanone	15	U	4.7	15	30	ug/Kg
124-48-1	Dibromochloromethane	3	U	0.65	3	6	ug/Kg
106-93-4	1,2-Dibromoethane	3	U	0.77	3	6	ug/Kg
127-18-4	Tetrachloroethene	3	U	1.2	3	6	ug/Kg
108-90-7	Chlorobenzene	3	U	0.6	3	6	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3	U	0.52	3	6	ug/Kg
67-72-1	Hexachloroethane	3	U	0.92	3	6	ug/Kg
100-41-4	Ethyl Benzene	3	U	0.75	3	6	ug/Kg
179601-23-1	m/p-Xylenes	6	U	0.87	6	12	ug/Kg
95-47-6	o-Xylene	3	U	0.82	3	6	ug/Kg
100-42-5	Styrene	3	U	0.54	3	6	ug/Kg
75-25-2	Bromoform	3	U	0.9	3	6	ug/Kg
98-82-8	Isopropylbenzene	3	U	0.58	3	6	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3	U	0.56	3	6	ug/Kg
96-18-4	1,2,3-Trichloropropane	3	U	0.59	3	6	ug/Kg
108-86-1	Bromobenzene	3	U	0.63	3	6	ug/Kg
103-65-1	n-propylbenzene	3	U	0.44	3	6	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)RE	SDG No.:	D3811
Lab Sample ID:	D3811-18RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	18
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036760.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3	U	0.9	3	6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3	U	0.54	3	6	ug/Kg
106-43-4	4-Chlorotoluene	3	U	0.75	3	6	ug/Kg
98-06-6	tert-Butylbenzene	3	U	0.71	3	6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3	U	0.6	3	6	ug/Kg
135-98-8	sec-Butylbenzene	3	U	0.63	3	6	ug/Kg
99-87-6	p-Isopropyltoluene	3	U	0.35	3	6	ug/Kg
541-73-1	1,3-Dichlorobenzene	3	U	0.45	3	6	ug/Kg
106-46-7	1,4-Dichlorobenzene	3	U	0.5	3	6	ug/Kg
104-51-8	n-Butylbenzene	3	U	0.56	3	6	ug/Kg
95-50-1	1,2-Dichlorobenzene	3	U	0.75	3	6	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3	U	1.1	3	6	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3	U	0.85	3	6	ug/Kg
87-68-3	Hexachlorobutadiene	3	U	0.96	3	6	ug/Kg
91-20-3	Naphthalene	3	UQ	0.54	3	6	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3	U	0.6	3	6	ug/Kg
74-88-4	Methyl Iodide	6	U	6	6	6	ug/Kg
107-05-1	Allyl chloride	6	U	6	6	6	ug/Kg
126-98-7	Methacrylonitrile	6	UQ	6	6	6	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6	U	6	6	6	ug/Kg
97-63-2	Ethyl methacrylate	6	U	6	6	6	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	53.4		56 - 120		107%	SPK: 50
1868-53-7	Dibromofluoromethane	49		57 - 135		98%	SPK: 50
2037-26-5	Toluene-d8	52		67 - 123		104%	SPK: 50
460-00-4	4-Bromofluorobenzene	57.2		33 - 141		114%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	370284	4.73				
540-36-3	1,4-Difluorobenzene	641838	5.45				
3114-55-4	Chlorobenzene-d5	652286	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	288042	12.48				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)RE	SDG No.:	D3811
Lab Sample ID:	D3811-18RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	18
Sample Wt/Vol:	5.04      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624      ID :    0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036760.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)	SDG No.:	D3811
Lab Sample ID:	D3811-19	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	29
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034801.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.5	U	0.91	3.5	7	ug/Kg
74-87-3	Chloromethane	3.5	U	1.2	3.5	7	ug/Kg
75-01-4	Vinyl Chloride	3.5	U	1.7	3.5	7	ug/Kg
141-78-6	Ethyl Acetate	3.5	U	1.2	3.5	7	ug/Kg
108-21-4	Isopropyl Acetate	3.5	U	1.7	3.5	7	ug/Kg
628-63-7	N-amyl acetate	3.5	U	1.3	3.5	7	ug/Kg
74-83-9	Bromomethane	3.5	U	3.4	3.5	7	ug/Kg
75-00-3	Chloroethane	3.5	U	2	3.5	7	ug/Kg
75-69-4	Trichlorofluoromethane	3.5	U	1.9	3.5	7	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.5	U	1.9	3.5	7	ug/Kg
75-65-0	Tert butyl alcohol	17.5	U	10	17.5	35	ug/Kg
60-29-7	Diethyl Ether	3.5	U	2.7	3.5	7	ug/Kg
75-35-4	1,1-Dichloroethene	3.5	U	2.1	3.5	7	ug/Kg
107-02-8	Acrolein	17.5	U	5.6	17.5	35	ug/Kg
107-13-1	Acrylonitrile	17.5	U	6.9	17.5	35	ug/Kg
67-64-1	Acetone	97		4.2	17.5	35	ug/Kg
75-15-0	Carbon Disulfide	5	J	1.5	3.5	7	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.5	U	1.3	3.5	7	ug/Kg
79-20-9	Methyl Acetate	3.5	U	2.1	3.5	7	ug/Kg
75-09-2	Methylene Chloride	3.5	U	2	3.5	7	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.5	U	0.97	3.5	7	ug/Kg
108-05-4	Vinyl Acetate	17.5	U	4.9	17.5	35	ug/Kg
75-34-3	1,1-Dichloroethane	3.5	U	1.3	3.5	7	ug/Kg
110-82-7	Cyclohexane	3.5	U	1.4	3.5	7	ug/Kg
78-93-3	2-Butanone	17.5	U	4.4	17.5	35	ug/Kg
56-23-5	Carbon Tetrachloride	3.5	U	1.4	3.5	7	ug/Kg
594-20-7	2,2-Dichloropropane	3.5	U	1.5	3.5	7	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.5	U	1.3	3.5	7	ug/Kg
74-97-5	Bromochloromethane	3.5	U	1.1	3.5	7	ug/Kg
67-66-3	Chloroform	3.5	U	1	3.5	7	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.5	U	1.2	3.5	7	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)	SDG No.:	D3811
Lab Sample ID:	D3811-19	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	29
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034801.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.5	U	1.5	3.5	7	ug/Kg
563-58-6	1,1-Dichloropropene	3.5	U	0.65	3.5	7	ug/Kg
71-43-2	Benzene	3.5	U	0.53	3.5	7	ug/Kg
107-06-2	1,2-Dichloroethane	3.5	U	0.9	3.5	7	ug/Kg
79-01-6	Trichloroethene	3.5	U	1.2	3.5	7	ug/Kg
78-87-5	1,2-Dichloropropane	3.5	U	0.37	3.5	7	ug/Kg
74-95-3	Dibromomethane	3.5	U	1.1	3.5	7	ug/Kg
75-27-4	Bromodichloromethane	3.5	U	0.87	3.5	7	ug/Kg
108-10-1	4-Methyl-2-Pentanone	17.5	U	4.1	17.5	35	ug/Kg
108-88-3	Toluene	3.5	U	0.9	3.5	7	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.5	U	1.1	3.5	7	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.5	U	1	3.5	7	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.5	U	1.3	3.5	7	ug/Kg
142-28-9	1,3-Dichloropropane	3.5	U	1	3.5	7	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	17.5	U	16	17.5	35	ug/Kg
591-78-6	2-Hexanone	17.5	U	5.5	17.5	35	ug/Kg
124-48-1	Dibromochloromethane	3.5	U	0.76	3.5	7	ug/Kg
106-93-4	1,2-Dibromoethane	3.5	U	0.9	3.5	7	ug/Kg
127-18-4	Tetrachloroethene	3.5	U	1.4	3.5	7	ug/Kg
108-90-7	Chlorobenzene	3.5	U	0.7	3.5	7	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.5	U	0.6	3.5	7	ug/Kg
67-72-1	Hexachloroethane	3.5	U	1.1	3.5	7	ug/Kg
100-41-4	Ethyl Benzene	3.5	U	0.87	3.5	7	ug/Kg
179601-23-1	m/p-Xylenes	7	U	1	7	14	ug/Kg
95-47-6	o-Xylene	3.5	U	0.96	3.5	7	ug/Kg
100-42-5	Styrene	3.5	U	0.63	3.5	7	ug/Kg
75-25-2	Bromoform	3.5	U	1	3.5	7	ug/Kg
98-82-8	Isopropylbenzene	3.5	U	0.67	3.5	7	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.5	U	0.65	3.5	7	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.5	U	0.69	3.5	7	ug/Kg
108-86-1	Bromobenzene	3.5	U	0.73	3.5	7	ug/Kg
103-65-1	n-propylbenzene	3.5	U	0.51	3.5	7	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)	SDG No.:	D3811
Lab Sample ID:	D3811-19	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	29
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034801.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.5	U	1	3.5	7	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.5	U	0.63	3.5	7	ug/Kg
106-43-4	4-Chlorotoluene	3.5	U	0.87	3.5	7	ug/Kg
98-06-6	tert-Butylbenzene	3.5	U	0.83	3.5	7	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.5	U	0.7	3.5	7	ug/Kg
135-98-8	sec-Butylbenzene	3.5	U	0.73	3.5	7	ug/Kg
99-87-6	p-Isopropyltoluene	3.5	U	0.41	3.5	7	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.5	U	0.52	3.5	7	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.5	U	0.58	3.5	7	ug/Kg
104-51-8	n-Butylbenzene	3.5	U	0.65	3.5	7	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.5	U	0.87	3.5	7	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.5	U	1.2	3.5	7	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.5	U	0.98	3.5	7	ug/Kg
87-68-3	Hexachlorobutadiene	3.5	U	1.1	3.5	7	ug/Kg
91-20-3	Naphthalene	3.5	U	0.63	3.5	7	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.5	U	0.7	3.5	7	ug/Kg
74-88-4	Methyl Iodide	7	U	7	7	7	ug/Kg
107-05-1	Allyl chloride	7	U	7	7	7	ug/Kg
126-98-7	Methacrylonitrile	7	U	7	7	7	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	7	U	7	7	7	ug/Kg
97-63-2	Ethyl methacrylate	7	U	7	7	7	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	52.5		56 - 120		105%	SPK: 50
1868-53-7	Dibromofluoromethane	56.9		57 - 135		114%	SPK: 50
2037-26-5	Toluene-d8	49.7		67 - 123		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	40.4		33 - 141		81%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	146812	4.41				
540-36-3	1,4-Difluorobenzene	274296	5.15				
3114-55-4	Chlorobenzene-d5	261779	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	86787	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)	SDG No.:	D3811
Lab Sample ID:	D3811-19	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	29
Sample Wt/Vol:	5.01      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS      ID :    0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034801.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)RE	SDG No.:	D3811
Lab Sample ID:	D3811-19RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	29
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036761.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.5	U	0.92	3.5	7	ug/Kg
74-87-3	Chloromethane	3.5	U	1.2	3.5	7	ug/Kg
75-01-4	Vinyl Chloride	3.5	U	1.7	3.5	7	ug/Kg
141-78-6	Ethyl Acetate	3.5	U	1.2	3.5	7	ug/Kg
108-21-4	Isopropyl Acetate	3.5	UQ	1.7	3.5	7	ug/Kg
628-63-7	N-amyl acetate	3.5	U	1.3	3.5	7	ug/Kg
74-83-9	Bromomethane	3.5	U	3.5	3.5	7	ug/Kg
75-00-3	Chloroethane	3.5	U	2	3.5	7	ug/Kg
75-69-4	Trichlorofluoromethane	3.5	U	1.9	3.5	7	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.5	U	1.9	3.5	7	ug/Kg
75-65-0	Tert butyl alcohol	17.5	U	10	17.5	35	ug/Kg
60-29-7	Diethyl Ether	3.5	U	2.7	3.5	7	ug/Kg
75-35-4	1,1-Dichloroethene	3.5	U	2.1	3.5	7	ug/Kg
107-02-8	Acrolein	17.5	U	5.6	17.5	35	ug/Kg
107-13-1	Acrylonitrile	17.5	U	6.9	17.5	35	ug/Kg
67-64-1	Acetone	56	Q	4.3	17.5	35	ug/Kg
75-15-0	Carbon Disulfide	3.5	U	1.5	3.5	7	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.5	U	1.4	3.5	7	ug/Kg
79-20-9	Methyl Acetate	3.5	U	2.1	3.5	7	ug/Kg
75-09-2	Methylene Chloride	3.5	U	2	3.5	7	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.5	U	0.97	3.5	7	ug/Kg
108-05-4	Vinyl Acetate	17.5	UQ	4.9	17.5	35	ug/Kg
75-34-3	1,1-Dichloroethane	3.5	U	1.3	3.5	7	ug/Kg
110-82-7	Cyclohexane	3.5	U	1.4	3.5	7	ug/Kg
78-93-3	2-Butanone	17.5	UQ	4.4	17.5	35	ug/Kg
56-23-5	Carbon Tetrachloride	3.5	UQ	1.4	3.5	7	ug/Kg
594-20-7	2,2-Dichloropropane	3.5	U	1.5	3.5	7	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.5	U	1.3	3.5	7	ug/Kg
74-97-5	Bromochloromethane	3.5	U	1.1	3.5	7	ug/Kg
67-66-3	Chloroform	3.5	U	1	3.5	7	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.5	U	1.2	3.5	7	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)RE	SDG No.:	D3811
Lab Sample ID:	D3811-19RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	29
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036761.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.5	U	1.5	3.5	7	ug/Kg
563-58-6	1,1-Dichloropropene	3.5	U	0.65	3.5	7	ug/Kg
71-43-2	Benzene	3.5	U	0.54	3.5	7	ug/Kg
107-06-2	1,2-Dichloroethane	3.5	U	0.9	3.5	7	ug/Kg
79-01-6	Trichloroethene	3.5	U	1.2	3.5	7	ug/Kg
78-87-5	1,2-Dichloropropane	3.5	U	0.37	3.5	7	ug/Kg
74-95-3	Dibromomethane	3.5	U	1.1	3.5	7	ug/Kg
75-27-4	Bromodichloromethane	3.5	U	0.87	3.5	7	ug/Kg
108-10-1	4-Methyl-2-Pentanone	17.5	U	4.1	17.5	35	ug/Kg
108-88-3	Toluene	3.5	U	0.9	3.5	7	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.5	U	1.1	3.5	7	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.5	U	1	3.5	7	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.5	U	1.3	3.5	7	ug/Kg
142-28-9	1,3-Dichloropropane	3.5	U	1	3.5	7	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	17.5	U	16	17.5	35	ug/Kg
591-78-6	2-Hexanone	17.5	U	5.5	17.5	35	ug/Kg
124-48-1	Dibromochloromethane	3.5	U	0.76	3.5	7	ug/Kg
106-93-4	1,2-Dibromoethane	3.5	U	0.9	3.5	7	ug/Kg
127-18-4	Tetrachloroethene	3.5	U	1.4	3.5	7	ug/Kg
108-90-7	Chlorobenzene	3.5	U	0.7	3.5	7	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.5	U	0.61	3.5	7	ug/Kg
67-72-1	Hexachloroethane	3.5	U	1.1	3.5	7	ug/Kg
100-41-4	Ethyl Benzene	3.5	U	0.87	3.5	7	ug/Kg
179601-23-1	m/p-Xylenes	7	U	1	7	14	ug/Kg
95-47-6	o-Xylene	3.5	U	0.96	3.5	7	ug/Kg
100-42-5	Styrene	3.5	U	0.63	3.5	7	ug/Kg
75-25-2	Bromoform	3.5	U	1	3.5	7	ug/Kg
98-82-8	Isopropylbenzene	3.5	U	0.68	3.5	7	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.5	U	0.65	3.5	7	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.5	U	0.69	3.5	7	ug/Kg
108-86-1	Bromobenzene	3.5	U	0.73	3.5	7	ug/Kg
103-65-1	n-propylbenzene	3.5	U	0.51	3.5	7	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)RE	SDG No.:	D3811
Lab Sample ID:	D3811-19RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	29
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036761.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.5	U	1	3.5	7	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.5	U	0.63	3.5	7	ug/Kg
106-43-4	4-Chlorotoluene	3.5	U	0.87	3.5	7	ug/Kg
98-06-6	tert-Butylbenzene	3.5	U	0.83	3.5	7	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.5	U	0.7	3.5	7	ug/Kg
135-98-8	sec-Butylbenzene	3.5	U	0.73	3.5	7	ug/Kg
99-87-6	p-Isopropyltoluene	3.5	U	0.41	3.5	7	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.5	U	0.52	3.5	7	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.5	U	0.58	3.5	7	ug/Kg
104-51-8	n-Butylbenzene	3.5	U	0.65	3.5	7	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.5	U	0.87	3.5	7	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.5	U	1.2	3.5	7	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.5	U	0.99	3.5	7	ug/Kg
87-68-3	Hexachlorobutadiene	3.5	U	1.1	3.5	7	ug/Kg
91-20-3	Naphthalene	3.5	UQ	0.63	3.5	7	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.5	U	0.7	3.5	7	ug/Kg
74-88-4	Methyl Iodide	7	U	7	7	7	ug/Kg
107-05-1	Allyl chloride	7	U	7	7	7	ug/Kg
126-98-7	Methacrylonitrile	7	UQ	7	7	7	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	7	U	7	7	7	ug/Kg
97-63-2	Ethyl methacrylate	7	U	7	7	7	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	52.1		56 - 120		104%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		57 - 135		97%	SPK: 50
2037-26-5	Toluene-d8	53.6		67 - 123		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	59		33 - 141		118%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	364806	4.73				
540-36-3	1,4-Difluorobenzene	628132	5.44				
3114-55-4	Chlorobenzene-d5	661237	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	310866	12.47				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)RE	SDG No.:	D3811
Lab Sample ID:	D3811-19RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	29
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036761.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-21	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034802.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.45	U	0.9	3.45	6.9	ug/Kg
74-87-3	Chloromethane	3.45	U	1.2	3.45	6.9	ug/Kg
75-01-4	Vinyl Chloride	3.45	U	1.7	3.45	6.9	ug/Kg
141-78-6	Ethyl Acetate	3.45	U	1.2	3.45	6.9	ug/Kg
108-21-4	Isopropyl Acetate	3.45	U	1.6	3.45	6.9	ug/Kg
628-63-7	N-amyl acetate	3.45	U	1.3	3.45	6.9	ug/Kg
74-83-9	Bromomethane	3.45	U	3.4	3.45	6.9	ug/Kg
75-00-3	Chloroethane	3.45	U	1.9	3.45	6.9	ug/Kg
75-69-4	Trichlorofluoromethane	3.45	U	1.8	3.45	6.9	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.45	U	1.8	3.45	6.9	ug/Kg
75-65-0	Tert butyl alcohol	17.5	U	10	17.5	35	ug/Kg
60-29-7	Diethyl Ether	3.45	U	2.7	3.45	6.9	ug/Kg
75-35-4	1,1-Dichloroethene	3.45	U	2	3.45	6.9	ug/Kg
107-02-8	Acrolein	17.5	U	5.5	17.5	35	ug/Kg
107-13-1	Acrylonitrile	17.5	U	6.8	17.5	35	ug/Kg
67-64-1	Acetone	130		4.2	17.5	35	ug/Kg
75-15-0	Carbon Disulfide	1.9	J	1.5	3.45	6.9	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.45	U	1.3	3.45	6.9	ug/Kg
79-20-9	Methyl Acetate	3.45	U	2.1	3.45	6.9	ug/Kg
75-09-2	Methylene Chloride	3.45	U	2	3.45	6.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.45	U	0.96	3.45	6.9	ug/Kg
108-05-4	Vinyl Acetate	17.5	U	4.8	17.5	35	ug/Kg
75-34-3	1,1-Dichloroethane	3.45	U	1.3	3.45	6.9	ug/Kg
110-82-7	Cyclohexane	3.45	U	1.4	3.45	6.9	ug/Kg
78-93-3	2-Butanone	17.5	U	4.3	17.5	35	ug/Kg
56-23-5	Carbon Tetrachloride	3.45	U	1.4	3.45	6.9	ug/Kg
594-20-7	2,2-Dichloropropane	3.45	U	1.4	3.45	6.9	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.45	U	1.2	3.45	6.9	ug/Kg
74-97-5	Bromochloromethane	3.45	U	1.1	3.45	6.9	ug/Kg
67-66-3	Chloroform	3.45	U	1	3.45	6.9	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.45	U	1.2	3.45	6.9	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-21	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034802.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.45	U	1.5	3.45	6.9	ug/Kg
563-58-6	1,1-Dichloropropene	3.45	U	0.64	3.45	6.9	ug/Kg
71-43-2	Benzene	3.45	U	0.53	3.45	6.9	ug/Kg
107-06-2	1,2-Dichloroethane	3.45	U	0.89	3.45	6.9	ug/Kg
79-01-6	Trichloroethene	3.45	U	1.2	3.45	6.9	ug/Kg
78-87-5	1,2-Dichloropropane	3.45	U	0.36	3.45	6.9	ug/Kg
74-95-3	Dibromomethane	3.45	U	1.1	3.45	6.9	ug/Kg
75-27-4	Bromodichloromethane	3.45	U	0.86	3.45	6.9	ug/Kg
108-10-1	4-Methyl-2-Pentanone	17.5	U	4	17.5	35	ug/Kg
108-88-3	Toluene	3.45	U	0.89	3.45	6.9	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.45	U	1.1	3.45	6.9	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.45	U	1	3.45	6.9	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.45	U	1.2	3.45	6.9	ug/Kg
142-28-9	1,3-Dichloropropane	3.45	U	1	3.45	6.9	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	17.5	U	16	17.5	35	ug/Kg
591-78-6	2-Hexanone	17.5	U	5.4	17.5	35	ug/Kg
124-48-1	Dibromochloromethane	3.45	U	0.75	3.45	6.9	ug/Kg
106-93-4	1,2-Dibromoethane	3.45	U	0.89	3.45	6.9	ug/Kg
127-18-4	Tetrachloroethene	3.45	U	1.4	3.45	6.9	ug/Kg
108-90-7	Chlorobenzene	3.45	U	0.69	3.45	6.9	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.45	U	0.6	3.45	6.9	ug/Kg
67-72-1	Hexachloroethane	3.45	U	1.1	3.45	6.9	ug/Kg
100-41-4	Ethyl Benzene	3.45	U	0.86	3.45	6.9	ug/Kg
179601-23-1	m/p-Xylenes	7	U	1	7	14	ug/Kg
95-47-6	o-Xylene	3.45	U	0.94	3.45	6.9	ug/Kg
100-42-5	Styrene	3.45	U	0.62	3.45	6.9	ug/Kg
75-25-2	Bromoform	3.45	U	1	3.45	6.9	ug/Kg
98-82-8	Isopropylbenzene	3.45	U	0.67	3.45	6.9	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.45	U	0.64	3.45	6.9	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.45	U	0.68	3.45	6.9	ug/Kg
108-86-1	Bromobenzene	3.45	U	0.72	3.45	6.9	ug/Kg
103-65-1	n-propylbenzene	3.45	U	0.5	3.45	6.9	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-21	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034802.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.45	U	1	3.45	6.9	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.45	U	0.62	3.45	6.9	ug/Kg
106-43-4	4-Chlorotoluene	3.45	U	0.86	3.45	6.9	ug/Kg
98-06-6	tert-Butylbenzene	3.45	U	0.82	3.45	6.9	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.45	U	0.69	3.45	6.9	ug/Kg
135-98-8	sec-Butylbenzene	3.45	U	0.72	3.45	6.9	ug/Kg
99-87-6	p-Isopropyltoluene	3.45	U	0.4	3.45	6.9	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.45	U	0.51	3.45	6.9	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.45	U	0.57	3.45	6.9	ug/Kg
104-51-8	n-Butylbenzene	3.45	U	0.64	3.45	6.9	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.45	U	0.86	3.45	6.9	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.45	U	1.2	3.45	6.9	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.45	U	0.97	3.45	6.9	ug/Kg
87-68-3	Hexachlorobutadiene	3.45	U	1.1	3.45	6.9	ug/Kg
91-20-3	Naphthalene	3.45	U	0.62	3.45	6.9	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.45	U	0.69	3.45	6.9	ug/Kg
74-88-4	Methyl Iodide	6.9	U	6.9	6.9	6.9	ug/Kg
107-05-1	Allyl chloride	6.9	U	6.9	6.9	6.9	ug/Kg
126-98-7	Methacrylonitrile	6.9	U	6.9	6.9	6.9	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6.9	U	6.9	6.9	6.9	ug/Kg
97-63-2	Ethyl methacrylate	6.9	U	6.9	6.9	6.9	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	50.2		56 - 120		100%	SPK: 50
1868-53-7	Dibromofluoromethane	54.3		57 - 135		109%	SPK: 50
2037-26-5	Toluene-d8	48.2		67 - 123		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.9		33 - 141		86%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	158962	4.41				
540-36-3	1,4-Difluorobenzene	302327	5.14				
3114-55-4	Chlorobenzene-d5	286857	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	103039	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-21	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	5.01      Units:    g	Final Vol:	5000              uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS      ID :    0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034802.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)RE	SDG No.:	D3811
Lab Sample ID:	D3811-21RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036762.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	3.45	U	0.9	3.45	6.9	ug/Kg
74-87-3	Chloromethane	3.45	U	1.2	3.45	6.9	ug/Kg
75-01-4	Vinyl Chloride	3.45	U	1.7	3.45	6.9	ug/Kg
141-78-6	Ethyl Acetate	3.45	U	1.2	3.45	6.9	ug/Kg
108-21-4	Isopropyl Acetate	3.45	UQ	1.7	3.45	6.9	ug/Kg
628-63-7	N-amyl acetate	3.45	U	1.3	3.45	6.9	ug/Kg
74-83-9	Bromomethane	3.45	U	3.4	3.45	6.9	ug/Kg
75-00-3	Chloroethane	3.45	U	1.9	3.45	6.9	ug/Kg
75-69-4	Trichlorofluoromethane	3.45	U	1.8	3.45	6.9	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.45	U	1.8	3.45	6.9	ug/Kg
75-65-0	Tert butyl alcohol	17.5	U	10	17.5	35	ug/Kg
60-29-7	Diethyl Ether	3.45	U	2.7	3.45	6.9	ug/Kg
75-35-4	1,1-Dichloroethene	3.45	U	2	3.45	6.9	ug/Kg
107-02-8	Acrolein	17.5	U	5.5	17.5	35	ug/Kg
107-13-1	Acrylonitrile	17.5	U	6.8	17.5	35	ug/Kg
67-64-1	Acetone	85	Q	4.2	17.5	35	ug/Kg
75-15-0	Carbon Disulfide	3.45	U	1.5	3.45	6.9	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.45	U	1.3	3.45	6.9	ug/Kg
79-20-9	Methyl Acetate	3.45	U	2.1	3.45	6.9	ug/Kg
75-09-2	Methylene Chloride	3.45	U	2	3.45	6.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.45	U	0.96	3.45	6.9	ug/Kg
108-05-4	Vinyl Acetate	17.5	UQ	4.8	17.5	35	ug/Kg
75-34-3	1,1-Dichloroethane	3.45	U	1.3	3.45	6.9	ug/Kg
110-82-7	Cyclohexane	3.45	U	1.4	3.45	6.9	ug/Kg
78-93-3	2-Butanone	17.5	UQ	4.3	17.5	35	ug/Kg
56-23-5	Carbon Tetrachloride	3.45	UQ	1.4	3.45	6.9	ug/Kg
594-20-7	2,2-Dichloropropane	3.45	U	1.4	3.45	6.9	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.45	U	1.2	3.45	6.9	ug/Kg
74-97-5	Bromochloromethane	3.45	U	1.1	3.45	6.9	ug/Kg
67-66-3	Chloroform	3.45	U	1	3.45	6.9	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.45	U	1.2	3.45	6.9	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)RE	SDG No.:	D3811
Lab Sample ID:	D3811-21RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036762.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	3.45	U	1.5	3.45	6.9	ug/Kg
563-58-6	1,1-Dichloropropene	3.45	U	0.64	3.45	6.9	ug/Kg
71-43-2	Benzene	3.45	U	0.53	3.45	6.9	ug/Kg
107-06-2	1,2-Dichloroethane	3.45	U	0.89	3.45	6.9	ug/Kg
79-01-6	Trichloroethene	3.45	U	1.2	3.45	6.9	ug/Kg
78-87-5	1,2-Dichloropropane	3.45	U	0.36	3.45	6.9	ug/Kg
74-95-3	Dibromomethane	3.45	U	1.1	3.45	6.9	ug/Kg
75-27-4	Bromodichloromethane	3.45	U	0.86	3.45	6.9	ug/Kg
108-10-1	4-Methyl-2-Pentanone	17.5	U	4.1	17.5	35	ug/Kg
108-88-3	Toluene	3.45	U	0.89	3.45	6.9	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.45	U	1.1	3.45	6.9	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.45	U	1	3.45	6.9	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.45	U	1.2	3.45	6.9	ug/Kg
142-28-9	1,3-Dichloropropane	3.45	U	1	3.45	6.9	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	17.5	U	16	17.5	35	ug/Kg
591-78-6	2-Hexanone	17.5	U	5.4	17.5	35	ug/Kg
124-48-1	Dibromochloromethane	3.45	U	0.75	3.45	6.9	ug/Kg
106-93-4	1,2-Dibromoethane	3.45	U	0.89	3.45	6.9	ug/Kg
127-18-4	Tetrachloroethene	3.45	U	1.4	3.45	6.9	ug/Kg
108-90-7	Chlorobenzene	3.45	U	0.69	3.45	6.9	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	3.45	U	0.6	3.45	6.9	ug/Kg
67-72-1	Hexachloroethane	3.45	U	1.1	3.45	6.9	ug/Kg
100-41-4	Ethyl Benzene	3.45	U	0.86	3.45	6.9	ug/Kg
179601-23-1	m/p-Xylenes	7	U	1	7	14	ug/Kg
95-47-6	o-Xylene	3.45	U	0.94	3.45	6.9	ug/Kg
100-42-5	Styrene	3.45	U	0.62	3.45	6.9	ug/Kg
75-25-2	Bromoform	3.45	U	1	3.45	6.9	ug/Kg
98-82-8	Isopropylbenzene	3.45	U	0.67	3.45	6.9	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.45	U	0.64	3.45	6.9	ug/Kg
96-18-4	1,2,3-Trichloropropane	3.45	U	0.68	3.45	6.9	ug/Kg
108-86-1	Bromobenzene	3.45	U	0.72	3.45	6.9	ug/Kg
103-65-1	n-propylbenzene	3.45	U	0.5	3.45	6.9	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)RE	SDG No.:	D3811
Lab Sample ID:	D3811-21RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036762.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	3.45	U	1	3.45	6.9	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	3.45	U	0.62	3.45	6.9	ug/Kg
106-43-4	4-Chlorotoluene	3.45	U	0.86	3.45	6.9	ug/Kg
98-06-6	tert-Butylbenzene	3.45	U	0.82	3.45	6.9	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	3.45	U	0.69	3.45	6.9	ug/Kg
135-98-8	sec-Butylbenzene	3.45	U	0.72	3.45	6.9	ug/Kg
99-87-6	p-Isopropyltoluene	3.45	U	0.4	3.45	6.9	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.45	U	0.51	3.45	6.9	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.45	U	0.57	3.45	6.9	ug/Kg
104-51-8	n-Butylbenzene	3.45	U	0.64	3.45	6.9	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.45	U	0.86	3.45	6.9	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.45	U	1.2	3.45	6.9	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.45	U	0.97	3.45	6.9	ug/Kg
87-68-3	Hexachlorobutadiene	3.45	U	1.1	3.45	6.9	ug/Kg
91-20-3	Naphthalene	3.45	UQ	0.62	3.45	6.9	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.45	U	0.69	3.45	6.9	ug/Kg
74-88-4	Methyl Iodide	6.9	U	6.9	6.9	6.9	ug/Kg
107-05-1	Allyl chloride	6.9	U	6.9	6.9	6.9	ug/Kg
126-98-7	Methacrylonitrile	6.9	UQ	6.9	6.9	6.9	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	6.9	U	6.9	6.9	6.9	ug/Kg
97-63-2	Ethyl methacrylate	6.9	U	6.9	6.9	6.9	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	56.6		56 - 120		113%	SPK: 50
1868-53-7	Dibromofluoromethane	47.7		57 - 135		95%	SPK: 50
2037-26-5	Toluene-d8	51		67 - 123		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	58.3		33 - 141		117%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	358506	4.73				
540-36-3	1,4-Difluorobenzene	647597	5.44				
3114-55-4	Chlorobenzene-d5	643236	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	300082	12.47				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)RE	SDG No.:	D3811
Lab Sample ID:	D3811-21RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	28
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036762.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# QC SUMMARY

# Surrogate Summary

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW846 8260

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
D3811-01	SB-2(4-8)	1,2-Dichloroethane-d4	50	47.56	95		56	120
		Dibromofluoromethane	50	51.04	102		57	135
		Toluene-d8	50	49.87	100		67	123
		4-Bromofluorobenzene	50	50.28	101		33	141
D3811-01RE	SB-2(4-8)RE	1,2-Dichloroethane-d4	50	57.5	115		56	120
		Dibromofluoromethane	50	48.39	97		57	135
		Toluene-d8	50	49.36	99		67	123
		4-Bromofluorobenzene	50	58.76	118		33	141
D3811-02	SB-5(8-12)	1,2-Dichloroethane-d4	50	45.57	91		56	120
		Dibromofluoromethane	50	50.46	101		57	135
		Toluene-d8	50	47.03	94		67	123
		4-Bromofluorobenzene	50	42.88	86		33	141
D3811-02RE	SB-5(8-12)RE	1,2-Dichloroethane-d4	50	58.56	117		56	120
		Dibromofluoromethane	50	48.43	97		57	135
		Toluene-d8	50	51.51	103		67	123
		4-Bromofluorobenzene	50	59.92	120		33	141
D3811-03	SB-9(4-7)	1,2-Dichloroethane-d4	50	50.2	100		56	120
		Dibromofluoromethane	50	50.71	101		57	135
		Toluene-d8	50	48.52	97		67	123
		4-Bromofluorobenzene	50	31.41	63		33	141
D3811-03RE	SB-9(4-7)RE	1,2-Dichloroethane-d4	50	58.87	118		56	120
		Dibromofluoromethane	50	47.57	95		57	135
		Toluene-d8	50	50.87	102		67	123
		4-Bromofluorobenzene	50	57.95	116		33	141
D3811-05	SB-11(12-16)	1,2-Dichloroethane-d4	50	52.97	106		56	120
		Dibromofluoromethane	50	54.86	110		57	135
		Toluene-d8	50	47.33	95		67	123
		4-Bromofluorobenzene	50	33.42	67		33	141
D3811-05RE	SB-11(12-16)RE	1,2-Dichloroethane-d4	50	54.71	109		56	120
		Dibromofluoromethane	50	48.45	97		57	135
		Toluene-d8	50	51.17	102		67	123
		4-Bromofluorobenzene	50	59.25	119		33	141
D3811-06	SB-15(12-16)	1,2-Dichloroethane-d4	50	45.42	91		56	120
		Dibromofluoromethane	50	48.1	96		57	135
		Toluene-d8	50	48.82	98		67	123
		4-Bromofluorobenzene	50	47.69	95		33	141
D3811-06RE	SB-15(12-16)RE	1,2-Dichloroethane-d4	50	58.09	116		56	120
		Dibromofluoromethane	50	47.44	95		57	135
		Toluene-d8	50	49.86	100		67	123
		4-Bromofluorobenzene	50	59.92	120		33	141
D3811-07	SB-18(4-8)	1,2-Dichloroethane-d4	50	51.15	102		56	120
		Dibromofluoromethane	50	54.69	109		57	135
		Toluene-d8	50	51.81	104		67	123
		4-Bromofluorobenzene	50	51.68	103		33	141
D3811-07RE	SB-18(4-8)RE	1,2-Dichloroethane-d4	50	52.24	104		56	120
		Dibromofluoromethane	50	45.76	92		57	135
		Toluene-d8	50	52.07	104		67	123
		4-Bromofluorobenzene	50	56.32	113		33	141
D3811-10	SB-21(16-19)	1,2-Dichloroethane-d4	50	45.93	92		56	120
		Dibromofluoromethane	50	52.9	106		57	135
		Toluene-d8	50	42.42	85		67	123
		4-Bromofluorobenzene	50	41.39	83		33	141

# Surrogate Summary

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW846 8260

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
D3811-10RE	SB-21(16-19)RE	1,2-Dichloroethane-d4	50	59.57	119		56	120
		Dibromofluoromethane	50	48.05	96		57	135
		Toluene-d8	50	50.78	102		67	123
		4-Bromofluorobenzene	50	59.37	119		33	141
D3811-11	SB-22(12-19)	1,2-Dichloroethane-d4	50	48.52	97		56	120
		Dibromofluoromethane	50	69.07	138	*	57	135
		Toluene-d8	50	52.46	105		67	123
		4-Bromofluorobenzene	50	38.72	77		33	141
D3811-11RE	SB-22(12-19)RE	1,2-Dichloroethane-d4	50	57.35	115		56	120
		Dibromofluoromethane	50	48.2	96		57	135
		Toluene-d8	50	51.64	103		67	123
		4-Bromofluorobenzene	50	58.92	118		33	141
D3811-13	SB-37(8-10)	1,2-Dichloroethane-d4	50	42.74	85		56	120
		Dibromofluoromethane	50	50.58	101		57	135
		Toluene-d8	50	48.11	96		67	123
		4-Bromofluorobenzene	50	39.05	78		33	141
D3811-13RE	SB-37(8-10)RE	1,2-Dichloroethane-d4	50	57.39	115		56	120
		Dibromofluoromethane	50	48.98	98		57	135
		Toluene-d8	50	51.5	103		67	123
		4-Bromofluorobenzene	50	61.02	122		33	141
D3811-14	SB-39(6-8)	1,2-Dichloroethane-d4	50	61.53	123	*	56	120
		Dibromofluoromethane	50	55.08	110		57	135
		Toluene-d8	50	55.76	112		67	123
		4-Bromofluorobenzene	50	42.87	86		33	141
D3811-14RE	SB-39(6-8)RE	1,2-Dichloroethane-d4	50	56.55	113		56	120
		Dibromofluoromethane	50	48.95	98		57	135
		Toluene-d8	50	50.67	101		67	123
		4-Bromofluorobenzene	50	58.42	117		33	141
D3811-15	SB-41(8-11)	1,2-Dichloroethane-d4	50	49.62	99		56	120
		Dibromofluoromethane	50	60.12	120		57	135
		Toluene-d8	50	45.76	92		67	123
		4-Bromofluorobenzene	50	22.15	44		33	141
D3811-15RE	SB-41(8-11)RE	1,2-Dichloroethane-d4	50	59.87	120		56	120
		Dibromofluoromethane	50	47.25	95		57	135
		Toluene-d8	50	50.2	100		67	123
		4-Bromofluorobenzene	50	52.71	105		33	141
D3811-17	SB-43(6-8)	1,2-Dichloroethane-d4	50	49.74	99		56	120
		Dibromofluoromethane	50	55.53	111		57	135
		Toluene-d8	50	48.46	97		67	123
		4-Bromofluorobenzene	50	25.23	50		33	141
D3811-17RE	SB-43(6-8)RE	1,2-Dichloroethane-d4	50	55.09	110		56	120
		Dibromofluoromethane	50	47.45	95		57	135
		Toluene-d8	50	49.06	98		67	123
		4-Bromofluorobenzene	50	53.93	108		33	141
D3811-18	SB-43(10-12)	1,2-Dichloroethane-d4	50	48.96	98		56	120
		Dibromofluoromethane	50	52.41	105		57	135
		Toluene-d8	50	48.55	97		67	123
		4-Bromofluorobenzene	50	37.51	75		33	141
D3811-18RE	SB-43(10-12)RE	1,2-Dichloroethane-d4	50	53.35	107		56	120
		Dibromofluoromethane	50	49.05	98		57	135
		Toluene-d8	50	51.97	104		67	123
		4-Bromofluorobenzene	50	57.23	114		33	141

## Surrogate Summary

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW846 8260

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
D3811-19	SB-43(16-20)	1,2-Dichloroethane-d4	50	52.46	105		56	120
		Dibromofluoromethane	50	56.88	114		57	135
		Toluene-d8	50	49.74	99		67	123
		4-Bromofluorobenzene	50	40.35	81		33	141
D3811-19RE	SB-43(16-20)RE	1,2-Dichloroethane-d4	50	52.07	104		56	120
		Dibromofluoromethane	50	48.42	97		57	135
		Toluene-d8	50	53.63	107		67	123
		4-Bromofluorobenzene	50	58.97	118		33	141
D3811-21	SB-46(12-16)	1,2-Dichloroethane-d4	50	50.15	100		56	120
		Dibromofluoromethane	50	54.3	109		57	135
		Toluene-d8	50	48.25	97		67	123
		4-Bromofluorobenzene	50	42.89	86		33	141
D3811-21RE	SB-46(12-16)RE	1,2-Dichloroethane-d4	50	56.63	113		56	120
		Dibromofluoromethane	50	47.69	95		57	135
		Toluene-d8	50	50.95	102		67	123
		4-Bromofluorobenzene	50	58.33	117		33	141
D3814-04MS	KY030LC023-120814MS	1,2-Dichloroethane-d4	50	61.26	123		55	158
		Dibromofluoromethane	50	55.59	111		53	156
		Toluene-d8	50	49.85	100		85	115
		4-Bromofluorobenzene	50	49.31	99		85	120
D3814-04MSD	KY030LC023-120814MSD	1,2-Dichloroethane-d4	50	55	110		55	158
		Dibromofluoromethane	50	54.51	109		53	156
		Toluene-d8	50	49	98		85	115
		4-Bromofluorobenzene	50	48.55	97		85	120
VD0815SBL01	VD0815SBL01	1,2-Dichloroethane-d4	50	58.33	117		56	120
		Dibromofluoromethane	50	53.02	106		57	135
		Toluene-d8	50	49.13	98		67	123
		4-Bromofluorobenzene	50	49.07	98		33	141
VD0815SBS01	VD0815SBS01	1,2-Dichloroethane-d4	50	51.51	103		56	120
		Dibromofluoromethane	50	44.92	90		57	135
		Toluene-d8	50	44.9	90		67	123
		4-Bromofluorobenzene	50	45.28	91		33	141
VD0816SBL01	VD0816SBL01	1,2-Dichloroethane-d4	50	51.84	104		56	120
		Dibromofluoromethane	50	48.66	97		57	135
		Toluene-d8	50	47.54	95		67	123
		4-Bromofluorobenzene	50	45.55	91		33	141
VD0816SBS01	VD0816SBS01	1,2-Dichloroethane-d4	50	56.68	113		56	120
		Dibromofluoromethane	50	48.87	98		57	135
		Toluene-d8	50	47.86	96		67	123
		4-Bromofluorobenzene	50	47.95	96		33	141
VF0815SBL01	VF0815SBL01	1,2-Dichloroethane-d4	50	55.42	111		56	120
		Dibromofluoromethane	50	56.43	113		57	135
		Toluene-d8	50	51.37	103		67	123
		4-Bromofluorobenzene	50	53.05	106		33	141
VF0815SBS01	VF0815SBS01	1,2-Dichloroethane-d4	50	51.02	102		56	120
		Dibromofluoromethane	50	53.75	108		57	135
		Toluene-d8	50	51.08	102		67	123
		4-Bromofluorobenzene	50	50.87	102		33	141
VF0816SBL01	VF0816SBL01	1,2-Dichloroethane-d4	50	51.9	104		55	158
		Dibromofluoromethane	50	56.37	113		53	156
		Toluene-d8	50	49.72	99		85	115
		4-Bromofluorobenzene	50	51.72	103		85	120



Surrogate Summary

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW846 8260

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
VF0816SBS01	VF0816SBS01	1,2-Dichloroethane-d4	50	54.71	109		55	158
		Dibromofluoromethane	50	56.05	112		53	156
		Toluene-d8	50	50.54	101		85	115
		4-Bromofluorobenzene	50	52.65	105		85	120

A  
B  
C  
D  
E  
F  
G

## SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Client SampleID : KY030LC023-120814MS Analytical Method: EPA SW846 8260 Datafile : VF034815.D

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC#	QC LIMITS REC
Dichlorodifluoromethane	68	0	73	107	(35-135)
Chloromethane	68	0	71	104	(50-130)
Vinyl Chloride	68	0	70	103	(60-125)
Ethyl Acetate	68	0	69	101	(66-138)
Isopropyl Acetate	68	0	54	79	(70-130)
N-amyl acetate	68	0	56	82	(71-131)
Bromomethane	68	0	69	101	(30-160)
Chloroethane	68	0	67	99	(40-155)
Trichlorofluoromethane	68	0	72	106	(25-185)
1,1,2-Trichlorotrifluoroethane	68	0	73	107	(63-141)
Tert butyl alcohol	342	0	410	120	(58-149)
Diethyl Ether	68	0	120	176*	(70-130)
1,1-Dichloroethene	68	0	71	104	(65-135)
Acrolein	342	0	240	70	(10-148)
Acrylonitrile	342	0	410	120	(62-147)
Acetone	342	130	460	96	(20-160)
Carbon Disulfide	68	0	65	96	(45-160)
Methyl tert-butyl Ether	68	0	80	118	(76-123)
Methyl Acetate	68	0	88	129	(44-187)
Methylene Chloride	68	0	80	118	(55-140)
trans-1,2-Dichloroethene	68	0	72	106	(65-135)
Vinyl Acetate	342	0	260	76	(10-142)
1,1-Dichloroethane	68	0	77	113	(75-125)
Cyclohexane	68	0	62	91	(66-132)
2-Butanone	342	0	400	117	(30-160)
Carbon Tetrachloride	68	0	59	87	(65-135)
2,2-Dichloropropane	68	0	65	96	(65-135)
cis-1,2-Dichloroethene	68	0	76	112	(65-125)
Bromochloromethane	68	0	83	122	(70-125)
Chloroform	68	0	79	116	(70-125)
1,1,1-Trichloroethane	68	0	74	109	(70-135)
Methylcyclohexane	68	0	54	79	(71-124)
1,1-Dichloropropene	68	0	66	97	(70-135)

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

\* Values outside of QC limits

## SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Client SampleID : KY030LC023-120814MS Analytical Method: EPA SW846 8260 Datafile : VF034815.D

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC#	QC LIMITS REC
Benzene	68	0	70	103	(75-125)
1,2-Dichloroethane	68	0	70	103	(70-135)
Trichloroethene	68	0	66	97	(75-125)
1,2-Dichloropropane	68	0	68	100	(70-120)
Dibromomethane	68	0	74	109	(75-130)
Bromodichloromethane	68	0	69	101	(70-130)
4-Methyl-2-Pentanone	342	0	360	105	(45-145)
Toluene	68	0	66	97	(70-125)
t-1,3-Dichloropropene	68	0	63	93	(65-125)
cis-1,3-Dichloropropene	68	0	65	96	(70-125)
1,1,2-Trichloroethane	68	0	74	109	(60-125)
1,3-Dichloropropane	68	0	72	106	(75-125)
2-Chloroethyl Vinyl ether	342	0	350	102	(10-144)
2-Hexanone	342	0	380	111	(45-145)
Dibromochloromethane	68	0	69	101	(65-130)
1,2-Dibromoethane	68	0	71	104	(70-125)
Tetrachloroethene	68	0	68	100	(65-140)
Chlorobenzene	68	0	65	96	(75-125)
1,1,1,2-Tetrachloroethane	68	0	68	100	(75-125)
Hexachloroethane	68	0	60	88	(74-122)
Ethyl Benzene	68	0	64	94	(75-125)
m/p-Xylenes	137	0	130	95	(80-125)
o-Xylene	68	0	66	97	(75-125)
Styrene	68	0	64	94	(75-125)
Bromoform	68	0	72	106	(55-135)
Isopropylbenzene	68	0	64	94	(75-130)
1,1,2,2-Tetrachloroethane	68	0	79	116	(55-130)
1,2,3-Trichloropropane	68	0	73	107	(65-130)
Bromobenzene	68	0	68	100	(65-120)
n-propylbenzene	68	0	63	93	(65-135)
2-Chlorotoluene	68	0	66	97	(70-130)
1,3,5-Trimethylbenzene	68	0	65	96	(65-135)
4-Chlorotoluene	68	0	65	96	(75-125)

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

\* Values outside of QC limits

## SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Client SampleID : KY030LC023-120814MS Analytical Method: EPA SW846 8260 Datafile : VF034815.D

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC#	QC LIMITS REC
tert-Butylbenzene	68	0	63	93	(65-130)
1,2,4-Trimethylbenzene	68	0	64	94	(65-135)
sec-Butylbenzene	68	0	63	93	(65-130)
p-Isopropyltoluene	68	0	64	94	(75-135)
1,3-Dichlorobenzene	68	0	65	96	(70-125)
1,4-Dichlorobenzene	68	0	66	97	(70-125)
n-Butylbenzene	68	0	61	90	(65-140)
1,2-Dichlorobenzene	68	0	66	97	(75-120)
1,2-Dibromo-3-Chloropropane	68	0	65	96	(40-135)
1,2,4-Trichlorobenzene	68	0	58	85	(65-130)
Hexachlorobutadiene	68	0	55	81	(55-140)
Naphthalene	68	0	64	94	(40-125)
1,2,3-Trichlorobenzene	68	0	57	84	(60-135)
Methyl Iodide	68	0	69	101	(70-130)
Allyl chloride	68	0	64	94	(70-130)
trans-1,4-Dichloro-2-butene	68	0	63	93	(70-130)
Methacrylonitrile	68	0	81	119	(70-130)
Ethyl methacrylate	68	0	68	100	(70-130)

RPD : 0 Out of 84 outside limits

Spike Recovery : 1 Out of 84 outside limits

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

\* Values outside of QC limits

## SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Client SampleID : KY030LC023-120814MSD Analytical Method: EPA SW846 8260 Datafile : VF034816.D

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD		QC LIMITS	
			%REC	%RPD	RPD	REC
Dichlorodifluoromethane	68	70	103	4	20	(35-135)
Chloromethane	68	75	110	6	20	(50-130)
Vinyl Chloride	68	74	109	6	20	(60-125)
Ethyl Acetate	68	62	91	10	20	(66-138)
Isopropyl Acetate	68	52	76	4	20	(70-130)
N-amyl acetate	68	54	79	4	20	(71-131)
Bromomethane	68	73	107	6	20	(30-160)
Chloroethane	68	78	115	15	20	(40-155)
Trichlorofluoromethane	68	75	110	4	20	(25-185)
1,1,2-Trichlorotrifluoroethane	68	76	112	5	20	(63-141)
Tert butyl alcohol	342	370	108	11	20	(58-149)
Diethyl Ether	68	120	176*	0	20	(70-130)
1,1-Dichloroethene	68	78	115	10	20	(65-135)
Acrolein	342	150	44	46*	20	(10-148)
Acrylonitrile	342	380	111	8	20	(62-147)
Acetone	342	430	88	9	20	(20-160)
Carbon Disulfide	68	71	104	8	20	(45-160)
Methyl tert-butyl Ether	68	83	122	3	20	(76-123)
Methyl Acetate	68	83	122	6	20	(44-187)
Methylene Chloride	68	84	124	5	20	(55-140)
trans-1,2-Dichloroethene	68	78	115	8	20	(65-135)
Vinyl Acetate	342	240	70	8	20	(10-142)
1,1-Dichloroethane	68	87	128*	12	20	(75-125)
Cyclohexane	68	68	100	9	20	(66-132)
2-Butanone	342	380	111	5	20	(30-160)
Carbon Tetrachloride	68	64	94	8	20	(65-135)
2,2-Dichloropropane	68	74	109	13	20	(65-135)
cis-1,2-Dichloroethene	68	85	125	11	20	(65-125)
Bromochloromethane	68	80	118	3	20	(70-125)
Chloroform	68	86	126*	8	20	(70-125)
1,1,1-Trichloroethane	68	80	118	8	20	(70-135)
Methylcyclohexane	68	60	88	11	20	(71-124)
1,1-Dichloropropene	68	70	103	6	20	(70-135)

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

\* Values outside of QC limits

## SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Client SampleID : KY030LC023-120814MSD Analytical Method: EPA SW846 8260 Datafile : VF034816.D

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD		QC LIMITS	
			%REC	%RPD	RPD	REC
Benzene	68	76	112	8	20	(75-125)
1,2-Dichloroethane	68	74	109	6	20	(70-135)
Trichloroethene	68	71	104	7	20	(75-125)
1,2-Dichloropropane	68	75	110	10	20	(70-120)
Dibromomethane	68	77	113	4	20	(75-130)
Bromodichloromethane	68	72	106	5	20	(70-130)
4-Methyl-2-Pentanone	342	350	102	3	20	(45-145)
Toluene	68	73	107	10	20	(70-125)
t-1,3-Dichloropropene	68	66	97	4	20	(65-125)
cis-1,3-Dichloropropene	68	68	100	4	20	(70-125)
1,1,2-Trichloroethane	68	73	107	2	20	(60-125)
1,3-Dichloropropane	68	75	110	4	20	(75-125)
2-Chloroethyl Vinyl ether	342	330	96	6	20	(10-144)
2-Hexanone	342	360	105	6	20	(45-145)
Dibromochloromethane	68	69	101	0	20	(65-130)
1,2-Dibromoethane	68	71	104	0	20	(70-125)
Tetrachloroethene	68	73	107	7	20	(65-140)
Chlorobenzene	68	74	109	13	20	(75-125)
1,1,1,2-Tetrachloroethane	68	73	107	7	20	(75-125)
Hexachloroethane	68	68	100	13	20	(74-122)
Ethyl Benzene	68	73	107	13	20	(75-125)
m/p-Xylenes	137	140	102	7	20	(80-125)
o-Xylene	68	71	104	7	20	(75-125)
Styrene	68	70	103	9	20	(75-125)
Bromoform	68	71	104	2	20	(55-135)
Isopropylbenzene	68	74	109	15	20	(75-130)
1,1,2,2-Tetrachloroethane	68	75	110	5	20	(55-130)
1,2,3-Trichloropropane	68	76	112	5	20	(65-130)
Bromobenzene	68	75	110	10	20	(65-120)
n-propylbenzene	68	72	106	13	20	(65-135)
2-Chlorotoluene	68	73	107	10	20	(70-130)
1,3,5-Trimethylbenzene	68	73	107	11	20	(65-135)
4-Chlorotoluene	68	74	109	13	20	(75-125)

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

\* Values outside of QC limits

## SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Client SampleID : KY030LC023-120814MSD Analytical Method: EPA SW846 8260 Datafile : VF034816.D

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD		QC LIMITS	
			%REC	%RPD	RPD	REC
tert-Butylbenzene	68	72	106	13	20	(65-130)
1,2,4-Trimethylbenzene	68	72	106	12	20	(65-135)
sec-Butylbenzene	68	71	104	11	20	(65-130)
p-Isopropyltoluene	68	71	104	10	20	(75-135)
1,3-Dichlorobenzene	68	71	104	8	20	(70-125)
1,4-Dichlorobenzene	68	72	106	9	20	(70-125)
n-Butylbenzene	68	66	97	7	20	(65-140)
1,2-Dichlorobenzene	68	72	106	9	20	(75-120)
1,2-Dibromo-3-Chloropropane	68	67	99	3	20	(40-135)
1,2,4-Trichlorobenzene	68	58	85	0	20	(65-130)
Hexachlorobutadiene	68	58	85	5	20	(55-140)
Naphthalene	68	61	90	4	20	(40-125)
1,2,3-Trichlorobenzene	68	55	81	4	20	(60-135)
Methyl Iodide	68	78	115	13	20	(70-130)
Allyl chloride	68	74	109	15	20	(70-130)
trans-1,4-Dichloro-2-butene	68	64	94	1	20	(70-130)
Methacrylonitrile	68	75	110	8	20	(70-130)
Ethyl methacrylate	68	64	94	6	20	(70-130)

RPD : 1 Out of 84 outside limits

Spike Recovery : 3 Out of 84 outside limits

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

\* Values outside of QC limits

## SOIL VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Matrix Spike - EPA Sample No : VD0815SBS01 Analytical Method: EPA SW846 8260 Datafile : VD036739.D

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		19	95	(50-142)
Chloromethane	20		24	120	(65-131)
Vinyl Chloride	20		22	110	(67-130)
Ethyl Acetate	20		24	120	(75-130)
Isopropyl Acetate	20		23	115	(79-123)
N-amyl acetate	20		21	105	(76-131)
Bromomethane	20		18	90	(64-136)
Chloroethane	20		23	115	(66-146)
Trichlorofluoromethane	20		22	110	(72-134)
1,1,2-Trichlorotrifluoroethane	20		23	115	(73-133)
Tert butyl alcohol	100		120	120	(64-139)
Diethyl Ether	20		24	120	(73-131)
1,1-Dichloroethene	20		22	110	(74-130)
Acrolein	100		91	91	(60-140)
Acrylonitrile	100		120	120	(71-130)
Acetone	100		150	150*	(57-135)
Carbon Disulfide	20		22	110	(71-130)
Methyl tert-butyl Ether	20		24	120	(76-123)
Methyl Acetate	20		25	125	(62-146)
Methylene Chloride	20		21	105	(73-134)
trans-1,2-Dichloroethene	20		21	105	(76-125)
Vinyl Acetate	100		140	140*	(68-132)
1,1-Dichloroethane	20		23	115	(78-124)
Cyclohexane	20		22	110	(72-130)
2-Butanone	100		130	130	(68-132)
Carbon Tetrachloride	20		17	85	(76-127)
2,2-Dichloropropane	20		23	115	(73-129)
cis-1,2-Dichloroethene	20		21	105	(78-122)
Bromochloromethane	20		24	120	(66-133)
Chloroform	20		22	110	(79-122)
1,1,1-Trichloroethane	20		20	100	(76-126)
Methylcyclohexane	20		19	95	(75-127)
1,1-Dichloropropene	20		20	100	(81-124)
Benzene	20		21	105	(79-124)

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

\* Values outside of QC limits

Comments: \_\_\_\_\_

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## SOIL VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Matrix Spike - EPA Sample No : VD0815SBS01 Analytical Method: EPA SW846 8260 Datafile : VD036739.D

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
1,2-Dichloroethane	20		21	105	(78-124)
Trichloroethene	20		19	95	(78-124)
1,2-Dichloropropane	20		21	105	(76-124)
Dibromomethane	20		21	105	(79-122)
Bromodichloromethane	20		20	100	(78-122)
4-Methyl-2-Pentanone	100		120	120	(73-135)
Toluene	20		20	100	(78-124)
t-1,3-Dichloropropene	20		21	105	(77-123)
cis-1,3-Dichloropropene	20		21	105	(79-120)
1,1,2-Trichloroethane	20		20	100	(78-123)
1,3-Dichloropropane	20		20	100	(79-123)
2-Chloroethyl Vinyl ether	100		110	110	(67-143)
2-Hexanone	100		110	110	(71-134)
Dibromochloromethane	20		19	95	(77-121)
1,2-Dibromoethane	20		19	95	(78-123)
Tetrachloroethene	20		19	95	(67-134)
Chlorobenzene	20		20	100	(80-121)
1,1,1,2-Tetrachloroethane	20		20	100	(81-119)
Hexachloroethane	20		18	90	(73-122)
Ethyl Benzene	20		20	100	(80-123)
m/p-Xylenes	40		39	98	(79-126)
o-Xylene	20		20	100	(80-122)
Styrene	20		20	100	(81-121)
Bromoform	20		19	95	(73-124)
Isopropylbenzene	20		20	100	(79-123)
1,1,2,2-Tetrachloroethane	20		22	110	(79-124)
1,2,3-Trichloropropane	20		22	110	(81-123)
Bromobenzene	20		20	100	(83-116)
n-propylbenzene	20		20	100	(80-125)
2-Chlorotoluene	20		20	100	(84-118)
1,3,5-Trimethylbenzene	20		19	95	(81-123)
4-Chlorotoluene	20		20	100	(85-118)
tert-Butylbenzene	20		19	95	(81-123)
1,2,4-Trimethylbenzene	20		20	100	(81-122)

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

\* Values outside of QC limits

Comments: \_\_\_\_\_

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## SOIL VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Matrix Spike - EPA Sample No : VD0815SBS01 Analytical Method: EPA SW846 8260 Datafile : VD036739.D

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
sec-Butylbenzene	20		20	100	(81-126)
p-Isopropyltoluene	20		19	95	(81-124)
1,3-Dichlorobenzene	20		19	95	(82-120)
1,4-Dichlorobenzene	20		19	95	(81-120)
n-Butylbenzene	20		19	95	(75-129)
1,2-Dichlorobenzene	20		20	100	(82-118)
1,2-Dibromo-3-Chloropropane	20		18	90	(72-127)
1,2,4-Trichlorobenzene	20		16	80	(75-125)
Hexachlorobutadiene	20		17	85	(79-124)
Naphthalene	20		5.8	29*	(71-126)
1,2,3-Trichlorobenzene	20		17	85	(79-123)
Methyl Iodide	20		17	85	(79-124)
Allyl chloride	20		22	110	(78-131)
trans-1,4-Dichloro-2-butene	20		20	100	(76-118)
Methacrylonitrile	20		25	125*	(70-123)
Ethyl methacrylate	20		21	105	(83-126)

RPD : 0 Out of 84 outside limits

Spike Recovery : 4 Out of 84 outside limits

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

\* Values outside of QC limits

Comments:

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## SOIL VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Matrix Spike - EPA Sample No : VD0816SBS01 Analytical Method: EPA SW846 8260 Datafile : VD036756.D

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		19	95	(50-142)
Chloromethane	20		23	115	(65-131)
Vinyl Chloride	20		24	120	(67-130)
Ethyl Acetate	20		25	125	(75-130)
Isopropyl Acetate	20		25	125*	(79-123)
N-amyl acetate	20		22	110	(76-131)
Bromomethane	20		24	120	(64-136)
Chloroethane	20		22	110	(66-146)
Trichlorofluoromethane	20		21	105	(72-134)
1,1,2-Trichlorotrifluoroethane	20		23	115	(73-133)
Tert butyl alcohol	100		120	120	(64-139)
Diethyl Ether	20		25	125	(73-131)
1,1-Dichloroethene	20		24	120	(74-130)
Acrolein	100		98	98	(60-140)
Acrylonitrile	100		120	120	(71-130)
Acetone	100		150	150*	(57-135)
Carbon Disulfide	20		24	120	(71-130)
Methyl tert-butyl Ether	20		24	120	(76-123)
Methyl Acetate	20		28	140	(62-146)
Methylene Chloride	20		21	105	(73-134)
trans-1,2-Dichloroethene	20		23	115	(76-125)
Vinyl Acetate	100		150	150*	(68-132)
1,1-Dichloroethane	20		23	115	(78-124)
Cyclohexane	20		22	110	(72-130)
2-Butanone	100		140	140*	(68-132)
Carbon Tetrachloride	20		15	75*	(76-127)
2,2-Dichloropropane	20		24	120	(73-129)
cis-1,2-Dichloroethene	20		21	105	(78-122)
Bromochloromethane	20		26	130	(66-133)
Chloroform	20		22	110	(79-122)
1,1,1-Trichloroethane	20		20	100	(76-126)
Methylcyclohexane	20		20	100	(75-127)
1,1-Dichloropropene	20		21	105	(81-124)
Benzene	20		21	105	(79-124)

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

\* Values outside of QC limits

Comments: \_\_\_\_\_

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## SOIL VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Matrix Spike - EPA Sample No : VD0816SBS01 Analytical Method: EPA SW846 8260 Datafile : VD036756.D

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
1,2-Dichloroethane	20		23	115	(78-124)
Trichloroethene	20		19	95	(78-124)
1,2-Dichloropropane	20		21	105	(76-124)
Dibromomethane	20		22	110	(79-122)
Bromodichloromethane	20		21	105	(78-122)
4-Methyl-2-Pentanone	100		120	120	(73-135)
Toluene	20		20	100	(78-124)
t-1,3-Dichloropropene	20		22	110	(77-123)
cis-1,3-Dichloropropene	20		22	110	(79-120)
1,1,2-Trichloroethane	20		20	100	(78-123)
1,3-Dichloropropane	20		23	115	(79-123)
2-Chloroethyl Vinyl ether	100		110	110	(67-143)
2-Hexanone	100		130	130	(71-134)
Dibromochloromethane	20		20	100	(77-121)
1,2-Dibromoethane	20		20	100	(78-123)
Tetrachloroethene	20		20	100	(67-134)
Chlorobenzene	20		19	95	(80-121)
1,1,1,2-Tetrachloroethane	20		20	100	(81-119)
Hexachloroethane	20		20	100	(73-122)
Ethyl Benzene	20		20	100	(80-123)
m/p-Xylenes	40		40	100	(79-126)
o-Xylene	20		19	95	(80-122)
Styrene	20		19	95	(81-121)
Bromoform	20		19	95	(73-124)
Isopropylbenzene	20		20	100	(79-123)
1,1,2,2-Tetrachloroethane	20		22	110	(79-124)
1,2,3-Trichloropropane	20		22	110	(81-123)
Bromobenzene	20		20	100	(83-116)
n-propylbenzene	20		21	105	(80-125)
2-Chlorotoluene	20		20	100	(84-118)
1,3,5-Trimethylbenzene	20		19	95	(81-123)
4-Chlorotoluene	20		21	105	(85-118)
tert-Butylbenzene	20		21	105	(81-123)
1,2,4-Trimethylbenzene	20		20	100	(81-122)

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

\* Values outside of QC limits

Comments: \_\_\_\_\_

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## SOIL VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Matrix Spike - EPA Sample No : VD0816SBS01 Analytical Method: EPA SW846 8260 Datafile : VD036756.D

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
sec-Butylbenzene	20		21	105	(81-126)
p-Isopropyltoluene	20		20	100	(81-124)
1,3-Dichlorobenzene	20		20	100	(82-120)
1,4-Dichlorobenzene	20		20	100	(81-120)
n-Butylbenzene	20		20	100	(75-129)
1,2-Dichlorobenzene	20		21	105	(82-118)
1,2-Dibromo-3-Chloropropane	20		20	100	(72-127)
1,2,4-Trichlorobenzene	20		18	90	(75-125)
Hexachlorobutadiene	20		20	100	(79-124)
Naphthalene	20		5.5	28*	(71-126)
1,2,3-Trichlorobenzene	20		17	85	(79-123)
Methyl Iodide	20		19	95	(79-124)
Allyl chloride	20		21	105	(78-131)
trans-1,4-Dichloro-2-butene	20		23	115	(76-118)
Methacrylonitrile	20		26	130*	(70-123)
Ethyl methacrylate	20		21	105	(83-126)

RPD : 0 Out of 84 outside limits

Spike Recovery : 7 Out of 84 outside limits

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

\* Values outside of QC limits

Comments:

## SOIL VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Matrix Spike - EPA Sample No : VF0815SBS01 Analytical Method: EPA SW846 8260 Datafile : VF034768.D

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		21	105	(50-142)
Chloromethane	20		22	110	(65-131)
Vinyl Chloride	20		22	110	(67-130)
Ethyl Acetate	20		20	100	(75-130)
Isopropyl Acetate	20		17	85	(79-123)
N-amyl acetate	20		19	95	(76-131)
Bromomethane	20		23	115	(64-136)
Chloroethane	20		22	110	(66-146)
Trichlorofluoromethane	20		22	110	(72-134)
1,1,2-Trichlorotrifluoroethane	20		22	110	(73-133)
Tert butyl alcohol	100		100	100	(64-139)
Diethyl Ether	20		18	90	(73-131)
1,1-Dichloroethene	20		23	115	(74-130)
Acrolein	100		66	66	(60-140)
Acrylonitrile	100		110	110	(71-130)
Acetone	100		95	95	(57-135)
Carbon Disulfide	20		22	110	(71-130)
Methyl tert-butyl Ether	20		21	105	(76-123)
Methyl Acetate	20		21	105	(62-146)
Methylene Chloride	20		21	105	(73-134)
trans-1,2-Dichloroethene	20		23	115	(76-125)
Vinyl Acetate	100		100	100	(68-132)
1,1-Dichloroethane	20		22	110	(78-124)
Cyclohexane	20		22	110	(72-130)
2-Butanone	100		96	96	(68-132)
Carbon Tetrachloride	20		21	105	(76-127)
2,2-Dichloropropane	20		23	115	(73-129)
cis-1,2-Dichloroethene	20		24	120	(78-122)
Bromochloromethane	20		22	110	(66-133)
Chloroform	20		23	115	(79-122)
1,1,1-Trichloroethane	20		22	110	(76-126)
Methylcyclohexane	20		22	110	(75-127)
1,1-Dichloropropene	20		22	110	(81-124)
Benzene	20		23	115	(79-124)

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

\* Values outside of QC limits

Comments: \_\_\_\_\_

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## SOIL VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Matrix Spike - EPA Sample No : VF0815SBS01 Analytical Method: EPA SW846 8260 Datafile : VF034768.D

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
1,2-Dichloroethane	20		21	105	(78-124)
Trichloroethene	20		23	115	(78-124)
1,2-Dichloropropane	20		22	110	(76-124)
Dibromomethane	20		21	105	(79-122)
Bromodichloromethane	20		21	105	(78-122)
4-Methyl-2-Pentanone	100		100	100	(73-135)
Toluene	20		22	110	(78-124)
t-1,3-Dichloropropene	20		20	100	(77-123)
cis-1,3-Dichloropropene	20		22	110	(79-120)
1,1,2-Trichloroethane	20		20	100	(78-123)
1,3-Dichloropropane	20		21	105	(79-123)
2-Chloroethyl Vinyl ether	100		81	81	(67-143)
2-Hexanone	100		110	110	(71-134)
Dibromochloromethane	20		22	110	(77-121)
1,2-Dibromoethane	20		21	105	(78-123)
Tetrachloroethene	20		22	110	(67-134)
Chlorobenzene	20		22	110	(80-121)
1,1,1,2-Tetrachloroethane	20		23	115	(81-119)
Hexachloroethane	20		22	110	(73-122)
Ethyl Benzene	20		22	110	(80-123)
m/p-Xylenes	40		45	113	(79-126)
o-Xylene	20		22	110	(80-122)
Styrene	20		22	110	(81-121)
Bromoform	20		21	105	(73-124)
Isopropylbenzene	20		22	110	(79-123)
1,1,2,2-Tetrachloroethane	20		20	100	(79-124)
1,2,3-Trichloropropane	20		19	95	(81-123)
Bromobenzene	20		23	115	(83-116)
n-propylbenzene	20		22	110	(80-125)
2-Chlorotoluene	20		22	110	(84-118)
1,3,5-Trimethylbenzene	20		22	110	(81-123)
4-Chlorotoluene	20		22	110	(85-118)
tert-Butylbenzene	20		22	110	(81-123)
1,2,4-Trimethylbenzene	20		22	110	(81-122)

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

\* Values outside of QC limits

Comments: \_\_\_\_\_

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## SOIL VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Matrix Spike - EPA Sample No : VF0815SBS01 Analytical Method: EPA SW846 8260 Datafile : VF034768.D

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
sec-Butylbenzene	20		23	115	(81-126)
p-Isopropyltoluene	20		23	115	(81-124)
1,3-Dichlorobenzene	20		23	115	(82-120)
1,4-Dichlorobenzene	20		22	110	(81-120)
n-Butylbenzene	20		23	115	(75-129)
1,2-Dichlorobenzene	20		22	110	(82-118)
1,2-Dibromo-3-Chloropropane	20		20	100	(72-127)
1,2,4-Trichlorobenzene	20		21	105	(75-125)
Hexachlorobutadiene	20		23	115	(79-124)
Naphthalene	20		20	100	(71-126)
1,2,3-Trichlorobenzene	20		20	100	(79-123)
Methyl Iodide	20		23	115	(79-124)
Allyl chloride	20		24	120	(78-131)
trans-1,4-Dichloro-2-butene	20		20	100	(76-118)
Methacrylonitrile	20		21	105	(70-123)
Ethyl methacrylate	20		20	100	(83-126)

RPD : 0 Out of 84 outside limits

Spike Recovery : 0 Out of 84 outside limits

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

\* Values outside of QC limits

Comments:

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## SOIL VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Matrix Spike - EPA Sample No : VF0816SBS01 Analytical Method: EPA SW846 8260 Datafile : VF034791.D

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		20	100	(35-135)
Chloromethane	20		22	110	(50-130)
Vinyl Chloride	20		22	110	(60-125)
Ethyl Acetate	20		23	115	(66-138)
Isopropyl Acetate	20		19	95	(70-130)
N-amyl acetate	20		21	105	(71-131)
Bromomethane	20		21	105	(30-160)
Chloroethane	20		20	100	(40-155)
Trichlorofluoromethane	20		22	110	(25-185)
1,1,2-Trichlorotrifluoroethane	20		23	115	(73-133)
Tert butyl alcohol	100		120	120	(58-149)
Diethyl Ether	20		20	100	(70-130)
1,1-Dichloroethene	20		23	115	(65-135)
Acrolein	100		87	87	(10-148)
Acrylonitrile	100		120	120	(62-147)
Acetone	100		100	100	(20-160)
Carbon Disulfide	20		23	115	(45-160)
Methyl tert-butyl Ether	20		24	120	(76-123)
Methyl Acetate	20		24	120	(44-187)
Methylene Chloride	20		23	115	(55-140)
trans-1,2-Dichloroethene	20		23	115	(65-135)
Vinyl Acetate	100		120	120	(10-142)
1,1-Dichloroethane	20		24	120	(75-125)
Cyclohexane	20		23	115	(66-132)
2-Butanone	100		120	120	(30-160)
Carbon Tetrachloride	20		22	110	(65-135)
2,2-Dichloropropane	20		22	110	(65-135)
cis-1,2-Dichloroethene	20		24	120	(65-125)
Bromochloromethane	20		25	125	(70-125)
Chloroform	20		24	120	(70-125)
1,1,1-Trichloroethane	20		22	110	(70-135)
Methylcyclohexane	20		23	115	(71-124)
1,1-Dichloropropene	20		22	110	(70-135)
Benzene	20		23	115	(75-125)

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

\* Values outside of QC limits

Comments: \_\_\_\_\_

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## SOIL VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Matrix Spike - EPA Sample No : VF0816SBS01 Analytical Method: EPA SW846 8260 Datafile : VF034791.D

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
1,2-Dichloroethane	20		22	110	(70-135)
Trichloroethene	20		22	110	(75-125)
1,2-Dichloropropane	20		22	110	(70-120)
Dibromomethane	20		21	105	(75-130)
Bromodichloromethane	20		21	105	(70-130)
4-Methyl-2-Pentanone	100		120	120	(45-145)
Toluene	20		21	105	(70-125)
t-1,3-Dichloropropene	20		22	110	(65-125)
cis-1,3-Dichloropropene	20		22	110	(70-125)
1,1,2-Trichloroethane	20		21	105	(60-125)
1,3-Dichloropropane	20		22	110	(75-125)
2-Chloroethyl Vinyl ether	100		120	120	(10-144)
2-Hexanone	100		110	110	(45-145)
Dibromochloromethane	20		22	110	(65-130)
1,2-Dibromoethane	20		21	105	(70-125)
Tetrachloroethene	20		21	105	(65-140)
Chlorobenzene	20		22	110	(75-125)
1,1,1,2-Tetrachloroethane	20		21	105	(75-125)
Hexachloroethane	20		22	110	(74-122)
Ethyl Benzene	20		22	110	(75-125)
m/p-Xylenes	40		44	110	(80-125)
o-Xylene	20		22	110	(75-125)
Styrene	20		22	110	(75-125)
Bromoform	20		23	115	(55-135)
Isopropylbenzene	20		22	110	(75-130)
1,1,2,2-Tetrachloroethane	20		24	120	(55-130)
1,2,3-Trichloropropane	20		23	115	(65-130)
Bromobenzene	20		21	105	(65-120)
n-propylbenzene	20		22	110	(65-135)
2-Chlorotoluene	20		23	115	(70-130)
1,3,5-Trimethylbenzene	20		22	110	(65-135)
4-Chlorotoluene	20		22	110	(75-125)
tert-Butylbenzene	20		22	110	(65-130)
1,2,4-Trimethylbenzene	20		21	105	(65-135)

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

\* Values outside of QC limits

Comments: \_\_\_\_\_

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## SOIL VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MS Analytical

Lab Code: CHEM Cas No: D3811 SAS No : D3811 SDG No: D3811

Matrix Spike - EPA Sample No : VF0816SBS01 Analytical Method: EPA SW846 8260 Datafile : VF034791.D

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
sec-Butylbenzene	20		23	115	(65-130)
p-Isopropyltoluene	20		23	115	(75-135)
1,3-Dichlorobenzene	20		22	110	(70-125)
1,4-Dichlorobenzene	20		22	110	(70-125)
n-Butylbenzene	20		23	115	(65-140)
1,2-Dichlorobenzene	20		22	110	(75-120)
1,2-Dibromo-3-Chloropropane	20		18	90	(40-135)
1,2,4-Trichlorobenzene	20		21	105	(65-130)
Hexachlorobutadiene	20		22	110	(55-140)
Naphthalene	20		20	100	(40-125)
1,2,3-Trichlorobenzene	20		22	110	(60-135)
Methyl Iodide	20		23	115	(70-130)
Allyl chloride	20		23	115	(70-130)
trans-1,4-Dichloro-2-butene	20		20	100	(70-130)
Methacrylonitrile	20		24	120	(70-130)
Ethyl methacrylate	20		22	110	(70-130)

RPD : 0 Out of 84 outside limits

Spike Recovery : 0 Out of 84 outside limits

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

\* Values outside of QC limits

Comments:

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## VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VD0815SBL01

Lab Name: CHEMTECH

Contract: MSAN01

Lab Code: CHEM Case No.: D3811

SAS No.: D3811 SDG NO.: D3811

Lab File ID: VD036738.D

Lab Sample ID: VD0815SBL01

Date Analyzed: 08/15/2012

Time Analyzed: 14:09

GC Column: RTX-624 ID: 0.25 (mm)

Heated Purge: (Y/N) Y

Instrument ID: MSVOA\_D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VD0815SBS01	VD0815SBS01	VD036739.D	08/15/2012
SB-2 (4-8) RE	D3811-01RE	VD036743.D	08/15/2012
SB-5 (18-12) RE	D3811-02RE	VD036744.D	08/15/2012
SB-9 (4-7) RE	D3811-03RE	VD036745.D	08/15/2012
SB-11 (12-16) RE	D3811-05RE	VD036746.D	08/15/2012
SB-15 (12-16) RE	D3811-06RE	VD036747.D	08/15/2012
SB-18 (4-8) RE	D3811-07RE	VD036748.D	08/15/2012
SB-21 (16-19) RE	D3811-10RE	VD036749.D	08/15/2012
SB-22 (12-19) RE	D3811-11RE	VD036750.D	08/15/2012
SB-37 (8-10) RE	D3811-13RE	VD036751.D	08/15/2012
SB-39 (6-8) RE	D3811-14RE	VD036752.D	08/15/2012

COMMENTS:

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## VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VD0816SBL01

Lab Name: CHEMTECH

Contract: MSAN01

Lab Code: CHEM Case No.: D3811

SAS No.: D3811 SDG NO.: D3811

Lab File ID: VD036755.D

Lab Sample ID: VD0816SBL01

Date Analyzed: 08/16/2012

Time Analyzed: 14:33

GC Column: RTX-624 ID: 0.25 (mm)

Heated Purge: (Y/N) Y

Instrument ID: MSVOA\_D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VD0816SBS01	VD0816SBS01	VD036756.D	08/16/2012
SB-41 (8-11) RE	D3811-15RE	VD036758.D	08/16/2012
SB-43 (6-8) RE	D3811-17RE	VD036759.D	08/16/2012
SB-43 (10-12) RE	D3811-18RE	VD036760.D	08/16/2012
SB-43 (16-20) RE	D3811-19RE	VD036761.D	08/16/2012
SB-46 (12-16) RE	D3811-21RE	VD036762.D	08/16/2012

COMMENTS: \_\_\_\_\_

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## VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VF0815SBL01

Lab Name: CHEMTECH

Contract: MSAN01

Lab Code: CHEM Case No.: D3811

SAS No.: D3811 SDG NO.: D3811

Lab File ID: VF034767.D

Lab Sample ID: VF0815SBL01

Date Analyzed: 08/15/2012

Time Analyzed: 13:03

GC Column: RTX-VMS ID: 0.18 (mm)

Heated Purge: (Y/N) Y

Instrument ID: MSVOA\_F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VF0815SBS01	VF0815SBS01	VF034768.D	08/15/2012
SB-2 (4-8)	D3811-01	VF034776.D	08/15/2012
SB-5 (18-12)	D3811-02	VF034777.D	08/15/2012
SB-9 (4-7)	D3811-03	VF034778.D	08/15/2012
SB-11 (12-16)	D3811-05	VF034779.D	08/15/2012
SB-15 (12-16)	D3811-06	VF034780.D	08/15/2012
SB-18 (4-8)	D3811-07	VF034781.D	08/15/2012
SB-21 (16-19)	D3811-10	VF034782.D	08/15/2012
SB-22 (12-19)	D3811-11	VF034783.D	08/15/2012
SB-37 (8-10)	D3811-13	VF034784.D	08/15/2012
SB-39 (6-8)	D3811-14	VF034785.D	08/15/2012

COMMENTS:

## VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VF0816SBL01

Lab Name: CHEMTECH

Contract: MSAN01

Lab Code: CHEM Case No.: D3811

SAS No.: D3811 SDG NO.: D3811

Lab File ID: VF034790.D

Lab Sample ID: VF0816SBL01

Date Analyzed: 08/16/2012

Time Analyzed: 13:18

GC Column: RTX-VMS ID: 0.18 (mm)

Heated Purge: (Y/N) Y

Instrument ID: MSVOA\_F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VF0816SBS01	VF0816SBS01	VF034791.D	08/16/2012
SB-41 (8-11)	D3811-15	VF034798.D	08/16/2012
SB-43 (6-8)	D3811-17	VF034799.D	08/16/2012
SB-43 (10-12)	D3811-18	VF034800.D	08/16/2012
SB-43 (16-20)	D3811-19	VF034801.D	08/16/2012
SB-46 (12-16)	D3811-21	VF034802.D	08/16/2012
KY030LC023-120814MS	D3814-04MS	VF034815.D	08/16/2012
KY030LC023-120814MSD	D3814-04MSD	VF034816.D	08/16/2012

COMMENTS: \_\_\_\_\_

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
Lab File ID: VD036715.D BFB Injection Date: 08/09/2012  
Instrument ID: MSVOA\_D BFB Injection Time: 10:07  
GC Column: RTX-624 ID: 0.25 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.2
75	30.0 - 60.0% of mass 95	48.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 ( 0.0 ) 1
174	50.0 - 100.0% of mass 95	89
175	5.0 - 9.0% of mass 174	7 ( 7.8 ) 1
176	95.0 - 101.0% of mass 174	88.8 ( 99.7 ) 1
177	5.0 - 9.0% of mass 176	4.7 ( 5.3 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC005	VSTDIC005	VD036716.D	08/09/2012	10:50
VSTDIC020	VSTDIC020	VD036717.D	08/09/2012	11:18
VSTDIC050	VSTDIC050	VD036718.D	08/09/2012	11:46
VSTDIC100	VSTDIC100	VD036719.D	08/09/2012	12:29
VSTDIC150	VSTDIC150	VD036720.D	08/09/2012	13:12
VSTDIC200	VSTDIC200	VD036721.D	08/09/2012	13:55



VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
Lab File ID: VD036736.D BFB Injection Date: 08/15/2012  
Instrument ID: MSVOA\_D BFB Injection Time: 11:35  
GC Column: RTX-624 ID: 0.25 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.3
75	30.0 - 60.0% of mass 95	48.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 ( 0.0 ) 1
174	50.0 - 100.0% of mass 95	79.6
175	5.0 - 9.0% of mass 174	6.2 ( 7.8 ) 1
176	95.0 - 101.0% of mass 174	77.8 ( 97.8 ) 1
177	5.0 - 9.0% of mass 176	4.2 ( 5.3 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VD036737.D	08/15/2012	13:05
VD0815SBL01	VD0815SBL01	VD036738.D	08/15/2012	14:09
VD0815SBS01	VD0815SBS01	VD036739.D	08/15/2012	14:44
SB-2(4-8)RE	D3811-01RE	VD036743.D	08/15/2012	16:37
SB-5(8-12)RE	D3811-02RE	VD036744.D	08/15/2012	17:06
SB-9(4-7)RE	D3811-03RE	VD036745.D	08/15/2012	17:34
SB-11(12-16)RE	D3811-05RE	VD036746.D	08/15/2012	18:03
SB-15(12-16)RE	D3811-06RE	VD036747.D	08/15/2012	18:31
SB-18(4-8)RE	D3811-07RE	VD036748.D	08/15/2012	18:59
SB-21(16-19)RE	D3811-10RE	VD036749.D	08/15/2012	19:28
SB-22(12-19)RE	D3811-11RE	VD036750.D	08/15/2012	19:57
SB-37(8-10)RE	D3811-13RE	VD036751.D	08/15/2012	20:25
SB-39(6-8)RE	D3811-14RE	VD036752.D	08/15/2012	20:54

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
Lab File ID: VD036753.D BFB Injection Date: 08/16/2012  
Instrument ID: MSVOA\_D BFB Injection Time: 11:10  
GC Column: RTX-624 ID: 0.25 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.3
75	30.0 - 60.0% of mass 95	47.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 ( 0.0 ) 1
174	50.0 - 100.0% of mass 95	78.8
175	5.0 - 9.0% of mass 174	6.4 ( 8.1 ) 1
176	95.0 - 101.0% of mass 174	78 ( 99 ) 1
177	5.0 - 9.0% of mass 176	5.2 ( 6.7 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VD036754.D	08/16/2012	13:29
VD0816SBL01	VD0816SBL01	VD036755.D	08/16/2012	14:33
VD0816SBS01	VD0816SBS01	VD036756.D	08/16/2012	15:07
SB-41(8-11)RE	D3811-15RE	VD036758.D	08/16/2012	16:04
SB-43(6-8)RE	D3811-17RE	VD036759.D	08/16/2012	16:32
SB-43(10-12)RE	D3811-18RE	VD036760.D	08/16/2012	17:01
SB-43(16-20)RE	D3811-19RE	VD036761.D	08/16/2012	17:29
SB-46(12-16)RE	D3811-21RE	VD036762.D	08/16/2012	17:58

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
Lab File ID: VF034675.D BFB Injection Date: 08/06/2012  
Instrument ID: MSVOA\_F BFB Injection Time: 10:15  
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.5
75	30.0 - 60.0% of mass 95	42.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 ( 0.0 ) 1
174	50.0 - 100.0% of mass 95	61.7
175	5.0 - 9.0% of mass 174	5.3 ( 8.6 ) 1
176	95.0 - 101.0% of mass 174	60.3 ( 97.7 ) 1
177	5.0 - 9.0% of mass 176	4.1 ( 6.8 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC005	VSTDIC005	VF034676.D	08/06/2012	10:56
VSTDIC020	VSTDIC020	VF034677.D	08/06/2012	11:19
VSTDIC050	VSTDIC050	VF034678.D	08/06/2012	11:42
VSTDIC075	VSTDIC075	VF034679.D	08/06/2012	12:04
VSTDIC100	VSTDIC100	VF034680.D	08/06/2012	12:27
VSTDIC150	VSTDIC150	VF034681.D	08/06/2012	12:50

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
Lab File ID: VF034765.D BFB Injection Date: 08/15/2012  
Instrument ID: MSVOA\_F BFB Injection Time: 10:15  
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.6
75	30.0 - 60.0% of mass 95	43.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.4 ( 0.6 ) 1
174	50.0 - 100.0% of mass 95	63.2
175	5.0 - 9.0% of mass 174	5.2 ( 8.3 ) 1
176	95.0 - 101.0% of mass 174	62.3 ( 98.6 ) 1
177	5.0 - 9.0% of mass 176	4.4 ( 7 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VF034766.D	08/15/2012	12:17
VF0815SBL01	VF0815SBL01	VF034767.D	08/15/2012	13:03
VF0815SBS01	VF0815SBS01	VF034768.D	08/15/2012	13:38
SB-2(4-8)	D3811-01	VF034776.D	08/15/2012	17:42
SB-5(8-12)	D3811-02	VF034777.D	08/15/2012	18:06
SB-9(4-7)	D3811-03	VF034778.D	08/15/2012	18:30
SB-11(12-16)	D3811-05	VF034779.D	08/15/2012	18:53
SB-15(12-16)	D3811-06	VF034780.D	08/15/2012	19:17
SB-18(4-8)	D3811-07	VF034781.D	08/15/2012	19:40
SB-21(16-19)	D3811-10	VF034782.D	08/15/2012	20:03
SB-22(12-19)	D3811-11	VF034783.D	08/15/2012	20:26
SB-37(8-10)	D3811-13	VF034784.D	08/15/2012	20:49
SB-39(6-8)	D3811-14	VF034785.D	08/15/2012	21:13

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
Lab File ID: VF034788.D BFB Injection Date: 08/16/2012  
Instrument ID: MSVOA\_F BFB Injection Time: 11:56  
GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.4
75	30.0 - 60.0% of mass 95	43.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.5 ( 0.8 ) 1
174	50.0 - 100.0% of mass 95	67
175	5.0 - 9.0% of mass 174	5.6 ( 8.4 ) 1
176	95.0 - 101.0% of mass 174	64.8 ( 96.7 ) 1
177	5.0 - 9.0% of mass 176	4 ( 6.1 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VF034789.D	08/16/2012	12:37
VF0816SBL01	VF0816SBL01	VF034790.D	08/16/2012	13:18
VF0816SBS01	VF0816SBS01	VF034791.D	08/16/2012	13:51
SB-41(8-11)	D3811-15	VF034798.D	08/16/2012	16:33
SB-43(6-8)	D3811-17	VF034799.D	08/16/2012	16:56
SB-43(10-12)	D3811-18	VF034800.D	08/16/2012	17:19
SB-43(16-20)	D3811-19	VF034801.D	08/16/2012	17:42
SB-46(12-16)	D3811-21	VF034802.D	08/16/2012	18:05
KY030LC023-120814MS	D3814-04MS	VF034815.D	08/16/2012	23:04
KY030LC023-120814MSD	D3814-04MSD	VF034816.D	08/16/2012	23:26

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
 Lab File ID: VD036737.D Date Analyzed: 08/15/2012  
 Instrument ID: MSVOA\_D Time Analyzed: 13:05  
 GC Column: RTX-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	449815	4.74	748202	5.45	611270	9.57
UPPER LIMIT	899630	5.24	1496404	5.95	1222540	10.07
LOWER LIMIT	224907.5	4.24	374101	4.95	305635	9.07
EPA SAMPLE NO.						
SB-2(4-8)RE	385457	4.74	689375	5.45	673224	9.58
SB-5(8-12)RE	373874	4.73	659037	5.45	666922	9.57
SB-9(4-7)RE	367175	4.73	663814	5.45	651235	9.57
SB-11(12-16)RE	363702	4.73	642960	5.45	636362	9.57
SB-15(12-16)RE	376372	4.73	675723	5.45	653962	9.58
SB-18(4-8)RE	367385	4.74	641257	5.45	623963	9.57
SB-21(16-19)RE	347038	4.73	625041	5.45	618007	9.57
SB-22(12-19)RE	354693	4.74	635091	5.45	638670	9.57
SB-37(8-10)RE	358464	4.74	636577	5.45	656307	9.58
SB-39(6-8)RE	350159	4.73	629857	5.44	645094	9.57
VD0815SBL01	469528	4.74	774465	5.45	668882	9.57
VD0815SBS01	458902	4.73	778112	5.45	635909	9.57

IS1 = Pentafluorobenzene  
 IS2 = 1,4-Difluorobenzene  
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = -50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT UPPER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
 Lab File ID: VD036737.D Date Analyzed: 08/15/2012  
 Instrument ID: MSVOA\_D Time Analyzed: 13:05  
 GC Column: RTX-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	278633	12.48				
UPPER LIMIT	557266	12.98				
LOWER LIMIT	139316.5	11.98				
EPA SAMPLE NO.						
SB-2(4-8)RE	321813	12.48				
SB-5(8-12)RE	318263	12.47				
SB-9(4-7)RE	292898	12.47				
SB-11(12-16)RE	287340	12.48				
SB-15(12-16)RE	312532	12.48				
SB-18(4-8)RE	293188	12.48				
SB-21(16-19)RE	284686	12.47				
SB-22(12-19)RE	290123	12.47				
SB-37(8-10)RE	318833	12.47				
SB-39(6-8)RE	283298	12.47				
VD0815SBL01	288690	12.47				
VD0815SBS01	300829	12.47				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
 Lab File ID: VD036754.D Date Analyzed: 08/16/2012  
 Instrument ID: MSVOA\_D Time Analyzed: 13:29  
 GC Column: RTX-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	461923	4.73	747947	5.45	601726	9.57
UPPER LIMIT	923846	5.23	1495894	5.95	1203452	10.07
LOWER LIMIT	230961.5	4.23	373973.5	4.95	300863	9.07
EPA SAMPLE NO.						
SB-41(8-11)RE	249008	4.73	452503	5.45	426686	9.57
SB-43(6-8)RE	391890	4.73	703056	5.45	663769	9.57
SB-43(10-12)RE	370284	4.73	641838	5.45	652286	9.57
SB-43(16-20)RE	364806	4.73	628132	5.44	661237	9.57
SB-46(12-16)RE	358506	4.73	647597	5.44	643236	9.57
VD0816SBL01	476003	4.74	773667	5.45	626036	9.59
VD0816SBS01	449816	4.73	741186	5.45	620078	9.57

IS1 = Pentafluorobenzene  
 IS2 = 1,4-Difluorobenzene  
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = -50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT UPPER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.



## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
 Lab File ID: VD036754.D Date Analyzed: 08/16/2012  
 Instrument ID: MSVOA\_D Time Analyzed: 13:29  
 GC Column: RTX-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	266485	12.47				
UPPER LIMIT	532970	12.97				
LOWER LIMIT	133242.5	11.97				
EPA SAMPLE NO.						
SB-41(8-11)RE	173799	12.48				
SB-43(6-8)RE	296903	12.47				
SB-43(10-12)RE	288042	12.48				
SB-43(16-20)RE	310866	12.47				
SB-46(12-16)RE	300082	12.47				
VD0816SBL01	268180	12.49				
VD0816SBS01	288558	12.47				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
 Lab File ID: VF034766.D Date Analyzed: 08/15/2012  
 Instrument ID: MSVOA\_F Time Analyzed: 12:17  
 GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	245328	4.40	447560	5.14	428731	9.35
UPPER LIMIT	490656	4.9	895120	5.64	857462	9.85
LOWER LIMIT	122664	3.9	223780	4.64	214365.5	8.85
EPA SAMPLE NO.						
SB-2(4-8)	179640	4.40	341497	5.15	350200	9.35
SB-5(8-12)	174967	4.40	323673	5.14	306225	9.35
SB-9(4-7)	177303	4.39	332082	5.14	274620	9.35
SB-11(12-16)	146028	4.40	268965	5.14	229671	9.35
SB-15(12-16)	184647	4.40	344512	5.15	331795	9.34
SB-18(4-8)	78092 *	4.41	159364 *	5.15	177213 *	9.34
SB-21(16-19)	144739	4.40	252434	5.14	196090 *	9.35
SB-22(12-19)	41989 *	4.41	70942 *	5.14	64882 *	9.35
SB-37(8-10)	175264	4.40	318607	5.14	283921	9.35
SB-39(6-8)	47977 *	4.40	94838 *	5.14	100429 *	9.35
VF0815SBL01	228021	4.41	419406	5.15	416710	9.34
VF0815SBS01	233329	4.40	433274	5.15	406809	9.34

IS1 = Pentafluorobenzene  
 IS2 = 1,4-Difluorobenzene  
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = -50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT UPPER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
 Lab File ID: VF034766.D Date Analyzed: 08/15/2012  
 Instrument ID: MSVOA\_F Time Analyzed: 12:17  
 GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	219316	12.25				
UPPER LIMIT	438632	12.75				
LOWER LIMIT	109658	11.75				
EPA SAMPLE NO.						
SB-2(4-8)	166776	12.25				
SB-5(8-12)	112351	12.25				
SB-9(4-7)	71302 *	12.25				
SB-11(12-16)	68504 *	12.25				
SB-15(12-16)	153744	12.25				
SB-18(4-8)	74335 *	12.25				
SB-21(16-19)	69856 *	12.25				
SB-22(12-19)	17979 *	12.25				
SB-37(8-10)	96800 *	12.25				
SB-39(6-8)	29408 *	12.25				
VF0815SBL01	210665	12.25				
VF0815SBS01	208848	12.25				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
 Lab File ID: VF034789.D Date Analyzed: 08/16/2012  
 Instrument ID: MSVOA\_F Time Analyzed: 12:37  
 GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	237442	4.40	450754	5.14	405481	9.35
UPPER LIMIT	474884	4.9	901508	5.64	810962	9.85
LOWER LIMIT	118721	3.9	225377	4.64	202740.5	8.85
EPA SAMPLE NO.						
SB-41(8-11)	133153	4.39	235559	5.14	159919 *	9.34
SB-43(6-8)	153180	4.40	277515	5.14	212608	9.35
SB-43(10-12)	160123	4.40	293506	5.14	264003	9.35
SB-43(16-20)	146812	4.41	274296	5.15	261779	9.34
SB-46(12-16)	158962	4.41	302327	5.14	286857	9.35
KY030LC023-120814MS	165469	4.40	330655	5.15	310828	9.34
KY030LC023-120814MSD	159209	4.40	320742	5.14	299179	9.34
VF0816SBL01	238586	4.40	430342	5.14	414933	9.34
VF0816SBS01	216622	4.40	415438	5.14	390302	9.34

IS1 = Pentafluorobenzene  
 IS2 = 1,4-Difluorobenzene  
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = -50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT UPPER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
 Lab File ID: VF034789.D Date Analyzed: 08/16/2012  
 Instrument ID: MSVOA\_F Time Analyzed: 12:37  
 GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	208213	12.24				
UPPER LIMIT	416426	12.74				
LOWER LIMIT	104106.5	11.74				
EPA SAMPLE NO.						
SB-41(8-11)	33978 *	12.25				
SB-43(6-8)	48505 *	12.25				
SB-43(10-12)	83166 *	12.24				
SB-43(16-20)	86787 *	12.25				
SB-46(12-16)	103039 *	12.25				
KY030LC023-120814MS	151954	12.25				
KY030LC023-120814MSD	144790	12.25				
VF0816SBL01	214467	12.24				
VF0816SBS01	196062	12.25				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

# QC SAMPLE DATA

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0815SBL01	SDG No.:	D3811
Lab Sample ID:	VD0815SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036738.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
141-78-6	Ethyl Acetate	2.5	U	0.87	2.5	5	ug/Kg
108-21-4	Isopropyl Acetate	2.5	U	1.2	2.5	5	ug/Kg
628-63-7	N-amyl acetate	2.5	U	0.94	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-65-0	Tert butyl alcohol	12.5	U	7.4	12.5	25	ug/Kg
60-29-7	Diethyl Ether	2.5	U	1.9	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
107-02-8	Acrolein	12.5	U	4	12.5	25	ug/Kg
107-13-1	Acrylonitrile	12.5	U	4.9	12.5	25	ug/Kg
67-64-1	Acetone	12.5	U	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
108-05-4	Vinyl Acetate	12.5	U	3.5	12.5	25	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
594-20-7	2,2-Dichloropropane	2.5	U	1	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0815SBL01	SDG No.:	D3811
Lab Sample ID:	VD0815SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036738.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
563-58-6	1,1-Dichloropropene	2.5	U	0.46	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
74-95-3	Dibromomethane	2.5	U	0.78	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
142-28-9	1,3-Dichloropropane	2.5	U	0.74	2.5	5	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	12.5	U	12	12.5	25	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	2.5	U	0.43	2.5	5	ug/Kg
67-72-1	Hexachloroethane	2.5	U	0.76	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
96-18-4	1,2,3-Trichloropropane	2.5	U	0.49	2.5	5	ug/Kg
108-86-1	Bromobenzene	2.5	U	0.52	2.5	5	ug/Kg
103-65-1	n-propylbenzene	2.5	U	0.36	2.5	5	ug/Kg



## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0815SBL01	SDG No.:	D3811
Lab Sample ID:	VD0815SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036738.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	2.5	U	0.74	2.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	2.5	U	0.45	2.5	5	ug/Kg
106-43-4	4-Chlorotoluene	2.5	U	0.62	2.5	5	ug/Kg
98-06-6	tert-Butylbenzene	2.5	U	0.59	2.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.5	U	0.5	2.5	5	ug/Kg
135-98-8	sec-Butylbenzene	2.5	U	0.52	2.5	5	ug/Kg
99-87-6	p-Isopropyltoluene	2.5	U	0.29	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
104-51-8	n-Butylbenzene	2.5	U	0.46	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-68-3	Hexachlorobutadiene	2.5	U	0.79	2.5	5	ug/Kg
91-20-3	Naphthalene	2.5	U	0.45	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
74-88-4	Methyl Iodide	5	U	5	5	5	ug/Kg
107-05-1	Allyl chloride	5	U	5	5	5	ug/Kg
126-98-7	Methacrylonitrile	5	U	5	5	5	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	5	U	5	5	5	ug/Kg
97-63-2	Ethyl methacrylate	5	U	5	5	5	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	58.3		56 - 120		117%	SPK: 50
1868-53-7	Dibromofluoromethane	53		57 - 135		106%	SPK: 50
2037-26-5	Toluene-d8	49.1		67 - 123		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.1		33 - 141		98%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	469528	4.74				
540-36-3	1,4-Difluorobenzene	774465	5.45				
3114-55-4	Chlorobenzene-d5	668882	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	288690	12.47				

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0815SBL01	SDG No.:	D3811
Lab Sample ID:	VD0815SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036738.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0816SBL01	SDG No.:	D3811
Lab Sample ID:	VD0816SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036755.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
141-78-6	Ethyl Acetate	2.5	U	0.87	2.5	5	ug/Kg
108-21-4	Isopropyl Acetate	2.5	U	1.2	2.5	5	ug/Kg
628-63-7	N-amyl acetate	2.5	U	0.94	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-65-0	Tert butyl alcohol	12.5	U	7.4	12.5	25	ug/Kg
60-29-7	Diethyl Ether	2.5	U	1.9	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
107-02-8	Acrolein	12.5	U	4	12.5	25	ug/Kg
107-13-1	Acrylonitrile	12.5	U	4.9	12.5	25	ug/Kg
67-64-1	Acetone	12.5	U	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
108-05-4	Vinyl Acetate	12.5	U	3.5	12.5	25	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
594-20-7	2,2-Dichloropropane	2.5	U	1	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0816SBL01	SDG No.:	D3811
Lab Sample ID:	VD0816SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036755.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
563-58-6	1,1-Dichloropropene	2.5	U	0.46	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
74-95-3	Dibromomethane	2.5	U	0.78	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
142-28-9	1,3-Dichloropropane	2.5	U	0.74	2.5	5	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	12.5	U	12	12.5	25	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	2.5	U	0.43	2.5	5	ug/Kg
67-72-1	Hexachloroethane	2.5	U	0.76	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
96-18-4	1,2,3-Trichloropropane	2.5	U	0.49	2.5	5	ug/Kg
108-86-1	Bromobenzene	2.5	U	0.52	2.5	5	ug/Kg
103-65-1	n-propylbenzene	2.5	U	0.36	2.5	5	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0816SBL01	SDG No.:	D3811
Lab Sample ID:	VD0816SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036755.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	2.5	U	0.74	2.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	2.5	U	0.45	2.5	5	ug/Kg
106-43-4	4-Chlorotoluene	2.5	U	0.62	2.5	5	ug/Kg
98-06-6	tert-Butylbenzene	2.5	U	0.59	2.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.5	U	0.5	2.5	5	ug/Kg
135-98-8	sec-Butylbenzene	2.5	U	0.52	2.5	5	ug/Kg
99-87-6	p-Isopropyltoluene	2.5	U	0.29	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
104-51-8	n-Butylbenzene	2.5	U	0.46	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-68-3	Hexachlorobutadiene	2.5	U	0.79	2.5	5	ug/Kg
91-20-3	Naphthalene	2.5	U	0.45	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
74-88-4	Methyl Iodide	5	U	5	5	5	ug/Kg
107-05-1	Allyl chloride	5	U	5	5	5	ug/Kg
126-98-7	Methacrylonitrile	5	U	5	5	5	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	5	U	5	5	5	ug/Kg
97-63-2	Ethyl methacrylate	5	U	5	5	5	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	51.8		56 - 120		104%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		57 - 135		97%	SPK: 50
2037-26-5	Toluene-d8	47.5		67 - 123		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.6		33 - 141		91%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	476003	4.74				
540-36-3	1,4-Difluorobenzene	773667	5.45				
3114-55-4	Chlorobenzene-d5	626036	9.59				
3855-82-1	1,4-Dichlorobenzene-d4	268180	12.49				

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0816SBL01	SDG No.:	D3811
Lab Sample ID:	VD0816SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036755.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0815SBL01	SDG No.:	D3811
Lab Sample ID:	VF0815SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034767.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
141-78-6	Ethyl Acetate	2.5	U	0.87	2.5	5	ug/Kg
108-21-4	Isopropyl Acetate	2.5	U	1.2	2.5	5	ug/Kg
628-63-7	N-amyl acetate	2.5	U	0.94	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-65-0	Tert butyl alcohol	12.5	U	7.4	12.5	25	ug/Kg
60-29-7	Diethyl Ether	2.5	U	1.9	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
107-02-8	Acrolein	12.5	U	4	12.5	25	ug/Kg
107-13-1	Acrylonitrile	12.5	U	4.9	12.5	25	ug/Kg
67-64-1	Acetone	12.5	U	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
108-05-4	Vinyl Acetate	12.5	U	3.5	12.5	25	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
594-20-7	2,2-Dichloropropane	2.5	U	1	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0815SBL01	SDG No.:	D3811
Lab Sample ID:	VF0815SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034767.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
563-58-6	1,1-Dichloropropene	2.5	U	0.46	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
74-95-3	Dibromomethane	2.5	U	0.78	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
142-28-9	1,3-Dichloropropane	2.5	U	0.74	2.5	5	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	12.5	U	12	12.5	25	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	2.5	U	0.43	2.5	5	ug/Kg
67-72-1	Hexachloroethane	2.5	U	0.76	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
96-18-4	1,2,3-Trichloropropane	2.5	U	0.49	2.5	5	ug/Kg
108-86-1	Bromobenzene	2.5	U	0.52	2.5	5	ug/Kg
103-65-1	n-propylbenzene	2.5	U	0.36	2.5	5	ug/Kg



# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0815SBL01	SDG No.:	D3811
Lab Sample ID:	VF0815SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034767.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	2.5	U	0.74	2.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	2.5	U	0.45	2.5	5	ug/Kg
106-43-4	4-Chlorotoluene	2.5	U	0.62	2.5	5	ug/Kg
98-06-6	tert-Butylbenzene	2.5	U	0.59	2.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.5	U	0.5	2.5	5	ug/Kg
135-98-8	sec-Butylbenzene	2.5	U	0.52	2.5	5	ug/Kg
99-87-6	p-Isopropyltoluene	2.5	U	0.29	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
104-51-8	n-Butylbenzene	2.5	U	0.46	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-68-3	Hexachlorobutadiene	2.5	U	0.79	2.5	5	ug/Kg
91-20-3	Naphthalene	2.5	U	0.45	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
74-88-4	Methyl Iodide	5	U	5	5	5	ug/Kg
107-05-1	Allyl chloride	5	U	5	5	5	ug/Kg
126-98-7	Methacrylonitrile	5	U	5	5	5	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	5	U	5	5	5	ug/Kg
97-63-2	Ethyl methacrylate	5	U	5	5	5	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	55.4		56 - 120		111%	SPK: 50
1868-53-7	Dibromofluoromethane	56.4		57 - 135		113%	SPK: 50
2037-26-5	Toluene-d8	51.4		67 - 123		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	53		33 - 141		106%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	228021	4.41				
540-36-3	1,4-Difluorobenzene	419406	5.15				
3114-55-4	Chlorobenzene-d5	416710	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	210665	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0815SBL01	SDG No.:	D3811
Lab Sample ID:	VF0815SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034767.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0816SBL01	SDG No.:	D3811
Lab Sample ID:	VF0816SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034790.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
141-78-6	Ethyl Acetate	2.5	U	0.87	2.5	5	ug/Kg
108-21-4	Isopropyl Acetate	2.5	U	1.2	2.5	5	ug/Kg
628-63-7	N-amyl acetate	2.5	U	0.94	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-65-0	Tert butyl alcohol	12.5	U	7.4	12.5	25	ug/Kg
60-29-7	Diethyl Ether	2.5	U	1.9	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
107-02-8	Acrolein	12.5	U	4	12.5	25	ug/Kg
107-13-1	Acrylonitrile	12.5	U	4.9	12.5	25	ug/Kg
67-64-1	Acetone	12.5	U	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
108-05-4	Vinyl Acetate	12.5	U	3.5	12.5	25	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
594-20-7	2,2-Dichloropropane	2.5	U	1	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0816SBL01	SDG No.:	D3811
Lab Sample ID:	VF0816SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034790.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
563-58-6	1,1-Dichloropropene	2.5	U	0.46	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
74-95-3	Dibromomethane	2.5	U	0.78	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
142-28-9	1,3-Dichloropropane	2.5	U	0.74	2.5	5	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	12.5	U	12	12.5	25	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	2.5	U	0.43	2.5	5	ug/Kg
67-72-1	Hexachloroethane	2.5	U	0.76	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
96-18-4	1,2,3-Trichloropropane	2.5	U	0.49	2.5	5	ug/Kg
108-86-1	Bromobenzene	2.5	U	0.52	2.5	5	ug/Kg
103-65-1	n-propylbenzene	2.5	U	0.36	2.5	5	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0816SBL01	SDG No.:	D3811
Lab Sample ID:	VF0816SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034790.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	2.5	U	0.74	2.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	2.5	U	0.45	2.5	5	ug/Kg
106-43-4	4-Chlorotoluene	2.5	U	0.62	2.5	5	ug/Kg
98-06-6	tert-Butylbenzene	2.5	U	0.59	2.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2.5	U	0.5	2.5	5	ug/Kg
135-98-8	sec-Butylbenzene	2.5	U	0.52	2.5	5	ug/Kg
99-87-6	p-Isopropyltoluene	2.5	U	0.29	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
104-51-8	n-Butylbenzene	2.5	U	0.46	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-68-3	Hexachlorobutadiene	2.5	U	0.79	2.5	5	ug/Kg
91-20-3	Naphthalene	2.5	U	0.45	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
74-88-4	Methyl Iodide	5	U	5	5	5	ug/Kg
107-05-1	Allyl chloride	5	U	5	5	5	ug/Kg
126-98-7	Methacrylonitrile	5	U	5	5	5	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	5	U	5	5	5	ug/Kg
97-63-2	Ethyl methacrylate	5	U	5	5	5	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	51.9		55 - 158		104%	SPK: 50
1868-53-7	Dibromofluoromethane	56.4		53 - 156		113%	SPK: 50
2037-26-5	Toluene-d8	49.7		85 - 115		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.7		85 - 120		103%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	238586	4.4				
540-36-3	1,4-Difluorobenzene	430342	5.14				
3114-55-4	Chlorobenzene-d5	414933	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	214467	12.24				

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0816SBL01	SDG No.:	D3811
Lab Sample ID:	VF0816SBL01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034790.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0815SBS01	SDG No.:	D3811
Lab Sample ID:	VD0815SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036739.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	19		0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	24		0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	22		1.2	2.5	5	ug/Kg
141-78-6	Ethyl Acetate	24		0.87	2.5	5	ug/Kg
108-21-4	Isopropyl Acetate	23		1.2	2.5	5	ug/Kg
628-63-7	N-amyl acetate	21		0.94	2.5	5	ug/Kg
74-83-9	Bromomethane	18		2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	23		1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	22		1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	23		1.3	2.5	5	ug/Kg
75-65-0	Tert butyl alcohol	120		7.4	12.5	25	ug/Kg
60-29-7	Diethyl Ether	24		1.9	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	22		1.5	2.5	5	ug/Kg
107-02-8	Acrolein	91		4	12.5	25	ug/Kg
107-13-1	Acrylonitrile	120		4.9	12.5	25	ug/Kg
67-64-1	Acetone	150		3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	22		1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	24		0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	25		1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	21		1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	21		0.69	2.5	5	ug/Kg
108-05-4	Vinyl Acetate	140		3.5	12.5	25	ug/Kg
75-34-3	1,1-Dichloroethane	23		0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	22		1	2.5	5	ug/Kg
78-93-3	2-Butanone	130		3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	17		0.99	2.5	5	ug/Kg
594-20-7	2,2-Dichloropropane	23		1	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	21		0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	24		0.79	2.5	5	ug/Kg
67-66-3	Chloroform	22		0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	20		0.88	2.5	5	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0815SBS01	SDG No.:	D3811
Lab Sample ID:	VD0815SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036739.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	19		1.1	2.5	5	ug/Kg
563-58-6	1,1-Dichloropropene	20		0.46	2.5	5	ug/Kg
71-43-2	Benzene	21		0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	21		0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	19		0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	21		0.26	2.5	5	ug/Kg
74-95-3	Dibromomethane	21		0.78	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	20		0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	120		2.9	12.5	25	ug/Kg
108-88-3	Toluene	20		0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	21		0.79	2.5	5	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	21		0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	20		0.9	2.5	5	ug/Kg
142-28-9	1,3-Dichloropropane	20		0.74	2.5	5	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	110		12	12.5	25	ug/Kg
591-78-6	2-Hexanone	110		3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	19		0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	19		0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	19		1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	20		0.5	2.5	5	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	20		0.43	2.5	5	ug/Kg
67-72-1	Hexachloroethane	18		0.76	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	20		0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	39		0.72	5	10	ug/Kg
95-47-6	o-Xylene	20		0.68	2.5	5	ug/Kg
100-42-5	Styrene	20		0.45	2.5	5	ug/Kg
75-25-2	Bromoform	19		0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	20		0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	22		0.46	2.5	5	ug/Kg
96-18-4	1,2,3-Trichloropropane	22		0.49	2.5	5	ug/Kg
108-86-1	Bromobenzene	20		0.52	2.5	5	ug/Kg
103-65-1	n-propylbenzene	20		0.36	2.5	5	ug/Kg



# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0815SBS01	SDG No.:	D3811
Lab Sample ID:	VD0815SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036739.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	20		0.74	2.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	19		0.45	2.5	5	ug/Kg
106-43-4	4-Chlorotoluene	20		0.62	2.5	5	ug/Kg
98-06-6	tert-Butylbenzene	19		0.59	2.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	20		0.5	2.5	5	ug/Kg
135-98-8	sec-Butylbenzene	20		0.52	2.5	5	ug/Kg
99-87-6	p-Isopropyltoluene	19		0.29	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	19		0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	19		0.41	2.5	5	ug/Kg
104-51-8	n-Butylbenzene	19		0.46	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	20		0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	18		0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	16		0.7	2.5	5	ug/Kg
87-68-3	Hexachlorobutadiene	17		0.79	2.5	5	ug/Kg
91-20-3	Naphthalene	5.8		0.45	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	17		0.5	2.5	5	ug/Kg
74-88-4	Methyl Iodide	17		5	5	5	ug/Kg
107-05-1	Allyl chloride	22		5	5	5	ug/Kg
126-98-7	Methacrylonitrile	25		5	5	5	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	20		5	5	5	ug/Kg
97-63-2	Ethyl methacrylate	21		5	5	5	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	51.5		56 - 120		103%	SPK: 50
1868-53-7	Dibromofluoromethane	44.9		57 - 135		90%	SPK: 50
2037-26-5	Toluene-d8	44.9		67 - 123		90%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.3		33 - 141		91%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	458902	4.73				
540-36-3	1,4-Difluorobenzene	778112	5.45				
3114-55-4	Chlorobenzene-d5	635909	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	300829	12.47				

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0815SBS01	SDG No.:	D3811
Lab Sample ID:	VD0815SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036739.D	1		08/15/12	VD081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0816SBS01	SDG No.:	D3811
Lab Sample ID:	VD0816SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036756.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	19		0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	23		0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	24		1.2	2.5	5	ug/Kg
141-78-6	Ethyl Acetate	25		0.87	2.5	5	ug/Kg
108-21-4	Isopropyl Acetate	25		1.2	2.5	5	ug/Kg
628-63-7	N-amyl acetate	22		0.94	2.5	5	ug/Kg
74-83-9	Bromomethane	24		2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	22		1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	21		1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	23		1.3	2.5	5	ug/Kg
75-65-0	Tert butyl alcohol	120		7.4	12.5	25	ug/Kg
60-29-7	Diethyl Ether	25		1.9	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	24		1.5	2.5	5	ug/Kg
107-02-8	Acrolein	98		4	12.5	25	ug/Kg
107-13-1	Acrylonitrile	120		4.9	12.5	25	ug/Kg
67-64-1	Acetone	150		3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	24		1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	24		0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	28		1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	21		1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	23		0.69	2.5	5	ug/Kg
108-05-4	Vinyl Acetate	150		3.5	12.5	25	ug/Kg
75-34-3	1,1-Dichloroethane	23		0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	22		1	2.5	5	ug/Kg
78-93-3	2-Butanone	140		3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	15		0.99	2.5	5	ug/Kg
594-20-7	2,2-Dichloropropane	24		1	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	21		0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	26		0.79	2.5	5	ug/Kg
67-66-3	Chloroform	22		0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	20		0.88	2.5	5	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0816SBS01	SDG No.:	D3811
Lab Sample ID:	VD0816SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036756.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	20		1.1	2.5	5	ug/Kg
563-58-6	1,1-Dichloropropene	21		0.46	2.5	5	ug/Kg
71-43-2	Benzene	21		0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	23		0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	19		0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	21		0.26	2.5	5	ug/Kg
74-95-3	Dibromomethane	22		0.78	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	21		0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	120		2.9	12.5	25	ug/Kg
108-88-3	Toluene	20		0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	22		0.79	2.5	5	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	22		0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	20		0.9	2.5	5	ug/Kg
142-28-9	1,3-Dichloropropane	23		0.74	2.5	5	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	110		12	12.5	25	ug/Kg
591-78-6	2-Hexanone	130		3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	20		0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	20		0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	20		1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	19		0.5	2.5	5	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	20		0.43	2.5	5	ug/Kg
67-72-1	Hexachloroethane	20		0.76	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	20		0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	40		0.72	5	10	ug/Kg
95-47-6	o-Xylene	19		0.68	2.5	5	ug/Kg
100-42-5	Styrene	19		0.45	2.5	5	ug/Kg
75-25-2	Bromoform	19		0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	20		0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	22		0.46	2.5	5	ug/Kg
96-18-4	1,2,3-Trichloropropane	22		0.49	2.5	5	ug/Kg
108-86-1	Bromobenzene	20		0.52	2.5	5	ug/Kg
103-65-1	n-propylbenzene	21		0.36	2.5	5	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0816SBS01	SDG No.:	D3811
Lab Sample ID:	VD0816SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036756.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	20		0.74	2.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	19		0.45	2.5	5	ug/Kg
106-43-4	4-Chlorotoluene	21		0.62	2.5	5	ug/Kg
98-06-6	tert-Butylbenzene	21		0.59	2.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	20		0.5	2.5	5	ug/Kg
135-98-8	sec-Butylbenzene	21		0.52	2.5	5	ug/Kg
99-87-6	p-Isopropyltoluene	20		0.29	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	20		0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	20		0.41	2.5	5	ug/Kg
104-51-8	n-Butylbenzene	20		0.46	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	21		0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	20		0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18		0.7	2.5	5	ug/Kg
87-68-3	Hexachlorobutadiene	20		0.79	2.5	5	ug/Kg
91-20-3	Naphthalene	5.5		0.45	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	17		0.5	2.5	5	ug/Kg
74-88-4	Methyl Iodide	19		5	5	5	ug/Kg
107-05-1	Allyl chloride	21		5	5	5	ug/Kg
126-98-7	Methacrylonitrile	26		5	5	5	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	23		5	5	5	ug/Kg
97-63-2	Ethyl methacrylate	21		5	5	5	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	56.7		56 - 120		113%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		57 - 135		98%	SPK: 50
2037-26-5	Toluene-d8	47.9		67 - 123		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	48		33 - 141		96%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	449816	4.73				
540-36-3	1,4-Difluorobenzene	741186	5.45				
3114-55-4	Chlorobenzene-d5	620078	9.57				
3855-82-1	1,4-Dichlorobenzene-d4	288558	12.47				

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VD0816SBS01	SDG No.:	D3811
Lab Sample ID:	VD0816SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD036756.D	1		08/16/12	VD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0815SBS01	SDG No.:	D3811
Lab Sample ID:	VF0815SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034768.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	21		0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	22		0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	22		1.2	2.5	5	ug/Kg
141-78-6	Ethyl Acetate	20		0.87	2.5	5	ug/Kg
108-21-4	Isopropyl Acetate	17		1.2	2.5	5	ug/Kg
628-63-7	N-amyl acetate	19		0.94	2.5	5	ug/Kg
74-83-9	Bromomethane	23		2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	22		1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	22		1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	22		1.3	2.5	5	ug/Kg
75-65-0	Tert butyl alcohol	100		7.4	12.5	25	ug/Kg
60-29-7	Diethyl Ether	18		1.9	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	23		1.5	2.5	5	ug/Kg
107-02-8	Acrolein	66		4	12.5	25	ug/Kg
107-13-1	Acrylonitrile	110		4.9	12.5	25	ug/Kg
67-64-1	Acetone	95		3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	22		1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	21		0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	21		1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	21		1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	23		0.69	2.5	5	ug/Kg
108-05-4	Vinyl Acetate	100		3.5	12.5	25	ug/Kg
75-34-3	1,1-Dichloroethane	22		0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	22		1	2.5	5	ug/Kg
78-93-3	2-Butanone	96		3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	21		0.99	2.5	5	ug/Kg
594-20-7	2,2-Dichloropropane	23		1	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	24		0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	22		0.79	2.5	5	ug/Kg
67-66-3	Chloroform	23		0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	22		0.88	2.5	5	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0815SBS01	SDG No.:	D3811
Lab Sample ID:	VF0815SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034768.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	22		1.1	2.5	5	ug/Kg
563-58-6	1,1-Dichloropropene	22		0.46	2.5	5	ug/Kg
71-43-2	Benzene	23		0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	21		0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	23		0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	22		0.26	2.5	5	ug/Kg
74-95-3	Dibromomethane	21		0.78	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	21		0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	100		2.9	12.5	25	ug/Kg
108-88-3	Toluene	22		0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	20		0.79	2.5	5	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	22		0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	20		0.9	2.5	5	ug/Kg
142-28-9	1,3-Dichloropropane	21		0.74	2.5	5	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	81		12	12.5	25	ug/Kg
591-78-6	2-Hexanone	110		3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	22		0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	21		0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	22		1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	22		0.5	2.5	5	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	23		0.43	2.5	5	ug/Kg
67-72-1	Hexachloroethane	22		0.76	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	22		0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	45		0.72	5	10	ug/Kg
95-47-6	o-Xylene	22		0.68	2.5	5	ug/Kg
100-42-5	Styrene	22		0.45	2.5	5	ug/Kg
75-25-2	Bromoform	21		0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	22		0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	20		0.46	2.5	5	ug/Kg
96-18-4	1,2,3-Trichloropropane	19		0.49	2.5	5	ug/Kg
108-86-1	Bromobenzene	23		0.52	2.5	5	ug/Kg
103-65-1	n-propylbenzene	22		0.36	2.5	5	ug/Kg



# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0815SBS01	SDG No.:	D3811
Lab Sample ID:	VF0815SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034768.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	22		0.74	2.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	22		0.45	2.5	5	ug/Kg
106-43-4	4-Chlorotoluene	22		0.62	2.5	5	ug/Kg
98-06-6	tert-Butylbenzene	22		0.59	2.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	22		0.5	2.5	5	ug/Kg
135-98-8	sec-Butylbenzene	23		0.52	2.5	5	ug/Kg
99-87-6	p-Isopropyltoluene	23		0.29	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	23		0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	22		0.41	2.5	5	ug/Kg
104-51-8	n-Butylbenzene	23		0.46	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	22		0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	20		0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	21		0.7	2.5	5	ug/Kg
87-68-3	Hexachlorobutadiene	23		0.79	2.5	5	ug/Kg
91-20-3	Naphthalene	20		0.45	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	20		0.5	2.5	5	ug/Kg
74-88-4	Methyl Iodide	23		5	5	5	ug/Kg
107-05-1	Allyl chloride	24		5	5	5	ug/Kg
126-98-7	Methacrylonitrile	21		5	5	5	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	20		5	5	5	ug/Kg
97-63-2	Ethyl methacrylate	20		5	5	5	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	51		56 - 120		102%	SPK: 50
1868-53-7	Dibromofluoromethane	53.8		57 - 135		108%	SPK: 50
2037-26-5	Toluene-d8	51.1		67 - 123		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.9		33 - 141		102%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	233329	4.4				
540-36-3	1,4-Difluorobenzene	433274	5.15				
3114-55-4	Chlorobenzene-d5	406809	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	208848	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0815SBS01	SDG No.:	D3811
Lab Sample ID:	VF0815SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034768.D	1		08/15/12	VF081512

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0816SBS01	SDG No.:	D3811
Lab Sample ID:	VF0816SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034791.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	20		0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	22		0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	22		1.2	2.5	5	ug/Kg
141-78-6	Ethyl Acetate	23		0.87	2.5	5	ug/Kg
108-21-4	Isopropyl Acetate	19		1.2	2.5	5	ug/Kg
628-63-7	N-amyl acetate	21		0.94	2.5	5	ug/Kg
74-83-9	Bromomethane	21		2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	20		1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	22		1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	23		1.3	2.5	5	ug/Kg
75-65-0	Tert butyl alcohol	120		7.4	12.5	25	ug/Kg
60-29-7	Diethyl Ether	20		1.9	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	23		1.5	2.5	5	ug/Kg
107-02-8	Acrolein	87		4	12.5	25	ug/Kg
107-13-1	Acrylonitrile	120		4.9	12.5	25	ug/Kg
67-64-1	Acetone	100		3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	23		1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	24		0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	24		1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	23		1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	23		0.69	2.5	5	ug/Kg
108-05-4	Vinyl Acetate	120		3.5	12.5	25	ug/Kg
75-34-3	1,1-Dichloroethane	24		0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	23		1	2.5	5	ug/Kg
78-93-3	2-Butanone	120		3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	22		0.99	2.5	5	ug/Kg
594-20-7	2,2-Dichloropropane	22		1	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	24		0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	25		0.79	2.5	5	ug/Kg
67-66-3	Chloroform	24		0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	22		0.88	2.5	5	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0816SBS01	SDG No.:	D3811
Lab Sample ID:	VF0816SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034791.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	23		1.1	2.5	5	ug/Kg
563-58-6	1,1-Dichloropropene	22		0.46	2.5	5	ug/Kg
71-43-2	Benzene	23		0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	22		0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	22		0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	22		0.26	2.5	5	ug/Kg
74-95-3	Dibromomethane	21		0.78	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	21		0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	120		2.9	12.5	25	ug/Kg
108-88-3	Toluene	21		0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	22		0.79	2.5	5	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	22		0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	21		0.9	2.5	5	ug/Kg
142-28-9	1,3-Dichloropropane	22		0.74	2.5	5	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	120		12	12.5	25	ug/Kg
591-78-6	2-Hexanone	110		3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	22		0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	21		0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	21		1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	22		0.5	2.5	5	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	21		0.43	2.5	5	ug/Kg
67-72-1	Hexachloroethane	22		0.76	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	22		0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	44		0.72	5	10	ug/Kg
95-47-6	o-Xylene	22		0.68	2.5	5	ug/Kg
100-42-5	Styrene	22		0.45	2.5	5	ug/Kg
75-25-2	Bromoform	23		0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	22		0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	24		0.46	2.5	5	ug/Kg
96-18-4	1,2,3-Trichloropropane	23		0.49	2.5	5	ug/Kg
108-86-1	Bromobenzene	21		0.52	2.5	5	ug/Kg
103-65-1	n-propylbenzene	22		0.36	2.5	5	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0816SBS01	SDG No.:	D3811
Lab Sample ID:	VF0816SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034791.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	23		0.74	2.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	22		0.45	2.5	5	ug/Kg
106-43-4	4-Chlorotoluene	22		0.62	2.5	5	ug/Kg
98-06-6	tert-Butylbenzene	22		0.59	2.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	21		0.5	2.5	5	ug/Kg
135-98-8	sec-Butylbenzene	23		0.52	2.5	5	ug/Kg
99-87-6	p-Isopropyltoluene	23		0.29	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	22		0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	22		0.41	2.5	5	ug/Kg
104-51-8	n-Butylbenzene	23		0.46	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	22		0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	18		0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	21		0.7	2.5	5	ug/Kg
87-68-3	Hexachlorobutadiene	22		0.79	2.5	5	ug/Kg
91-20-3	Naphthalene	20		0.45	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	22		0.5	2.5	5	ug/Kg
74-88-4	Methyl Iodide	23		5	5	5	ug/Kg
107-05-1	Allyl chloride	23		5	5	5	ug/Kg
126-98-7	Methacrylonitrile	24		5	5	5	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	20		5	5	5	ug/Kg
97-63-2	Ethyl methacrylate	22		5	5	5	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	54.7		55 - 158		109%	SPK: 50
1868-53-7	Dibromofluoromethane	56		53 - 156		112%	SPK: 50
2037-26-5	Toluene-d8	50.5		85 - 115		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.6		85 - 120		105%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	216622	4.4				
540-36-3	1,4-Difluorobenzene	415438	5.14				
3114-55-4	Chlorobenzene-d5	390302	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	196062	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	VF0816SBS01	SDG No.:	D3811
Lab Sample ID:	VF0816SBS01	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034791.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/14/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	KY030LC023-120814MS	SDG No.:	D3811
Lab Sample ID:	D3814-04MS	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	27
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034815.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	73		0.89	3.4	6.8	ug/Kg
74-87-3	Chloromethane	71		1.2	3.4	6.8	ug/Kg
75-01-4	Vinyl Chloride	70		1.7	3.4	6.8	ug/Kg
141-78-6	Ethyl Acetate	69		1.2	3.4	6.8	ug/Kg
108-21-4	Isopropyl Acetate	54		1.6	3.4	6.8	ug/Kg
628-63-7	N-amyl acetate	56		1.3	3.4	6.8	ug/Kg
74-83-9	Bromomethane	69		3.4	3.4	6.8	ug/Kg
75-00-3	Chloroethane	67		1.9	3.4	6.8	ug/Kg
75-69-4	Trichlorofluoromethane	72		1.8	3.4	6.8	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	73		1.8	3.4	6.8	ug/Kg
75-65-0	Tert butyl alcohol	410		10	17	34	ug/Kg
60-29-7	Diethyl Ether	120		2.6	3.4	6.8	ug/Kg
75-35-4	1,1-Dichloroethene	71		2	3.4	6.8	ug/Kg
107-02-8	Acrolein	240		5.5	17	34	ug/Kg
107-13-1	Acrylonitrile	410		6.7	17	34	ug/Kg
67-64-1	Acetone	460		4.1	17	34	ug/Kg
75-15-0	Carbon Disulfide	65		1.5	3.4	6.8	ug/Kg
1634-04-4	Methyl tert-butyl Ether	80		1.3	3.4	6.8	ug/Kg
79-20-9	Methyl Acetate	88		2.1	3.4	6.8	ug/Kg
75-09-2	Methylene Chloride	80		1.9	3.4	6.8	ug/Kg
156-60-5	trans-1,2-Dichloroethene	72		0.95	3.4	6.8	ug/Kg
108-05-4	Vinyl Acetate	260		4.8	17	34	ug/Kg
75-34-3	1,1-Dichloroethane	77		1.3	3.4	6.8	ug/Kg
110-82-7	Cyclohexane	62		1.4	3.4	6.8	ug/Kg
78-93-3	2-Butanone	400		4.3	17	34	ug/Kg
56-23-5	Carbon Tetrachloride	59		1.4	3.4	6.8	ug/Kg
594-20-7	2,2-Dichloropropane	65		1.4	3.4	6.8	ug/Kg
156-59-2	cis-1,2-Dichloroethene	76		1.2	3.4	6.8	ug/Kg
74-97-5	Bromochloromethane	83		1.1	3.4	6.8	ug/Kg
67-66-3	Chloroform	79		1	3.4	6.8	ug/Kg
71-55-6	1,1,1-Trichloroethane	74		1.2	3.4	6.8	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/14/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	KY030LC023-120814MS	SDG No.:	D3811
Lab Sample ID:	D3814-04MS	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	27
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034815.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	54		1.5	3.4	6.8	ug/Kg
563-58-6	1,1-Dichloropropene	66		0.63	3.4	6.8	ug/Kg
71-43-2	Benzene	70		0.52	3.4	6.8	ug/Kg
107-06-2	1,2-Dichloroethane	70		0.88	3.4	6.8	ug/Kg
79-01-6	Trichloroethene	66		1.2	3.4	6.8	ug/Kg
78-87-5	1,2-Dichloropropane	68		0.36	3.4	6.8	ug/Kg
74-95-3	Dibromomethane	74		1.1	3.4	6.8	ug/Kg
75-27-4	Bromodichloromethane	69		0.85	3.4	6.8	ug/Kg
108-10-1	4-Methyl-2-Pentanone	360		4	17	34	ug/Kg
108-88-3	Toluene	66		0.88	3.4	6.8	ug/Kg
10061-02-6	t-1,3-Dichloropropene	63		1.1	3.4	6.8	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	65		0.99	3.4	6.8	ug/Kg
79-00-5	1,1,2-Trichloroethane	74		1.2	3.4	6.8	ug/Kg
142-28-9	1,3-Dichloropropane	72		1	3.4	6.8	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	350		16	17	34	ug/Kg
591-78-6	2-Hexanone	380		5.4	17	34	ug/Kg
124-48-1	Dibromochloromethane	69		0.74	3.4	6.8	ug/Kg
106-93-4	1,2-Dibromoethane	71		0.88	3.4	6.8	ug/Kg
127-18-4	Tetrachloroethene	68		1.4	3.4	6.8	ug/Kg
108-90-7	Chlorobenzene	65		0.68	3.4	6.8	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	68		0.59	3.4	6.8	ug/Kg
67-72-1	Hexachloroethane	60		1	3.4	6.8	ug/Kg
100-41-4	Ethyl Benzene	64		0.85	3.4	6.8	ug/Kg
179601-23-1	m/p-Xylenes	130		0.99	7	14	ug/Kg
95-47-6	o-Xylene	66		0.93	3.4	6.8	ug/Kg
100-42-5	Styrene	64		0.62	3.4	6.8	ug/Kg
75-25-2	Bromoform	72		1	3.4	6.8	ug/Kg
98-82-8	Isopropylbenzene	64		0.66	3.4	6.8	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	79		0.63	3.4	6.8	ug/Kg
96-18-4	1,2,3-Trichloropropane	73		0.67	3.4	6.8	ug/Kg
108-86-1	Bromobenzene	68		0.71	3.4	6.8	ug/Kg
103-65-1	n-propylbenzene	63		0.49	3.4	6.8	ug/Kg



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/14/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	KY030LC023-120814MS	SDG No.:	D3811
Lab Sample ID:	D3814-04MS	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	27
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034815.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	66		1	3.4	6.8	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	65		0.62	3.4	6.8	ug/Kg
106-43-4	4-Chlorotoluene	65		0.85	3.4	6.8	ug/Kg
98-06-6	tert-Butylbenzene	63		0.81	3.4	6.8	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	64		0.68	3.4	6.8	ug/Kg
135-98-8	sec-Butylbenzene	63		0.71	3.4	6.8	ug/Kg
99-87-6	p-Isopropyltoluene	64		0.4	3.4	6.8	ug/Kg
541-73-1	1,3-Dichlorobenzene	65		0.51	3.4	6.8	ug/Kg
106-46-7	1,4-Dichlorobenzene	66		0.56	3.4	6.8	ug/Kg
104-51-8	n-Butylbenzene	61		0.63	3.4	6.8	ug/Kg
95-50-1	1,2-Dichlorobenzene	66		0.85	3.4	6.8	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	65		1.2	3.4	6.8	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	58		0.96	3.4	6.8	ug/Kg
87-68-3	Hexachlorobutadiene	55		1.1	3.4	6.8	ug/Kg
91-20-3	Naphthalene	64		0.62	3.4	6.8	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	57		0.68	3.4	6.8	ug/Kg
74-88-4	Methyl Iodide	69		6.8	6.8	6.8	ug/Kg
107-05-1	Allyl chloride	64		6.8	6.8	6.8	ug/Kg
126-98-7	Methacrylonitrile	81		6.8	6.8	6.8	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	63		6.8	6.8	6.8	ug/Kg
97-63-2	Ethyl methacrylate	68		6.8	6.8	6.8	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	61.3		55 - 158		123%	SPK: 50
1868-53-7	Dibromofluoromethane	55.6		53 - 156		111%	SPK: 50
2037-26-5	Toluene-d8	49.8		85 - 115		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.3		85 - 120		99%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	165469	4.4				
540-36-3	1,4-Difluorobenzene	330655	5.15				
3114-55-4	Chlorobenzene-d5	310828	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	151954	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/14/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	KY030LC023-120814MS	SDG No.:	D3811
Lab Sample ID:	D3814-04MS	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	27
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034815.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/14/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	KY030LC023-120814MSD	SDG No.:	D3811
Lab Sample ID:	D3814-04MSD	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	27
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034816.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	70		0.89	3.4	6.8	ug/Kg
74-87-3	Chloromethane	75		1.2	3.4	6.8	ug/Kg
75-01-4	Vinyl Chloride	74		1.7	3.4	6.8	ug/Kg
141-78-6	Ethyl Acetate	62		1.2	3.4	6.8	ug/Kg
108-21-4	Isopropyl Acetate	52		1.6	3.4	6.8	ug/Kg
628-63-7	N-amyl acetate	54		1.3	3.4	6.8	ug/Kg
74-83-9	Bromomethane	73		3.4	3.4	6.8	ug/Kg
75-00-3	Chloroethane	78		1.9	3.4	6.8	ug/Kg
75-69-4	Trichlorofluoromethane	75		1.8	3.4	6.8	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	76		1.8	3.4	6.8	ug/Kg
75-65-0	Tert butyl alcohol	370		10	17	34	ug/Kg
60-29-7	Diethyl Ether	120		2.6	3.4	6.8	ug/Kg
75-35-4	1,1-Dichloroethene	78		2	3.4	6.8	ug/Kg
107-02-8	Acrolein	150		5.5	17	34	ug/Kg
107-13-1	Acrylonitrile	380		6.7	17	34	ug/Kg
67-64-1	Acetone	430		4.1	17	34	ug/Kg
75-15-0	Carbon Disulfide	71		1.5	3.4	6.8	ug/Kg
1634-04-4	Methyl tert-butyl Ether	83		1.3	3.4	6.8	ug/Kg
79-20-9	Methyl Acetate	83		2.1	3.4	6.8	ug/Kg
75-09-2	Methylene Chloride	84		1.9	3.4	6.8	ug/Kg
156-60-5	trans-1,2-Dichloroethene	78		0.95	3.4	6.8	ug/Kg
108-05-4	Vinyl Acetate	240		4.8	17	34	ug/Kg
75-34-3	1,1-Dichloroethane	87		1.3	3.4	6.8	ug/Kg
110-82-7	Cyclohexane	68		1.4	3.4	6.8	ug/Kg
78-93-3	2-Butanone	380		4.3	17	34	ug/Kg
56-23-5	Carbon Tetrachloride	64		1.4	3.4	6.8	ug/Kg
594-20-7	2,2-Dichloropropane	74		1.4	3.4	6.8	ug/Kg
156-59-2	cis-1,2-Dichloroethene	85		1.2	3.4	6.8	ug/Kg
74-97-5	Bromochloromethane	80		1.1	3.4	6.8	ug/Kg
67-66-3	Chloroform	86		1	3.4	6.8	ug/Kg
71-55-6	1,1,1-Trichloroethane	80		1.2	3.4	6.8	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/14/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	KY030LC023-120814MSD	SDG No.:	D3811
Lab Sample ID:	D3814-04MSD	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	27
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034816.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-87-2	Methylcyclohexane	60		1.5	3.4	6.8	ug/Kg
563-58-6	1,1-Dichloropropene	70		0.63	3.4	6.8	ug/Kg
71-43-2	Benzene	76		0.52	3.4	6.8	ug/Kg
107-06-2	1,2-Dichloroethane	74		0.88	3.4	6.8	ug/Kg
79-01-6	Trichloroethene	71		1.2	3.4	6.8	ug/Kg
78-87-5	1,2-Dichloropropane	75		0.36	3.4	6.8	ug/Kg
74-95-3	Dibromomethane	77		1.1	3.4	6.8	ug/Kg
75-27-4	Bromodichloromethane	72		0.85	3.4	6.8	ug/Kg
108-10-1	4-Methyl-2-Pentanone	350		4	17	34	ug/Kg
108-88-3	Toluene	73		0.88	3.4	6.8	ug/Kg
10061-02-6	t-1,3-Dichloropropene	66		1.1	3.4	6.8	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	68		0.99	3.4	6.8	ug/Kg
79-00-5	1,1,2-Trichloroethane	73		1.2	3.4	6.8	ug/Kg
142-28-9	1,3-Dichloropropane	75		1	3.4	6.8	ug/Kg
110-75-8	2-Chloroethyl Vinyl ether	330		16	17	34	ug/Kg
591-78-6	2-Hexanone	360		5.4	17	34	ug/Kg
124-48-1	Dibromochloromethane	69		0.74	3.4	6.8	ug/Kg
106-93-4	1,2-Dibromoethane	71		0.88	3.4	6.8	ug/Kg
127-18-4	Tetrachloroethene	73		1.4	3.4	6.8	ug/Kg
108-90-7	Chlorobenzene	74		0.68	3.4	6.8	ug/Kg
630-20-6	1,1,1,2-Tetrachloroethane	73		0.59	3.4	6.8	ug/Kg
67-72-1	Hexachloroethane	68		1	3.4	6.8	ug/Kg
100-41-4	Ethyl Benzene	73		0.85	3.4	6.8	ug/Kg
179601-23-1	m/p-Xylenes	140		0.99	7	14	ug/Kg
95-47-6	o-Xylene	71		0.93	3.4	6.8	ug/Kg
100-42-5	Styrene	70		0.62	3.4	6.8	ug/Kg
75-25-2	Bromoform	71		1	3.4	6.8	ug/Kg
98-82-8	Isopropylbenzene	74		0.66	3.4	6.8	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	75		0.63	3.4	6.8	ug/Kg
96-18-4	1,2,3-Trichloropropane	76		0.67	3.4	6.8	ug/Kg
108-86-1	Bromobenzene	75		0.71	3.4	6.8	ug/Kg
103-65-1	n-propylbenzene	72		0.49	3.4	6.8	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/14/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	KY030LC023-120814MSD	SDG No.:	D3811
Lab Sample ID:	D3814-04MSD	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	27
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034816.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-49-8	2-Chlorotoluene	73		1	3.4	6.8	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	73		0.62	3.4	6.8	ug/Kg
106-43-4	4-Chlorotoluene	74		0.85	3.4	6.8	ug/Kg
98-06-6	tert-Butylbenzene	72		0.81	3.4	6.8	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	72		0.68	3.4	6.8	ug/Kg
135-98-8	sec-Butylbenzene	71		0.71	3.4	6.8	ug/Kg
99-87-6	p-Isopropyltoluene	71		0.4	3.4	6.8	ug/Kg
541-73-1	1,3-Dichlorobenzene	71		0.51	3.4	6.8	ug/Kg
106-46-7	1,4-Dichlorobenzene	72		0.56	3.4	6.8	ug/Kg
104-51-8	n-Butylbenzene	66		0.63	3.4	6.8	ug/Kg
95-50-1	1,2-Dichlorobenzene	72		0.85	3.4	6.8	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	67		1.2	3.4	6.8	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	58		0.96	3.4	6.8	ug/Kg
87-68-3	Hexachlorobutadiene	58		1.1	3.4	6.8	ug/Kg
91-20-3	Naphthalene	61		0.62	3.4	6.8	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	55		0.68	3.4	6.8	ug/Kg
74-88-4	Methyl Iodide	78		6.8	6.8	6.8	ug/Kg
107-05-1	Allyl chloride	74		6.8	6.8	6.8	ug/Kg
126-98-7	Methacrylonitrile	75		6.8	6.8	6.8	ug/Kg
110-57-6	trans-1,4-Dichloro-2-butene	64		6.8	6.8	6.8	ug/Kg
97-63-2	Ethyl methacrylate	64		6.8	6.8	6.8	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	55		55 - 158		110%	SPK: 50
1868-53-7	Dibromofluoromethane	54.5		53 - 156		109%	SPK: 50
2037-26-5	Toluene-d8	49		85 - 115		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.6		85 - 120		97%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	159209	4.4				
540-36-3	1,4-Difluorobenzene	320742	5.14				
3114-55-4	Chlorobenzene-d5	299179	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	144790	12.25				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/14/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	KY030LC023-120814MSD	SDG No.:	D3811
Lab Sample ID:	D3814-04MSD	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	27
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-Chemtech Full -15
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034816.D	1		08/16/12	VF081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# CALIBRATION SUMMURY

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
 Instrument ID: MSVOAD Calibration Date(s): 08/09/2012 08/09/2012  
 Heated Purge: (Y/N) Y Calibration Time(s): 10:50 13:55  
 GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID:	RRF005 = VD036716.D	RRF020 = VD036717.D	RRF050 = VD036718.D					
	RRF100 = VD036719.D	RRF150 = VD036720.D	RRF200 = VD036721.D					
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF150	RRF200	RRF	% RSD
Dichlorodifluoromethane	0.624	0.567	0.655	0.645	0.634	0.600	0.621	5.2
Chloromethane	1.162	0.987	1.031	1.066	1.053	1.014	1.052	5.8
Vinyl Chloride	0.609	0.643	0.663	0.707	0.687	0.660	0.661	5.2
Ethyl Acetate	0.188	0.159	0.205	0.171	0.182	0.182	0.181	8.5
Isopropyl Acetate	0.326	0.274	0.379	0.302	0.302	0.338	0.32	11.4
N-amyl acetate	1.091	0.898	1.199	1.043	1.057	1.115	1.067	9.3
Bromomethane	0.226	0.211	0.235	0.232	0.238	0.217	0.226	4.7
Chloroethane	0.224	0.204	0.218	0.195	0.175	0.159	0.196	12.8
Trichlorofluoromethane	0.722	0.814	0.868	0.854	0.831	0.615	0.784	12.4
1,1,2-Trichlorotrifluoroethane	0.551	0.569	0.569	0.621	0.550	0.493	0.559	7.4
Tert butyl alcohol	0.026	0.023	0.033	0.023	0.024	0.025	0.026	14.9
Diethyl Ether	0.191	0.170	0.194	0.176	0.173	0.168	0.179	6.2
1,1-Dichloroethene	0.559	0.470	0.492	0.509	0.459	0.426	0.486	9.5
Acrolein	0.028	0.020	0.017	0.014	0.015	0.015	0.018	29.5
Acrylonitrile	0.089	0.081	0.106	0.086	0.085	0.088	0.089	9.7
Acetone	0.133	0.105	0.139	0.104	0.103	0.103	0.115	14.6
Carbon Disulfide	1.683	1.655	1.659	1.894	1.640	1.470	1.667	8.1
Methyl tert-butyl Ether	0.949	0.863	1.161	0.957	0.970	0.969	0.978	10
Methyl Acetate	0.529	0.504	0.672	0.544	0.589	0.609	0.575	10.7
Methylene Chloride	0.649	0.496	0.555	0.521	0.509	0.500	0.538	10.8
trans-1,2-Dichloroethene	0.640	0.614	0.663	0.619	0.613	0.575	0.621	4.8
Vinyl Acetate	0.230	0.243	0.352	0.314	0.326	0.335	0.3	17
1,1-Dichloroethane	1.060	0.980	1.096	1.044	1.014	0.965	1.026	4.9
Cyclohexane	1.079	1.016	1.060	1.034	1.026	0.939	1.026	4.7
2-Butanone	0.142	0.127	0.168	0.129	0.139	0.138	0.14	10.5
Carbon Tetrachloride	0.308	0.353	0.420	0.433	0.421	0.428	0.394	13
2,2-Dichloropropane	0.527	0.607	0.741	0.756	0.747	0.727	0.684	13.8
cis-1,2-Dichloroethene	0.664	0.589	0.670	0.625	0.618	0.608	0.629	5.1
Bromochloromethane	0.321	0.256	0.275	0.242	0.253	0.226	0.262	12.6
Chloroform	1.001	0.935	0.996	0.950	0.921	0.896	0.95	4.4
1,1,1-Trichloroethane	0.837	0.827	0.893	0.878	0.830	0.796	0.844	4.2
Methylcyclohexane	0.622	0.636	0.632	0.635	0.613	0.604	0.624	2.1
1,1-Dichloropropene	0.551	0.517	0.523	0.537	0.506	0.507	0.523	3.4

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.



## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
 Instrument ID: MSVOAD Calibration Date(s): 08/09/2012 08/09/2012  
 Heated Purge: (Y/N) Y Calibration Time(s): 10:50 13:55  
 GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID:								
RRF005 = VD036716.D			RRF020 = VD036717.D			RRF050 = VD036718.D		
RRF100 = VD036719.D			RRF150 = VD036720.D			RRF200 = VD036721.D		
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF150	RRF200	RRF	% RSD
Benzene	1.316	1.300	1.338	1.338	1.268	1.243	1.3	3
1,2-Dichloroethane	0.340	0.326	0.362	0.334	0.324	0.333	0.337	4
Trichloroethene	0.436	0.426	0.441	0.425	0.421	0.412	0.427	2.4
1,2-Dichloropropane	0.329	0.333	0.365	0.343	0.333	0.336	0.34	3.9
Dibromomethane	0.157	0.155	0.179	0.157	0.156	0.163	0.161	5.7
Bromodichloromethane	0.428	0.413	0.453	0.433	0.411	0.425	0.427	3.6
4-Methyl-2-Pentanone	0.212	0.190	0.260	0.196	0.202	0.211	0.212	11.7
Toluene	0.879	0.869	0.919	0.843	0.824	0.816	0.858	4.5
t-1,3-Dichloropropene	0.368	0.380	0.447	0.389	0.385	0.386	0.392	7.1
cis-1,3-Dichloropropene	0.499	0.497	0.586	0.510	0.507	0.535	0.522	6.5
1,1,2-Trichloroethane	0.244	0.209	0.245	0.213	0.207	0.217	0.222	7.9
1,3-Dichloropropane	0.386	0.371	0.441	0.386	0.380	0.387	0.392	6.3
2-Chloroethyl Vinyl ether	0.066	0.067	0.073	0.069	0.067	0.067	0.068	3.9
2-Hexanone	0.164	0.137	0.195	0.154	0.143	0.150	0.157	13.2
Dibromochloromethane	0.284	0.272	0.330	0.288	0.288	0.299	0.294	6.8
1,2-Dibromoethane	0.208	0.204	0.244	0.204	0.212	0.217	0.215	7.1
Tetrachloroethene	0.492	0.481	0.459	0.471	0.439	0.443	0.464	4.6
Chlorobenzene	1.108	1.118	1.129	1.156	1.097	1.100	1.118	2
1,1,1,2-Tetrachloroethane	0.356	0.361	0.383	0.390	0.360	0.363	0.369	3.9
Hexachloroethane	0.705	0.795	0.896	0.888	0.859	0.841	0.831	8.6
Ethyl Benzene	2.009	1.984	1.914	2.006	1.824	1.796	1.922	4.9
m/p-Xylenes	0.766	0.796	0.762	0.772	0.749	0.714	0.76	3.6
o-Xylene	0.702	0.731	0.745	0.761	0.731	0.701	0.728	3.3
Styrene	1.084	1.116	1.126	1.123	1.045	1.056	1.092	3.2
Bromoform	0.166	0.182	0.209	0.194	0.189	0.199	0.19	7.9
Isopropylbenzene	4.302	4.244	4.320	4.503	4.270	4.165	4.301	2.6
1,1,2,2-Tetrachloroethane	0.678	0.546	0.675	0.600	0.571	0.617	0.614	8.7
1,2,3-Trichloropropane	0.241	0.187	0.240	0.206	0.216	0.217	0.218	9.5
Bromobenzene	0.969	0.893	0.963	0.945	0.903	0.945	0.936	3.3
n-propylbenzene	5.052	5.123	4.964	5.223	4.764	4.816	4.99	3.6
2-Chlorotoluene	2.799	2.810	2.811	2.803	2.629	2.629	2.747	3.3
1,3,5-Trimethylbenzene	3.236	3.251	3.231	3.384	3.061	3.103	3.211	3.6
4-Chlorotoluene	2.825	2.713	2.766	2.772	2.536	2.536	2.691	4.7

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
 Instrument ID: MSVOAD Calibration Date(s): 08/09/2012 08/09/2012  
 Heated Purge: (Y/N) Y Calibration Time(s): 10:50 13:55  
 GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID:	RRF005 = VD036716.D	RRF020 = VD036717.D	RRF050 = VD036718.D					
	RRF100 = VD036719.D	RRF150 = VD036720.D	RRF200 = VD036721.D					
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF150	RRF200	RRF	% RSD
tert-Butylbenzene	3.353	3.316	3.455	3.577	3.274	3.223	3.366	3.9
1,2,4-Trimethylbenzene	3.073	3.086	3.149	3.173	2.951	2.934	3.061	3.2
sec-Butylbenzene	4.530	4.573	4.486	4.641	4.280	4.239	4.458	3.6
p-Isopropyltoluene	3.645	3.683	3.683	3.895	3.380	3.405	3.615	5.4
1,3-Dichlorobenzene	1.861	1.840	1.843	1.887	1.711	1.780	1.82	3.5
1,4-Dichlorobenzene	1.757	1.713	1.811	1.728	1.671	1.723	1.734	2.7
n-Butylbenzene	3.002	3.305	3.244	3.527	3.334	3.148	3.26	5.5
1,2-Dichlorobenzene	1.426	1.436	1.502	1.485	1.389	1.414	1.442	3
1,2-Dibromo-3-Chloropropane	0.054	0.075	0.100	0.078	0.079	0.084	0.078	19.2
1,2,4-Trichlorobenzene	0.310	0.660	0.862	0.857	0.869	0.886	0.741	30.7
Hexachlorobutadiene	0.504	0.559	0.586	0.578	0.566	0.571	0.561	5.2
Naphthalene	0.258	0.334	0.578	0.788	0.917	1.117	0.665	50.6
1,2,3-Trichlorobenzene	0.157	0.440	0.620	0.601	0.634	0.664	0.519	37.4
1,2-Dichloroethane-d4	0.392	0.363	0.464	0.403	0.411	0.394	0.404	8.3
Dibromofluoromethane	0.308	0.308	0.352	0.325	0.323	0.315	0.322	5.1
Toluene-d8	1.063	1.115	1.231	1.147	1.134	1.108	1.133	4.9
4-Bromofluorobenzene	0.404	0.395	0.433	0.378	0.388	0.378	0.396	5.3
Methyl Iodide	0.706	0.654	0.593	0.593	0.567	0.475	0.598	13.1
Allyl chloride	0.851	0.818	0.872	0.829	0.790	0.719	0.813	6.7
trans-1,4-Dichloro-2-butene	0.345	0.322	0.360	0.338	0.325	0.339	0.338	4.1
Methacrylonitrile	0.125	0.120	0.137	0.115	0.117	0.118	0.122	6.8
Ethyl methacrylate	0.152	0.128	0.166	0.131	0.129	0.142	0.142	10.7

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
 Instrument ID: MSVOA\_F Calibration Date(s): 08/06/2012 08/06/2012  
 Heated Purge: (Y/N) Y Calibration Time(s): 10:56 12:50  
 GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID:		RRF005 = VF034676.D		RRF020 = VF034677.D		RRF050 = VF034678.D			
		RRF075 = VF034679.D		RRF100 = VF034680.D		RRF150 = VF034681.D			
COMPOUND	RRF005	RRF020	RRF050	RRF075	RRF100	RRF150	RRF	% RSD	
Dichlorodifluoromethane	0.781	0.895	0.947	0.898	0.907	0.902	0.888	6.3	
Chloromethane	0.893	0.907	0.873	0.816	0.807	0.784	0.847	6	
Vinyl Chloride	0.554	0.552	0.584	0.535	0.560	0.575	0.56	3.1	
Ethyl Acetate	0.245	0.246	0.215	0.209	0.209	0.212	0.223	7.9	
Isopropyl Acetate	0.292	0.296	0.266	0.286	0.258	0.279	0.279	5.4	
N-amyl acetate	1.070	1.174	1.053	1.079	1.007	1.013	1.066	5.7	
Bromomethane	0.405	0.362	0.356	0.320	0.327	0.346	0.353	8.6	
Chloroethane	0.224	0.239	0.253	0.226	0.236	0.242	0.237	4.7	
Trichlorofluoromethane	1.009	1.041	1.002	0.973	0.957	0.955	0.989	3.4	
1,1,2-Trichlorotrifluoroethane	0.706	0.791	0.732	0.700	0.692	0.667	0.715	6	
Tert butyl alcohol	0.045	0.044	0.039	0.039	0.040	0.043	0.042	6.1	
Diethyl Ether	0.191	0.203	0.183	0.296	0.310	0.181	0.228	26	
1,1-Dichloroethene	0.733	0.709	0.663	0.626	0.613	0.584	0.655	8.9	
Acrolein	0.047	0.041	0.029	0.028	0.028	0.028	0.033	25.4	
Acrylonitrile	0.118	0.120	0.106	0.108	0.102	0.102	0.109	7.4	
Acetone	0.199	0.146	0.136	0.135	0.130	0.138	0.147	17.5	
Carbon Disulfide	2.433	2.439	2.290	2.033	1.996	1.870	2.177	11.2	
Methyl tert-butyl Ether	1.570	1.667	1.461	1.475	1.430	1.454	1.51	6	
Methyl Acetate	0.876	0.867	0.684	0.709	0.683	0.737	0.759	11.7	
Methylene Chloride	0.904	0.837	0.735	0.706	0.688	0.670	0.757	12.3	
trans-1,2-Dichloroethene	0.789	0.810	0.756	0.711	0.717	0.704	0.748	5.9	
Vinyl Acetate	0.413	0.473	0.407	0.413	0.404	0.407	0.419	6.3	
1,1-Dichloroethane	1.183	1.357	1.253	1.204	1.199	1.182	1.23	5.5	
Cyclohexane	0.998	1.087	1.005	0.963	0.951	0.919	0.987	5.9	
2-Butanone	0.163	0.158	0.141	0.151	0.141	0.140	0.149	6.6	
Carbon Tetrachloride	0.450	0.473	0.462	0.451	0.434	0.457	0.455	2.9	
2,2-Dichloropropane	0.857	1.010	0.903	0.863	0.863	0.852	0.891	6.8	
cis-1,2-Dichloroethene	0.804	0.814	0.761	0.734	0.706	0.704	0.754	6.3	
Bromochloromethane	0.512	0.447	0.358	0.339	0.345	0.340	0.39	18.5	
Chloroform	1.264	1.427	1.292	1.233	1.210	1.221	1.274	6.3	
1,1,1-Trichloroethane	1.053	1.095	1.034	0.985	0.979	0.989	1.022	4.5	
Methylcyclohexane	0.585	0.658	0.590	0.568	0.544	0.532	0.579	7.7	
1,1-Dichloropropene	0.520	0.571	0.527	0.518	0.487	0.485	0.518	6	

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
 Instrument ID: MSVOA\_F Calibration Date(s): 08/06/2012 08/06/2012  
 Heated Purge: (Y/N) Y Calibration Time(s): 10:56 12:50  
 GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID:		RRF005 = VF034676.D		RRF020 = VF034677.D		RRF050 = VF034678.D			
		RRF075 = VF034679.D		RRF100 = VF034680.D		RRF150 = VF034681.D			
COMPOUND	RRF005	RRF020	RRF050	RRF075	RRF100	RRF150	RRF	% RSD	
Benzene	1.258	1.330	1.259	1.184	1.101	1.129	1.21	7.2	
1,2-Dichloroethane	0.434	0.444	0.398	0.406	0.400	0.410	0.415	4.5	
Trichloroethene	0.373	0.389	0.361	0.350	0.329	0.344	0.358	6	
1,2-Dichloropropane	0.293	0.345	0.317	0.314	0.300	0.301	0.312	6.1	
Dibromomethane	0.189	0.190	0.186	0.183	0.172	0.187	0.184	3.6	
Bromodichloromethane	0.462	0.515	0.465	0.469	0.457	0.472	0.473	4.4	
4-Methyl-2-Pentanone	0.232	0.230	0.197	0.199	0.185	0.192	0.206	9.7	
Toluene	0.887	0.970	0.909	0.862	0.821	0.834	0.881	6.2	
t-1,3-Dichloropropene	0.487	0.514	0.467	0.457	0.445	0.459	0.472	5.3	
cis-1,3-Dichloropropene	0.582	0.592	0.551	0.552	0.514	0.512	0.551	6	
1,1,2-Trichloroethane	0.257	0.273	0.250	0.252	0.237	0.242	0.252	5	
1,3-Dichloropropane	0.462	0.501	0.457	0.471	0.436	0.449	0.463	4.8	
2-Chloroethyl Vinyl ether	0.148	0.140	0.126	0.119	0.113	0.115	0.127	11.1	
2-Hexanone	0.170	0.162	0.155	0.150	0.151	0.150	0.156	5.3	
Dibromochloromethane	0.289	0.330	0.289	0.306	0.291	0.305	0.301	5.3	
1,2-Dibromoethane	0.284	0.285	0.254	0.259	0.248	0.252	0.264	6.3	
Tetrachloroethene	0.273	0.314	0.305	0.323	0.301	0.309	0.304	5.7	
Chlorobenzene	1.088	1.130	1.045	1.082	1.002	1.024	1.062	4.4	
1,1,1,2-Tetrachloroethane	0.345	0.363	0.340	0.356	0.331	0.350	0.347	3.3	
Hexachloroethane	0.743	0.803	0.765	0.751	0.732	0.714	0.752	4.1	
Ethyl Benzene	1.884	2.021	1.879	1.864	1.729	1.735	1.852	5.9	
m/p-Xylenes	0.763	0.770	0.723	0.725	0.667	0.666	0.719	6.3	
o-Xylene	0.778	0.819	0.758	0.748	0.705	0.714	0.754	5.6	
Styrene	1.172	1.241	1.150	1.179	1.077	1.111	1.155	4.9	
Bromoform	0.159	0.189	0.160	0.174	0.163	0.179	0.171	7	
Isopropylbenzene	3.937	4.046	3.964	3.984	3.709	3.700	3.89	3.8	
1,1,2,2-Tetrachloroethane	0.774	0.801	0.731	0.744	0.680	0.692	0.737	6.3	
1,2,3-Trichloropropane	0.629	0.551	0.545	0.541	0.504	0.498	0.545	8.6	
Bromobenzene	0.819	0.838	0.831	0.868	0.792	0.830	0.83	3	
n-propylbenzene	5.101	5.344	5.132	5.040	4.731	4.602	4.992	5.5	
2-Chlorotoluene	2.982	3.085	2.939	2.953	2.785	2.730	2.912	4.5	
1,3,5-Trimethylbenzene	3.228	3.476	3.250	3.295	3.029	3.017	3.216	5.4	
4-Chlorotoluene	2.972	3.069	2.999	2.998	2.840	2.825	2.95	3.3	

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
 Instrument ID: MSVOA\_F Calibration Date(s): 08/06/2012 08/06/2012  
 Heated Purge: (Y/N) Y Calibration Time(s): 10:56 12:50  
 GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID:		RRF005 = VF034676.D		RRF020 = VF034677.D		RRF050 = VF034678.D			
		RRF075 = VF034679.D		RRF100 = VF034680.D		RRF150 = VF034681.D			
COMPOUND	RRF005	RRF020	RRF050	RRF075	RRF100	RRF150	RRF	% RSD	
tert-Butylbenzene	3.240	3.271	3.140	3.170	2.931	2.919	3.112	4.9	
1,2,4-Trimethylbenzene	3.373	3.570	3.366	3.333	3.150	3.064	3.309	5.4	
sec-Butylbenzene	4.522	4.918	4.635	4.566	4.281	4.212	4.522	5.6	
p-Isopropyltoluene	3.484	3.793	3.546	3.450	3.251	3.116	3.44	6.9	
1,3-Dichlorobenzene	1.690	1.814	1.676	1.708	1.586	1.523	1.666	6.1	
1,4-Dichlorobenzene	1.598	1.756	1.731	1.741	1.639	1.607	1.679	4.3	
n-Butylbenzene	3.767	4.074	3.732	3.771	3.516	3.336	3.699	6.8	
1,2-Dichlorobenzene	1.542	1.607	1.473	1.504	1.425	1.408	1.493	5	
1,2-Dibromo-3-Chloropropane	0.112	0.088	0.091	0.102	0.087	0.094	0.096	10.1	
1,2,4-Trichlorobenzene	0.783	0.849	0.762	0.789	0.759	0.724	0.778	5.4	
Hexachlorobutadiene	0.464	0.506	0.462	0.475	0.447	0.435	0.465	5.3	
Naphthalene	1.398	1.468	1.378	1.384	1.375	1.336	1.39	3.1	
1,2,3-Trichlorobenzene	0.524	0.643	0.565	0.581	0.571	0.533	0.57	7.4	
1,2-Dichloroethane-d4	0.565	0.612	0.648	0.659	0.645	0.643	0.629	5.5	
Dibromofluoromethane	0.351	0.369	0.352	0.373	0.347	0.356	0.358	2.9	
Toluene-d8	1.194	1.213	1.213	1.183	1.107	1.081	1.165	4.9	
4-Bromofluorobenzene	0.569	0.584	0.572	0.527	0.499	0.499	0.542	7.1	
Methyl Iodide	1.288	1.337	1.285	1.243	1.222	1.194	1.261	4.1	
Allyl chloride	1.106	1.169	1.046	0.998	1.009	0.993	1.053	6.7	
trans-1,4-Dichloro-2-butene	0.384	0.381	0.360	0.395	0.375	0.380	0.379	3.1	
Methacrylonitrile	0.105	0.120	0.113	0.106	0.105	0.104	0.109	5.9	
Ethyl methacrylate	0.313	0.361	0.335	0.339	0.326	0.328	0.334	4.8	

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: MSVOA\_D Calibration Date/Time: 08/15/2012 13:05

Lab File ID: VD036737.D Init. Calib. Date(s): 08/09/2012 08/09/2012

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:50 13:55

GC Column: RTX-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.621	0.630		1.45	
Chloromethane	1.052	1.193	0.1	13.4	
Vinyl Chloride	0.661	0.717		8.47	20
Ethyl Acetate	0.181	0.190		4.97	
Isopropyl Acetate	0.32	0.336		5	
N-amyl acetate	1.067	1.149		7.69	
Bromomethane	0.226	0.209		-7.52	
Chloroethane	0.196	0.274		39.8	
Trichlorofluoromethane	0.784	0.847		8.04	
1,1,2-Trichlorotrifluoroethane	0.559	0.663		18.6	
Tert butyl alcohol	0.026	0.024		-7.69	
Diethyl Ether	0.179	0.194		8.38	
1,1-Dichloroethene	0.486	0.546		12.35	20
Acrolein	0.018	0.014		-22.22	
Acrylonitrile	0.089	0.094		5.62	
Acetone	0.115	0.137		19.13	
Carbon Disulfide	1.667	1.940		16.38	
Methyl tert-butyl Ether	0.978	1.049		7.26	
Methyl Acetate	0.575	0.576		0.17	
Methylene Chloride	0.538	0.528		-1.86	
trans-1,2-Dichloroethene	0.621	0.628		1.13	
Vinyl Acetate	0.3	0.381		27	
1,1-Dichloroethane	1.026	1.107	0.1	7.89	
Cyclohexane	1.026	1.096		6.82	
2-Butanone	0.14	0.160		14.29	
Carbon Tetrachloride	0.394	0.372		-5.58	
2,2-Dichloropropane	0.684	0.784		14.62	
cis-1,2-Dichloroethene	0.629	0.646		2.7	
Bromochloromethane	0.262	0.287		9.54	
Chloroform	0.95	1.000		5.26	20
1,1,1-Trichloroethane	0.844	0.852		0.95	
Methylcyclohexane	0.624	0.585		-6.25	
1,1-Dichloropropene	0.523	0.530		1.34	
Benzene	1.3	1.265		-2.69	
1,2-Dichloroethane	0.337	0.340		0.89	
Trichloroethene	0.427	0.394		-7.73	
1,2-Dichloropropane	0.34	0.344		1.18	20
Dibromomethane	0.161	0.158		-1.86	
Bromodichloromethane	0.427	0.423		-0.94	
4-Methyl-2-Pentanone	0.212	0.216		1.89	
Toluene	0.858	0.819		-4.55	20
t-1,3-Dichloropropene	0.392	0.397		1.28	

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: MSVOA\_D Calibration Date/Time: 08/15/2012 13:05

Lab File ID: VD036737.D Init. Calib. Date(s): 08/09/2012 08/09/2012

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:50 13:55

GC Column: RTX-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
cis-1,3-Dichloropropene	0.522	0.523		0.19	
1,1,2-Trichloroethane	0.222	0.201		-9.46	
1,3-Dichloropropane	0.392	0.385		-1.79	
2-Chloroethyl Vinyl ether	0.068	0.069		1.47	
2-Hexanone	0.157	0.166		5.73	
Dibromochloromethane	0.294	0.270		-8.16	
1,2-Dibromoethane	0.215	0.199		-7.44	
Tetrachloroethene	0.464	0.417		-10.13	
Chlorobenzene	1.118	1.076	0.3	-3.76	
1,1,1,2-Tetrachloroethane	0.369	0.356		-3.52	
Hexachloroethane	0.831	0.795		-4.33	
Ethyl Benzene	1.922	1.918		-0.21	20
m/p-Xylenes	0.76	0.715		-5.92	
o-Xylene	0.728	0.680		-6.59	
Styrene	1.092	1.040		-4.76	
Bromoform	0.19	0.173	0.1	-8.95	
Isopropylbenzene	4.301	4.228		-1.7	
1,1,2,2-Tetrachloroethane	0.614	0.607	0.3	-1.14	
1,2,3-Trichloropropane	0.218	0.206		-5.5	
Bromobenzene	0.936	0.922		-1.5	
n-propylbenzene	4.99	5.028		0.76	
2-Chlorotoluene	2.747	2.762		0.55	
1,3,5-Trimethylbenzene	3.211	3.081		-4.05	
4-Chlorotoluene	2.691	2.750		2.19	
tert-Butylbenzene	3.366	3.303		-1.87	
1,2,4-Trimethylbenzene	3.061	3.019		-1.37	
sec-Butylbenzene	4.458	4.287		-3.84	
p-Isopropyltoluene	3.615	3.439		-4.87	
1,3-Dichlorobenzene	1.82	1.689		-7.2	
1,4-Dichlorobenzene	1.734	1.656		-4.5	
n-Butylbenzene	3.26	3.257		-0.09	
1,2-Dichlorobenzene	1.442	1.396		-3.19	
1,2-Dibromo-3-Chloropropane	0.078	0.071		-8.97	
1,2,4-Trichlorobenzene	0.741	0.748		0.94	
Hexachlorobutadiene	0.561	0.500		-10.87	
Naphthalene	0.665	0.922		38.65	
1,2,3-Trichlorobenzene	0.519	0.508		-2.12	
1,2-Dichloroethane-d4	0.404	0.409		1.24	
Dibromofluoromethane	0.322	0.304		-5.59	
Toluene-d8	1.133	1.057		-6.71	
4-Bromofluorobenzene	0.396	0.366		-7.58	
Methyl Iodide	0.598	0.468		-21.74	

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
 Instrument ID: MSVOA\_D Calibration Date/Time: 08/15/2012 13:05  
 Lab File ID: VD036737.D Init. Calib. Date(s): 08/09/2012 08/09/2012  
 Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:50 13:55  
 GC Column: RTX-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Allyl chloride	0.813	0.829		1.97	
trans-1,4-Dichloro-2-butene	0.338	0.339		0.3	
Methacrylonitrile	0.122	0.120		-1.64	
Ethyl methacrylate	0.142	0.132		-7.04	

All other compounds must meet a minimum RRF of 0.010.



## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: MSVOA\_D Calibration Date/Time: 08/16/2012 13:29

Lab File ID: VD036754.D Init. Calib. Date(s): 08/09/2012 08/09/2012

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:50 13:55

GC Column: RTX-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.621	0.599		-3.54	
Chloromethane	1.052	1.121	0.1	6.56	
Vinyl Chloride	0.661	0.749		13.31	20
Ethyl Acetate	0.181	0.182		0.55	
Isopropyl Acetate	0.32	0.296		-7.5	
N-amyl acetate	1.067	1.089		2.06	
Bromomethane	0.226	0.238		5.31	
Chloroethane	0.196	0.269		37.24	
Trichlorofluoromethane	0.784	0.800		2.04	
1,1,2-Trichlorotrifluoroethane	0.559	0.614		9.84	
Tert butyl alcohol	0.026	0.022		-15.38	
Diethyl Ether	0.179	0.194		8.38	
1,1-Dichloroethene	0.486	0.535		10.08	20
Acrolein	0.018	0.017		-5.56	
Acrylonitrile	0.089	0.088		-1.12	
Acetone	0.115	0.127		10.43	
Carbon Disulfide	1.667	1.901		14.04	
Methyl tert-butyl Ether	0.978	0.984		0.61	
Methyl Acetate	0.575	0.552		-4	
Methylene Chloride	0.538	0.520		-3.35	
trans-1,2-Dichloroethene	0.621	0.631		1.61	
Vinyl Acetate	0.3	0.364		21.33	
1,1-Dichloroethane	1.026	1.130	0.1	10.14	
Cyclohexane	1.026	1.078		5.07	
2-Butanone	0.14	0.149		6.43	
Carbon Tetrachloride	0.394	0.357		-9.39	
2,2-Dichloropropane	0.684	0.802		17.25	
cis-1,2-Dichloroethene	0.629	0.608		-3.34	
Bromochloromethane	0.262	0.261		-0.38	
Chloroform	0.95	0.966		1.68	20
1,1,1-Trichloroethane	0.844	0.806		-4.5	
Methylcyclohexane	0.624	0.593		-4.97	
1,1-Dichloropropene	0.523	0.513		-1.91	
Benzene	1.3	1.295		-0.38	
1,2-Dichloroethane	0.337	0.316		-6.23	
Trichloroethene	0.427	0.405		-5.15	
1,2-Dichloropropane	0.34	0.347		2.06	20
Dibromomethane	0.161	0.149		-7.45	
Bromodichloromethane	0.427	0.399		-6.56	
4-Methyl-2-Pentanone	0.212	0.210		-0.94	
Toluene	0.858	0.804		-6.29	20
t-1,3-Dichloropropene	0.392	0.396		1.02	

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: MSVOA\_D Calibration Date/Time: 08/16/2012 13:29

Lab File ID: VD036754.D Init. Calib. Date(s): 08/09/2012 08/09/2012

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:50 13:55

GC Column: RTX-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
cis-1,3-Dichloropropene	0.522	0.511		-2.11	
1,1,2-Trichloroethane	0.222	0.197		-11.26	
1,3-Dichloropropane	0.392	0.362		-7.65	
2-Chloroethyl Vinyl ether	0.068	0.069		1.47	
2-Hexanone	0.157	0.147		-6.37	
Dibromochloromethane	0.294	0.244		-17.01	
1,2-Dibromoethane	0.215	0.178		-17.21	
Tetrachloroethene	0.464	0.414		-10.78	
Chlorobenzene	1.118	1.051	0.3	-5.99	
1,1,1,2-Tetrachloroethane	0.369	0.350		-5.15	
Hexachloroethane	0.831	0.851		2.41	
Ethyl Benzene	1.922	1.880		-2.19	20
m/p-Xylenes	0.76	0.727		-4.34	
o-Xylene	0.728	0.688		-5.49	
Styrene	1.092	1.016		-6.96	
Bromoform	0.19	0.160	0.1	-15.79	
Isopropylbenzene	4.301	4.373		1.67	
1,1,2,2-Tetrachloroethane	0.614	0.584	0.3	-4.89	
1,2,3-Trichloropropane	0.218	0.203		-6.88	
Bromobenzene	0.936	0.891		-4.81	
n-propylbenzene	4.99	5.207		4.35	
2-Chlorotoluene	2.747	2.848		3.68	
1,3,5-Trimethylbenzene	3.211	3.138		-2.27	
4-Chlorotoluene	2.691	2.700		0.33	
tert-Butylbenzene	3.366	3.439		2.17	
1,2,4-Trimethylbenzene	3.061	3.028		-1.08	
sec-Butylbenzene	4.458	4.538		1.79	
p-Isopropyltoluene	3.615	3.516		-2.74	
1,3-Dichlorobenzene	1.82	1.710		-6.04	
1,4-Dichlorobenzene	1.734	1.643		-5.25	
n-Butylbenzene	3.26	3.248		-0.37	
1,2-Dichlorobenzene	1.442	1.402		-2.77	
1,2-Dibromo-3-Chloropropane	0.078	0.068		-12.82	
1,2,4-Trichlorobenzene	0.741	0.686		-7.42	
Hexachlorobutadiene	0.561	0.470		-16.22	
Naphthalene	0.665	0.883		32.78	
1,2,3-Trichlorobenzene	0.519	0.439		-15.41	
1,2-Dichloroethane-d4	0.404	0.384		-4.95	
Dibromofluoromethane	0.322	0.295		-8.39	
Toluene-d8	1.133	1.010		-10.86	
4-Bromofluorobenzene	0.396	0.345		-12.88	
Methyl Iodide	0.598	0.520		-13.04	

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
 Instrument ID: MSVOA\_D Calibration Date/Time: 08/16/2012 13:29  
 Lab File ID: VD036754.D Init. Calib. Date(s): 08/09/2012 08/09/2012  
 Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:50 13:55  
 GC Column: RTX-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Allyl chloride	0.813	0.802		-1.35	
trans-1,4-Dichloro-2-butene	0.338	0.332		-1.78	
Methacrylonitrile	0.122	0.128		4.92	
Ethyl methacrylate	0.142	0.120		-15.49	

All other compounds must meet a minimum RRF of 0.010.

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: MSVOA\_F Calibration Date/Time: 08/15/2012 12:17

Lab File ID: VF034766.D Init. Calib. Date(s): 08/06/2012 08/06/2012

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:56 12:50

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.888	0.792		-10.81	
Chloromethane	0.847	0.731	0.1	-13.7	
Vinyl Chloride	0.56	0.528		-5.71	20
Ethyl Acetate	0.223	0.248		11.21	
Isopropyl Acetate	0.279	0.295		5.73	
N-amyl acetate	1.066	1.111		4.22	
Bromomethane	0.353	0.331		-6.23	
Chloroethane	0.237	0.230		-2.95	
Trichlorofluoromethane	0.989	0.929		-6.07	
1,1,2-Trichlorotrifluoroethane	0.715	0.668		-6.57	
Tert butyl alcohol	0.042	0.050		19.05	
Diethyl Ether	0.228	0.331		45.18	
1,1-Dichloroethene	0.655	0.612		-6.56	20
Acrolein	0.033	0.034		3.03	
Acrylonitrile	0.109	0.122		11.93	
Acetone	0.147	0.146		-0.68	
Carbon Disulfide	2.177	1.890		-13.18	
Methyl tert-butyl Ether	1.51	1.666		10.33	
Methyl Acetate	0.759	0.837		10.28	
Methylene Chloride	0.757	0.725		-4.23	
trans-1,2-Dichloroethene	0.748	0.704		-5.88	
Vinyl Acetate	0.419	0.451		7.64	
1,1-Dichloroethane	1.23	1.221	0.1	-0.73	
Cyclohexane	0.987	0.892		-9.63	
2-Butanone	0.149	0.187		25.5	
Carbon Tetrachloride	0.455	0.438		-3.74	
2,2-Dichloropropane	0.891	0.859		-3.59	
cis-1,2-Dichloroethene	0.754	0.739		-1.99	
Bromochloromethane	0.39	0.350		-10.26	
Chloroform	1.274	1.223		-4	20
1,1,1-Trichloroethane	1.022	0.951		-6.95	
Methylcyclohexane	0.579	0.540		-6.74	
1,1-Dichloropropene	0.518	0.499		-3.67	
Benzene	1.21	1.161		-4.05	
1,2-Dichloroethane	0.415	0.430		3.61	
Trichloroethene	0.358	0.346		-3.35	
1,2-Dichloropropane	0.312	0.308		-1.28	20
Dibromomethane	0.184	0.201		9.24	
Bromodichloromethane	0.473	0.474		0.21	
4-Methyl-2-Pentanone	0.206	0.232		12.62	
Toluene	0.881	0.814		-7.6	20
t-1,3-Dichloropropene	0.472	0.472		0	

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: MSVOA\_F Calibration Date/Time: 08/15/2012 12:17

Lab File ID: VF034766.D Init. Calib. Date(s): 08/06/2012 08/06/2012

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:56 12:50

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
cis-1,3-Dichloropropene	0.551	0.549		-0.36	
1,1,2-Trichloroethane	0.252	0.259		2.78	
1,3-Dichloropropane	0.463	0.470		1.51	
2-Chloroethyl Vinyl ether	0.127	0.125		-1.57	
2-Hexanone	0.156	0.185		18.59	
Dibromochloromethane	0.301	0.322		6.98	
1,2-Dibromoethane	0.264	0.277		4.92	
Tetrachloroethene	0.304	0.292		-3.95	
Chlorobenzene	1.062	1.016	0.3	-4.33	
1,1,1,2-Tetrachloroethane	0.347	0.343		-1.15	
Hexachloroethane	0.752	0.688		-8.51	
Ethyl Benzene	1.852	1.680		-9.29	20
m/p-Xylenes	0.719	0.666		-7.37	
o-Xylene	0.754	0.700		-7.16	
Styrene	1.155	1.112		-3.72	
Bromoform	0.171	0.177	0.1	3.51	
Isopropylbenzene	3.89	3.613		-7.12	
1,1,2,2-Tetrachloroethane	0.737	0.794	0.3	7.73	
1,2,3-Trichloropropane	0.545	0.543		-0.37	
Bromobenzene	0.83	0.794		-4.34	
n-propylbenzene	4.992	4.507		-9.72	
2-Chlorotoluene	2.912	2.672		-8.24	
1,3,5-Trimethylbenzene	3.216	2.938		-8.64	
4-Chlorotoluene	2.95	2.755		-6.61	
tert-Butylbenzene	3.112	2.887		-7.23	
1,2,4-Trimethylbenzene	3.309	2.996		-9.46	
sec-Butylbenzene	4.522	4.097		-9.4	
p-Isopropyltoluene	3.44	3.102		-9.83	
1,3-Dichlorobenzene	1.666	1.548		-7.08	
1,4-Dichlorobenzene	1.679	1.594		-5.06	
n-Butylbenzene	3.699	3.274		-11.49	
1,2-Dichlorobenzene	1.493	1.441		-3.48	
1,2-Dibromo-3-Chloropropane	0.096	0.098		2.08	
1,2,4-Trichlorobenzene	0.778	0.728		-6.43	
Hexachlorobutadiene	0.465	0.393		-15.48	
Naphthalene	1.39	1.371		-1.37	
1,2,3-Trichlorobenzene	0.57	0.505		-11.4	
1,2-Dichloroethane-d4	0.629	0.695		10.49	
Dibromofluoromethane	0.358	0.395		10.34	
Toluene-d8	1.165	1.215		4.29	
4-Bromofluorobenzene	0.542	0.572		5.54	
Methyl Iodide	1.261	1.248		-1.03	

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
 Instrument ID: MSVOA\_F Calibration Date/Time: 08/15/2012 12:17  
 Lab File ID: VF034766.D Init. Calib. Date(s): 08/06/2012 08/06/2012  
 Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:56 12:50  
 GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Allyl chloride	1.053	1.004		-4.65	
trans-1,4-Dichloro-2-butene	0.379	0.422		11.35	
Methacrylonitrile	0.109	0.131		20.18	
Ethyl methacrylate	0.334	0.371		11.08	

All other compounds must meet a minimum RRF of 0.010.

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: MSVOA\_F Calibration Date/Time: 08/16/2012 12:37

Lab File ID: VF034789.D Init. Calib. Date(s): 08/06/2012 08/06/2012

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:56 12:50

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.888	0.904		1.8	
Chloromethane	0.847	0.836	0.1	-1.3	
Vinyl Chloride	0.56	0.578		3.21	20
Ethyl Acetate	0.223	0.210		-5.83	
Isopropyl Acetate	0.279	0.248		-11.11	
N-amyl acetate	1.066	1.002		-6	
Bromomethane	0.353	0.316		-10.48	
Chloroethane	0.237	0.243		2.53	
Trichlorofluoromethane	0.989	1.020		3.13	
1,1,2-Trichlorotrifluoroethane	0.715	0.769		7.55	
Tert butyl alcohol	0.042	0.043		2.38	
Diethyl Ether	0.228	0.329		44.3	
1,1-Dichloroethene	0.655	0.696		6.26	20
Acrolein	0.033	0.026		-21.21	
Acrylonitrile	0.109	0.114		4.59	
Acetone	0.147	0.126		-14.29	
Carbon Disulfide	2.177	2.154		-1.06	
Methyl tert-butyl Ether	1.51	1.553		2.85	
Methyl Acetate	0.759	0.748		-1.45	
Methylene Chloride	0.757	0.746		-1.45	
trans-1,2-Dichloroethene	0.748	0.764		2.14	
Vinyl Acetate	0.419	0.421		0.48	
1,1-Dichloroethane	1.23	1.289	0.1	4.8	
Cyclohexane	0.987	1.029		4.26	
2-Butanone	0.149	0.158		6.04	
Carbon Tetrachloride	0.455	0.446		-1.98	
2,2-Dichloropropane	0.891	0.934		4.83	
cis-1,2-Dichloroethene	0.754	0.807		7.03	
Bromochloromethane	0.39	0.376		-3.59	
Chloroform	1.274	1.294		1.57	20
1,1,1-Trichloroethane	1.022	1.032		0.98	
Methylcyclohexane	0.579	0.582		0.52	
1,1-Dichloropropene	0.518	0.510		-1.54	
Benzene	1.21	1.203		-0.58	
1,2-Dichloroethane	0.415	0.399		-3.86	
Trichloroethene	0.358	0.359		0.28	
1,2-Dichloropropane	0.312	0.296		-5.13	20
Dibromomethane	0.184	0.187		1.63	
Bromodichloromethane	0.473	0.455		-3.81	
4-Methyl-2-Pentanone	0.206	0.194		-5.83	
Toluene	0.881	0.849		-3.63	20
t-1,3-Dichloropropene	0.472	0.440		-6.78	

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: MSVOA\_F Calibration Date/Time: 08/16/2012 12:37

Lab File ID: VF034789.D Init. Calib. Date(s): 08/06/2012 08/06/2012

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:56 12:50

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
cis-1,3-Dichloropropene	0.551	0.518		-5.99	
1,1,2-Trichloroethane	0.252	0.240		-4.76	
1,3-Dichloropropane	0.463	0.442		-4.54	
2-Chloroethyl Vinyl ether	0.127	0.113		-11.02	
2-Hexanone	0.156	0.148		-5.13	
Dibromochloromethane	0.301	0.296		-1.66	
1,2-Dibromoethane	0.264	0.244		-7.58	
Tetrachloroethene	0.304	0.305		0.33	
Chlorobenzene	1.062	1.072	0.3	0.94	
1,1,1,2-Tetrachloroethane	0.347	0.374		7.78	
Hexachloroethane	0.752	0.732		-2.66	
Ethyl Benzene	1.852	1.835		-0.92	20
m/p-Xylenes	0.719	0.711		-1.11	
o-Xylene	0.754	0.746		-1.06	
Styrene	1.155	1.126		-2.51	
Bromoform	0.171	0.169	0.1	-1.17	
Isopropylbenzene	3.89	3.898		0.21	
1,1,2,2-Tetrachloroethane	0.737	0.718	0.3	-2.58	
1,2,3-Trichloropropane	0.545	0.514		-5.69	
Bromobenzene	0.83	0.803		-3.25	
n-propylbenzene	4.992	4.885		-2.14	
2-Chlorotoluene	2.912	2.843		-2.37	
1,3,5-Trimethylbenzene	3.216	3.136		-2.49	
4-Chlorotoluene	2.95	2.873		-2.61	
tert-Butylbenzene	3.112	3.091		-0.67	
1,2,4-Trimethylbenzene	3.309	3.199		-3.32	
sec-Butylbenzene	4.522	4.447		-1.66	
p-Isopropyltoluene	3.44	3.373		-1.95	
1,3-Dichlorobenzene	1.666	1.625		-2.46	
1,4-Dichlorobenzene	1.679	1.638		-2.44	
n-Butylbenzene	3.699	3.599		-2.7	
1,2-Dichlorobenzene	1.493	1.438		-3.68	
1,2-Dibromo-3-Chloropropane	0.096	0.078		-18.75	
1,2,4-Trichlorobenzene	0.778	0.699		-10.15	
Hexachlorobutadiene	0.465	0.436		-6.24	
Naphthalene	1.39	1.194		-14.1	
1,2,3-Trichlorobenzene	0.57	0.474		-16.84	
1,2-Dichloroethane-d4	0.629	0.603		-4.13	
Dibromofluoromethane	0.358	0.365		1.96	
Toluene-d8	1.165	1.092		-6.27	
4-Bromofluorobenzene	0.542	0.506		-6.64	
Methyl Iodide	1.261	1.303		3.33	



## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: MSVOA\_F Calibration Date/Time: 08/16/2012 12:37

Lab File ID: VF034789.D Init. Calib. Date(s): 08/06/2012 08/06/2012

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:56 12:50

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Allyl chloride	1.053	1.067		1.33	
trans-1,4-Dichloro-2-butene	0.379	0.355		-6.33	
Methacrylonitrile	0.109	0.111		1.83	
Ethyl methacrylate	0.334	0.302		-9.58	

All other compounds must meet a minimum RRF of 0.010.

# LAB CHRONICLE

OrderID: D3811  
Client: MS Analytical  
Contact: Bryan Mayback

OrderDate: 8/15/2012 11:38:54 AM  
Project: 12MS104 Kensington Heights  
Location: I23

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
D3811-01	SB-2(4-8)	SOIL	SVOC-Chemtech Full -25	8270D	08/07/12	08/15/12	08/16/12	08/15/12
D3811-02	SB-5(8-12)	SOIL	SVOC-Chemtech Full -25	8270D	08/07/12	08/15/12	08/16/12	08/15/12
D3811-03	SB-9(4-7)	SOIL	SVOC-Chemtech Full -25	8270D	08/07/12	08/15/12	08/16/12	08/15/12
D3811-04	SB-10(8-12)	SOIL	SVOC-Chemtech Full -25	8270D	08/07/12	08/15/12	08/21/12	08/15/12
D3811-05	SB-11(12-16)	SOIL	SVOC-Chemtech Full -25	8270D	08/07/12	08/15/12	08/20/12	08/15/12
D3811-06	SB-15(12-16)	SOIL	SVOC-Chemtech Full -25	8270D	08/08/12	08/15/12	08/21/12	08/15/12
D3811-06DL	SB-15(12-16)DL	SOIL	SVOC-Chemtech Full -25	8270D	08/08/12	08/15/12	08/22/12	08/15/12
D3811-06DL 2	SB-15(12-16)DL2	SOIL	SVOC-Chemtech Full -25	8270D	08/08/12	08/15/12	08/22/12	08/15/12
D3811-07	SB-18(4-8)	SOIL	SVOC-Chemtech Full -25	8270D	08/08/12	08/15/12	08/20/12	08/15/12
D3811-08	SB-19(12-18)	SOIL	SVOC-Chemtech Full -25	8270D	08/08/12	08/15/12	08/20/12	08/15/12
D3811-09	SB-21(12-16)	SOIL	SVOC-Chemtech Full -25	8270D	08/09/12	08/15/12	08/20/12	08/15/12
D3811-10	SB-21(16-19)	SOIL			08/09/12			08/15/12

# LAB CHRONICLE

			SVOC-Chemtech Full -25	8270D		08/15/12	08/21/12	
<b>D3811-10DL</b>	<b>SB-21(16-19)DL</b>	<b>SOIL</b>			<b>08/09/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/15/12	08/22/12	
<b>D3811-11</b>	<b>SB-22(12-19)</b>	<b>SOIL</b>			<b>08/09/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/15/12	08/20/12	
<b>D3811-12</b>	<b>SB-27(8-12)</b>	<b>SOIL</b>			<b>08/09/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/15/12	08/20/12	
<b>D3811-13</b>	<b>SB-37(8-10)</b>	<b>SOIL</b>			<b>08/10/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/15/12	08/21/12	
<b>D3811-13DL</b>	<b>SB-37(8-10)DL</b>	<b>SOIL</b>			<b>08/10/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/15/12	08/23/12	
<b>D3811-14</b>	<b>SB-39(6-8)</b>	<b>SOIL</b>			<b>08/10/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/15/12	08/20/12	
<b>D3811-15</b>	<b>SB-41(8-11)</b>	<b>SOIL</b>			<b>08/10/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/15/12	08/24/12	
<b>D3811-16</b>	<b>SB-42(14-16)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/15/12	08/21/12	
<b>D3811-17</b>	<b>SB-43(6-8)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/15/12	08/21/12	
<b>D3811-18</b>	<b>SB-43(10-12)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/15/12	08/21/12	
<b>D3811-19</b>	<b>SB-43(16-20)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/15/12	08/21/12	
<b>D3811-20</b>	<b>SB-45(10-12)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/15/12	08/21/12	
<b>D3811-21</b>	<b>SB-46(12-16)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/15/12	08/16/12	
<b>D3811-21RX</b>	<b>SB-46(12-16)RX</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			SVOC-Chemtech Full -25	8270D		08/28/12	08/28/12	

# Hit Summary Sheet

SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : SB-10(8-12)									
D3811-04	SB-10(8-12)	SOIL	unknown5.92	*	490.000	J	0	0	ug/Kg
Total Tics :				490.00					
Total Concentration:				490.00					
Client ID : SB-11(12-16)									
D3811-05	SB-11(12-16)	SOIL	Dimethylphthalate		380.000	J	12	220	440 ug/Kg
Total Svoc :				380.00					
D3811-05	SB-11(12-16)	SOIL	unknown5.91	*	360.000	J	0	0	ug/Kg
D3811-05	SB-11(12-16)	SOIL	3-Octadecene, (E)-	*	100.000	J	0	0	ug/Kg
D3811-05	SB-11(12-16)	SOIL	Cyclopentasiloxane, decamethyl-	*	130.000	J	0	0	ug/Kg
Total Tics :				590.00					
Total Concentration:				970.00					
Client ID : SB-15(12-16)									
D3811-06	SB-15(12-16)	SOIL	Naphthalene		23,000.000	E	80	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	2-Methylnaphthalene		8,700.000		58	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	1,1-Biphenyl		2,300.000	J	87	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Acenaphthylene		2,900.000		58	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Acenaphthene		8,600.000		65	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Dibenzofuran		14,000.000		90	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Fluorene		20,000.000	E	87	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Phenanthrene		54,000.000	E	62	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Anthracene		24,000.000	E	47	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Carbazole		12,000.000		51	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Fluoranthene		43,000.000	E	46	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Pyrene		40,000.000	E	55	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Benzo(a)anthracene		29,000.000	E	110	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Chrysene		27,000.000	E	100	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Benzo(b)fluoranthene		29,000.000	E	75	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Benzo(k)fluoranthene		11,000.000		110	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Benzo(a)pyrene		24,000.000	E	50	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Indeno(1,2,3-cd)pyrene		13,000.000		77	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Dibenz(a,h)anthracene		4,400.000		66	1150	2300 ug/Kg
D3811-06	SB-15(12-16)	SOIL	Benzo(g,h,i)perylene		12,000.000		93	1150	2300 ug/Kg
Total Svoc :				401,900.00					
D3811-06	SB-15(12-16)	SOIL	Benzo[e]pyrene	*	5,000.000	J	0	0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	Benzo[j]fluoranthene	*	4,700.000	J	0	0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	Anthracene, 2-methyl-	*	6,100.000	J	0	0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	2-Phenylnaphthalene	*	6,600.000	J	0	0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	4H-Cyclopenta[def]phenanthrene	*	18,000.000	J	0	0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	8-Dimethylaminonaphthalene-1-car	*	2,500.000	J	0	0	ug/Kg

# Hit Summary Sheet

## SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-06	SB-15(12-16)	SOIL	9-(Cyanomethylene)fluorene	* 2,000.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	9,10-Anthracenedione	* 2,100.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	9,10-Dimethylanthracene	* 3,000.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	9H-Fluorene-9-one	* 2,200.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	9H-Fluorene, 1-methyl-	* 4,700.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	Naphthalene, 1,6-dimethyl-	* 3,200.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	Naphthalene, 2,6-dimethyl-	* 1,700.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	Naphthalene, 2,7-dimethyl-	* 3,600.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	Naphtho[2,1-b]furan, 1,2-dimethyl-	* 1,800.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	Naphtho[2,3-b]thiophene	* 5,900.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	Perylene	* 16,000.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	unknown18.20	* 3,500.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	Phenanthrene, 1-methyl-	* 10,000.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	Phenanthrene, 2,5-dimethyl-	* 5,300.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	Phenanthrene, 2-methyl-	* 13,000.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	1H-Cyclopropa[1]phenanthrene, 1a,4	* 4,000.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	2,4,6-Cycloheptatrien-1-one, 2-phe	* 4,400.000	J	0		0	ug/Kg
D3811-06	SB-15(12-16)	SOIL	[14]Annulene, 1,6:8,13-bis(methan	* 1,600.000	J	0		0	ug/Kg

Total Tics :

130,900.00

Total Concentration:

532,800.00

Client ID : SB-15(12-16)DL

D3811-06DL	SB-15(12-16)DL	SOIL	Naphthalene	25,000.000	D	400	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	2-Methylnaphthalene	9,400.000	JD	290	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Acenaphthene	8,700.000	JD	330	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Dibenzofuran	14,000.000	D	450	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Fluorene	21,000.000	D	440	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Phenanthrene	95,000.000	ED	310	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Anthracene	28,000.000	D	240	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Carbazole	13,000.000	D	250	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Fluoranthene	74,000.000	D	230	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Pyrene	57,000.000	D	280	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Benzo(a)anthracene	32,000.000	D	550	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Chrysene	30,000.000	D	520	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Benzo(b)fluoranthene	32,000.000	D	380	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Benzo(k)fluoranthene	11,000.000	JD	540	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Benzo(a)pyrene	25,000.000	D	250	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Indeno(1,2,3-cd)pyrene	11,000.000	JD	380	5500	11000	ug/Kg
D3811-06DL	SB-15(12-16)DL	SOIL	Benzo(g,h,i)perylene	12,000.000	D	470	5500	11000	ug/Kg

Total Svoc :

498,100.00

Total Concentration:

498,100.00

Client ID : SB-15(12-16)DL2

D3811-06DL2	SB-15(12-16)DL2	SOIL	Naphthalene	25,000.000	D	800	11500	23000	ug/Kg
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# Hit Summary Sheet SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-06DL2	SB-15(12-16)DL2	SOIL	Dibenzofuran	13,000.000	JD	900	11500	23000	ug/Kg
D3811-06DL2	SB-15(12-16)DL2	SOIL	Fluorene	20,000.000	JD	870	11500	23000	ug/Kg
D3811-06DL2	SB-15(12-16)DL2	SOIL	Phenanthrene	100,000.000	D	620	11500	23000	ug/Kg
D3811-06DL2	SB-15(12-16)DL2	SOIL	Anthracene	28,000.000	D	470	11500	23000	ug/Kg
D3811-06DL2	SB-15(12-16)DL2	SOIL	Carbazole	13,000.000	JD	510	11500	23000	ug/Kg
D3811-06DL2	SB-15(12-16)DL2	SOIL	Fluoranthene	75,000.000	D	460	11500	23000	ug/Kg
D3811-06DL2	SB-15(12-16)DL2	SOIL	Pyrene	59,000.000	D	550	11500	23000	ug/Kg
D3811-06DL2	SB-15(12-16)DL2	SOIL	Benzo(a)anthracene	32,000.000	D	1100	11500	23000	ug/Kg
D3811-06DL2	SB-15(12-16)DL2	SOIL	Chrysene	30,000.000	D	1000	11500	23000	ug/Kg
D3811-06DL2	SB-15(12-16)DL2	SOIL	Benzo(b)fluoranthene	30,000.000	D	750	11500	23000	ug/Kg
D3811-06DL2	SB-15(12-16)DL2	SOIL	Benzo(k)fluoranthene	12,000.000	JD	1100	11500	23000	ug/Kg
D3811-06DL2	SB-15(12-16)DL2	SOIL	Benzo(a)pyrene	25,000.000	D	500	11500	23000	ug/Kg
D3811-06DL2	SB-15(12-16)DL2	SOIL	Indeno(1,2,3-cd)pyrene	11,000.000	JD	770	11500	23000	ug/Kg
D3811-06DL2	SB-15(12-16)DL2	SOIL	Benzo(g,h,i)perylene	12,000.000	JD	930	11500	23000	ug/Kg

**Total Svoc : 485,000.00**  
**Total Concentration: 485,000.00**

Client ID : SB-18(4-8)

D3811-07	SB-18(4-8)	SOIL	Dimethylphthalate	370.000	J	11	195	390	ug/Kg
<b>Total Svoc :</b>				<b>370.00</b>					
D3811-07	SB-18(4-8)	SOIL	Dodecane, 2-methyl-	*	87.000	J	0	0	ug/Kg
D3811-07	SB-18(4-8)	SOIL	Isotridecanol-	*	110.000	J	0	0	ug/Kg
D3811-07	SB-18(4-8)	SOIL	unknown17.21	*	110.000	J	0	0	ug/Kg
D3811-07	SB-18(4-8)	SOIL	unknown18.51	*	140.000	J	0	0	ug/Kg
D3811-07	SB-18(4-8)	SOIL	unknown5.91	*	340.000	J	0	0	ug/Kg
D3811-07	SB-18(4-8)	SOIL	Cyclopentasiloxane, decamethyl-	*	160.000	J	0	0	ug/Kg

**Total Tics : 947.00**  
**Total Concentration: 1,317.00**

Client ID : SB-19(12-18)

D3811-08	SB-19(12-18)	SOIL	Dimethylphthalate	490.000	J	15	265	530	ug/Kg
<b>Total Svoc :</b>				<b>490.00</b>					
D3811-08	SB-19(12-18)	SOIL	Docosane	*	640.000	J	0	0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Heneicosane, 11-decyl-	*	840.000	J	0	0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Hentriacontane	*	2,100.000	J	0	0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Heptacosane	*	150.000	J	0	0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Hexadecane	*	1,600.000	J	0	0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Octacosane	*	1,800.000	J	0	0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Pentacosane	*	2,300.000	J	0	0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Pentadecane	*	1,300.000	J	0	0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Phenanthrene, 1-methyl-7-(1-methyl-)	*	280.000	J	0	0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Tetracosane	*	1,800.000	J	0	0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Tetradecane, 2,6,10-trimethyl-	*	540.000	J	0	0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Tetradecanoic acid	*	320.000	J	0	0	ug/Kg

# Hit Summary Sheet SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-08	SB-19(12-18)	SOIL	Tetratetracontane	* 120.000	J	0		0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Tetratriacontane	* 2,200.000	J	0		0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Triaccontane	* 170.000	J	0		0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	unknown17.21	* 280.000	J	0		0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	unknown5.90	* 470.000	J	0		0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	10,18-Bisnorabieta-5,7,9(10),11,13	* 370.000	J	0		0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	18-Norabietane	* 320.000	J	0		0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	1H-Phenanthro[9,10-d]imidazol-2-yl	* 330.000	J	0		0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	1-Iodo-2-methylundecane	* 1,200.000	J	0		0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	4b,8-Dimethyl-2-isopropylphenanthrene	* 310.000	J	0		0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Benzene, 1,1-(1,3-butadiyne-1,4-diyne)	* 200.000	J	0		0	ug/Kg
D3811-08	SB-19(12-18)	SOIL	Cyclopentasiloxane, decamethyl-	* 200.000	J	0		0	ug/Kg

**Total Tics :** 19,840.00  
**Total Concentration:** 20,330.00

Client ID : SB-2(4-8)

D3811-01	SB-2(4-8)	SOIL	Dimethylphthalate	230.000	J	10	190	380	ug/Kg
<b>Total Svoc :</b>				<b>230.00</b>					
D3811-01	SB-2(4-8)	SOIL	n-Hexadecanoic acid	* 97.000	J	0		0	ug/Kg
D3811-01	SB-2(4-8)	SOIL	Tetracosane	* 160.000	J	0		0	ug/Kg
D3811-01	SB-2(4-8)	SOIL	unknown15.69	* 130.000	J	0		0	ug/Kg
D3811-01	SB-2(4-8)	SOIL	unknown9.95	* 77.000	J	0		0	ug/Kg
D3811-01	SB-2(4-8)	SOIL	1-Docosene	* 130.000	J	0		0	ug/Kg
D3811-01	SB-2(4-8)	SOIL	2-Naphthalenol, 1-[(2,4-dimethylphenyl)]	* 160.000	J	0		0	ug/Kg
D3811-01	SB-2(4-8)	SOIL	2-Pentanone, 4-hydroxy-4-methyl-	* 1,100.000	A	0		0	ug/Kg
D3811-01	SB-2(4-8)	SOIL	Benzoic acid, 2,5-dinitro-	* 440.000	J	0		0	ug/Kg
D3811-01	SB-2(4-8)	SOIL	Cyclopentasiloxane, decamethyl-	* 180.000	J	0		0	ug/Kg

**Total Tics :** 2,474.00  
**Total Concentration:** 2,704.00

Client ID : SB-21(12-16)

D3811-09	SB-21(12-16)	SOIL	Naphthalene	900.000		16	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	2-Methylnaphthalene	260.000	J	12	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Dimethylphthalate	490.000		13	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Acenaphthene	240.000	J	13	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Dibenzofuran	360.000	J	19	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Fluorene	550.000		18	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Phenanthrene	3,200.000		13	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Anthracene	460.000	J	9.7	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Carbazole	360.000	J	10	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Fluoranthene	2,400.000		9.6	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Pyrene	2,000.000		11	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Benzo(a)anthracene	890.000		23	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Chrysene	1,000.000		22	235	470	ug/Kg

# Hit Summary Sheet

SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-09	SB-21(12-16)	SOIL	Benzo(b)fluoranthene	1,000.000		16	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Benzo(k)fluoranthene	360.000	J	22	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Benzo(a)pyrene	840.000		10	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Indeno(1,2,3-cd)pyrene	460.000	J	16	235	470	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Benzo(g,h,i)perylene	460.000	J	19	235	470	ug/Kg
Total Svoc :				16,230.00					
D3811-09	SB-21(12-16)	SOIL	Bicyclo[2.2.1]heptan-2-one, 1,7,7- *	2,100.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Eicosane	* 860.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Heneicosane	* 460.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Heptacosane	* 360.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Heptadecane, 9-octyl-	* 430.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Hexadecane	* 520.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Tetracosane	* 360.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Tetradecanoic acid	* 560.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	unknown17.46	* 900.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	unknown5.91	* 460.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Phenanthrene, 1-methyl-	* 680.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Phenanthrene, 1-methyl-7-(1-methy *	330.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Phenanthrene, 2-methyl-	* 980.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Octacosane	* 320.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Octadecane	* 270.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Pentadecane	* 850.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	Benzene, 1-methyl-2-(1-methylethy *	340.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	4b,8-Dimethyl-2-isopropylphenanti *	330.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	4H-Cyclopenta[def]phenanthrene *	700.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	9,10-Anthracenedione	* 350.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	10,18-Bisnorabieta-5,7,9(10),11,13 *	320.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	18-Norabietane	* 770.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	1H-Phenanthro[9,10-d]imidazol-2-; *	1,600.000	J	0		0	ug/Kg
D3811-09	SB-21(12-16)	SOIL	2(1H)Naphthalenone, 3,5,6,7,8,8a-l *	570.000	J	0		0	ug/Kg
Total Tics :				15,420.00					
Total Concentration:				31,650.00					

Client ID : SB-21(16-19)

D3811-10	SB-21(16-19)	SOIL	Acenaphthylene	2,000.000	J	62	1200	2400	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Fluorene	3,600.000		92	1200	2400	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Phenanthrene	27,000.000	E	66	1200	2400	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Anthracene	11,000.000		50	1200	2400	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Carbazole	1,300.000	J	54	1200	2400	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Fluoranthene	26,000.000	E	49	1200	2400	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Pyrene	20,000.000	E	59	1200	2400	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Benzo(a)anthracene	13,000.000		120	1200	2400	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Chrysene	12,000.000		110	1200	2400	ug/Kg



# Hit Summary Sheet

SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-10	SB-21(16-19)	SOIL	Benzo(b)fluoranthene	13,000.000		80	1200	2400	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Benzo(k)fluoranthene	5,400.000		120	1200	2400	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Benzo(a)pyrene	11,000.000		53	1200	2400	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Indeno(1,2,3-cd)pyrene	5,700.000		81	1200	2400	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Dibenz(a,h)anthracene	1,800.000	J	70	1200	2400	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Benzo(g,h,i)perylene	5,500.000		99	1200	2400	ug/Kg
<b>Total Svoc :</b>				<b>158,300.00</b>					
D3811-10	SB-21(16-19)	SOIL	Anthracene, 2-methyl-	* 3,900.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Azuleno(2,1-b)thiophene	* 1,400.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Diphenylmethane	* 570.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Heptadecane, 2,6,10,14-tetramethyl	* 570.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Benzo[h]quinoline	* 1,100.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Cyclohexane, hexaethylidene-	* 690.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Naphthalene, 2-phenyl-	* 2,000.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Phenanthrene, 2,5-dimethyl-	* 1,300.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Phenanthrene, 2-methyl-	* 2,800.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Pyrene, 1-methyl-	* 1,400.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	Pyridine, 4,4-(1,2-ethenediyl)bis	* 800.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	10,18-Bisnorabieta-5,7,9(10),11,13	* 2,000.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	11H-Benzo[b]fluorene	* 1,400.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	1H-Cyclopropa[1]phenanthrene, 1a,4	* 1,700.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	2,4,6-Trimethoxybenzaldehyde	* 540.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	4b,8-Dimethyl-2-isopropylphenantl	* 970.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	4H-Cyclopenta[def]phenanthrene	* 6,700.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	7H-Benz[de]anthracen-7-one	* 570.000	J	0		0	ug/Kg
D3811-10	SB-21(16-19)	SOIL	9H-Fluorene, 2-methyl-	* 1,200.000	J	0		0	ug/Kg
<b>Total Tics :</b>				<b>31,610.00</b>					
<b>Total Concentration:</b>				<b>189,910.00</b>					

Client ID : SB-21(16-19)DL

D3811-10DL	SB-21(16-19)DL	SOIL	Fluorene	3,600.000	JD	180	2400	4800	ug/Kg
D3811-10DL	SB-21(16-19)DL	SOIL	Phenanthrene	29,000.000	D	130	2400	4800	ug/Kg
D3811-10DL	SB-21(16-19)DL	SOIL	Anthracene	11,000.000	D	100	2400	4800	ug/Kg
D3811-10DL	SB-21(16-19)DL	SOIL	Fluoranthene	28,000.000	D	98	2400	4800	ug/Kg
D3811-10DL	SB-21(16-19)DL	SOIL	Pyrene	21,000.000	D	120	2400	4800	ug/Kg
D3811-10DL	SB-21(16-19)DL	SOIL	Benzo(a)anthracene	13,000.000	D	230	2400	4800	ug/Kg
D3811-10DL	SB-21(16-19)DL	SOIL	Chrysene	12,000.000	D	220	2400	4800	ug/Kg
D3811-10DL	SB-21(16-19)DL	SOIL	Benzo(b)fluoranthene	13,000.000	D	160	2400	4800	ug/Kg
D3811-10DL	SB-21(16-19)DL	SOIL	Benzo(k)fluoranthene	5,100.000	D	230	2400	4800	ug/Kg
D3811-10DL	SB-21(16-19)DL	SOIL	Benzo(a)pyrene	11,000.000	D	110	2400	4800	ug/Kg
D3811-10DL	SB-21(16-19)DL	SOIL	Indeno(1,2,3-cd)pyrene	5,000.000	D	160	2400	4800	ug/Kg
D3811-10DL	SB-21(16-19)DL	SOIL	Benzo(g,h,i)perylene	5,000.000	D	200	2400	4800	ug/Kg

**Total Svoc : 156,700.00**

# Hit Summary Sheet

SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Total Concentration:				156,700.00					
Client ID : SB-22(12-19)									
D3811-11	SB-22(12-19)	SOIL	Dimethylphthalate	350.000	J	9.9	180	360	ug/Kg
D3811-11	SB-22(12-19)	SOIL	Phenanthrene	190.000	J	9.9	180	360	ug/Kg
D3811-11	SB-22(12-19)	SOIL	Fluoranthene	210.000	J	7.3	180	360	ug/Kg
D3811-11	SB-22(12-19)	SOIL	Pyrene	180.000	J	8.8	180	360	ug/Kg
D3811-11	SB-22(12-19)	SOIL	Benzo(b)fluoranthene	150.000	J	12	180	360	ug/Kg
Total Svoc :				1,080.00					
D3811-11	SB-22(12-19)	SOIL	Cyclopentasiloxane, decamethyl-	*	160.000	J	0	0	ug/Kg
D3811-11	SB-22(12-19)	SOIL	Octadecane	*	93.000	J	0	0	ug/Kg
D3811-11	SB-22(12-19)	SOIL	Tridecanoic acid	*	210.000	J	0	0	ug/Kg
D3811-11	SB-22(12-19)	SOIL	unknown18.51	*	240.000	J	0	0	ug/Kg
D3811-11	SB-22(12-19)	SOIL	unknown20.50	*	120.000	J	0	0	ug/Kg
D3811-11	SB-22(12-19)	SOIL	unknown5.91	*	370.000	J	0	0	ug/Kg
D3811-11	SB-22(12-19)	SOIL	13-Docosenamide, (Z)-	*	140.000	J	0	0	ug/Kg
D3811-11	SB-22(12-19)	SOIL	1H-Indene, 1-ethylidene-	*	78.000	J	0	0	ug/Kg
Total Tics :				1,411.00					
Total Concentration:				2,491.00					
Client ID : SB-27(8-12)									
D3811-12	SB-27(8-12)	SOIL	Dimethylphthalate	460.000		11	205	410	ug/Kg
D3811-12	SB-27(8-12)	SOIL	Fluoranthene	590.000		8.3	205	410	ug/Kg
D3811-12	SB-27(8-12)	SOIL	Pyrene	550.000		9.9	205	410	ug/Kg
D3811-12	SB-27(8-12)	SOIL	Benzo(a)anthracene	530.000		20	205	410	ug/Kg
D3811-12	SB-27(8-12)	SOIL	Chrysene	640.000		19	205	410	ug/Kg
D3811-12	SB-27(8-12)	SOIL	Benzo(b)fluoranthene	1,100.000		13	205	410	ug/Kg
D3811-12	SB-27(8-12)	SOIL	Benzo(k)fluoranthene	280.000	J	19	205	410	ug/Kg
D3811-12	SB-27(8-12)	SOIL	Benzo(a)pyrene	720.000		8.9	205	410	ug/Kg
D3811-12	SB-27(8-12)	SOIL	Indeno(1,2,3-cd)pyrene	560.000		14	205	410	ug/Kg
D3811-12	SB-27(8-12)	SOIL	Dibenz(a,h)anthracene	190.000	J	12	205	410	ug/Kg
D3811-12	SB-27(8-12)	SOIL	Benzo(g,h,i)perylene	580.000		17	205	410	ug/Kg
Total Svoc :				6,200.00					
D3811-12	SB-27(8-12)	SOIL	Cyclohexane, 1,3,5-trimethyl-2-oct	*	95.000	J	0	0	ug/Kg
D3811-12	SB-27(8-12)	SOIL	Cyclopentasiloxane, decamethyl-	*	96.000	J	0	0	ug/Kg
D3811-12	SB-27(8-12)	SOIL	Decahydro-4,4,8,9,10-pentamethyl	*	210.000	J	0	0	ug/Kg
D3811-12	SB-27(8-12)	SOIL	Squalane	*	110.000	J	0	0	ug/Kg
D3811-12	SB-27(8-12)	SOIL	unknown13.49	*	96.000	J	0	0	ug/Kg
D3811-12	SB-27(8-12)	SOIL	unknown13.66	*	84.000	J	0	0	ug/Kg
D3811-12	SB-27(8-12)	SOIL	unknown14.46	*	83.000	J	0	0	ug/Kg
D3811-12	SB-27(8-12)	SOIL	unknown5.91	*	330.000	J	0	0	ug/Kg
D3811-12	SB-27(8-12)	SOIL	unknown8.56	*	84.000	J	0	0	ug/Kg
D3811-12	SB-27(8-12)	SOIL	1-Trimethylsilylpent-1-en-4-yne	*	260.000	J	0	0	ug/Kg
Total Tics :				1,448.00					

# Hit Summary Sheet

SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Total Concentration:				7,648.00					
Client ID : SB-37(8-10)									
D3811-13	SB-37(8-10)	SOIL	Acenaphthylene	4,700.000		60	1200	2400	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Fluorene	1,400.000	J	90	1200	2400	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Phenanthrene	10,000.000		64	1200	2400	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Anthracene	4,100.000		48	1200	2400	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Fluoranthene	23,000.000	E	48	1200	2400	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Pyrene	22,000.000	E	57	1200	2400	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Benzo(a)anthracene	15,000.000		110	1200	2400	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Chrysene	17,000.000		110	1200	2400	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Benzo(b)fluoranthene	22,000.000	E	78	1200	2400	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Benzo(k)fluoranthene	7,900.000		110	1200	2400	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Benzo(a)pyrene	18,000.000		51	1200	2400	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Indeno(1,2,3-cd)pyrene	12,000.000		79	1200	2400	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Dibenz(a,h)anthracene	3,600.000		68	1200	2400	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Benzo(g,h,i)perylene	12,000.000		96	1200	2400	ug/Kg
Total Svoc :				172,700.00					
D3811-13	SB-37(8-10)	SOIL	Benzo[e]pyrene	* 18,000.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Chrysene, 6-methyl-	* 1,000.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Cyclopenta(def)phenanthrenone	* 1,700.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Anthracene, 9-methyl-	* 1,600.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	11H-Benzo[a]fluorene	* 1,000.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	11H-Benzo[b]fluorene	* 1,800.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	2,9-Dimethyl-2,3,4,5,6,7-hexahydro	* 810.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	4H-Cyclopenta[def]phenanthrene	* 7,200.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	9,10-Anthracenedione	* 1,100.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	9H-Fluorene, 2-methyl-	* 860.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Naphthalene, 2-phenyl-	* 1,900.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Naphtho[2,3-b]thiophene	* 1,000.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Perylene	* 5,600.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Phenanthrene, 1,7-dimethyl-	* 820.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Phenanthrene, 1-methyl-	* 3,600.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Phenanthrene, 2,3-dimethyl-	* 2,500.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Phenanthrene, 2-methyl-	* 3,000.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Phenanthrene, 3-methyl-	* 1,600.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	Pyrene, 1-methyl-	* 770.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	unknown16.55	* 960.000	J	0		0	ug/Kg
D3811-13	SB-37(8-10)	SOIL	unknown18.19	* 1,700.000	J	0		0	ug/Kg
Total Tics :				58,520.00					
Total Concentration:				231,220.00					
Client ID : SB-37(8-10)DL									
D3811-13DL	SB-37(8-10)DL	SOIL	Acenaphthylene	3,200.000	JD	120	2350	4700	ug/Kg

# Hit Summary Sheet SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-13DL	SB-37(8-10)DL	SOIL	Phenanthrene	11,000.000	D	130	2350	4700	ug/Kg
D3811-13DL	SB-37(8-10)DL	SOIL	Anthracene	3,500.000	JD	97	2350	4700	ug/Kg
D3811-13DL	SB-37(8-10)DL	SOIL	Fluoranthene	24,000.000	D	96	2350	4700	ug/Kg
D3811-13DL	SB-37(8-10)DL	SOIL	Pyrene	24,000.000	D	110	2350	4700	ug/Kg
D3811-13DL	SB-37(8-10)DL	SOIL	Benzo(a)anthracene	15,000.000	D	230	2350	4700	ug/Kg
D3811-13DL	SB-37(8-10)DL	SOIL	Chrysene	17,000.000	D	220	2350	4700	ug/Kg
D3811-13DL	SB-37(8-10)DL	SOIL	Benzo(b)fluoranthene	22,000.000	D	160	2350	4700	ug/Kg
D3811-13DL	SB-37(8-10)DL	SOIL	Benzo(k)fluoranthene	8,900.000	D	220	2350	4700	ug/Kg
D3811-13DL	SB-37(8-10)DL	SOIL	Benzo(a)pyrene	18,000.000	D	100	2350	4700	ug/Kg
D3811-13DL	SB-37(8-10)DL	SOIL	Indeno(1,2,3-cd)pyrene	10,000.000	D	160	2350	4700	ug/Kg
D3811-13DL	SB-37(8-10)DL	SOIL	Dibenz(a,h)anthracene	2,300.000	JD	140	2350	4700	ug/Kg
D3811-13DL	SB-37(8-10)DL	SOIL	Benzo(g,h,i)perylene	11,000.000	D	190	2350	4700	ug/Kg

**Total Svoc :** 169,900.00  
**Total Concentration:** 169,900.00

## Client ID : SB-39(6-8)

D3811-14	SB-39(6-8)	SOIL	Dimethylphthalate	360.000		9.8	180	360	ug/Kg
<b>Total Svoc :</b>				<b>360.00</b>					
D3811-14	SB-39(6-8)	SOIL	Heptadecane	*	87.000	J	0	0	ug/Kg
D3811-14	SB-39(6-8)	SOIL	Tridecanoic acid	*	120.000	J	0	0	ug/Kg
D3811-14	SB-39(6-8)	SOIL	2-Pentanone, 4-hydroxy-4-methyl-	*	310.000	A	0	0	ug/Kg
D3811-14	SB-39(6-8)	SOIL	Benzene, 1,1-(1,3-butadiyne-1,4-d	*	92.000	J	0	0	ug/Kg
D3811-14	SB-39(6-8)	SOIL	Cyclopentasiloxane, decamethyl-	*	91.000	J	0	0	ug/Kg

**Total Tics :** 700.00  
**Total Concentration:** 1,060.00

## Client ID : SB-41(8-11)

D3811-15	SB-41(8-11)	SOIL	Benzoic acid	710.000	J	81	495	990	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Naphthalene	290.000	J	14	205	410	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Dimethylphthalate	360.000	J	11	205	410	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Acenaphthene	190.000	J	12	205	410	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Phenanthrene	1,300.000		11	205	410	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Anthracene	380.000	J	8.4	205	410	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Fluoranthene	1,700.000		8.3	205	410	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Pyrene	1,400.000		9.9	205	410	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Benzo(a)anthracene	880.000		20	205	410	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Chrysene	890.000		19	205	410	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Benzo(b)fluoranthene	1,100.000		13	205	410	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Benzo(k)fluoranthene	370.000	J	19	205	410	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Benzo(a)pyrene	910.000		8.9	205	410	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Indeno(1,2,3-cd)pyrene	500.000		14	205	410	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Benzo(g,h,i)perylene	470.000		17	205	410	ug/Kg

**Total Svoc :** 11,450.00

D3811-15	SB-41(8-11)	SOIL	Benzo[c]phenanthrene	*	86.000	J	0	0	ug/Kg
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# Hit Summary Sheet SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-15	SB-41(8-11)	SOIL	Benzo[e]pyrene	* 740.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Anthracene, 9-methyl-	* 110.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	11H-Benzo[a]fluorene	* 120.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	11H-Benzo[b]fluorene	* 130.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	1H-Cyclopropa[1]phenanthrene, 1a,4	* 220.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	2-Pentanone, 4-hydroxy-4-methyl-	* 860.000	A	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	4H-Cyclopenta[def]phenanthrene	* 270.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	5H-Indeno[1,2-b]pyridine	* 150.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Phenanthrene, 2-methyl-	* 150.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Phenanthrene, 4,5-dimethyl-	* 100.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	unknown11.16	* 100.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	unknown11.42	* 190.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Hexadecanoic acid, butyl ester	* 130.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Naphthalene, 1-methyl-	* 88.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Octadecanoic acid, butyl ester	* 150.000	J	0		0	ug/Kg
D3811-15	SB-41(8-11)	SOIL	Pentadecane	* 120.000	J	0		0	ug/Kg

**Total Tics : 3,714.00**  
**Total Concentration: 15,164.00**

## Client ID : SB-42(14-16)

D3811-16	SB-42(14-16)	SOIL	Dimethylphthalate	310.000	J	11	200	400	ug/Kg
D3811-16	SB-42(14-16)	SOIL	Fluoranthene	270.000	J	8.1	200	400	ug/Kg
D3811-16	SB-42(14-16)	SOIL	Pyrene	220.000	J	9.6	200	400	ug/Kg
D3811-16	SB-42(14-16)	SOIL	Benzo(a)anthracene	160.000	J	19	200	400	ug/Kg
D3811-16	SB-42(14-16)	SOIL	Chrysene	170.000	J	18	200	400	ug/Kg
D3811-16	SB-42(14-16)	SOIL	Benzo(b)fluoranthene	200.000	J	13	200	400	ug/Kg
D3811-16	SB-42(14-16)	SOIL	Benzo(a)pyrene	170.000	J	8.7	200	400	ug/Kg

**Total Svoc : 1,500.00**

D3811-16	SB-42(14-16)	SOIL	Cyclopentasiloxane, decamethyl-	* 120.000	J	0		0	ug/Kg
D3811-16	SB-42(14-16)	SOIL	Octadecane	* 92.000	J	0		0	ug/Kg
D3811-16	SB-42(14-16)	SOIL	Tridecanoic acid	* 190.000	J	0		0	ug/Kg
D3811-16	SB-42(14-16)	SOIL	10,18-Bisnorabieta-5,7,9(10),11,13	* 510.000	J	0		0	ug/Kg
D3811-16	SB-42(14-16)	SOIL	2-Pentanone, 4-hydroxy-4-methyl-	* 290.000	A	0		0	ug/Kg
D3811-16	SB-42(14-16)	SOIL	4b,8-Dimethyl-2-isopropylphenantl	* 170.000	J	0		0	ug/Kg
D3811-16	SB-42(14-16)	SOIL	4-Methoxy-2-hydroxystilbene	* 97.000	J	0		0	ug/Kg

**Total Tics : 1,469.00**  
**Total Concentration: 2,969.00**

## Client ID : SB-43(10-12)

D3811-18	SB-43(10-12)	SOIL	10,18-Bisnorabieta-5,7,9(10),11,13	* 920.000	J	0		0	ug/Kg
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**Total Tics : 920.00**  
**Total Concentration: 920.00**

## Client ID : SB-43(16-20)

D3811-19	SB-43(16-20)	SOIL	Dimethylphthalate	420.000	J	13	230	460	ug/Kg
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# Hit Summary Sheet SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units	
Total Svoc :				420.00						
D3811-19	SB-43(16-20)	SOIL	Squalene	*	190.000	J	0	0	ug/Kg	
D3811-19	SB-43(16-20)	SOIL	Sulfur	*	260.000	J	0	0	ug/Kg	
D3811-19	SB-43(16-20)	SOIL	2-Pentanone, 4-hydroxy-4-methyl-	*	1,100.000	A	0	0	ug/Kg	
D3811-19	SB-43(16-20)	SOIL	CAPS	*	170.000	J	0	0	ug/Kg	
D3811-19	SB-43(16-20)	SOIL	Cyclic octaatomic sulfur	*	3,200.000	J	0	0	ug/Kg	
Total Tics :				4,920.00						
Total Concentration:				5,340.00						
Client ID : SB-43(6-8)										
D3811-17	SB-43(6-8)	SOIL	Dimethylphthalate		360.000		9.8	180	360	ug/Kg
Total Svoc :				360.00						
D3811-17	SB-43(6-8)	SOIL	Dodecane	*	120.000	J	0	0	ug/Kg	
D3811-17	SB-43(6-8)	SOIL	Heptacosane, 1-chloro-	*	180.000	J	0	0	ug/Kg	
D3811-17	SB-43(6-8)	SOIL	Octadecane, 5,14-dibutyl-	*	150.000	J	0	0	ug/Kg	
D3811-17	SB-43(6-8)	SOIL	Pentadecanoic acid	*	110.000	J	0	0	ug/Kg	
D3811-17	SB-43(6-8)	SOIL	Sulfur	*	80.000	J	0	0	ug/Kg	
D3811-17	SB-43(6-8)	SOIL	Tridecane, 1-iodo-	*	97.000	J	0	0	ug/Kg	
D3811-17	SB-43(6-8)	SOIL	unknown10.48	*	89.000	J	0	0	ug/Kg	
D3811-17	SB-43(6-8)	SOIL	unknown15.91	*	92.000	J	0	0	ug/Kg	
D3811-17	SB-43(6-8)	SOIL	1-Bromodocosane	*	130.000	J	0	0	ug/Kg	
D3811-17	SB-43(6-8)	SOIL	2-Pentanone, 4-hydroxy-4-methyl-	*	870.000	A	0	0	ug/Kg	
D3811-17	SB-43(6-8)	SOIL	Cyclic octaatomic sulfur	*	640.000	J	0	0	ug/Kg	
D3811-17	SB-43(6-8)	SOIL	Cyclopentasiloxane, decamethyl-	*	98.000	J	0	0	ug/Kg	
Total Tics :				2,656.00						
Total Concentration:				3,016.00						
Client ID : SB-45(10-12)										
D3811-20	SB-45(10-12)	SOIL	p-Amidinobenzamide	*	470.000	J	0	0	ug/Kg	
Total Tics :				470.00						
Total Concentration:				470.00						
Client ID : SB-46(12-16)										
D3811-21	SB-46(12-16)	SOIL	Dimethylphthalate		420.000	JQ	12	230	460	ug/Kg
D3811-21	SB-46(12-16)	SOIL	Fluoranthene		200.000	JQ	9.3	230	460	ug/Kg
Total Svoc :				620.00						
D3811-21	SB-46(12-16)	SOIL	n-Hexadecanoic acid	*	220.000	J	0	0	ug/Kg	
D3811-21	SB-46(12-16)	SOIL	Nonadecane	*	110.000	J	0	0	ug/Kg	
D3811-21	SB-46(12-16)	SOIL	Octadecane	*	190.000	J	0	0	ug/Kg	
D3811-21	SB-46(12-16)	SOIL	Sulfur	*	140.000	J	0	0	ug/Kg	
D3811-21	SB-46(12-16)	SOIL	2-Pentanone, 4-hydroxy-4-methyl-	*	1,300.000	AB	0	0	ug/Kg	
D3811-21	SB-46(12-16)	SOIL	4-((1E)-3-Hydroxy-1-propenyl)-2-r	*	260.000	J	0	0	ug/Kg	
D3811-21	SB-46(12-16)	SOIL	Cyclic octaatomic sulfur	*	2,600.000	J	0	0	ug/Kg	
D3811-21	SB-46(12-16)	SOIL	Cyclopentasiloxane, decamethyl-	*	120.000	J	0	0	ug/Kg	
D3811-21	SB-46(12-16)	SOIL	Ethyl Chloride	*	210.000	J	0	0	ug/Kg	

# Hit Summary Sheet SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Total Tics :				5,150.00					
Total Concentration:				5,770.00					
Client ID : SB-46(12-16)RX									
D3811-21RX	SB-46(12-16)RX	SOIL	3+4-Methylphenols	340.000	J	24	230	460	ug/Kg
D3811-21RX	SB-46(12-16)RX	SOIL	Dimethylphthalate	580.000		12	230	460	ug/Kg
D3811-21RX	SB-46(12-16)RX	SOIL	Phenanthrene	360.000	J	12	230	460	ug/Kg
D3811-21RX	SB-46(12-16)RX	SOIL	Fluoranthene	690.000		9.3	230	460	ug/Kg
D3811-21RX	SB-46(12-16)RX	SOIL	Pyrene	650.000		11	230	460	ug/Kg
D3811-21RX	SB-46(12-16)RX	SOIL	Benzo(a)anthracene	320.000	J	22	230	460	ug/Kg
D3811-21RX	SB-46(12-16)RX	SOIL	Chrysene	420.000	J	21	230	460	ug/Kg
D3811-21RX	SB-46(12-16)RX	SOIL	Benzo(b)fluoranthene	530.000		15	230	460	ug/Kg
D3811-21RX	SB-46(12-16)RX	SOIL	Benzo(k)fluoranthene	220.000	J	22	230	460	ug/Kg
D3811-21RX	SB-46(12-16)RX	SOIL	Benzo(a)pyrene	390.000	J	10	230	460	ug/Kg
D3811-21RX	SB-46(12-16)RX	SOIL	Indeno(1,2,3-cd)pyrene	190.000	J	15	230	460	ug/Kg
D3811-21RX	SB-46(12-16)RX	SOIL	Benzo(g,h,i)perylene	210.000	J	19	230	460	ug/Kg
Total Svoc :				4,900.00					
Total Concentration:				4,900.00					
Client ID : SB-5(8-12)									
D3811-02	SB-5(8-12)	SOIL	Dimethylphthalate	290.000	J	11	205	410	ug/Kg
Total Svoc :				290.00					
D3811-02	SB-5(8-12)	SOIL	Eicosane	* 85.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	Heptadecane	* 140.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	Heptadecane, 9-hexyl-	* 250.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	Hexadecane	* 130.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	n-Hexadecanoic acid	* 1,000.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	Octadecanoic acid	* 110.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	Oleic Acid	* 750.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	Pentadecane, 4-methyl-	* 100.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	Pentadecane, 7-methyl-	* 110.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	Tridecane	* 130.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	Tritetracontane	* 110.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	Z-14-Nonacosane	* 110.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	.alpha.-Pinene	* 110.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	2,6,10,14,18-Pentamethyl-2,6,10,14-	* 100.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	2-Pentanone, 4-hydroxy-4-methyl-	* 1,300.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	Benzene, 1-methyl-2-(1-methylethy	* 150.000	J	0		0	ug/Kg
D3811-02	SB-5(8-12)	SOIL	Cyclopentasiloxane, decamethyl-	* 190.000	J	0		0	ug/Kg
Total Tics :				4,875.00					
Total Concentration:				5,165.00					
Client ID : SB-9(4-7)									
D3811-03	SB-9(4-7)	SOIL	Dimethylphthalate	530.000		11	195	390	ug/Kg
D3811-03	SB-9(4-7)	SOIL	Indeno(1,2,3-cd)pyrene	190.000	J	13	195	390	ug/Kg



Hit Summary Sheet  
SW-846

SDG No.: D3811  
Client: MS Analytical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-03	SB-9(4-7)	SOIL	Dibenz(a,h)anthracene	200.000	J	11	195	390	ug/Kg
D3811-03	SB-9(4-7)	SOIL	Benzo(g,h,i)perylene	280.000	J	16	195	390	ug/Kg
Total Svoc :				1,200.00					
D3811-03	SB-9(4-7)	SOIL	2-Pentanone, 4-hydroxy-4-methyl- *	1,100.000	A	0		0	ug/Kg
D3811-03	SB-9(4-7)	SOIL	3-Penten-2-one, 4-methyl- *	86.000	J	0		0	ug/Kg
D3811-03	SB-9(4-7)	SOIL	n-Hexadecanoic acid *	200.000	J	0		0	ug/Kg
D3811-03	SB-9(4-7)	SOIL	Pentacosane *	170.000	J	0		0	ug/Kg
D3811-03	SB-9(4-7)	SOIL	Tetradecane *	97.000	J	0		0	ug/Kg
D3811-03	SB-9(4-7)	SOIL	unknown16.03 *	85.000	J	0		0	ug/Kg
D3811-03	SB-9(4-7)	SOIL	Ethanol, 2-(tetradecyloxy)- *	100.000	J	0		0	ug/Kg
Total Tics :				1,838.00					
Total Concentration:				3,038.00					



# SAMPLE DATA

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-01	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058272.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	190	U	20	190	380	ug/Kg
110-86-1	Pyridine	190	U	76	190	380	ug/Kg
100-52-7	Benzaldehyde	190	UQ	20	190	380	ug/Kg
62-53-3	Aniline	190	U	33	190	380	ug/Kg
108-95-2	Phenol	190	U	8.8	190	380	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	190	U	18	190	380	ug/Kg
95-57-8	2-Chlorophenol	190	U	20	190	380	ug/Kg
95-50-1	1,2-Dichlorobenzene	190	U	15	190	380	ug/Kg
541-73-1	1,3-Dichlorobenzene	190	U	6.8	190	380	ug/Kg
106-46-7	1,4-Dichlorobenzene	190	U	13	190	380	ug/Kg
100-51-6	Benzyl Alcohol	190	U	14	190	380	ug/Kg
95-48-7	2-Methylphenol	190	U	21	190	380	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	190	U	16	190	380	ug/Kg
98-86-2	Acetophenone	190	U	12	190	380	ug/Kg
65794-96-9	3+4-Methylphenols	190	U	20	190	380	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	190	U	19	190	380	ug/Kg
67-72-1	Hexachloroethane	190	U	17	190	380	ug/Kg
98-95-3	Nitrobenzene	190	U	14	190	380	ug/Kg
78-59-1	Isophorone	190	U	13	190	380	ug/Kg
88-75-5	2-Nitrophenol	190	U	18	190	380	ug/Kg
105-67-9	2,4-Dimethylphenol	190	U	22	190	380	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	190	U	22	190	380	ug/Kg
120-83-2	2,4-Dichlorophenol	190	U	15	190	380	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	190	U	15	190	380	ug/Kg
65-85-0	Benzoic acid	460	U	76	460	920	ug/Kg
91-20-3	Naphthalene	190	U	13	190	380	ug/Kg
106-47-8	4-Chloroaniline	190	U	27	190	380	ug/Kg
87-68-3	Hexachlorobutadiene	190	U	14	190	380	ug/Kg
105-60-2	Caprolactam	190	U	18	190	380	ug/Kg
59-50-7	4-Chloro-3-methylphenol	190	U	17	190	380	ug/Kg
91-57-6	2-Methylnaphthalene	190	U	9.6	190	380	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-01	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:		Final Vol:	1000 uL
Extraction Type :	SOXH	Test:	SVOC-Chemtech Full -25
Decanted :	N	Level :	LOW
Injection Volume :	1	GPC Factor :	1.0
		GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058272.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	190	U	9.3	190	380	ug/Kg
88-06-2	2,4,6-Trichlorophenol	190	U	12	190	380	ug/Kg
95-95-4	2,4,5-Trichlorophenol	190	U	27	190	380	ug/Kg
92-52-4	1,1-Biphenyl	190	U	14	190	380	ug/Kg
91-58-7	2-Chloronaphthalene	190	U	8.7	190	380	ug/Kg
88-74-4	2-Nitroaniline	190	U	17	190	380	ug/Kg
131-11-3	Dimethylphthalate	230	J	10	190	380	ug/Kg
208-96-8	Acenaphthylene	190	U	9.6	190	380	ug/Kg
606-20-2	2,6-Dinitrotoluene	190	U	16	190	380	ug/Kg
99-09-2	3-Nitroaniline	190	U	25	190	380	ug/Kg
83-32-9	Acenaphthene	190	U	11	190	380	ug/Kg
51-28-5	2,4-Dinitrophenol	190	U	39	190	380	ug/Kg
100-02-7	4-Nitrophenol	190	U	71	190	380	ug/Kg
132-64-9	Dibenzofuran	190	U	15	190	380	ug/Kg
121-14-2	2,4-Dinitrotoluene	190	U	12	190	380	ug/Kg
84-66-2	Diethylphthalate	190	U	6	190	380	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	190	U	21	190	380	ug/Kg
86-73-7	Fluorene	190	U	14	190	380	ug/Kg
100-01-6	4-Nitroaniline	190	U	50	190	380	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	190	U	22	190	380	ug/Kg
86-30-6	N-Nitrosodiphenylamine	190	U	9.2	190	380	ug/Kg
103-33-3	Azobenzene	190	U	8.9	190	380	ug/Kg
101-55-3	4-Bromophenyl-phenylether	190	U	7.5	190	380	ug/Kg
118-74-1	Hexachlorobenzene	190	U	16	190	380	ug/Kg
1912-24-9	Atrazine	190	U	20	190	380	ug/Kg
87-86-5	Pentachlorophenol	190	U	26	190	380	ug/Kg
85-01-8	Phenanthrene	190	U	10	190	380	ug/Kg
120-12-7	Anthracene	190	U	7.8	190	380	ug/Kg
86-74-8	Carbazole	190	U	8.4	190	380	ug/Kg
84-74-2	Di-n-butylphthalate	190	U	30	190	380	ug/Kg
206-44-0	Fluoranthene	190	U	7.7	190	380	ug/Kg
92-87-5	Benzidine	190	U	38	190	380	ug/Kg
129-00-0	Pyrene	190	U	9.2	190	380	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-01	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058272.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	190	U	18	190	380	ug/Kg
91-94-1	3,3-Dichlorobenzidine	190	U	25	190	380	ug/Kg
56-55-3	Benzo(a)anthracene	190	U	18	190	380	ug/Kg
218-01-9	Chrysene	190	U	17	190	380	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	190	U	14	190	380	ug/Kg
117-84-0	Di-n-octyl phthalate	190	U	4.4	190	380	ug/Kg
205-99-2	Benzo(b)fluoranthene	190	U	13	190	380	ug/Kg
207-08-9	Benzo(k)fluoranthene	190	U	18	190	380	ug/Kg
50-32-8	Benzo(a)pyrene	190	U	8.3	190	380	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	190	U	13	190	380	ug/Kg
53-70-3	Dibenz(a,h)anthracene	190	U	11	190	380	ug/Kg
191-24-2	Benzo(g,h,i)perylene	190	U	15	190	380	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	190	U	15	190	380	ug/Kg
123-91-1	1,4-Dioxane	190	U	15	190	380	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	190	U	15	190	380	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	147		28 - 127		98%	SPK: 150
13127-88-3	Phenol-d5	152		34 - 127		102%	SPK: 150
4165-60-0	Nitrobenzene-d5	94.1		31 - 132		94%	SPK: 100
321-60-8	2-Fluorobiphenyl	88.6		39 - 123		89%	SPK: 100
118-79-6	2,4,6-Tribromophenol	120		30 - 133		80%	SPK: 150
1718-51-0	Terphenyl-d14	81.1		37 - 115		81%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	105965	5.2				
1146-65-2	Naphthalene-d8	374203	6.61				
15067-26-2	Acenaphthene-d10	178799	8.42				
1517-22-2	Phenanthrene-d10	291394	10.38				
1719-03-5	Chrysene-d12	245070	14.45				
1520-96-3	Perylene-d12	200014	16.57				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	1100	A			3.18	ug/Kg
541-02-6	Cyclopentasiloxane, decamethyl-	180	J			6.17	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-01	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058272.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
	unknown9.95	77	J			9.95	ug/Kg
646-31-1	Tetracosane	160	J			10.32	ug/Kg
57-10-3	n-Hexadecanoic acid	97	J			11.33	ug/Kg
610-28-6	Benzoic acid, 2,5-dinitro-	440	J			12.23	ug/Kg
1599-67-3	1-Docosene	130	J			15.46	ug/Kg
3118-97-6	2-Naphthalenol, 1-[(2,4-dimethylph	160	J			15.58	ug/Kg
	unknown15.69	130	J			15.69	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-02	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058273.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	205	U	21	205	410	ug/Kg
110-86-1	Pyridine	205	U	81	205	410	ug/Kg
100-52-7	Benzaldehyde	205	UQ	21	205	410	ug/Kg
62-53-3	Aniline	205	U	35	205	410	ug/Kg
108-95-2	Phenol	205	U	9.5	205	410	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	205	U	20	205	410	ug/Kg
95-57-8	2-Chlorophenol	205	U	22	205	410	ug/Kg
95-50-1	1,2-Dichlorobenzene	205	U	16	205	410	ug/Kg
541-73-1	1,3-Dichlorobenzene	205	U	7.3	205	410	ug/Kg
106-46-7	1,4-Dichlorobenzene	205	U	14	205	410	ug/Kg
100-51-6	Benzyl Alcohol	205	U	15	205	410	ug/Kg
95-48-7	2-Methylphenol	205	U	22	205	410	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	205	U	17	205	410	ug/Kg
98-86-2	Acetophenone	205	U	13	205	410	ug/Kg
65794-96-9	3+4-Methylphenols	205	U	21	205	410	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	205	U	21	205	410	ug/Kg
67-72-1	Hexachloroethane	205	U	18	205	410	ug/Kg
98-95-3	Nitrobenzene	205	U	16	205	410	ug/Kg
78-59-1	Isophorone	205	U	14	205	410	ug/Kg
88-75-5	2-Nitrophenol	205	U	20	205	410	ug/Kg
105-67-9	2,4-Dimethylphenol	205	U	23	205	410	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	205	U	24	205	410	ug/Kg
120-83-2	2,4-Dichlorophenol	205	U	16	205	410	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	205	U	16	205	410	ug/Kg
65-85-0	Benzoic acid	495	U	81	495	990	ug/Kg
91-20-3	Naphthalene	205	U	14	205	410	ug/Kg
106-47-8	4-Chloroaniline	205	U	29	205	410	ug/Kg
87-68-3	Hexachlorobutadiene	205	U	15	205	410	ug/Kg
105-60-2	Caprolactam	205	U	19	205	410	ug/Kg
59-50-7	4-Chloro-3-methylphenol	205	U	18	205	410	ug/Kg
91-57-6	2-Methylnaphthalene	205	U	10	205	410	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-02	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.03      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058273.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	205	U	10	205	410	ug/Kg
88-06-2	2,4,6-Trichlorophenol	205	U	13	205	410	ug/Kg
95-95-4	2,4,5-Trichlorophenol	205	U	29	205	410	ug/Kg
92-52-4	1,1-Biphenyl	205	U	16	205	410	ug/Kg
91-58-7	2-Chloronaphthalene	205	U	9.4	205	410	ug/Kg
88-74-4	2-Nitroaniline	205	U	18	205	410	ug/Kg
131-11-3	Dimethylphthalate	290	J	11	205	410	ug/Kg
208-96-8	Acenaphthylene	205	U	10	205	410	ug/Kg
606-20-2	2,6-Dinitrotoluene	205	U	17	205	410	ug/Kg
99-09-2	3-Nitroaniline	205	U	26	205	410	ug/Kg
83-32-9	Acenaphthene	205	U	12	205	410	ug/Kg
51-28-5	2,4-Dinitrophenol	205	U	42	205	410	ug/Kg
100-02-7	4-Nitrophenol	205	U	76	205	410	ug/Kg
132-64-9	Dibenzofuran	205	U	16	205	410	ug/Kg
121-14-2	2,4-Dinitrotoluene	205	U	12	205	410	ug/Kg
84-66-2	Diethylphthalate	205	U	6.4	205	410	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	205	U	22	205	410	ug/Kg
86-73-7	Fluorene	205	U	16	205	410	ug/Kg
100-01-6	4-Nitroaniline	205	U	54	205	410	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	205	U	24	205	410	ug/Kg
86-30-6	N-Nitrosodiphenylamine	205	U	9.9	205	410	ug/Kg
103-33-3	Azobenzene	205	U	9.6	205	410	ug/Kg
101-55-3	4-Bromophenyl-phenylether	205	U	8	205	410	ug/Kg
118-74-1	Hexachlorobenzene	205	U	17	205	410	ug/Kg
1912-24-9	Atrazine	205	U	22	205	410	ug/Kg
87-86-5	Pentachlorophenol	205	U	28	205	410	ug/Kg
85-01-8	Phenanthrene	205	U	11	205	410	ug/Kg
120-12-7	Anthracene	205	U	8.4	205	410	ug/Kg
86-74-8	Carbazole	205	U	9	205	410	ug/Kg
84-74-2	Di-n-butylphthalate	205	U	32	205	410	ug/Kg
206-44-0	Fluoranthene	205	U	8.3	205	410	ug/Kg
92-87-5	Benzidine	205	U	41	205	410	ug/Kg
129-00-0	Pyrene	205	U	9.9	205	410	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-02	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058273.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	205	U	20	205	410	ug/Kg
91-94-1	3,3-Dichlorobenzidine	205	U	26	205	410	ug/Kg
56-55-3	Benzo(a)anthracene	205	U	20	205	410	ug/Kg
218-01-9	Chrysene	205	U	19	205	410	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	205	U	15	205	410	ug/Kg
117-84-0	Di-n-octyl phthalate	205	U	4.7	205	410	ug/Kg
205-99-2	Benzo(b)fluoranthene	205	U	13	205	410	ug/Kg
207-08-9	Benzo(k)fluoranthene	205	U	19	205	410	ug/Kg
50-32-8	Benzo(a)pyrene	205	U	8.9	205	410	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	205	U	14	205	410	ug/Kg
53-70-3	Dibenz(a,h)anthracene	205	U	12	205	410	ug/Kg
191-24-2	Benzo(g,h,i)perylene	205	U	17	205	410	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	205	U	16	205	410	ug/Kg
123-91-1	1,4-Dioxane	205	U	16	205	410	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	205	U	16	205	410	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	152		28 - 127		102%	SPK: 150
13127-88-3	Phenol-d5	141		34 - 127		94%	SPK: 150
4165-60-0	Nitrobenzene-d5	97		31 - 132		97%	SPK: 100
321-60-8	2-Fluorobiphenyl	87.8		39 - 123		88%	SPK: 100
118-79-6	2,4,6-Tribromophenol	123		30 - 133		82%	SPK: 150
1718-51-0	Terphenyl-d14	79.6		37 - 115		80%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	105968	5.2				
1146-65-2	Naphthalene-d8	372921	6.61				
15067-26-2	Acenaphthene-d10	177470	8.42				
1517-22-2	Phenanthrene-d10	292212	10.38				
1719-03-5	Chrysene-d12	246553	14.45				
1520-96-3	Perylene-d12	193609	16.57				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	1300	J			3.19	ug/Kg
80-56-8	.alpha.-Pinene	110	J			4.3	ug/Kg



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-02	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058273.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
527-84-4	Benzene, 1-methyl-2-(1-methylethyl	150	J			5.32	ug/Kg
112-95-8	Eicosane	85	J			5.95	ug/Kg
541-02-6	Cyclopentasiloxane, decamethyl-	190	J			6.17	ug/Kg
544-76-3	Hexadecane	130	J			7.22	ug/Kg
629-50-5	Tridecane	130	J			7.79	ug/Kg
6165-40-8	Pentadecane, 7-methyl-	110	J			9.02	ug/Kg
629-78-7	Heptadecane	140	J			9.67	ug/Kg
55124-79-3	Heptadecane, 9-hexyl-	250	J			10.32	ug/Kg
2801-87-8	Pentadecane, 4-methyl-	100	J			10.58	ug/Kg
7098-21-7	Tritetracontane	110	J			10.96	ug/Kg
57-10-3	n-Hexadecanoic acid	1000	J			11.34	ug/Kg
112-80-1	Oleic Acid	750	J			12.45	ug/Kg
57-11-4	Octadecanoic acid	110	J			12.57	ug/Kg
1000131-18-9	Z-14-Nonacosane	110	J			15.46	ug/Kg
75581-03-2	2,6,10,14,18-Pentamethyl-2,6,10,14	100	J			16.03	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)	SDG No.:	D3811
Lab Sample ID:	D3811-03	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	16
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058276.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	195	U	20	195	390	ug/Kg
110-86-1	Pyridine	195	U	78	195	390	ug/Kg
100-52-7	Benzaldehyde	195	UQ	21	195	390	ug/Kg
62-53-3	Aniline	195	U	34	195	390	ug/Kg
108-95-2	Phenol	195	U	9.2	195	390	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	195	U	19	195	390	ug/Kg
95-57-8	2-Chlorophenol	195	U	21	195	390	ug/Kg
95-50-1	1,2-Dichlorobenzene	195	U	15	195	390	ug/Kg
541-73-1	1,3-Dichlorobenzene	195	U	7	195	390	ug/Kg
106-46-7	1,4-Dichlorobenzene	195	U	14	195	390	ug/Kg
100-51-6	Benzyl Alcohol	195	U	15	195	390	ug/Kg
95-48-7	2-Methylphenol	195	U	22	195	390	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	195	U	16	195	390	ug/Kg
98-86-2	Acetophenone	195	U	12	195	390	ug/Kg
65794-96-9	3+4-Methylphenols	195	U	21	195	390	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	195	U	20	195	390	ug/Kg
67-72-1	Hexachloroethane	195	U	18	195	390	ug/Kg
98-95-3	Nitrobenzene	195	U	15	195	390	ug/Kg
78-59-1	Isophorone	195	U	13	195	390	ug/Kg
88-75-5	2-Nitrophenol	195	U	19	195	390	ug/Kg
105-67-9	2,4-Dimethylphenol	195	U	22	195	390	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	195	U	23	195	390	ug/Kg
120-83-2	2,4-Dichlorophenol	195	U	15	195	390	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	195	U	15	195	390	ug/Kg
65-85-0	Benzoic acid	475	U	78	475	950	ug/Kg
91-20-3	Naphthalene	195	U	14	195	390	ug/Kg
106-47-8	4-Chloroaniline	195	U	28	195	390	ug/Kg
87-68-3	Hexachlorobutadiene	195	U	14	195	390	ug/Kg
105-60-2	Caprolactam	195	U	18	195	390	ug/Kg
59-50-7	4-Chloro-3-methylphenol	195	U	18	195	390	ug/Kg
91-57-6	2-Methylnaphthalene	195	U	10	195	390	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)	SDG No.:	D3811
Lab Sample ID:	D3811-03	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	16
Sample Wt/Vol:	30.05      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058276.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	195	U	9.6	195	390	ug/Kg
88-06-2	2,4,6-Trichlorophenol	195	U	12	195	390	ug/Kg
95-95-4	2,4,5-Trichlorophenol	195	U	28	195	390	ug/Kg
92-52-4	1,1-Biphenyl	195	U	15	195	390	ug/Kg
91-58-7	2-Chloronaphthalene	195	U	9	195	390	ug/Kg
88-74-4	2-Nitroaniline	195	U	18	195	390	ug/Kg
131-11-3	Dimethylphthalate	530		11	195	390	ug/Kg
208-96-8	Acenaphthylene	195	U	10	195	390	ug/Kg
606-20-2	2,6-Dinitrotoluene	195	U	16	195	390	ug/Kg
99-09-2	3-Nitroaniline	195	U	25	195	390	ug/Kg
83-32-9	Acenaphthene	195	U	11	195	390	ug/Kg
51-28-5	2,4-Dinitrophenol	195	U	40	195	390	ug/Kg
100-02-7	4-Nitrophenol	195	U	74	195	390	ug/Kg
132-64-9	Dibenzofuran	195	U	15	195	390	ug/Kg
121-14-2	2,4-Dinitrotoluene	195	U	12	195	390	ug/Kg
84-66-2	Diethylphthalate	195	U	6.2	195	390	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	195	U	22	195	390	ug/Kg
86-73-7	Fluorene	195	U	15	195	390	ug/Kg
100-01-6	4-Nitroaniline	195	U	52	195	390	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	195	U	23	195	390	ug/Kg
86-30-6	N-Nitrosodiphenylamine	195	U	9.5	195	390	ug/Kg
103-33-3	Azobenzene	195	U	9.3	195	390	ug/Kg
101-55-3	4-Bromophenyl-phenylether	195	U	7.7	195	390	ug/Kg
118-74-1	Hexachlorobenzene	195	U	16	195	390	ug/Kg
1912-24-9	Atrazine	195	U	21	195	390	ug/Kg
87-86-5	Pentachlorophenol	195	U	27	195	390	ug/Kg
85-01-8	Phenanthrene	195	U	11	195	390	ug/Kg
120-12-7	Anthracene	195	U	8.1	195	390	ug/Kg
86-74-8	Carbazole	195	U	8.7	195	390	ug/Kg
84-74-2	Di-n-butylphthalate	195	U	31	195	390	ug/Kg
206-44-0	Fluoranthene	195	U	8	195	390	ug/Kg
92-87-5	Benzidine	195	U	40	195	390	ug/Kg
129-00-0	Pyrene	195	U	9.5	195	390	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)	SDG No.:	D3811
Lab Sample ID:	D3811-03	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	16
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058276.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	195	U	19	195	390	ug/Kg
91-94-1	3,3-Dichlorobenzidine	195	U	25	195	390	ug/Kg
56-55-3	Benzo(a)anthracene	195	U	19	195	390	ug/Kg
218-01-9	Chrysene	195	U	18	195	390	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	195	U	14	195	390	ug/Kg
117-84-0	Di-n-octyl phthalate	195	U	4.5	195	390	ug/Kg
205-99-2	Benzo(b)fluoranthene	195	U	13	195	390	ug/Kg
207-08-9	Benzo(k)fluoranthene	195	U	19	195	390	ug/Kg
50-32-8	Benzo(a)pyrene	195	U	8.6	195	390	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	190	J	13	195	390	ug/Kg
53-70-3	Dibenz(a,h)anthracene	200	J	11	195	390	ug/Kg
191-24-2	Benzo(g,h,i)perylene	280	J	16	195	390	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	195	U	16	195	390	ug/Kg
123-91-1	1,4-Dioxane	195	U	16	195	390	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	195	U	16	195	390	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	140		28 - 127		93%	SPK: 150
13127-88-3	Phenol-d5	148		34 - 127		99%	SPK: 150
4165-60-0	Nitrobenzene-d5	94.5		31 - 132		95%	SPK: 100
321-60-8	2-Fluorobiphenyl	89.8		39 - 123		90%	SPK: 100
118-79-6	2,4,6-Tribromophenol	127		30 - 133		85%	SPK: 150
1718-51-0	Terphenyl-d14	82.5		37 - 115		83%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	118395	5.2				
1146-65-2	Naphthalene-d8	377764	6.61				
15067-26-2	Acenaphthene-d10	176645	8.42				
1517-22-2	Phenanthrene-d10	292602	10.38				
1719-03-5	Chrysene-d12	247751	14.45				
1520-96-3	Perylene-d12	207543	16.57				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
141-79-7	3-Penten-2-one, 4-methyl-	86	J			2.71	ug/Kg
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	1100	A			3.18	ug/Kg

## Report of Analysis

Client:	MS Analytical			Date Collected:	08/07/12		
Project:	12MS104 Kensington Heights			Date Received:	08/15/12		
Client Sample ID:	SB-9(4-7)			SDG No.:	D3811		
Lab Sample ID:	D3811-03			Matrix:	SOIL		
Analytical Method:	SW8270D			% Moisture:	16		
Sample Wt/Vol:	30.05	Units:	g	Final Vol:	1000	uL	
Soil Aliquot Vol:			uL	Test:	SVOC-Chemtech Full -25		
Extraction Type :	SOXH		Decanted :	N	Level :	LOW	
Injection Volume :	1	GPC Factor :	1.0	GPC Cleanup :	N	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058276.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
629-99-2	Pentacosane	170	J			10.32	ug/Kg
629-59-4	Tetradecane	97	J			10.96	ug/Kg
57-10-3	n-Hexadecanoic acid	200	J			11.33	ug/Kg
	unknown16.03	85	J			16.03	ug/Kg
2136-70-1	Ethanol, 2-(tetradecyloxy)-	100	J			17.53	ug/Kg

U = Not Detected

LOO = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of OC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-10(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-04	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	26
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006789.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	1100	U	120	1100	2200	ug/Kg
110-86-1	Pyridine	1100	U	450	1100	2200	ug/Kg
100-52-7	Benzaldehyde	1100	UQ	120	1100	2200	ug/Kg
62-53-3	Aniline	1100	U	190	1100	2200	ug/Kg
108-95-2	Phenol	1100	U	52	1100	2200	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1100	U	110	1100	2200	ug/Kg
95-57-8	2-Chlorophenol	1100	U	120	1100	2200	ug/Kg
95-50-1	1,2-Dichlorobenzene	1100	U	86	1100	2200	ug/Kg
541-73-1	1,3-Dichlorobenzene	1100	U	40	1100	2200	ug/Kg
106-46-7	1,4-Dichlorobenzene	1100	U	77	1100	2200	ug/Kg
100-51-6	Benzyl Alcohol	1100	U	84	1100	2200	ug/Kg
95-48-7	2-Methylphenol	1100	U	120	1100	2200	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1100	U	93	1100	2200	ug/Kg
98-86-2	Acetophenone	1100	U	69	1100	2200	ug/Kg
65794-96-9	3+4-Methylphenols	1100	U	120	1100	2200	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1100	U	110	1100	2200	ug/Kg
67-72-1	Hexachloroethane	1100	U	100	1100	2200	ug/Kg
98-95-3	Nitrobenzene	1100	U	85	1100	2200	ug/Kg
78-59-1	Isophorone	1100	U	74	1100	2200	ug/Kg
88-75-5	2-Nitrophenol	1100	U	110	1100	2200	ug/Kg
105-67-9	2,4-Dimethylphenol	1100	U	130	1100	2200	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1100	U	130	1100	2200	ug/Kg
120-83-2	2,4-Dichlorophenol	1100	U	86	1100	2200	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1100	U	86	1100	2200	ug/Kg
65-85-0	Benzoic acid	2700	U	450	2700	5400	ug/Kg
91-20-3	Naphthalene	1100	U	78	1100	2200	ug/Kg
106-47-8	4-Chloroaniline	1100	U	160	1100	2200	ug/Kg
87-68-3	Hexachlorobutadiene	1100	U	82	1100	2200	ug/Kg
105-60-2	Caprolactam	1100	U	100	1100	2200	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1100	U	100	1100	2200	ug/Kg
91-57-6	2-Methylnaphthalene	1100	U	57	1100	2200	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-10(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-04	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	26
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006789.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1100	U	55	1100	2200	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1100	U	69	1100	2200	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1100	U	160	1100	2200	ug/Kg
92-52-4	1,1-Biphenyl	1100	U	85	1100	2200	ug/Kg
91-58-7	2-Chloronaphthalene	1100	U	51	1100	2200	ug/Kg
88-74-4	2-Nitroaniline	1100	U	100	1100	2200	ug/Kg
131-11-3	Dimethylphthalate	1100	U	61	1100	2200	ug/Kg
208-96-8	Acenaphthylene	1100	U	57	1100	2200	ug/Kg
606-20-2	2,6-Dinitrotoluene	1100	U	92	1100	2200	ug/Kg
99-09-2	3-Nitroaniline	1100	U	140	1100	2200	ug/Kg
83-32-9	Acenaphthene	1100	U	63	1100	2200	ug/Kg
51-28-5	2,4-Dinitrophenol	1100	U	230	1100	2200	ug/Kg
100-02-7	4-Nitrophenol	1100	U	420	1100	2200	ug/Kg
132-64-9	Dibenzofuran	1100	U	88	1100	2200	ug/Kg
121-14-2	2,4-Dinitrotoluene	1100	U	68	1100	2200	ug/Kg
84-66-2	Diethylphthalate	1100	U	35	1100	2200	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1100	U	120	1100	2200	ug/Kg
86-73-7	Fluorene	1100	U	85	1100	2200	ug/Kg
100-01-6	4-Nitroaniline	1100	U	290	1100	2200	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1100	U	130	1100	2200	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1100	U	54	1100	2200	ug/Kg
103-33-3	Azobenzene	1100	U	53	1100	2200	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1100	U	44	1100	2200	ug/Kg
118-74-1	Hexachlorobenzene	1100	U	92	1100	2200	ug/Kg
1912-24-9	Atrazine	1100	U	120	1100	2200	ug/Kg
87-86-5	Pentachlorophenol	1100	U	150	1100	2200	ug/Kg
85-01-8	Phenanthrene	1100	U	61	1100	2200	ug/Kg
120-12-7	Anthracene	1100	U	46	1100	2200	ug/Kg
86-74-8	Carbazole	1100	U	49	1100	2200	ug/Kg
84-74-2	Di-n-butylphthalate	1100	U	180	1100	2200	ug/Kg
206-44-0	Fluoranthene	1100	U	45	1100	2200	ug/Kg
92-87-5	Benzidine	1100	U	230	1100	2200	ug/Kg
129-00-0	Pyrene	1100	U	54	1100	2200	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-10(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-04	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	26
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006789.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1100	U	110	1100	2200	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1100	U	140	1100	2200	ug/Kg
56-55-3	Benzo(a)anthracene	1100	U	110	1100	2200	ug/Kg
218-01-9	Chrysene	1100	U	100	1100	2200	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1100	U	80	1100	2200	ug/Kg
117-84-0	Di-n-octyl phthalate	1100	U	26	1100	2200	ug/Kg
205-99-2	Benzo(b)fluoranthene	1100	U	74	1100	2200	ug/Kg
207-08-9	Benzo(k)fluoranthene	1100	U	110	1100	2200	ug/Kg
50-32-8	Benzo(a)pyrene	1100	U	49	1100	2200	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1100	U	75	1100	2200	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1100	U	65	1100	2200	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1100	U	91	1100	2200	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1100	U	88	1100	2200	ug/Kg
123-91-1	1,4-Dioxane	1100	U	88	1100	2200	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1100	U	88	1100	2200	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	128		28 - 127		86%	SPK: 150
13127-88-3	Phenol-d5	137		34 - 127		92%	SPK: 150
4165-60-0	Nitrobenzene-d5	83.1		31 - 132		83%	SPK: 100
321-60-8	2-Fluorobiphenyl	73.4		39 - 123		73%	SPK: 100
118-79-6	2,4,6-Tribromophenol	120		30 - 133		80%	SPK: 150
1718-51-0	Terphenyl-d14	67.8		37 - 115		68%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	149700	8.69				
1146-65-2	Naphthalene-d8	555485	10.89				
15067-26-2	Acenaphthene-d10	368138	13.88				
1517-22-2	Phenanthrene-d10	697534	16.37				
1719-03-5	Chrysene-d12	745934	20.88				
1520-96-3	Perylene-d12	703209	24.77				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
	unknown5.92	490	J			5.92	ug/Kg



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-10(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-04	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	26
Sample Wt/Vol:	30.06      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :    N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006789.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-05	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	26
Sample Wt/Vol:	30.11 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006780.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	220	U	23	220	440	ug/Kg
110-86-1	Pyridine	220	U	89	220	440	ug/Kg
100-52-7	Benzaldehyde	220	UQ	23	220	440	ug/Kg
62-53-3	Aniline	220	U	38	220	440	ug/Kg
108-95-2	Phenol	220	U	10	220	440	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	220	U	22	220	440	ug/Kg
95-57-8	2-Chlorophenol	220	U	24	220	440	ug/Kg
95-50-1	1,2-Dichlorobenzene	220	U	17	220	440	ug/Kg
541-73-1	1,3-Dichlorobenzene	220	U	7.9	220	440	ug/Kg
106-46-7	1,4-Dichlorobenzene	220	U	15	220	440	ug/Kg
100-51-6	Benzyl Alcohol	220	U	17	220	440	ug/Kg
95-48-7	2-Methylphenol	220	U	24	220	440	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	220	U	19	220	440	ug/Kg
98-86-2	Acetophenone	220	U	14	220	440	ug/Kg
65794-96-9	3+4-Methylphenols	220	U	23	220	440	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	220	U	23	220	440	ug/Kg
67-72-1	Hexachloroethane	220	U	20	220	440	ug/Kg
98-95-3	Nitrobenzene	220	U	17	220	440	ug/Kg
78-59-1	Isophorone	220	U	15	220	440	ug/Kg
88-75-5	2-Nitrophenol	220	U	22	220	440	ug/Kg
105-67-9	2,4-Dimethylphenol	220	U	25	220	440	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	220	U	26	220	440	ug/Kg
120-83-2	2,4-Dichlorophenol	220	U	17	220	440	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	220	U	17	220	440	ug/Kg
65-85-0	Benzoic acid	550	U	89	550	1100	ug/Kg
91-20-3	Naphthalene	220	U	15	220	440	ug/Kg
106-47-8	4-Chloroaniline	220	U	32	220	440	ug/Kg
87-68-3	Hexachlorobutadiene	220	U	16	220	440	ug/Kg
105-60-2	Caprolactam	220	U	21	220	440	ug/Kg
59-50-7	4-Chloro-3-methylphenol	220	U	20	220	440	ug/Kg
91-57-6	2-Methylnaphthalene	220	U	11	220	440	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-05	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	26
Sample Wt/Vol:	30.11 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006780.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	220	U	11	220	440	ug/Kg
88-06-2	2,4,6-Trichlorophenol	220	U	14	220	440	ug/Kg
95-95-4	2,4,5-Trichlorophenol	220	U	32	220	440	ug/Kg
92-52-4	1,1-Biphenyl	220	U	17	220	440	ug/Kg
91-58-7	2-Chloronaphthalene	220	U	10	220	440	ug/Kg
88-74-4	2-Nitroaniline	220	U	20	220	440	ug/Kg
131-11-3	Dimethylphthalate	380	J	12	220	440	ug/Kg
208-96-8	Acenaphthylene	220	U	11	220	440	ug/Kg
606-20-2	2,6-Dinitrotoluene	220	U	18	220	440	ug/Kg
99-09-2	3-Nitroaniline	220	U	29	220	440	ug/Kg
83-32-9	Acenaphthene	220	U	13	220	440	ug/Kg
51-28-5	2,4-Dinitrophenol	220	U	46	220	440	ug/Kg
100-02-7	4-Nitrophenol	220	U	83	220	440	ug/Kg
132-64-9	Dibenzofuran	220	U	18	220	440	ug/Kg
121-14-2	2,4-Dinitrotoluene	220	U	14	220	440	ug/Kg
84-66-2	Diethylphthalate	220	U	7	220	440	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	220	U	24	220	440	ug/Kg
86-73-7	Fluorene	220	U	17	220	440	ug/Kg
100-01-6	4-Nitroaniline	220	U	58	220	440	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	220	U	26	220	440	ug/Kg
86-30-6	N-Nitrosodiphenylamine	220	U	11	220	440	ug/Kg
103-33-3	Azobenzene	220	U	11	220	440	ug/Kg
101-55-3	4-Bromophenyl-phenylether	220	U	8.8	220	440	ug/Kg
118-74-1	Hexachlorobenzene	220	U	18	220	440	ug/Kg
1912-24-9	Atrazine	220	U	24	220	440	ug/Kg
87-86-5	Pentachlorophenol	220	U	31	220	440	ug/Kg
85-01-8	Phenanthrene	220	U	12	220	440	ug/Kg
120-12-7	Anthracene	220	U	9.2	220	440	ug/Kg
86-74-8	Carbazole	220	U	9.8	220	440	ug/Kg
84-74-2	Di-n-butylphthalate	220	U	35	220	440	ug/Kg
206-44-0	Fluoranthene	220	U	9	220	440	ug/Kg
92-87-5	Benzidine	220	U	45	220	440	ug/Kg
129-00-0	Pyrene	220	U	11	220	440	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-05	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	26
Sample Wt/Vol:	30.11 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006780.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	220	U	22	220	440	ug/Kg
91-94-1	3,3-Dichlorobenzidine	220	U	29	220	440	ug/Kg
56-55-3	Benzo(a)anthracene	220	U	21	220	440	ug/Kg
218-01-9	Chrysene	220	U	20	220	440	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	220	U	16	220	440	ug/Kg
117-84-0	Di-n-octyl phthalate	220	U	5.1	220	440	ug/Kg
205-99-2	Benzo(b)fluoranthene	220	U	15	220	440	ug/Kg
207-08-9	Benzo(k)fluoranthene	220	U	21	220	440	ug/Kg
50-32-8	Benzo(a)pyrene	220	U	9.7	220	440	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	220	U	15	220	440	ug/Kg
53-70-3	Dibenz(a,h)anthracene	220	U	13	220	440	ug/Kg
191-24-2	Benzo(g,h,i)perylene	220	U	18	220	440	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	220	U	18	220	440	ug/Kg
123-91-1	1,4-Dioxane	220	U	18	220	440	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	220	U	18	220	440	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	118		28 - 127		79%	SPK: 150
13127-88-3	Phenol-d5	120		34 - 127		80%	SPK: 150
4165-60-0	Nitrobenzene-d5	75.2		31 - 132		75%	SPK: 100
321-60-8	2-Fluorobiphenyl	70.1		39 - 123		70%	SPK: 100
118-79-6	2,4,6-Tribromophenol	107		30 - 133		71%	SPK: 150
1718-51-0	Terphenyl-d14	62.7		37 - 115		63%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	133492	8.69				
1146-65-2	Naphthalene-d8	486870	10.89				
15067-26-2	Acenaphthene-d10	337919	13.88				
1517-22-2	Phenanthrene-d10	647790	16.37				
1719-03-5	Chrysene-d12	735697	20.88				
1520-96-3	Perylene-d12	669999	24.76				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
	unknown5.91	360	J			5.91	ug/Kg
541-02-6	Cyclopentasiloxane, decamethyl-	130	J			9.99	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-05	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	26
Sample Wt/Vol:	30.11 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006780.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
7206-19-1	3-Octadecene, (E)-	100	J			20.49	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-06	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006790.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	1150	U	120	1150	2300	ug/Kg
110-86-1	Pyridine	1150	U	460	1150	2300	ug/Kg
100-52-7	Benzaldehyde	1150	UQ	120	1150	2300	ug/Kg
62-53-3	Aniline	1150	U	200	1150	2300	ug/Kg
108-95-2	Phenol	1150	U	53	1150	2300	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1150	U	110	1150	2300	ug/Kg
95-57-8	2-Chlorophenol	1150	U	120	1150	2300	ug/Kg
95-50-1	1,2-Dichlorobenzene	1150	U	88	1150	2300	ug/Kg
541-73-1	1,3-Dichlorobenzene	1150	U	41	1150	2300	ug/Kg
106-46-7	1,4-Dichlorobenzene	1150	U	79	1150	2300	ug/Kg
100-51-6	Benzyl Alcohol	1150	U	87	1150	2300	ug/Kg
95-48-7	2-Methylphenol	1150	U	130	1150	2300	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1150	U	96	1150	2300	ug/Kg
98-86-2	Acetophenone	1150	U	71	1150	2300	ug/Kg
65794-96-9	3+4-Methylphenols	1150	U	120	1150	2300	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1150	U	120	1150	2300	ug/Kg
67-72-1	Hexachloroethane	1150	U	100	1150	2300	ug/Kg
98-95-3	Nitrobenzene	1150	U	87	1150	2300	ug/Kg
78-59-1	Isophorone	1150	U	76	1150	2300	ug/Kg
88-75-5	2-Nitrophenol	1150	U	110	1150	2300	ug/Kg
105-67-9	2,4-Dimethylphenol	1150	U	130	1150	2300	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1150	U	130	1150	2300	ug/Kg
120-83-2	2,4-Dichlorophenol	1150	U	88	1150	2300	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1150	U	88	1150	2300	ug/Kg
65-85-0	Benzoic acid	2750	U	460	2750	5500	ug/Kg
91-20-3	Naphthalene	23000	E	80	1150	2300	ug/Kg
106-47-8	4-Chloroaniline	1150	U	160	1150	2300	ug/Kg
87-68-3	Hexachlorobutadiene	1150	U	84	1150	2300	ug/Kg
105-60-2	Caprolactam	1150	U	110	1150	2300	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1150	U	100	1150	2300	ug/Kg
91-57-6	2-Methylnaphthalene	8700		58	1150	2300	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-06	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006790.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1150	U	56	1150	2300	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1150	U	71	1150	2300	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1150	U	160	1150	2300	ug/Kg
92-52-4	1,1-Biphenyl	2300	J	87	1150	2300	ug/Kg
91-58-7	2-Chloronaphthalene	1150	U	53	1150	2300	ug/Kg
88-74-4	2-Nitroaniline	1150	U	100	1150	2300	ug/Kg
131-11-3	Dimethylphthalate	1150	U	62	1150	2300	ug/Kg
208-96-8	Acenaphthylene	2900		58	1150	2300	ug/Kg
606-20-2	2,6-Dinitrotoluene	1150	U	94	1150	2300	ug/Kg
99-09-2	3-Nitroaniline	1150	U	150	1150	2300	ug/Kg
83-32-9	Acenaphthene	8600		65	1150	2300	ug/Kg
51-28-5	2,4-Dinitrophenol	1150	U	230	1150	2300	ug/Kg
100-02-7	4-Nitrophenol	1150	U	430	1150	2300	ug/Kg
132-64-9	Dibenzofuran	14000		90	1150	2300	ug/Kg
121-14-2	2,4-Dinitrotoluene	1150	U	70	1150	2300	ug/Kg
84-66-2	Diethylphthalate	1150	U	36	1150	2300	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1150	U	130	1150	2300	ug/Kg
86-73-7	Fluorene	20000	E	87	1150	2300	ug/Kg
100-01-6	4-Nitroaniline	1150	U	300	1150	2300	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1150	U	130	1150	2300	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1150	U	55	1150	2300	ug/Kg
103-33-3	Azobenzene	1150	U	54	1150	2300	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1150	U	45	1150	2300	ug/Kg
118-74-1	Hexachlorobenzene	1150	U	94	1150	2300	ug/Kg
1912-24-9	Atrazine	1150	U	120	1150	2300	ug/Kg
87-86-5	Pentachlorophenol	1150	U	160	1150	2300	ug/Kg
85-01-8	Phenanthrene	54000	E	62	1150	2300	ug/Kg
120-12-7	Anthracene	24000	E	47	1150	2300	ug/Kg
86-74-8	Carbazole	12000		51	1150	2300	ug/Kg
84-74-2	Di-n-butylphthalate	1150	U	180	1150	2300	ug/Kg
206-44-0	Fluoranthene	43000	E	46	1150	2300	ug/Kg
92-87-5	Benzidine	1150	U	230	1150	2300	ug/Kg
129-00-0	Pyrene	40000	E	55	1150	2300	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-06	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006790.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1150	U	110	1150	2300	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1150	U	150	1150	2300	ug/Kg
56-55-3	Benzo(a)anthracene	29000	E	110	1150	2300	ug/Kg
218-01-9	Chrysene	27000	E	100	1150	2300	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1150	U	82	1150	2300	ug/Kg
117-84-0	Di-n-octyl phthalate	1150	U	26	1150	2300	ug/Kg
205-99-2	Benzo(b)fluoranthene	29000	E	75	1150	2300	ug/Kg
207-08-9	Benzo(k)fluoranthene	11000		110	1150	2300	ug/Kg
50-32-8	Benzo(a)pyrene	24000	E	50	1150	2300	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	13000		77	1150	2300	ug/Kg
53-70-3	Dibenz(a,h)anthracene	4400		66	1150	2300	ug/Kg
191-24-2	Benzo(g,h,i)perylene	12000		93	1150	2300	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1150	U	91	1150	2300	ug/Kg
123-91-1	1,4-Dioxane	1150	U	91	1150	2300	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1150	U	91	1150	2300	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	123		28 - 127		82%	SPK: 150
13127-88-3	Phenol-d5	132		34 - 127		89%	SPK: 150
4165-60-0	Nitrobenzene-d5	83.6		31 - 132		84%	SPK: 100
321-60-8	2-Fluorobiphenyl	72.2		39 - 123		72%	SPK: 100
118-79-6	2,4,6-Tribromophenol	106		30 - 133		71%	SPK: 150
1718-51-0	Terphenyl-d14	66.8		37 - 115		67%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	143052	8.68				
1146-65-2	Naphthalene-d8	549574	10.89				
15067-26-2	Acenaphthene-d10	372130	13.87				
1517-22-2	Phenanthrene-d10	696200	16.37				
1719-03-5	Chrysene-d12	740611	20.89				
1520-96-3	Perylene-d12	720256	24.78				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
575-43-9	Naphthalene, 1,6-dimethyl-	3200	J			13.16	ug/Kg
582-16-1	Naphthalene, 2,7-dimethyl-	3600	J			13.29	ug/Kg



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-06	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006790.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
581-42-0	Naphthalene, 2,6-dimethyl-	1700	J			13.34	ug/Kg
14562-09-5	2,4,6-Cycloheptatrien-1-one, 2-phe	4400	J			15.06	ug/Kg
1730-37-6	9H-Fluorene, 1-methyl-	4700	J			15.71	ug/Kg
129812-23-3	Naphtho[2,1-b]furan, 1,2-dimethyl-	1800	J			15.93	ug/Kg
486-25-9	9H-Fluoren-9-one	2200	J			16.04	ug/Kg
128644-69-9	8-Dimethylaminonaphthalene-1-carbo	2500	J			16.11	ug/Kg
268-77-9	Naphtho[2,3-b]thiophene	5900	J			16.2	ug/Kg
832-69-9	Phenanthrene, 1-methyl-	10000	J			17.21	ug/Kg
2531-84-2	Phenanthrene, 2-methyl-	13000	J			17.26	ug/Kg
613-12-7	Anthracene, 2-methyl-	6100	J			17.33	ug/Kg
203-64-5	4H-Cyclopenta[def]phenanthrene	18000	J			17.41	ug/Kg
949-41-7	1H-Cyclopropa[l]phenanthrene, 1a,9b	4000	J			17.43	ug/Kg
35465-71-5	2-Phenylnaphthalene	6600	J			17.69	ug/Kg
84-65-1	9,10-Anthracenedione	2100	J			17.73	ug/Kg
85385-68-8	[14]Annulene, 1,6:8,13-bis(methano	1600	J			18.04	ug/Kg
3674-66-6	Phenanthrene, 2,5-dimethyl-	5300	J			18.13	ug/Kg
	unknown18.20	3500	J			18.2	ug/Kg
781-43-1	9,10-Dimethylanthracene	3000	J			18.27	ug/Kg
4425-74-5	9-(Cyanomethylene)fluorene	2000	J			18.5	ug/Kg
192-97-2	Benzo[e]pyrene	5000	J			23.85	ug/Kg
198-55-0	Perylene	16000	J			24.42	ug/Kg
205-82-3	Benzo[j]fluoranthene	4700	J			24.87	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)DL	SDG No.:	D3811
Lab Sample ID:	D3811-06DL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006817.D	25	08/15/12	08/22/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	5500	UD	590	5500	11000	ug/Kg
110-86-1	Pyridine	5500	UD	2300	5500	11000	ug/Kg
100-52-7	Benzaldehyde	5500	UDQ	600	5500	11000	ug/Kg
62-53-3	Aniline	5500	UD	980	5500	11000	ug/Kg
108-95-2	Phenol	5500	UD	270	5500	11000	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	5500	UD	550	5500	11000	ug/Kg
95-57-8	2-Chlorophenol	5500	UD	610	5500	11000	ug/Kg
95-50-1	1,2-Dichlorobenzene	5500	UD	440	5500	11000	ug/Kg
541-73-1	1,3-Dichlorobenzene	5500	UD	200	5500	11000	ug/Kg
106-46-7	1,4-Dichlorobenzene	5500	UD	390	5500	11000	ug/Kg
100-51-6	Benzyl Alcohol	5500	UD	430	5500	11000	ug/Kg
95-48-7	2-Methylphenol	5500	UD	630	5500	11000	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	5500	UD	480	5500	11000	ug/Kg
98-86-2	Acetophenone	5500	UD	350	5500	11000	ug/Kg
65794-96-9	3+4-Methylphenols	5500	UD	600	5500	11000	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	5500	UD	580	5500	11000	ug/Kg
67-72-1	Hexachloroethane	5500	UD	520	5500	11000	ug/Kg
98-95-3	Nitrobenzene	5500	UD	440	5500	11000	ug/Kg
78-59-1	Isophorone	5500	UD	380	5500	11000	ug/Kg
88-75-5	2-Nitrophenol	5500	UD	560	5500	11000	ug/Kg
105-67-9	2,4-Dimethylphenol	5500	UD	650	5500	11000	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	5500	UD	660	5500	11000	ug/Kg
120-83-2	2,4-Dichlorophenol	5500	UD	440	5500	11000	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5500	UD	440	5500	11000	ug/Kg
65-85-0	Benzoic acid	14000	UD	2300	14000	28000	ug/Kg
91-20-3	Naphthalene	25000	D	400	5500	11000	ug/Kg
106-47-8	4-Chloroaniline	5500	UD	810	5500	11000	ug/Kg
87-68-3	Hexachlorobutadiene	5500	UD	420	5500	11000	ug/Kg
105-60-2	Caprolactam	5500	UD	540	5500	11000	ug/Kg
59-50-7	4-Chloro-3-methylphenol	5500	UD	510	5500	11000	ug/Kg
91-57-6	2-Methylnaphthalene	9400	JD	290	5500	11000	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)DL	SDG No.:	D3811
Lab Sample ID:	D3811-06DL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006817.D	25	08/15/12	08/22/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	5500	UD	280	5500	11000	ug/Kg
88-06-2	2,4,6-Trichlorophenol	5500	UD	350	5500	11000	ug/Kg
95-95-4	2,4,5-Trichlorophenol	5500	UD	810	5500	11000	ug/Kg
92-52-4	1,1-Biphenyl	5500	UD	440	5500	11000	ug/Kg
91-58-7	2-Chloronaphthalene	5500	UD	260	5500	11000	ug/Kg
88-74-4	2-Nitroaniline	5500	UD	510	5500	11000	ug/Kg
131-11-3	Dimethylphthalate	5500	UD	310	5500	11000	ug/Kg
208-96-8	Acenaphthylene	5500	UD	290	5500	11000	ug/Kg
606-20-2	2,6-Dinitrotoluene	5500	UD	470	5500	11000	ug/Kg
99-09-2	3-Nitroaniline	5500	UD	740	5500	11000	ug/Kg
83-32-9	Acenaphthene	8700	JD	330	5500	11000	ug/Kg
51-28-5	2,4-Dinitrophenol	5500	UD	1200	5500	11000	ug/Kg
100-02-7	4-Nitrophenol	5500	UD	2100	5500	11000	ug/Kg
132-64-9	Dibenzofuran	14000	D	450	5500	11000	ug/Kg
121-14-2	2,4-Dinitrotoluene	5500	UD	350	5500	11000	ug/Kg
84-66-2	Diethylphthalate	5500	UD	180	5500	11000	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	5500	UD	630	5500	11000	ug/Kg
86-73-7	Fluorene	21000	D	440	5500	11000	ug/Kg
100-01-6	4-Nitroaniline	5500	UD	1500	5500	11000	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	5500	UD	660	5500	11000	ug/Kg
86-30-6	N-Nitrosodiphenylamine	5500	UD	280	5500	11000	ug/Kg
103-33-3	Azobenzene	5500	UD	270	5500	11000	ug/Kg
101-55-3	4-Bromophenyl-phenylether	5500	UD	220	5500	11000	ug/Kg
118-74-1	Hexachlorobenzene	5500	UD	470	5500	11000	ug/Kg
1912-24-9	Atrazine	5500	UD	610	5500	11000	ug/Kg
87-86-5	Pentachlorophenol	5500	UD	790	5500	11000	ug/Kg
85-01-8	Phenanthrene	95000	ED	310	5500	11000	ug/Kg
120-12-7	Anthracene	28000	D	240	5500	11000	ug/Kg
86-74-8	Carbazole	13000	D	250	5500	11000	ug/Kg
84-74-2	Di-n-butylphthalate	5500	UD	910	5500	11000	ug/Kg
206-44-0	Fluoranthene	74000	D	230	5500	11000	ug/Kg
92-87-5	Benzidine	5500	UD	1200	5500	11000	ug/Kg
129-00-0	Pyrene	57000	D	280	5500	11000	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)DL	SDG No.:	D3811
Lab Sample ID:	D3811-06DL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006817.D	25	08/15/12	08/22/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	5500	UD	550	5500	11000	ug/Kg
91-94-1	3,3-Dichlorobenzidine	5500	UD	740	5500	11000	ug/Kg
56-55-3	Benzo(a)anthracene	32000	D	550	5500	11000	ug/Kg
218-01-9	Chrysene	30000	D	520	5500	11000	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	5500	UD	410	5500	11000	ug/Kg
117-84-0	Di-n-octyl phthalate	5500	UD	130	5500	11000	ug/Kg
205-99-2	Benzo(b)fluoranthene	32000	D	380	5500	11000	ug/Kg
207-08-9	Benzo(k)fluoranthene	11000	JD	540	5500	11000	ug/Kg
50-32-8	Benzo(a)pyrene	25000	D	250	5500	11000	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	11000	JD	380	5500	11000	ug/Kg
53-70-3	Dibenz(a,h)anthracene	5500	UD	330	5500	11000	ug/Kg
191-24-2	Benzo(g,h,i)perylene	12000	D	470	5500	11000	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	5500	UD	450	5500	11000	ug/Kg
123-91-1	1,4-Dioxane	5500	UD	450	5500	11000	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	5500	UD	450	5500	11000	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	118		28 - 127		79%	SPK: 150
13127-88-3	Phenol-d5	124		34 - 127		83%	SPK: 150
4165-60-0	Nitrobenzene-d5	81.2		31 - 132		81%	SPK: 100
321-60-8	2-Fluorobiphenyl	68.2		39 - 123		68%	SPK: 100
118-79-6	2,4,6-Tribromophenol	97.8		30 - 133		65%	SPK: 150
1718-51-0	Terphenyl-d14	70		37 - 115		70%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	138234	8.68				
1146-65-2	Naphthalene-d8	540363	10.88				
15067-26-2	Acenaphthene-d10	376946	13.87				
1517-22-2	Phenanthrene-d10	704555	16.37				
1719-03-5	Chrysene-d12	766472	20.87				
1520-96-3	Perylene-d12	680312	24.76				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)DL	SDG No.:	D3811
Lab Sample ID:	D3811-06DL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006817.D	25	08/15/12	08/22/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)DL2	SDG No.:	D3811
Lab Sample ID:	D3811-06DL2	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006827.D	50	08/15/12	08/22/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	11500	UD	1200	11500	23000	ug/Kg
110-86-1	Pyridine	11500	UD	4600	11500	23000	ug/Kg
100-52-7	Benzaldehyde	11500	UDQ	1200	11500	23000	ug/Kg
62-53-3	Aniline	11500	UD	2000	11500	23000	ug/Kg
108-95-2	Phenol	11500	UD	530	11500	23000	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	11500	UD	1100	11500	23000	ug/Kg
95-57-8	2-Chlorophenol	11500	UD	1200	11500	23000	ug/Kg
95-50-1	1,2-Dichlorobenzene	11500	UD	880	11500	23000	ug/Kg
541-73-1	1,3-Dichlorobenzene	11500	UD	410	11500	23000	ug/Kg
106-46-7	1,4-Dichlorobenzene	11500	UD	790	11500	23000	ug/Kg
100-51-6	Benzyl Alcohol	11500	UD	870	11500	23000	ug/Kg
95-48-7	2-Methylphenol	11500	UD	1300	11500	23000	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	11500	UD	960	11500	23000	ug/Kg
98-86-2	Acetophenone	11500	UD	710	11500	23000	ug/Kg
65794-96-9	3+4-Methylphenols	11500	UD	1200	11500	23000	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	11500	UD	1200	11500	23000	ug/Kg
67-72-1	Hexachloroethane	11500	UD	1000	11500	23000	ug/Kg
98-95-3	Nitrobenzene	11500	UD	870	11500	23000	ug/Kg
78-59-1	Isophorone	11500	UD	760	11500	23000	ug/Kg
88-75-5	2-Nitrophenol	11500	UD	1100	11500	23000	ug/Kg
105-67-9	2,4-Dimethylphenol	11500	UD	1300	11500	23000	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	11500	UD	1300	11500	23000	ug/Kg
120-83-2	2,4-Dichlorophenol	11500	UD	880	11500	23000	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	11500	UD	880	11500	23000	ug/Kg
65-85-0	Benzoic acid	27500	UD	4600	27500	55000	ug/Kg
91-20-3	Naphthalene	25000	D	800	11500	23000	ug/Kg
106-47-8	4-Chloroaniline	11500	UD	1600	11500	23000	ug/Kg
87-68-3	Hexachlorobutadiene	11500	UD	840	11500	23000	ug/Kg
105-60-2	Caprolactam	11500	UD	1100	11500	23000	ug/Kg
59-50-7	4-Chloro-3-methylphenol	11500	UD	1000	11500	23000	ug/Kg
91-57-6	2-Methylnaphthalene	11500	UD	580	11500	23000	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)DL2	SDG No.:	D3811
Lab Sample ID:	D3811-06DL2	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006827.D	50	08/15/12	08/22/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	11500	UD	560	11500	23000	ug/Kg
88-06-2	2,4,6-Trichlorophenol	11500	UD	710	11500	23000	ug/Kg
95-95-4	2,4,5-Trichlorophenol	11500	UD	1600	11500	23000	ug/Kg
92-52-4	1,1-Biphenyl	11500	UD	870	11500	23000	ug/Kg
91-58-7	2-Chloronaphthalene	11500	UD	530	11500	23000	ug/Kg
88-74-4	2-Nitroaniline	11500	UD	1000	11500	23000	ug/Kg
131-11-3	Dimethylphthalate	11500	UD	620	11500	23000	ug/Kg
208-96-8	Acenaphthylene	11500	UD	580	11500	23000	ug/Kg
606-20-2	2,6-Dinitrotoluene	11500	UD	940	11500	23000	ug/Kg
99-09-2	3-Nitroaniline	11500	UD	1500	11500	23000	ug/Kg
83-32-9	Acenaphthene	11500	UD	650	11500	23000	ug/Kg
51-28-5	2,4-Dinitrophenol	11500	UD	2300	11500	23000	ug/Kg
100-02-7	4-Nitrophenol	11500	UD	4300	11500	23000	ug/Kg
132-64-9	Dibenzofuran	13000	JD	900	11500	23000	ug/Kg
121-14-2	2,4-Dinitrotoluene	11500	UD	700	11500	23000	ug/Kg
84-66-2	Diethylphthalate	11500	UD	360	11500	23000	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	11500	UD	1300	11500	23000	ug/Kg
86-73-7	Fluorene	20000	JD	870	11500	23000	ug/Kg
100-01-6	4-Nitroaniline	11500	UD	3000	11500	23000	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	11500	UD	1300	11500	23000	ug/Kg
86-30-6	N-Nitrosodiphenylamine	11500	UD	550	11500	23000	ug/Kg
103-33-3	Azobenzene	11500	UD	540	11500	23000	ug/Kg
101-55-3	4-Bromophenyl-phenylether	11500	UD	450	11500	23000	ug/Kg
118-74-1	Hexachlorobenzene	11500	UD	940	11500	23000	ug/Kg
1912-24-9	Atrazine	11500	UD	1200	11500	23000	ug/Kg
87-86-5	Pentachlorophenol	11500	UD	1600	11500	23000	ug/Kg
85-01-8	Phenanthrene	100000	D	620	11500	23000	ug/Kg
120-12-7	Anthracene	28000	D	470	11500	23000	ug/Kg
86-74-8	Carbazole	13000	JD	510	11500	23000	ug/Kg
84-74-2	Di-n-butylphthalate	11500	UD	1800	11500	23000	ug/Kg
206-44-0	Fluoranthene	75000	D	460	11500	23000	ug/Kg
92-87-5	Benzidine	11500	UD	2300	11500	23000	ug/Kg
129-00-0	Pyrene	59000	D	550	11500	23000	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)DL2	SDG No.:	D3811
Lab Sample ID:	D3811-06DL2	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006827.D	50	08/15/12	08/22/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	11500	UD	1100	11500	23000	ug/Kg
91-94-1	3,3-Dichlorobenzidine	11500	UD	1500	11500	23000	ug/Kg
56-55-3	Benzo(a)anthracene	32000	D	1100	11500	23000	ug/Kg
218-01-9	Chrysene	30000	D	1000	11500	23000	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	11500	UD	820	11500	23000	ug/Kg
117-84-0	Di-n-octyl phthalate	11500	UD	260	11500	23000	ug/Kg
205-99-2	Benzo(b)fluoranthene	30000	D	750	11500	23000	ug/Kg
207-08-9	Benzo(k)fluoranthene	12000	JD	1100	11500	23000	ug/Kg
50-32-8	Benzo(a)pyrene	25000	D	500	11500	23000	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	11000	JD	770	11500	23000	ug/Kg
53-70-3	Dibenz(a,h)anthracene	11500	UD	660	11500	23000	ug/Kg
191-24-2	Benzo(g,h,i)perylene	12000	JD	930	11500	23000	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	11500	UD	910	11500	23000	ug/Kg
123-91-1	1,4-Dioxane	11500	UD	910	11500	23000	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	11500	UD	910	11500	23000	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	111		28 - 127		74%	SPK: 150
13127-88-3	Phenol-d5	115		34 - 127		77%	SPK: 150
4165-60-0	Nitrobenzene-d5	69.5		31 - 132		70%	SPK: 100
321-60-8	2-Fluorobiphenyl	66		39 - 123		66%	SPK: 100
118-79-6	2,4,6-Tribromophenol	86.5		30 - 133		58%	SPK: 150
1718-51-0	Terphenyl-d14	75.5		37 - 115		76%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	140787	8.68				
1146-65-2	Naphthalene-d8	576119	10.88				
15067-26-2	Acenaphthene-d10	394091	13.87				
1517-22-2	Phenanthrene-d10	688062	16.37				
1719-03-5	Chrysene-d12	715046	20.87				
1520-96-3	Perylene-d12	668735	24.76				



## Report of Analysis

Client:	MS Analytical			Date Collected:	08/08/12		
Project:	12MS104 Kensington Heights			Date Received:	08/15/12		
Client Sample ID:	SB-15(12-16)DL2			SDG No.:	D3811		
Lab Sample ID:	D3811-06DL2			Matrix:	SOIL		
Analytical Method:	SW8270D			% Moisture:	28		
Sample Wt/Vol:	30.1	Units:	g	Final Vol:	1000	uL	
Soil Aliquot Vol:			uL	Test:	SVOC-Chemtech Full -25		
Extraction Type :	SOXH		Decanted :	N	Level :	LOW	
Injection Volume :	1	GPC Factor :	1.0	GPC Cleanup :	N	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006827.D	50	08/15/12	08/22/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-07	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	16
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006781.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	195	U	20	195	390	ug/Kg
110-86-1	Pyridine	195	U	78	195	390	ug/Kg
100-52-7	Benzaldehyde	195	UQ	21	195	390	ug/Kg
62-53-3	Aniline	195	U	34	195	390	ug/Kg
108-95-2	Phenol	195	U	9.1	195	390	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	195	U	19	195	390	ug/Kg
95-57-8	2-Chlorophenol	195	U	21	195	390	ug/Kg
95-50-1	1,2-Dichlorobenzene	195	U	15	195	390	ug/Kg
541-73-1	1,3-Dichlorobenzene	195	U	7	195	390	ug/Kg
106-46-7	1,4-Dichlorobenzene	195	U	14	195	390	ug/Kg
100-51-6	Benzyl Alcohol	195	U	15	195	390	ug/Kg
95-48-7	2-Methylphenol	195	U	21	195	390	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	195	U	16	195	390	ug/Kg
98-86-2	Acetophenone	195	U	12	195	390	ug/Kg
65794-96-9	3+4-Methylphenols	195	U	21	195	390	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	195	U	20	195	390	ug/Kg
67-72-1	Hexachloroethane	195	U	18	195	390	ug/Kg
98-95-3	Nitrobenzene	195	U	15	195	390	ug/Kg
78-59-1	Isophorone	195	U	13	195	390	ug/Kg
88-75-5	2-Nitrophenol	195	U	19	195	390	ug/Kg
105-67-9	2,4-Dimethylphenol	195	U	22	195	390	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	195	U	23	195	390	ug/Kg
120-83-2	2,4-Dichlorophenol	195	U	15	195	390	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	195	U	15	195	390	ug/Kg
65-85-0	Benzoic acid	475	U	78	475	950	ug/Kg
91-20-3	Naphthalene	195	U	14	195	390	ug/Kg
106-47-8	4-Chloroaniline	195	U	28	195	390	ug/Kg
87-68-3	Hexachlorobutadiene	195	U	14	195	390	ug/Kg
105-60-2	Caprolactam	195	U	18	195	390	ug/Kg
59-50-7	4-Chloro-3-methylphenol	195	U	18	195	390	ug/Kg
91-57-6	2-Methylnaphthalene	195	U	10	195	390	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-07	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	16
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006781.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	195	U	9.6	195	390	ug/Kg
88-06-2	2,4,6-Trichlorophenol	195	U	12	195	390	ug/Kg
95-95-4	2,4,5-Trichlorophenol	195	U	28	195	390	ug/Kg
92-52-4	1,1-Biphenyl	195	U	15	195	390	ug/Kg
91-58-7	2-Chloronaphthalene	195	U	9	195	390	ug/Kg
88-74-4	2-Nitroaniline	195	U	18	195	390	ug/Kg
131-11-3	Dimethylphthalate	370	J	11	195	390	ug/Kg
208-96-8	Acenaphthylene	195	U	10	195	390	ug/Kg
606-20-2	2,6-Dinitrotoluene	195	U	16	195	390	ug/Kg
99-09-2	3-Nitroaniline	195	U	25	195	390	ug/Kg
83-32-9	Acenaphthene	195	U	11	195	390	ug/Kg
51-28-5	2,4-Dinitrophenol	195	U	40	195	390	ug/Kg
100-02-7	4-Nitrophenol	195	U	74	195	390	ug/Kg
132-64-9	Dibenzofuran	195	U	15	195	390	ug/Kg
121-14-2	2,4-Dinitrotoluene	195	U	12	195	390	ug/Kg
84-66-2	Diethylphthalate	195	U	6.2	195	390	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	195	U	21	195	390	ug/Kg
86-73-7	Fluorene	195	U	15	195	390	ug/Kg
100-01-6	4-Nitroaniline	195	U	52	195	390	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	195	U	23	195	390	ug/Kg
86-30-6	N-Nitrosodiphenylamine	195	U	9.5	195	390	ug/Kg
103-33-3	Azobenzene	195	U	9.3	195	390	ug/Kg
101-55-3	4-Bromophenyl-phenylether	195	U	7.7	195	390	ug/Kg
118-74-1	Hexachlorobenzene	195	U	16	195	390	ug/Kg
1912-24-9	Atrazine	195	U	21	195	390	ug/Kg
87-86-5	Pentachlorophenol	195	U	27	195	390	ug/Kg
85-01-8	Phenanthrene	195	U	11	195	390	ug/Kg
120-12-7	Anthracene	195	U	8.1	195	390	ug/Kg
86-74-8	Carbazole	195	U	8.7	195	390	ug/Kg
84-74-2	Di-n-butylphthalate	195	U	31	195	390	ug/Kg
206-44-0	Fluoranthene	195	U	8	195	390	ug/Kg
92-87-5	Benzidine	195	U	40	195	390	ug/Kg
129-00-0	Pyrene	195	U	9.5	195	390	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-07	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	16
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006781.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	195	U	19	195	390	ug/Kg
91-94-1	3,3-Dichlorobenzidine	195	U	25	195	390	ug/Kg
56-55-3	Benzo(a)anthracene	195	U	19	195	390	ug/Kg
218-01-9	Chrysene	195	U	18	195	390	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	195	U	14	195	390	ug/Kg
117-84-0	Di-n-octyl phthalate	195	U	4.5	195	390	ug/Kg
205-99-2	Benzo(b)fluoranthene	195	U	13	195	390	ug/Kg
207-08-9	Benzo(k)fluoranthene	195	U	19	195	390	ug/Kg
50-32-8	Benzo(a)pyrene	195	U	8.6	195	390	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	195	U	13	195	390	ug/Kg
53-70-3	Dibenz(a,h)anthracene	195	U	11	195	390	ug/Kg
191-24-2	Benzo(g,h,i)perylene	195	U	16	195	390	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	195	U	16	195	390	ug/Kg
123-91-1	1,4-Dioxane	195	U	16	195	390	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	195	U	16	195	390	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	128		28 - 127		86%	SPK: 150
13127-88-3	Phenol-d5	130		34 - 127		87%	SPK: 150
4165-60-0	Nitrobenzene-d5	88		31 - 132		88%	SPK: 100
321-60-8	2-Fluorobiphenyl	79.2		39 - 123		79%	SPK: 100
118-79-6	2,4,6-Tribromophenol	125		30 - 133		84%	SPK: 150
1718-51-0	Terphenyl-d14	73		37 - 115		73%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	138413	8.69				
1146-65-2	Naphthalene-d8	485146	10.89				
15067-26-2	Acenaphthene-d10	330147	13.88				
1517-22-2	Phenanthrene-d10	616910	16.37				
1719-03-5	Chrysene-d12	750414	20.88				
1520-96-3	Perylene-d12	678801	24.77				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
	unknown5.91	340	J			5.91	ug/Kg
541-02-6	Cyclopentasiloxane, decamethyl-	160	J			10	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-07	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	16
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006781.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1560-97-0	Dodecane, 2-methyl-	87	J			16.11	ug/Kg
	unknown17.21	110	J			17.21	ug/Kg
	unknown18.51	140	J			18.51	ug/Kg
27458-92-0	Isotridecanol-	110	J			20.49	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-19(12-18)	SDG No.:	D3811
Lab Sample ID:	D3811-08	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	38
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006782.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	265	U	28	265	530	ug/Kg
110-86-1	Pyridine	265	U	110	265	530	ug/Kg
100-52-7	Benzaldehyde	265	UQ	28	265	530	ug/Kg
62-53-3	Aniline	265	U	46	265	530	ug/Kg
108-95-2	Phenol	265	U	12	265	530	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	265	U	26	265	530	ug/Kg
95-57-8	2-Chlorophenol	265	U	28	265	530	ug/Kg
95-50-1	1,2-Dichlorobenzene	265	U	20	265	530	ug/Kg
541-73-1	1,3-Dichlorobenzene	265	U	9.5	265	530	ug/Kg
106-46-7	1,4-Dichlorobenzene	265	U	18	265	530	ug/Kg
100-51-6	Benzyl Alcohol	265	U	20	265	530	ug/Kg
95-48-7	2-Methylphenol	265	U	29	265	530	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	265	U	22	265	530	ug/Kg
98-86-2	Acetophenone	265	U	16	265	530	ug/Kg
65794-96-9	3+4-Methylphenols	265	U	28	265	530	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	265	U	27	265	530	ug/Kg
67-72-1	Hexachloroethane	265	U	24	265	530	ug/Kg
98-95-3	Nitrobenzene	265	U	20	265	530	ug/Kg
78-59-1	Isophorone	265	U	18	265	530	ug/Kg
88-75-5	2-Nitrophenol	265	U	26	265	530	ug/Kg
105-67-9	2,4-Dimethylphenol	265	U	30	265	530	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	265	U	31	265	530	ug/Kg
120-83-2	2,4-Dichlorophenol	265	U	20	265	530	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	265	U	20	265	530	ug/Kg
65-85-0	Benzoic acid	650	U	110	650	1300	ug/Kg
91-20-3	Naphthalene	265	U	19	265	530	ug/Kg
106-47-8	4-Chloroaniline	265	U	38	265	530	ug/Kg
87-68-3	Hexachlorobutadiene	265	U	20	265	530	ug/Kg
105-60-2	Caprolactam	265	U	25	265	530	ug/Kg
59-50-7	4-Chloro-3-methylphenol	265	U	24	265	530	ug/Kg
91-57-6	2-Methylnaphthalene	265	U	14	265	530	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-19(12-18)	SDG No.:	D3811
Lab Sample ID:	D3811-08	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	38
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006782.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	265	U	13	265	530	ug/Kg
88-06-2	2,4,6-Trichlorophenol	265	U	16	265	530	ug/Kg
95-95-4	2,4,5-Trichlorophenol	265	U	38	265	530	ug/Kg
92-52-4	1,1-Biphenyl	265	U	20	265	530	ug/Kg
91-58-7	2-Chloronaphthalene	265	U	12	265	530	ug/Kg
88-74-4	2-Nitroaniline	265	U	24	265	530	ug/Kg
131-11-3	Dimethylphthalate	490	J	15	265	530	ug/Kg
208-96-8	Acenaphthylene	265	U	14	265	530	ug/Kg
606-20-2	2,6-Dinitrotoluene	265	U	22	265	530	ug/Kg
99-09-2	3-Nitroaniline	265	U	34	265	530	ug/Kg
83-32-9	Acenaphthene	265	U	15	265	530	ug/Kg
51-28-5	2,4-Dinitrophenol	265	U	55	265	530	ug/Kg
100-02-7	4-Nitrophenol	265	U	100	265	530	ug/Kg
132-64-9	Dibenzofuran	265	U	21	265	530	ug/Kg
121-14-2	2,4-Dinitrotoluene	265	U	16	265	530	ug/Kg
84-66-2	Diethylphthalate	265	U	8.4	265	530	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	265	U	29	265	530	ug/Kg
86-73-7	Fluorene	265	U	20	265	530	ug/Kg
100-01-6	4-Nitroaniline	265	U	70	265	530	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	265	U	31	265	530	ug/Kg
86-30-6	N-Nitrosodiphenylamine	265	U	13	265	530	ug/Kg
103-33-3	Azobenzene	265	U	13	265	530	ug/Kg
101-55-3	4-Bromophenyl-phenylether	265	U	10	265	530	ug/Kg
118-74-1	Hexachlorobenzene	265	U	22	265	530	ug/Kg
1912-24-9	Atrazine	265	U	28	265	530	ug/Kg
87-86-5	Pentachlorophenol	265	U	37	265	530	ug/Kg
85-01-8	Phenanthrene	265	U	15	265	530	ug/Kg
120-12-7	Anthracene	265	U	11	265	530	ug/Kg
86-74-8	Carbazole	265	U	12	265	530	ug/Kg
84-74-2	Di-n-butylphthalate	265	U	42	265	530	ug/Kg
206-44-0	Fluoranthene	265	U	11	265	530	ug/Kg
92-87-5	Benzidine	265	U	54	265	530	ug/Kg
129-00-0	Pyrene	265	U	13	265	530	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-19(12-18)	SDG No.:	D3811
Lab Sample ID:	D3811-08	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	38
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006782.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	265	U	26	265	530	ug/Kg
91-94-1	3,3-Dichlorobenzidine	265	U	34	265	530	ug/Kg
56-55-3	Benzo(a)anthracene	265	U	26	265	530	ug/Kg
218-01-9	Chrysene	265	U	24	265	530	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	265	U	19	265	530	ug/Kg
117-84-0	Di-n-octyl phthalate	265	U	6.1	265	530	ug/Kg
205-99-2	Benzo(b)fluoranthene	265	U	18	265	530	ug/Kg
207-08-9	Benzo(k)fluoranthene	265	U	25	265	530	ug/Kg
50-32-8	Benzo(a)pyrene	265	U	12	265	530	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	265	U	18	265	530	ug/Kg
53-70-3	Dibenz(a,h)anthracene	265	U	15	265	530	ug/Kg
191-24-2	Benzo(g,h,i)perylene	265	U	22	265	530	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	265	U	21	265	530	ug/Kg
123-91-1	1,4-Dioxane	265	U	21	265	530	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	265	U	21	265	530	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	124		28 - 127		83%	SPK: 150
13127-88-3	Phenol-d5	125		34 - 127		84%	SPK: 150
4165-60-0	Nitrobenzene-d5	86.7		31 - 132		87%	SPK: 100
321-60-8	2-Fluorobiphenyl	80.3		39 - 123		80%	SPK: 100
118-79-6	2,4,6-Tribromophenol	118		30 - 133		79%	SPK: 150
1718-51-0	Terphenyl-d14	75.8		37 - 115		76%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	139140	8.69				
1146-65-2	Naphthalene-d8	484974	10.88				
15067-26-2	Acenaphthene-d10	335318	13.88				
1517-22-2	Phenanthrene-d10	607229	16.37				
1719-03-5	Chrysene-d12	711798	20.88				
1520-96-3	Perylene-d12	685422	24.77				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
	unknown5.90	470	J			5.9	ug/Kg
541-02-6	Cyclopentasiloxane, decamethyl-	200	J			9.99	ug/Kg



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-19(12-18)	SDG No.:	D3811
Lab Sample ID:	D3811-08	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	38
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006782.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
	unknown17.21	280	J			17.21	ug/Kg
37052-13-4	1H-Phenanthro[9,10-d]imidazol-2-am	330	J			17.63	ug/Kg
1000293-16-6	18-Norabietane	320	J			17.81	ug/Kg
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthr	310	J			17.94	ug/Kg
7098-22-8	Tetratetracontane	120	J			18.14	ug/Kg
886-66-8	Benzene, 1,1-(1,3-butadiyne-1,4-d	200	J			18.4	ug/Kg
6566-19-4	10,18-Bisnorabieta-5,7,9(10),11,13	370	J			18.46	ug/Kg
544-63-8	Tetradecanoic acid	320	J			18.51	ug/Kg
629-97-0	Docosane	640	J			18.76	ug/Kg
483-65-8	Phenanthrene, 1-methyl-7-(1-methyl	280	J			19.24	ug/Kg
629-62-9	Pentadecane	1300	J			19.35	ug/Kg
646-31-1	Tetracosane	1800	J			19.92	ug/Kg
629-99-2	Pentacosane	2300	J			20.51	ug/Kg
14167-59-0	Tetratriacontane	2200	J			21.17	ug/Kg
593-49-7	Heptacosane	150	J			21.63	ug/Kg
630-04-6	Hentriacontane	2100	J			21.92	ug/Kg
630-02-4	Octacosane	1800	J			22.79	ug/Kg
544-76-3	Hexadecane	1600	J			23.81	ug/Kg
73105-67-6	1-Iodo-2-methylundecane	1200	J			25.04	ug/Kg
55320-06-4	Heneicosane, 11-decyl-	840	J			26.53	ug/Kg
14905-56-7	Tetradecane, 2,6,10-trimethyl-	540	J			28.33	ug/Kg
638-68-6	Triacontane	170	J			30.52	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-09	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	30
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006783.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	235	U	24	235	470	ug/Kg
110-86-1	Pyridine	235	U	94	235	470	ug/Kg
100-52-7	Benzaldehyde	235	UQ	25	235	470	ug/Kg
62-53-3	Aniline	235	U	40	235	470	ug/Kg
108-95-2	Phenol	235	U	11	235	470	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	235	U	23	235	470	ug/Kg
95-57-8	2-Chlorophenol	235	U	25	235	470	ug/Kg
95-50-1	1,2-Dichlorobenzene	235	U	18	235	470	ug/Kg
541-73-1	1,3-Dichlorobenzene	235	U	8.4	235	470	ug/Kg
106-46-7	1,4-Dichlorobenzene	235	U	16	235	470	ug/Kg
100-51-6	Benzyl Alcohol	235	U	18	235	470	ug/Kg
95-48-7	2-Methylphenol	235	U	26	235	470	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	235	U	20	235	470	ug/Kg
98-86-2	Acetophenone	235	U	15	235	470	ug/Kg
65794-96-9	3+4-Methylphenols	235	U	25	235	470	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	235	U	24	235	470	ug/Kg
67-72-1	Hexachloroethane	235	U	21	235	470	ug/Kg
98-95-3	Nitrobenzene	235	U	18	235	470	ug/Kg
78-59-1	Isophorone	235	U	16	235	470	ug/Kg
88-75-5	2-Nitrophenol	235	U	23	235	470	ug/Kg
105-67-9	2,4-Dimethylphenol	235	U	27	235	470	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	235	U	27	235	470	ug/Kg
120-83-2	2,4-Dichlorophenol	235	U	18	235	470	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	235	U	18	235	470	ug/Kg
65-85-0	Benzoic acid	550	U	94	550	1100	ug/Kg
91-20-3	Naphthalene	900		16	235	470	ug/Kg
106-47-8	4-Chloroaniline	235	U	34	235	470	ug/Kg
87-68-3	Hexachlorobutadiene	235	U	17	235	470	ug/Kg
105-60-2	Caprolactam	235	U	22	235	470	ug/Kg
59-50-7	4-Chloro-3-methylphenol	235	U	21	235	470	ug/Kg
91-57-6	2-Methylnaphthalene	260	J	12	235	470	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-09	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	30
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
		GPC Factor :	1.0
		GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006783.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	235	U	12	235	470	ug/Kg
88-06-2	2,4,6-Trichlorophenol	235	U	15	235	470	ug/Kg
95-95-4	2,4,5-Trichlorophenol	235	U	33	235	470	ug/Kg
92-52-4	1,1-Biphenyl	235	U	18	235	470	ug/Kg
91-58-7	2-Chloronaphthalene	235	U	11	235	470	ug/Kg
88-74-4	2-Nitroaniline	235	U	21	235	470	ug/Kg
131-11-3	Dimethylphthalate	490		13	235	470	ug/Kg
208-96-8	Acenaphthylene	235	U	12	235	470	ug/Kg
606-20-2	2,6-Dinitrotoluene	235	U	19	235	470	ug/Kg
99-09-2	3-Nitroaniline	235	U	31	235	470	ug/Kg
83-32-9	Acenaphthene	240	J	13	235	470	ug/Kg
51-28-5	2,4-Dinitrophenol	235	U	48	235	470	ug/Kg
100-02-7	4-Nitrophenol	235	U	88	235	470	ug/Kg
132-64-9	Dibenzofuran	360	J	19	235	470	ug/Kg
121-14-2	2,4-Dinitrotoluene	235	U	14	235	470	ug/Kg
84-66-2	Diethylphthalate	235	U	7.4	235	470	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	235	U	26	235	470	ug/Kg
86-73-7	Fluorene	550		18	235	470	ug/Kg
100-01-6	4-Nitroaniline	235	U	62	235	470	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	235	U	27	235	470	ug/Kg
86-30-6	N-Nitrosodiphenylamine	235	U	11	235	470	ug/Kg
103-33-3	Azobenzene	235	U	11	235	470	ug/Kg
101-55-3	4-Bromophenyl-phenylether	235	U	9.3	235	470	ug/Kg
118-74-1	Hexachlorobenzene	235	U	19	235	470	ug/Kg
1912-24-9	Atrazine	235	U	25	235	470	ug/Kg
87-86-5	Pentachlorophenol	235	U	33	235	470	ug/Kg
85-01-8	Phenanthrene	3200		13	235	470	ug/Kg
120-12-7	Anthracene	460	J	9.7	235	470	ug/Kg
86-74-8	Carbazole	360	J	10	235	470	ug/Kg
84-74-2	Di-n-butylphthalate	235	U	37	235	470	ug/Kg
206-44-0	Fluoranthene	2400		9.6	235	470	ug/Kg
92-87-5	Benzidine	235	U	48	235	470	ug/Kg
129-00-0	Pyrene	2000		11	235	470	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-09	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	30
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006783.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	235	U	23	235	470	ug/Kg
91-94-1	3,3-Dichlorobenzidine	235	U	31	235	470	ug/Kg
56-55-3	Benzo(a)anthracene	890		23	235	470	ug/Kg
218-01-9	Chrysene	1000		22	235	470	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	235	U	17	235	470	ug/Kg
117-84-0	Di-n-octyl phthalate	235	U	5.4	235	470	ug/Kg
205-99-2	Benzo(b)fluoranthene	1000		16	235	470	ug/Kg
207-08-9	Benzo(k)fluoranthene	360	J	22	235	470	ug/Kg
50-32-8	Benzo(a)pyrene	840		10	235	470	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	460	J	16	235	470	ug/Kg
53-70-3	Dibenz(a,h)anthracene	235	U	14	235	470	ug/Kg
191-24-2	Benzo(g,h,i)perylene	460	J	19	235	470	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	235	U	19	235	470	ug/Kg
123-91-1	1,4-Dioxane	235	U	19	235	470	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	235	U	19	235	470	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	137		28 - 127		92%	SPK: 150
13127-88-3	Phenol-d5	139		34 - 127		93%	SPK: 150
4165-60-0	Nitrobenzene-d5	89.9		31 - 132		90%	SPK: 100
321-60-8	2-Fluorobiphenyl	53		39 - 123		53%	SPK: 100
118-79-6	2,4,6-Tribromophenol	124		30 - 133		83%	SPK: 150
1718-51-0	Terphenyl-d14	49.8		37 - 115		50%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	138397	8.69				
1146-65-2	Naphthalene-d8	493472	10.88				
15067-26-2	Acenaphthene-d10	332442	13.87				
1517-22-2	Phenanthrene-d10	647750	16.37				
1719-03-5	Chrysene-d12	712921	20.88				
1520-96-3	Perylene-d12	693395	24.77				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
	unknown5.91	460	J			5.91	ug/Kg
527-84-4	Benzene, 1-methyl-2-(1-methylethyl)	340	J			8.81	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-09	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	30
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006783.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
464-49-3	Bicyclo[2.2.1]heptan-2-one, 1,7,7-	2100	J			10.44	ug/Kg
593-45-3	Octadecane	270	J			16.12	ug/Kg
2531-84-2	Phenanthrene, 2-methyl-	980	J			17.21	ug/Kg
832-69-9	Phenanthrene, 1-methyl-	680	J			17.26	ug/Kg
203-64-5	4H-Cyclopenta[def]phenanthrene	700	J			17.4	ug/Kg
	unknown17.46	900	J			17.46	ug/Kg
37052-13-4	1H-Phenanthro[9,10-d]imidazol-2-am	1600	J			17.63	ug/Kg
84-65-1	9,10-Anthracenedione	350	J			17.73	ug/Kg
1000293-16-6	18-Norabietane	770	J			17.81	ug/Kg
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthr	330	J			17.95	ug/Kg
629-94-7	Heneicosane	460	J			18.14	ug/Kg
6566-19-4	10,18-Bisnorabieta-5,7,9(10),11,13	320	J			18.46	ug/Kg
544-63-8	Tetradecanoic acid	560	J			18.51	ug/Kg
483-65-8	Phenanthrene, 1-methyl-7-(1-methyl	330	J			19.25	ug/Kg
593-49-7	Heptacosane	360	J			19.35	ug/Kg
646-31-1	Tetracosane	360	J			19.92	ug/Kg
544-76-3	Hexadecane	520	J			20.51	ug/Kg
7225-64-1	Heptadecane, 9-octyl-	430	J			21.17	ug/Kg
629-62-9	Pentadecane	850	J			21.92	ug/Kg
1000188-66-5	2(1H)Naphthalenone, 3,5,6,7,8,8a-h	570	J			22.14	ug/Kg
630-02-4	Octacosane	320	J			22.79	ug/Kg
112-95-8	Eicosane	860	J			23.82	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)	SDG No.:	D3811
Lab Sample ID:	D3811-10	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	32
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006791.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	1200	U	130	1200	2400	ug/Kg
110-86-1	Pyridine	1200	U	480	1200	2400	ug/Kg
100-52-7	Benzaldehyde	1200	UQ	130	1200	2400	ug/Kg
62-53-3	Aniline	1200	U	210	1200	2400	ug/Kg
108-95-2	Phenol	1200	U	56	1200	2400	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1200	U	120	1200	2400	ug/Kg
95-57-8	2-Chlorophenol	1200	U	130	1200	2400	ug/Kg
95-50-1	1,2-Dichlorobenzene	1200	U	93	1200	2400	ug/Kg
541-73-1	1,3-Dichlorobenzene	1200	U	43	1200	2400	ug/Kg
106-46-7	1,4-Dichlorobenzene	1200	U	84	1200	2400	ug/Kg
100-51-6	Benzyl Alcohol	1200	U	92	1200	2400	ug/Kg
95-48-7	2-Methylphenol	1200	U	130	1200	2400	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1200	U	100	1200	2400	ug/Kg
98-86-2	Acetophenone	1200	U	75	1200	2400	ug/Kg
65794-96-9	3+4-Methylphenols	1200	U	130	1200	2400	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1200	U	120	1200	2400	ug/Kg
67-72-1	Hexachloroethane	1200	U	110	1200	2400	ug/Kg
98-95-3	Nitrobenzene	1200	U	92	1200	2400	ug/Kg
78-59-1	Isophorone	1200	U	81	1200	2400	ug/Kg
88-75-5	2-Nitrophenol	1200	U	120	1200	2400	ug/Kg
105-67-9	2,4-Dimethylphenol	1200	U	140	1200	2400	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1200	U	140	1200	2400	ug/Kg
120-83-2	2,4-Dichlorophenol	1200	U	93	1200	2400	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1200	U	93	1200	2400	ug/Kg
65-85-0	Benzoic acid	2950	U	480	2950	5900	ug/Kg
91-20-3	Naphthalene	1200	U	84	1200	2400	ug/Kg
106-47-8	4-Chloroaniline	1200	U	170	1200	2400	ug/Kg
87-68-3	Hexachlorobutadiene	1200	U	89	1200	2400	ug/Kg
105-60-2	Caprolactam	1200	U	110	1200	2400	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1200	U	110	1200	2400	ug/Kg
91-57-6	2-Methylnaphthalene	1200	U	62	1200	2400	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)	SDG No.:	D3811
Lab Sample ID:	D3811-10	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	32
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006791.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1200	U	59	1200	2400	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1200	U	75	1200	2400	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1200	U	170	1200	2400	ug/Kg
92-52-4	1,1-Biphenyl	1200	U	92	1200	2400	ug/Kg
91-58-7	2-Chloronaphthalene	1200	U	56	1200	2400	ug/Kg
88-74-4	2-Nitroaniline	1200	U	110	1200	2400	ug/Kg
131-11-3	Dimethylphthalate	1200	U	66	1200	2400	ug/Kg
208-96-8	Acenaphthylene	2000	J	62	1200	2400	ug/Kg
606-20-2	2,6-Dinitrotoluene	1200	U	100	1200	2400	ug/Kg
99-09-2	3-Nitroaniline	1200	U	160	1200	2400	ug/Kg
83-32-9	Acenaphthene	1200	U	69	1200	2400	ug/Kg
51-28-5	2,4-Dinitrophenol	1200	U	250	1200	2400	ug/Kg
100-02-7	4-Nitrophenol	1200	U	450	1200	2400	ug/Kg
132-64-9	Dibenzofuran	1200	U	95	1200	2400	ug/Kg
121-14-2	2,4-Dinitrotoluene	1200	U	74	1200	2400	ug/Kg
84-66-2	Diethylphthalate	1200	U	38	1200	2400	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1200	U	130	1200	2400	ug/Kg
86-73-7	Fluorene	3600		92	1200	2400	ug/Kg
100-01-6	4-Nitroaniline	1200	U	320	1200	2400	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1200	U	140	1200	2400	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1200	U	59	1200	2400	ug/Kg
103-33-3	Azobenzene	1200	U	57	1200	2400	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1200	U	48	1200	2400	ug/Kg
118-74-1	Hexachlorobenzene	1200	U	100	1200	2400	ug/Kg
1912-24-9	Atrazine	1200	U	130	1200	2400	ug/Kg
87-86-5	Pentachlorophenol	1200	U	170	1200	2400	ug/Kg
85-01-8	Phenanthrene	27000	E	66	1200	2400	ug/Kg
120-12-7	Anthracene	11000		50	1200	2400	ug/Kg
86-74-8	Carbazole	1300	J	54	1200	2400	ug/Kg
84-74-2	Di-n-butylphthalate	1200	U	190	1200	2400	ug/Kg
206-44-0	Fluoranthene	26000	E	49	1200	2400	ug/Kg
92-87-5	Benzidine	1200	U	250	1200	2400	ug/Kg
129-00-0	Pyrene	20000	E	59	1200	2400	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)	SDG No.:	D3811
Lab Sample ID:	D3811-10	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	32
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006791.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1200	U	120	1200	2400	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1200	U	160	1200	2400	ug/Kg
56-55-3	Benzo(a)anthracene	13000		120	1200	2400	ug/Kg
218-01-9	Chrysene	12000		110	1200	2400	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1200	U	87	1200	2400	ug/Kg
117-84-0	Di-n-octyl phthalate	1200	U	28	1200	2400	ug/Kg
205-99-2	Benzo(b)fluoranthene	13000		80	1200	2400	ug/Kg
207-08-9	Benzo(k)fluoranthene	5400		120	1200	2400	ug/Kg
50-32-8	Benzo(a)pyrene	11000		53	1200	2400	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	5700		81	1200	2400	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1800	J	70	1200	2400	ug/Kg
191-24-2	Benzo(g,h,i)perylene	5500		99	1200	2400	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1200	U	96	1200	2400	ug/Kg
123-91-1	1,4-Dioxane	1200	U	96	1200	2400	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1200	U	96	1200	2400	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	133		28 - 127		89%	SPK: 150
13127-88-3	Phenol-d5	142		34 - 127		95%	SPK: 150
4165-60-0	Nitrobenzene-d5	90		31 - 132		90%	SPK: 100
321-60-8	2-Fluorobiphenyl	73.9		39 - 123		74%	SPK: 100
118-79-6	2,4,6-Tribromophenol	113		30 - 133		75%	SPK: 150
1718-51-0	Terphenyl-d14	67.7		37 - 115		68%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	141638	8.69				
1146-65-2	Naphthalene-d8	526360	10.88				
15067-26-2	Acenaphthene-d10	370879	13.87				
1517-22-2	Phenanthrene-d10	679988	16.37				
1719-03-5	Chrysene-d12	710337	20.89				
1520-96-3	Perylene-d12	696037	24.78				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
101-81-5	Diphenylmethane	570	J			14.94	ug/Kg
1135-32-6	Pyridine, 4,4-(1,2-ethenediyl)bis	800	J			15.06	ug/Kg



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)	SDG No.:	D3811
Lab Sample ID:	D3811-10	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	32
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006791.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
18344-37-1	Heptadecane, 2,6,10,14-tetramethyl	570	J			15.4	ug/Kg
1430-97-3	9H-Fluorene, 2-methyl-	1200	J			15.71	ug/Kg
830-79-5	2,4,6-Trimethoxybenzaldehyde	540	J			16.11	ug/Kg
248-13-5	Azuleno(2,1-b)thiophene	1400	J			16.2	ug/Kg
230-27-3	Benzo[h]quinoline	1100	J			16.55	ug/Kg
2531-84-2	Phenanthrene, 2-methyl-	2800	J			17.21	ug/Kg
613-12-7	Anthracene, 2-methyl-	3900	J			17.26	ug/Kg
949-41-7	1H-Cyclopropa[1]phenanthrene, 1a,9b	1700	J			17.34	ug/Kg
203-64-5	4H-Cyclopenta[def]phenanthrene	6700	J			17.41	ug/Kg
612-94-2	Naphthalene, 2-phenyl-	2000	J			17.69	ug/Kg
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthr	970	J			17.95	ug/Kg
3674-66-6	Phenanthrene, 2,5-dimethyl-	1300	J			18.14	ug/Kg
6566-19-4	10,18-Bisnorabieta-5,7,9(10),11,13	2000	J			18.46	ug/Kg
243-17-4	11H-Benzo[b]fluorene	1400	J			19.33	ug/Kg
2381-21-7	Pyrene, 1-methyl-	1400	J			19.44	ug/Kg
82-05-3	7H-Benz[de]anthracen-7-one	570	J			21.18	ug/Kg
1482-93-5	Cyclohexane, hexaethylidene-	690	J			22.14	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)DL	SDG No.:	D3811
Lab Sample ID:	D3811-10DL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	32
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006818.D	10	08/15/12	08/22/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	2400	UD	250	2400	4800	ug/Kg
110-86-1	Pyridine	2400	UD	970	2400	4800	ug/Kg
100-52-7	Benzaldehyde	2400	UDQ	260	2400	4800	ug/Kg
62-53-3	Aniline	2400	UD	420	2400	4800	ug/Kg
108-95-2	Phenol	2400	UD	110	2400	4800	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	2400	UD	230	2400	4800	ug/Kg
95-57-8	2-Chlorophenol	2400	UD	260	2400	4800	ug/Kg
95-50-1	1,2-Dichlorobenzene	2400	UD	190	2400	4800	ug/Kg
541-73-1	1,3-Dichlorobenzene	2400	UD	87	2400	4800	ug/Kg
106-46-7	1,4-Dichlorobenzene	2400	UD	170	2400	4800	ug/Kg
100-51-6	Benzyl Alcohol	2400	UD	180	2400	4800	ug/Kg
95-48-7	2-Methylphenol	2400	UD	270	2400	4800	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	2400	UD	200	2400	4800	ug/Kg
98-86-2	Acetophenone	2400	UD	150	2400	4800	ug/Kg
65794-96-9	3+4-Methylphenols	2400	UD	250	2400	4800	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	2400	UD	250	2400	4800	ug/Kg
67-72-1	Hexachloroethane	2400	UD	220	2400	4800	ug/Kg
98-95-3	Nitrobenzene	2400	UD	180	2400	4800	ug/Kg
78-59-1	Isophorone	2400	UD	160	2400	4800	ug/Kg
88-75-5	2-Nitrophenol	2400	UD	240	2400	4800	ug/Kg
105-67-9	2,4-Dimethylphenol	2400	UD	280	2400	4800	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	2400	UD	280	2400	4800	ug/Kg
120-83-2	2,4-Dichlorophenol	2400	UD	190	2400	4800	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2400	UD	190	2400	4800	ug/Kg
65-85-0	Benzoic acid	6000	UD	970	6000	12000	ug/Kg
91-20-3	Naphthalene	2400	UD	170	2400	4800	ug/Kg
106-47-8	4-Chloroaniline	2400	UD	340	2400	4800	ug/Kg
87-68-3	Hexachlorobutadiene	2400	UD	180	2400	4800	ug/Kg
105-60-2	Caprolactam	2400	UD	230	2400	4800	ug/Kg
59-50-7	4-Chloro-3-methylphenol	2400	UD	220	2400	4800	ug/Kg
91-57-6	2-Methylnaphthalene	2400	UD	120	2400	4800	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)DL	SDG No.:	D3811
Lab Sample ID:	D3811-10DL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	32
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006818.D	10	08/15/12	08/22/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	2400	UD	120	2400	4800	ug/Kg
88-06-2	2,4,6-Trichlorophenol	2400	UD	150	2400	4800	ug/Kg
95-95-4	2,4,5-Trichlorophenol	2400	UD	340	2400	4800	ug/Kg
92-52-4	1,1-Biphenyl	2400	UD	180	2400	4800	ug/Kg
91-58-7	2-Chloronaphthalene	2400	UD	110	2400	4800	ug/Kg
88-74-4	2-Nitroaniline	2400	UD	220	2400	4800	ug/Kg
131-11-3	Dimethylphthalate	2400	UD	130	2400	4800	ug/Kg
208-96-8	Acenaphthylene	2400	UD	120	2400	4800	ug/Kg
606-20-2	2,6-Dinitrotoluene	2400	UD	200	2400	4800	ug/Kg
99-09-2	3-Nitroaniline	2400	UD	310	2400	4800	ug/Kg
83-32-9	Acenaphthene	2400	UD	140	2400	4800	ug/Kg
51-28-5	2,4-Dinitrophenol	2400	UD	500	2400	4800	ug/Kg
100-02-7	4-Nitrophenol	2400	UD	910	2400	4800	ug/Kg
132-64-9	Dibenzofuran	2400	UD	190	2400	4800	ug/Kg
121-14-2	2,4-Dinitrotoluene	2400	UD	150	2400	4800	ug/Kg
84-66-2	Diethylphthalate	2400	UD	76	2400	4800	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	2400	UD	270	2400	4800	ug/Kg
86-73-7	Fluorene	3600	JD	180	2400	4800	ug/Kg
100-01-6	4-Nitroaniline	2400	UD	640	2400	4800	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	2400	UD	280	2400	4800	ug/Kg
86-30-6	N-Nitrosodiphenylamine	2400	UD	120	2400	4800	ug/Kg
103-33-3	Azobenzene	2400	UD	110	2400	4800	ug/Kg
101-55-3	4-Bromophenyl-phenylether	2400	UD	95	2400	4800	ug/Kg
118-74-1	Hexachlorobenzene	2400	UD	200	2400	4800	ug/Kg
1912-24-9	Atrazine	2400	UD	260	2400	4800	ug/Kg
87-86-5	Pentachlorophenol	2400	UD	330	2400	4800	ug/Kg
85-01-8	Phenanthrene	29000	D	130	2400	4800	ug/Kg
120-12-7	Anthracene	11000	D	100	2400	4800	ug/Kg
86-74-8	Carbazole	2400	UD	110	2400	4800	ug/Kg
84-74-2	Di-n-butylphthalate	2400	UD	380	2400	4800	ug/Kg
206-44-0	Fluoranthene	28000	D	98	2400	4800	ug/Kg
92-87-5	Benzidine	2400	UD	490	2400	4800	ug/Kg
129-00-0	Pyrene	21000	D	120	2400	4800	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)DL	SDG No.:	D3811
Lab Sample ID:	D3811-10DL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	32
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006818.D	10	08/15/12	08/22/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	2400	UD	230	2400	4800	ug/Kg
91-94-1	3,3-Dichlorobenzidine	2400	UD	310	2400	4800	ug/Kg
56-55-3	Benzo(a)anthracene	13000	D	230	2400	4800	ug/Kg
218-01-9	Chrysene	12000	D	220	2400	4800	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	2400	UD	170	2400	4800	ug/Kg
117-84-0	Di-n-octyl phthalate	2400	UD	56	2400	4800	ug/Kg
205-99-2	Benzo(b)fluoranthene	13000	D	160	2400	4800	ug/Kg
207-08-9	Benzo(k)fluoranthene	5100	D	230	2400	4800	ug/Kg
50-32-8	Benzo(a)pyrene	11000	D	110	2400	4800	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	5000	D	160	2400	4800	ug/Kg
53-70-3	Dibenz(a,h)anthracene	2400	UD	140	2400	4800	ug/Kg
191-24-2	Benzo(g,h,i)perylene	5000	D	200	2400	4800	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	2400	UD	190	2400	4800	ug/Kg
123-91-1	1,4-Dioxane	2400	UD	190	2400	4800	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	2400	UD	190	2400	4800	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	120		28 - 127		80%	SPK: 150
13127-88-3	Phenol-d5	131		34 - 127		87%	SPK: 150
4165-60-0	Nitrobenzene-d5	82.7		31 - 132		83%	SPK: 100
321-60-8	2-Fluorobiphenyl	70.6		39 - 123		71%	SPK: 100
118-79-6	2,4,6-Tribromophenol	96.9		30 - 133		65%	SPK: 150
1718-51-0	Terphenyl-d14	69.5		37 - 115		70%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	151382	8.68				
1146-65-2	Naphthalene-d8	555212	10.88				
15067-26-2	Acenaphthene-d10	394214	13.87				
1517-22-2	Phenanthrene-d10	740477	16.36				
1719-03-5	Chrysene-d12	761113	20.88				
1520-96-3	Perylene-d12	691274	24.76				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)DL	SDG No.:	D3811
Lab Sample ID:	D3811-10DL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	32
Sample Wt/Vol:	30.08      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :    N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006818.D	10	08/15/12	08/22/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)	SDG No.:	D3811
Lab Sample ID:	D3811-11	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	9
Sample Wt/Vol:	30.11 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006784.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	180	U	19	180	360	ug/Kg
110-86-1	Pyridine	180	U	72	180	360	ug/Kg
100-52-7	Benzaldehyde	180	UQ	19	180	360	ug/Kg
62-53-3	Aniline	180	U	31	180	360	ug/Kg
108-95-2	Phenol	180	U	8.4	180	360	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	180	U	18	180	360	ug/Kg
95-57-8	2-Chlorophenol	180	U	19	180	360	ug/Kg
95-50-1	1,2-Dichlorobenzene	180	U	14	180	360	ug/Kg
541-73-1	1,3-Dichlorobenzene	180	U	6.5	180	360	ug/Kg
106-46-7	1,4-Dichlorobenzene	180	U	12	180	360	ug/Kg
100-51-6	Benzyl Alcohol	180	U	14	180	360	ug/Kg
95-48-7	2-Methylphenol	180	U	20	180	360	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	180	U	15	180	360	ug/Kg
98-86-2	Acetophenone	180	U	11	180	360	ug/Kg
65794-96-9	3+4-Methylphenols	180	U	19	180	360	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	180	U	18	180	360	ug/Kg
67-72-1	Hexachloroethane	180	U	16	180	360	ug/Kg
98-95-3	Nitrobenzene	180	U	14	180	360	ug/Kg
78-59-1	Isophorone	180	U	12	180	360	ug/Kg
88-75-5	2-Nitrophenol	180	U	18	180	360	ug/Kg
105-67-9	2,4-Dimethylphenol	180	U	21	180	360	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	180	U	21	180	360	ug/Kg
120-83-2	2,4-Dichlorophenol	180	U	14	180	360	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	180	U	14	180	360	ug/Kg
65-85-0	Benzoic acid	440	U	72	440	880	ug/Kg
91-20-3	Naphthalene	180	U	13	180	360	ug/Kg
106-47-8	4-Chloroaniline	180	U	26	180	360	ug/Kg
87-68-3	Hexachlorobutadiene	180	U	13	180	360	ug/Kg
105-60-2	Caprolactam	180	U	17	180	360	ug/Kg
59-50-7	4-Chloro-3-methylphenol	180	U	16	180	360	ug/Kg
91-57-6	2-Methylnaphthalene	180	U	9.2	180	360	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)	SDG No.:	D3811
Lab Sample ID:	D3811-11	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	9
Sample Wt/Vol:	30.11 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006784.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	180	U	8.9	180	360	ug/Kg
88-06-2	2,4,6-Trichlorophenol	180	U	11	180	360	ug/Kg
95-95-4	2,4,5-Trichlorophenol	180	U	26	180	360	ug/Kg
92-52-4	1,1-Biphenyl	180	U	14	180	360	ug/Kg
91-58-7	2-Chloronaphthalene	180	U	8.3	180	360	ug/Kg
88-74-4	2-Nitroaniline	180	U	16	180	360	ug/Kg
131-11-3	Dimethylphthalate	350	J	9.9	180	360	ug/Kg
208-96-8	Acenaphthylene	180	U	9.2	180	360	ug/Kg
606-20-2	2,6-Dinitrotoluene	180	U	15	180	360	ug/Kg
99-09-2	3-Nitroaniline	180	U	23	180	360	ug/Kg
83-32-9	Acenaphthene	180	U	10	180	360	ug/Kg
51-28-5	2,4-Dinitrophenol	180	U	37	180	360	ug/Kg
100-02-7	4-Nitrophenol	180	U	68	180	360	ug/Kg
132-64-9	Dibenzofuran	180	U	14	180	360	ug/Kg
121-14-2	2,4-Dinitrotoluene	180	U	11	180	360	ug/Kg
84-66-2	Diethylphthalate	180	U	5.7	180	360	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	180	U	20	180	360	ug/Kg
86-73-7	Fluorene	180	U	14	180	360	ug/Kg
100-01-6	4-Nitroaniline	180	U	48	180	360	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	180	U	21	180	360	ug/Kg
86-30-6	N-Nitrosodiphenylamine	180	U	8.8	180	360	ug/Kg
103-33-3	Azobenzene	180	U	8.5	180	360	ug/Kg
101-55-3	4-Bromophenyl-phenylether	180	U	7.1	180	360	ug/Kg
118-74-1	Hexachlorobenzene	180	U	15	180	360	ug/Kg
1912-24-9	Atrazine	180	U	19	180	360	ug/Kg
87-86-5	Pentachlorophenol	180	U	25	180	360	ug/Kg
85-01-8	Phenanthrene	190	J	9.9	180	360	ug/Kg
120-12-7	Anthracene	180	U	7.4	180	360	ug/Kg
86-74-8	Carbazole	180	U	8	180	360	ug/Kg
84-74-2	Di-n-butylphthalate	180	U	29	180	360	ug/Kg
206-44-0	Fluoranthene	210	J	7.3	180	360	ug/Kg
92-87-5	Benzidine	180	U	37	180	360	ug/Kg
129-00-0	Pyrene	180	J	8.8	180	360	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)	SDG No.:	D3811
Lab Sample ID:	D3811-11	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	9
Sample Wt/Vol:	30.11 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006784.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	180	U	18	180	360	ug/Kg
91-94-1	3,3-Dichlorobenzidine	180	U	23	180	360	ug/Kg
56-55-3	Benzo(a)anthracene	180	U	17	180	360	ug/Kg
218-01-9	Chrysene	180	U	17	180	360	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	180	U	13	180	360	ug/Kg
117-84-0	Di-n-octyl phthalate	180	U	4.2	180	360	ug/Kg
205-99-2	Benzo(b)fluoranthene	150	J	12	180	360	ug/Kg
207-08-9	Benzo(k)fluoranthene	180	U	17	180	360	ug/Kg
50-32-8	Benzo(a)pyrene	180	U	7.9	180	360	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	180	U	12	180	360	ug/Kg
53-70-3	Dibenz(a,h)anthracene	180	U	11	180	360	ug/Kg
191-24-2	Benzo(g,h,i)perylene	180	U	15	180	360	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	180	U	14	180	360	ug/Kg
123-91-1	1,4-Dioxane	180	U	14	180	360	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	180	U	14	180	360	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	133		28 - 127		89%	SPK: 150
13127-88-3	Phenol-d5	139		34 - 127		93%	SPK: 150
4165-60-0	Nitrobenzene-d5	97.8		31 - 132		98%	SPK: 100
321-60-8	2-Fluorobiphenyl	90.7		39 - 123		91%	SPK: 100
118-79-6	2,4,6-Tribromophenol	129		30 - 133		86%	SPK: 150
1718-51-0	Terphenyl-d14	84.4		37 - 115		84%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	148008	8.69				
1146-65-2	Naphthalene-d8	536530	10.89				
15067-26-2	Acenaphthene-d10	375240	13.88				
1517-22-2	Phenanthrene-d10	691343	16.37				
1719-03-5	Chrysene-d12	758066	20.88				
1520-96-3	Perylene-d12	728013	24.76				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
	unknown5.91	370	J			5.91	ug/Kg
541-02-6	Cyclopentasiloxane, decamethyl-	160	J			10	ug/Kg



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)	SDG No.:	D3811
Lab Sample ID:	D3811-11	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	9
Sample Wt/Vol:	30.11 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006784.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
2471-83-2	1H-Indene, 1-ethylidene-	78	J			12.11	ug/Kg
593-45-3	Octadecane	93	J			16.11	ug/Kg
638-53-9	Tridecanoic acid	210	J			17.21	ug/Kg
	unknown18.51	240	J			18.51	ug/Kg
	unknown20.50	120	J			20.5	ug/Kg
112-84-5	13-Docosenamide, (Z)-	140	J			22.71	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-27(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-12	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006785.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	205	U	21	205	410	ug/Kg
110-86-1	Pyridine	205	U	81	205	410	ug/Kg
100-52-7	Benzaldehyde	205	UQ	21	205	410	ug/Kg
62-53-3	Aniline	205	U	35	205	410	ug/Kg
108-95-2	Phenol	205	U	9.5	205	410	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	205	U	20	205	410	ug/Kg
95-57-8	2-Chlorophenol	205	U	22	205	410	ug/Kg
95-50-1	1,2-Dichlorobenzene	205	U	16	205	410	ug/Kg
541-73-1	1,3-Dichlorobenzene	205	U	7.3	205	410	ug/Kg
106-46-7	1,4-Dichlorobenzene	205	U	14	205	410	ug/Kg
100-51-6	Benzyl Alcohol	205	U	15	205	410	ug/Kg
95-48-7	2-Methylphenol	205	U	22	205	410	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	205	U	17	205	410	ug/Kg
98-86-2	Acetophenone	205	U	13	205	410	ug/Kg
65794-96-9	3+4-Methylphenols	205	U	21	205	410	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	205	U	21	205	410	ug/Kg
67-72-1	Hexachloroethane	205	U	18	205	410	ug/Kg
98-95-3	Nitrobenzene	205	U	16	205	410	ug/Kg
78-59-1	Isophorone	205	U	14	205	410	ug/Kg
88-75-5	2-Nitrophenol	205	U	20	205	410	ug/Kg
105-67-9	2,4-Dimethylphenol	205	U	23	205	410	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	205	U	24	205	410	ug/Kg
120-83-2	2,4-Dichlorophenol	205	U	16	205	410	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	205	U	16	205	410	ug/Kg
65-85-0	Benzoic acid	495	U	81	495	990	ug/Kg
91-20-3	Naphthalene	205	U	14	205	410	ug/Kg
106-47-8	4-Chloroaniline	205	U	29	205	410	ug/Kg
87-68-3	Hexachlorobutadiene	205	U	15	205	410	ug/Kg
105-60-2	Caprolactam	205	U	19	205	410	ug/Kg
59-50-7	4-Chloro-3-methylphenol	205	U	18	205	410	ug/Kg
91-57-6	2-Methylnaphthalene	205	U	10	205	410	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-27(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-12	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006785.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	205	U	10	205	410	ug/Kg
88-06-2	2,4,6-Trichlorophenol	205	U	13	205	410	ug/Kg
95-95-4	2,4,5-Trichlorophenol	205	U	29	205	410	ug/Kg
92-52-4	1,1-Biphenyl	205	U	16	205	410	ug/Kg
91-58-7	2-Chloronaphthalene	205	U	9.4	205	410	ug/Kg
88-74-4	2-Nitroaniline	205	U	18	205	410	ug/Kg
131-11-3	Dimethylphthalate	460		11	205	410	ug/Kg
208-96-8	Acenaphthylene	205	U	10	205	410	ug/Kg
606-20-2	2,6-Dinitrotoluene	205	U	17	205	410	ug/Kg
99-09-2	3-Nitroaniline	205	U	26	205	410	ug/Kg
83-32-9	Acenaphthene	205	U	12	205	410	ug/Kg
51-28-5	2,4-Dinitrophenol	205	U	42	205	410	ug/Kg
100-02-7	4-Nitrophenol	205	U	76	205	410	ug/Kg
132-64-9	Dibenzofuran	205	U	16	205	410	ug/Kg
121-14-2	2,4-Dinitrotoluene	205	U	12	205	410	ug/Kg
84-66-2	Diethylphthalate	205	U	6.4	205	410	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	205	U	22	205	410	ug/Kg
86-73-7	Fluorene	205	U	16	205	410	ug/Kg
100-01-6	4-Nitroaniline	205	U	54	205	410	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	205	U	24	205	410	ug/Kg
86-30-6	N-Nitrosodiphenylamine	205	U	9.9	205	410	ug/Kg
103-33-3	Azobenzene	205	U	9.6	205	410	ug/Kg
101-55-3	4-Bromophenyl-phenylether	205	U	8	205	410	ug/Kg
118-74-1	Hexachlorobenzene	205	U	17	205	410	ug/Kg
1912-24-9	Atrazine	205	U	22	205	410	ug/Kg
87-86-5	Pentachlorophenol	205	U	28	205	410	ug/Kg
85-01-8	Phenanthrene	205	U	11	205	410	ug/Kg
120-12-7	Anthracene	205	U	8.4	205	410	ug/Kg
86-74-8	Carbazole	205	U	9	205	410	ug/Kg
84-74-2	Di-n-butylphthalate	205	U	32	205	410	ug/Kg
206-44-0	Fluoranthene	590		8.3	205	410	ug/Kg
92-87-5	Benzidine	205	U	41	205	410	ug/Kg
129-00-0	Pyrene	550		9.9	205	410	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-27(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-12	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006785.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	205	U	20	205	410	ug/Kg
91-94-1	3,3-Dichlorobenzidine	205	U	26	205	410	ug/Kg
56-55-3	Benzo(a)anthracene	530		20	205	410	ug/Kg
218-01-9	Chrysene	640		19	205	410	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	205	U	15	205	410	ug/Kg
117-84-0	Di-n-octyl phthalate	205	U	4.7	205	410	ug/Kg
205-99-2	Benzo(b)fluoranthene	1100		13	205	410	ug/Kg
207-08-9	Benzo(k)fluoranthene	280	J	19	205	410	ug/Kg
50-32-8	Benzo(a)pyrene	720		8.9	205	410	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	560		14	205	410	ug/Kg
53-70-3	Dibenz(a,h)anthracene	190	J	12	205	410	ug/Kg
191-24-2	Benzo(g,h,i)perylene	580		17	205	410	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	205	U	16	205	410	ug/Kg
123-91-1	1,4-Dioxane	205	U	16	205	410	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	205	U	16	205	410	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	121		28 - 127		81%	SPK: 150
13127-88-3	Phenol-d5	128		34 - 127		86%	SPK: 150
4165-60-0	Nitrobenzene-d5	81		31 - 132		81%	SPK: 100
321-60-8	2-Fluorobiphenyl	67.9		39 - 123		68%	SPK: 100
118-79-6	2,4,6-Tribromophenol	107		30 - 133		72%	SPK: 150
1718-51-0	Terphenyl-d14	62.4		37 - 115		62%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	159547	8.69				
1146-65-2	Naphthalene-d8	587998	10.88				
15067-26-2	Acenaphthene-d10	406970	13.88				
1517-22-2	Phenanthrene-d10	705432	16.37				
1719-03-5	Chrysene-d12	748064	20.88				
1520-96-3	Perylene-d12	747188	24.79				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
	unknown5.91	330	J			5.91	ug/Kg
55282-34-3	Cyclohexane, 1,3,5-trimethyl-2-oct	95	J			7.95	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-27(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-12	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006785.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
	unknown8.56	84	J			8.56	ug/Kg
111-01-3	Squalane	110	J			8.88	ug/Kg
541-02-6	Cyclopentasiloxane, decamethyl-	96	J			10	ug/Kg
	unknown13.49	96	J			13.49	ug/Kg
	unknown13.66	84	J			13.66	ug/Kg
80655-44-3	Decahydro-4,4,8,9,10-pentamethylna	210	J			13.74	ug/Kg
	unknown14.46	83	J			14.46	ug/Kg
79516-25-9	1-Trimethylsilylpent-1-en-4-yne	260	J			14.57	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)	SDG No.:	D3811
Lab Sample ID:	D3811-13	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	30
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006792.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	1200	U	120	1200	2400	ug/Kg
110-86-1	Pyridine	1200	U	470	1200	2400	ug/Kg
100-52-7	Benzaldehyde	1200	UQ	120	1200	2400	ug/Kg
62-53-3	Aniline	1200	U	200	1200	2400	ug/Kg
108-95-2	Phenol	1200	U	55	1200	2400	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1200	U	110	1200	2400	ug/Kg
95-57-8	2-Chlorophenol	1200	U	130	1200	2400	ug/Kg
95-50-1	1,2-Dichlorobenzene	1200	U	91	1200	2400	ug/Kg
541-73-1	1,3-Dichlorobenzene	1200	U	42	1200	2400	ug/Kg
106-46-7	1,4-Dichlorobenzene	1200	U	81	1200	2400	ug/Kg
100-51-6	Benzyl Alcohol	1200	U	89	1200	2400	ug/Kg
95-48-7	2-Methylphenol	1200	U	130	1200	2400	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1200	U	98	1200	2400	ug/Kg
98-86-2	Acetophenone	1200	U	73	1200	2400	ug/Kg
65794-96-9	3+4-Methylphenols	1200	U	120	1200	2400	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1200	U	120	1200	2400	ug/Kg
67-72-1	Hexachloroethane	1200	U	110	1200	2400	ug/Kg
98-95-3	Nitrobenzene	1200	U	90	1200	2400	ug/Kg
78-59-1	Isophorone	1200	U	78	1200	2400	ug/Kg
88-75-5	2-Nitrophenol	1200	U	110	1200	2400	ug/Kg
105-67-9	2,4-Dimethylphenol	1200	U	130	1200	2400	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1200	U	140	1200	2400	ug/Kg
120-83-2	2,4-Dichlorophenol	1200	U	91	1200	2400	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1200	U	91	1200	2400	ug/Kg
65-85-0	Benzoic acid	2850	U	470	2850	5700	ug/Kg
91-20-3	Naphthalene	1200	U	82	1200	2400	ug/Kg
106-47-8	4-Chloroaniline	1200	U	170	1200	2400	ug/Kg
87-68-3	Hexachlorobutadiene	1200	U	86	1200	2400	ug/Kg
105-60-2	Caprolactam	1200	U	110	1200	2400	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1200	U	110	1200	2400	ug/Kg
91-57-6	2-Methylnaphthalene	1200	U	60	1200	2400	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)	SDG No.:	D3811
Lab Sample ID:	D3811-13	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	30
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006792.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1200	U	58	1200	2400	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1200	U	73	1200	2400	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1200	U	170	1200	2400	ug/Kg
92-52-4	1,1-Biphenyl	1200	U	90	1200	2400	ug/Kg
91-58-7	2-Chloronaphthalene	1200	U	54	1200	2400	ug/Kg
88-74-4	2-Nitroaniline	1200	U	110	1200	2400	ug/Kg
131-11-3	Dimethylphthalate	1200	U	64	1200	2400	ug/Kg
208-96-8	Acenaphthylene	4700		60	1200	2400	ug/Kg
606-20-2	2,6-Dinitrotoluene	1200	U	97	1200	2400	ug/Kg
99-09-2	3-Nitroaniline	1200	U	150	1200	2400	ug/Kg
83-32-9	Acenaphthene	1200	U	67	1200	2400	ug/Kg
51-28-5	2,4-Dinitrophenol	1200	U	240	1200	2400	ug/Kg
100-02-7	4-Nitrophenol	1200	U	440	1200	2400	ug/Kg
132-64-9	Dibenzofuran	1200	U	93	1200	2400	ug/Kg
121-14-2	2,4-Dinitrotoluene	1200	U	72	1200	2400	ug/Kg
84-66-2	Diethylphthalate	1200	U	37	1200	2400	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1200	U	130	1200	2400	ug/Kg
86-73-7	Fluorene	1400	J	90	1200	2400	ug/Kg
100-01-6	4-Nitroaniline	1200	U	310	1200	2400	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1200	U	140	1200	2400	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1200	U	57	1200	2400	ug/Kg
103-33-3	Azobenzene	1200	U	56	1200	2400	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1200	U	46	1200	2400	ug/Kg
118-74-1	Hexachlorobenzene	1200	U	97	1200	2400	ug/Kg
1912-24-9	Atrazine	1200	U	130	1200	2400	ug/Kg
87-86-5	Pentachlorophenol	1200	U	160	1200	2400	ug/Kg
85-01-8	Phenanthrene	10000		64	1200	2400	ug/Kg
120-12-7	Anthracene	4100		48	1200	2400	ug/Kg
86-74-8	Carbazole	1200	U	52	1200	2400	ug/Kg
84-74-2	Di-n-butylphthalate	1200	U	190	1200	2400	ug/Kg
206-44-0	Fluoranthene	23000	E	48	1200	2400	ug/Kg
92-87-5	Benzidine	1200	U	240	1200	2400	ug/Kg
129-00-0	Pyrene	22000	E	57	1200	2400	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)	SDG No.:	D3811
Lab Sample ID:	D3811-13	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	30
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006792.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1200	U	110	1200	2400	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1200	U	150	1200	2400	ug/Kg
56-55-3	Benzo(a)anthracene	15000		110	1200	2400	ug/Kg
218-01-9	Chrysene	17000		110	1200	2400	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1200	U	84	1200	2400	ug/Kg
117-84-0	Di-n-octyl phthalate	1200	U	27	1200	2400	ug/Kg
205-99-2	Benzo(b)fluoranthene	22000	E	78	1200	2400	ug/Kg
207-08-9	Benzo(k)fluoranthene	7900		110	1200	2400	ug/Kg
50-32-8	Benzo(a)pyrene	18000		51	1200	2400	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	12000		79	1200	2400	ug/Kg
53-70-3	Dibenz(a,h)anthracene	3600		68	1200	2400	ug/Kg
191-24-2	Benzo(g,h,i)perylene	12000		96	1200	2400	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1200	U	93	1200	2400	ug/Kg
123-91-1	1,4-Dioxane	1200	U	93	1200	2400	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1200	U	93	1200	2400	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	147		28 - 127		98%	SPK: 150
13127-88-3	Phenol-d5	151		34 - 127		101%	SPK: 150
4165-60-0	Nitrobenzene-d5	94.9		31 - 132		95%	SPK: 100
321-60-8	2-Fluorobiphenyl	76.6		39 - 123		77%	SPK: 100
118-79-6	2,4,6-Tribromophenol	125		30 - 133		84%	SPK: 150
1718-51-0	Terphenyl-d14	74.6		37 - 115		75%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	142291	8.69				
1146-65-2	Naphthalene-d8	534762	10.88				
15067-26-2	Acenaphthene-d10	371061	13.87				
1517-22-2	Phenanthrene-d10	700652	16.37				
1719-03-5	Chrysene-d12	732896	20.88				
1520-96-3	Perylene-d12	731810	24.77				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
1430-97-3	9H-Fluorene, 2-methyl-	860	J			15.71	ug/Kg
268-77-9	Naphtho[2,3-b]thiophene	1000	J			16.2	ug/Kg



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)	SDG No.:	D3811
Lab Sample ID:	D3811-13	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	30
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006792.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
	unknown16.55	960	J			16.55	ug/Kg
2531-84-2	Phenanthrene, 2-methyl-	3000	J			17.21	ug/Kg
832-69-9	Phenanthrene, 1-methyl-	3600	J			17.25	ug/Kg
779-02-2	Anthracene, 9-methyl-	1600	J			17.33	ug/Kg
203-64-5	4H-Cyclopenta[def]phenanthrene	7200	J			17.41	ug/Kg
000832-71-3	Phenanthrene, 3-methyl-	1600	J			17.44	ug/Kg
612-94-2	Naphthalene, 2-phenyl-	1900	J			17.69	ug/Kg
84-65-1	9,10-Anthracenedione	1100	J			17.73	ug/Kg
483-87-4	Phenanthrene, 1,7-dimethyl-	820	J			18	ug/Kg
3674-65-5	Phenanthrene, 2,3-dimethyl-	2500	J			18.13	ug/Kg
	unknown18.19	1700	J			18.19	ug/Kg
5737-13-3	Cyclopenta(def)phenanthrenone	1700	J			18.27	ug/Kg
77581-11-4	2,9-Dimethyl-2,3,4,5,6,7-hexahydro	810	J			18.5	ug/Kg
2381-21-7	Pyrene, 1-methyl-	770	J			19.15	ug/Kg
243-17-4	11H-Benzo[b]fluorene	1800	J			19.33	ug/Kg
238-84-6	11H-Benzo[a]fluorene	1000	J			19.44	ug/Kg
3697-24-3	Chrysene, 6-methyl-	1000	J			21.75	ug/Kg
192-97-2	Benzo[e]pyrene	18000	J			24.41	ug/Kg
198-55-0	Perylene	5600	J			24.87	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)DL	SDG No.:	D3811
Lab Sample ID:	D3811-13DL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	30
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058393.D	10	08/15/12	08/23/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	2350	UD	240	2350	4700	ug/Kg
110-86-1	Pyridine	2350	UD	940	2350	4700	ug/Kg
100-52-7	Benzaldehyde	2350	UDQ	250	2350	4700	ug/Kg
62-53-3	Aniline	2350	UD	410	2350	4700	ug/Kg
108-95-2	Phenol	2350	UD	110	2350	4700	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	2350	UD	230	2350	4700	ug/Kg
95-57-8	2-Chlorophenol	2350	UD	250	2350	4700	ug/Kg
95-50-1	1,2-Dichlorobenzene	2350	UD	180	2350	4700	ug/Kg
541-73-1	1,3-Dichlorobenzene	2350	UD	84	2350	4700	ug/Kg
106-46-7	1,4-Dichlorobenzene	2350	UD	160	2350	4700	ug/Kg
100-51-6	Benzyl Alcohol	2350	UD	180	2350	4700	ug/Kg
95-48-7	2-Methylphenol	2350	UD	260	2350	4700	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	2350	UD	200	2350	4700	ug/Kg
98-86-2	Acetophenone	2350	UD	150	2350	4700	ug/Kg
65794-96-9	3+4-Methylphenols	2350	UD	250	2350	4700	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	2350	UD	240	2350	4700	ug/Kg
67-72-1	Hexachloroethane	2350	UD	210	2350	4700	ug/Kg
98-95-3	Nitrobenzene	2350	UD	180	2350	4700	ug/Kg
78-59-1	Isophorone	2350	UD	160	2350	4700	ug/Kg
88-75-5	2-Nitrophenol	2350	UD	230	2350	4700	ug/Kg
105-67-9	2,4-Dimethylphenol	2350	UD	270	2350	4700	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	2350	UD	270	2350	4700	ug/Kg
120-83-2	2,4-Dichlorophenol	2350	UD	180	2350	4700	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2350	UD	180	2350	4700	ug/Kg
65-85-0	Benzoic acid	5500	UD	940	5500	11000	ug/Kg
91-20-3	Naphthalene	2350	UD	160	2350	4700	ug/Kg
106-47-8	4-Chloroaniline	2350	UD	340	2350	4700	ug/Kg
87-68-3	Hexachlorobutadiene	2350	UD	170	2350	4700	ug/Kg
105-60-2	Caprolactam	2350	UD	220	2350	4700	ug/Kg
59-50-7	4-Chloro-3-methylphenol	2350	UD	210	2350	4700	ug/Kg
91-57-6	2-Methylnaphthalene	2350	UD	120	2350	4700	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)DL	SDG No.:	D3811
Lab Sample ID:	D3811-13DL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	30
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058393.D	10	08/15/12	08/23/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	2350	UD	120	2350	4700	ug/Kg
88-06-2	2,4,6-Trichlorophenol	2350	UD	150	2350	4700	ug/Kg
95-95-4	2,4,5-Trichlorophenol	2350	UD	330	2350	4700	ug/Kg
92-52-4	1,1-Biphenyl	2350	UD	180	2350	4700	ug/Kg
91-58-7	2-Chloronaphthalene	2350	UD	110	2350	4700	ug/Kg
88-74-4	2-Nitroaniline	2350	UD	210	2350	4700	ug/Kg
131-11-3	Dimethylphthalate	2350	UD	130	2350	4700	ug/Kg
208-96-8	Acenaphthylene	3200	JD	120	2350	4700	ug/Kg
606-20-2	2,6-Dinitrotoluene	2350	UD	190	2350	4700	ug/Kg
99-09-2	3-Nitroaniline	2350	UD	310	2350	4700	ug/Kg
83-32-9	Acenaphthene	2350	UD	130	2350	4700	ug/Kg
51-28-5	2,4-Dinitrophenol	2350	UD	480	2350	4700	ug/Kg
100-02-7	4-Nitrophenol	2350	UD	880	2350	4700	ug/Kg
132-64-9	Dibenzofuran	2350	UD	190	2350	4700	ug/Kg
121-14-2	2,4-Dinitrotoluene	2350	UD	140	2350	4700	ug/Kg
84-66-2	Diethylphthalate	2350	UD	74	2350	4700	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	2350	UD	260	2350	4700	ug/Kg
86-73-7	Fluorene	2350	UD	180	2350	4700	ug/Kg
100-01-6	4-Nitroaniline	2350	UD	620	2350	4700	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	2350	UD	270	2350	4700	ug/Kg
86-30-6	N-Nitrosodiphenylamine	2350	UD	110	2350	4700	ug/Kg
103-33-3	Azobenzene	2350	UD	110	2350	4700	ug/Kg
101-55-3	4-Bromophenyl-phenylether	2350	UD	93	2350	4700	ug/Kg
118-74-1	Hexachlorobenzene	2350	UD	190	2350	4700	ug/Kg
1912-24-9	Atrazine	2350	UD	250	2350	4700	ug/Kg
87-86-5	Pentachlorophenol	2350	UD	330	2350	4700	ug/Kg
85-01-8	Phenanthrene	11000	D	130	2350	4700	ug/Kg
120-12-7	Anthracene	3500	JD	97	2350	4700	ug/Kg
86-74-8	Carbazole	2350	UD	100	2350	4700	ug/Kg
84-74-2	Di-n-butylphthalate	2350	UD	370	2350	4700	ug/Kg
206-44-0	Fluoranthene	24000	D	96	2350	4700	ug/Kg
92-87-5	Benzidine	2350	UD	480	2350	4700	ug/Kg
129-00-0	Pyrene	24000	D	110	2350	4700	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)DL	SDG No.:	D3811
Lab Sample ID:	D3811-13DL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	30
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058393.D	10	08/15/12	08/23/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	2350	UD	230	2350	4700	ug/Kg
91-94-1	3,3-Dichlorobenzidine	2350	UD	310	2350	4700	ug/Kg
56-55-3	Benzo(a)anthracene	15000	D	230	2350	4700	ug/Kg
218-01-9	Chrysene	17000	D	220	2350	4700	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	2350	UD	170	2350	4700	ug/Kg
117-84-0	Di-n-octyl phthalate	2350	UD	54	2350	4700	ug/Kg
205-99-2	Benzo(b)fluoranthene	22000	D	160	2350	4700	ug/Kg
207-08-9	Benzo(k)fluoranthene	8900	D	220	2350	4700	ug/Kg
50-32-8	Benzo(a)pyrene	18000	D	100	2350	4700	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	10000	D	160	2350	4700	ug/Kg
53-70-3	Dibenz(a,h)anthracene	2300	JD	140	2350	4700	ug/Kg
191-24-2	Benzo(g,h,i)perylene	11000	D	190	2350	4700	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	2350	UD	190	2350	4700	ug/Kg
123-91-1	1,4-Dioxane	2350	UD	190	2350	4700	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	2350	UD	190	2350	4700	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	137		28 - 127		92%	SPK: 150
13127-88-3	Phenol-d5	150		34 - 127		100%	SPK: 150
4165-60-0	Nitrobenzene-d5	97.5		31 - 132		98%	SPK: 100
321-60-8	2-Fluorobiphenyl	83		39 - 123		83%	SPK: 100
118-79-6	2,4,6-Tribromophenol	107		30 - 133		72%	SPK: 150
1718-51-0	Terphenyl-d14	64.5		37 - 115		65%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	254050	5.09				
1146-65-2	Naphthalene-d8	933580	6.52				
15067-26-2	Acenaphthene-d10	444781	8.3				
1517-22-2	Phenanthrene-d10	677144	10.24				
1719-03-5	Chrysene-d12	513726	14.3				
1520-96-3	Perylene-d12	441644	16.4				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)DL	SDG No.:	D3811
Lab Sample ID:	D3811-13DL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	30
Sample Wt/Vol:	30.05      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :    N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058393.D	10	08/15/12	08/23/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected  
 LOQ = Limit of Quantitation  
 MDL = Method Detection Limit  
 LOD = Limit of Detection  
 E = Value Exceeds Calibration Range  
 Q = indicates LCS control criteria did not meet requirements

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound  
 \* = Values outside of QC limits  
 D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-14	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	8
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006786.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	180	U	19	180	360	ug/Kg
110-86-1	Pyridine	180	U	72	180	360	ug/Kg
100-52-7	Benzaldehyde	180	UQ	19	180	360	ug/Kg
62-53-3	Aniline	180	U	31	180	360	ug/Kg
108-95-2	Phenol	180	U	8.3	180	360	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	180	U	17	180	360	ug/Kg
95-57-8	2-Chlorophenol	180	U	19	180	360	ug/Kg
95-50-1	1,2-Dichlorobenzene	180	U	14	180	360	ug/Kg
541-73-1	1,3-Dichlorobenzene	180	U	6.4	180	360	ug/Kg
106-46-7	1,4-Dichlorobenzene	180	U	12	180	360	ug/Kg
100-51-6	Benzyl Alcohol	180	U	14	180	360	ug/Kg
95-48-7	2-Methylphenol	180	U	20	180	360	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	180	U	15	180	360	ug/Kg
98-86-2	Acetophenone	180	U	11	180	360	ug/Kg
65794-96-9	3+4-Methylphenols	180	U	19	180	360	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	180	U	18	180	360	ug/Kg
67-72-1	Hexachloroethane	180	U	16	180	360	ug/Kg
98-95-3	Nitrobenzene	180	U	14	180	360	ug/Kg
78-59-1	Isophorone	180	U	12	180	360	ug/Kg
88-75-5	2-Nitrophenol	180	U	17	180	360	ug/Kg
105-67-9	2,4-Dimethylphenol	180	U	20	180	360	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	180	U	21	180	360	ug/Kg
120-83-2	2,4-Dichlorophenol	180	U	14	180	360	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	180	U	14	180	360	ug/Kg
65-85-0	Benzoic acid	435	U	72	435	870	ug/Kg
91-20-3	Naphthalene	180	U	12	180	360	ug/Kg
106-47-8	4-Chloroaniline	180	U	25	180	360	ug/Kg
87-68-3	Hexachlorobutadiene	180	U	13	180	360	ug/Kg
105-60-2	Caprolactam	180	U	17	180	360	ug/Kg
59-50-7	4-Chloro-3-methylphenol	180	U	16	180	360	ug/Kg
91-57-6	2-Methylnaphthalene	180	U	9.1	180	360	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-14	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	8
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006786.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	180	U	8.8	180	360	ug/Kg
88-06-2	2,4,6-Trichlorophenol	180	U	11	180	360	ug/Kg
95-95-4	2,4,5-Trichlorophenol	180	U	25	180	360	ug/Kg
92-52-4	1,1-Biphenyl	180	U	14	180	360	ug/Kg
91-58-7	2-Chloronaphthalene	180	U	8.2	180	360	ug/Kg
88-74-4	2-Nitroaniline	180	U	16	180	360	ug/Kg
131-11-3	Dimethylphthalate	360		9.8	180	360	ug/Kg
208-96-8	Acenaphthylene	180	U	9.1	180	360	ug/Kg
606-20-2	2,6-Dinitrotoluene	180	U	15	180	360	ug/Kg
99-09-2	3-Nitroaniline	180	U	23	180	360	ug/Kg
83-32-9	Acenaphthene	180	U	10	180	360	ug/Kg
51-28-5	2,4-Dinitrophenol	180	U	37	180	360	ug/Kg
100-02-7	4-Nitrophenol	180	U	67	180	360	ug/Kg
132-64-9	Dibenzofuran	180	U	14	180	360	ug/Kg
121-14-2	2,4-Dinitrotoluene	180	U	11	180	360	ug/Kg
84-66-2	Diethylphthalate	180	U	5.6	180	360	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	180	U	20	180	360	ug/Kg
86-73-7	Fluorene	180	U	14	180	360	ug/Kg
100-01-6	4-Nitroaniline	180	U	47	180	360	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	180	U	21	180	360	ug/Kg
86-30-6	N-Nitrosodiphenylamine	180	U	8.7	180	360	ug/Kg
103-33-3	Azobenzene	180	U	8.5	180	360	ug/Kg
101-55-3	4-Bromophenyl-phenylether	180	U	7	180	360	ug/Kg
118-74-1	Hexachlorobenzene	180	U	15	180	360	ug/Kg
1912-24-9	Atrazine	180	U	19	180	360	ug/Kg
87-86-5	Pentachlorophenol	180	U	25	180	360	ug/Kg
85-01-8	Phenanthrene	180	U	9.8	180	360	ug/Kg
120-12-7	Anthracene	180	U	7.4	180	360	ug/Kg
86-74-8	Carbazole	180	U	7.9	180	360	ug/Kg
84-74-2	Di-n-butylphthalate	180	U	28	180	360	ug/Kg
206-44-0	Fluoranthene	180	U	7.3	180	360	ug/Kg
92-87-5	Benzidine	180	U	36	180	360	ug/Kg
129-00-0	Pyrene	180	U	8.7	180	360	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-14	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	8
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006786.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	180	U	17	180	360	ug/Kg
91-94-1	3,3-Dichlorobenzidine	180	U	23	180	360	ug/Kg
56-55-3	Benzo(a)anthracene	180	U	17	180	360	ug/Kg
218-01-9	Chrysene	180	U	16	180	360	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	180	U	13	180	360	ug/Kg
117-84-0	Di-n-octyl phthalate	180	U	4.1	180	360	ug/Kg
205-99-2	Benzo(b)fluoranthene	180	U	12	180	360	ug/Kg
207-08-9	Benzo(k)fluoranthene	180	U	17	180	360	ug/Kg
50-32-8	Benzo(a)pyrene	180	U	7.8	180	360	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	180	U	12	180	360	ug/Kg
53-70-3	Dibenz(a,h)anthracene	180	U	10	180	360	ug/Kg
191-24-2	Benzo(g,h,i)perylene	180	U	15	180	360	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	180	U	14	180	360	ug/Kg
123-91-1	1,4-Dioxane	180	U	14	180	360	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	180	U	14	180	360	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	134		28 - 127		89%	SPK: 150
13127-88-3	Phenol-d5	138		34 - 127		92%	SPK: 150
4165-60-0	Nitrobenzene-d5	94.5		31 - 132		95%	SPK: 100
321-60-8	2-Fluorobiphenyl	91.3		39 - 123		91%	SPK: 100
118-79-6	2,4,6-Tribromophenol	130		30 - 133		87%	SPK: 150
1718-51-0	Terphenyl-d14	83.2		37 - 115		83%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	139547	8.69				
1146-65-2	Naphthalene-d8	509127	10.88				
15067-26-2	Acenaphthene-d10	348075	13.88				
1517-22-2	Phenanthrene-d10	669688	16.37				
1719-03-5	Chrysene-d12	719022	20.88				
1520-96-3	Perylene-d12	697943	24.76				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	310	A			5.91	ug/Kg
541-02-6	Cyclopentasiloxane, decamethyl-	91	J			10	ug/Kg



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-14	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	8
Sample Wt/Vol:	30.1 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006786.D	1	08/15/12	08/20/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
629-78-7	Heptadecane	87	J			16.11	ug/Kg
638-53-9	Tridecanoic acid	120	J			17.21	ug/Kg
886-66-8	Benzene, 1,1-(1,3-butadiyne-1,4-d	92	J			18.4	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)	SDG No.:	D3811
Lab Sample ID:	D3811-15	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058438.D	1	08/15/12	08/24/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	205	U	21	205	410	ug/Kg
110-86-1	Pyridine	205	U	81	205	410	ug/Kg
100-52-7	Benzaldehyde	205	UQ	21	205	410	ug/Kg
62-53-3	Aniline	205	U	35	205	410	ug/Kg
108-95-2	Phenol	205	U	9.5	205	410	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	205	U	20	205	410	ug/Kg
95-57-8	2-Chlorophenol	205	U	22	205	410	ug/Kg
95-50-1	1,2-Dichlorobenzene	205	U	16	205	410	ug/Kg
541-73-1	1,3-Dichlorobenzene	205	U	7.3	205	410	ug/Kg
106-46-7	1,4-Dichlorobenzene	205	U	14	205	410	ug/Kg
100-51-6	Benzyl Alcohol	205	U	15	205	410	ug/Kg
95-48-7	2-Methylphenol	205	U	22	205	410	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	205	U	17	205	410	ug/Kg
98-86-2	Acetophenone	205	U	13	205	410	ug/Kg
65794-96-9	3+4-Methylphenols	205	U	21	205	410	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	205	U	21	205	410	ug/Kg
67-72-1	Hexachloroethane	205	U	18	205	410	ug/Kg
98-95-3	Nitrobenzene	205	U	16	205	410	ug/Kg
78-59-1	Isophorone	205	U	14	205	410	ug/Kg
88-75-5	2-Nitrophenol	205	U	20	205	410	ug/Kg
105-67-9	2,4-Dimethylphenol	205	U	23	205	410	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	205	U	24	205	410	ug/Kg
120-83-2	2,4-Dichlorophenol	205	U	16	205	410	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	205	U	16	205	410	ug/Kg
65-85-0	Benzoic acid	710	J	81	495	990	ug/Kg
91-20-3	Naphthalene	290	J	14	205	410	ug/Kg
106-47-8	4-Chloroaniline	205	U	29	205	410	ug/Kg
87-68-3	Hexachlorobutadiene	205	U	15	205	410	ug/Kg
105-60-2	Caprolactam	205	U	19	205	410	ug/Kg
59-50-7	4-Chloro-3-methylphenol	205	U	18	205	410	ug/Kg
91-57-6	2-Methylnaphthalene	205	U	10	205	410	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)	SDG No.:	D3811
Lab Sample ID:	D3811-15	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.05      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :      N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058438.D	1	08/15/12	08/24/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	205	U	10	205	410	ug/Kg
88-06-2	2,4,6-Trichlorophenol	205	U	13	205	410	ug/Kg
95-95-4	2,4,5-Trichlorophenol	205	U	29	205	410	ug/Kg
92-52-4	1,1-Biphenyl	205	U	16	205	410	ug/Kg
91-58-7	2-Chloronaphthalene	205	U	9.4	205	410	ug/Kg
88-74-4	2-Nitroaniline	205	U	18	205	410	ug/Kg
131-11-3	Dimethylphthalate	360	J	11	205	410	ug/Kg
208-96-8	Acenaphthylene	205	U	10	205	410	ug/Kg
606-20-2	2,6-Dinitrotoluene	205	U	17	205	410	ug/Kg
99-09-2	3-Nitroaniline	205	U	26	205	410	ug/Kg
83-32-9	Acenaphthene	190	J	12	205	410	ug/Kg
51-28-5	2,4-Dinitrophenol	205	U	42	205	410	ug/Kg
100-02-7	4-Nitrophenol	205	U	76	205	410	ug/Kg
132-64-9	Dibenzofuran	205	U	16	205	410	ug/Kg
121-14-2	2,4-Dinitrotoluene	205	U	12	205	410	ug/Kg
84-66-2	Diethylphthalate	205	U	6.4	205	410	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	205	U	22	205	410	ug/Kg
86-73-7	Fluorene	205	U	16	205	410	ug/Kg
100-01-6	4-Nitroaniline	205	U	53	205	410	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	205	U	24	205	410	ug/Kg
86-30-6	N-Nitrosodiphenylamine	205	U	9.9	205	410	ug/Kg
103-33-3	Azobenzene	205	U	9.6	205	410	ug/Kg
101-55-3	4-Bromophenyl-phenylether	205	U	8	205	410	ug/Kg
118-74-1	Hexachlorobenzene	205	U	17	205	410	ug/Kg
1912-24-9	Atrazine	205	U	22	205	410	ug/Kg
87-86-5	Pentachlorophenol	205	U	28	205	410	ug/Kg
85-01-8	Phenanthrene	1300		11	205	410	ug/Kg
120-12-7	Anthracene	380	J	8.4	205	410	ug/Kg
86-74-8	Carbazole	205	U	9	205	410	ug/Kg
84-74-2	Di-n-butylphthalate	205	U	32	205	410	ug/Kg
206-44-0	Fluoranthene	1700		8.3	205	410	ug/Kg
92-87-5	Benzidine	205	U	41	205	410	ug/Kg
129-00-0	Pyrene	1400		9.9	205	410	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)	SDG No.:	D3811
Lab Sample ID:	D3811-15	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058438.D	1	08/15/12	08/24/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	205	U	20	205	410	ug/Kg
91-94-1	3,3-Dichlorobenzidine	205	U	26	205	410	ug/Kg
56-55-3	Benzo(a)anthracene	880		20	205	410	ug/Kg
218-01-9	Chrysene	890		19	205	410	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	205	U	15	205	410	ug/Kg
117-84-0	Di-n-octyl phthalate	205	U	4.7	205	410	ug/Kg
205-99-2	Benzo(b)fluoranthene	1100		13	205	410	ug/Kg
207-08-9	Benzo(k)fluoranthene	370	J	19	205	410	ug/Kg
50-32-8	Benzo(a)pyrene	910		8.9	205	410	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	500		14	205	410	ug/Kg
53-70-3	Dibenz(a,h)anthracene	205	U	12	205	410	ug/Kg
191-24-2	Benzo(g,h,i)perylene	470		17	205	410	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	205	U	16	205	410	ug/Kg
123-91-1	1,4-Dioxane	205	U	16	205	410	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	205	U	16	205	410	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	117		28 - 127		79%	SPK: 150
13127-88-3	Phenol-d5	125		34 - 127		84%	SPK: 150
4165-60-0	Nitrobenzene-d5	83		31 - 132		83%	SPK: 100
321-60-8	2-Fluorobiphenyl	80.6		39 - 123		81%	SPK: 100
118-79-6	2,4,6-Tribromophenol	120		30 - 133		80%	SPK: 150
1718-51-0	Terphenyl-d14	67.2		37 - 115		67%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	123893	5.06				
1146-65-2	Naphthalene-d8	464102	6.49				
15067-26-2	Acenaphthene-d10	214377	8.28				
1517-22-2	Phenanthrene-d10	344467	10.2				
1719-03-5	Chrysene-d12	266733	14.26				
1520-96-3	Perylene-d12	223608	16.36				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	860	A			3.05	ug/Kg
90-12-0	Naphthalene, 1-methyl-	88	J			7.27	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)	SDG No.:	D3811
Lab Sample ID:	D3811-15	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058438.D	1	08/15/12	08/24/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
244-99-5	5H-Indeno[1,2-b]pyridine	150	J			10.56	ug/Kg
629-62-9	Pentadecane	120	J			10.8	ug/Kg
2531-84-2	Phenanthrene, 2-methyl-	150	J			10.95	ug/Kg
949-41-7	1H-Cyclopropa[1]phenanthrene, 1a,9b	220	J			10.99	ug/Kg
779-02-2	Anthracene, 9-methyl-	110	J			11.05	ug/Kg
203-64-5	4H-Cyclopenta[def]phenanthrene	270	J			11.1	ug/Kg
	unknown11.16	100	J			11.16	ug/Kg
	unknown11.42	190	J			11.42	ug/Kg
3674-69-9	Phenanthrene, 4,5-dimethyl-	100	J			11.79	ug/Kg
111-06-8	Hexadecanoic acid, butyl ester	130	J			12.54	ug/Kg
243-17-4	11H-Benzo[b]fluorene	130	J			12.88	ug/Kg
238-84-6	11H-Benzo[a]fluorene	120	J			13	ug/Kg
123-95-5	Octadecanoic acid, butyl ester	150	J			13.67	ug/Kg
195-19-7	Benzo[c]phenanthrene	86	J			14.41	ug/Kg
192-97-2	Benzo[e]pyrene	740	J			16.22	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-42(14-16)	SDG No.:	D3811
Lab Sample ID:	D3811-16	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	17
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006788.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	200	U	21	200	400	ug/Kg
110-86-1	Pyridine	200	U	79	200	400	ug/Kg
100-52-7	Benzaldehyde	200	UQ	21	200	400	ug/Kg
62-53-3	Aniline	200	U	34	200	400	ug/Kg
108-95-2	Phenol	200	U	9.3	200	400	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	200	U	19	200	400	ug/Kg
95-57-8	2-Chlorophenol	200	U	21	200	400	ug/Kg
95-50-1	1,2-Dichlorobenzene	200	U	15	200	400	ug/Kg
541-73-1	1,3-Dichlorobenzene	200	U	7.1	200	400	ug/Kg
106-46-7	1,4-Dichlorobenzene	200	U	14	200	400	ug/Kg
100-51-6	Benzyl Alcohol	200	U	15	200	400	ug/Kg
95-48-7	2-Methylphenol	200	U	22	200	400	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	200	U	17	200	400	ug/Kg
98-86-2	Acetophenone	200	U	12	200	400	ug/Kg
65794-96-9	3+4-Methylphenols	200	U	21	200	400	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	200	U	20	200	400	ug/Kg
67-72-1	Hexachloroethane	200	U	18	200	400	ug/Kg
98-95-3	Nitrobenzene	200	U	15	200	400	ug/Kg
78-59-1	Isophorone	200	U	13	200	400	ug/Kg
88-75-5	2-Nitrophenol	200	U	19	200	400	ug/Kg
105-67-9	2,4-Dimethylphenol	200	U	23	200	400	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	200	U	23	200	400	ug/Kg
120-83-2	2,4-Dichlorophenol	200	U	15	200	400	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	200	U	15	200	400	ug/Kg
65-85-0	Benzoic acid	480	U	79	480	960	ug/Kg
91-20-3	Naphthalene	200	U	14	200	400	ug/Kg
106-47-8	4-Chloroaniline	200	U	28	200	400	ug/Kg
87-68-3	Hexachlorobutadiene	200	U	15	200	400	ug/Kg
105-60-2	Caprolactam	200	U	19	200	400	ug/Kg
59-50-7	4-Chloro-3-methylphenol	200	U	18	200	400	ug/Kg
91-57-6	2-Methylnaphthalene	200	U	10	200	400	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-42(14-16)	SDG No.:	D3811
Lab Sample ID:	D3811-16	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	17
Sample Wt/Vol:	30.07      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006788.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	200	U	9.7	200	400	ug/Kg
88-06-2	2,4,6-Trichlorophenol	200	U	12	200	400	ug/Kg
95-95-4	2,4,5-Trichlorophenol	200	U	28	200	400	ug/Kg
92-52-4	1,1-Biphenyl	200	U	15	200	400	ug/Kg
91-58-7	2-Chloronaphthalene	200	U	9.1	200	400	ug/Kg
88-74-4	2-Nitroaniline	200	U	18	200	400	ug/Kg
131-11-3	Dimethylphthalate	310	J	11	200	400	ug/Kg
208-96-8	Acenaphthylene	200	U	10	200	400	ug/Kg
606-20-2	2,6-Dinitrotoluene	200	U	16	200	400	ug/Kg
99-09-2	3-Nitroaniline	200	U	26	200	400	ug/Kg
83-32-9	Acenaphthene	200	U	11	200	400	ug/Kg
51-28-5	2,4-Dinitrophenol	200	U	41	200	400	ug/Kg
100-02-7	4-Nitrophenol	200	U	74	200	400	ug/Kg
132-64-9	Dibenzofuran	200	U	16	200	400	ug/Kg
121-14-2	2,4-Dinitrotoluene	200	U	12	200	400	ug/Kg
84-66-2	Diethylphthalate	200	U	6.3	200	400	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	200	U	22	200	400	ug/Kg
86-73-7	Fluorene	200	U	15	200	400	ug/Kg
100-01-6	4-Nitroaniline	200	U	52	200	400	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	200	U	23	200	400	ug/Kg
86-30-6	N-Nitrosodiphenylamine	200	U	9.6	200	400	ug/Kg
103-33-3	Azobenzene	200	U	9.4	200	400	ug/Kg
101-55-3	4-Bromophenyl-phenylether	200	U	7.8	200	400	ug/Kg
118-74-1	Hexachlorobenzene	200	U	16	200	400	ug/Kg
1912-24-9	Atrazine	200	U	21	200	400	ug/Kg
87-86-5	Pentachlorophenol	200	U	27	200	400	ug/Kg
85-01-8	Phenanthrene	200	U	11	200	400	ug/Kg
120-12-7	Anthracene	200	U	8.2	200	400	ug/Kg
86-74-8	Carbazole	200	U	8.8	200	400	ug/Kg
84-74-2	Di-n-butylphthalate	200	U	31	200	400	ug/Kg
206-44-0	Fluoranthene	270	J	8.1	200	400	ug/Kg
92-87-5	Benzidine	200	U	40	200	400	ug/Kg
129-00-0	Pyrene	220	J	9.6	200	400	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-42(14-16)	SDG No.:	D3811
Lab Sample ID:	D3811-16	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	17
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006788.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	200	U	19	200	400	ug/Kg
91-94-1	3,3-Dichlorobenzidine	200	U	26	200	400	ug/Kg
56-55-3	Benzo(a)anthracene	160	J	19	200	400	ug/Kg
218-01-9	Chrysene	170	J	18	200	400	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	200	U	14	200	400	ug/Kg
117-84-0	Di-n-octyl phthalate	200	U	4.6	200	400	ug/Kg
205-99-2	Benzo(b)fluoranthene	200	J	13	200	400	ug/Kg
207-08-9	Benzo(k)fluoranthene	200	U	19	200	400	ug/Kg
50-32-8	Benzo(a)pyrene	170	J	8.7	200	400	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	200	U	13	200	400	ug/Kg
53-70-3	Dibenz(a,h)anthracene	200	U	12	200	400	ug/Kg
191-24-2	Benzo(g,h,i)perylene	200	U	16	200	400	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	200	U	16	200	400	ug/Kg
123-91-1	1,4-Dioxane	200	U	16	200	400	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	200	U	16	200	400	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	105		28 - 127		71%	SPK: 150
13127-88-3	Phenol-d5	108		34 - 127		72%	SPK: 150
4165-60-0	Nitrobenzene-d5	71.3		31 - 132		71%	SPK: 100
321-60-8	2-Fluorobiphenyl	62.1		39 - 123		62%	SPK: 100
118-79-6	2,4,6-Tribromophenol	98.1		30 - 133		65%	SPK: 150
1718-51-0	Terphenyl-d14	59.8		37 - 115		60%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	147029	8.69				
1146-65-2	Naphthalene-d8	534925	10.88				
15067-26-2	Acenaphthene-d10	377023	13.88				
1517-22-2	Phenanthrene-d10	705074	16.37				
1719-03-5	Chrysene-d12	758154	20.88				
1520-96-3	Perylene-d12	732319	24.77				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	290	A			5.91	ug/Kg
541-02-6	Cyclopentasiloxane, decamethyl-	120	J			10	ug/Kg



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-42(14-16)	SDG No.:	D3811
Lab Sample ID:	D3811-16	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	17
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006788.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
593-45-3	Octadecane	92	J			16.12	ug/Kg
638-53-9	Tridecanoic acid	190	J			17.21	ug/Kg
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthr	170	J			17.95	ug/Kg
6566-19-4	10,18-Bisnorabieta-5,7,9(10),11,13	510	J			18.46	ug/Kg
1000147-93-1	4-Methoxy-2-hydroxystilbene	97	J			20.5	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-17	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	8
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058358.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	180	U	19	180	360	ug/Kg
110-86-1	Pyridine	180	U	72	180	360	ug/Kg
100-52-7	Benzaldehyde	180	UQ	19	180	360	ug/Kg
62-53-3	Aniline	180	U	31	180	360	ug/Kg
108-95-2	Phenol	180	U	8.4	180	360	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	180	U	17	180	360	ug/Kg
95-57-8	2-Chlorophenol	180	U	19	180	360	ug/Kg
95-50-1	1,2-Dichlorobenzene	180	U	14	180	360	ug/Kg
541-73-1	1,3-Dichlorobenzene	180	U	6.4	180	360	ug/Kg
106-46-7	1,4-Dichlorobenzene	180	U	12	180	360	ug/Kg
100-51-6	Benzyl Alcohol	180	U	14	180	360	ug/Kg
95-48-7	2-Methylphenol	180	U	20	180	360	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	180	U	15	180	360	ug/Kg
98-86-2	Acetophenone	180	U	11	180	360	ug/Kg
65794-96-9	3+4-Methylphenols	180	U	19	180	360	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	180	U	18	180	360	ug/Kg
67-72-1	Hexachloroethane	180	U	16	180	360	ug/Kg
98-95-3	Nitrobenzene	180	U	14	180	360	ug/Kg
78-59-1	Isophorone	180	U	12	180	360	ug/Kg
88-75-5	2-Nitrophenol	180	U	17	180	360	ug/Kg
105-67-9	2,4-Dimethylphenol	180	U	21	180	360	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	180	U	21	180	360	ug/Kg
120-83-2	2,4-Dichlorophenol	180	U	14	180	360	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	180	U	14	180	360	ug/Kg
65-85-0	Benzoic acid	435	U	72	435	870	ug/Kg
91-20-3	Naphthalene	180	U	12	180	360	ug/Kg
106-47-8	4-Chloroaniline	180	U	26	180	360	ug/Kg
87-68-3	Hexachlorobutadiene	180	U	13	180	360	ug/Kg
105-60-2	Caprolactam	180	U	17	180	360	ug/Kg
59-50-7	4-Chloro-3-methylphenol	180	U	16	180	360	ug/Kg
91-57-6	2-Methylnaphthalene	180	U	9.1	180	360	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-17	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	8
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058358.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	180	U	8.8	180	360	ug/Kg
88-06-2	2,4,6-Trichlorophenol	180	U	11	180	360	ug/Kg
95-95-4	2,4,5-Trichlorophenol	180	U	25	180	360	ug/Kg
92-52-4	1,1-Biphenyl	180	U	14	180	360	ug/Kg
91-58-7	2-Chloronaphthalene	180	U	8.2	180	360	ug/Kg
88-74-4	2-Nitroaniline	180	U	16	180	360	ug/Kg
131-11-3	Dimethylphthalate	360		9.8	180	360	ug/Kg
208-96-8	Acenaphthylene	180	U	9.1	180	360	ug/Kg
606-20-2	2,6-Dinitrotoluene	180	U	15	180	360	ug/Kg
99-09-2	3-Nitroaniline	180	U	23	180	360	ug/Kg
83-32-9	Acenaphthene	180	U	10	180	360	ug/Kg
51-28-5	2,4-Dinitrophenol	180	U	37	180	360	ug/Kg
100-02-7	4-Nitrophenol	180	U	67	180	360	ug/Kg
132-64-9	Dibenzofuran	180	U	14	180	360	ug/Kg
121-14-2	2,4-Dinitrotoluene	180	U	11	180	360	ug/Kg
84-66-2	Diethylphthalate	180	U	5.6	180	360	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	180	U	20	180	360	ug/Kg
86-73-7	Fluorene	180	U	14	180	360	ug/Kg
100-01-6	4-Nitroaniline	180	U	47	180	360	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	180	U	21	180	360	ug/Kg
86-30-6	N-Nitrosodiphenylamine	180	U	8.7	180	360	ug/Kg
103-33-3	Azobenzene	180	U	8.5	180	360	ug/Kg
101-55-3	4-Bromophenyl-phenylether	180	U	7.1	180	360	ug/Kg
118-74-1	Hexachlorobenzene	180	U	15	180	360	ug/Kg
1912-24-9	Atrazine	180	U	19	180	360	ug/Kg
87-86-5	Pentachlorophenol	180	U	25	180	360	ug/Kg
85-01-8	Phenanthrene	180	U	9.8	180	360	ug/Kg
120-12-7	Anthracene	180	U	7.4	180	360	ug/Kg
86-74-8	Carbazole	180	U	7.9	180	360	ug/Kg
84-74-2	Di-n-butylphthalate	180	U	28	180	360	ug/Kg
206-44-0	Fluoranthene	180	U	7.3	180	360	ug/Kg
92-87-5	Benzidine	180	U	36	180	360	ug/Kg
129-00-0	Pyrene	180	U	8.7	180	360	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-17	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	8
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058358.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	180	U	17	180	360	ug/Kg
91-94-1	3,3-Dichlorobenzidine	180	U	23	180	360	ug/Kg
56-55-3	Benzo(a)anthracene	180	U	17	180	360	ug/Kg
218-01-9	Chrysene	180	U	16	180	360	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	180	U	13	180	360	ug/Kg
117-84-0	Di-n-octyl phthalate	180	U	4.1	180	360	ug/Kg
205-99-2	Benzo(b)fluoranthene	180	U	12	180	360	ug/Kg
207-08-9	Benzo(k)fluoranthene	180	U	17	180	360	ug/Kg
50-32-8	Benzo(a)pyrene	180	U	7.8	180	360	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	180	U	12	180	360	ug/Kg
53-70-3	Dibenz(a,h)anthracene	180	U	10	180	360	ug/Kg
191-24-2	Benzo(g,h,i)perylene	180	U	15	180	360	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	180	U	14	180	360	ug/Kg
123-91-1	1,4-Dioxane	180	U	14	180	360	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	180	U	14	180	360	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	119		28 - 127		80%	SPK: 150
13127-88-3	Phenol-d5	131		34 - 127		88%	SPK: 150
4165-60-0	Nitrobenzene-d5	94.8		31 - 132		95%	SPK: 100
321-60-8	2-Fluorobiphenyl	86.6		39 - 123		87%	SPK: 100
118-79-6	2,4,6-Tribromophenol	126		30 - 133		85%	SPK: 150
1718-51-0	Terphenyl-d14	82		37 - 115		82%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	210726	5.11				
1146-65-2	Naphthalene-d8	819552	6.54				
15067-26-2	Acenaphthene-d10	420829	8.33				
1517-22-2	Phenanthrene-d10	664638	10.27				
1719-03-5	Chrysene-d12	543144	14.33				
1520-96-3	Perylene-d12	439619	16.44				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	870	A			3.1	ug/Kg
541-02-6	Cyclopentasiloxane, decamethyl-	98	J			6.11	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-17	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	8
Sample Wt/Vol:	30.04      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :    N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058358.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
13798-23-7	Sulfur	80	J			8.62	ug/Kg
	unknown10.48	89	J			10.48	ug/Kg
112-40-3	Dodecane	120	J			10.86	ug/Kg
1002-84-2	Pentadecanoic acid	110	J			11.22	ug/Kg
10544-50-0	Cyclic octaatomic sulfur	640	J			12.11	ug/Kg
35599-77-0	Tridecane, 1-iodo-	97	J			14.86	ug/Kg
55282-13-8	Octadecane, 5,14-dibutyl-	150	J			15.36	ug/Kg
6938-66-5	1-Bromodocosane	130	J			15.84	ug/Kg
	unknown15.91	92	J			15.91	ug/Kg
62016-79-9	Heptacosane, 1-chloro-	180	J			16.3	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-18	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	18
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006793.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	1000	U	100	1000	2000	ug/Kg
110-86-1	Pyridine	1000	U	400	1000	2000	ug/Kg
100-52-7	Benzaldehyde	1000	UQ	110	1000	2000	ug/Kg
62-53-3	Aniline	1000	U	170	1000	2000	ug/Kg
108-95-2	Phenol	1000	U	47	1000	2000	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1000	U	97	1000	2000	ug/Kg
95-57-8	2-Chlorophenol	1000	U	110	1000	2000	ug/Kg
95-50-1	1,2-Dichlorobenzene	1000	U	77	1000	2000	ug/Kg
541-73-1	1,3-Dichlorobenzene	1000	U	36	1000	2000	ug/Kg
106-46-7	1,4-Dichlorobenzene	1000	U	69	1000	2000	ug/Kg
100-51-6	Benzyl Alcohol	1000	U	76	1000	2000	ug/Kg
95-48-7	2-Methylphenol	1000	U	110	1000	2000	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1000	U	84	1000	2000	ug/Kg
98-86-2	Acetophenone	1000	U	62	1000	2000	ug/Kg
65794-96-9	3+4-Methylphenols	1000	U	110	1000	2000	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1000	U	100	1000	2000	ug/Kg
67-72-1	Hexachloroethane	1000	U	91	1000	2000	ug/Kg
98-95-3	Nitrobenzene	1000	U	77	1000	2000	ug/Kg
78-59-1	Isophorone	1000	U	67	1000	2000	ug/Kg
88-75-5	2-Nitrophenol	1000	U	98	1000	2000	ug/Kg
105-67-9	2,4-Dimethylphenol	1000	U	120	1000	2000	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1000	U	120	1000	2000	ug/Kg
120-83-2	2,4-Dichlorophenol	1000	U	77	1000	2000	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1000	U	77	1000	2000	ug/Kg
65-85-0	Benzoic acid	2450	U	400	2450	4900	ug/Kg
91-20-3	Naphthalene	1000	U	70	1000	2000	ug/Kg
106-47-8	4-Chloroaniline	1000	U	140	1000	2000	ug/Kg
87-68-3	Hexachlorobutadiene	1000	U	74	1000	2000	ug/Kg
105-60-2	Caprolactam	1000	U	94	1000	2000	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1000	U	90	1000	2000	ug/Kg
91-57-6	2-Methylnaphthalene	1000	U	51	1000	2000	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-18	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	18
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006793.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1000	U	49	1000	2000	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1000	U	62	1000	2000	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1000	U	140	1000	2000	ug/Kg
92-52-4	1,1-Biphenyl	1000	U	77	1000	2000	ug/Kg
91-58-7	2-Chloronaphthalene	1000	U	46	1000	2000	ug/Kg
88-74-4	2-Nitroaniline	1000	U	90	1000	2000	ug/Kg
131-11-3	Dimethylphthalate	1000	U	55	1000	2000	ug/Kg
208-96-8	Acenaphthylene	1000	U	51	1000	2000	ug/Kg
606-20-2	2,6-Dinitrotoluene	1000	U	83	1000	2000	ug/Kg
99-09-2	3-Nitroaniline	1000	U	130	1000	2000	ug/Kg
83-32-9	Acenaphthene	1000	U	57	1000	2000	ug/Kg
51-28-5	2,4-Dinitrophenol	1000	U	210	1000	2000	ug/Kg
100-02-7	4-Nitrophenol	1000	U	380	1000	2000	ug/Kg
132-64-9	Dibenzofuran	1000	U	79	1000	2000	ug/Kg
121-14-2	2,4-Dinitrotoluene	1000	U	62	1000	2000	ug/Kg
84-66-2	Diethylphthalate	1000	U	32	1000	2000	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1000	U	110	1000	2000	ug/Kg
86-73-7	Fluorene	1000	U	77	1000	2000	ug/Kg
100-01-6	4-Nitroaniline	1000	U	260	1000	2000	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1000	U	120	1000	2000	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1000	U	49	1000	2000	ug/Kg
103-33-3	Azobenzene	1000	U	48	1000	2000	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1000	U	40	1000	2000	ug/Kg
118-74-1	Hexachlorobenzene	1000	U	83	1000	2000	ug/Kg
1912-24-9	Atrazine	1000	U	110	1000	2000	ug/Kg
87-86-5	Pentachlorophenol	1000	U	140	1000	2000	ug/Kg
85-01-8	Phenanthrene	1000	U	55	1000	2000	ug/Kg
120-12-7	Anthracene	1000	U	41	1000	2000	ug/Kg
86-74-8	Carbazole	1000	U	44	1000	2000	ug/Kg
84-74-2	Di-n-butylphthalate	1000	U	160	1000	2000	ug/Kg
206-44-0	Fluoranthene	1000	U	41	1000	2000	ug/Kg
92-87-5	Benzidine	1000	U	200	1000	2000	ug/Kg
129-00-0	Pyrene	1000	U	49	1000	2000	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-18	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	18
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006793.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1000	U	97	1000	2000	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1000	U	130	1000	2000	ug/Kg
56-55-3	Benzo(a)anthracene	1000	U	97	1000	2000	ug/Kg
218-01-9	Chrysene	1000	U	92	1000	2000	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1000	U	72	1000	2000	ug/Kg
117-84-0	Di-n-octyl phthalate	1000	U	23	1000	2000	ug/Kg
205-99-2	Benzo(b)fluoranthene	1000	U	66	1000	2000	ug/Kg
207-08-9	Benzo(k)fluoranthene	1000	U	96	1000	2000	ug/Kg
50-32-8	Benzo(a)pyrene	1000	U	44	1000	2000	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1000	U	68	1000	2000	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1000	U	58	1000	2000	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1000	U	82	1000	2000	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1000	U	80	1000	2000	ug/Kg
123-91-1	1,4-Dioxane	1000	U	80	1000	2000	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1000	U	80	1000	2000	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	114		28 - 127		77%	SPK: 150
13127-88-3	Phenol-d5	117		34 - 127		78%	SPK: 150
4165-60-0	Nitrobenzene-d5	81.3		31 - 132		81%	SPK: 100
321-60-8	2-Fluorobiphenyl	65.2		39 - 123		65%	SPK: 100
118-79-6	2,4,6-Tribromophenol	101		30 - 133		68%	SPK: 150
1718-51-0	Terphenyl-d14	56.4		37 - 115		56%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	152640	8.69				
1146-65-2	Naphthalene-d8	550478	10.88				
15067-26-2	Acenaphthene-d10	371702	13.88				
1517-22-2	Phenanthrene-d10	693045	16.37				
1719-03-5	Chrysene-d12	732996	20.88				
1520-96-3	Perylene-d12	715546	24.77				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
6566-19-4	10,18-Bisnorabieta-5,7,9(10),11,13	920	J			18.46	ug/Kg



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-18	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	18
Sample Wt/Vol:	30.02      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :      N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006793.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)	SDG No.:	D3811
Lab Sample ID:	D3811-19	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	29
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058359.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	230	U	24	230	460	ug/Kg
110-86-1	Pyridine	230	U	93	230	460	ug/Kg
100-52-7	Benzaldehyde	230	UQ	24	230	460	ug/Kg
62-53-3	Aniline	230	U	40	230	460	ug/Kg
108-95-2	Phenol	230	U	11	230	460	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	230	U	22	230	460	ug/Kg
95-57-8	2-Chlorophenol	230	U	25	230	460	ug/Kg
95-50-1	1,2-Dichlorobenzene	230	U	18	230	460	ug/Kg
541-73-1	1,3-Dichlorobenzene	230	U	8.3	230	460	ug/Kg
106-46-7	1,4-Dichlorobenzene	230	U	16	230	460	ug/Kg
100-51-6	Benzyl Alcohol	230	U	18	230	460	ug/Kg
95-48-7	2-Methylphenol	230	U	25	230	460	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	230	U	19	230	460	ug/Kg
98-86-2	Acetophenone	230	U	14	230	460	ug/Kg
65794-96-9	3+4-Methylphenols	230	U	24	230	460	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	230	U	24	230	460	ug/Kg
67-72-1	Hexachloroethane	230	U	21	230	460	ug/Kg
98-95-3	Nitrobenzene	230	U	18	230	460	ug/Kg
78-59-1	Isophorone	230	U	15	230	460	ug/Kg
88-75-5	2-Nitrophenol	230	U	23	230	460	ug/Kg
105-67-9	2,4-Dimethylphenol	230	U	27	230	460	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	230	U	27	230	460	ug/Kg
120-83-2	2,4-Dichlorophenol	230	U	18	230	460	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	230	U	18	230	460	ug/Kg
65-85-0	Benzoic acid	550	U	93	550	1100	ug/Kg
91-20-3	Naphthalene	230	U	16	230	460	ug/Kg
106-47-8	4-Chloroaniline	230	U	33	230	460	ug/Kg
87-68-3	Hexachlorobutadiene	230	U	17	230	460	ug/Kg
105-60-2	Caprolactam	230	U	22	230	460	ug/Kg
59-50-7	4-Chloro-3-methylphenol	230	U	21	230	460	ug/Kg
91-57-6	2-Methylnaphthalene	230	U	12	230	460	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)	SDG No.:	D3811
Lab Sample ID:	D3811-19	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	29
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058359.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	230	U	11	230	460	ug/Kg
88-06-2	2,4,6-Trichlorophenol	230	U	14	230	460	ug/Kg
95-95-4	2,4,5-Trichlorophenol	230	U	33	230	460	ug/Kg
92-52-4	1,1-Biphenyl	230	U	18	230	460	ug/Kg
91-58-7	2-Chloronaphthalene	230	U	11	230	460	ug/Kg
88-74-4	2-Nitroaniline	230	U	21	230	460	ug/Kg
131-11-3	Dimethylphthalate	420	J	13	230	460	ug/Kg
208-96-8	Acenaphthylene	230	U	12	230	460	ug/Kg
606-20-2	2,6-Dinitrotoluene	230	U	19	230	460	ug/Kg
99-09-2	3-Nitroaniline	230	U	30	230	460	ug/Kg
83-32-9	Acenaphthene	230	U	13	230	460	ug/Kg
51-28-5	2,4-Dinitrophenol	230	U	48	230	460	ug/Kg
100-02-7	4-Nitrophenol	230	U	87	230	460	ug/Kg
132-64-9	Dibenzofuran	230	U	18	230	460	ug/Kg
121-14-2	2,4-Dinitrotoluene	230	U	14	230	460	ug/Kg
84-66-2	Diethylphthalate	230	U	7.3	230	460	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	230	U	25	230	460	ug/Kg
86-73-7	Fluorene	230	U	18	230	460	ug/Kg
100-01-6	4-Nitroaniline	230	U	61	230	460	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	230	U	27	230	460	ug/Kg
86-30-6	N-Nitrosodiphenylamine	230	U	11	230	460	ug/Kg
103-33-3	Azobenzene	230	U	11	230	460	ug/Kg
101-55-3	4-Bromophenyl-phenylether	230	U	9.1	230	460	ug/Kg
118-74-1	Hexachlorobenzene	230	U	19	230	460	ug/Kg
1912-24-9	Atrazine	230	U	25	230	460	ug/Kg
87-86-5	Pentachlorophenol	230	U	32	230	460	ug/Kg
85-01-8	Phenanthrene	230	U	13	230	460	ug/Kg
120-12-7	Anthracene	230	U	9.6	230	460	ug/Kg
86-74-8	Carbazole	230	U	10	230	460	ug/Kg
84-74-2	Di-n-butylphthalate	230	U	37	230	460	ug/Kg
206-44-0	Fluoranthene	230	U	9.4	230	460	ug/Kg
92-87-5	Benzidine	230	U	47	230	460	ug/Kg
129-00-0	Pyrene	230	U	11	230	460	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)	SDG No.:	D3811
Lab Sample ID:	D3811-19	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	29
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058359.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	230	U	22	230	460	ug/Kg
91-94-1	3,3-Dichlorobenzidine	230	U	30	230	460	ug/Kg
56-55-3	Benzo(a)anthracene	230	U	22	230	460	ug/Kg
218-01-9	Chrysene	230	U	21	230	460	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	230	U	17	230	460	ug/Kg
117-84-0	Di-n-octyl phthalate	230	U	5.3	230	460	ug/Kg
205-99-2	Benzo(b)fluoranthene	230	U	15	230	460	ug/Kg
207-08-9	Benzo(k)fluoranthene	230	U	22	230	460	ug/Kg
50-32-8	Benzo(a)pyrene	230	U	10	230	460	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	230	U	16	230	460	ug/Kg
53-70-3	Dibenz(a,h)anthracene	230	U	13	230	460	ug/Kg
191-24-2	Benzo(g,h,i)perylene	230	U	19	230	460	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	230	U	18	230	460	ug/Kg
123-91-1	1,4-Dioxane	230	U	18	230	460	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	230	U	18	230	460	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	114		28 - 127		76%	SPK: 150
13127-88-3	Phenol-d5	125		34 - 127		84%	SPK: 150
4165-60-0	Nitrobenzene-d5	80.6		31 - 132		81%	SPK: 100
321-60-8	2-Fluorobiphenyl	58.9		39 - 123		59%	SPK: 100
118-79-6	2,4,6-Tribromophenol	117		30 - 133		78%	SPK: 150
1718-51-0	Terphenyl-d14	54.1		37 - 115		54%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	209791	5.11				
1146-65-2	Naphthalene-d8	808679	6.54				
15067-26-2	Acenaphthene-d10	421313	8.33				
1517-22-2	Phenanthrene-d10	657582	10.27				
1719-03-5	Chrysene-d12	551333	14.33				
1520-96-3	Perylene-d12	467408	16.44				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	1100	A			3.1	ug/Kg
13798-23-7	Sulfur	260	J			8.63	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)	SDG No.:	D3811
Lab Sample ID:	D3811-19	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	29
Sample Wt/Vol:	30.07      Units:    g	Final Vol:	1000              uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                              Decanted :    N	Level :	LOW
Injection Volume :	1                              GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058359.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1135-40-6	CAPS	170	J			10.48	ug/Kg
10544-50-0	Cyclic octaatomic sulfur	3200	J			12.13	ug/Kg
7683-64-9	Squalene	190	J			15.92	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-45(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-20	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006794.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	1150	U	120	1150	2300	ug/Kg
110-86-1	Pyridine	1150	U	460	1150	2300	ug/Kg
100-52-7	Benzaldehyde	1150	UQ	120	1150	2300	ug/Kg
62-53-3	Aniline	1150	U	200	1150	2300	ug/Kg
108-95-2	Phenol	1150	U	53	1150	2300	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1150	U	110	1150	2300	ug/Kg
95-57-8	2-Chlorophenol	1150	U	120	1150	2300	ug/Kg
95-50-1	1,2-Dichlorobenzene	1150	U	88	1150	2300	ug/Kg
541-73-1	1,3-Dichlorobenzene	1150	U	41	1150	2300	ug/Kg
106-46-7	1,4-Dichlorobenzene	1150	U	79	1150	2300	ug/Kg
100-51-6	Benzyl Alcohol	1150	U	87	1150	2300	ug/Kg
95-48-7	2-Methylphenol	1150	U	130	1150	2300	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1150	U	96	1150	2300	ug/Kg
98-86-2	Acetophenone	1150	U	71	1150	2300	ug/Kg
65794-96-9	3+4-Methylphenols	1150	U	120	1150	2300	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1150	U	120	1150	2300	ug/Kg
67-72-1	Hexachloroethane	1150	U	100	1150	2300	ug/Kg
98-95-3	Nitrobenzene	1150	U	87	1150	2300	ug/Kg
78-59-1	Isophorone	1150	U	76	1150	2300	ug/Kg
88-75-5	2-Nitrophenol	1150	U	110	1150	2300	ug/Kg
105-67-9	2,4-Dimethylphenol	1150	U	130	1150	2300	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1150	U	130	1150	2300	ug/Kg
120-83-2	2,4-Dichlorophenol	1150	U	88	1150	2300	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1150	U	88	1150	2300	ug/Kg
65-85-0	Benzoic acid	2750	U	460	2750	5500	ug/Kg
91-20-3	Naphthalene	1150	U	80	1150	2300	ug/Kg
106-47-8	4-Chloroaniline	1150	U	160	1150	2300	ug/Kg
87-68-3	Hexachlorobutadiene	1150	U	84	1150	2300	ug/Kg
105-60-2	Caprolactam	1150	U	110	1150	2300	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1150	U	100	1150	2300	ug/Kg
91-57-6	2-Methylnaphthalene	1150	U	58	1150	2300	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-45(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-20	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006794.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1150	U	56	1150	2300	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1150	U	71	1150	2300	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1150	U	160	1150	2300	ug/Kg
92-52-4	1,1-Biphenyl	1150	U	87	1150	2300	ug/Kg
91-58-7	2-Chloronaphthalene	1150	U	53	1150	2300	ug/Kg
88-74-4	2-Nitroaniline	1150	U	100	1150	2300	ug/Kg
131-11-3	Dimethylphthalate	1150	U	62	1150	2300	ug/Kg
208-96-8	Acenaphthylene	1150	U	58	1150	2300	ug/Kg
606-20-2	2,6-Dinitrotoluene	1150	U	94	1150	2300	ug/Kg
99-09-2	3-Nitroaniline	1150	U	150	1150	2300	ug/Kg
83-32-9	Acenaphthene	1150	U	65	1150	2300	ug/Kg
51-28-5	2,4-Dinitrophenol	1150	U	240	1150	2300	ug/Kg
100-02-7	4-Nitrophenol	1150	U	430	1150	2300	ug/Kg
132-64-9	Dibenzofuran	1150	U	90	1150	2300	ug/Kg
121-14-2	2,4-Dinitrotoluene	1150	U	70	1150	2300	ug/Kg
84-66-2	Diethylphthalate	1150	U	36	1150	2300	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1150	U	130	1150	2300	ug/Kg
86-73-7	Fluorene	1150	U	87	1150	2300	ug/Kg
100-01-6	4-Nitroaniline	1150	U	300	1150	2300	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1150	U	130	1150	2300	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1150	U	55	1150	2300	ug/Kg
103-33-3	Azobenzene	1150	U	54	1150	2300	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1150	U	45	1150	2300	ug/Kg
118-74-1	Hexachlorobenzene	1150	U	94	1150	2300	ug/Kg
1912-24-9	Atrazine	1150	U	120	1150	2300	ug/Kg
87-86-5	Pentachlorophenol	1150	U	160	1150	2300	ug/Kg
85-01-8	Phenanthrene	1150	U	62	1150	2300	ug/Kg
120-12-7	Anthracene	1150	U	47	1150	2300	ug/Kg
86-74-8	Carbazole	1150	U	51	1150	2300	ug/Kg
84-74-2	Di-n-butylphthalate	1150	U	180	1150	2300	ug/Kg
206-44-0	Fluoranthene	1150	U	46	1150	2300	ug/Kg
92-87-5	Benzidine	1150	U	230	1150	2300	ug/Kg
129-00-0	Pyrene	1150	U	55	1150	2300	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-45(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-20	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006794.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1150	U	110	1150	2300	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1150	U	150	1150	2300	ug/Kg
56-55-3	Benzo(a)anthracene	1150	U	110	1150	2300	ug/Kg
218-01-9	Chrysene	1150	U	100	1150	2300	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1150	U	82	1150	2300	ug/Kg
117-84-0	Di-n-octyl phthalate	1150	U	26	1150	2300	ug/Kg
205-99-2	Benzo(b)fluoranthene	1150	U	76	1150	2300	ug/Kg
207-08-9	Benzo(k)fluoranthene	1150	U	110	1150	2300	ug/Kg
50-32-8	Benzo(a)pyrene	1150	U	50	1150	2300	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1150	U	77	1150	2300	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1150	U	67	1150	2300	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1150	U	94	1150	2300	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1150	U	91	1150	2300	ug/Kg
123-91-1	1,4-Dioxane	1150	U	91	1150	2300	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1150	U	91	1150	2300	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	132		28 - 127		88%	SPK: 150
13127-88-3	Phenol-d5	140		34 - 127		94%	SPK: 150
4165-60-0	Nitrobenzene-d5	91.6		31 - 132		92%	SPK: 100
321-60-8	2-Fluorobiphenyl	85.8		39 - 123		86%	SPK: 100
118-79-6	2,4,6-Tribromophenol	116		30 - 133		78%	SPK: 150
1718-51-0	Terphenyl-d14	78.8		37 - 115		79%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	150135	8.69				
1146-65-2	Naphthalene-d8	552773	10.89				
15067-26-2	Acenaphthene-d10	376100	13.88				
1517-22-2	Phenanthrene-d10	708834	16.37				
1719-03-5	Chrysene-d12	761906	20.88				
1520-96-3	Perylene-d12	724108	24.77				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
54050-86-1	p-Amidinobenzamide	470	J			13.37	ug/Kg



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-45(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-20	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.05      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :      N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006794.D	5	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-21	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058263.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	230	U	24	230	460	ug/Kg
110-86-1	Pyridine	230	U	92	230	460	ug/Kg
100-52-7	Benzaldehyde	230	UQ	24	230	460	ug/Kg
62-53-3	Aniline	230	U	39	230	460	ug/Kg
108-95-2	Phenol	230	UQ	11	230	460	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	230	U	22	230	460	ug/Kg
95-57-8	2-Chlorophenol	230	UQ	24	230	460	ug/Kg
95-50-1	1,2-Dichlorobenzene	230	U	18	230	460	ug/Kg
541-73-1	1,3-Dichlorobenzene	230	U	8.2	230	460	ug/Kg
106-46-7	1,4-Dichlorobenzene	230	U	16	230	460	ug/Kg
100-51-6	Benzyl Alcohol	230	U	17	230	460	ug/Kg
95-48-7	2-Methylphenol	230	U	25	230	460	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	230	U	19	230	460	ug/Kg
98-86-2	Acetophenone	230	U	14	230	460	ug/Kg
65794-96-9	3+4-Methylphenols	230	U	24	230	460	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	230	U	23	230	460	ug/Kg
67-72-1	Hexachloroethane	230	UQ	21	230	460	ug/Kg
98-95-3	Nitrobenzene	230	U	17	230	460	ug/Kg
78-59-1	Isophorone	230	U	15	230	460	ug/Kg
88-75-5	2-Nitrophenol	230	UQ	22	230	460	ug/Kg
105-67-9	2,4-Dimethylphenol	230	UQ	26	230	460	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	230	U	27	230	460	ug/Kg
120-83-2	2,4-Dichlorophenol	230	UQ	18	230	460	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	230	U	18	230	460	ug/Kg
65-85-0	Benzoic acid	550	U	92	550	1100	ug/Kg
91-20-3	Naphthalene	230	U	16	230	460	ug/Kg
106-47-8	4-Chloroaniline	230	U	33	230	460	ug/Kg
87-68-3	Hexachlorobutadiene	230	U	17	230	460	ug/Kg
105-60-2	Caprolactam	230	U	21	230	460	ug/Kg
59-50-7	4-Chloro-3-methylphenol	230	UQ	21	230	460	ug/Kg
91-57-6	2-Methylnaphthalene	230	U	12	230	460	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-21	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058263.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	230	U	11	230	460	ug/Kg
88-06-2	2,4,6-Trichlorophenol	230	UQ	14	230	460	ug/Kg
95-95-4	2,4,5-Trichlorophenol	230	UQ	32	230	460	ug/Kg
92-52-4	1,1-Biphenyl	230	UQ	17	230	460	ug/Kg
91-58-7	2-Chloronaphthalene	230	UQ	11	230	460	ug/Kg
88-74-4	2-Nitroaniline	230	UQ	21	230	460	ug/Kg
131-11-3	Dimethylphthalate	420	JQ	12	230	460	ug/Kg
208-96-8	Acenaphthylene	230	UQ	12	230	460	ug/Kg
606-20-2	2,6-Dinitrotoluene	230	UQ	19	230	460	ug/Kg
99-09-2	3-Nitroaniline	230	U	30	230	460	ug/Kg
83-32-9	Acenaphthene	230	UQ	13	230	460	ug/Kg
51-28-5	2,4-Dinitrophenol	230	U	47	230	460	ug/Kg
100-02-7	4-Nitrophenol	230	UQ	86	230	460	ug/Kg
132-64-9	Dibenzofuran	230	UQ	18	230	460	ug/Kg
121-14-2	2,4-Dinitrotoluene	230	UQ	14	230	460	ug/Kg
84-66-2	Diethylphthalate	230	UQ	7.2	230	460	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	230	UQ	25	230	460	ug/Kg
86-73-7	Fluorene	230	UQ	17	230	460	ug/Kg
100-01-6	4-Nitroaniline	230	UQ	60	230	460	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	230	UQ	26	230	460	ug/Kg
86-30-6	N-Nitrosodiphenylamine	230	UQ	11	230	460	ug/Kg
103-33-3	Azobenzene	230	UQ	11	230	460	ug/Kg
101-55-3	4-Bromophenyl-phenylether	230	UQ	9	230	460	ug/Kg
118-74-1	Hexachlorobenzene	230	UQ	19	230	460	ug/Kg
1912-24-9	Atrazine	230	U	24	230	460	ug/Kg
87-86-5	Pentachlorophenol	230	UQ	32	230	460	ug/Kg
85-01-8	Phenanthrene	230	UQ	12	230	460	ug/Kg
120-12-7	Anthracene	230	U	9.4	230	460	ug/Kg
86-74-8	Carbazole	230	UQ	10	230	460	ug/Kg
84-74-2	Di-n-butylphthalate	230	UQ	36	230	460	ug/Kg
206-44-0	Fluoranthene	200	JQ	9.3	230	460	ug/Kg
92-87-5	Benzidine	230	U	46	230	460	ug/Kg
129-00-0	Pyrene	230	UQ	11	230	460	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-21	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058263.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	230	UQ	22	230	460	ug/Kg
91-94-1	3,3-Dichlorobenzidine	230	U	30	230	460	ug/Kg
56-55-3	Benzo(a)anthracene	230	UQ	22	230	460	ug/Kg
218-01-9	Chrysene	230	UQ	21	230	460	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	230	UQ	16	230	460	ug/Kg
117-84-0	Di-n-octyl phthalate	230	UQ	5.3	230	460	ug/Kg
205-99-2	Benzo(b)fluoranthene	230	UQ	15	230	460	ug/Kg
207-08-9	Benzo(k)fluoranthene	230	UQ	22	230	460	ug/Kg
50-32-8	Benzo(a)pyrene	230	UQ	10	230	460	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	230	U	15	230	460	ug/Kg
53-70-3	Dibenz(a,h)anthracene	230	U	13	230	460	ug/Kg
191-24-2	Benzo(g,h,i)perylene	230	U	19	230	460	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	230	U	18	230	460	ug/Kg
123-91-1	1,4-Dioxane	230	U	18	230	460	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	230	UQ	18	230	460	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	145		28 - 127		97%	SPK: 150
13127-88-3	Phenol-d5	128		34 - 127		85%	SPK: 150
4165-60-0	Nitrobenzene-d5	84.4		31 - 132		84%	SPK: 100
321-60-8	2-Fluorobiphenyl	76.6		39 - 123		77%	SPK: 100
118-79-6	2,4,6-Tribromophenol	112		30 - 133		75%	SPK: 150
1718-51-0	Terphenyl-d14	69.8		37 - 115		70%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	120188	5.2				
1146-65-2	Naphthalene-d8	430283	6.61				
15067-26-2	Acenaphthene-d10	206623	8.42				
1517-22-2	Phenanthrene-d10	341731	10.38				
1719-03-5	Chrysene-d12	282150	14.45				
1520-96-3	Perylene-d12	241713	16.57				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	1300	AB			3.18	ug/Kg
541-02-6	Cyclopentasiloxane, decamethyl-	120	J			6.17	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-21	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.04      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :    N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058263.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
13798-23-7	Sulfur	140	J			8.73	ug/Kg
1000297-95-5	4-((1E)-3-Hydroxy-1-propenyl)-2-me	260	J			9.95	ug/Kg
593-45-3	Octadecane	190	J			10.32	ug/Kg
75-00-3	Ethyl Chloride	210	J			10.6	ug/Kg
629-92-5	Nonadecane	110	J			10.97	ug/Kg
57-10-3	n-Hexadecanoic acid	220	J			11.33	ug/Kg
10544-50-0	Cyclic octaatomic sulfur	2600	J			12.25	ug/Kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)RX	SDG No.:	D3811
Lab Sample ID:	D3811-21RX	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058474.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	230	U	24	230	460	ug/Kg
110-86-1	Pyridine	230	U	92	230	460	ug/Kg
100-52-7	Benzaldehyde	230	U	24	230	460	ug/Kg
62-53-3	Aniline	230	U	39	230	460	ug/Kg
108-95-2	Phenol	230	U	11	230	460	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	230	U	22	230	460	ug/Kg
95-57-8	2-Chlorophenol	230	U	24	230	460	ug/Kg
95-50-1	1,2-Dichlorobenzene	230	U	18	230	460	ug/Kg
541-73-1	1,3-Dichlorobenzene	230	U	8.2	230	460	ug/Kg
106-46-7	1,4-Dichlorobenzene	230	U	16	230	460	ug/Kg
100-51-6	Benzyl Alcohol	230	U	17	230	460	ug/Kg
95-48-7	2-Methylphenol	230	U	25	230	460	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	230	U	19	230	460	ug/Kg
98-86-2	Acetophenone	230	U	14	230	460	ug/Kg
65794-96-9	3+4-Methylphenols	340	J	24	230	460	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	230	U	23	230	460	ug/Kg
67-72-1	Hexachloroethane	230	U	21	230	460	ug/Kg
98-95-3	Nitrobenzene	230	U	17	230	460	ug/Kg
78-59-1	Isophorone	230	U	15	230	460	ug/Kg
88-75-5	2-Nitrophenol	230	U	22	230	460	ug/Kg
105-67-9	2,4-Dimethylphenol	230	U	26	230	460	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	230	U	27	230	460	ug/Kg
120-83-2	2,4-Dichlorophenol	230	U	18	230	460	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	230	U	18	230	460	ug/Kg
65-85-0	Benzoic acid	550	U	92	550	1100	ug/Kg
91-20-3	Naphthalene	230	U	16	230	460	ug/Kg
106-47-8	4-Chloroaniline	230	U	33	230	460	ug/Kg
87-68-3	Hexachlorobutadiene	230	U	17	230	460	ug/Kg
105-60-2	Caprolactam	230	U	21	230	460	ug/Kg
59-50-7	4-Chloro-3-methylphenol	230	U	21	230	460	ug/Kg
91-57-6	2-Methylnaphthalene	230	U	12	230	460	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)RX	SDG No.:	D3811
Lab Sample ID:	D3811-21RX	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.04      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :      N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058474.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	230	U	11	230	460	ug/Kg
88-06-2	2,4,6-Trichlorophenol	230	U	14	230	460	ug/Kg
95-95-4	2,4,5-Trichlorophenol	230	U	32	230	460	ug/Kg
92-52-4	1,1-Biphenyl	230	U	17	230	460	ug/Kg
91-58-7	2-Chloronaphthalene	230	U	11	230	460	ug/Kg
88-74-4	2-Nitroaniline	230	U	21	230	460	ug/Kg
131-11-3	Dimethylphthalate	580		12	230	460	ug/Kg
208-96-8	Acenaphthylene	230	U	12	230	460	ug/Kg
606-20-2	2,6-Dinitrotoluene	230	U	19	230	460	ug/Kg
99-09-2	3-Nitroaniline	230	U	30	230	460	ug/Kg
83-32-9	Acenaphthene	230	U	13	230	460	ug/Kg
51-28-5	2,4-Dinitrophenol	230	U	47	230	460	ug/Kg
100-02-7	4-Nitrophenol	230	U	86	230	460	ug/Kg
132-64-9	Dibenzofuran	230	U	18	230	460	ug/Kg
121-14-2	2,4-Dinitrotoluene	230	U	14	230	460	ug/Kg
84-66-2	Diethylphthalate	230	U	7.2	230	460	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	230	U	25	230	460	ug/Kg
86-73-7	Fluorene	230	U	17	230	460	ug/Kg
100-01-6	4-Nitroaniline	230	U	60	230	460	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	230	U	26	230	460	ug/Kg
86-30-6	N-Nitrosodiphenylamine	230	U	11	230	460	ug/Kg
103-33-3	Azobenzene	230	U	11	230	460	ug/Kg
101-55-3	4-Bromophenyl-phenylether	230	U	9	230	460	ug/Kg
118-74-1	Hexachlorobenzene	230	U	19	230	460	ug/Kg
1912-24-9	Atrazine	230	U	24	230	460	ug/Kg
87-86-5	Pentachlorophenol	230	U	32	230	460	ug/Kg
85-01-8	Phenanthrene	360	J	12	230	460	ug/Kg
120-12-7	Anthracene	230	U	9.4	230	460	ug/Kg
86-74-8	Carbazole	230	U	10	230	460	ug/Kg
84-74-2	Di-n-butylphthalate	230	U	36	230	460	ug/Kg
206-44-0	Fluoranthene	690		9.3	230	460	ug/Kg
92-87-5	Benzidine	230	U	46	230	460	ug/Kg
129-00-0	Pyrene	650		11	230	460	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)RX	SDG No.:	D3811
Lab Sample ID:	D3811-21RX	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058474.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	230	U	22	230	460	ug/Kg
91-94-1	3,3-Dichlorobenzidine	230	U	30	230	460	ug/Kg
56-55-3	Benzo(a)anthracene	320	J	22	230	460	ug/Kg
218-01-9	Chrysene	420	J	21	230	460	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	230	U	16	230	460	ug/Kg
117-84-0	Di-n-octyl phthalate	230	U	5.3	230	460	ug/Kg
205-99-2	Benzo(b)fluoranthene	530		15	230	460	ug/Kg
207-08-9	Benzo(k)fluoranthene	220	J	22	230	460	ug/Kg
50-32-8	Benzo(a)pyrene	390	J	10	230	460	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	190	J	15	230	460	ug/Kg
53-70-3	Dibenz(a,h)anthracene	230	U	13	230	460	ug/Kg
191-24-2	Benzo(g,h,i)perylene	210	J	19	230	460	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	230	U	18	230	460	ug/Kg
123-91-1	1,4-Dioxane	230	U	18	230	460	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	230	U	18	230	460	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	132		28 - 127		88%	SPK: 150
13127-88-3	Phenol-d5	137		34 - 127		92%	SPK: 150
4165-60-0	Nitrobenzene-d5	95.9		31 - 132		96%	SPK: 100
321-60-8	2-Fluorobiphenyl	99.5		39 - 123		100%	SPK: 100
118-79-6	2,4,6-Tribromophenol	159		30 - 133		106%	SPK: 150
1718-51-0	Terphenyl-d14	88		37 - 115		88%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	111304	5.03				
1146-65-2	Naphthalene-d8	399381	6.48				
15067-26-2	Acenaphthene-d10	196089	8.26				
1517-22-2	Phenanthrene-d10	329153	10.18				
1719-03-5	Chrysene-d12	262705	14.24				
1520-96-3	Perylene-d12	220089	16.35				



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)RX	SDG No.:	D3811
Lab Sample ID:	D3811-21RX	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	28
Sample Wt/Vol:	30.04      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :      N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058474.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# QC SUMMARY

Surrogate Summary  
SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8270

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
D3811-21	SB-46(12-16)	2-Fluorophenol	150	145.22	97		28	127
		Phenol-d5	150	128.03	85		34	127
		Nitrobenzene-d5	100	84.36	84		31	132
		2-Fluorobiphenyl	100	76.65	77		39	123
		2,4,6-Tribromophenol	150	112.69	75		30	133
		Terphenyl-d14	100	69.76	70		37	115
D3813-01MS	SS-01AMS	2-Fluorophenol	150	129.83	87		28	127
		Phenol-d5	150	139.13	93		34	127
		Nitrobenzene-d5	100	87.49	87		31	132
		2-Fluorobiphenyl	100	92.94	93		39	123
		2,4,6-Tribromophenol	150	68.14	45		30	133
		Terphenyl-d14	100	92.59	93		37	115
D3813-01MSD	SS-01AMSD	2-Fluorophenol	150	143.30	96		28	127
		Phenol-d5	150	157.88	105		34	127
		Nitrobenzene-d5	100	99.71	100		31	132
		2-Fluorobiphenyl	100	93.99	94		39	123
		2,4,6-Tribromophenol	150	86.98	58		30	133
		Terphenyl-d14	100	94.74	95		37	115
PB65121BL	PB65121BL	2-Fluorophenol	150	116.28	78		28	127
		Phenol-d5	150	109.05	73		34	127
		Nitrobenzene-d5	100	74.04	74		31	132
		2-Fluorobiphenyl	100	72.59	73		39	123
		2,4,6-Tribromophenol	150	89.60	60		30	133
		Terphenyl-d14	100	78.02	78		37	115
PB65121BS	PB65121BS	2-Fluorophenol	150	108.39	72		28	127
		Phenol-d5	150	98.81	66		34	127
		Nitrobenzene-d5	100	67.80	68		31	132
		2-Fluorobiphenyl	100	67.24	67		39	123
		2,4,6-Tribromophenol	150	82.39	55		30	133
		Terphenyl-d14	100	65.60	66		37	115

## Surrogate Summary

SW-846

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8270

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
D3811-01	SB-2(4-8)	2-Fluorophenol	150	147.59	98		28	127
		Phenol-d5	150	152.69	102		34	127
		Nitrobenzene-d5	100	94.07	94		31	132
		2-Fluorobiphenyl	100	88.62	89		39	123
		2,4,6-Tribromophenol	150	120.44	80		30	133
		Terphenyl-d14	100	81.06	81		37	115
D3811-02	SB-5(8-12)	2-Fluorophenol	150	152.64	102		28	127
		Phenol-d5	150	141.38	94		34	127
		Nitrobenzene-d5	100	97.05	97		31	132
		2-Fluorobiphenyl	100	87.78	88		39	123
		2,4,6-Tribromophenol	150	123.19	82		30	133
		Terphenyl-d14	100	79.62	80		37	115
D3811-02MS	SB-5(8-12)MS	2-Fluorophenol	150	137.24	91		28	127
		Phenol-d5	150	137.39	92		34	127
		Nitrobenzene-d5	100	99.18	99		31	132
		2-Fluorobiphenyl	100	92.25	92		39	123
		2,4,6-Tribromophenol	150	123.85	83		30	133
		Terphenyl-d14	100	88.66	89		37	115
D3811-02MSD	SB-5(8-12)MSD	2-Fluorophenol	150	111.24	74		28	127
		Phenol-d5	150	115.99	77		34	127
		Nitrobenzene-d5	100	78.59	79		31	132
		2-Fluorobiphenyl	100	73.53	74		39	123
		2,4,6-Tribromophenol	150	99.53	66		30	133
		Terphenyl-d14	100	66.79	67		37	115
D3811-03	SB-9(4-7)	2-Fluorophenol	150	140.14	93		28	127
		Phenol-d5	150	148.00	99		34	127
		Nitrobenzene-d5	100	94.53	95		31	132
		2-Fluorobiphenyl	100	89.78	90		39	123
		2,4,6-Tribromophenol	150	127.41	85		30	133
		Terphenyl-d14	100	82.51	83		37	115
D3811-04	SB-10(8-12)	2-Fluorophenol	150	128.65	86		28	127
		Phenol-d5	150	137.60	92		34	127
		Nitrobenzene-d5	100	83.10	83		31	132
		2-Fluorobiphenyl	100	73.40	73		39	123
		2,4,6-Tribromophenol	150	120.15	80		30	133
		Terphenyl-d14	100	67.75	68		37	115
D3811-05	SB-11(12-16)	2-Fluorophenol	150	118.75	79		28	127
		Phenol-d5	150	120.61	80		34	127
		Nitrobenzene-d5	100	75.21	75		31	132
		2-Fluorobiphenyl	100	70.09	70		39	123
		2,4,6-Tribromophenol	150	107.21	71		30	133
		Terphenyl-d14	100	62.69	63		37	115
D3811-06	SB-15(12-16)	2-Fluorophenol	150	123.60	82		28	127
		Phenol-d5	150	132.80	89		34	127
		Nitrobenzene-d5	100	83.65	84		31	132
		2-Fluorobiphenyl	100	72.25	72		39	123
		2,4,6-Tribromophenol	150	106.50	71		30	133
		Terphenyl-d14	100	66.85	67		37	115
D3811-06DL	SB-15(12-16)DL	2-Fluorophenol	150	118.00	79		28	127
		Phenol-d5	150	124.00	83		34	127
		Nitrobenzene-d5	100	81.25	81		31	132
		2-Fluorobiphenyl	100	68.25	68		39	123

## Surrogate Summary

SW-846

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8270

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
D3811-06DL	SB-15(12-16)DL	2,4,6-Tribromophenol	150	97.75	65		30	133
		Terphenyl-d14	100	70.00	70		37	115
D3811-06DL2	SB-15(12-16)DL2	2-Fluorophenol	150	111.00	74		28	127
		Phenol-d5	150	115.00	77		34	127
		Nitrobenzene-d5	100	69.50	70		31	132
		2-Fluorobiphenyl	100	66.00	66		39	123
		2,4,6-Tribromophenol	150	86.50	58		30	133
		Terphenyl-d14	100	75.50	76		37	115
D3811-07	SB-18(4-8)	2-Fluorophenol	150	128.55	86		28	127
		Phenol-d5	150	130.45	87		34	127
		Nitrobenzene-d5	100	88.04	88		31	132
		2-Fluorobiphenyl	100	79.23	79		39	123
		2,4,6-Tribromophenol	150	125.62	84		30	133
		Terphenyl-d14	100	73.03	73		37	115
D3811-08	SB-19(12-18)	2-Fluorophenol	150	124.42	83		28	127
		Phenol-d5	150	125.89	84		34	127
		Nitrobenzene-d5	100	86.73	87		31	132
		2-Fluorobiphenyl	100	80.34	80		39	123
		2,4,6-Tribromophenol	150	118.22	79		30	133
		Terphenyl-d14	100	75.80	76		37	115
D3811-09	SB-21(12-16)	2-Fluorophenol	150	137.26	92		28	127
		Phenol-d5	150	139.34	93		34	127
		Nitrobenzene-d5	100	89.92	90		31	132
		2-Fluorobiphenyl	100	53.05	53		39	123
		2,4,6-Tribromophenol	150	124.58	83		30	133
		Terphenyl-d14	100	49.82	50		37	115
D3811-10	SB-21(16-19)	2-Fluorophenol	150	133.10	89		28	127
		Phenol-d5	150	142.85	95		34	127
		Nitrobenzene-d5	100	90.05	90		31	132
		2-Fluorobiphenyl	100	73.90	74		39	123
		2,4,6-Tribromophenol	150	113.20	75		30	133
		Terphenyl-d14	100	67.70	68		37	115
D3811-10DL	SB-21(16-19)DL	2-Fluorophenol	150	120.50	80		28	127
		Phenol-d5	150	131.10	87		34	127
		Nitrobenzene-d5	100	82.70	83		31	132
		2-Fluorobiphenyl	100	70.60	71		39	123
		2,4,6-Tribromophenol	150	96.90	65		30	133
		Terphenyl-d14	100	69.50	70		37	115
D3811-11	SB-22(12-19)	2-Fluorophenol	150	133.07	89		28	127
		Phenol-d5	150	139.59	93		34	127
		Nitrobenzene-d5	100	97.78	98		31	132
		2-Fluorobiphenyl	100	90.73	91		39	123
		2,4,6-Tribromophenol	150	129.72	86		30	133
		Terphenyl-d14	100	84.39	84		37	115
D3811-12	SB-27(8-12)	2-Fluorophenol	150	121.96	81		28	127
		Phenol-d5	150	128.74	86		34	127
		Nitrobenzene-d5	100	81.02	81		31	132
		2-Fluorobiphenyl	100	67.90	68		39	123
		2,4,6-Tribromophenol	150	107.60	72		30	133
		Terphenyl-d14	100	62.36	62		37	115
D3811-13	SB-37(8-10)	2-Fluorophenol	150	147.10	98		28	127
		Phenol-d5	150	151.60	101		34	127

## Surrogate Summary

SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8270

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
D3811-13	SB-37(8-10)	Nitrobenzene-d5	100	94.90	95		31	132
		2-Fluorobiphenyl	100	76.55	77		39	123
		2,4,6-Tribromophenol	150	125.55	84		30	133
		Terphenyl-d14	100	74.55	75		37	115
		2-Fluorophenol	150	137.80	92		28	127
D3811-13DL	SB-37(8-10)DL	Phenol-d5	150	150.10	100		34	127
		Nitrobenzene-d5	100	97.50	98		31	132
		2-Fluorobiphenyl	100	83.00	83		39	123
		2,4,6-Tribromophenol	150	107.30	72		30	133
		Terphenyl-d14	100	64.50	65		37	115
D3811-14	SB-39(6-8)	2-Fluorophenol	150	134.10	89		28	127
		Phenol-d5	150	138.32	92		34	127
		Nitrobenzene-d5	100	94.50	95		31	132
		2-Fluorobiphenyl	100	91.26	91		39	123
		2,4,6-Tribromophenol	150	130.85	87		30	133
D3811-15	SB-41(8-11)	Terphenyl-d14	100	83.22	83		37	115
		2-Fluorophenol	150	117.77	79		28	127
		Phenol-d5	150	125.62	84		34	127
		Nitrobenzene-d5	100	82.99	83		31	132
		2-Fluorobiphenyl	100	80.65	81		39	123
D3811-16	SB-42(14-16)	2,4,6-Tribromophenol	150	120.16	80		30	133
		Terphenyl-d14	100	67.21	67		37	115
		2-Fluorophenol	150	105.84	71		28	127
		Phenol-d5	150	108.63	72		34	127
		Nitrobenzene-d5	100	71.32	71		31	132
D3811-17	SB-43(6-8)	2-Fluorobiphenyl	100	62.11	62		39	123
		2,4,6-Tribromophenol	150	98.14	65		30	133
		Terphenyl-d14	100	59.76	60		37	115
		2-Fluorophenol	150	119.95	80		28	127
		Phenol-d5	150	131.63	88		34	127
D3811-18	SB-43(10-12)	Nitrobenzene-d5	100	94.84	95		31	132
		2-Fluorobiphenyl	100	86.63	87		39	123
		2,4,6-Tribromophenol	150	126.77	85		30	133
		Terphenyl-d14	100	82.00	82		37	115
		2-Fluorophenol	150	114.85	77		28	127
D3811-19	SB-43(16-20)	Phenol-d5	150	117.45	78		34	127
		Nitrobenzene-d5	100	81.30	81		31	132
		2-Fluorobiphenyl	100	65.20	65		39	123
		2,4,6-Tribromophenol	150	101.60	68		30	133
		Terphenyl-d14	100	56.35	56		37	115
D3811-20	SB-45(10-12)	2-Fluorophenol	150	114.18	76		28	127
		Phenol-d5	150	125.92	84		34	127
		Nitrobenzene-d5	100	80.65	81		31	132
		2-Fluorobiphenyl	100	58.87	59		39	123
		2,4,6-Tribromophenol	150	117.13	78		30	133
		Terphenyl-d14	100	54.08	54		37	115
		2-Fluorophenol	150	132.30	88		28	127
		Phenol-d5	150	140.45	94		34	127
		Nitrobenzene-d5	100	91.65	92		31	132
		2-Fluorobiphenyl	100	85.80	86		39	123
		2,4,6-Tribromophenol	150	116.50	78		30	133
		Terphenyl-d14	100	78.75	79		37	115

Surrogate Summary  
SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8270

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
PB65125BL	PB65125BL	2-Fluorophenol	150	135.56	90		28	127
		Phenol-d5	150	134.99	90		34	127
		Nitrobenzene-d5	100	91.74	92		31	132
		2-Fluorobiphenyl	100	94.52	95		39	123
		2,4,6-Tribromophenol	150	130.75	87		30	133
PB65125BS	PB65125BS	Terphenyl-d14	100	85.60	86		37	115
		2-Fluorophenol	150	143.51	96		28	127
		Phenol-d5	150	144.69	96		34	127
		Nitrobenzene-d5	100	92.16	92		31	132
		2-Fluorobiphenyl	100	94.77	95		39	123
		2,4,6-Tribromophenol	150	134.78	90		30	133
		Terphenyl-d14	100	84.70	85		37	115

## Surrogate Summary

SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8270

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
D3811-21RX	SB-46(12-16)RX	2-Fluorophenol	150	132.10	88		28	127
		Phenol-d5	150	137.88	92		34	127
		Nitrobenzene-d5	100	95.89	96		31	132
		2-Fluorobiphenyl	100	99.53	100		39	123
		2,4,6-Tribromophenol	150	159.59	106		30	133
		Terphenyl-d14	100	87.97	88		37	115
D3813-01MSDRX	SS-01AMSDRX	2-Fluorophenol	150	124.61	83		28	127
		Phenol-d5	150	138.88	93		34	127
		Nitrobenzene-d5	100	93.53	94		31	132
		2-Fluorobiphenyl	100	95.84	96		39	123
		2,4,6-Tribromophenol	150	112.40	75		30	133
		Terphenyl-d14	100	93.77	94		37	115
D3813-01MSRX	SS-01AMSRX	2-Fluorophenol	150	124.28	83		28	127
		Phenol-d5	150	138.96	93		34	127
		Nitrobenzene-d5	100	99.48	99		31	132
		2-Fluorobiphenyl	100	97.60	98		39	123
		2,4,6-Tribromophenol	150	107.08	71		30	133
		Terphenyl-d14	100	94.16	94		37	115
PB65419BL	PB65419BL	2-Fluorophenol	150	128.86	86		28	127
		Phenol-d5	150	133.33	89		34	127
		Nitrobenzene-d5	100	92.73	93		31	132
		2-Fluorobiphenyl	100	99.35	99		39	123
		2,4,6-Tribromophenol	150	144.60	96		30	133
		Terphenyl-d14	100	98.70	99		37	115
PB65419BS	PB65419BS	2-Fluorophenol	150	125.75	84		28	127
		Phenol-d5	150	129.23	86		34	127
		Nitrobenzene-d5	100	91.28	91		31	132
		2-Fluorobiphenyl	100	94.45	94		39	123
		2,4,6-Tribromophenol	150	146.89	98		30	133
		Terphenyl-d14	100	89.84	90		37	115



Matrix Spike/Matrix Spike Duplicate Summary  
SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8270

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Lab Sample ID: D3813-01MS		Client Sample ID: SS-01AMS									
n-Nitrosodimethylamine	1900	0	2000		105				44	108	
Pyridine	1900	0	1900		100	*			27	94	
Benzaldehyde	1900	0	260		14				10	105	
Aniline	1900	0	1000		53				10	90	
Phenol	1900	450	1900		75				40	115	
bis(2-Chloroethyl)ether	1900	0	1700		89				48	110	
2-Chlorophenol	1900	0	1300		68				39	115	
1,2-Dichlorobenzene	1900	0	1500		79				57	98	
1,3-Dichlorobenzene	1900	20	1500		79				54	97	
1,4-Dichlorobenzene	1900	0	1500		79				55	97	
Benzyl Alcohol	1900	0	1700		89				53	109	
2-Methylphenol	1900	0	1600		84				48	111	
2,2-oxybis(1-Chloropropane)	1900	0	1600		84				43	116	
Acetophenone	1900	0	1500		79				46	122	
3+4-Methylphenols	1900	1600	3000		68				46	115	
N-Nitroso-di-n-propylamine	1900	0	1700		89				37	128	
Hexachloroethane	1900	0	1400		74				37	117	
Nitrobenzene	1900	0	1400		74				45	117	
Isophorone	1900	0	1500		79				44	121	
2-Nitrophenol	1900	0	1100		58				32	123	
2,4-Dimethylphenol	1900	0	1400		74				45	118	
bis(2-Chloroethoxy)methane	1900	0	1700		89				47	117	
2,4-Dichlorophenol	1900	0	1000		53				37	122	
1,2,4-Trichlorobenzene	1900	0	1400		74				57	103	
Benzoic acid	1900	0	350		18				10	131	
Naphthalene	1900	290	2000		91				42	121	
4-Chloroaniline	1900	0	820		43				10	130	
Hexachlorobutadiene	1900	0	1400		74				49	111	
Caprolactam	1900	0	2000		105				26	133	
4-Chloro-3-methylphenol	1900	0	1400		74				46	115	
2-Methylnaphthalene	1900	0	1600		84				45	118	
Hexachlorocyclopentadiene	3800	0	62		2	*			10	127	
2,4,6-Trichlorophenol	1900	0	740		39				36	122	
2,4,5-Trichlorophenol	1900	0	990		52				33	125	
1,1-Biphenyl	1900	0	1600		84				47	119	
2-Chloronaphthalene	1900	0	1400		74				52	110	
2-Nitroaniline	1900	0	1500		79				45	121	
Dimethylphthalate	1900	220	1700		78				39	127	
Acenaphthylene	1900	0	1500		79				45	117	
2,6-Dinitrotoluene	1900	0	1500		79				50	114	
3-Nitroaniline	1900	0	1400		74				12	108	
Acenaphthene	1900	0	1800		95				45	118	
2,4-Dinitrophenol	3800	0	490		13				10	126	
4-Nitrophenol	3800	0	1300		34				18	141	
Dibenzofuran	1900	0	1600		84				45	118	
2,4-Dinitrotoluene	1900	0	1500		79				44	120	
Diethylphthalate	1900	0	1300		68				50	113	
4-Chlorophenyl-phenylether	1900	0	1400		74				51	111	

**Matrix Spike/Matrix Spike Duplicate Summary**  
**SW-846**

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8270

Parameter	Spike	Sample Result	Result	Units	Rec		RPD	RPD		Limits	
					Rec	Qual		Qual	Low	High	RPD
Fluorene	1900	0	1800		95				41	121	
4-Nitroaniline	1900	0	1600		84				38	113	
4,6-Dinitro-2-methylphenol	1900	0	430		23				10	142	
N-Nitrosodiphenylamine	1900	0	1500		79				45	122	
Azobenzene	1900	0	1500		79				52	111	
4-Bromophenyl-phenylether	1900	0	1400		74				51	114	
Hexachlorobenzene	1900	0	1300		68				48	114	
Atrazine	1900	0	1300		68				40	129	
Pentachlorophenol	3800	0	1100		29				15	145	
Phenanthrene	1900	710	3400		143	*			29	138	
Anthracene	1900	160	2000		97				45	120	
Carbazole	1900	0	1700		89				43	122	
Di-n-butylphthalate	1900	0	1300		68				51	115	
Fluoranthene	1900	720	2900		115				33	133	
Benztidine	3800	0	1700		45				10	130	
Pyrene	1900	640	2800		114				31	135	
Butylbenzylphthalate	1900	0	1500		79				49	121	
3,3-Dichlorobenzidine	1900	0	1500		79				10	105	
Benzo(a)anthracene	1900	350	2200		98				35	132	
Chrysene	1900	340	2200		98				34	131	
bis(2-Ethylhexyl)phthalate	1900	150	1600		84				42	127	
Di-n-octyl phthalate	1900	0	1600		84				50	123	
Benzo(b)fluoranthene	1900	390	2200		96				35	128	
Benzo(k)fluoranthene	1900	0	1900		100				39	117	
Benzo(a)pyrene	1900	280	2100		95				35	129	
Indeno(1,2,3-cd)pyrene	1900	0	1300		68				30	140	
Dibenz(a,h)anthracene	1900	0	1100		58				18	147	
Benzo(g,h,i)perylene	1900	160	1100		58				31	132	
1,2,4,5-Tetrachlorobenzene	1900	0	1500		79				52	122	
1,4-Dioxane	1900	0	2000		105	*			26	104	
2,3,4,6-Tetrachlorophenol	1900	0	620		33	*			52	109	

**Matrix Spike/Matrix Spike Duplicate Summary**  
**SW-846**

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8270

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	High	RPD
<b>Lab Sample ID: D3813-01MSD</b>		<b>Client Sample ID: SS-01AMSD</b>									
n-Nitrosodimethylamine	1900	0	2000		105	0			44	108	20
Pyridine	1900	0	1900		100	*	0		27	94	20
Benzaldehyde	1900	0	290		15	7			10	105	20
Aniline	1900	0	1200		63	17			10	90	20
Phenol	1900	450	2100		86	14			40	115	20
bis(2-Chloroethyl)ether	1900	0	1900		100	12			48	110	20
2-Chlorophenol	1900	0	1500		79	15			39	115	20
1,2-Dichlorobenzene	1900	0	1500		79	0			57	98	20
1,3-Dichlorobenzene	1900	20	1500		79	0			54	97	20
1,4-Dichlorobenzene	1900	0	1500		79	0			55	97	20
Benzyl Alcohol	1900	0	1600		84	6			53	109	20
2-Methylphenol	1900	0	1600		84	0			48	111	20
2,2-oxybis(1-Chloropropane)	1900	0	1600		84	0			43	116	20
Acetophenone	1900	0	1800		95	18			46	122	20
3+4-Methylphenols	1900	1600	3100		74	8			46	115	20
N-Nitroso-di-n-propylamine	1900	0	1700		89	0			37	128	20
Hexachloroethane	1900	0	1400		74	0			37	117	20
Nitrobenzene	1900	0	1700		89	18			45	117	20
Isophorone	1900	0	1700		89	12			44	121	20
2-Nitrophenol	1900	0	1400		74	24		*	32	123	20
2,4-Dimethylphenol	1900	0	1600		84	13			45	118	20
bis(2-Chloroethoxy)methane	1900	0	1700		89	0			47	117	20
2,4-Dichlorophenol	1900	0	1400		74	33		*	37	122	20
1,2,4-Trichlorobenzene	1900	0	1400		74	0			57	103	20
Benzoic acid	1900	0	440		23	24		*	10	131	20
Naphthalene	1900	290	1900		85	7			42	121	20
4-Chloroaniline	1900	0	690		36	18			10	130	20
Hexachlorobutadiene	1900	0	1400		74	0			49	111	20
Caprolactam	1900	0	2100		111	6			26	133	20
4-Chloro-3-methylphenol	1900	0	1500		79	7			46	115	20
2-Methylnaphthalene	1900	0	1800		95	12			45	118	20
Hexachlorocyclopentadiene	3800	0	250		7	*	111	*	10	127	20
2,4,6-Trichlorophenol	1900	0	980		52	29		*	36	122	20
2,4,5-Trichlorophenol	1900	0	1300		68	27		*	33	125	20
1,1-Biphenyl	1900	0	1600		84	0			47	119	20
2-Chloronaphthalene	1900	0	1500		79	7			52	110	20
2-Nitroaniline	1900	0	1600		84	6			45	121	20
Dimethylphthalate	1900	220	1700		78	0			39	127	20
Acenaphthylene	1900	0	1600		84	6			45	117	20
2,6-Dinitrotoluene	1900	0	1600		84	6			50	114	20
3-Nitroaniline	1900	0	1400		74	0			12	108	20
Acenaphthene	1900	0	1700		89	7			45	118	20
2,4-Dinitrophenol	3800	0	680		18	32		*	10	126	20
4-Nitrophenol	3800	0	1800		47	32		*	18	141	20
Dibenzofuran	1900	0	1600		84	0			45	118	20
2,4-Dinitrotoluene	1900	0	1600		84	6			44	120	20
Diethylphthalate	1900	0	1400		74	8			50	113	20
4-Chlorophenyl-phenylether	1900	0	1500		79	7			51	111	20

**Matrix Spike/Matrix Spike Duplicate Summary**  
**SW-846**

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8270

Parameter	Spike	Sample Result	Result	Units	Rec		RPD		Limits		
					Rec	Qual	RPD	Qual	Low	High	RPD
Fluorene	1900	0	1700		89	7			41	121	20
4-Nitroaniline	1900	0	1600		84	0			38	113	20
4,6-Dinitro-2-methylphenol	1900	0	570		30	26		*	10	142	20
N-Nitrosodiphenylamine	1900	0	1600		84	6			45	122	20
Azobenzene	1900	0	1600		84	6			52	111	20
4-Bromophenyl-phenylether	1900	0	1500		79	7			51	114	20
Hexachlorobenzene	1900	0	1300		68	0			48	114	20
Atrazine	1900	0	1400		74	8			40	129	20
Pentachlorophenol	3800	0	1600		42	37		*	15	145	20
Phenanthrene	1900	710	2700		106	30		*	29	138	20
Anthracene	1900	160	1900		92	5			45	120	20
Carbazole	1900	0	1600		84	6			43	122	20
Di-n-butylphthalate	1900	0	1400		74	8			51	115	20
Fluoranthene	1900	720	2600		99	15			33	133	20
Benzidine	3800	0	2100		55	20			10	130	20
Pyrene	1900	640	2800		114	0			31	135	20
Butylbenzylphthalate	1900	0	1600		84	6			49	121	20
3,3-Dichlorobenzidine	1900	0	1600		84	6			10	105	20
Benzo(a)anthracene	1900	350	2300		103	5			35	132	20
Chrysene	1900	340	2300		103	5			34	131	20
bis(2-Ethylhexyl)phthalate	1900	150	1700		89	6			42	127	20
Di-n-octyl phthalate	1900	0	1700		89	6			50	123	20
Benzo(b)fluoranthene	1900	390	2300		101	5			35	128	20
Benzo(k)fluoranthene	1900	0	1900		100	0			39	117	20
Benzo(a)pyrene	1900	280	2200		100	5			35	129	20
Indeno(1,2,3-cd)pyrene	1900	0	1500		79	15			30	140	20
Dibenz(a,h)anthracene	1900	0	1300		68	16			18	147	20
Benzo(g,h,i)perylene	1900	160	1500		79	31		*	31	132	20
1,2,4,5-Tetrachlorobenzene	1900	0	1500		79	0			52	122	20
1,4-Dioxane	1900	0	1900		100	5			26	104	20
2,3,4,6-Tetrachlorophenol	1900	0	830		44	*	29	*	52	109	20

**Matrix Spike/Matrix Spike Duplicate Summary**  
**SW-846**

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8270

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	High	RPD
<b>Lab Sample ID: D3811-02MS</b>		<b>Client Sample ID: SB-5(8-12)MS</b>									
n-Nitrosodimethylamine	2100	0	2100		100				44	108	
Pyridine	2100	0	1900		90				27	94	
Benzaldehyde	2100	0	250		12				10	105	
Aniline	2100	0	1100		52				10	90	
Phenol	2100	0	1500		71				40	115	
bis(2-Chloroethyl)ether	2100	0	1800		86				48	110	
2-Chlorophenol	2100	0	1500		71				39	115	
1,2-Dichlorobenzene	2100	0	1600		76				57	98	
1,3-Dichlorobenzene	2100	0	1600		76				54	97	
1,4-Dichlorobenzene	2100	0	1600		76				55	97	
Benzyl Alcohol	2100	0	1600		76				53	109	
2-Methylphenol	2100	0	1700		81				48	111	
2,2-oxybis(1-Chloropropane)	2100	0	1700		81				43	116	
Acetophenone	2100	0	1800		86				46	122	
3+4-Methylphenols	2100	0	1700		81				46	115	
N-Nitroso-di-n-propylamine	2100	0	1800		86				37	128	
Hexachloroethane	2100	0	1500		71				37	117	
Nitrobenzene	2100	0	1800		86				45	117	
Isophorone	2100	0	1800		86				44	121	
2-Nitrophenol	2100	0	1600		76				32	123	
2,4-Dimethylphenol	2100	0	1600		76				45	118	
bis(2-Chloroethoxy)methane	2100	0	1800		86				47	117	
2,4-Dichlorophenol	2100	0	1500		71				37	122	
1,2,4-Trichlorobenzene	2100	0	1600		76				57	103	
Benzoic acid	2100	0	1500		71				10	131	
Naphthalene	2100	0	1700		81				42	121	
4-Chloroaniline	2100	0	690		33				10	130	
Hexachlorobutadiene	2100	0	1500		71				49	111	
Caprolactam	2100	0	2000		95				26	133	
4-Chloro-3-methylphenol	2100	0	1500		71				46	115	
2-Methylnaphthalene	2100	0	1700		81				45	118	
Hexachlorocyclopentadiene	4100	0	1500		37				10	127	
2,4,6-Trichlorophenol	2100	0	1500		71				36	122	
2,4,5-Trichlorophenol	2100	0	1500		71				33	125	
1,1-Biphenyl	2100	0	1700		81				47	119	
2-Chloronaphthalene	2100	0	1600		76				52	110	
2-Nitroaniline	2100	0	1600		76				45	121	
Dimethylphthalate	2100	290	1800		72				39	127	
Acenaphthylene	2100	0	1700		81				45	117	
2,6-Dinitrotoluene	2100	0	1700		81				50	114	
3-Nitroaniline	2100	0	1400		67				12	108	
Acenaphthene	2100	0	1700		81				45	118	
2,4-Dinitrophenol	4100	0	2300		56				10	126	
4-Nitrophenol	4100	0	3100		76				18	141	
Dibenzofuran	2100	0	1500		71				45	118	
2,4-Dinitrotoluene	2100	0	1600		76				44	120	
Diethylphthalate	2100	0	1400		67				50	113	
4-Chlorophenyl-phenylether	2100	0	1500		71				51	111	

**Matrix Spike/Matrix Spike Duplicate Summary**  
**SW-846**

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8270

Parameter	Spike	Sample Result	Result	Units	Rec		RPD		Limits		
					Rec	Qual	RPD	Qual	Low	High	RPD
Fluorene	2100	0	1700		81				41	121	
4-Nitroaniline	2100	0	1500		71				38	113	
4,6-Dinitro-2-methylphenol	2100	0	1400		67				10	142	
N-Nitrosodiphenylamine	2100	0	1600		76				45	122	
Azobenzene	2100	0	1700		81				52	111	
4-Bromophenyl-phenylether	2100	0	1500		71				51	114	
Hexachlorobenzene	2100	0	1500		71				48	114	
Atrazine	2100	0	1600		76				40	129	
Pentachlorophenol	4100	0	3200		78				15	145	
Phenanthrene	2100	0	1700		81				29	138	
Anthracene	2100	0	1800		86				45	120	
Carbazole	2100	0	1600		76				43	122	
Di-n-butylphthalate	2100	0	1500		71				51	115	
Fluoranthene	2100	0	1700		81				33	133	
Benzidine	4100	0	2200		54				10	130	
Pyrene	2100	0	1700		81				31	135	
Butylbenzylphthalate	2100	0	1500		71				49	121	
3,3-Dichlorobenzidine	2100	0	1400		67				10	105	
Benzo(a)anthracene	2100	0	1800		86				35	132	
Chrysene	2100	0	1700		81				34	131	
bis(2-Ethylhexyl)phthalate	2100	0	1600		76				42	127	
Di-n-octyl phthalate	2100	0	1700		81				50	123	
Benzo(b)fluoranthene	2100	0	1800		86				35	128	
Benzo(k)fluoranthene	2100	0	1700		81				39	117	
Benzo(a)pyrene	2100	0	1700		81				35	129	
Indeno(1,2,3-cd)pyrene	2100	0	1100		52				30	140	
Dibenz(a,h)anthracene	2100	0	1200		57				18	147	
Benzo(g,h,i)perylene	2100	0	930		44				31	132	
1,2,4,5-Tetrachlorobenzene	2100	0	1600		76				52	122	
1,4-Dioxane	2100	0	2000		95				26	104	
2,3,4,6-Tetrachlorophenol	2100	0	1500		71				52	109	

**Matrix Spike/Matrix Spike Duplicate Summary**  
**SW-846**

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8270

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	High	RPD
<b>Lab Sample ID: D3811-02MSD</b>		<b>Client Sample ID: SB-5(8-12)MSD</b>									
n-Nitrosodimethylamine	2100	0	1700		81	21	*		44	108	20
Pyridine	2100	0	1500		71	24	*		27	94	20
Benzaldehyde	2100	0	210		10	18			10	105	20
Aniline	2100	0	880		42	21	*		10	90	20
Phenol	2100	0	1300		62	14			40	115	20
bis(2-Chloroethyl)ether	2100	0	1500		71	19			48	110	20
2-Chlorophenol	2100	0	1300		62	14			39	115	20
1,2-Dichlorobenzene	2100	0	1300		62	20			57	98	20
1,3-Dichlorobenzene	2100	0	1300		62	20			54	97	20
1,4-Dichlorobenzene	2100	0	1300		62	20			55	97	20
Benzyl Alcohol	2100	0	1300		62	20			53	109	20
2-Methylphenol	2100	0	1400		67	19			48	111	20
2,2-oxybis(1-Chloropropane)	2100	0	1500		71	13			43	116	20
Acetophenone	2100	0	1500		71	19			46	122	20
3+4-Methylphenols	2100	0	1400		67	19			46	115	20
N-Nitroso-di-n-propylamine	2100	0	1500		71	19			37	128	20
Hexachloroethane	2100	0	1200		57	22	*		37	117	20
Nitrobenzene	2100	0	1400		67	25	*		45	117	20
Isophorone	2100	0	1400		67	25	*		44	121	20
2-Nitrophenol	2100	0	1300		62	20			32	123	20
2,4-Dimethylphenol	2100	0	1300		62	20			45	118	20
bis(2-Chloroethoxy)methane	2100	0	1500		71	19			47	117	20
2,4-Dichlorophenol	2100	0	1200		57	22	*		37	122	20
1,2,4-Trichlorobenzene	2100	0	1200		57	29	*		57	103	20
Benzoic acid	2100	0	980		47	41	*		10	131	20
Naphthalene	2100	0	1400		67	19			42	121	20
4-Chloroaniline	2100	0	670		32	3			10	130	20
Hexachlorobutadiene	2100	0	1200		57	22	*		49	111	20
Caprolactam	2100	0	1600		76	22	*		26	133	20
4-Chloro-3-methylphenol	2100	0	1200		57	22	*		46	115	20
2-Methylnaphthalene	2100	0	1300		62	27	*		45	118	20
Hexachlorocyclopentadiene	4100	0	1200		29	24	*		10	127	20
2,4,6-Trichlorophenol	2100	0	1200		57	22	*		36	122	20
2,4,5-Trichlorophenol	2100	0	1300		62	14			33	125	20
1,1-Biphenyl	2100	0	1400		67	19			47	119	20
2-Chloronaphthalene	2100	0	1300		62	20			52	110	20
2-Nitroaniline	2100	0	1400		67	13			45	121	20
Dimethylphthalate	2100	290	1500		58	22	*		39	127	20
Acenaphthylene	2100	0	1400		67	19			45	117	20
2,6-Dinitrotoluene	2100	0	1400		67	19			50	114	20
3-Nitroaniline	2100	0	1200		57	16			12	108	20
Acenaphthene	2100	0	1400		67	19			45	118	20
2,4-Dinitrophenol	4100	0	1400		34	49	*		10	126	20
4-Nitrophenol	4100	0	2500		61	22	*		18	141	20
Dibenzofuran	2100	0	1300		62	14			45	118	20
2,4-Dinitrotoluene	2100	0	1300		62	20			44	120	20
Diethylphthalate	2100	0	1200		57	16			50	113	20
4-Chlorophenyl-phenylether	2100	0	1300		62	14			51	111	20

**Matrix Spike/Matrix Spike Duplicate Summary**  
**SW-846**

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8270

Parameter	Spike	Sample Result	Result	Units	Rec		RPD		Limits		
					Rec	Qual	RPD	Qual	Low	High	RPD
Fluorene	2100	0	1400		67	19			41	121	20
4-Nitroaniline	2100	0	1200		57	22	*		38	113	20
4,6-Dinitro-2-methylphenol	2100	0	950		45	39	*		10	142	20
N-Nitrosodiphenylamine	2100	0	1300		62	20			45	122	20
Azobenzene	2100	0	1400		67	19			52	111	20
4-Bromophenyl-phenylether	2100	0	1200		57	22	*		51	114	20
Hexachlorobenzene	2100	0	1200		57	22	*		48	114	20
Atrazine	2100	0	1300		62	20			40	129	20
Pentachlorophenol	4100	0	2500		61	24	*		15	145	20
Phenanthrene	2100	0	1300		62	27	*		29	138	20
Anthracene	2100	0	1400		67	25	*		45	120	20
Carbazole	2100	0	1300		62	20			43	122	20
Di-n-butylphthalate	2100	0	1200		57	22	*		51	115	20
Fluoranthene	2100	0	1400		67	19			33	133	20
Benzidine	4100	0	1600		39	32	*		10	130	20
Pyrene	2100	0	1300		62	27	*		31	135	20
Butylbenzylphthalate	2100	0	1200		57	22	*		49	121	20
3,3-Dichlorobenzidine	2100	0	990		47	35	*		10	105	20
Benzo(a)anthracene	2100	0	1400		67	25	*		35	132	20
Chrysene	2100	0	1300		62	27	*		34	131	20
bis(2-Ethylhexyl)phthalate	2100	0	1300		62	20			42	127	20
Di-n-octyl phthalate	2100	0	1400		67	19			50	123	20
Benzo(b)fluoranthene	2100	0	1400		67	25	*		35	128	20
Benzo(k)fluoranthene	2100	0	1400		67	19			39	117	20
Benzo(a)pyrene	2100	0	1400		67	19			35	129	20
Indeno(1,2,3-cd)pyrene	2100	0	1000		48	8			30	140	20
Dibenz(a,h)anthracene	2100	0	1200		57	0			18	147	20
Benzo(g,h,i)perylene	2100	0	1000		48	9			31	132	20
1,2,4,5-Tetrachlorobenzene	2100	0	1300		62	20			52	122	20
1,4-Dioxane	2100	0	1700		81	16			26	104	20
2,3,4,6-Tetrachlorophenol	2100	0	1200		57	22	*		52	109	20



**Matrix Spike/Matrix Spike Duplicate Summary**  
**SW-846**

**SDG No.:** D3811

**Client:** MS Analytical

**Analytical Method:** EPA SW-846 8270

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	High	RPD
<b>Lab Sample ID:</b> D3813-01MSRX		<b>Client Sample ID:</b> SS-01AMSRX									
n-Nitrosodimethylamine	1900	0	1500		79				44	108	
Pyridine	1900	0	1300		68				27	94	
Benzaldehyde	1900	0	760		40				10	105	
Aniline	1900	0	1200		63				10	90	
Phenol	1900	580	2000		75				40	115	
bis(2-Chloroethyl)ether	1900	0	1500		79				48	110	
2-Chlorophenol	1900	0	1300		68				39	115	
1,2-Dichlorobenzene	1900	0	1500		79				57	98	
1,3-Dichlorobenzene	1900	0	1500		79				54	97	
1,4-Dichlorobenzene	1900	0	1500		79				55	97	
Benzyl Alcohol	1900	0	1600		84				53	109	
2-Methylphenol	1900	0	1600		84				48	111	
2,2-oxybis(1-Chloropropane)	1900	0	1500		79				43	116	
Acetophenone	1900	0	1600		84				46	122	
3+4-Methylphenols	1900	2400	4300		100				46	115	
N-Nitroso-di-n-propylamine	1900	0	1600		84				37	128	
Hexachloroethane	1900	0	1400		74				37	117	
Nitrobenzene	1900	0	1600		84				45	117	
Isophorone	1900	0	1600		84				44	121	
2-Nitrophenol	1900	0	1300		68				32	123	
2,4-Dimethylphenol	1900	0	1600		84				45	118	
bis(2-Chloroethoxy)methane	1900	0	1600		84				47	117	
2,4-Dichlorophenol	1900	0	1400		74				37	122	
1,2,4-Trichlorobenzene	1900	0	1500		79				57	103	
Benzoic acid	1900	0	0		0	*			10	131	
Naphthalene	1900	440	2000		82				42	121	
4-Chloroaniline	1900	0	1200		63				10	130	
Hexachlorobutadiene	1900	0	1600		84				49	111	
Caprolactam	1900	0	2000		105				26	133	
4-Chloro-3-methylphenol	1900	0	1500		79				46	115	
2-Methylnaphthalene	1900	210	1900		89				45	118	
Hexachlorocyclopentadiene	3800	0	510		13				10	127	
2,4,6-Trichlorophenol	1900	0	940		49				36	122	
2,4,5-Trichlorophenol	1900	0	1200		63				33	125	
1,1-Biphenyl	1900	0	1600		84				47	119	
2-Chloronaphthalene	1900	0	1500		79				52	110	
2-Nitroaniline	1900	0	1500		79				45	121	
Dimethylphthalate	1900	380	1800		75				39	127	
Acenaphthylene	1900	0	1600		84				45	117	
2,6-Dinitrotoluene	1900	0	1600		84				50	114	
3-Nitroaniline	1900	0	1400		74				12	108	
Acenaphthene	1900	190	1700		79				45	118	
2,4-Dinitrophenol	3800	0	400		11				10	126	
4-Nitrophenol	3800	0	1600		42				18	141	
Dibenzofuran	1900	0	1600		84				45	118	
2,4-Dinitrotoluene	1900	0	1600		84				44	120	
Diethylphthalate	1900	0	1400		74				50	113	
4-Chlorophenyl-phenylether	1900	0	1600		84				51	111	

**Matrix Spike/Matrix Spike Duplicate Summary**  
**SW-846**

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8270

Parameter	Spike	Sample Result	Result	Units	Rec	Rec		RPD		Limits		
						Qual	RPD	Qual		Low	High	RPD
Fluorene	1900	200	1800		84					41	121	
4-Nitroaniline	1900	0	1500		79					38	113	
4,6-Dinitro-2-methylphenol	1900	0	260		14					10	142	
N-Nitrosodiphenylamine	1900	0	1500		79					45	122	
Azobenzene	1900	0	1500		79					52	111	
4-Bromophenyl-phenylether	1900	0	1500		79					51	114	
Hexachlorobenzene	1900	0	1500		79					48	114	
Atrazine	1900	0	1700		89					40	129	
Pentachlorophenol	3800	0	1100		29					15	145	
Phenanthrene	1900	1400	2700		68					29	138	
Anthracene	1900	330	1900		83					45	120	
Carbazole	1900	0	1600		84					43	122	
Di-n-butylphthalate	1900	0	1400		74					51	115	
Fluoranthene	1900	1300	2800		79					33	133	
Benzidine	3800	0	2100		55					10	130	
Pyrene	1900	1100	2600		79					31	135	
Butylbenzylphthalate	1900	0	1400		74					49	121	
3,3-Dichlorobenzidine	1900	0	1700		89					10	105	
Benzo(a)anthracene	1900	520	2200		88					35	132	
Chrysene	1900	540	2000		77					34	131	
bis(2-Ethylhexyl)phthalate	1900	0	1500		79					42	127	
Di-n-octyl phthalate	1900	0	1500		79					50	123	
Benzo(b)fluoranthene	1900	620	2400		94					35	128	
Benzo(k)fluoranthene	1900	240	1700		77					39	117	
Benzo(a)pyrene	1900	490	2200		90					35	129	
Indeno(1,2,3-cd)pyrene	1900	200	1500		68					30	140	
Dibenz(a,h)anthracene	1900	0	1200		63					18	147	
Benzo(g,h,i)perylene	1900	260	1300		55					31	132	
1,2,4,5-Tetrachlorobenzene	1900	0	1600		84					52	122	
1,4-Dioxane	1900	0	1300		68					26	104	
2,3,4,6-Tetrachlorophenol	1900	0	720		38	*				52	109	

Matrix Spike/Matrix Spike Duplicate Summary  
SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8270

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Lab Sample ID: D3813-01MSDRX		Client Sample ID: SS-01AMSDRX									
n-Nitrosodimethylamine	1900	0	1600		84	6			44	108	20
Pyridine	1900	0	1400		74	8			27	94	20
Benzaldehyde	1900	0	790		42	5			10	105	20
Aniline	1900	0	740		39	47		*	10	90	20
Phenol	1900	580	2000		75	0			40	115	20
bis(2-Chloroethyl)ether	1900	0	1600		84	6			48	110	20
2-Chlorophenol	1900	0	1400		74	8			39	115	20
1,2-Dichlorobenzene	1900	0	1500		79	0			57	98	20
1,3-Dichlorobenzene	1900	0	1500		79	0			54	97	20
1,4-Dichlorobenzene	1900	0	1500		79	0			55	97	20
Benzyl Alcohol	1900	0	1700		89	6			53	109	20
2-Methylphenol	1900	0	1600		84	0			48	111	20
2,2-oxybis(1-Chloropropane)	1900	0	1500		79	0			43	116	20
Acetophenone	1900	0	1600		84	0			46	122	20
3+4-Methylphenols	1900	2400	4200		95	5			46	115	20
N-Nitroso-di-n-propylamine	1900	0	1600		84	0			37	128	20
Hexachloroethane	1900	0	1400		74	0			37	117	20
Nitrobenzene	1900	0	1500		79	6			45	117	20
Isophorone	1900	0	1600		84	0			44	121	20
2-Nitrophenol	1900	0	1300		68	0			32	123	20
2,4-Dimethylphenol	1900	0	1500		79	6			45	118	20
bis(2-Chloroethoxy)methane	1900	0	1600		84	0			47	117	20
2,4-Dichlorophenol	1900	0	1400		74	0			37	122	20
1,2,4-Trichlorobenzene	1900	0	1500		79	0			57	103	20
Benzoic acid	1900	0	0		0	*	0		10	131	20
Naphthalene	1900	440	1900		77	6			42	121	20
4-Chloroaniline	1900	0	500		26	83		*	10	130	20
Hexachlorobutadiene	1900	0	1600		84	0			49	111	20
Caprolactam	1900	0	2000		105	0			26	133	20
4-Chloro-3-methylphenol	1900	0	1500		79	0			46	115	20
2-Methylnaphthalene	1900	210	1800		84	6			45	118	20
Hexachlorocyclopentadiene	3800	0	470		12	8			10	127	20
2,4,6-Trichlorophenol	1900	0	950		50	2			36	122	20
2,4,5-Trichlorophenol	1900	0	1300		68	8			33	125	20
1,1-Biphenyl	1900	0	1600		84	0			47	119	20
2-Chloronaphthalene	1900	0	1500		79	0			52	110	20
2-Nitroaniline	1900	0	1600		84	6			45	121	20
Dimethylphthalate	1900	380	1600		64	16			39	127	20
Acenaphthylene	1900	0	1600		84	0			45	117	20
2,6-Dinitrotoluene	1900	0	1600		84	0			50	114	20
3-Nitroaniline	1900	0	1400		74	0			12	108	20
Acenaphthene	1900	190	1800		85	7			45	118	20
2,4-Dinitrophenol	3800	0	380		10	10			10	126	20
4-Nitrophenol	3800	0	1500		39	7			18	141	20
Dibenzofuran	1900	0	1600		84	0			45	118	20
2,4-Dinitrotoluene	1900	0	1600		84	0			44	120	20
Diethylphthalate	1900	0	1400		74	0			50	113	20
4-Chlorophenyl-phenylether	1900	0	1600		84	0			51	111	20

**Matrix Spike/Matrix Spike Duplicate Summary**  
**SW-846**

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8270

Parameter	Spike	Sample Result	Result	Units	Rec		RPD		Limits		
					Rec	Qual	RPD	Qual	Low	High	RPD
Fluorene	1900	200	1800		84	0			41	121	20
4-Nitroaniline	1900	0	1600		84	6			38	113	20
4,6-Dinitro-2-methylphenol	1900	0	250		13	7			10	142	20
N-Nitrosodiphenylamine	1900	0	1500		79	0			45	122	20
Azobenzene	1900	0	1500		79	0			52	111	20
4-Bromophenyl-phenylether	1900	0	1500		79	0			51	114	20
Hexachlorobenzene	1900	0	1500		79	0			48	114	20
Atrazine	1900	0	1600		84	6			40	129	20
Pentachlorophenol	3800	0	840		22	27		*	15	145	20
Phenanthrene	1900	1400	2600		63	8			29	138	20
Anthracene	1900	330	1900		83	0			45	120	20
Carbazole	1900	0	1600		84	0			43	122	20
Di-n-butylphthalate	1900	0	1300		68	8			51	115	20
Fluoranthene	1900	1300	2600		68	15			33	133	20
Benzidine	3800	0	1600		42	27		*	10	130	20
Pyrene	1900	1100	2600		79	0			31	135	20
Butylbenzylphthalate	1900	0	1400		74	0			49	121	20
3,3-Dichlorobenzidine	1900	0	1500		79	12			10	105	20
Benzo(a)anthracene	1900	520	2200		88	0			35	132	20
Chrysene	1900	540	2000		77	0			34	131	20
bis(2-Ethylhexyl)phthalate	1900	0	1500		79	0			42	127	20
Di-n-octyl phthalate	1900	0	1500		79	0			50	123	20
Benzo(b)fluoranthene	1900	620	2300		88	7			35	128	20
Benzo(k)fluoranthene	1900	240	1800		82	6			39	117	20
Benzo(a)pyrene	1900	490	2100		85	6			35	129	20
Indeno(1,2,3-cd)pyrene	1900	200	1500		68	0			30	140	20
Dibenz(a,h)anthracene	1900	0	1200		63	0			18	147	20
Benzo(g,h,i)perylene	1900	260	1300		55	0			31	132	20
1,2,4,5-Tetrachlorobenzene	1900	0	1600		84	0			52	122	20
1,4-Dioxane	1900	0	1400		74	8			26	104	20
2,3,4,6-Tetrachlorophenol	1900	0	650		34	*	11		52	109	20

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**  
SW-846

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8270

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD		Limits	
								Qual	Low	High	RPD
PB65121BS	n-Nitrosodimethylamine	1700	1200	ug/Kg	71				45	105	
	Pyridine	1700	1100	ug/Kg	65				28	98	
	Benzaldehyde	1700	150	ug/Kg	9		*		10	95	
	Aniline	1700	420	ug/Kg	25				10	92	
	Phenol	1700	840	ug/Kg	49		*		51	101	
	bis(2-Chloroethyl)ether	1700	990	ug/Kg	58				55	99	
	2-Chlorophenol	1700	840	ug/Kg	49		*		53	100	
	1,2-Dichlorobenzene	1700	930	ug/Kg	55				51	102	
	1,3-Dichlorobenzene	1700	890	ug/Kg	52				52	99	
	1,4-Dichlorobenzene	1700	910	ug/Kg	54				52	100	
	Benzyl Alcohol	1700	900	ug/Kg	53				42	116	
	2-Methylphenol	1700	950	ug/Kg	56				49	105	
	2,2-oxybis(1-Chloropropan	1700	970	ug/Kg	57				52	104	
	Acetophenone	1700	1000	ug/Kg	59				50	111	
	3+4-Methylphenols	1700	960	ug/Kg	56				52	102	
	N-Nitroso-di-n-propylamine	1700	980	ug/Kg	58				51	104	
	Hexachloroethane	1700	870	ug/Kg	51		*		54	97	
	Nitrobenzene	1700	950	ug/Kg	56				51	104	
	Isophorone	1700	950	ug/Kg	56				55	101	
	2-Nitrophenol	1700	840	ug/Kg	49		*		52	105	
	2,4-Dimethylphenol	1700	870	ug/Kg	51		*		53	103	
	bis(2-Chloroethoxy)methar	1700	950	ug/Kg	56				55	101	
	2,4-Dichlorophenol	1700	810	ug/Kg	48		*		54	103	
	1,2,4-Trichlorobenzene	1700	880	ug/Kg	52				44	110	
	Benzoic acid	1700	690	ug/Kg	41				10	140	
	Naphthalene	1700	970	ug/Kg	57				53	103	
	4-Chloroaniline	1700	280	ug/Kg	16				10	130	
	Hexachlorobutadiene	1700	850	ug/Kg	50				50	106	
	Caprolactam	1700	910	ug/Kg	54				49	106	
	4-Chloro-3-methylphenol	1700	800	ug/Kg	47		*		55	101	
	2-Methylnaphthalene	1700	930	ug/Kg	55				55	102	
	Hexachlorocyclopentadien	3300	2100	ug/Kg	64				38	122	
	2,4,6-Trichlorophenol	1700	810	ug/Kg	48		*		56	103	
	2,4,5-Trichlorophenol	1700	840	ug/Kg	49		*		56	103	
	1,1-Biphenyl	1700	930	ug/Kg	55		*		56	107	
	2-Chloronaphthalene	1700	900	ug/Kg	53		*		56	102	
	2-Nitroaniline	1700	840	ug/Kg	49		*		54	103	
	Dimethylphthalate	1700	750	ug/Kg	44		*		61	111	
	Acenaphthylene	1700	940	ug/Kg	55		*		57	101	
	2,6-Dinitrotoluene	1700	890	ug/Kg	52		*		59	100	
	3-Nitroaniline	1700	500	ug/Kg	29				10	130	
	Acenaphthene	1700	930	ug/Kg	55		*		57	102	
	2,4-Dinitrophenol	3300	1200	ug/Kg	36				32	114	
	4-Nitrophenol	3300	1500	ug/Kg	45		*		48	114	
	Dibenzofuran	1700	850	ug/Kg	50		*		57	100	
	2,4-Dinitrotoluene	1700	870	ug/Kg	51		*		58	102	

# Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8270

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD		Limits	
								Qual	Low	High	RPD
PB65121BS	Diethylphthalate	1700	740	ug/Kg	44		*		56	101	
	4-Chlorophenyl-phenylethe	1700	860	ug/Kg	51		*		57	101	
	Fluorene	1700	920	ug/Kg	54		*		57	101	
	4-Nitroaniline	1700	780	ug/Kg	46		*		49	99	
	4,6-Dinitro-2-methylphenol	1700	730	ug/Kg	43		*		44	119	
	N-Nitrosodiphenylamine	1700	930	ug/Kg	55		*		57	103	
	Azobenzene	1700	900	ug/Kg	53		*		58	100	
	4-Bromophenyl-phenylethe	1700	880	ug/Kg	52		*		57	105	
	Hexachlorobenzene	1700	850	ug/Kg	50		*		54	106	
	Atrazine	1700	890	ug/Kg	52				50	113	
	Pentachlorophenol	3300	1500	ug/Kg	45		*		49	116	
	Phenanthrene	1700	940	ug/Kg	55		*		58	101	
	Anthracene	1700	970	ug/Kg	57				57	102	
	Carbazole	1700	860	ug/Kg	51		*		57	102	
	Di-n-butylphthalate	1700	800	ug/Kg	47		*		57	103	
	Fluoranthene	1700	890	ug/Kg	52		*		56	102	
	Benzidine	3300	850	ug/Kg	26				10	130	
	Pyrene	1700	940	ug/Kg	55		*		56	106	
	Butylbenzylphthalate	1700	800	ug/Kg	47		*		57	106	
	3,3-Dichlorobenzidine	1700	310	ug/Kg	18				10	92	
	Benzo(a)anthracene	1700	930	ug/Kg	55		*		56	103	
	Chrysene	1700	890	ug/Kg	52		*		58	102	
	bis(2-Ethylhexyl)phthalate	1700	790	ug/Kg	46		*		57	106	
	Di-n-octyl phthalate	1700	830	ug/Kg	49		*		56	107	
	Benzo(b)fluoranthene	1700	890	ug/Kg	52		*		56	103	
	Benzo(k)fluoranthene	1700	920	ug/Kg	54		*		55	102	
	Benzo(a)pyrene	1700	940	ug/Kg	55		*		57	103	
	Indeno(1,2,3-cd)pyrene	1700	930	ug/Kg	55				50	113	
	Dibenz(a,h)anthracene	1700	940	ug/Kg	55				52	119	
	Benzo(g,h,i)perylene	1700	950	ug/Kg	56				56	105	
	1,2,4,5-Tetrachlorobenzen	1700	900	ug/Kg	53				33	136	
	1,4-Dioxane	1700	1200	ug/Kg	71				15	117	
	2,3,4,6-Tetrachlorophenol	1700	750	ug/Kg	44		*		47	120	

# Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8270

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD		Limits	
								Qual	Low	High	RPD
PB65419BS	n-Nitrosodimethylamine	1700	1300	ug/Kg	76				45	105	
	Pyridine	1700	1200	ug/Kg	71				28	98	
	Benzaldehyde	1700	560	ug/Kg	33				10	95	
	Aniline	1700	800	ug/Kg	47				10	92	
	Phenol	1700	1100	ug/Kg	65				51	101	
	bis(2-Chloroethyl)ether	1700	1300	ug/Kg	76				55	99	
	2-Chlorophenol	1700	1100	ug/Kg	65				53	100	
	1,2-Dichlorobenzene	1700	1300	ug/Kg	76				51	102	
	1,3-Dichlorobenzene	1700	1300	ug/Kg	76				52	99	
	1,4-Dichlorobenzene	1700	1300	ug/Kg	76				52	100	
	Benzyl Alcohol	1700	1200	ug/Kg	71				42	116	
	2-Methylphenol	1700	1300	ug/Kg	76				49	105	
	2,2-oxybis(1-Chloropropan	1700	1300	ug/Kg	76				52	104	
	Acetophenone	1700	1300	ug/Kg	76				50	111	
	3+4-Methylphenols	1700	1300	ug/Kg	76				52	102	
	N-Nitroso-di-n-propylamine	1700	1300	ug/Kg	76				51	104	
	Hexachloroethane	1700	1300	ug/Kg	76				54	97	
	Nitrobenzene	1700	1300	ug/Kg	76				51	104	
	Isophorone	1700	1300	ug/Kg	76				55	101	
	2-Nitrophenol	1700	1200	ug/Kg	71				52	105	
	2,4-Dimethylphenol	1700	1200	ug/Kg	71				53	103	
	bis(2-Chloroethoxy)methar	1700	1300	ug/Kg	76				55	101	
	2,4-Dichlorophenol	1700	1200	ug/Kg	71				54	103	
	1,2,4-Trichlorobenzene	1700	1300	ug/Kg	76				44	110	
	Benzoic acid	1700	1300	ug/Kg	76				10	140	
	Naphthalene	1700	1300	ug/Kg	76				53	103	
	4-Chloroaniline	1700	450	ug/Kg	26				10	130	
	Hexachlorobutadiene	1700	1300	ug/Kg	76				50	106	
	Caprolactam	1700	1300	ug/Kg	76				49	106	
	4-Chloro-3-methylphenol	1700	1100	ug/Kg	65				55	101	
	2-Methylnaphthalene	1700	1300	ug/Kg	76				55	102	
	Hexachlorocyclopentadien	3300	3300	ug/Kg	100				38	122	
	2,4,6-Trichlorophenol	1700	1200	ug/Kg	71				56	103	
	2,4,5-Trichlorophenol	1700	1200	ug/Kg	71				56	103	
	1,1-Biphenyl	1700	1300	ug/Kg	76				56	107	
	2-Chloronaphthalene	1700	1300	ug/Kg	76				56	102	
	2-Nitroaniline	1700	1200	ug/Kg	71				54	103	
	Dimethylphthalate	1700	1100	ug/Kg	65				61	111	
	Acenaphthylene	1700	1300	ug/Kg	76				57	101	
	2,6-Dinitrotoluene	1700	1300	ug/Kg	76				59	100	
	3-Nitroaniline	1700	700	ug/Kg	41				10	130	
	Acenaphthene	1700	1300	ug/Kg	76				57	102	
	2,4-Dinitrophenol	3300	2000	ug/Kg	61				32	114	
	4-Nitrophenol	3300	2200	ug/Kg	67				48	114	
	Dibenzofuran	1700	1300	ug/Kg	76				57	100	
	2,4-Dinitrotoluene	1700	1300	ug/Kg	76				58	102	

# Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8270

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD		Limits	
								Qual	Low	High	RPD
PB65419BS	Diethylphthalate	1700	1100	ug/Kg	65				56	101	
	4-Chlorophenyl-phenylethe	1700	1300	ug/Kg	76				57	101	
	Fluorene	1700	1300	ug/Kg	76				57	101	
	4-Nitroaniline	1700	1100	ug/Kg	65				49	99	
	4,6-Dinitro-2-methylphenol	1700	1100	ug/Kg	65				44	119	
	N-Nitrosodiphenylamine	1700	1300	ug/Kg	76				57	103	
	Azobenzene	1700	1200	ug/Kg	71				58	100	
	4-Bromophenyl-phenylethe	1700	1300	ug/Kg	76				57	105	
	Hexachlorobenzene	1700	1300	ug/Kg	76				54	106	
	Atrazine	1700	1400	ug/Kg	82				50	113	
	Pentachlorophenol	3300	2500	ug/Kg	76				49	116	
	Phenanthrene	1700	1300	ug/Kg	76				58	101	
	Anthracene	1700	1400	ug/Kg	82				57	102	
	Carbazole	1700	1200	ug/Kg	71				57	102	
	Di-n-butylphthalate	1700	1100	ug/Kg	65				57	103	
	Fluoranthene	1700	1300	ug/Kg	76				56	102	
	Benzidine	3300	1000	ug/Kg	30				10	130	
	Pyrene	1700	1300	ug/Kg	76				56	106	
	Butylbenzylphthalate	1700	1100	ug/Kg	65				57	106	
	3,3-Dichlorobenzidine	1700	620	ug/Kg	36				10	92	
	Benzo(a)anthracene	1700	1300	ug/Kg	76				56	103	
	Chrysene	1700	1300	ug/Kg	76				58	102	
	bis(2-Ethylhexyl)phthalate	1700	1000	ug/Kg	59				57	106	
	Di-n-octyl phthalate	1700	1000	ug/Kg	59				56	107	
	Benzo(b)fluoranthene	1700	1300	ug/Kg	76				56	103	
	Benzo(k)fluoranthene	1700	1400	ug/Kg	82				55	102	
	Benzo(a)pyrene	1700	1400	ug/Kg	82				57	103	
	Indeno(1,2,3-cd)pyrene	1700	1400	ug/Kg	82				50	113	
	Dibenz(a,h)anthracene	1700	1400	ug/Kg	82				52	119	
	Benzo(g,h,i)perylene	1700	1300	ug/Kg	76				56	105	
	1,2,4,5-Tetrachlorobenzen	1700	1300	ug/Kg	76				33	136	
	1,4-Dioxane	1700	1300	ug/Kg	76				15	117	
	2,3,4,6-Tetrachlorophenol	1700	1200	ug/Kg	71				47	120	



# Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8270

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD		Limits	
								Qual	Low	High	RPD
PB65125BS	n-Nitrosodimethylamine	1700	1400	ug/Kg	82				45	105	
	Pyridine	1700	1300	ug/Kg	76				28	98	
	Benzaldehyde	1700	140	ug/Kg	8		*		10	95	
	Aniline	1700	930	ug/Kg	55				10	92	
	Phenol	1700	1300	ug/Kg	76				51	101	
	bis(2-Chloroethyl)ether	1700	1300	ug/Kg	76				55	99	
	2-Chlorophenol	1700	1300	ug/Kg	76				53	100	
	1,2-Dichlorobenzene	1700	1300	ug/Kg	76				51	102	
	1,3-Dichlorobenzene	1700	1300	ug/Kg	76				52	99	
	1,4-Dichlorobenzene	1700	1300	ug/Kg	76				52	100	
	Benzyl Alcohol	1700	1400	ug/Kg	82				42	116	
	2-Methylphenol	1700	1400	ug/Kg	82				49	105	
	2,2-oxybis(1-Chloropropan	1700	1300	ug/Kg	76				52	104	
	Acetophenone	1700	1400	ug/Kg	82				50	111	
	3+4-Methylphenols	1700	1400	ug/Kg	82				52	102	
	N-Nitroso-di-n-propylamine	1700	1300	ug/Kg	76				51	104	
	Hexachloroethane	1700	1300	ug/Kg	76				54	97	
	Nitrobenzene	1700	1300	ug/Kg	76				51	104	
	Isophorone	1700	1400	ug/Kg	82				55	101	
	2-Nitrophenol	1700	1300	ug/Kg	76				52	105	
	2,4-Dimethylphenol	1700	1300	ug/Kg	76				53	103	
	bis(2-Chloroethoxy)methar	1700	1400	ug/Kg	82				55	101	
	2,4-Dichlorophenol	1700	1300	ug/Kg	76				54	103	
	1,2,4-Trichlorobenzene	1700	1300	ug/Kg	76				44	110	
	Benzoic acid	1700	1100	ug/Kg	65				10	140	
	Naphthalene	1700	1300	ug/Kg	76				53	103	
	4-Chloroaniline	1700	420	ug/Kg	25				10	130	
	Hexachlorobutadiene	1700	1300	ug/Kg	76				50	106	
	Caprolactam	1700	1500	ug/Kg	88				49	106	
	4-Chloro-3-methylphenol	1700	1300	ug/Kg	76				55	101	
	2-Methylnaphthalene	1700	1400	ug/Kg	82				55	102	
	Hexachlorocyclopentadien	3300	3200	ug/Kg	97				38	122	
	2,4,6-Trichlorophenol	1700	1200	ug/Kg	71				56	103	
	2,4,5-Trichlorophenol	1700	1300	ug/Kg	76				56	103	
	1,1-Biphenyl	1700	1300	ug/Kg	76				56	107	
	2-Chloronaphthalene	1700	1300	ug/Kg	76				56	102	
	2-Nitroaniline	1700	1200	ug/Kg	71				54	103	
	Dimethylphthalate	1700	1100	ug/Kg	65				61	111	
	Acenaphthylene	1700	1400	ug/Kg	82				57	101	
	2,6-Dinitrotoluene	1700	1300	ug/Kg	76				59	100	
	3-Nitroaniline	1700	770	ug/Kg	45				10	130	
	Acenaphthene	1700	1400	ug/Kg	82				57	102	
	2,4-Dinitrophenol	3300	2100	ug/Kg	64				32	114	
	4-Nitrophenol	3300	2500	ug/Kg	76				48	114	
	Dibenzofuran	1700	1300	ug/Kg	76				57	100	
	2,4-Dinitrotoluene	1700	1300	ug/Kg	76				58	102	

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**  
SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8270

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD		Limits	
								Qual	Low	High	RPD
PB65125BS	Diethylphthalate	1700	1100	ug/Kg	65				56	101	
	4-Chlorophenyl-phenylethe	1700	1300	ug/Kg	76				57	101	
	Fluorene	1700	1400	ug/Kg	82				57	101	
	4-Nitroaniline	1700	1200	ug/Kg	71				49	99	
	4,6-Dinitro-2-methylphenol	1700	1200	ug/Kg	71				44	119	
	N-Nitrosodiphenylamine	1700	1300	ug/Kg	76				57	103	
	Azobenzene	1700	1300	ug/Kg	76				58	100	
	4-Bromophenyl-phenylethe	1700	1300	ug/Kg	76				57	105	
	Hexachlorobenzene	1700	1300	ug/Kg	76				54	106	
	Atrazine	1700	1400	ug/Kg	82				50	113	
	Pentachlorophenol	3300	2300	ug/Kg	70				49	116	
	Phenanthrene	1700	1400	ug/Kg	82				58	101	
	Anthracene	1700	1400	ug/Kg	82				57	102	
	Carbazole	1700	1300	ug/Kg	76				57	102	
	Di-n-butylphthalate	1700	1100	ug/Kg	65				57	103	
	Fluoranthene	1700	1400	ug/Kg	82				56	102	
	Benzidine	3300	1800	ug/Kg	55				10	130	
	Pyrene	1700	1300	ug/Kg	76				56	106	
	Butylbenzylphthalate	1700	1100	ug/Kg	65				57	106	
	3,3-Dichlorobenzidine	1700	720	ug/Kg	42				10	92	
	Benzo(a)anthracene	1700	1300	ug/Kg	76				56	103	
	Chrysene	1700	1300	ug/Kg	76				58	102	
	bis(2-Ethylhexyl)phthalate	1700	1100	ug/Kg	65				57	106	
	Di-n-octyl phthalate	1700	1200	ug/Kg	71				56	107	
	Benzo(b)fluoranthene	1700	1400	ug/Kg	82				56	103	
	Benzo(k)fluoranthene	1700	1400	ug/Kg	82				55	102	
	Benzo(a)pyrene	1700	1400	ug/Kg	82				57	103	
	Indeno(1,2,3-cd)pyrene	1700	1200	ug/Kg	71				50	113	
	Dibenz(a,h)anthracene	1700	1300	ug/Kg	76				52	119	
	Benzo(g,h,i)perylene	1700	1300	ug/Kg	76				56	105	
	1,2,4,5-Tetrachlorobenzene	1700	1300	ug/Kg	76				33	136	
	1,4-Dioxane	1700	1300	ug/Kg	76				15	117	
	2,3,4,6-Tetrachlorophenol	1700	1200	ug/Kg	71				47	120	

4B

## SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB65121BL

Lab Name: CHEMTECHContract: MSAN01Lab Code: CHEM Case No.: D3811SAS No.: D3811 SDG NO.: D3811Lab File ID: BF058258.DLab Sample ID: PB65121BLInstrument ID: BNA\_FDate Extracted: 08/15/2012Matrix: (soil/water) SOILDate Analyzed: 08/16/2012Level: (low/med) LOWTime Analyzed: 14:47

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
SS-01AMSD	D3813-01MSD	BF058266.D	08/16/2012
SS-01AMS	D3813-01MS	BF058265.D	08/16/2012
SB-46 (12-16)	D3811-21	BF058263.D	08/16/2012
PB65121BS	PB65121BS	BF058256.D	08/16/2012

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_

4B  
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB65125BL

Lab Name: CHEMTECHContract: MSAN01Lab Code: CHEM Case No.: D3811SAS No.: D3811 SDG NO.: D3811Lab File ID: BG006798.DLab Sample ID: PB65125BLInstrument ID: BNA\_GDate Extracted: 08/15/2012Matrix: (soil/water) SOILDate Analyzed: 08/21/2012Level: (low/med) LOWTime Analyzed: 14:40

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
SB-45 (10-12)	D3811-20	BG006794.D	08/21/2012
SB-43 (10-12)	D3811-18	BG006793.D	08/21/2012
SB-37 (8-10)	D3811-13	BG006792.D	08/21/2012
SB-9 (4-7)	D3811-03	BF058276.D	08/16/2012
SB-5 (8-12) MSD	D3811-02MSD	BF058275.D	08/16/2012
SB-21 (16-19)	D3811-10	BG006791.D	08/21/2012
SB-15 (12-16)	D3811-06	BG006790.D	08/21/2012
SB-43 (16-20)	D3811-19	BF058359.D	08/21/2012
SB-5 (8-12) MS	D3811-02MS	BF058274.D	08/16/2012
SB-5 (8-12)	D3811-02	BF058273.D	08/16/2012
SB-43 (6-8)	D3811-17	BF058358.D	08/21/2012
SB-10 (8-12)	D3811-04	BG006789.D	08/21/2012
SB-42 (14-16)	D3811-16	BG006788.D	08/21/2012
SB-2 (4-8)	D3811-01	BF058272.D	08/16/2012
SB-39 (6-8)	D3811-14	BG006786.D	08/20/2012
SB-27 (8-12)	D3811-12	BG006785.D	08/20/2012
SB-22 (12-19)	D3811-11	BG006784.D	08/20/2012
SB-21 (12-16)	D3811-09	BG006783.D	08/20/2012
SB-19 (12-18)	D3811-08	BG006782.D	08/20/2012
SB-18 (4-8)	D3811-07	BG006781.D	08/20/2012
SB-11 (12-16)	D3811-05	BG006780.D	08/20/2012
SB-41 (8-11)	D3811-15	BF058438.D	08/24/2012
PB65125BS	PB65125BS	BG006797.D	08/21/2012

COMMENTS:

4B  
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB65419BL

Lab Name: CHEMTECH

Contract: MSAN01

Lab Code: CHEM Case No.: D3811

SAS No.: D3811 SDG NO.: D3811

Lab File ID: BF058471.D

Lab Sample ID: PB65419BL

Instrument ID: BNA\_F

Date Extracted: 08/28/2012

Matrix: (soil/water) SOIL

Date Analyzed: 08/28/2012

Level: (low/med) LOW

Time Analyzed: 17:16

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
SS-01AMSDRX	D3813-01MSDRX	BF058477.D	08/28/2012
SS-01AMSRX	D3813-01MSRX	BF058476.D	08/28/2012
SB-46(12-16)RX	D3811-21RX	BF058474.D	08/28/2012
PB65419BS	PB65419BS	BF058470.D	08/28/2012

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: MSAN01

Lab Code: CHEM

SAS No.: D3811 SDG NO.: D3811

Lab File ID: BF057871.D

DFTPP Injection Date: 08/02/2012

Instrument ID: BNA\_F

DFTPP Injection Time: 12:54

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	57.8
68	Less than 2.0% of mass 69	0.2 ( 0.4 ) 1
69	Mass 69 relative abundance	47.4
70	Less than 2.0% of mass 69	0.1 ( 0.3 ) 1
127	10.0 - 80.0% of mass 198	54.4
197	Less than 2.0% of mass 198	0.4
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 60.0% of mass 198	23.6
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	9.5
442	Greater than 50% of mass 198	56.5
443	15.0 - 24.0% of mass 442	12.1 ( 21.5 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTDICC010	SSTDICC010	BF057873.D	08/02/2012	14:10
02	SSTDICC025	SSTDICC025	BF057874.D	08/02/2012	14:43
03	SSTDICC040	SSTDICC040	BF057875.D	08/02/2012	15:24
04	SSTDICC050	SSTDICC050	BF057876.D	08/02/2012	15:57
05	SSTDICC060	SSTDICC060	BF057877.D	08/02/2012	16:30
06	SSTDICC080	SSTDICC080	BF057878.D	08/02/2012	17:03

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: MSAN01

Lab Code: CHEM

SAS No.: D3811 SDG NO.: D3811

Lab File ID: BF058254.D

DFTPP Injection Date: 08/16/2012

Instrument ID: BNA\_F

DFTPP Injection Time: 12:48

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	58.9
68	Less than 2.0% of mass 69	0.9 ( 1.8 ) 1
69	Mass 69 relative abundance	50
70	Less than 2.0% of mass 69	0.0 ( 0.0 ) 1
127	10.0 - 80.0% of mass 198	54.2
197	Less than 2.0% of mass 198	0.9
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 60.0% of mass 198	20.3
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	9.2
442	Greater than 50% of mass 198	54.9
443	15.0 - 24.0% of mass 442	10.9 ( 19.9 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTDCCC040	SSTDCCC040	BF058255.D	08/16/2012	13:17
02	PB65121BS	PB65121BS	BF058256.D	08/16/2012	13:48
03	PB65121BL	PB65121BL	BF058258.D	08/16/2012	14:47
04	SB-46(12-16)	D3811-21	BF058263.D	08/16/2012	17:17
05	SS-01AMS	D3813-01MS	BF058265.D	08/16/2012	18:17
06	SS-01AMSD	D3813-01MSD	BF058266.D	08/16/2012	18:47
07	SB-2(4-8)	D3811-01	BF058272.D	08/16/2012	21:47
08	SB-5(8-12)	D3811-02	BF058273.D	08/16/2012	22:17
09	SB-5(8-12)MS	D3811-02MS	BF058274.D	08/16/2012	22:47
10	SB-5(8-12)MSD	D3811-02MSD	BF058275.D	08/16/2012	23:17
11	SB-9(4-7)	D3811-03	BF058276.D	08/16/2012	23:47

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: MSAN01Lab Code: CHEMSAS No.: D3811 SDG NO.: D3811Lab File ID: BF058325.DDFTPP Injection Date: 08/20/2012Instrument ID: BNA\_FDFTPP Injection Time: 12:47

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	44.3
68	Less than 2.0% of mass 69	0.6 ( 1.1 ) 1
69	Mass 69 relative abundance	53.7
70	Less than 2.0% of mass 69	0.1 ( 0.1 ) 1
127	10.0 - 80.0% of mass 198	62.1
197	Less than 2.0% of mass 198	0.7
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.4
275	10.0 - 60.0% of mass 198	22.5
365	Greater than 1% of mass 198	2
441	Present, but less than mass 443	8.1
442	Greater than 50% of mass 198	51.7
443	15.0 - 24.0% of mass 442	10 ( 19.4 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTDIC010	SSTDIC010	BF058326.D	08/20/2012	13:17
02	SSTDIC025	SSTDIC025	BF058327.D	08/20/2012	13:47
03	SSTDIC040	SSTDIC040	BF058328.D	08/20/2012	14:17
04	SSTDIC050	SSTDIC050	BF058329.D	08/20/2012	14:47
05	SSTDIC060	SSTDIC060	BF058330.D	08/20/2012	15:17
06	SSTDIC080	SSTDIC080	BF058331.D	08/20/2012	15:47



5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: MSAN01Lab Code: CHEMSAS No.: D3811 SDG NO.: D3811Lab File ID: BF058339.DDFTPP Injection Date: 08/21/2012Instrument ID: BNA\_FDFTPP Injection Time: 13:09

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	52.8
68	Less than 2.0% of mass 69	1.1 ( 2 ) 1
69	Mass 69 relative abundance	56.1
70	Less than 2.0% of mass 69	0.1 ( 0.2 ) 1
127	10.0 - 80.0% of mass 198	60.5
197	Less than 2.0% of mass 198	0.1
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.2
275	10.0 - 60.0% of mass 198	24.2
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	6.6
442	Greater than 50% of mass 198	54.1
443	15.0 - 24.0% of mass 442	10.3 ( 19 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTDCCC040	SSTDCCC040	BF058340.D	08/21/2012	13:39
02	SB-43(6-8)	D3811-17	BF058358.D	08/21/2012	22:37
03	SB-43(16-20)	D3811-19	BF058359.D	08/21/2012	23:07

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: MSAN01Lab Code: CHEMSAS No.: D3811 SDG NO.: D3811Lab File ID: BF058387.DDFTPP Injection Date: 08/23/2012Instrument ID: BNA\_FDFTPP Injection Time: 09:03

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	55
68	Less than 2.0% of mass 69	1.1 ( 1.9 ) 1
69	Mass 69 relative abundance	58.6
70	Less than 2.0% of mass 69	0.4 ( 0.6 ) 1
127	10.0 - 80.0% of mass 198	63.2
197	Less than 2.0% of mass 198	0.1
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.2
275	10.0 - 60.0% of mass 198	20.8
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	8.1
442	Greater than 50% of mass 198	52.8
443	15.0 - 24.0% of mass 442	9.5 ( 18.1 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTDCCC040	SSTDCCC040	BF058388.D	08/23/2012	09:33
02	SB-37(8-10)DL	D3811-13DL	BF058393.D	08/23/2012	12:02

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: MSAN01Lab Code: CHEMSAS No.: D3811 SDG NO.: D3811Lab File ID: BF058427.DDFTPP Injection Date: 08/24/2012Instrument ID: BNA\_FDFTPP Injection Time: 13:53

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	54.7
68	Less than 2.0% of mass 69	0.4 ( 0.8 ) 1
69	Mass 69 relative abundance	56
70	Less than 2.0% of mass 69	0.2 ( 0.3 ) 1
127	10.0 - 80.0% of mass 198	64.7
197	Less than 2.0% of mass 198	0.5
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	19.9
365	Greater than 1% of mass 198	3.6
441	Present, but less than mass 443	8.3
442	Greater than 50% of mass 198	53.4
443	15.0 - 24.0% of mass 442	9.9 ( 18.6 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTDICCC040	SSTDICCC040	BF058428.D	08/24/2012	14:25
02	SSTDICCC010	SSTDICCC010	BF058429.D	08/24/2012	14:55
03	SSTDICCC025	SSTDICCC025	BF058430.D	08/24/2012	15:25
04	SSTDICCC050	SSTDICCC050	BF058431.D	08/24/2012	15:56
05	SSTDICCC060	SSTDICCC060	BF058432.D	08/24/2012	16:26
06	SSTDICCC080	SSTDICCC080	BF058433.D	08/24/2012	16:57
07	SB-41(8-11)	D3811-15	BF058438.D	08/24/2012	19:42

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: MSAN01Lab Code: CHEMSAS No.: D3811 SDG NO.: D3811Lab File ID: BF058463.DDFTPP Injection Date: 08/28/2012Instrument ID: BNA\_FDFTPP Injection Time: 12:56

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	56.7
68	Less than 2.0% of mass 69	0.6 ( 1.1 ) 1
69	Mass 69 relative abundance	56.5
70	Less than 2.0% of mass 69	0.2 ( 0.3 ) 1
127	10.0 - 80.0% of mass 198	62.8
197	Less than 2.0% of mass 198	0.5
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.5
275	10.0 - 60.0% of mass 198	21.8
365	Greater than 1% of mass 198	3.6
441	Present, but less than mass 443	9.4
442	Greater than 50% of mass 198	54.8
443	15.0 - 24.0% of mass 442	11.5 ( 21 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTDCCC040	SSTDCCC040	BF058464.D	08/28/2012	13:26
02	PB65419BS	PB65419BS	BF058470.D	08/28/2012	16:46
03	PB65419BL	PB65419BL	BF058471.D	08/28/2012	17:16
04	SB-46(12-16)RX	D3811-21RX	BF058474.D	08/28/2012	18:47
05	SS-01AMSRX	D3813-01MSRX	BF058476.D	08/28/2012	19:47
06	SS-01AMSDRX	D3813-01MSDRX	BF058477.D	08/28/2012	20:17

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: MSAN01

Lab Code: CHEM

SAS No.: D3811 SDG NO.: D3811

Lab File ID: BG006770.D

DFTPP Injection Date: 08/20/2012

Instrument ID: BNA\_G

DFTPP Injection Time: 11:58

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	15.6
68	Less than 2.0% of mass 69	0.3 ( 0.8 ) 1
69	Mass 69 relative abundance	36
70	Less than 2.0% of mass 69	0.3 ( 0.7 ) 1
127	10.0 - 80.0% of mass 198	40.2
197	Less than 2.0% of mass 198	0.7
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 60.0% of mass 198	27.7
365	Greater than 1% of mass 198	1.8
441	Present, but less than mass 443	9.6
442	Greater than 50% of mass 198	56.8
443	15.0 - 24.0% of mass 442	10.3 ( 18.1 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTDIC010	SSTDIC010	BG006771.D	08/20/2012	12:43
02	SSTDIC025	SSTDIC025	BG006772.D	08/20/2012	13:25
03	SSTDIC040	SSTDIC040	BG006773.D	08/20/2012	14:06
04	SSTDIC050	SSTDIC050	BG006774.D	08/20/2012	14:55
05	SSTDIC060	SSTDIC060	BG006775.D	08/20/2012	15:36
06	SSTDIC080	SSTDIC080	BG006776.D	08/20/2012	16:18

5B

## SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: MSAN01

Lab Code: CHEM

SAS No.: D3811 SDG NO.: D3811

Lab File ID: BG006778.D

DFTPP Injection Date: 08/20/2012

Instrument ID: BNA\_G

DFTPP Injection Time: 17:41

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	14.1
68	Less than 2.0% of mass 69	0.1 ( 0.2 ) 1
69	Mass 69 relative abundance	32.9
70	Less than 2.0% of mass 69	0.0 ( 0.4 ) 1
127	10.0 - 80.0% of mass 198	40.9
197	Less than 2.0% of mass 198	1
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.8
275	10.0 - 60.0% of mass 198	28.4
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	10.8
442	Greater than 50% of mass 198	66.1
443	15.0 - 24.0% of mass 442	12.9 ( 19.5 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTDCCC040	SSTDCCC040	BG006779.D	08/20/2012	18:27
02	SB-11(12-16)	D3811-05	BG006780.D	08/20/2012	19:08
03	SB-18(4-8)	D3811-07	BG006781.D	08/20/2012	19:50
04	SB-19(12-18)	D3811-08	BG006782.D	08/20/2012	20:32
05	SB-21(12-16)	D3811-09	BG006783.D	08/20/2012	21:13
06	SB-22(12-19)	D3811-11	BG006784.D	08/20/2012	21:55
07	SB-27(8-12)	D3811-12	BG006785.D	08/20/2012	22:36
08	SB-39(6-8)	D3811-14	BG006786.D	08/20/2012	23:18
09	SB-42(14-16)	D3811-16	BG006788.D	08/21/2012	00:41
10	SB-10(8-12)	D3811-04	BG006789.D	08/21/2012	01:23
11	SB-15(12-16)	D3811-06	BG006790.D	08/21/2012	02:04
12	SB-21(16-19)	D3811-10	BG006791.D	08/21/2012	02:46
13	SB-37(8-10)	D3811-13	BG006792.D	08/21/2012	03:27
14	SB-43(10-12)	D3811-18	BG006793.D	08/21/2012	04:09
15	SB-45(10-12)	D3811-20	BG006794.D	08/21/2012	04:51

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: MSAN01

Lab Code: CHEM

SAS No.: D3811 SDG NO.: D3811

Lab File ID: BG006795.D

DFTPP Injection Date: 08/21/2012

Instrument ID: BNA\_G

DFTPP Injection Time: 12:36

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	14.6
68	Less than 2.0% of mass 69	0.3 ( 0.8 ) 1
69	Mass 69 relative abundance	37.6
70	Less than 2.0% of mass 69	0.0 ( 0.5 ) 1
127	10.0 - 80.0% of mass 198	42
197	Less than 2.0% of mass 198	0.7
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.3
275	10.0 - 60.0% of mass 198	28
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	8.4
442	Greater than 50% of mass 198	54.8
443	15.0 - 24.0% of mass 442	11.3 ( 20.6 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTDCCC040	SSTDCCC040	BG006796.D	08/21/2012	13:17
02	PB65125BS	PB65125BS	BG006797.D	08/21/2012	13:59
03	PB65125BL	PB65125BL	BG006798.D	08/21/2012	14:40

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: MSAN01Lab Code: CHEMSAS No.: D3811 SDG NO.: D3811Lab File ID: BG006812.DDFTPP Injection Date: 08/22/2012Instrument ID: BNA\_GDFTPP Injection Time: 00:22

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	14.4
68	Less than 2.0% of mass 69	0.0 ( 0.0 ) 1
69	Mass 69 relative abundance	30
70	Less than 2.0% of mass 69	0.1 ( 0.4 ) 1
127	10.0 - 80.0% of mass 198	40.3
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 60.0% of mass 198	25.8
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	11
442	Greater than 50% of mass 198	61
443	15.0 - 24.0% of mass 442	11.1 ( 18.3 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTDCCC040	SSTDCCC040	BG006813.D	08/22/2012	01:04
02	SB-15(12-16)DL	D3811-06DL	BG006817.D	08/22/2012	03:50
03	SB-21(16-19)DL	D3811-10DL	BG006818.D	08/22/2012	04:32
04	SB-15(12-16)DL2	D3811-06DL2	BG006827.D	08/22/2012	10:45



8B

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/16/2012

Lab File ID: BF058255.D Time Analyzed: 13:17

Instrument ID: BNA\_F GC Column: RTX-5 ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	135344	5.2	472152	6.61	225647	8.42
UPPER LIMIT	270688	5.7	944304	7.11	451294	8.92
LOWER LIMIT	67672	4.7	236076	6.11	112823.5	7.92
EPA SAMPLE NO.						
01 PB65121BS	135385	5.20	481621	6.61	229357	8.42
02 PB65121BL	143738	5.20	520595	6.61	265208	8.42
03 SB-46(12-16)	120188	5.20	430283	6.61	206623	8.42
04 SS-01AMS	114880	5.20	445263	6.61	194584	8.42
05 SS-01AMSD	120791	5.20	401074	6.61	196771	8.42
06 SB-2(4-8)	105965	5.20	374203	6.61	178799	8.42
07 SB-5(8-12)	105968	5.20	372921	6.61	177470	8.42
08 SB-5(8-12)MS	109569	5.20	367686	6.61	179275	8.42
09 SB-5(8-12)MSD	108550	5.20	377340	6.61	175117	8.42
10 SB-9(4-7)	118395	5.20	377764	6.61	176645	8.42

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8C

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/16/2012

Lab File ID: BF058255.D Time Analyzed: 13:17

Instrument ID: BNA\_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	369342	10.38	283189	14.46	263205	16.57
	UPPER LIMIT	738684	10.88	566378	14.96	526410	17.07
	LOWER LIMIT	184671	9.88	141594.5	13.96	131602.5	16.07
	EPA SAMPLE NO.						
01	PB65121BS	356138	10.38	272610	14.46	246003	16.57
02	PB65121BL	403032	10.38	283551	14.45	255674	16.57
03	SB-46(12-16)	341731	10.38	282150	14.45	241713	16.57
04	SS-01AMS	320628	10.38	250753	14.47	219806	16.58
05	SS-01AMSD	324920	10.38	243989	14.47	208775	16.59
06	SB-2(4-8)	291394	10.38	245070	14.45	200014	16.57
07	SB-5(8-12)	292212	10.38	246553	14.45	193609	16.57
08	SB-5(8-12)MS	292502	10.38	244655	14.46	210031	16.57
09	SB-5(8-12)MSD	290273	10.38	244395	14.46	206353	16.57
10	SB-9(4-7)	292602	10.38	247751	14.45	207543	16.57

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8B

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/21/2012

Lab File ID: BF058340.D Time Analyzed: 13:39

Instrument ID: BNA\_F GC Column: RTX-5 ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	206336	5.12	755896	6.54	402302	8.33
UPPER LIMIT	412672	5.62	1511792	7.04	804604	8.83
LOWER LIMIT	103168	4.62	377948	6.04	201151	7.83
EPA SAMPLE NO.						
01 SB-43 (6-8)	210726	5.11	819552	6.54	420829	8.33
02 SB-43 (16-20)	209791	5.11	808679	6.54	421313	8.33

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8C

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/21/2012

Lab File ID: BF058340.D Time Analyzed: 13:39

Instrument ID: BNA\_F GC Column: RTX-5 ID: 0.18 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	677322	10.27	554153	14.34	488292	16.44
UPPER LIMIT	1354644	10.77	1108306	14.84	976584	16.94
LOWER LIMIT	338661	9.77	277076.5	13.84	244146	15.94
EPA SAMPLE NO.						
01 SB-43(6-8)	664638	10.27	543144	14.33	439619	16.44
02 SB-43(16-20)	657582	10.27	551333	14.33	467408	16.44

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8B

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/23/2012

Lab File ID: BF058388.D Time Analyzed: 09:33

Instrument ID: BNA\_F GC Column: RTX-5 ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	254180	5.09	915842	6.52	433607	8.31
UPPER LIMIT	508360	5.59	1831684	7.02	867214	8.81
LOWER LIMIT	127090	4.59	457921	6.02	216803.5	7.81
EPA SAMPLE NO.						
01 SB-37(8-10)DL	254050	5.09	933580	6.52	444781	8.30

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8C

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/23/2012

Lab File ID: BF058388.D Time Analyzed: 09:33

Instrument ID: BNA\_F GC Column: RTX-5 ID: 0.18 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	684378	10.24	539261	14.3	434962	16.4
UPPER LIMIT	1368756	10.74	1078522	14.8	869924	16.9
LOWER LIMIT	342189	9.74	269630.5	13.8	217481	15.9
EPA SAMPLE NO.						
01 SB-37(8-10)DL	677144	10.24	513726	14.30	441644	16.40

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8B

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

EPA Sample No.: SSTDICCC040 Date Analyzed: 08/24/2012

Lab File ID: BF058428.D Time Analyzed: 14:25

Instrument ID: BNA\_F GC Column: RTX-5 ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	123210	5.06	436348	6.5	213363	8.28
UPPER LIMIT	246420	5.56	872696	7	426726	8.78
LOWER LIMIT	61605	4.56	218174	6	106681.5	7.78
EPA SAMPLE NO.						
01 SB-41 (8-11)	123893	5.06	464102	6.49	214377	8.28

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8C

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

EPA Sample No.: SSTDICCC040 Date Analyzed: 08/24/2012

Lab File ID: BF058428.D Time Analyzed: 14:25

Instrument ID: BNA\_F GC Column: RTX-5 ID: 0.18 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	357366	10.2	270047	14.26	222685	16.36
UPPER LIMIT	714732	10.7	540094	14.76	445370	16.86
LOWER LIMIT	178683	9.7	135023.5	13.76	111342.5	15.86
EPA SAMPLE NO.						
01 SB-41 (8-11)	344467	10.20	266733	14.26	223608	16.36

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.



8B

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/28/2012

Lab File ID: BF058464.D Time Analyzed: 13:26

Instrument ID: BNA\_F GC Column: RTX-5 ID: 0.18 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	134554	5.03	456354	6.48	225953	8.26
UPPER LIMIT	269108	5.53	912708	6.98	451906	8.76
LOWER LIMIT	67277	4.53	228177	5.98	112976.5	7.76
EPA SAMPLE NO.						
01 PB65419BS	129958	5.03	457694	6.48	219241	8.26
02 PB65419BL	125724	5.03	460380	6.48	226117	8.25
03 SB-46(12-16)RX	111304	5.03	399381	6.48	196089	8.26
04 SS-01AMSRX	102788	5.03	352575	6.48	185682	8.26
05 SS-01AMSDRX	106084	5.03	384423	6.48	196612	8.26

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8C

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
 EPA Sample No.: SSTDCCC040 Date Analyzed: 08/28/2012  
 Lab File ID: BF058464.D Time Analyzed: 13:26  
 Instrument ID: BNA\_F GC Column: RTX-5 ID: 0.18 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	378210	10.18	302350	14.24	244825	16.34
UPPER LIMIT	756420	10.68	604700	14.74	489650	16.84
LOWER LIMIT	189105	9.68	151175	13.74	122412.5	15.84
EPA SAMPLE NO.						
01 PB65419BS	354154	10.18	277407	14.23	226745	16.33
02 PB65419BL	360782	10.18	262067	14.23	217168	16.33
03 SB-46(12-16)RX	329153	10.18	262705	14.24	220089	16.35
04 SS-01AMSRX	313540	10.18	251354	14.24	206620	16.34
05 SS-01AMSDRX	340314	10.18	265814	14.24	220210	16.34

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8B

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/20/2012

Lab File ID: BG006779.D Time Analyzed: 18:27

Instrument ID: BNA\_G GC Column: RXI-5 ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	158443	8.7	596999	10.89	401047	13.88
UPPER LIMIT	316886	9.2	1193998	11.39	802094	14.38
LOWER LIMIT	79221.5	8.2	298499.5	10.39	200523.5	13.38
EPA SAMPLE NO.						
01 SB-11 (12-16)	133492	8.69	486870	10.89	337919	13.88
02 SB-18 (4-8)	138413	8.69	485146	10.89	330147	13.88
03 SB-19 (12-18)	139140	8.69	484974	10.88	335318	13.88
04 SB-21 (12-16)	138397	8.69	493472	10.88	332442	13.87
05 SB-22 (12-19)	148008	8.69	536530	10.89	375240	13.88
06 SB-27 (8-12)	159547	8.69	587998	10.88	406970	13.88
07 SB-39 (6-8)	139547	8.69	509127	10.88	348075	13.88
08 SB-42 (14-16)	147029	8.69	534925	10.88	377023	13.88
09 SB-10 (8-12)	149700	8.69	555485	10.89	368138	13.88
10 SB-15 (12-16)	143052	8.68	549574	10.89	372130	13.87
11 SB-21 (16-19)	141638	8.69	526360	10.88	370879	13.87
12 SB-37 (8-10)	142291	8.69	534762	10.88	371061	13.87
13 SB-43 (10-12)	152640	8.69	550478	10.88	371702	13.88
14 SB-45 (10-12)	150135	8.69	552773	10.89	376100	13.88

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8C

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/20/2012

Lab File ID: BG006779.D Time Analyzed: 18:27

Instrument ID: BNA\_G GC Column: RXI-5 ID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	745723	16.37	809720	20.88	768950	24.77
UPPER LIMIT	1491446	16.87	1619440	21.38	1537900	25.27
LOWER LIMIT	372861.5	15.87	404860	20.38	384475	24.27
EPA SAMPLE NO.						
01 SB-11 (12-16)	647790	16.37	735697	20.88	669999	24.76
02 SB-18 (4-8)	616910	16.37	750414	20.88	678801	24.77
03 SB-19 (12-18)	607229	16.37	711798	20.88	685422	24.77
04 SB-21 (12-16)	647750	16.37	712921	20.88	693395	24.77
05 SB-22 (12-19)	691343	16.37	758066	20.88	728013	24.76
06 SB-27 (8-12)	705432	16.37	748064	20.88	747188	24.79
07 SB-39 (6-8)	669688	16.37	719022	20.88	697943	24.76
08 SB-42 (14-16)	705074	16.37	758154	20.88	732319	24.77
09 SB-10 (8-12)	697534	16.37	745934	20.88	703209	24.77
10 SB-15 (12-16)	696200	16.37	740611	20.89	720256	24.78
11 SB-21 (16-19)	679988	16.37	710337	20.89	696037	24.78
12 SB-37 (8-10)	700652	16.37	732896	20.88	731810	24.77
13 SB-43 (10-12)	693045	16.37	732996	20.88	715546	24.77
14 SB-45 (10-12)	708834	16.37	761906	20.88	724108	24.77

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8B

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/21/2012

Lab File ID: BG006796.D Time Analyzed: 13:17

Instrument ID: BNA\_G GC Column: RXI-5 ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	160380	8.68	617802	10.89	439623	13.88
UPPER LIMIT	320760	9.18	1235604	11.39	879246	14.38
LOWER LIMIT	80190	8.18	308901	10.39	219811.5	13.38
EPA SAMPLE NO.						
01 PB65125BS	132350	8.69	504044	10.88	356010	13.87
02 PB65125BL	138552	8.68	507764	10.89	359899	13.88

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8C

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
 EPA Sample No.: SSTDCCC040 Date Analyzed: 08/21/2012  
 Lab File ID: BG006796.D Time Analyzed: 13:17  
 Instrument ID: BNA\_G GC Column: RXI-5 ID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	829531	16.37	918038	20.89	810133	24.77
UPPER LIMIT	1659062	16.87	1836076	21.39	1620266	25.27
LOWER LIMIT	414765.5	15.87	459019	20.39	405066.5	24.27
EPA SAMPLE NO.						
01 PB65125BS	659128	16.37	781981	20.88	694347	24.77
02 PB65125BL	692853	16.37	831107	20.88	736559	24.76

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8B

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

EPA Sample No.: SSTDCCC040 Date Analyzed: 08/22/2012

Lab File ID: BG006813.D Time Analyzed: 01:04

Instrument ID: BNA\_G GC Column: RXI-5 ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	150396	8.68	593721	10.88	425155	13.87
UPPER LIMIT	300792	9.18	1187442	11.38	850310	14.37
LOWER LIMIT	75198	8.18	296860.5	10.38	212577.5	13.37
EPA SAMPLE NO.						
01 SB-15(12-16)DL	138234	8.68	540363	10.88	376946	13.87
02 SB-21(16-19)DL	151382	8.68	555212	10.88	394214	13.87
03 SB-15(12-16)DL2	140787	8.68	576119	10.88	394091	13.87

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8C

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811  
 EPA Sample No.: SSTDCCC040 Date Analyzed: 08/22/2012  
 Lab File ID: BG006813.D Time Analyzed: 01:04  
 Instrument ID: BNA\_G GC Column: RXI-5 ID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	806441	16.36	914894	20.88	807515	24.75
UPPER LIMIT	1612882	16.86	1829788	21.38	1615030	25.25
LOWER LIMIT	403220.5	15.86	457447	20.38	403757.5	24.25
EPA SAMPLE NO.						
01 SB-15(12-16)DL	704555	16.37	766472	20.87	680312	24.76
02 SB-21(16-19)DL	740477	16.36	761113	20.88	691274	24.76
03 SB-15(12-16)DL2	688062	16.37	715046	20.87	668735	24.76

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.



# QC SAMPLE DATA

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65121BL	SDG No.:	D3811
Lab Sample ID:	PB65121BL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058258.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	165	U	17	165	330	ug/Kg
110-86-1	Pyridine	165	U	66	165	330	ug/Kg
100-52-7	Benzaldehyde	165	U	17	165	330	ug/Kg
62-53-3	Aniline	165	U	28	165	330	ug/Kg
108-95-2	Phenol	165	U	7.7	165	330	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	165	U	16	165	330	ug/Kg
95-57-8	2-Chlorophenol	165	U	18	165	330	ug/Kg
95-50-1	1,2-Dichlorobenzene	165	U	13	165	330	ug/Kg
541-73-1	1,3-Dichlorobenzene	165	U	5.9	165	330	ug/Kg
106-46-7	1,4-Dichlorobenzene	165	U	11	165	330	ug/Kg
100-51-6	Benzyl Alcohol	165	U	12	165	330	ug/Kg
95-48-7	2-Methylphenol	165	U	18	165	330	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	165	U	14	165	330	ug/Kg
98-86-2	Acetophenone	165	U	10	165	330	ug/Kg
65794-96-9	3+4-Methylphenols	165	U	17	165	330	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	165	U	17	165	330	ug/Kg
67-72-1	Hexachloroethane	165	U	15	165	330	ug/Kg
98-95-3	Nitrobenzene	165	U	13	165	330	ug/Kg
78-59-1	Isophorone	165	U	11	165	330	ug/Kg
88-75-5	2-Nitrophenol	165	U	16	165	330	ug/Kg
105-67-9	2,4-Dimethylphenol	165	U	19	165	330	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	165	U	19	165	330	ug/Kg
120-83-2	2,4-Dichlorophenol	165	U	13	165	330	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	165	U	13	165	330	ug/Kg
65-85-0	Benzoic acid	400	U	66	400	800	ug/Kg
91-20-3	Naphthalene	165	U	12	165	330	ug/Kg
106-47-8	4-Chloroaniline	165	U	24	165	330	ug/Kg
87-68-3	Hexachlorobutadiene	165	U	12	165	330	ug/Kg
105-60-2	Caprolactam	165	U	16	165	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	165	U	15	165	330	ug/Kg
91-57-6	2-Methylnaphthalene	165	U	8.4	165	330	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65121BL	SDG No.:	D3811
Lab Sample ID:	PB65121BL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058258.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	165	U	8.1	165	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	165	U	10	165	330	ug/Kg
95-95-4	2,4,5-Trichlorophenol	165	U	23	165	330	ug/Kg
92-52-4	1,1-Biphenyl	165	U	13	165	330	ug/Kg
91-58-7	2-Chloronaphthalene	165	U	7.6	165	330	ug/Kg
88-74-4	2-Nitroaniline	165	U	15	165	330	ug/Kg
131-11-3	Dimethylphthalate	165	U	9	165	330	ug/Kg
208-96-8	Acenaphthylene	165	U	8.4	165	330	ug/Kg
606-20-2	2,6-Dinitrotoluene	165	U	14	165	330	ug/Kg
99-09-2	3-Nitroaniline	165	U	21	165	330	ug/Kg
83-32-9	Acenaphthene	165	U	9.4	165	330	ug/Kg
51-28-5	2,4-Dinitrophenol	165	U	34	165	330	ug/Kg
100-02-7	4-Nitrophenol	165	U	62	165	330	ug/Kg
132-64-9	Dibenzofuran	165	U	13	165	330	ug/Kg
121-14-2	2,4-Dinitrotoluene	165	U	10	165	330	ug/Kg
84-66-2	Diethylphthalate	165	U	5.2	165	330	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	165	U	18	165	330	ug/Kg
86-73-7	Fluorene	165	U	13	165	330	ug/Kg
100-01-6	4-Nitroaniline	165	U	43	165	330	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	165	U	19	165	330	ug/Kg
86-30-6	N-Nitrosodiphenylamine	165	U	8	165	330	ug/Kg
103-33-3	Azobenzene	165	U	7.8	165	330	ug/Kg
101-55-3	4-Bromophenyl-phenylether	165	U	6.5	165	330	ug/Kg
118-74-1	Hexachlorobenzene	165	U	14	165	330	ug/Kg
1912-24-9	Atrazine	165	U	18	165	330	ug/Kg
87-86-5	Pentachlorophenol	165	U	23	165	330	ug/Kg
85-01-8	Phenanthrene	165	U	9	165	330	ug/Kg
120-12-7	Anthracene	165	U	6.8	165	330	ug/Kg
86-74-8	Carbazole	165	U	7.3	165	330	ug/Kg
84-74-2	Di-n-butylphthalate	165	U	26	165	330	ug/Kg
206-44-0	Fluoranthene	165	U	6.7	165	330	ug/Kg
92-87-5	Benzidine	165	U	34	165	330	ug/Kg
129-00-0	Pyrene	165	U	8	165	330	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65121BL	SDG No.:	D3811
Lab Sample ID:	PB65121BL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058258.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	165	U	16	165	330	ug/Kg
91-94-1	3,3-Dichlorobenzidine	165	U	21	165	330	ug/Kg
56-55-3	Benzo(a)anthracene	165	U	16	165	330	ug/Kg
218-01-9	Chrysene	165	U	15	165	330	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	165	U	12	165	330	ug/Kg
117-84-0	Di-n-octyl phthalate	165	U	3.8	165	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	165	U	11	165	330	ug/Kg
207-08-9	Benzo(k)fluoranthene	165	U	16	165	330	ug/Kg
50-32-8	Benzo(a)pyrene	165	U	7.2	165	330	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	165	U	11	165	330	ug/Kg
53-70-3	Dibenz(a,h)anthracene	165	U	9.6	165	330	ug/Kg
191-24-2	Benzo(g,h,i)perylene	165	U	14	165	330	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	165	U	13	165	330	ug/Kg
123-91-1	1,4-Dioxane	165	U	13	165	330	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	165	U	13	165	330	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	116		28 - 127		78%	SPK: 150
13127-88-3	Phenol-d5	109		34 - 127		73%	SPK: 150
4165-60-0	Nitrobenzene-d5	74		31 - 132		74%	SPK: 100
321-60-8	2-Fluorobiphenyl	72.6		39 - 123		73%	SPK: 100
118-79-6	2,4,6-Tribromophenol	89.6		30 - 133		60%	SPK: 150
1718-51-0	Terphenyl-d14	78		37 - 115		78%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	143738	5.2				
1146-65-2	Naphthalene-d8	520595	6.61				
15067-26-2	Acenaphthene-d10	265208	8.42				
1517-22-2	Phenanthrene-d10	403032	10.38				
1719-03-5	Chrysene-d12	283551	14.45				
1520-96-3	Perylene-d12	255674	16.57				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	720	A			3.19	ug/Kg

## Report of Analysis

Client:	MS Analytical		Date Collected:		
Project:	12MS104 Kensington Heights		Date Received:		
Client Sample ID:	PB65121BL		SDG No.:	D3811	
Lab Sample ID:	PB65121BL		Matrix:	SOIL	
Analytical Method:	SW8270D		% Moisture:	0	
Sample Wt/Vol:	30	Units: g	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-Chemtech Full -25	
Extraction Type :	SOXH	Decanted :	N	Level :	LOW
Injection Volume :	1	GPC Factor :	1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058258.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65125BL	SDG No.:	D3811
Lab Sample ID:	PB65125BL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006798.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	165	U	17	165	330	ug/Kg
110-86-1	Pyridine	165	U	66	165	330	ug/Kg
100-52-7	Benzaldehyde	165	U	17	165	330	ug/Kg
62-53-3	Aniline	165	U	28	165	330	ug/Kg
108-95-2	Phenol	165	U	7.7	165	330	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	165	U	16	165	330	ug/Kg
95-57-8	2-Chlorophenol	165	U	18	165	330	ug/Kg
95-50-1	1,2-Dichlorobenzene	165	U	13	165	330	ug/Kg
541-73-1	1,3-Dichlorobenzene	165	U	5.9	165	330	ug/Kg
106-46-7	1,4-Dichlorobenzene	165	U	11	165	330	ug/Kg
100-51-6	Benzyl Alcohol	165	U	12	165	330	ug/Kg
95-48-7	2-Methylphenol	165	U	18	165	330	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	165	U	14	165	330	ug/Kg
98-86-2	Acetophenone	165	U	10	165	330	ug/Kg
65794-96-9	3+4-Methylphenols	165	U	17	165	330	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	165	U	17	165	330	ug/Kg
67-72-1	Hexachloroethane	165	U	15	165	330	ug/Kg
98-95-3	Nitrobenzene	165	U	13	165	330	ug/Kg
78-59-1	Isophorone	165	U	11	165	330	ug/Kg
88-75-5	2-Nitrophenol	165	U	16	165	330	ug/Kg
105-67-9	2,4-Dimethylphenol	165	U	19	165	330	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	165	U	19	165	330	ug/Kg
120-83-2	2,4-Dichlorophenol	165	U	13	165	330	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	165	U	13	165	330	ug/Kg
65-85-0	Benzoic acid	400	U	66	400	800	ug/Kg
91-20-3	Naphthalene	165	U	11	165	330	ug/Kg
106-47-8	4-Chloroaniline	165	U	23	165	330	ug/Kg
87-68-3	Hexachlorobutadiene	165	U	12	165	330	ug/Kg
105-60-2	Caprolactam	165	U	15	165	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	165	U	15	165	330	ug/Kg
91-57-6	2-Methylnaphthalene	165	U	8.4	165	330	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65125BL	SDG No.:	D3811
Lab Sample ID:	PB65125BL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006798.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	165	U	8.1	165	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	165	U	10	165	330	ug/Kg
95-95-4	2,4,5-Trichlorophenol	165	U	23	165	330	ug/Kg
92-52-4	1,1-Biphenyl	165	U	13	165	330	ug/Kg
91-58-7	2-Chloronaphthalene	165	U	7.6	165	330	ug/Kg
88-74-4	2-Nitroaniline	165	U	15	165	330	ug/Kg
131-11-3	Dimethylphthalate	165	U	9	165	330	ug/Kg
208-96-8	Acenaphthylene	165	U	8.4	165	330	ug/Kg
606-20-2	2,6-Dinitrotoluene	165	U	14	165	330	ug/Kg
99-09-2	3-Nitroaniline	165	U	21	165	330	ug/Kg
83-32-9	Acenaphthene	165	U	9.4	165	330	ug/Kg
51-28-5	2,4-Dinitrophenol	165	U	34	165	330	ug/Kg
100-02-7	4-Nitrophenol	165	U	62	165	330	ug/Kg
132-64-9	Dibenzofuran	165	U	13	165	330	ug/Kg
121-14-2	2,4-Dinitrotoluene	165	U	10	165	330	ug/Kg
84-66-2	Diethylphthalate	165	U	5.2	165	330	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	165	U	18	165	330	ug/Kg
86-73-7	Fluorene	165	U	13	165	330	ug/Kg
100-01-6	4-Nitroaniline	165	U	43	165	330	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	165	U	19	165	330	ug/Kg
86-30-6	N-Nitrosodiphenylamine	165	U	8	165	330	ug/Kg
103-33-3	Azobenzene	165	U	7.8	165	330	ug/Kg
101-55-3	4-Bromophenyl-phenylether	165	U	6.5	165	330	ug/Kg
118-74-1	Hexachlorobenzene	165	U	14	165	330	ug/Kg
1912-24-9	Atrazine	165	U	18	165	330	ug/Kg
87-86-5	Pentachlorophenol	165	U	23	165	330	ug/Kg
85-01-8	Phenanthrene	165	U	9	165	330	ug/Kg
120-12-7	Anthracene	165	U	6.8	165	330	ug/Kg
86-74-8	Carbazole	165	U	7.3	165	330	ug/Kg
84-74-2	Di-n-butylphthalate	165	U	26	165	330	ug/Kg
206-44-0	Fluoranthene	165	U	6.7	165	330	ug/Kg
92-87-5	Benzidine	165	U	33	165	330	ug/Kg
129-00-0	Pyrene	165	U	8	165	330	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65125BL	SDG No.:	D3811
Lab Sample ID:	PB65125BL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006798.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	165	U	16	165	330	ug/Kg
91-94-1	3,3-Dichlorobenzidine	165	U	21	165	330	ug/Kg
56-55-3	Benzo(a)anthracene	165	U	16	165	330	ug/Kg
218-01-9	Chrysene	165	U	15	165	330	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	165	U	12	165	330	ug/Kg
117-84-0	Di-n-octyl phthalate	165	U	3.8	165	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	165	U	11	165	330	ug/Kg
207-08-9	Benzo(k)fluoranthene	165	U	16	165	330	ug/Kg
50-32-8	Benzo(a)pyrene	165	U	7.2	165	330	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	165	U	11	165	330	ug/Kg
53-70-3	Dibenz(a,h)anthracene	165	U	9.6	165	330	ug/Kg
191-24-2	Benzo(g,h,i)perylene	165	U	13	165	330	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	165	U	13	165	330	ug/Kg
123-91-1	1,4-Dioxane	165	U	13	165	330	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	165	U	13	165	330	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	135		28 - 127		90%	SPK: 150
13127-88-3	Phenol-d5	134		34 - 127		90%	SPK: 150
4165-60-0	Nitrobenzene-d5	91.7		31 - 132		92%	SPK: 100
321-60-8	2-Fluorobiphenyl	94.5		39 - 123		95%	SPK: 100
118-79-6	2,4,6-Tribromophenol	130		30 - 133		87%	SPK: 150
1718-51-0	Terphenyl-d14	85.6		37 - 115		86%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	138552	8.68				
1146-65-2	Naphthalene-d8	507764	10.89				
15067-26-2	Acenaphthene-d10	359899	13.88				
1517-22-2	Phenanthrene-d10	692853	16.37				
1719-03-5	Chrysene-d12	831107	20.88				
1520-96-3	Perylene-d12	736559	24.76				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
	unknown5.90	290	J			5.9	ug/Kg



## Report of Analysis

Client:	MS Analytical		Date Collected:		
Project:	12MS104 Kensington Heights		Date Received:		
Client Sample ID:	PB65125BL		SDG No.:	D3811	
Lab Sample ID:	PB65125BL		Matrix:	SOIL	
Analytical Method:	SW8270D		% Moisture:	0	
Sample Wt/Vol:	30.01	Units: g	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-Chemtech Full -25	
Extraction Type :	SOXH	Decanted :	N	Level :	LOW
Injection Volume :	1	GPC Factor :	1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006798.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65419BL	SDG No.:	D3811
Lab Sample ID:	PB65419BL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058471.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	165	U	17	165	330	ug/Kg
110-86-1	Pyridine	165	U	66	165	330	ug/Kg
100-52-7	Benzaldehyde	165	U	17	165	330	ug/Kg
62-53-3	Aniline	165	U	28	165	330	ug/Kg
108-95-2	Phenol	165	U	7.7	165	330	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	165	U	16	165	330	ug/Kg
95-57-8	2-Chlorophenol	165	U	18	165	330	ug/Kg
95-50-1	1,2-Dichlorobenzene	165	U	13	165	330	ug/Kg
541-73-1	1,3-Dichlorobenzene	165	U	5.9	165	330	ug/Kg
106-46-7	1,4-Dichlorobenzene	165	U	11	165	330	ug/Kg
100-51-6	Benzyl Alcohol	165	U	12	165	330	ug/Kg
95-48-7	2-Methylphenol	165	U	18	165	330	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	165	U	14	165	330	ug/Kg
98-86-2	Acetophenone	165	U	10	165	330	ug/Kg
65794-96-9	3+4-Methylphenols	165	U	17	165	330	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	165	U	17	165	330	ug/Kg
67-72-1	Hexachloroethane	165	U	15	165	330	ug/Kg
98-95-3	Nitrobenzene	165	U	13	165	330	ug/Kg
78-59-1	Isophorone	165	U	11	165	330	ug/Kg
88-75-5	2-Nitrophenol	165	U	16	165	330	ug/Kg
105-67-9	2,4-Dimethylphenol	165	U	19	165	330	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	165	U	19	165	330	ug/Kg
120-83-2	2,4-Dichlorophenol	165	U	13	165	330	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	165	U	13	165	330	ug/Kg
65-85-0	Benzoic acid	400	U	66	400	800	ug/Kg
91-20-3	Naphthalene	165	U	12	165	330	ug/Kg
106-47-8	4-Chloroaniline	165	U	24	165	330	ug/Kg
87-68-3	Hexachlorobutadiene	165	U	12	165	330	ug/Kg
105-60-2	Caprolactam	165	U	16	165	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	165	U	15	165	330	ug/Kg
91-57-6	2-Methylnaphthalene	165	U	8.4	165	330	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65419BL	SDG No.:	D3811
Lab Sample ID:	PB65419BL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058471.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	165	U	8.1	165	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	165	U	10	165	330	ug/Kg
95-95-4	2,4,5-Trichlorophenol	165	U	23	165	330	ug/Kg
92-52-4	1,1-Biphenyl	165	U	13	165	330	ug/Kg
91-58-7	2-Chloronaphthalene	165	U	7.6	165	330	ug/Kg
88-74-4	2-Nitroaniline	165	U	15	165	330	ug/Kg
131-11-3	Dimethylphthalate	165	U	9	165	330	ug/Kg
208-96-8	Acenaphthylene	165	U	8.4	165	330	ug/Kg
606-20-2	2,6-Dinitrotoluene	165	U	14	165	330	ug/Kg
99-09-2	3-Nitroaniline	165	U	21	165	330	ug/Kg
83-32-9	Acenaphthene	165	U	9.4	165	330	ug/Kg
51-28-5	2,4-Dinitrophenol	165	U	34	165	330	ug/Kg
100-02-7	4-Nitrophenol	165	U	62	165	330	ug/Kg
132-64-9	Dibenzofuran	165	U	13	165	330	ug/Kg
121-14-2	2,4-Dinitrotoluene	165	U	10	165	330	ug/Kg
84-66-2	Diethylphthalate	165	U	5.2	165	330	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	165	U	18	165	330	ug/Kg
86-73-7	Fluorene	165	U	13	165	330	ug/Kg
100-01-6	4-Nitroaniline	165	U	43	165	330	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	165	U	19	165	330	ug/Kg
86-30-6	N-Nitrosodiphenylamine	165	U	8	165	330	ug/Kg
103-33-3	Azobenzene	165	U	7.8	165	330	ug/Kg
101-55-3	4-Bromophenyl-phenylether	165	U	6.5	165	330	ug/Kg
118-74-1	Hexachlorobenzene	165	U	14	165	330	ug/Kg
1912-24-9	Atrazine	165	U	18	165	330	ug/Kg
87-86-5	Pentachlorophenol	165	U	23	165	330	ug/Kg
85-01-8	Phenanthrene	165	U	9	165	330	ug/Kg
120-12-7	Anthracene	165	U	6.8	165	330	ug/Kg
86-74-8	Carbazole	165	U	7.3	165	330	ug/Kg
84-74-2	Di-n-butylphthalate	165	U	26	165	330	ug/Kg
206-44-0	Fluoranthene	165	U	6.7	165	330	ug/Kg
92-87-5	Benzidine	165	U	34	165	330	ug/Kg
129-00-0	Pyrene	165	U	8	165	330	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65419BL	SDG No.:	D3811
Lab Sample ID:	PB65419BL	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058471.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	165	U	16	165	330	ug/Kg
91-94-1	3,3-Dichlorobenzidine	165	U	21	165	330	ug/Kg
56-55-3	Benzo(a)anthracene	165	U	16	165	330	ug/Kg
218-01-9	Chrysene	165	U	15	165	330	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	165	U	12	165	330	ug/Kg
117-84-0	Di-n-octyl phthalate	165	U	3.8	165	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	165	U	11	165	330	ug/Kg
207-08-9	Benzo(k)fluoranthene	165	U	16	165	330	ug/Kg
50-32-8	Benzo(a)pyrene	165	U	7.2	165	330	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	165	U	11	165	330	ug/Kg
53-70-3	Dibenz(a,h)anthracene	165	U	9.6	165	330	ug/Kg
191-24-2	Benzo(g,h,i)perylene	165	U	14	165	330	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	165	U	13	165	330	ug/Kg
123-91-1	1,4-Dioxane	165	U	13	165	330	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	165	U	13	165	330	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	128		28 - 127		86%	SPK: 150
13127-88-3	Phenol-d5	133		34 - 127		89%	SPK: 150
4165-60-0	Nitrobenzene-d5	92.7		31 - 132		93%	SPK: 100
321-60-8	2-Fluorobiphenyl	99.4		39 - 123		99%	SPK: 100
118-79-6	2,4,6-Tribromophenol	144		30 - 133		96%	SPK: 150
1718-51-0	Terphenyl-d14	98.7		37 - 115		99%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	125724	5.03				
1146-65-2	Naphthalene-d8	460380	6.48				
15067-26-2	Acenaphthene-d10	226117	8.25				
1517-22-2	Phenanthrene-d10	360782	10.18				
1719-03-5	Chrysene-d12	262067	14.23				
1520-96-3	Perylene-d12	217168	16.33				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	730	A			3.03	ug/Kg

## Report of Analysis

Client:	MS Analytical		Date Collected:		
Project:	12MS104 Kensington Heights		Date Received:		
Client Sample ID:	PB65419BL		SDG No.:	D3811	
Lab Sample ID:	PB65419BL		Matrix:	SOIL	
Analytical Method:	SW8270D		% Moisture:	0	
Sample Wt/Vol:	30	Units: g	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-Chemtech Full -25	
Extraction Type :	SOXH	Decanted :	N	Level :	LOW
Injection Volume :	1	GPC Factor :	1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058471.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65121BS	SDG No.:	D3811
Lab Sample ID:	PB65121BS	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058256.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	1200		17	165	330	ug/Kg
110-86-1	Pyridine	1100		66	165	330	ug/Kg
100-52-7	Benzaldehyde	150	J	17	165	330	ug/Kg
62-53-3	Aniline	420		28	165	330	ug/Kg
108-95-2	Phenol	840		7.7	165	330	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	990		16	165	330	ug/Kg
95-57-8	2-Chlorophenol	840		18	165	330	ug/Kg
95-50-1	1,2-Dichlorobenzene	930		13	165	330	ug/Kg
541-73-1	1,3-Dichlorobenzene	890		5.9	165	330	ug/Kg
106-46-7	1,4-Dichlorobenzene	910		11	165	330	ug/Kg
100-51-6	Benzyl Alcohol	900		12	165	330	ug/Kg
95-48-7	2-Methylphenol	950		18	165	330	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	970		14	165	330	ug/Kg
98-86-2	Acetophenone	1000		10	165	330	ug/Kg
65794-96-9	3+4-Methylphenols	960		17	165	330	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	980		17	165	330	ug/Kg
67-72-1	Hexachloroethane	870		15	165	330	ug/Kg
98-95-3	Nitrobenzene	950		13	165	330	ug/Kg
78-59-1	Isophorone	950		11	165	330	ug/Kg
88-75-5	2-Nitrophenol	840		16	165	330	ug/Kg
105-67-9	2,4-Dimethylphenol	870		19	165	330	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	950		19	165	330	ug/Kg
120-83-2	2,4-Dichlorophenol	810		13	165	330	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	880		13	165	330	ug/Kg
65-85-0	Benzoic acid	690	J	66	400	800	ug/Kg
91-20-3	Naphthalene	970		11	165	330	ug/Kg
106-47-8	4-Chloroaniline	280	J	23	165	330	ug/Kg
87-68-3	Hexachlorobutadiene	850		12	165	330	ug/Kg
105-60-2	Caprolactam	910		15	165	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	800		15	165	330	ug/Kg
91-57-6	2-Methylnaphthalene	930		8.4	165	330	ug/Kg

## Report of Analysis

Client:	MS Analytical		Date Collected:		
Project:	12MS104 Kensington Heights		Date Received:		
Client Sample ID:	PB65121BS		SDG No.:	D3811	
Lab Sample ID:	PB65121BS		Matrix:	SOIL	
Analytical Method:	SW8270D		% Moisture:	0	
Sample Wt/Vol:	30.01	Units: g	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-Chemtech Full -25	
Extraction Type :	SOXH	Decanted :	N	Level :	LOW
Injection Volume :	1	GPC Factor :	1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058256.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	2100		8.1	165	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	810		10	165	330	ug/Kg
95-95-4	2,4,5-Trichlorophenol	840		23	165	330	ug/Kg
92-52-4	1,1-Biphenyl	930		13	165	330	ug/Kg
91-58-7	2-Chloronaphthalene	900		7.6	165	330	ug/Kg
88-74-4	2-Nitroaniline	840		15	165	330	ug/Kg
131-11-3	Dimethylphthalate	750		9	165	330	ug/Kg
208-96-8	Acenaphthylene	940		8.4	165	330	ug/Kg
606-20-2	2,6-Dinitrotoluene	890		14	165	330	ug/Kg
99-09-2	3-Nitroaniline	500		21	165	330	ug/Kg
83-32-9	Acenaphthene	930		9.4	165	330	ug/Kg
51-28-5	2,4-Dinitrophenol	1200		34	165	330	ug/Kg
100-02-7	4-Nitrophenol	1500		62	165	330	ug/Kg
132-64-9	Dibenzofuran	850		13	165	330	ug/Kg
121-14-2	2,4-Dinitrotoluene	870		10	165	330	ug/Kg
84-66-2	Diethylphthalate	740		5.2	165	330	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	860		18	165	330	ug/Kg
86-73-7	Fluorene	920		13	165	330	ug/Kg
100-01-6	4-Nitroaniline	780		43	165	330	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	730		19	165	330	ug/Kg
86-30-6	N-Nitrosodiphenylamine	930		8	165	330	ug/Kg
103-33-3	Azobenzene	900		7.8	165	330	ug/Kg
101-55-3	4-Bromophenyl-phenylether	880		6.5	165	330	ug/Kg
118-74-1	Hexachlorobenzene	850		14	165	330	ug/Kg
1912-24-9	Atrazine	890		18	165	330	ug/Kg
87-86-5	Pentachlorophenol	1500		23	165	330	ug/Kg
85-01-8	Phenanthrene	940		9	165	330	ug/Kg
120-12-7	Anthracene	970		6.8	165	330	ug/Kg
86-74-8	Carbazole	860		7.3	165	330	ug/Kg
84-74-2	Di-n-butylphthalate	800		26	165	330	ug/Kg
206-44-0	Fluoranthene	890		6.7	165	330	ug/Kg
92-87-5	Benzidine	850		33	165	330	ug/Kg
129-00-0	Pyrene	940		8	165	330	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65121BS	SDG No.:	D3811
Lab Sample ID:	PB65121BS	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058256.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	800		16	165	330	ug/Kg
91-94-1	3,3-Dichlorobenzidine	310	J	21	165	330	ug/Kg
56-55-3	Benzo(a)anthracene	930		16	165	330	ug/Kg
218-01-9	Chrysene	890		15	165	330	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	790		12	165	330	ug/Kg
117-84-0	Di-n-octyl phthalate	830		3.8	165	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	890		11	165	330	ug/Kg
207-08-9	Benzo(k)fluoranthene	920		16	165	330	ug/Kg
50-32-8	Benzo(a)pyrene	940		7.2	165	330	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	930		11	165	330	ug/Kg
53-70-3	Dibenz(a,h)anthracene	940		9.6	165	330	ug/Kg
191-24-2	Benzo(g,h,i)perylene	950		13	165	330	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	900		13	165	330	ug/Kg
123-91-1	1,4-Dioxane	1200		13	165	330	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	750		13	165	330	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	108		28 - 127		72%	SPK: 150
13127-88-3	Phenol-d5	98.8		34 - 127		66%	SPK: 150
4165-60-0	Nitrobenzene-d5	67.8		31 - 132		68%	SPK: 100
321-60-8	2-Fluorobiphenyl	67.2		39 - 123		67%	SPK: 100
118-79-6	2,4,6-Tribromophenol	82.4		30 - 133		55%	SPK: 150
1718-51-0	Terphenyl-d14	65.6		37 - 115		66%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	135385	5.2				
1146-65-2	Naphthalene-d8	481621	6.61				
15067-26-2	Acenaphthene-d10	229357	8.42				
1517-22-2	Phenanthrene-d10	356138	10.38				
1719-03-5	Chrysene-d12	272610	14.46				
1520-96-3	Perylene-d12	246003	16.57				



## Report of Analysis

Client:	MS Analytical		Date Collected:		
Project:	12MS104 Kensington Heights		Date Received:		
Client Sample ID:	PB65121BS		SDG No.:	D3811	
Lab Sample ID:	PB65121BS		Matrix:	SOIL	
Analytical Method:	SW8270D		% Moisture:	0	
Sample Wt/Vol:	30.01	Units: g	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-Chemtech Full -25	
Extraction Type :	SOXH	Decanted :	N	Level :	LOW
Injection Volume :	1	GPC Factor :	1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058256.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65125BS	SDG No.:	D3811
Lab Sample ID:	PB65125BS	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006797.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	1400		17	165	330	ug/Kg
110-86-1	Pyridine	1300		66	165	330	ug/Kg
100-52-7	Benzaldehyde	140	J	17	165	330	ug/Kg
62-53-3	Aniline	930		28	165	330	ug/Kg
108-95-2	Phenol	1300		7.7	165	330	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1300		16	165	330	ug/Kg
95-57-8	2-Chlorophenol	1300		18	165	330	ug/Kg
95-50-1	1,2-Dichlorobenzene	1300		13	165	330	ug/Kg
541-73-1	1,3-Dichlorobenzene	1300		5.9	165	330	ug/Kg
106-46-7	1,4-Dichlorobenzene	1300		11	165	330	ug/Kg
100-51-6	Benzyl Alcohol	1400		12	165	330	ug/Kg
95-48-7	2-Methylphenol	1400		18	165	330	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1300		14	165	330	ug/Kg
98-86-2	Acetophenone	1400		10	165	330	ug/Kg
65794-96-9	3+4-Methylphenols	1400		17	165	330	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1300		17	165	330	ug/Kg
67-72-1	Hexachloroethane	1300		15	165	330	ug/Kg
98-95-3	Nitrobenzene	1300		13	165	330	ug/Kg
78-59-1	Isophorone	1400		11	165	330	ug/Kg
88-75-5	2-Nitrophenol	1300		16	165	330	ug/Kg
105-67-9	2,4-Dimethylphenol	1300		19	165	330	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1400		19	165	330	ug/Kg
120-83-2	2,4-Dichlorophenol	1300		13	165	330	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1300		13	165	330	ug/Kg
65-85-0	Benzoic acid	1100		66	400	800	ug/Kg
91-20-3	Naphthalene	1300		11	165	330	ug/Kg
106-47-8	4-Chloroaniline	420		23	165	330	ug/Kg
87-68-3	Hexachlorobutadiene	1300		12	165	330	ug/Kg
105-60-2	Caprolactam	1500		15	165	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1300		15	165	330	ug/Kg
91-57-6	2-Methylnaphthalene	1400		8.4	165	330	ug/Kg

## Report of Analysis

Client:	MS Analytical		Date Collected:		
Project:	12MS104 Kensington Heights		Date Received:		
Client Sample ID:	PB65125BS		SDG No.:	D3811	
Lab Sample ID:	PB65125BS		Matrix:	SOIL	
Analytical Method:	SW8270D		% Moisture:	0	
Sample Wt/Vol:	30.03	Units: g	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-Chemtech Full -25	
Extraction Type :	SOXH	Decanted :	N	Level :	LOW
Injection Volume :	1	GPC Factor :	1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006797.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	3200	E	8.1	165	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1200		10	165	330	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1300		23	165	330	ug/Kg
92-52-4	1,1-Biphenyl	1300		13	165	330	ug/Kg
91-58-7	2-Chloronaphthalene	1300		7.6	165	330	ug/Kg
88-74-4	2-Nitroaniline	1200		15	165	330	ug/Kg
131-11-3	Dimethylphthalate	1100		9	165	330	ug/Kg
208-96-8	Acenaphthylene	1400		8.4	165	330	ug/Kg
606-20-2	2,6-Dinitrotoluene	1300		14	165	330	ug/Kg
99-09-2	3-Nitroaniline	770		21	165	330	ug/Kg
83-32-9	Acenaphthene	1400		9.4	165	330	ug/Kg
51-28-5	2,4-Dinitrophenol	2100		34	165	330	ug/Kg
100-02-7	4-Nitrophenol	2500		62	165	330	ug/Kg
132-64-9	Dibenzofuran	1300		13	165	330	ug/Kg
121-14-2	2,4-Dinitrotoluene	1300		10	165	330	ug/Kg
84-66-2	Diethylphthalate	1100		5.2	165	330	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1300		18	165	330	ug/Kg
86-73-7	Fluorene	1400		13	165	330	ug/Kg
100-01-6	4-Nitroaniline	1200		43	165	330	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1200		19	165	330	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1300		8	165	330	ug/Kg
103-33-3	Azobenzene	1300		7.8	165	330	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1300		6.5	165	330	ug/Kg
118-74-1	Hexachlorobenzene	1300		14	165	330	ug/Kg
1912-24-9	Atrazine	1400		18	165	330	ug/Kg
87-86-5	Pentachlorophenol	2300		23	165	330	ug/Kg
85-01-8	Phenanthrene	1400		9	165	330	ug/Kg
120-12-7	Anthracene	1400		6.8	165	330	ug/Kg
86-74-8	Carbazole	1300		7.3	165	330	ug/Kg
84-74-2	Di-n-butylphthalate	1100		26	165	330	ug/Kg
206-44-0	Fluoranthene	1400		6.7	165	330	ug/Kg
92-87-5	Benzidine	1800		33	165	330	ug/Kg
129-00-0	Pyrene	1300		8	165	330	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65125BS	SDG No.:	D3811
Lab Sample ID:	PB65125BS	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006797.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1100		16	165	330	ug/Kg
91-94-1	3,3-Dichlorobenzidine	720		21	165	330	ug/Kg
56-55-3	Benzo(a)anthracene	1300		16	165	330	ug/Kg
218-01-9	Chrysene	1300		15	165	330	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1100		12	165	330	ug/Kg
117-84-0	Di-n-octyl phthalate	1200		3.8	165	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	1400		11	165	330	ug/Kg
207-08-9	Benzo(k)fluoranthene	1400		16	165	330	ug/Kg
50-32-8	Benzo(a)pyrene	1400		7.2	165	330	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1200		11	165	330	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1300		9.6	165	330	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1300		13	165	330	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1300		13	165	330	ug/Kg
123-91-1	1,4-Dioxane	1300		13	165	330	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1200		13	165	330	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	143		28 - 127		96%	SPK: 150
13127-88-3	Phenol-d5	144		34 - 127		96%	SPK: 150
4165-60-0	Nitrobenzene-d5	92.2		31 - 132		92%	SPK: 100
321-60-8	2-Fluorobiphenyl	94.8		39 - 123		95%	SPK: 100
118-79-6	2,4,6-Tribromophenol	134		30 - 133		90%	SPK: 150
1718-51-0	Terphenyl-d14	84.7		37 - 115		85%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	132350	8.69				
1146-65-2	Naphthalene-d8	504044	10.88				
15067-26-2	Acenaphthene-d10	356010	13.87				
1517-22-2	Phenanthrene-d10	659128	16.37				
1719-03-5	Chrysene-d12	781981	20.88				
1520-96-3	Perylene-d12	694347	24.77				

## Report of Analysis

Client:	MS Analytical		Date Collected:		
Project:	12MS104 Kensington Heights		Date Received:		
Client Sample ID:	PB65125BS		SDG No.:	D3811	
Lab Sample ID:	PB65125BS		Matrix:	SOIL	
Analytical Method:	SW8270D		% Moisture:	0	
Sample Wt/Vol:	30.03	Units: g	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-Chemtech Full -25	
Extraction Type :	SOXH	Decanted :	N	Level :	LOW
Injection Volume :	1	GPC Factor :	1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG006797.D	1	08/15/12	08/21/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical		Date Collected:		
Project:	12MS104 Kensington Heights		Date Received:		
Client Sample ID:	PB65419BS		SDG No.:	D3811	
Lab Sample ID:	PB65419BS		Matrix:	SOIL	
Analytical Method:	SW8270D		% Moisture:	0	
Sample Wt/Vol:	30.01	Units: g	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-Chemtech Full -25	
Extraction Type :	SOXH	Decanted :	N	Level :	LOW
Injection Volume :	1	GPC Factor :	1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058470.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	1300		17	165	330	ug/Kg
110-86-1	Pyridine	1200		66	165	330	ug/Kg
100-52-7	Benzaldehyde	560		17	165	330	ug/Kg
62-53-3	Aniline	800		28	165	330	ug/Kg
108-95-2	Phenol	1100		7.7	165	330	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1300		16	165	330	ug/Kg
95-57-8	2-Chlorophenol	1100		18	165	330	ug/Kg
95-50-1	1,2-Dichlorobenzene	1300		13	165	330	ug/Kg
541-73-1	1,3-Dichlorobenzene	1300		5.9	165	330	ug/Kg
106-46-7	1,4-Dichlorobenzene	1300		11	165	330	ug/Kg
100-51-6	Benzyl Alcohol	1200		12	165	330	ug/Kg
95-48-7	2-Methylphenol	1300		18	165	330	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1300		14	165	330	ug/Kg
98-86-2	Acetophenone	1300		10	165	330	ug/Kg
65794-96-9	3+4-Methylphenols	1300		17	165	330	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1300		17	165	330	ug/Kg
67-72-1	Hexachloroethane	1300		15	165	330	ug/Kg
98-95-3	Nitrobenzene	1300		13	165	330	ug/Kg
78-59-1	Isophorone	1300		11	165	330	ug/Kg
88-75-5	2-Nitrophenol	1200		16	165	330	ug/Kg
105-67-9	2,4-Dimethylphenol	1200		19	165	330	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1300		19	165	330	ug/Kg
120-83-2	2,4-Dichlorophenol	1200		13	165	330	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1300		13	165	330	ug/Kg
65-85-0	Benzoic acid	1300		66	400	800	ug/Kg
91-20-3	Naphthalene	1300		11	165	330	ug/Kg
106-47-8	4-Chloroaniline	450		23	165	330	ug/Kg
87-68-3	Hexachlorobutadiene	1300		12	165	330	ug/Kg
105-60-2	Caprolactam	1300		15	165	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1100		15	165	330	ug/Kg
91-57-6	2-Methylnaphthalene	1300		8.4	165	330	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65419BS	SDG No.:	D3811
Lab Sample ID:	PB65419BS	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058470.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	3300	E	8.1	165	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1200		10	165	330	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1200		23	165	330	ug/Kg
92-52-4	1,1-Biphenyl	1300		13	165	330	ug/Kg
91-58-7	2-Chloronaphthalene	1300		7.6	165	330	ug/Kg
88-74-4	2-Nitroaniline	1200		15	165	330	ug/Kg
131-11-3	Dimethylphthalate	1100		9	165	330	ug/Kg
208-96-8	Acenaphthylene	1300		8.4	165	330	ug/Kg
606-20-2	2,6-Dinitrotoluene	1300		14	165	330	ug/Kg
99-09-2	3-Nitroaniline	700		21	165	330	ug/Kg
83-32-9	Acenaphthene	1300		9.4	165	330	ug/Kg
51-28-5	2,4-Dinitrophenol	2000		34	165	330	ug/Kg
100-02-7	4-Nitrophenol	2200		62	165	330	ug/Kg
132-64-9	Dibenzofuran	1300		13	165	330	ug/Kg
121-14-2	2,4-Dinitrotoluene	1300		10	165	330	ug/Kg
84-66-2	Diethylphthalate	1100		5.2	165	330	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1300		18	165	330	ug/Kg
86-73-7	Fluorene	1300		13	165	330	ug/Kg
100-01-6	4-Nitroaniline	1100		43	165	330	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1100		19	165	330	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1300		8	165	330	ug/Kg
103-33-3	Azobenzene	1200		7.8	165	330	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1300		6.5	165	330	ug/Kg
118-74-1	Hexachlorobenzene	1300		14	165	330	ug/Kg
1912-24-9	Atrazine	1400		18	165	330	ug/Kg
87-86-5	Pentachlorophenol	2500		23	165	330	ug/Kg
85-01-8	Phenanthrene	1300		9	165	330	ug/Kg
120-12-7	Anthracene	1400		6.8	165	330	ug/Kg
86-74-8	Carbazole	1200		7.3	165	330	ug/Kg
84-74-2	Di-n-butylphthalate	1100		26	165	330	ug/Kg
206-44-0	Fluoranthene	1300		6.7	165	330	ug/Kg
92-87-5	Benzidine	1000		33	165	330	ug/Kg
129-00-0	Pyrene	1300		8	165	330	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65419BS	SDG No.:	D3811
Lab Sample ID:	PB65419BS	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	0
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058470.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1100		16	165	330	ug/Kg
91-94-1	3,3-Dichlorobenzidine	620		21	165	330	ug/Kg
56-55-3	Benzo(a)anthracene	1300		16	165	330	ug/Kg
218-01-9	Chrysene	1300		15	165	330	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1000		12	165	330	ug/Kg
117-84-0	Di-n-octyl phthalate	1000		3.8	165	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	1300		11	165	330	ug/Kg
207-08-9	Benzo(k)fluoranthene	1400		16	165	330	ug/Kg
50-32-8	Benzo(a)pyrene	1400		7.2	165	330	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1400		11	165	330	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1400		9.6	165	330	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1300		13	165	330	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1300		13	165	330	ug/Kg
123-91-1	1,4-Dioxane	1300		13	165	330	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1200		13	165	330	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	125		28 - 127		84%	SPK: 150
13127-88-3	Phenol-d5	129		34 - 127		86%	SPK: 150
4165-60-0	Nitrobenzene-d5	91.3		31 - 132		91%	SPK: 100
321-60-8	2-Fluorobiphenyl	94.4		39 - 123		94%	SPK: 100
118-79-6	2,4,6-Tribromophenol	146		30 - 133		98%	SPK: 150
1718-51-0	Terphenyl-d14	89.8		37 - 115		90%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	129958	5.03				
1146-65-2	Naphthalene-d8	457694	6.48				
15067-26-2	Acenaphthene-d10	219241	8.26				
1517-22-2	Phenanthrene-d10	354154	10.18				
1719-03-5	Chrysene-d12	277407	14.23				
1520-96-3	Perylene-d12	226745	16.33				



## Report of Analysis

Client:	MS Analytical		Date Collected:		
Project:	12MS104 Kensington Heights		Date Received:		
Client Sample ID:	PB65419BS		SDG No.:	D3811	
Lab Sample ID:	PB65419BS		Matrix:	SOIL	
Analytical Method:	SW8270D		% Moisture:	0	
Sample Wt/Vol:	30.01	Units: g	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-Chemtech Full -25	
Extraction Type :	SOXH	Decanted :	N	Level :	LOW
Injection Volume :	1	GPC Factor :	1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058470.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)MS	SDG No.:	D3811
Lab Sample ID:	D3811-02MS	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058274.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	2100		21	205	410	ug/Kg
110-86-1	Pyridine	1900		81	205	410	ug/Kg
100-52-7	Benzaldehyde	250	J	21	205	410	ug/Kg
62-53-3	Aniline	1100		35	205	410	ug/Kg
108-95-2	Phenol	1500		9.5	205	410	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1800		20	205	410	ug/Kg
95-57-8	2-Chlorophenol	1500		22	205	410	ug/Kg
95-50-1	1,2-Dichlorobenzene	1600		16	205	410	ug/Kg
541-73-1	1,3-Dichlorobenzene	1600		7.3	205	410	ug/Kg
106-46-7	1,4-Dichlorobenzene	1600		14	205	410	ug/Kg
100-51-6	Benzyl Alcohol	1600		15	205	410	ug/Kg
95-48-7	2-Methylphenol	1700		22	205	410	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1700		17	205	410	ug/Kg
98-86-2	Acetophenone	1800		13	205	410	ug/Kg
65794-96-9	3+4-Methylphenols	1700		21	205	410	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1800		21	205	410	ug/Kg
67-72-1	Hexachloroethane	1500		18	205	410	ug/Kg
98-95-3	Nitrobenzene	1800		16	205	410	ug/Kg
78-59-1	Isophorone	1800		14	205	410	ug/Kg
88-75-5	2-Nitrophenol	1600		20	205	410	ug/Kg
105-67-9	2,4-Dimethylphenol	1600		23	205	410	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1800		24	205	410	ug/Kg
120-83-2	2,4-Dichlorophenol	1500		16	205	410	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1600		16	205	410	ug/Kg
65-85-0	Benzoic acid	1500		81	495	990	ug/Kg
91-20-3	Naphthalene	1700		14	205	410	ug/Kg
106-47-8	4-Chloroaniline	690		29	205	410	ug/Kg
87-68-3	Hexachlorobutadiene	1500		15	205	410	ug/Kg
105-60-2	Caprolactam	2000		19	205	410	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1500		18	205	410	ug/Kg
91-57-6	2-Methylnaphthalene	1700		10	205	410	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)MS	SDG No.:	D3811
Lab Sample ID:	D3811-02MS	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058274.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1500		10	205	410	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1500		13	205	410	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1500		29	205	410	ug/Kg
92-52-4	1,1-Biphenyl	1700		16	205	410	ug/Kg
91-58-7	2-Chloronaphthalene	1600		9.4	205	410	ug/Kg
88-74-4	2-Nitroaniline	1600		18	205	410	ug/Kg
131-11-3	Dimethylphthalate	1800		11	205	410	ug/Kg
208-96-8	Acenaphthylene	1700		10	205	410	ug/Kg
606-20-2	2,6-Dinitrotoluene	1700		17	205	410	ug/Kg
99-09-2	3-Nitroaniline	1400		26	205	410	ug/Kg
83-32-9	Acenaphthene	1700		12	205	410	ug/Kg
51-28-5	2,4-Dinitrophenol	2300		42	205	410	ug/Kg
100-02-7	4-Nitrophenol	3100		76	205	410	ug/Kg
132-64-9	Dibenzofuran	1500		16	205	410	ug/Kg
121-14-2	2,4-Dinitrotoluene	1600		12	205	410	ug/Kg
84-66-2	Diethylphthalate	1400		6.4	205	410	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1500		22	205	410	ug/Kg
86-73-7	Fluorene	1700		16	205	410	ug/Kg
100-01-6	4-Nitroaniline	1500		53	205	410	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1400		24	205	410	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1600		9.9	205	410	ug/Kg
103-33-3	Azobenzene	1700		9.6	205	410	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1500		8	205	410	ug/Kg
118-74-1	Hexachlorobenzene	1500		17	205	410	ug/Kg
1912-24-9	Atrazine	1600		22	205	410	ug/Kg
87-86-5	Pentachlorophenol	3200		28	205	410	ug/Kg
85-01-8	Phenanthrene	1700		11	205	410	ug/Kg
120-12-7	Anthracene	1800		8.4	205	410	ug/Kg
86-74-8	Carbazole	1600		9	205	410	ug/Kg
84-74-2	Di-n-butylphthalate	1500		32	205	410	ug/Kg
206-44-0	Fluoranthene	1700		8.3	205	410	ug/Kg
92-87-5	Benzidine	2200		41	205	410	ug/Kg
129-00-0	Pyrene	1700		9.9	205	410	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)MS	SDG No.:	D3811
Lab Sample ID:	D3811-02MS	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058274.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1500		20	205	410	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1400		26	205	410	ug/Kg
56-55-3	Benzo(a)anthracene	1800		20	205	410	ug/Kg
218-01-9	Chrysene	1700		19	205	410	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1600		15	205	410	ug/Kg
117-84-0	Di-n-octyl phthalate	1700		4.7	205	410	ug/Kg
205-99-2	Benzo(b)fluoranthene	1800		13	205	410	ug/Kg
207-08-9	Benzo(k)fluoranthene	1700		19	205	410	ug/Kg
50-32-8	Benzo(a)pyrene	1700		8.9	205	410	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1100		14	205	410	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1200		12	205	410	ug/Kg
191-24-2	Benzo(g,h,i)perylene	930		17	205	410	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1600		16	205	410	ug/Kg
123-91-1	1,4-Dioxane	2000		16	205	410	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1500		16	205	410	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	137		28 - 127		91%	SPK: 150
13127-88-3	Phenol-d5	137		34 - 127		92%	SPK: 150
4165-60-0	Nitrobenzene-d5	99.2		31 - 132		99%	SPK: 100
321-60-8	2-Fluorobiphenyl	92.2		39 - 123		92%	SPK: 100
118-79-6	2,4,6-Tribromophenol	123		30 - 133		83%	SPK: 150
1718-51-0	Terphenyl-d14	88.7		37 - 115		89%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	109569	5.2				
1146-65-2	Naphthalene-d8	367686	6.61				
15067-26-2	Acenaphthene-d10	179275	8.42				
1517-22-2	Phenanthrene-d10	292502	10.38				
1719-03-5	Chrysene-d12	244655	14.46				
1520-96-3	Perylene-d12	210031	16.57				

## Report of Analysis

Client:	MS Analytical			Date Collected:	08/07/12		
Project:	12MS104 Kensington Heights			Date Received:	08/15/12		
Client Sample ID:	SB-5(8-12)MS			SDG No.:	D3811		
Lab Sample ID:	D3811-02MS			Matrix:	SOIL		
Analytical Method:	SW8270D			% Moisture:	19		
Sample Wt/Vol:	30.05	Units:	g	Final Vol:	1000	uL	
Soil Aliquot Vol:			uL	Test:	SVOC-Chemtech Full -25		
Extraction Type :	SOXH		Decanted :	N	Level :	LOW	
Injection Volume :	1	GPC Factor :	1.0	GPC Cleanup :	N	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058274.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected  
LOQ = Limit of Quantitation  
MDL = Method Detection Limit  
LOD = Limit of Detection  
E = Value Exceeds Calibration Range  
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound  
\* = Values outside of QC limits  
D = Dilution

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMS	SDG No.:	D3811
Lab Sample ID:	D3813-01MS	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058265.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	2000		20	190	380	ug/Kg
110-86-1	Pyridine	1900		76	190	380	ug/Kg
100-52-7	Benzaldehyde	260	J	20	190	380	ug/Kg
62-53-3	Aniline	1000		33	190	380	ug/Kg
108-95-2	Phenol	1900		8.8	190	380	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1700		18	190	380	ug/Kg
95-57-8	2-Chlorophenol	1300		20	190	380	ug/Kg
95-50-1	1,2-Dichlorobenzene	1500		15	190	380	ug/Kg
541-73-1	1,3-Dichlorobenzene	1500		6.8	190	380	ug/Kg
106-46-7	1,4-Dichlorobenzene	1500		13	190	380	ug/Kg
100-51-6	Benzyl Alcohol	1700		14	190	380	ug/Kg
95-48-7	2-Methylphenol	1600		21	190	380	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1600		16	190	380	ug/Kg
98-86-2	Acetophenone	1500		12	190	380	ug/Kg
65794-96-9	3+4-Methylphenols	3000		20	190	380	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1700		19	190	380	ug/Kg
67-72-1	Hexachloroethane	1400		17	190	380	ug/Kg
98-95-3	Nitrobenzene	1400		14	190	380	ug/Kg
78-59-1	Isophorone	1500		13	190	380	ug/Kg
88-75-5	2-Nitrophenol	1100		18	190	380	ug/Kg
105-67-9	2,4-Dimethylphenol	1400		22	190	380	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1700		22	190	380	ug/Kg
120-83-2	2,4-Dichlorophenol	1000		15	190	380	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1400		15	190	380	ug/Kg
65-85-0	Benzoic acid	350	J	76	460	920	ug/Kg
91-20-3	Naphthalene	2000		13	190	380	ug/Kg
106-47-8	4-Chloroaniline	820		27	190	380	ug/Kg
87-68-3	Hexachlorobutadiene	1400		14	190	380	ug/Kg
105-60-2	Caprolactam	2000		18	190	380	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1400		17	190	380	ug/Kg
91-57-6	2-Methylnaphthalene	1600		9.6	190	380	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMS	SDG No.:	D3811
Lab Sample ID:	D3813-01MS	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058265.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	62	J	9.3	190	380	ug/Kg
88-06-2	2,4,6-Trichlorophenol	740		12	190	380	ug/Kg
95-95-4	2,4,5-Trichlorophenol	990		27	190	380	ug/Kg
92-52-4	1,1-Biphenyl	1600		14	190	380	ug/Kg
91-58-7	2-Chloronaphthalene	1400		8.7	190	380	ug/Kg
88-74-4	2-Nitroaniline	1500		17	190	380	ug/Kg
131-11-3	Dimethylphthalate	1700		10	190	380	ug/Kg
208-96-8	Acenaphthylene	1500		9.6	190	380	ug/Kg
606-20-2	2,6-Dinitrotoluene	1500		16	190	380	ug/Kg
99-09-2	3-Nitroaniline	1400		25	190	380	ug/Kg
83-32-9	Acenaphthene	1800		11	190	380	ug/Kg
51-28-5	2,4-Dinitrophenol	490		39	190	380	ug/Kg
100-02-7	4-Nitrophenol	1300		71	190	380	ug/Kg
132-64-9	Dibenzofuran	1600		15	190	380	ug/Kg
121-14-2	2,4-Dinitrotoluene	1500		12	190	380	ug/Kg
84-66-2	Diethylphthalate	1300		6	190	380	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1400		21	190	380	ug/Kg
86-73-7	Fluorene	1800		14	190	380	ug/Kg
100-01-6	4-Nitroaniline	1600		50	190	380	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	430		22	190	380	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1500		9.2	190	380	ug/Kg
103-33-3	Azobenzene	1500		9	190	380	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1400		7.5	190	380	ug/Kg
118-74-1	Hexachlorobenzene	1300		16	190	380	ug/Kg
1912-24-9	Atrazine	1300		20	190	380	ug/Kg
87-86-5	Pentachlorophenol	1100		26	190	380	ug/Kg
85-01-8	Phenanthrene	3400	E	10	190	380	ug/Kg
120-12-7	Anthracene	2000		7.8	190	380	ug/Kg
86-74-8	Carbazole	1700		8.4	190	380	ug/Kg
84-74-2	Di-n-butylphthalate	1300		30	190	380	ug/Kg
206-44-0	Fluoranthene	2900		7.7	190	380	ug/Kg
92-87-5	Benzidine	1700		38	190	380	ug/Kg
129-00-0	Pyrene	2800		9.2	190	380	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMS	SDG No.:	D3811
Lab Sample ID:	D3813-01MS	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058265.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1500		18	190	380	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1500		25	190	380	ug/Kg
56-55-3	Benzo(a)anthracene	2200		18	190	380	ug/Kg
218-01-9	Chrysene	2200		17	190	380	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1600		14	190	380	ug/Kg
117-84-0	Di-n-octyl phthalate	1600		4.4	190	380	ug/Kg
205-99-2	Benzo(b)fluoranthene	2200		13	190	380	ug/Kg
207-08-9	Benzo(k)fluoranthene	1900		18	190	380	ug/Kg
50-32-8	Benzo(a)pyrene	2100		8.3	190	380	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1300		13	190	380	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1100		11	190	380	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1100		16	190	380	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1500		15	190	380	ug/Kg
123-91-1	1,4-Dioxane	2000		15	190	380	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	620		15	190	380	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	129		28 - 127		87%	SPK: 150
13127-88-3	Phenol-d5	139		34 - 127		93%	SPK: 150
4165-60-0	Nitrobenzene-d5	87.5		31 - 132		87%	SPK: 100
321-60-8	2-Fluorobiphenyl	92.9		39 - 123		93%	SPK: 100
118-79-6	2,4,6-Tribromophenol	68.1		30 - 133		45%	SPK: 150
1718-51-0	Terphenyl-d14	92.6		37 - 115		93%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	114880	5.2				
1146-65-2	Naphthalene-d8	445263	6.61				
15067-26-2	Acenaphthene-d10	194584	8.42				
1517-22-2	Phenanthrene-d10	320628	10.38				
1719-03-5	Chrysene-d12	250753	14.47				
1520-96-3	Perylene-d12	219806	16.58				



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMS	SDG No.:	D3811
Lab Sample ID:	D3813-01MS	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.03      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :    N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058265.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMSRX	SDG No.:	D3811
Lab Sample ID:	D3813-01MSRX	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058476.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	1500		20	190	380	ug/Kg
110-86-1	Pyridine	1300		76	190	380	ug/Kg
100-52-7	Benzaldehyde	760		20	190	380	ug/Kg
62-53-3	Aniline	1200		33	190	380	ug/Kg
108-95-2	Phenol	2000		8.8	190	380	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1500		18	190	380	ug/Kg
95-57-8	2-Chlorophenol	1300		20	190	380	ug/Kg
95-50-1	1,2-Dichlorobenzene	1500		15	190	380	ug/Kg
541-73-1	1,3-Dichlorobenzene	1500		6.8	190	380	ug/Kg
106-46-7	1,4-Dichlorobenzene	1500		13	190	380	ug/Kg
100-51-6	Benzyl Alcohol	1600		14	190	380	ug/Kg
95-48-7	2-Methylphenol	1600		21	190	380	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1500		16	190	380	ug/Kg
98-86-2	Acetophenone	1600		12	190	380	ug/Kg
65794-96-9	3+4-Methylphenols	4300	E	20	190	380	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1600		19	190	380	ug/Kg
67-72-1	Hexachloroethane	1400		17	190	380	ug/Kg
98-95-3	Nitrobenzene	1600		14	190	380	ug/Kg
78-59-1	Isophorone	1600		13	190	380	ug/Kg
88-75-5	2-Nitrophenol	1300		18	190	380	ug/Kg
105-67-9	2,4-Dimethylphenol	1600		22	190	380	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1600		22	190	380	ug/Kg
120-83-2	2,4-Dichlorophenol	1400		15	190	380	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1500		15	190	380	ug/Kg
65-85-0	Benzoic acid	460	U	76	460	920	ug/Kg
91-20-3	Naphthalene	2000		13	190	380	ug/Kg
106-47-8	4-Chloroaniline	1200		27	190	380	ug/Kg
87-68-3	Hexachlorobutadiene	1600		14	190	380	ug/Kg
105-60-2	Caprolactam	2000		18	190	380	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1500		17	190	380	ug/Kg
91-57-6	2-Methylnaphthalene	1900		9.6	190	380	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMSRX	SDG No.:	D3811
Lab Sample ID:	D3813-01MSRX	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.02      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N                      Level :                      LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058476.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	510		9.3	190	380	ug/Kg
88-06-2	2,4,6-Trichlorophenol	940		12	190	380	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1200		27	190	380	ug/Kg
92-52-4	1,1-Biphenyl	1600		14	190	380	ug/Kg
91-58-7	2-Chloronaphthalene	1500		8.7	190	380	ug/Kg
88-74-4	2-Nitroaniline	1500		17	190	380	ug/Kg
131-11-3	Dimethylphthalate	1800		10	190	380	ug/Kg
208-96-8	Acenaphthylene	1600		9.6	190	380	ug/Kg
606-20-2	2,6-Dinitrotoluene	1600		16	190	380	ug/Kg
99-09-2	3-Nitroaniline	1400		25	190	380	ug/Kg
83-32-9	Acenaphthene	1700		11	190	380	ug/Kg
51-28-5	2,4-Dinitrophenol	400		39	190	380	ug/Kg
100-02-7	4-Nitrophenol	1600		71	190	380	ug/Kg
132-64-9	Dibenzofuran	1600		15	190	380	ug/Kg
121-14-2	2,4-Dinitrotoluene	1600		12	190	380	ug/Kg
84-66-2	Diethylphthalate	1400		6	190	380	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1600		21	190	380	ug/Kg
86-73-7	Fluorene	1800		14	190	380	ug/Kg
100-01-6	4-Nitroaniline	1500		50	190	380	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	260	J	22	190	380	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1500		9.2	190	380	ug/Kg
103-33-3	Azobenzene	1500		9	190	380	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1500		7.5	190	380	ug/Kg
118-74-1	Hexachlorobenzene	1500		16	190	380	ug/Kg
1912-24-9	Atrazine	1700		20	190	380	ug/Kg
87-86-5	Pentachlorophenol	1100		26	190	380	ug/Kg
85-01-8	Phenanthrene	2700		10	190	380	ug/Kg
120-12-7	Anthracene	1900		7.8	190	380	ug/Kg
86-74-8	Carbazole	1600		8.4	190	380	ug/Kg
84-74-2	Di-n-butylphthalate	1400		30	190	380	ug/Kg
206-44-0	Fluoranthene	2800		7.7	190	380	ug/Kg
92-87-5	Benzidine	2100		38	190	380	ug/Kg
129-00-0	Pyrene	2600		9.2	190	380	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMSRX	SDG No.:	D3811
Lab Sample ID:	D3813-01MSRX	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058476.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1400		18	190	380	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1700		25	190	380	ug/Kg
56-55-3	Benzo(a)anthracene	2200		18	190	380	ug/Kg
218-01-9	Chrysene	2000		17	190	380	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1500		14	190	380	ug/Kg
117-84-0	Di-n-octyl phthalate	1500		4.4	190	380	ug/Kg
205-99-2	Benzo(b)fluoranthene	2400		13	190	380	ug/Kg
207-08-9	Benzo(k)fluoranthene	1700		18	190	380	ug/Kg
50-32-8	Benzo(a)pyrene	2200		8.3	190	380	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1500		13	190	380	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1200		11	190	380	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1300		16	190	380	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1600		15	190	380	ug/Kg
123-91-1	1,4-Dioxane	1300		15	190	380	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	720		15	190	380	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	124		28 - 127		83%	SPK: 150
13127-88-3	Phenol-d5	138		34 - 127		93%	SPK: 150
4165-60-0	Nitrobenzene-d5	99.5		31 - 132		99%	SPK: 100
321-60-8	2-Fluorobiphenyl	97.6		39 - 123		98%	SPK: 100
118-79-6	2,4,6-Tribromophenol	107		30 - 133		71%	SPK: 150
1718-51-0	Terphenyl-d14	94.2		37 - 115		94%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	102788	5.03				
1146-65-2	Naphthalene-d8	352575	6.48				
15067-26-2	Acenaphthene-d10	185682	8.26				
1517-22-2	Phenanthrene-d10	313540	10.18				
1719-03-5	Chrysene-d12	251354	14.24				
1520-96-3	Perylene-d12	206620	16.34				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMSRX	SDG No.:	D3811
Lab Sample ID:	D3813-01MSRX	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.02      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :    N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058476.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)MSD	SDG No.:	D3811
Lab Sample ID:	D3811-02MSD	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058275.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	1700		21	205	410	ug/Kg
110-86-1	Pyridine	1500		81	205	410	ug/Kg
100-52-7	Benzaldehyde	210	J	21	205	410	ug/Kg
62-53-3	Aniline	880		35	205	410	ug/Kg
108-95-2	Phenol	1300		9.5	205	410	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1500		20	205	410	ug/Kg
95-57-8	2-Chlorophenol	1300		22	205	410	ug/Kg
95-50-1	1,2-Dichlorobenzene	1300		16	205	410	ug/Kg
541-73-1	1,3-Dichlorobenzene	1300		7.3	205	410	ug/Kg
106-46-7	1,4-Dichlorobenzene	1300		14	205	410	ug/Kg
100-51-6	Benzyl Alcohol	1300		15	205	410	ug/Kg
95-48-7	2-Methylphenol	1400		22	205	410	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1500		17	205	410	ug/Kg
98-86-2	Acetophenone	1500		13	205	410	ug/Kg
65794-96-9	3+4-Methylphenols	1400		21	205	410	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1500		21	205	410	ug/Kg
67-72-1	Hexachloroethane	1200		18	205	410	ug/Kg
98-95-3	Nitrobenzene	1400		16	205	410	ug/Kg
78-59-1	Isophorone	1400		14	205	410	ug/Kg
88-75-5	2-Nitrophenol	1300		20	205	410	ug/Kg
105-67-9	2,4-Dimethylphenol	1300		23	205	410	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1500		24	205	410	ug/Kg
120-83-2	2,4-Dichlorophenol	1200		16	205	410	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1200		16	205	410	ug/Kg
65-85-0	Benzoic acid	980	J	81	495	990	ug/Kg
91-20-3	Naphthalene	1400		14	205	410	ug/Kg
106-47-8	4-Chloroaniline	670		29	205	410	ug/Kg
87-68-3	Hexachlorobutadiene	1200		15	205	410	ug/Kg
105-60-2	Caprolactam	1600		19	205	410	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1200		18	205	410	ug/Kg
91-57-6	2-Methylnaphthalene	1300		10	205	410	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)MSD	SDG No.:	D3811
Lab Sample ID:	D3811-02MSD	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058275.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1200		10	205	410	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1200		13	205	410	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1300		29	205	410	ug/Kg
92-52-4	1,1-Biphenyl	1400		16	205	410	ug/Kg
91-58-7	2-Chloronaphthalene	1300		9.4	205	410	ug/Kg
88-74-4	2-Nitroaniline	1400		18	205	410	ug/Kg
131-11-3	Dimethylphthalate	1500		11	205	410	ug/Kg
208-96-8	Acenaphthylene	1400		10	205	410	ug/Kg
606-20-2	2,6-Dinitrotoluene	1400		17	205	410	ug/Kg
99-09-2	3-Nitroaniline	1200		26	205	410	ug/Kg
83-32-9	Acenaphthene	1400		12	205	410	ug/Kg
51-28-5	2,4-Dinitrophenol	1400		42	205	410	ug/Kg
100-02-7	4-Nitrophenol	2500		76	205	410	ug/Kg
132-64-9	Dibenzofuran	1300		16	205	410	ug/Kg
121-14-2	2,4-Dinitrotoluene	1300		12	205	410	ug/Kg
84-66-2	Diethylphthalate	1200		6.4	205	410	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1300		22	205	410	ug/Kg
86-73-7	Fluorene	1400		16	205	410	ug/Kg
100-01-6	4-Nitroaniline	1200		53	205	410	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	950		24	205	410	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1300		9.9	205	410	ug/Kg
103-33-3	Azobenzene	1400		9.6	205	410	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1200		8	205	410	ug/Kg
118-74-1	Hexachlorobenzene	1200		17	205	410	ug/Kg
1912-24-9	Atrazine	1300		22	205	410	ug/Kg
87-86-5	Pentachlorophenol	2500		28	205	410	ug/Kg
85-01-8	Phenanthrene	1300		11	205	410	ug/Kg
120-12-7	Anthracene	1400		8.4	205	410	ug/Kg
86-74-8	Carbazole	1300		9	205	410	ug/Kg
84-74-2	Di-n-butylphthalate	1200		32	205	410	ug/Kg
206-44-0	Fluoranthene	1400		8.3	205	410	ug/Kg
92-87-5	Benzidine	1600		41	205	410	ug/Kg
129-00-0	Pyrene	1300		9.9	205	410	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)MSD	SDG No.:	D3811
Lab Sample ID:	D3811-02MSD	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058275.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1200		20	205	410	ug/Kg
91-94-1	3,3-Dichlorobenzidine	990		26	205	410	ug/Kg
56-55-3	Benzo(a)anthracene	1400		20	205	410	ug/Kg
218-01-9	Chrysene	1300		19	205	410	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1300		15	205	410	ug/Kg
117-84-0	Di-n-octyl phthalate	1400		4.7	205	410	ug/Kg
205-99-2	Benzo(b)fluoranthene	1400		13	205	410	ug/Kg
207-08-9	Benzo(k)fluoranthene	1400		19	205	410	ug/Kg
50-32-8	Benzo(a)pyrene	1400		8.9	205	410	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1000		14	205	410	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1200		12	205	410	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1000		17	205	410	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1300		16	205	410	ug/Kg
123-91-1	1,4-Dioxane	1700		16	205	410	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1200		16	205	410	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	111		28 - 127		74%	SPK: 150
13127-88-3	Phenol-d5	115		34 - 127		77%	SPK: 150
4165-60-0	Nitrobenzene-d5	78.6		31 - 132		79%	SPK: 100
321-60-8	2-Fluorobiphenyl	73.5		39 - 123		74%	SPK: 100
118-79-6	2,4,6-Tribromophenol	99.5		30 - 133		66%	SPK: 150
1718-51-0	Terphenyl-d14	66.8		37 - 115		67%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	108550	5.2				
1146-65-2	Naphthalene-d8	377340	6.61				
15067-26-2	Acenaphthene-d10	175117	8.42				
1517-22-2	Phenanthrene-d10	290273	10.38				
1719-03-5	Chrysene-d12	244395	14.46				
1520-96-3	Perylene-d12	206353	16.57				



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)MSD	SDG No.:	D3811
Lab Sample ID:	D3811-02MSD	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	19
Sample Wt/Vol:	30.06      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :    N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058275.D	1	08/15/12	08/16/12	PB65125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMSD	SDG No.:	D3811
Lab Sample ID:	D3813-01MSD	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058266.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	2000		20	190	380	ug/Kg
110-86-1	Pyridine	1900		76	190	380	ug/Kg
100-52-7	Benzaldehyde	290	J	20	190	380	ug/Kg
62-53-3	Aniline	1200		33	190	380	ug/Kg
108-95-2	Phenol	2100		8.8	190	380	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1900		18	190	380	ug/Kg
95-57-8	2-Chlorophenol	1500		20	190	380	ug/Kg
95-50-1	1,2-Dichlorobenzene	1500		15	190	380	ug/Kg
541-73-1	1,3-Dichlorobenzene	1500		6.8	190	380	ug/Kg
106-46-7	1,4-Dichlorobenzene	1500		13	190	380	ug/Kg
100-51-6	Benzyl Alcohol	1600		14	190	380	ug/Kg
95-48-7	2-Methylphenol	1600		21	190	380	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1600		16	190	380	ug/Kg
98-86-2	Acetophenone	1800		12	190	380	ug/Kg
65794-96-9	3+4-Methylphenols	3100	E	20	190	380	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1700		19	190	380	ug/Kg
67-72-1	Hexachloroethane	1400		17	190	380	ug/Kg
98-95-3	Nitrobenzene	1700		14	190	380	ug/Kg
78-59-1	Isophorone	1700		13	190	380	ug/Kg
88-75-5	2-Nitrophenol	1400		18	190	380	ug/Kg
105-67-9	2,4-Dimethylphenol	1600		22	190	380	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1700		22	190	380	ug/Kg
120-83-2	2,4-Dichlorophenol	1400		15	190	380	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1400		15	190	380	ug/Kg
65-85-0	Benzoic acid	440	J	76	460	920	ug/Kg
91-20-3	Naphthalene	1900		13	190	380	ug/Kg
106-47-8	4-Chloroaniline	690		27	190	380	ug/Kg
87-68-3	Hexachlorobutadiene	1400		14	190	380	ug/Kg
105-60-2	Caprolactam	2100		18	190	380	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1500		17	190	380	ug/Kg
91-57-6	2-Methylnaphthalene	1800		9.6	190	380	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMSD	SDG No.:	D3811
Lab Sample ID:	D3813-01MSD	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.09      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N                      Level :                      LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058266.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	250	J	9.3	190	380	ug/Kg
88-06-2	2,4,6-Trichlorophenol	980		12	190	380	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1300		27	190	380	ug/Kg
92-52-4	1,1-Biphenyl	1600		14	190	380	ug/Kg
91-58-7	2-Chloronaphthalene	1500		8.7	190	380	ug/Kg
88-74-4	2-Nitroaniline	1600		17	190	380	ug/Kg
131-11-3	Dimethylphthalate	1700		10	190	380	ug/Kg
208-96-8	Acenaphthylene	1600		9.6	190	380	ug/Kg
606-20-2	2,6-Dinitrotoluene	1600		16	190	380	ug/Kg
99-09-2	3-Nitroaniline	1400		25	190	380	ug/Kg
83-32-9	Acenaphthene	1700		11	190	380	ug/Kg
51-28-5	2,4-Dinitrophenol	680		39	190	380	ug/Kg
100-02-7	4-Nitrophenol	1800		71	190	380	ug/Kg
132-64-9	Dibenzofuran	1600		15	190	380	ug/Kg
121-14-2	2,4-Dinitrotoluene	1600		12	190	380	ug/Kg
84-66-2	Diethylphthalate	1400		6	190	380	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1500		21	190	380	ug/Kg
86-73-7	Fluorene	1700		14	190	380	ug/Kg
100-01-6	4-Nitroaniline	1600		50	190	380	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	570		22	190	380	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1600		9.2	190	380	ug/Kg
103-33-3	Azobenzene	1600		8.9	190	380	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1500		7.4	190	380	ug/Kg
118-74-1	Hexachlorobenzene	1300		16	190	380	ug/Kg
1912-24-9	Atrazine	1400		20	190	380	ug/Kg
87-86-5	Pentachlorophenol	1600		26	190	380	ug/Kg
85-01-8	Phenanthrene	2700		10	190	380	ug/Kg
120-12-7	Anthracene	1900		7.8	190	380	ug/Kg
86-74-8	Carbazole	1600		8.4	190	380	ug/Kg
84-74-2	Di-n-butylphthalate	1400		30	190	380	ug/Kg
206-44-0	Fluoranthene	2600		7.7	190	380	ug/Kg
92-87-5	Benzidine	2100		38	190	380	ug/Kg
129-00-0	Pyrene	2800		9.2	190	380	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMSD	SDG No.:	D3811
Lab Sample ID:	D3813-01MSD	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058266.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1600		18	190	380	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1600		25	190	380	ug/Kg
56-55-3	Benzo(a)anthracene	2300		18	190	380	ug/Kg
218-01-9	Chrysene	2300		17	190	380	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1700		14	190	380	ug/Kg
117-84-0	Di-n-octyl phthalate	1700		4.4	190	380	ug/Kg
205-99-2	Benzo(b)fluoranthene	2300		12	190	380	ug/Kg
207-08-9	Benzo(k)fluoranthene	1900		18	190	380	ug/Kg
50-32-8	Benzo(a)pyrene	2200		8.3	190	380	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1500		13	190	380	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1300		11	190	380	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1500		15	190	380	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1500		15	190	380	ug/Kg
123-91-1	1,4-Dioxane	1900		15	190	380	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	830		15	190	380	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	143		28 - 127		96%	SPK: 150
13127-88-3	Phenol-d5	157		34 - 127		105%	SPK: 150
4165-60-0	Nitrobenzene-d5	99.7		31 - 132		100%	SPK: 100
321-60-8	2-Fluorobiphenyl	94		39 - 123		94%	SPK: 100
118-79-6	2,4,6-Tribromophenol	87		30 - 133		58%	SPK: 150
1718-51-0	Terphenyl-d14	94.7		37 - 115		95%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	120791	5.2				
1146-65-2	Naphthalene-d8	401074	6.61				
15067-26-2	Acenaphthene-d10	196771	8.42				
1517-22-2	Phenanthrene-d10	324920	10.38				
1719-03-5	Chrysene-d12	243989	14.47				
1520-96-3	Perylene-d12	208775	16.59				

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMSD	SDG No.:	D3811
Lab Sample ID:	D3813-01MSD	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.09      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :      N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058266.D	1	08/15/12	08/16/12	PB65121

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMSDRX	SDG No.:	D3811
Lab Sample ID:	D3813-01MSDRX	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058477.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
62-75-9	n-Nitrosodimethylamine	1600		20	190	380	ug/Kg
110-86-1	Pyridine	1400		76	190	380	ug/Kg
100-52-7	Benzaldehyde	790		20	190	380	ug/Kg
62-53-3	Aniline	740		33	190	380	ug/Kg
108-95-2	Phenol	2000		8.8	190	380	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1600		18	190	380	ug/Kg
95-57-8	2-Chlorophenol	1400		20	190	380	ug/Kg
95-50-1	1,2-Dichlorobenzene	1500		15	190	380	ug/Kg
541-73-1	1,3-Dichlorobenzene	1500		6.8	190	380	ug/Kg
106-46-7	1,4-Dichlorobenzene	1500		13	190	380	ug/Kg
100-51-6	Benzyl Alcohol	1700		14	190	380	ug/Kg
95-48-7	2-Methylphenol	1600		21	190	380	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1500		16	190	380	ug/Kg
98-86-2	Acetophenone	1600		12	190	380	ug/Kg
65794-96-9	3+4-Methylphenols	4200	E	20	190	380	ug/Kg
621-64-7	N-Nitroso-di-n-propylamine	1600		19	190	380	ug/Kg
67-72-1	Hexachloroethane	1400		17	190	380	ug/Kg
98-95-3	Nitrobenzene	1500		14	190	380	ug/Kg
78-59-1	Isophorone	1600		13	190	380	ug/Kg
88-75-5	2-Nitrophenol	1300		18	190	380	ug/Kg
105-67-9	2,4-Dimethylphenol	1500		22	190	380	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1600		22	190	380	ug/Kg
120-83-2	2,4-Dichlorophenol	1400		15	190	380	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	1500		15	190	380	ug/Kg
65-85-0	Benzoic acid	460	U	76	460	920	ug/Kg
91-20-3	Naphthalene	1900		13	190	380	ug/Kg
106-47-8	4-Chloroaniline	500		27	190	380	ug/Kg
87-68-3	Hexachlorobutadiene	1600		14	190	380	ug/Kg
105-60-2	Caprolactam	2000		18	190	380	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1500		17	190	380	ug/Kg
91-57-6	2-Methylnaphthalene	1800		9.6	190	380	ug/Kg

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMSDRX	SDG No.:	D3811
Lab Sample ID:	D3813-01MSDRX	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058477.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	470		9.3	190	380	ug/Kg
88-06-2	2,4,6-Trichlorophenol	950		12	190	380	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1300		27	190	380	ug/Kg
92-52-4	1,1-Biphenyl	1600		14	190	380	ug/Kg
91-58-7	2-Chloronaphthalene	1500		8.7	190	380	ug/Kg
88-74-4	2-Nitroaniline	1600		17	190	380	ug/Kg
131-11-3	Dimethylphthalate	1600		10	190	380	ug/Kg
208-96-8	Acenaphthylene	1600		9.6	190	380	ug/Kg
606-20-2	2,6-Dinitrotoluene	1600		16	190	380	ug/Kg
99-09-2	3-Nitroaniline	1400		25	190	380	ug/Kg
83-32-9	Acenaphthene	1800		11	190	380	ug/Kg
51-28-5	2,4-Dinitrophenol	380	J	39	190	380	ug/Kg
100-02-7	4-Nitrophenol	1500		71	190	380	ug/Kg
132-64-9	Dibenzofuran	1600		15	190	380	ug/Kg
121-14-2	2,4-Dinitrotoluene	1600		12	190	380	ug/Kg
84-66-2	Diethylphthalate	1400		6	190	380	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1600		21	190	380	ug/Kg
86-73-7	Fluorene	1800		14	190	380	ug/Kg
100-01-6	4-Nitroaniline	1600		50	190	380	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	250	J	22	190	380	ug/Kg
86-30-6	N-Nitrosodiphenylamine	1500		9.2	190	380	ug/Kg
103-33-3	Azobenzene	1500		9	190	380	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1500		7.5	190	380	ug/Kg
118-74-1	Hexachlorobenzene	1500		16	190	380	ug/Kg
1912-24-9	Atrazine	1600		20	190	380	ug/Kg
87-86-5	Pentachlorophenol	840		26	190	380	ug/Kg
85-01-8	Phenanthrene	2600		10	190	380	ug/Kg
120-12-7	Anthracene	1900		7.8	190	380	ug/Kg
86-74-8	Carbazole	1600		8.4	190	380	ug/Kg
84-74-2	Di-n-butylphthalate	1300		30	190	380	ug/Kg
206-44-0	Fluoranthene	2600		7.7	190	380	ug/Kg
92-87-5	Benzidine	1600		38	190	380	ug/Kg
129-00-0	Pyrene	2600		9.2	190	380	ug/Kg

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMSDRX	SDG No.:	D3811
Lab Sample ID:	D3813-01MSDRX	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH	Decanted :	N
Injection Volume :	1	Level :	LOW
	GPC Factor : 1.0	GPC Cleanup :	N
		PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058477.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1400		18	190	380	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1500		25	190	380	ug/Kg
56-55-3	Benzo(a)anthracene	2200		18	190	380	ug/Kg
218-01-9	Chrysene	2000		17	190	380	ug/Kg
117-81-7	bis(2-Ethylhexyl)phthalate	1500		14	190	380	ug/Kg
117-84-0	Di-n-octyl phthalate	1500		4.4	190	380	ug/Kg
205-99-2	Benzo(b)fluoranthene	2300		13	190	380	ug/Kg
207-08-9	Benzo(k)fluoranthene	1800		18	190	380	ug/Kg
50-32-8	Benzo(a)pyrene	2100		8.3	190	380	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1500		13	190	380	ug/Kg
53-70-3	Dibenz(a,h)anthracene	1200		11	190	380	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1300		16	190	380	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1600		15	190	380	ug/Kg
123-91-1	1,4-Dioxane	1400		15	190	380	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	650		15	190	380	ug/Kg
<b>SURROGATES</b>							
367-12-4	2-Fluorophenol	124		28 - 127		83%	SPK: 150
13127-88-3	Phenol-d5	138		34 - 127		93%	SPK: 150
4165-60-0	Nitrobenzene-d5	93.5		31 - 132		94%	SPK: 100
321-60-8	2-Fluorobiphenyl	95.8		39 - 123		96%	SPK: 100
118-79-6	2,4,6-Tribromophenol	112		30 - 133		75%	SPK: 150
1718-51-0	Terphenyl-d14	93.8		37 - 115		94%	SPK: 100
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	106084	5.03				
1146-65-2	Naphthalene-d8	384423	6.48				
15067-26-2	Acenaphthene-d10	196612	8.26				
1517-22-2	Phenanthrene-d10	340314	10.18				
1719-03-5	Chrysene-d12	265814	14.24				
1520-96-3	Perylene-d12	220210	16.34				



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/15/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SS-01AMSDRX	SDG No.:	D3811
Lab Sample ID:	D3813-01MSDRX	Matrix:	SOIL
Analytical Method:	SW8270D	% Moisture:	13
Sample Wt/Vol:	30.02      Units:    g	Final Vol:	1000                      uL
Soil Aliquot Vol:	uL	Test:	SVOC-Chemtech Full -25
Extraction Type :	SOXH                                      Decanted :    N	Level :	LOW
Injection Volume :	1                                      GPC Factor :    1.0	GPC Cleanup :	N                      PH :    N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF058477.D	1	08/28/12	08/28/12	PB65419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

# CALIBRATION SUMMURY

6C

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date(s): 08/02/2012 08/02/2012

Calibration Time(s): 14:10 17:03

LAB FILE ID:		RRF010 = BF057873.D		RRF025 = BF057874.D		RRF040 = BF057875.D		
		RRF050 = BF057876.D		RRF060 = BF057877.D		RRF080 = BF057878.D		
COMPOUND	RRF010	RRF025	RRF040	RRF050	RRF060	RRF080	RRF	% RSD
n-Nitrosodimethylamine	0.892	0.880	0.886	0.824	0.820	0.816	0.853	4.2
Pyridine	1.687	1.883	1.876	1.761	1.730	1.662	1.767	5.3
Benzaldehyde	1.076	1.062	0.949	0.850	0.832	0.676	0.907	16.8
Aniline	2.318	2.230	2.072	1.961	1.965	1.810	2.059	9.1
Phenol	2.345	2.235	2.097	1.953	1.950	1.790	2.062	9.9
bis(2-Chloroethyl)ether	1.512	1.548	1.421	1.354	1.380	1.280	1.416	7.1
2-Chlorophenol	1.670	1.650	1.511	1.423	1.442	1.328	1.504	8.9
1,2-Dichlorobenzene	1.554	1.536	1.409	1.302	1.305	1.211	1.386	10.0
1,3-Dichlorobenzene	1.734	1.632	1.577	1.493	1.504	1.399	1.556	7.6
1,4-Dichlorobenzene	1.677	1.663	1.569	1.485	1.477	1.372	1.541	7.7
Benzyl Alcohol	1.324	1.326	1.215	1.155	1.149	1.083	1.208	8.2
2-Methylphenol	1.169	1.158	1.087	1.024	1.037	0.972	1.075	7.3
2,2-oxybis(1-Chloropropane)	2.829	2.800	2.576	2.463	2.474	2.272	2.569	8.3
Acetophenone	0.538	0.519	0.492	0.489	0.498	0.466	0.500	5.0
3+4-Methylphenols	1.537	1.493	1.362	1.316	1.295	1.186	1.365	9.6
n-Nitroso-di-n-propylamine	1.118	1.111	1.022	0.990	0.979	0.901	1.020	8.2
Hexachloroethane	0.663	0.652	0.600	0.569	0.586	0.547	0.603	7.6
Nitrobenzene	0.456	0.445	0.419	0.419	0.420	0.394	0.426	5.1
Isophorone	0.783	0.760	0.699	0.700	0.718	0.675	0.722	5.7
2-Nitrophenol	0.222	0.230	0.224	0.223	0.225	0.210	0.222	2.9
2,4-Dimethylphenol	0.379	0.367	0.352	0.345	0.353	0.329	0.354	4.9
bis(2-Chloroethoxy)methane	0.467	0.457	0.433	0.427	0.431	0.408	0.437	5.0
2,4-Dichlorophenol	0.332	0.327	0.305	0.311	0.316	0.287	0.313	5.2
1,2,4-Trichlorobenzene	0.328	0.319	0.301	0.300	0.308	0.287	0.307	4.8
Benzoic acid	0.084	0.119	0.147	0.163	0.194	0.205	0.152	29.9
Naphthalene	1.142	1.088	0.989	0.973	0.978	0.890	1.010	8.9
4-Chloroaniline	0.429	0.433	0.412	0.414	0.413	0.387	0.415	3.9
Hexachlorobutadiene	0.175	0.178	0.169	0.170	0.173	0.160	0.171	3.6
Caprolactam	0.103	0.105	0.100	0.101	0.104	0.101	0.102	2.2
4-Chloro-3-methylphenol	0.351	0.353	0.332	0.337	0.336	0.321	0.339	3.5
2-Methylnaphthalene	0.733	0.714	0.668	0.666	0.671	0.620	0.679	5.9
Hexachlorocyclopentadiene	0.277	0.280	0.298	0.290	0.304	0.283	0.289	3.7
2,4,6-Trichlorophenol	0.425	0.419	0.410	0.404	0.416	0.386	0.410	3.4
2,4,5-Trichlorophenol	0.415	0.410	0.406	0.391	0.407	0.371	0.400	4.1
1,1-Biphenyl	1.790	1.669	1.596	1.552	1.568	1.420	1.599	7.7
2-Chloronaphthalene	1.336	1.275	1.221	1.183	1.179	1.085	1.213	7.1

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

6C

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date(s): 08/02/2012 08/02/2012

Calibration Time(s): 14:10 17:03

LAB FILE ID:	RRF010 = BF057873.D			RRF025 = BF057874.D		RRF040 = BF057875.D		
	RRF050 = BF057876.D			RRF060 = BF057877.D		RRF080 = BF057878.D		
COMPOUND	RRF010	RRF025	RRF040	RRF050	RRF060	RRF080	RRF	% RSD
2-Nitroaniline	0.427	0.435	0.429	0.431	0.438	0.415	0.429	1.9
Dimethylphthalate	1.664	1.606	1.536	1.507	1.528	1.398	1.540	5.9
Acenaphthylene	2.183	2.028	1.955	1.893	1.904	1.734	1.950	7.7
2,6-Dinitrotoluene	0.311	0.301	0.306	0.305	0.312	0.294	0.305	2.2
3-Nitroaniline	0.373	0.388	0.381	0.379	0.385	0.369	0.379	1.9
Acenaphthene	1.264	1.226	1.185	1.157	1.163	1.085	1.180	5.2
2,4-Dinitrophenol	0.116	0.143	0.171	0.183	0.195	0.197	0.167	19.1
4-Nitrophenol	0.318	0.327	0.330	0.322	0.335	0.322	0.326	2.0
Dibenzofuran	1.966	1.864	1.765	1.713	1.707	1.571	1.765	7.8
2,4-Dinitrotoluene	0.385	0.391	0.389	0.386	0.393	0.367	0.385	2.4
Diethylphthalate	1.696	1.647	1.572	1.567	1.584	1.478	1.591	4.7
4-Chlorophenyl-phenylether	0.741	0.664	0.632	0.624	0.637	0.580	0.646	8.3
Fluorene	1.508	1.427	1.366	1.319	1.334	1.227	1.363	7.1
4-Nitroaniline	0.343	0.349	0.351	0.357	0.373	0.349	0.354	3.0
4,6-Dinitro-2-methylphenol	0.096	0.124	0.137	0.140	0.148	0.145	0.132	14.5
n-Nitrosodiphenylamine	0.751	0.741	0.690	0.691	0.683	0.641	0.700	5.8
Azobenzene	1.720	1.620	1.579	1.533	1.564	1.446	1.577	5.8
4-Bromophenyl-phenylether	0.197	0.202	0.200	0.195	0.198	0.187	0.196	2.7
Hexachlorobenzene	0.218	0.214	0.211	0.205	0.209	0.194	0.209	4.0
Atrazine	0.199	0.200	0.194	0.186	0.194	0.172	0.191	5.4
Pentachlorophenol	0.117	0.143	0.143	0.143	0.156	0.149	0.142	9.4
Phenanthrene	1.189	1.140	1.075	1.055	1.055	0.991	1.084	6.5
Anthracene	1.112	1.109	1.050	1.027	1.051	0.960	1.051	5.4
Carbazole	1.199	1.196	1.142	1.117	1.129	1.056	1.140	4.7
Di-n-butylphthalate	1.588	1.631	1.545	1.508	1.519	1.410	1.533	4.9
Fluoranthene	1.198	1.187	1.142	1.125	1.130	1.053	1.139	4.6
Benzidine	0.498	0.549	0.562	0.572	0.577	0.552	0.552	5.2
Pyrene	1.502	1.423	1.423	1.406	1.416	1.329	1.416	3.9
Butylbenzylphthalate	0.779	0.797	0.832	0.814	0.834	0.799	0.809	2.6
3,3-Dichlorobenzidine	0.334	0.351	0.353	0.356	0.351	0.330	0.346	3.1
Benzo (a) anthracene	1.185	1.152	1.142	1.148	1.145	1.097	1.145	2.5
Chrysene	1.176	1.119	1.110	1.105	1.110	1.035	1.109	4.1
Bis (2-ethylhexyl) phthalate	1.055	1.058	1.078	1.074	1.082	1.034	1.064	1.7
Di-n-octyl phthalate	1.616	1.727	1.764	1.751	1.789	1.723	1.728	3.5
Benzo (b) fluoranthene	1.118	1.085	1.099	1.091	1.132	1.124	1.108	1.8
Benzo (k) fluoranthene	1.283	1.278	1.188	1.201	1.188	1.115	1.209	5.3

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

6C

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date(s): 08/02/2012 08/02/2012

Calibration Time(s): 14:10 17:03

LAB FILE ID:		RRF010 = BF057873.D			RRF025 = BF057874.D		RRF040 = BF057875.D	
		RRF050 = BF057876.D			RRF060 = BF057877.D		RRF080 = BF057878.D	
COMPOUND	RRF010	RRF025	RRF040	RRF050	RRF060	RRF080	RRF	% RSD
Benzo(a)pyrene	1.067	1.085	1.033	1.068	1.084	1.062	1.066	1.8
Indeno(1,2,3-cd)pyrene	1.039	1.088	1.134	1.130	1.173	1.150	1.119	4.3
Dibenzo(a,h)anthracene	0.949	1.013	0.960	1.018	1.037	0.994	0.995	3.5
Benzo(g,h,i)perylene	1.052	1.021	1.026	1.050	1.093	1.057	1.050	2.5
1,2,4,5-Tetrachlorobenzene	0.559	0.535	0.513	0.499	0.508	0.464	0.513	6.3
1,4-Dioxane	0.708	0.656	0.651	0.624	0.611	0.584	0.639	6.7
2,3,4,6-Tetrachlorophenol	0.335	0.325	0.323	0.325	0.328	0.310	0.325	2.5
2-Fluorophenol	1.530	1.488	1.401	1.312	1.304	1.222	1.376	8.6
Phenol-d5	1.911	1.874	1.731	1.646	1.653	1.521	1.722	8.6
Nitrobenzene-d5	0.429	0.417	0.391	0.387	0.396	0.369	0.398	5.4
2-Fluorobiphenyl	1.486	1.343	1.261	1.213	1.210	1.072	1.264	11.1
2,4,6-Tribromophenol	0.159	0.153	0.146	0.143	0.147	0.138	0.148	4.9
Terphenyl-d14	0.879	0.842	0.834	0.818	0.820	0.766	0.826	4.5

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

6C

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date(s): 08/20/2012 08/20/2012

Calibration Time(s): 13:17 15:47

LAB FILE ID:		RRF010 = BF058326.D		RRF025 = BF058327.D		RRF040 = BF058328.D		
		RRF050 = BF058329.D		RRF060 = BF058330.D		RRF080 = BF058331.D		
COMPOUND	RRF010	RRF025	RRF040	RRF050	RRF060	RRF080	RRF	% RSD
n-Nitrosodimethylamine	0.711	0.747	0.697	0.711	0.712	0.678	0.709	3.2
Pyridine	2.120	2.192	2.065	2.107	2.184	2.044	2.119	2.9
Benzaldehyde	1.208	1.154	0.992	0.935	0.894	0.786	0.995	16.1
Aniline	2.536	2.473	2.261	2.301	2.236	2.094	2.317	7.0
Phenol	2.667	2.550	2.315	2.338	2.284	2.121	2.379	8.3
bis(2-Chloroethyl)ether	1.782	1.740	1.656	1.674	1.649	1.559	1.677	4.6
2-Chlorophenol	1.784	1.684	1.578	1.588	1.565	1.461	1.610	6.9
1,2-Dichlorobenzene	1.662	1.567	1.418	1.438	1.409	1.295	1.465	8.9
1,3-Dichlorobenzene	1.764	1.726	1.592	1.626	1.599	1.505	1.635	5.8
1,4-Dichlorobenzene	1.791	1.694	1.594	1.617	1.579	1.476	1.625	6.6
Benzyl Alcohol	1.387	1.330	1.238	1.246	1.225	1.133	1.260	7.0
2-Methylphenol	1.303	1.267	1.179	1.198	1.191	1.118	1.210	5.5
2,2-oxybis(1-Chloropropane)	2.007	1.896	1.766	1.768	1.732	1.615	1.797	7.6
Acetophenone	0.595	0.566	0.584	0.533	0.528	0.499	0.551	6.7
3+4-Methylphenols	1.693	1.621	1.515	1.533	1.529	1.424	1.552	6.0
n-Nitroso-di-n-propylamine	1.263	1.227	1.138	1.163	1.150	1.086	1.171	5.5
Hexachloroethane	0.683	0.653	0.620	0.640	0.637	0.600	0.639	4.4
Nitrobenzene	0.499	0.481	0.465	0.456	0.447	0.416	0.461	6.2
Isophorone	0.851	0.827	0.798	0.785	0.783	0.738	0.797	4.9
2-Nitrophenol	0.228	0.237	0.233	0.227	0.231	0.222	0.230	2.3
2,4-Dimethylphenol	0.390	0.385	0.372	0.368	0.365	0.345	0.371	4.3
bis(2-Chloroethoxy)methane	0.544	0.524	0.501	0.493	0.485	0.458	0.501	6.0
2,4-Dichlorophenol	0.328	0.329	0.320	0.311	0.311	0.291	0.315	4.5
1,2,4-Trichlorobenzene	0.334	0.321	0.310	0.304	0.301	0.281	0.309	5.9
Benzoic acid	0.009	0.048	0.063	0.094	0.122	0.165	0.083	67.1
Naphthalene	1.197	1.123	1.038	1.002	0.971	0.877	1.035	10.9
4-Chloroaniline	0.467	0.459	0.447	0.444	0.436	0.408	0.444	4.6
Hexachlorobutadiene	0.169	0.163	0.160	0.156	0.156	0.147	0.158	4.8
Caprolactam	0.109	0.113	0.115	0.116	0.115	0.115	0.114	2.2
4-Chloro-3-methylphenol	0.373	0.374	0.363	0.360	0.360	0.341	0.362	3.3
2-Methylnaphthalene	0.760	0.720	0.681	0.670	0.657	0.611	0.683	7.5
Hexachlorocyclopentadiene	0.230	0.254	0.252	0.251	0.256	0.248	0.248	3.8
2,4,6-Trichlorophenol	0.407	0.403	0.393	0.393	0.389	0.369	0.392	3.4
2,4,5-Trichlorophenol	0.375	0.397	0.373	0.368	0.381	0.357	0.375	3.5
1,1-Biphenyl	1.693	1.589	1.491	1.449	1.426	1.311	1.493	8.9
2-Chloronaphthalene	1.358	1.271	1.202	1.172	1.152	1.065	1.203	8.4

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

6C

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date(s): 08/20/2012 08/20/2012

Calibration Time(s): 13:17 15:47

LAB FILE ID:	RRF010 = BF058326.D			RRF025 = BF058327.D		RRF040 = BF058328.D		
	RRF050 = BF058329.D			RRF060 = BF058330.D		RRF080 = BF058331.D		
COMPOUND	RRF010	RRF025	RRF040	RRF050	RRF060	RRF080	RRF	% RSD
2-Nitroaniline	0.403	0.412	0.407	0.410	0.413	0.393	0.406	1.8
Dimethylphthalate	1.676	1.598	1.516	1.488	1.483	1.379	1.523	6.7
Acenaphthylene	2.095	1.949	1.830	1.782	1.760	1.619	1.839	8.9
2,6-Dinitrotoluene	0.319	0.319	0.314	0.315	0.322	0.302	0.315	2.2
3-Nitroaniline	0.379	0.396	0.386	0.388	0.403	0.382	0.389	2.3
Acenaphthene	1.225	1.164	1.111	1.093	1.097	1.030	1.120	6.0
2,4-Dinitrophenol	0.040	0.092	0.110	0.127	0.139	0.163	0.112	38.2
4-Nitrophenol	0.290	0.327	0.331	0.334	0.351	0.334	0.328	6.2
Dibenzofuran	1.848	1.740	1.648	1.606	1.595	1.463	1.650	8.0
2,4-Dinitrotoluene	0.393	0.407	0.398	0.391	0.402	0.379	0.395	2.5
Diethylphthalate	1.672	1.605	1.555	1.524	1.535	1.430	1.553	5.2
4-Chlorophenyl-phenylether	0.627	0.620	0.589	0.586	0.576	0.543	0.590	5.2
Fluorene	1.416	1.366	1.287	1.261	1.268	1.174	1.295	6.6
4-Nitroaniline	0.352	0.366	0.362	0.363	0.378	0.367	0.365	2.4
4,6-Dinitro-2-methylphenol	0.051	0.116	0.122	0.130	0.140	0.140	0.117	28.7
n-Nitrosodiphenylamine	0.745	0.718	0.685	0.675	0.683	0.639	0.691	5.3
Azobenzene	1.819	1.746	1.665	1.646	1.628	1.520	1.671	6.2
4-Bromophenyl-phenylether	0.204	0.207	0.196	0.199	0.204	0.194	0.201	2.5
Hexachlorobenzene	0.212	0.211	0.208	0.205	0.204	0.194	0.206	3.1
Atrazine	0.197	0.200	0.190	0.182	0.186	0.155	0.185	8.8
Pentachlorophenol	0.099	0.135	0.131	0.134	0.142	0.143	0.130	12.5
Phenanthrene	1.200	1.151	1.102	1.080	1.074	1.000	1.101	6.3
Anthracene	1.148	1.116	1.051	1.056	1.054	0.978	1.067	5.5
Carbazole	1.214	1.218	1.157	1.144	1.134	1.056	1.154	5.2
Di-n-butylphthalate	1.660	1.682	1.613	1.578	1.574	1.458	1.594	5.0
Fluoranthene	1.148	1.136	1.106	1.087	1.092	1.010	1.096	4.4
Benzidine	0.473	0.483	0.496	0.489	0.513	0.469	0.487	3.3
Pyrene	1.402	1.363	1.314	1.317	1.324	1.254	1.329	3.8
Butylbenzylphthalate	0.814	0.842	0.844	0.843	0.862	0.838	0.841	1.8
3,3-Dichlorobenzidine	0.347	0.359	0.351	0.352	0.356	0.346	0.352	1.4
Benzo (a) anthracene	1.140	1.162	1.135	1.141	1.149	1.117	1.141	1.3
Chrysene	1.153	1.137	1.099	1.090	1.102	1.046	1.104	3.4
Bis (2-ethylhexyl) phthalate	1.081	1.120	1.111	1.102	1.117	1.087	1.103	1.5
Di-n-octyl phthalate	1.664	1.796	1.807	1.812	1.860	1.802	1.790	3.7
Benzo (b) fluoranthene	1.104	1.163	1.156	1.146	1.143	1.080	1.132	2.9
Benzo (k) fluoranthene	1.307	1.295	1.282	1.258	1.199	1.137	1.247	5.3

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

6C

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date(s): 08/20/2012 08/20/2012

Calibration Time(s): 13:17 15:47

LAB FILE ID:		RRF010 = BF058326.D			RRF025 = BF058327.D		RRF040 = BF058328.D	
		RRF050 = BF058329.D			RRF060 = BF058330.D		RRF080 = BF058331.D	
COMPOUND	RRF010	RRF025	RRF040	RRF050	RRF060	RRF080	RRF	% RSD
Benzo(a)pyrene	1.049	1.138	1.119	1.118	1.111	1.050	1.097	3.5
Indeno(1,2,3-cd)pyrene	0.981	1.074	1.105	1.142	1.146	1.162	1.102	6.1
Dibenzo(a,h)anthracene	0.958	1.045	1.023	1.059	1.023	0.970	1.013	4.0
Benzo(g,h,i)perylene	0.986	1.070	1.057	1.077	1.075	1.047	1.052	3.3
1,2,4,5-Tetrachlorobenzene	0.531	0.498	0.473	0.463	0.469	0.431	0.478	7.2
1,4-Dioxane	0.862	0.836	0.789	0.805	0.792	0.738	0.804	5.3
2,3,4,6-Tetrachlorophenol	0.291	0.314	0.309	0.304	0.313	0.295	0.304	3.2
2-Fluorophenol	1.677	1.638	1.526	1.531	1.505	1.411	1.548	6.2
Phenol-d5	2.109	2.016	1.868	1.884	1.849	1.726	1.909	7.1
Nitrobenzene-d5	0.470	0.443	0.423	0.416	0.412	0.382	0.424	7.0
2-Fluorobiphenyl	1.384	1.261	1.158	1.112	1.086	0.975	1.163	12.3
2,4,6-Tribromophenol	0.144	0.147	0.146	0.145	0.148	0.141	0.145	1.8
Terphenyl-d14	0.912	0.882	0.831	0.834	0.826	0.776	0.844	5.7

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1



6C

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
 Instrument ID: BNA\_F Calibration Date(s): 08/24/2012 08/24/2012  
 Calibration Time(s): 14:25 16:57

LAB FILE ID:		RRF010 = BF058429.D		RRF025 = BF058430.D		RRF040 = BF058428.D		
		RRF050 = BF058431.D		RRF060 = BF058432.D		RRF080 = BF058433.D		
COMPOUND	RRF010	RRF025	RRF040	RRF050	RRF060	RRF080	RRF	% RSD
n-Nitrosodimethylamine	0.882	0.899	0.895	0.854	0.885	0.847	0.877	2.5
Pyridine	1.810	1.977	1.918	1.951	1.960	1.794	1.902	4.2
Benzaldehyde	1.206	1.153	1.052	0.945	0.928	0.810	1.016	14.7
Aniline	2.394	2.302	2.146	2.118	2.098	1.971	2.172	7.0
Phenol	2.454	2.367	2.297	2.180	2.148	2.020	2.244	7.1
bis(2-Chloroethyl)ether	1.712	1.625	1.599	1.547	1.533	1.453	1.578	5.6
2-Chlorophenol	1.749	1.638	1.605	1.545	1.539	1.422	1.583	6.9
1,2-Dichlorobenzene	1.572	1.455	1.411	1.347	1.331	1.229	1.391	8.4
1,3-Dichlorobenzene	1.664	1.605	1.604	1.557	1.533	1.424	1.564	5.3
1,4-Dichlorobenzene	1.740	1.613	1.569	1.513	1.518	1.425	1.563	6.9
Benzyl Alcohol	1.480	1.468	1.396	1.345	1.327	1.219	1.373	7.1
2-Methylphenol	1.262	1.222	1.210	1.167	1.146	1.074	1.180	5.6
2,2-oxybis(1-Chloropropane)	2.381	2.280	2.188	2.075	2.043	1.921	2.148	7.8
Acetophenone	0.584	0.606	0.752	0.554	0.569	0.538	0.601	12.9
3+4-Methylphenols	1.670	1.573	1.575	1.486	1.473	1.376	1.525	6.7
n-Nitroso-di-n-propylamine	1.313	1.251	1.233	1.177	1.192	1.119	1.214	5.5
Hexachloroethane	0.693	0.671	0.659	0.652	0.643	0.612	0.655	4.2
Nitrobenzene	0.540	0.531	0.504	0.496	0.501	0.471	0.507	4.9
Isophorone	0.861	0.865	0.852	0.820	0.841	0.811	0.842	2.6
2-Nitrophenol	0.221	0.234	0.224	0.225	0.228	0.218	0.225	2.4
2,4-Dimethylphenol	0.389	0.385	0.360	0.360	0.366	0.346	0.368	4.5
bis(2-Chloroethoxy)methane	0.518	0.512	0.484	0.469	0.484	0.457	0.487	4.9
2,4-Dichlorophenol	0.325	0.322	0.317	0.307	0.314	0.294	0.313	3.5
1,2,4-Trichlorobenzene	0.336	0.328	0.311	0.306	0.308	0.288	0.313	5.5
Benzoic acid	0.052	0.080	0.106	0.125	0.156	0.163	0.114	38.0
Naphthalene	1.182	1.146	1.059	1.032	1.036	0.958	1.069	7.7
4-Chloroaniline	0.460	0.455	0.438	0.432	0.440	0.419	0.441	3.4
Hexachlorobutadiene	0.189	0.184	0.175	0.177	0.180	0.169	0.179	4.0
Caprolactam	0.095	0.104	0.106	0.105	0.110	0.104	0.104	4.7
4-Chloro-3-methylphenol	0.382	0.397	0.390	0.377	0.387	0.367	0.383	2.8
2-Methylnaphthalene	0.721	0.708	0.668	0.650	0.653	0.621	0.670	5.6
Hexachlorocyclopentadiene	0.252	0.294	0.282	0.284	0.298	0.282	0.282	5.7
2,4,6-Trichlorophenol	0.401	0.432	0.412	0.392	0.412	0.383	0.405	4.2
2,4,5-Trichlorophenol	0.391	0.415	0.404	0.384	0.400	0.373	0.395	3.7
1,1-Biphenyl	1.685	1.686	1.554	1.504	1.527	1.421	1.563	6.7
2-Chloronaphthalene	1.320	1.298	1.222	1.149	1.199	1.116	1.217	6.6

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

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## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date(s): 08/24/2012 08/24/2012

Calibration Time(s): 14:25 16:57

LAB FILE ID:		RRF010 = BF058429.D		RRF025 = BF058430.D		RRF040 = BF058428.D		
		RRF050 = BF058431.D		RRF060 = BF058432.D		RRF080 = BF058433.D		
COMPOUND	RRF010	RRF025	RRF040	RRF050	RRF060	RRF080	RRF	% RSD
2-Nitroaniline	0.445	0.503	0.492	0.487	0.509	0.471	0.485	4.9
Dimethylphthalate	1.614	1.675	1.592	1.527	1.588	1.468	1.577	4.5
Acenaphthylene	2.057	2.058	1.897	1.848	1.883	1.760	1.917	6.2
2,6-Dinitrotoluene	0.311	0.321	0.315	0.305	0.320	0.301	0.312	2.5
3-Nitroaniline	0.348	0.384	0.384	0.369	0.391	0.373	0.375	4.2
Acenaphthene	1.214	1.218	1.155	1.114	1.153	1.085	1.157	4.6
2,4-Dinitrophenol	0.054	0.129	0.165	0.167	0.189	0.197	0.150	35.2
4-Nitrophenol	0.266	0.325	0.320	0.325	0.337	0.323	0.316	8.0
Dibenzofuran	1.860	1.858	1.749	1.677	1.701	1.592	1.740	6.1
2,4-Dinitrotoluene	0.387	0.415	0.395	0.393	0.396	0.377	0.394	3.2
Diethylphthalate	1.697	1.780	1.698	1.660	1.702	1.604	1.690	3.4
4-Chlorophenyl-phenylether	0.640	0.681	0.629	0.610	0.619	0.582	0.627	5.3
Fluorene	1.427	1.450	1.375	1.316	1.339	1.256	1.360	5.3
4-Nitroaniline	0.318	0.355	0.350	0.355	0.372	0.360	0.352	5.2
4,6-Dinitro-2-methylphenol	0.086	0.129	0.139	0.141	0.152	0.150	0.133	18.2
n-Nitrosodiphenylamine	0.735	0.714	0.680	0.677	0.690	0.654	0.692	4.1
Azobenzene	1.928	1.947	1.865	1.815	1.850	1.732	1.856	4.2
4-Bromophenyl-phenylether	0.191	0.195	0.198	0.191	0.195	0.188	0.193	1.9
Hexachlorobenzene	0.223	0.206	0.202	0.199	0.204	0.192	0.204	5.2
Atrazine	0.197	0.197	0.180	0.172	0.180	0.143	0.178	11.3
Pentachlorophenol	0.104	0.124	0.138	0.129	0.135	0.128	0.126	9.4
Phenanthrene	1.174	1.132	1.077	1.055	1.070	1.007	1.086	5.4
Anthracene	1.122	1.097	0.985	1.046	1.048	1.000	1.049	5.1
Carbazole	1.193	1.196	1.155	1.132	1.157	1.092	1.154	3.4
Di-n-butylphthalate	1.696	1.683	1.643	1.614	1.646	1.544	1.638	3.3
Fluoranthene	1.158	1.163	1.118	1.117	1.127	1.060	1.124	3.3
Benzidine	0.435	0.473	0.445	0.502	0.531	0.508	0.482	7.9
Pyrene	1.504	1.490	1.461	1.441	1.441	1.373	1.452	3.2
Butylbenzylphthalate	0.845	0.878	0.920	0.903	0.917	0.878	0.890	3.2
3,3-Dichlorobenzidine	0.303	0.343	0.336	0.336	0.339	0.335	0.332	4.3
Benzo(a)anthracene	1.154	1.162	1.182	1.182	1.199	1.155	1.172	1.6
Chrysene	1.201	1.177	1.167	1.151	1.165	1.116	1.163	2.4
Bis(2-ethylhexyl)phthalate	1.133	1.170	1.220	1.188	1.193	1.156	1.177	2.6
Di-n-octyl phthalate	1.676	1.843	1.976	1.927	1.976	1.902	1.883	6.0
Benzo(b)fluoranthene	1.043	1.189	1.172	1.192	1.253	1.204	1.175	6.0
Benzo(k)fluoranthene	1.412	1.401	1.340	1.386	1.395	1.293	1.371	3.3

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

6C

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date(s): 08/24/2012 08/24/2012

Calibration Time(s): 14:25 16:57

LAB FILE ID:		RRF010 = BF058429.D			RRF025 = BF058430.D		RRF040 = BF058428.D	
		RRF050 = BF058431.D			RRF060 = BF058432.D		RRF080 = BF058433.D	
COMPOUND	RRF010	RRF025	RRF040	RRF050	RRF060	RRF080	RRF	% RSD
Benzo(a)pyrene	1.057	1.152	1.141	1.159	1.213	1.153	1.146	4.4
Indeno(1,2,3-cd)pyrene	0.891	1.007	1.070	1.060	1.118	1.099	1.041	7.9
Dibenzo(a,h)anthracene	0.806	0.967	1.012	1.002	1.075	1.031	0.982	9.5
Benzo(g,h,i)perylene	0.992	1.055	1.095	1.080	1.130	1.069	1.070	4.3
1,2,4,5-Tetrachlorobenzene	0.549	0.544	0.519	0.503	0.511	0.481	0.518	4.9
1,4-Dioxane	0.772	0.776	0.762	0.746	0.748	0.718	0.754	2.8
2,3,4,6-Tetrachlorophenol	0.304	0.329	0.323	0.311	0.323	0.301	0.315	3.6
2-Fluorophenol	1.592	1.527	1.481	1.429	1.422	1.312	1.461	6.6
Phenol-d5	2.058	1.939	1.880	1.794	1.757	1.627	1.843	8.2
Nitrobenzene-d5	0.493	0.492	0.466	0.458	0.464	0.436	0.468	4.7
2-Fluorobiphenyl	1.420	1.375	1.255	1.199	1.194	1.101	1.257	9.6
2,4,6-Tribromophenol	0.125	0.139	0.134	0.134	0.135	0.130	0.133	3.5
Terphenyl-d14	0.916	0.895	0.869	0.865	0.867	0.823	0.873	3.6

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

6C

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_G Calibration Date(s): 08/20/2012 08/20/2012

Calibration Time(s): 12:43 16:18

LAB FILE ID:		RRF010 = BG006771.D		RRF025 = BG006772.D		RRF040 = BG006773.D		
		RRF050 = BG006774.D		RRF060 = BG006775.D		RRF080 = BG006776.D		
COMPOUND	RRF010	RRF025	RRF040	RRF050	RRF060	RRF080	RRF	% RSD
n-Nitrosodimethylamine	0.330	0.317	0.321	0.319	0.324	0.309	0.320	2.2
Pyridine	1.129	1.286	1.232	1.269	1.307	1.258	1.247	5.1
Benzaldehyde	0.855	0.795	0.695	0.633	0.615	0.543	0.689	17.0
Aniline	1.911	1.817	1.751	1.738	1.786	1.671	1.779	4.6
Phenol	1.810	1.695	1.632	1.656	1.677	1.605	1.679	4.3
bis(2-Chloroethyl)ether	1.200	1.180	1.165	1.111	1.156	1.115	1.155	3.1
2-Chlorophenol	1.603	1.496	1.481	1.443	1.477	1.404	1.484	4.5
1,2-Dichlorobenzene	1.634	1.593	1.472	1.473	1.530	1.436	1.523	5.1
1,3-Dichlorobenzene	1.728	1.672	1.577	1.583	1.617	1.553	1.622	4.1
1,4-Dichlorobenzene	1.750	1.733	1.596	1.581	1.620	1.560	1.640	4.9
Benzyl Alcohol	1.104	1.165	1.111	1.113	1.131	1.096	1.120	2.2
2-Methylphenol	1.104	1.112	1.040	1.053	1.076	1.011	1.066	3.6
2,2-oxybis(1-Chloropropane)	0.338	0.343	0.319	0.323	0.314	0.315	0.325	3.8
Acetophenone	0.505	0.475	0.567	0.467	0.475	0.447	0.490	8.6
3+4-Methylphenols	1.423	1.446	1.419	1.389	1.442	1.352	1.412	2.5
n-Nitroso-di-n-propylamine	0.976	0.894	0.868	0.870	0.887	0.843	0.890	5.2
Hexachloroethane	0.593	0.595	0.555	0.552	0.558	0.560	0.569	3.4
Nitrobenzene	0.372	0.390	0.379	0.384	0.378	0.363	0.378	2.5
Isophorone	0.675	0.643	0.604	0.639	0.630	0.585	0.629	5.0
2-Nitrophenol	0.245	0.250	0.237	0.245	0.246	0.236	0.243	2.3
2,4-Dimethylphenol	0.359	0.334	0.326	0.346	0.332	0.319	0.336	4.3
bis(2-Chloroethoxy)methane	0.384	0.371	0.358	0.379	0.368	0.355	0.369	3.1
2,4-Dichlorophenol	0.399	0.394	0.387	0.398	0.402	0.376	0.393	2.4
1,2,4-Trichlorobenzene	0.424	0.422	0.404	0.417	0.408	0.389	0.411	3.3
Benzoic acid	0.048	0.080	0.122	0.151	0.170	0.179	0.125	41.9
Naphthalene	1.109	1.064	1.023	1.028	1.024	0.953	1.034	5.0
4-Chloroaniline	0.471	0.452	0.438	0.459	0.446	0.428	0.449	3.4
Hexachlorobutadiene	0.299	0.279	0.271	0.280	0.275	0.261	0.277	4.5
Caprolactam	0.115	0.119	0.115	0.111	0.118	0.111	0.115	2.7
4-Chloro-3-methylphenol	0.356	0.366	0.358	0.361	0.360	0.342	0.357	2.3
2-Methylnaphthalene	0.804	0.762	0.744	0.761	0.746	0.705	0.754	4.3
Hexachlorocyclopentadiene	0.294	0.311	0.351	0.352	0.366	0.361	0.339	8.7
2,4,6-Trichlorophenol	0.509	0.475	0.478	0.489	0.491	0.474	0.486	2.7
2,4,5-Trichlorophenol	0.482	0.496	0.475	0.470	0.482	0.471	0.479	2.0
1,1-Biphenyl	1.441	1.353	1.362	1.331	1.340	1.310	1.356	3.3
2-Chloronaphthalene	1.228	1.186	1.211	1.183	1.176	1.164	1.191	2.0

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

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## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_G Calibration Date(s): 08/20/2012 08/20/2012

Calibration Time(s): 12:43 16:18

LAB FILE ID:	RRF010 = BG006771.D			RRF025 = BG006772.D		RRF040 = BG006773.D		
	RRF050 = BG006774.D			RRF060 = BG006775.D		RRF080 = BG006776.D		
COMPOUND	RRF010	RRF025	RRF040	RRF050	RRF060	RRF080	RRF	% RSD
2-Nitroaniline	0.254	0.230	0.244	0.240	0.252	0.249	0.245	3.7
Dimethylphthalate	1.703	1.643	1.652	1.562	1.602	1.567	1.622	3.4
Acenaphthylene	1.810	1.689	1.684	1.659	1.665	1.600	1.684	4.1
2,6-Dinitrotoluene	0.323	0.331	0.346	0.343	0.346	0.352	0.340	3.1
3-Nitroaniline	0.344	0.325	0.341	0.335	0.343	0.347	0.339	2.4
Acenaphthene	1.098	1.084	1.096	1.075	1.091	1.072	1.086	1.0
2,4-Dinitrophenol	0.028	0.073	0.106	0.127	0.160	0.175	0.112	49.0
4-Nitrophenol	0.264	0.279	0.305	0.308	0.315	0.311	0.297	7.0
Dibenzofuran	1.843	1.784	1.789	1.719	1.767	1.665	1.761	3.5
2,4-Dinitrotoluene	0.449	0.462	0.464	0.448	0.461	0.457	0.457	1.5
Diethylphthalate	1.559	1.519	1.517	1.470	1.527	1.490	1.514	2.0
4-Chlorophenyl-phenylether	0.804	0.784	0.803	0.769	0.780	0.776	0.786	1.8
Fluorene	1.464	1.383	1.404	1.342	1.383	1.348	1.387	3.2
4-Nitroaniline	0.335	0.351	0.355	0.350	0.362	0.363	0.353	2.9
4,6-Dinitro-2-methylphenol	0.072	0.112	0.136	0.140	0.158	0.167	0.131	26.4
n-Nitrosodiphenylamine	0.691	0.667	0.653	0.655	0.652	0.643	0.660	2.6
Azobenzene	1.217	1.141	1.138	1.109	1.141	1.104	1.142	3.6
4-Bromophenyl-phenylether	0.274	0.255	0.254	0.251	0.254	0.253	0.257	3.3
Hexachlorobenzene	0.296	0.284	0.280	0.281	0.288	0.280	0.285	2.2
Atrazine	0.268	0.242	0.236	0.228	0.230	0.199	0.234	9.6
Pentachlorophenol	0.118	0.143	0.154	0.164	0.181	0.183	0.157	15.7
Phenanthrene	1.166	1.090	1.063	1.065	1.068	1.027	1.080	4.3
Anthracene	1.134	1.092	1.069	1.063	1.067	1.042	1.078	2.9
Carbazole	1.159	1.146	1.097	1.083	1.073	1.039	1.099	4.2
Di-n-butylphthalate	1.459	1.385	1.340	1.325	1.307	1.256	1.345	5.2
Fluoranthene	1.372	1.337	1.286	1.248	1.228	1.182	1.275	5.5
Benzidine	0.347	0.428	0.422	0.431	0.430	0.406	0.411	8.0
Pyrene	1.272	1.251	1.204	1.170	1.160	1.108	1.194	5.1
Butylbenzylphthalate	0.580	0.572	0.546	0.548	0.551	0.534	0.555	3.1
3,3-Dichlorobenzidine	0.364	0.406	0.408	0.402	0.400	0.391	0.395	4.2
Benzo (a) anthracene	1.156	1.117	1.080	1.083	1.068	1.034	1.090	3.9
Chrysene	1.085	1.085	1.051	1.023	1.029	0.979	1.042	3.9
Bis (2-ethylhexyl) phthalate	0.770	0.784	0.768	0.762	0.760	0.738	0.764	2.0
Di-n-octyl phthalate	1.251	1.257	1.228	1.237	1.234	1.196	1.234	1.7
Benzo (b) fluoranthene	1.203	1.164	1.100	1.114	1.123	1.093	1.133	3.7
Benzo (k) fluoranthene	1.194	1.198	1.127	1.125	1.108	1.079	1.138	4.2

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

6C

## SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_G Calibration Date(s): 08/20/2012 08/20/2012

Calibration Time(s): 12:43 16:18

LAB FILE ID:		RRF010 = BG006771.D			RRF025 = BG006772.D		RRF040 = BG006773.D	
		RRF050 = BG006774.D			RRF060 = BG006775.D		RRF080 = BG006776.D	
COMPOUND	RRF010	RRF025	RRF040	RRF050	RRF060	RRF080	RRF	% RSD
Benzo(a)pyrene	1.129	1.102	1.051	1.056	1.078	1.031	1.075	3.4
Indeno(1,2,3-cd)pyrene	1.247	1.238	1.218	1.247	1.262	1.261	1.245	1.3
Dibenzo(a,h)anthracene	1.127	1.121	1.077	1.096	1.112	1.088	1.103	1.8
Benzo(g,h,i)perylene	1.145	1.116	1.073	1.075	1.108	1.080	1.099	2.6
1,2,4,5-Tetrachlorobenzene	0.669	0.633	0.641	0.628	0.646	0.627	0.641	2.4
1,4-Dioxane	0.501	0.474	0.457	0.449	0.468	0.454	0.467	4.0
2,3,4,6-Tetrachlorophenol	0.429	0.414	0.452	0.429	0.450	0.446	0.437	3.4
2-Fluorophenol	1.283	1.228	1.167	1.169	1.190	1.127	1.194	4.6
Phenol-d5	1.653	1.622	1.528	1.521	1.538	1.475	1.556	4.3
Nitrobenzene-d5	0.372	0.358	0.351	0.357	0.355	0.334	0.354	3.5
2-Fluorobiphenyl	1.378	1.275	1.274	1.223	1.240	1.165	1.259	5.6
2,4,6-Tribromophenol	0.261	0.245	0.253	0.248	0.256	0.251	0.252	2.3
Terphenyl-d14	0.919	0.869	0.821	0.807	0.784	0.737	0.823	7.8

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date/Time: 08/16/2012 13:17

Lab File ID: BF058255.D Init. Calib. Date(s): 08/02/2012 08/02/2012

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 14:10 17:03

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
n-Nitrosodimethylamine	0.853	1.052		23.4	
Pyridine	1.767	2.140		21.1	
Benzaldehyde	0.907	0.928		2.3	
Aniline	2.059	2.082		1.1	
Phenol	2.062	2.158		4.7	20.0
bis(2-Chloroethyl)ether	1.416	1.497		5.7	
2-Chlorophenol	1.504	1.525		1.4	
1,2-Dichlorobenzene	1.386	1.386		0.0	
1,3-Dichlorobenzene	1.556	1.542		0.9	
1,4-Dichlorobenzene	1.541	1.531		0.6	20.0
Benzyl Alcohol	1.208	1.209		0.0	
2-Methylphenol	1.075	1.119		4.1	
2,2-oxybis(1-Chloropropane)	2.569	2.671		4.0	
Acetophenone	0.500	0.649		29.9	
3+4-Methylphenols	1.365	1.436		5.2	
n-Nitroso-di-n-propylamine	1.020	1.095	0.050	7.3	
Hexachloroethane	0.603	0.589		2.3	
Nitrobenzene	0.426	0.443		3.9	
Isophorone	0.722	0.747		3.4	
2-Nitrophenol	0.222	0.229		3.1	20.0
2,4-Dimethylphenol	0.354	0.355		0.2	
bis(2-Chloroethoxy)methane	0.437	0.445		1.7	
2,4-Dichlorophenol	0.313	0.308		1.4	20.0
1,2,4-Trichlorobenzene	0.307	0.302		1.7	
Benzoic acid	0.152	0.141		7.4	
Naphthalene	1.010	1.006		0.4	
4-Chloroaniline	0.415	0.417		0.6	
Hexachlorobutadiene	0.171	0.160		6.3	20.0
Caprolactam	0.102	0.099		3.0	
4-Chloro-3-methylphenol	0.339	0.334		1.5	20.0
2-Methylnaphthalene	0.679	0.667		1.7	
Hexachlorocyclopentadiene	0.289	0.271	0.050	6.1	
2,4,6-Trichlorophenol	0.410	0.404		1.6	20.0
2,4,5-Trichlorophenol	0.400	0.400		0.1	
1,1-Biphenyl	1.599	1.574		1.6	
2-Chloronaphthalene	1.213	1.215		0.2	
2-Nitroaniline	0.429	0.447		4.3	
Dimethylphthalate	1.540	1.507		2.1	
Acenaphthylene	1.950	1.899		2.6	
2,6-Dinitrotoluene	0.305	0.303		0.6	
3-Nitroaniline	0.379	0.386		1.8	

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date/Time: 08/16/2012 13:17

Lab File ID: BF058255.D Init. Calib. Date(s): 08/02/2012 08/02/2012

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 14:10 17:03

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Acenaphthene	1.180	1.166		1.2	20.0
2,4-Dinitrophenol	0.167	0.173	0.050	3.7	
4-Nitrophenol	0.326	0.327	0.050	0.3	
Dibenzofuran	1.765	1.703		3.5	
2,4-Dinitrotoluene	0.385	0.375		2.5	
Diethylphthalate	1.591	1.562		1.8	
4-Chlorophenyl-phenylether	0.646	0.627		3.0	
Fluorene	1.363	1.350		0.9	
4-Nitroaniline	0.354	0.365		3.1	
4,6-Dinitro-2-methylphenol	0.132	0.132		0.3	
n-Nitrosodiphenylamine	0.700	0.703		0.5	20.0
Azobenzene	1.577	1.615		2.4	
4-Bromophenyl-phenylether	0.196	0.192		2.1	
Hexachlorobenzene	0.209	0.198		5.2	
Atrazine	0.191	0.177		7.4	
Pentachlorophenol	0.142	0.146		2.8	20.0
Phenanthrene	1.084	1.057		2.5	
Anthracene	1.051	1.003		4.6	
Carbazole	1.140	1.146		0.5	
Di-n-butylphthalate	1.533	1.559		1.7	
Fluoranthene	1.139	1.104		3.1	20.0
Benzidine	0.552	0.562		1.8	
Pyrene	1.416	1.440		1.7	
Butylbenzylphthalate	0.809	0.869		7.4	
3,3-Dichlorobenzidine	0.346	0.361		4.4	
Benzo(a)anthracene	1.145	1.175		2.6	
Chrysene	1.109	1.108		0.1	
Bis(2-ethylhexyl)phthalate	1.064	1.179		10.8	
Di-n-octyl phthalate	1.728	1.945		12.6	20.0
Benzo(b)fluoranthene	1.108	1.085		2.1	
Benzo(k)fluoranthene	1.209	1.154		4.6	
Benzo(a)pyrene	1.066	1.042		2.3	20.0
Indeno(1,2,3-cd)pyrene	1.119	1.144		2.2	
Dibenzo(a,h)anthracene	0.995	1.010		1.6	
Benzo(g,h,i)perylene	1.050	1.041		0.9	
1,2,4,5-Tetrachlorobenzene	0.513	0.501		2.4	
1,4-Dioxane	0.639	0.823		28.8	20.0
2,3,4,6-Tetrachlorophenol	0.325	0.313		3.6	
2-Fluorophenol	1.376	1.603		16.5	
Phenol-d5	1.722	1.782		3.5	
Nitrobenzene-d5	0.398	0.404		1.5	



7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
Instrument ID: BNA\_F Calibration Date/Time: 08/16/2012 13:17  
Lab File ID: BF058255.D Init. Calib. Date(s): 08/02/2012 08/02/2012  
EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 14:10 17:03  
GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorobiphenyl	1.264	1.226		3.0	
2,4,6-Tribromophenol	0.148	0.133		10.1	
Terphenyl-d14	0.826	0.820		0.7	

All other compounds must meet a minimum RRF of 0.010.

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date/Time: 08/21/2012 13:39

Lab File ID: BF058340.D Init. Calib. Date(s): 08/20/2012 08/20/2012

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 13:17 15:47

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
n-Nitrosodimethylamine	0.709	0.860		21.3	
Pyridine	2.119	1.973		6.9	
Benzaldehyde	0.995	1.073		7.8	
Aniline	2.317	2.254		2.7	
Phenol	2.379	2.354		1.1	20.0
bis(2-Chloroethyl)ether	1.677	1.724		2.8	
2-Chlorophenol	1.610	1.671		3.8	
1,2-Dichlorobenzene	1.465	1.465		0.0	
1,3-Dichlorobenzene	1.635	1.633		0.1	
1,4-Dichlorobenzene	1.625	1.627		0.1	20.0
Benzyl Alcohol	1.260	1.388		10.2	
2-Methylphenol	1.210	1.255		3.7	
2,2-oxybis(1-Chloropropane)	1.797	2.346		30.5	
Acetophenone	0.551	0.754		36.9	
3+4-Methylphenols	1.552	1.596		2.9	
n-Nitroso-di-n-propylamine	1.171	1.282	0.050	9.4	
Hexachloroethane	0.639	0.686		7.4	
Nitrobenzene	0.461	0.482		4.7	
Isophorone	0.797	0.828		3.9	
2-Nitrophenol	0.230	0.234		1.8	20.0
2,4-Dimethylphenol	0.371	0.358		3.5	
bis(2-Chloroethoxy)methane	0.501	0.506		0.9	
2,4-Dichlorophenol	0.315	0.325		3.2	20.0
1,2,4-Trichlorobenzene	0.309	0.326		5.4	
Benzoic acid	0.083	0.068		17.7	
Naphthalene	1.035	1.027		0.8	
4-Chloroaniline	0.444	0.451		1.5	
Hexachlorobutadiene	0.158	0.181		14.6	20.0
Caprolactam	0.114	0.118		3.4	
4-Chloro-3-methylphenol	0.362	0.388		7.1	20.0
2-Methylnaphthalene	0.683	0.678		0.7	
Hexachlorocyclopentadiene	0.248	0.264	0.050	6.3	
2,4,6-Trichlorophenol	0.392	0.397		1.3	20.0
2,4,5-Trichlorophenol	0.375	0.397		5.8	
1,1-Biphenyl	1.493	1.494		0.0	
2-Chloronaphthalene	1.203	1.196		0.6	
2-Nitroaniline	0.406	0.479		18.1	
Dimethylphthalate	1.523	1.596		4.8	
Acenaphthylene	1.839	1.710		7.0	
2,6-Dinitrotoluene	0.315	0.322		2.3	
3-Nitroaniline	0.389	0.393		1.1	

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date/Time: 08/21/2012 13:39

Lab File ID: BF058340.D Init. Calib. Date(s): 08/20/2012 08/20/2012

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 13:17 15:47

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Acenaphthene	1.120	1.125		0.4	20.0
2,4-Dinitrophenol	0.112	0.145	0.050	29.3	
4-Nitrophenol	0.328	0.333	0.050	1.5	
Dibenzofuran	1.650	1.627		1.4	
2,4-Dinitrotoluene	0.395	0.405		2.6	
Diethylphthalate	1.553	1.616		4.1	
4-Chlorophenyl-phenylether	0.590	0.621		5.3	
Fluorene	1.295	1.288		0.6	
4-Nitroaniline	0.365	0.365		0.1	
4,6-Dinitro-2-methylphenol	0.117	0.140		19.5	
n-Nitrosodiphenylamine	0.691	0.670		3.0	20.0
Azobenzene	1.671	1.746		4.5	
4-Bromophenyl-phenylether	0.201	0.198		1.5	
Hexachlorobenzene	0.206	0.210		2.1	
Atrazine	0.185	0.198		7.1	
Pentachlorophenol	0.130	0.140		7.3	20.0
Phenanthrene	1.101	1.090		1.0	
Anthracene	1.067	1.001		6.2	
Carbazole	1.154	1.133		1.8	
Di-n-butylphthalate	1.594	1.578		1.0	
Fluoranthene	1.096	1.119		2.1	20.0
Benzidine	0.487	0.553		13.6	
Pyrene	1.329	1.381		3.9	
Butylbenzylphthalate	0.841	0.863		2.6	
3,3-Dichlorobenzidine	0.352	0.356		1.2	
Benzo(a)anthracene	1.141	1.186		4.0	
Chrysene	1.104	1.135		2.8	
Bis(2-ethylhexyl)phthalate	1.103	1.158		5.0	
Di-n-octyl phthalate	1.790	1.881		5.1	20.0
Benzo(b)fluoranthene	1.132	1.164		2.8	
Benzo(k)fluoranthene	1.247	1.277		2.4	
Benzo(a)pyrene	1.097	1.131		3.1	20.0
Indeno(1,2,3-cd)pyrene	1.102	1.228		11.4	
Dibenzo(a,h)anthracene	1.013	1.097		8.3	
Benzo(g,h,i)perylene	1.052	1.183		12.5	
1,2,4,5-Tetrachlorobenzene	0.478	0.502		5.0	
1,4-Dioxane	0.804	0.751		6.6	20.0
2,3,4,6-Tetrachlorophenol	0.304	0.327		7.5	
2-Fluorophenol	1.548	1.540		0.5	
Phenol-d5	1.909	1.957		2.5	
Nitrobenzene-d5	0.424	0.446		5.1	

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
Instrument ID: BNA\_F Calibration Date/Time: 08/21/2012 13:39  
Lab File ID: BF058340.D Init. Calib. Date(s): 08/20/2012 08/20/2012  
EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 13:17 15:47  
GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorobiphenyl	1.163	1.140		2.0	
2,4,6-Tribromophenol	0.145	0.157		8.6	
Terphenyl-d14	0.844	0.841		0.4	

All other compounds must meet a minimum RRF of 0.010.

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date/Time: 08/23/2012 09:33

Lab File ID: BF058388.D Init. Calib. Date(s): 08/20/2012 08/20/2012

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 13:17 15:47

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
n-Nitrosodimethylamine	0.709	0.914		28.9	
Pyridine	2.119	2.110		0.4	
Benzaldehyde	0.995	1.157		16.3	
Aniline	2.317	2.281		1.6	
Phenol	2.379	2.366		0.6	20.0
bis(2-Chloroethyl)ether	1.677	1.717		2.4	
2-Chlorophenol	1.610	1.637		1.7	
1,2-Dichlorobenzene	1.465	1.418		3.2	
1,3-Dichlorobenzene	1.635	1.639		0.2	
1,4-Dichlorobenzene	1.625	1.612		0.8	20.0
Benzyl Alcohol	1.260	1.387		10.0	
2-Methylphenol	1.210	1.253		3.5	
2,2-oxybis(1-Chloropropane)	1.797	2.445		36.1	
Acetophenone	0.551	0.747		35.7	
3+4-Methylphenols	1.552	1.595		2.7	
n-Nitroso-di-n-propylamine	1.171	1.296	0.050	10.7	
Hexachloroethane	0.639	0.704		10.2	
Nitrobenzene	0.461	0.504		9.3	
Isophorone	0.797	0.842		5.6	
2-Nitrophenol	0.230	0.230		0.1	20.0
2,4-Dimethylphenol	0.371	0.356		4.1	
bis(2-Chloroethoxy)methane	0.501	0.503		0.4	
2,4-Dichlorophenol	0.315	0.307		2.4	20.0
1,2,4-Trichlorobenzene	0.309	0.310		0.4	
Benzoic acid	0.083	0.169		104.1	
Naphthalene	1.035	1.001		3.3	
4-Chloroaniline	0.444	0.420		5.4	
Hexachlorobutadiene	0.158	0.171		8.0	20.0
Caprolactam	0.114	0.108		4.9	
4-Chloro-3-methylphenol	0.362	0.368		1.7	20.0
2-Methylnaphthalene	0.683	0.645		5.5	
Hexachlorocyclopentadiene	0.248	0.268	0.050	7.9	
2,4,6-Trichlorophenol	0.392	0.400		2.1	20.0
2,4,5-Trichlorophenol	0.375	0.390		4.0	
1,1-Biphenyl	1.493	1.562		4.7	
2-Chloronaphthalene	1.203	1.227		2.0	
2-Nitroaniline	0.406	0.508		25.1	
Dimethylphthalate	1.523	1.574		3.4	
Acenaphthylene	1.839	1.757		4.5	
2,6-Dinitrotoluene	0.315	0.322		2.2	
3-Nitroaniline	0.389	0.372		4.5	

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date/Time: 08/23/2012 09:33

Lab File ID: BF058388.D Init. Calib. Date(s): 08/20/2012 08/20/2012

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 13:17 15:47

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Acenaphthene	1.120	1.154		3.0	20.0
2,4-Dinitrophenol	0.112	0.149	0.050	32.9	
4-Nitrophenol	0.328	0.318	0.050	3.2	
Dibenzofuran	1.650	1.647		0.2	
2,4-Dinitrotoluene	0.395	0.403		1.9	
Diethylphthalate	1.553	1.610		3.6	
4-Chlorophenyl-phenylether	0.590	0.611		3.5	
Fluorene	1.295	1.281		1.1	
4-Nitroaniline	0.365	0.351		3.8	
4,6-Dinitro-2-methylphenol	0.117	0.140		19.7	
n-Nitrosodiphenylamine	0.691	0.692		0.2	20.0
Azobenzene	1.671	1.859		11.2	
4-Bromophenyl-phenylether	0.201	0.201		0.0	
Hexachlorobenzene	0.206	0.204		1.2	
Atrazine	0.185	0.189		2.3	
Pentachlorophenol	0.130	0.126		2.9	20.0
Phenanthrene	1.101	1.104		0.3	
Anthracene	1.067	1.022		4.3	
Carbazole	1.154	1.114		3.4	
Di-n-butylphthalate	1.594	1.604		0.6	
Fluoranthene	1.096	1.106		0.9	20.0
Benzidine	0.487	0.406		16.6	
Pyrene	1.329	1.384		4.1	
Butylbenzylphthalate	0.841	0.884		5.1	
3,3-Dichlorobenzidine	0.352	0.321		8.7	
Benzo(a)anthracene	1.141	1.150		0.8	
Chrysene	1.104	1.134		2.7	
Bis(2-ethylhexyl)phthalate	1.103	1.160		5.1	
Di-n-octyl phthalate	1.790	1.830		2.2	20.0
Benzo(b)fluoranthene	1.132	1.177		4.0	
Benzo(k)fluoranthene	1.247	1.353		8.5	
Benzo(a)pyrene	1.097	1.160		5.7	20.0
Indeno(1,2,3-cd)pyrene	1.102	1.112		0.9	
Dibenzo(a,h)anthracene	1.013	1.069		5.5	
Benzo(g,h,i)perylene	1.052	1.112		5.7	
1,2,4,5-Tetrachlorobenzene	0.478	0.520		8.9	
1,4-Dioxane	0.804	0.818		1.8	20.0
2,3,4,6-Tetrachlorophenol	0.304	0.303		0.4	
2-Fluorophenol	1.548	1.547		0.1	
Phenol-d5	1.909	1.947		2.0	
Nitrobenzene-d5	0.424	0.452		6.7	

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
Instrument ID: BNA\_F Calibration Date/Time: 08/23/2012 09:33  
Lab File ID: BF058388.D Init. Calib. Date(s): 08/20/2012 08/20/2012  
EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 13:17 15:47  
GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorobiphenyl	1.163	1.171		0.7	
2,4,6-Tribromophenol	0.145	0.139		4.4	
Terphenyl-d14	0.844	0.836		0.9	

All other compounds must meet a minimum RRF of 0.010.

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date/Time: 08/28/2012 13:26

Lab File ID: BF058464.D Init. Calib. Date(s): 08/24/2012 08/24/2012

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 14:25 16:57

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
n-Nitrosodimethylamine	0.877	0.911		3.9	
Pyridine	1.902	1.800		5.4	
Benzaldehyde	1.016	1.033		1.7	
Aniline	2.172	2.082		4.1	
Phenol	2.244	2.187		2.5	20.0
bis(2-Chloroethyl)ether	1.578	1.527		3.2	
2-Chlorophenol	1.583	1.569		0.9	
1,2-Dichlorobenzene	1.391	1.350		2.9	
1,3-Dichlorobenzene	1.564	1.536		1.8	
1,4-Dichlorobenzene	1.563	1.541		1.4	20.0
Benzyl Alcohol	1.373	1.346		2.0	
2-Methylphenol	1.180	1.162		1.6	
2,2-oxybis(1-Chloropropane)	2.148	2.039		5.1	
Acetophenone	0.601	0.769		28.0	
3+4-Methylphenols	1.525	1.498		1.8	
n-Nitroso-di-n-propylamine	1.214	1.175	0.050	3.2	
Hexachloroethane	0.655	0.647		1.2	
Nitrobenzene	0.507	0.509		0.4	
Isophorone	0.842	0.862		2.4	
2-Nitrophenol	0.225	0.224		0.6	20.0
2,4-Dimethylphenol	0.368	0.365		0.9	
bis(2-Chloroethoxy)methane	0.487	0.483		0.7	
2,4-Dichlorophenol	0.313	0.319		2.0	20.0
1,2,4-Trichlorobenzene	0.313	0.314		0.2	
Benzoic acid	0.114	0.167		46.4	
Naphthalene	1.069	1.060		0.8	
4-Chloroaniline	0.441	0.429		2.7	
Hexachlorobutadiene	0.179	0.189		5.5	20.0
Caprolactam	0.104	0.105		1.1	
4-Chloro-3-methylphenol	0.383	0.389		1.6	20.0
2-Methylnaphthalene	0.670	0.677		1.0	
Hexachlorocyclopentadiene	0.282	0.294	0.050	4.2	
2,4,6-Trichlorophenol	0.405	0.411		1.5	20.0
2,4,5-Trichlorophenol	0.395	0.394		0.3	
1,1-Biphenyl	1.563	1.585		1.4	
2-Chloronaphthalene	1.217	1.212		0.4	
2-Nitroaniline	0.485	0.485		0.0	
Dimethylphthalate	1.577	1.582		0.3	
Acenaphthylene	1.917	1.868		2.6	
2,6-Dinitrotoluene	0.312	0.316		1.3	
3-Nitroaniline	0.375	0.370		1.3	



7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_F Calibration Date/Time: 08/28/2012 13:26

Lab File ID: BF058464.D Init. Calib. Date(s): 08/24/2012 08/24/2012

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 14:25 16:57

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Acenaphthene	1.157	1.162		0.4	20.0
2,4-Dinitrophenol	0.150	0.180	0.050	20.3	
4-Nitrophenol	0.316	0.304	0.050	3.7	
Dibenzofuran	1.740	1.745		0.3	
2,4-Dinitrotoluene	0.394	0.395		0.2	
Diethylphthalate	1.690	1.713		1.3	
4-Chlorophenyl-phenylether	0.627	0.647		3.2	
Fluorene	1.360	1.367		0.5	
4-Nitroaniline	0.352	0.339		3.8	
4,6-Dinitro-2-methylphenol	0.133	0.143		7.3	
n-Nitrosodiphenylamine	0.692	0.681		1.7	20.0
Azobenzene	1.856	1.845		0.6	
4-Bromophenyl-phenylether	0.193	0.198		2.8	
Hexachlorobenzene	0.204	0.205		0.4	
Atrazine	0.178	0.182		2.0	
Pentachlorophenol	0.126	0.143		13.7	20.0
Phenanthrene	1.086	1.086		0.0	
Anthracene	1.049	0.980		6.6	
Carbazole	1.154	1.141		1.1	
Di-n-butylphthalate	1.638	1.637		0.1	
Fluoranthene	1.124	1.135		1.0	20.0
Benzidine	0.482	0.405		15.9	
Pyrene	1.452	1.414		2.6	
Butylbenzylphthalate	0.890	0.864		2.9	
3,3-Dichlorobenzidine	0.332	0.311		6.3	
Benzo(a)anthracene	1.172	1.173		0.0	
Chrysene	1.163	1.136		2.3	
Bis(2-ethylhexyl)phthalate	1.177	1.162		1.3	
Di-n-octyl phthalate	1.883	1.825		3.1	20.0
Benzo(b)fluoranthene	1.175	1.131		3.7	
Benzo(k)fluoranthene	1.371	1.372		0.1	
Benzo(a)pyrene	1.146	1.130		1.4	20.0
Indeno(1,2,3-cd)pyrene	1.041	1.056		1.4	
Dibenzo(a,h)anthracene	0.982	0.997		1.5	
Benzo(g,h,i)perylene	1.070	1.067		0.3	
1,2,4,5-Tetrachlorobenzene	0.518	0.525		1.4	
1,4-Dioxane	0.754	0.745		1.1	20.0
2,3,4,6-Tetrachlorophenol	0.315	0.325		3.3	
2-Fluorophenol	1.461	1.417		3.0	
Phenol-d5	1.843	1.810		1.8	
Nitrobenzene-d5	0.468	0.471		0.6	

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
Instrument ID: BNA\_F Calibration Date/Time: 08/28/2012 13:26  
Lab File ID: BF058464.D Init. Calib. Date(s): 08/24/2012 08/24/2012  
EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 14:25 16:57  
GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorobiphenyl	1.257	1.272		1.2	
2,4,6-Tribromophenol	0.133	0.143		7.8	
Terphenyl-d14	0.873	0.860		1.5	

All other compounds must meet a minimum RRF of 0.010.

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_G Calibration Date/Time: 08/20/2012 18:27

Lab File ID: BG006779.D Init. Calib. Date(s): 08/20/2012 08/20/2012

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 12:43 16:18

GC Column: RXI-5 ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
n-Nitrosodimethylamine	0.320	0.310		3.0	
Pyridine	1.247	1.168		6.4	
Benzaldehyde	0.689	0.708		2.8	
Aniline	1.779	1.715		3.6	
Phenol	1.679	1.637		2.5	20.0
bis(2-Chloroethyl)ether	1.155	1.129		2.2	
2-Chlorophenol	1.484	1.447		2.5	
1,2-Dichlorobenzene	1.523	1.476		3.1	
1,3-Dichlorobenzene	1.622	1.536		5.3	
1,4-Dichlorobenzene	1.640	1.569		4.3	20.0
Benzyl Alcohol	1.120	1.101		1.7	
2-Methylphenol	1.066	1.047		1.8	
2,2-oxybis(1-Chloropropane)	0.325	0.302		7.0	
Acetophenone	0.490	0.862		75.8	
3+4-Methylphenols	1.412	1.397		1.0	
n-Nitroso-di-n-propylamine	0.890	0.880	0.050	1.2	
Hexachloroethane	0.569	0.550		3.3	
Nitrobenzene	0.378	0.368		2.6	
Isophorone	0.629	0.608		3.4	
2-Nitrophenol	0.243	0.229		5.8	20.0
2,4-Dimethylphenol	0.336	0.317		5.6	
bis(2-Chloroethoxy)methane	0.369	0.349		5.5	
2,4-Dichlorophenol	0.393	0.388		1.2	20.0
1,2,4-Trichlorobenzene	0.411	0.395		3.8	
Benzoic acid	0.125	0.142		13.2	
Naphthalene	1.034	0.999		3.4	
4-Chloroaniline	0.449	0.423		5.7	
Hexachlorobutadiene	0.277	0.267		3.8	20.0
Caprolactam	0.115	0.115		0.1	
4-Chloro-3-methylphenol	0.357	0.355		0.7	20.0
2-Methylnaphthalene	0.754	0.734		2.6	
Hexachlorocyclopentadiene	0.339	0.340	0.050	0.4	
2,4,6-Trichlorophenol	0.486	0.478		1.6	20.0
2,4,5-Trichlorophenol	0.479	0.468		2.2	
1,1-Biphenyl	1.356	1.352		0.3	
2-Chloronaphthalene	1.191	1.191		0.0	
2-Nitroaniline	0.245	0.243		0.8	
Dimethylphthalate	1.622	1.650		1.7	
Acenaphthylene	1.684	1.642		2.5	
2,6-Dinitrotoluene	0.340	0.343		0.9	
3-Nitroaniline	0.339	0.338		0.3	

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_G Calibration Date/Time: 08/20/2012 18:27

Lab File ID: BG006779.D Init. Calib. Date(s): 08/20/2012 08/20/2012

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 12:43 16:18

GC Column: RXI-5 ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Acenaphthene	1.086	1.083		0.3	20.0
2,4-Dinitrophenol	0.112	0.143	0.050	27.8	
4-Nitrophenol	0.297	0.298	0.050	0.5	
Dibenzofuran	1.761	1.764		0.1	
2,4-Dinitrotoluene	0.457	0.458		0.2	
Diethylphthalate	1.514	1.523		0.6	
4-Chlorophenyl-phenylether	0.786	0.798		1.5	
Fluorene	1.387	1.390		0.2	
4-Nitroaniline	0.353	0.348		1.3	
4,6-Dinitro-2-methylphenol	0.131	0.147		12.1	
n-Nitrosodiphenylamine	0.660	0.665		0.7	20.0
Azobenzene	1.142	1.132		0.9	
4-Bromophenyl-phenylether	0.257	0.257		0.1	
Hexachlorobenzene	0.285	0.288		1.0	
Atrazine	0.234	0.238		1.8	
Pentachlorophenol	0.157	0.177		12.9	20.0
Phenanthrene	1.080	1.074		0.5	
Anthracene	1.078	1.048		2.8	
Carbazole	1.099	1.099		0.0	
Di-n-butylphthalate	1.345	1.338		0.5	
Fluoranthene	1.275	1.269		0.4	20.0
Benzidine	0.411	0.442		7.5	
Pyrene	1.194	1.175		1.6	
Butylbenzylphthalate	0.555	0.543		2.2	
3,3-Dichlorobenzidine	0.395	0.398		0.7	
Benzo(a)anthracene	1.090	1.069		1.9	
Chrysene	1.042	1.024		1.7	
Bis(2-ethylhexyl)phthalate	0.764	0.774		1.3	
Di-n-octyl phthalate	1.234	1.222		1.0	20.0
Benzo(b)fluoranthene	1.133	1.130		0.2	
Benzo(k)fluoranthene	1.138	1.114		2.2	
Benzo(a)pyrene	1.075	1.066		0.9	20.0
Indeno(1,2,3-cd)pyrene	1.245	1.252		0.5	
Dibenzo(a,h)anthracene	1.103	1.112		0.9	
Benzo(g,h,i)perylene	1.099	1.096		0.2	
1,2,4,5-Tetrachlorobenzene	0.641	0.633		1.2	
1,4-Dioxane	0.467	0.431		7.6	20.0
2,3,4,6-Tetrachlorophenol	0.437	0.435		0.3	
2-Fluorophenol	1.194	1.125		5.8	
Phenol-d5	1.556	1.480		4.9	
Nitrobenzene-d5	0.354	0.336		5.2	

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
Instrument ID: BNA\_G Calibration Date/Time: 08/20/2012 18:27  
Lab File ID: BG006779.D Init. Calib. Date(s): 08/20/2012 08/20/2012  
EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 12:43 16:18  
GC Column: RXI-5 ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorobiphenyl	1.259	1.269		0.8	
2,4,6-Tribromophenol	0.252	0.248		1.5	
Terphenyl-d14	0.823	0.797		3.2	

All other compounds must meet a minimum RRF of 0.010.

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_G Calibration Date/Time: 08/21/2012 13:17

Lab File ID: BG006796.D Init. Calib. Date(s): 08/20/2012 08/20/2012

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 12:43 16:18

GC Column: RXI-5 ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
n-Nitrosodimethylamine	0.320	0.302		5.5	
Pyridine	1.247	1.213		2.8	
Benzaldehyde	0.689	0.714		3.6	
Aniline	1.779	1.806		1.5	
Phenol	1.679	1.724		2.7	20.0
bis(2-Chloroethyl)ether	1.155	1.169		1.2	
2-Chlorophenol	1.484	1.495		0.8	
1,2-Dichlorobenzene	1.523	1.496		1.8	
1,3-Dichlorobenzene	1.622	1.553		4.3	
1,4-Dichlorobenzene	1.640	1.579		3.7	20.0
Benzyl Alcohol	1.120	1.141		1.9	
2-Methylphenol	1.066	1.079		1.3	
2,2-oxybis(1-Chloropropane)	0.325	0.319		1.7	
Acetophenone	0.490	0.879		79.4	
3+4-Methylphenols	1.412	1.469		4.0	
n-Nitroso-di-n-propylamine	0.890	0.953	0.050	7.1	
Hexachloroethane	0.569	0.566		0.5	
Nitrobenzene	0.378	0.367		2.9	
Isophorone	0.629	0.642		2.1	
2-Nitrophenol	0.243	0.243		0.1	20.0
2,4-Dimethylphenol	0.336	0.332		1.1	
bis(2-Chloroethoxy)methane	0.369	0.370		0.3	
2,4-Dichlorophenol	0.393	0.386		1.7	20.0
1,2,4-Trichlorobenzene	0.411	0.403		2.1	
Benzoic acid	0.125	0.107		14.6	
Naphthalene	1.034	1.020		1.3	
4-Chloroaniline	0.449	0.444		1.0	
Hexachlorobutadiene	0.277	0.275		0.8	20.0
Caprolactam	0.115	0.119		3.4	
4-Chloro-3-methylphenol	0.357	0.367		2.8	20.0
2-Methylnaphthalene	0.754	0.761		1.0	
Hexachlorocyclopentadiene	0.339	0.319	0.050	5.9	
2,4,6-Trichlorophenol	0.486	0.471		3.1	20.0
2,4,5-Trichlorophenol	0.479	0.480		0.2	
1,1-Biphenyl	1.356	1.314		3.1	
2-Chloronaphthalene	1.191	1.168		1.9	
2-Nitroaniline	0.245	0.251		2.6	
Dimethylphthalate	1.622	1.593		1.8	
Acenaphthylene	1.684	1.624		3.6	
2,6-Dinitrotoluene	0.340	0.343		1.0	
3-Nitroaniline	0.339	0.341		0.5	

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## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
 Instrument ID: BNA\_G Calibration Date/Time: 08/21/2012 13:17  
 Lab File ID: BG006796.D Init. Calib. Date(s): 08/20/2012 08/20/2012  
 EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 12:43 16:18  
 GC Column: RXI-5 ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Acenaphthene	1.086	1.079		0.6	20.0
2,4-Dinitrophenol	0.112	0.145	0.050	29.4	
4-Nitrophenol	0.297	0.289	0.050	2.8	
Dibenzofuran	1.761	1.722		2.2	
2,4-Dinitrotoluene	0.457	0.457		0.0	
Diethylphthalate	1.514	1.526		0.8	
4-Chlorophenyl-phenylether	0.786	0.780		0.8	
Fluorene	1.387	1.370		1.3	
4-Nitroaniline	0.353	0.367		4.0	
4,6-Dinitro-2-methylphenol	0.131	0.158		20.3	
n-Nitrosodiphenylamine	0.660	0.647		1.9	20.0
Azobenzene	1.142	1.129		1.2	
4-Bromophenyl-phenylether	0.257	0.251		2.3	
Hexachlorobenzene	0.285	0.284		0.4	
Atrazine	0.234	0.230		1.6	
Pentachlorophenol	0.157	0.159		1.4	20.0
Phenanthrene	1.080	1.063		1.6	
Anthracene	1.078	1.014		5.9	
Carbazole	1.099	1.083		1.5	
Di-n-butylphthalate	1.345	1.332		1.0	
Fluoranthene	1.275	1.253		1.7	20.0
Benzidine	0.411	0.406		1.1	
Pyrene	1.194	1.150		3.7	
Butylbenzylphthalate	0.555	0.565		1.8	
3,3-Dichlorobenzidine	0.395	0.408		3.2	
Benzo(a)anthracene	1.090	1.068		2.1	
Chrysene	1.042	1.035		0.6	
Bis(2-ethylhexyl)phthalate	0.764	0.780		2.2	
Di-n-octyl phthalate	1.234	1.236		0.2	20.0
Benzo(b)fluoranthene	1.133	1.146		1.2	
Benzo(k)fluoranthene	1.138	1.120		1.6	
Benzo(a)pyrene	1.075	1.068		0.7	20.0
Indeno(1,2,3-cd)pyrene	1.245	1.107		11.1	
Dibenzo(a,h)anthracene	1.103	1.032		6.5	
Benzo(g,h,i)perylene	1.099	1.032		6.1	
1,2,4,5-Tetrachlorobenzene	0.641	0.614		4.1	
1,4-Dioxane	0.467	0.422		9.6	20.0
2,3,4,6-Tetrachlorophenol	0.437	0.424		2.9	
2-Fluorophenol	1.194	1.142		4.3	
Phenol-d5	1.556	1.544		0.8	
Nitrobenzene-d5	0.354	0.348		1.7	

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## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
Instrument ID: BNA\_G Calibration Date/Time: 08/21/2012 13:17  
Lab File ID: BG006796.D Init. Calib. Date(s): 08/20/2012 08/20/2012  
EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 12:43 16:18  
GC Column: RXI-5 ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorobiphenyl	1.259	1.224		2.8	
2,4,6-Tribromophenol	0.252	0.251		0.6	
Terphenyl-d14	0.823	0.788		4.3	

All other compounds must meet a minimum RRF of 0.010.



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## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_G Calibration Date/Time: 08/22/2012 01:04

Lab File ID: BG006813.D Init. Calib. Date(s): 08/20/2012 08/20/2012

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 12:43 16:18

GC Column: RXI-5 ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
n-Nitrosodimethylamine	0.320	0.323		1.0	
Pyridine	1.247	1.211		2.9	
Benzaldehyde	0.689	0.734		6.6	
Aniline	1.779	1.893		6.4	
Phenol	1.679	1.723		2.6	20.0
bis(2-Chloroethyl)ether	1.155	1.187		2.8	
2-Chlorophenol	1.484	1.514		2.0	
1,2-Dichlorobenzene	1.523	1.500		1.5	
1,3-Dichlorobenzene	1.622	1.607		0.9	
1,4-Dichlorobenzene	1.640	1.585		3.3	20.0
Benzyl Alcohol	1.120	1.192		6.4	
2-Methylphenol	1.066	1.089		2.1	
2,2-oxybis(1-Chloropropane)	0.325	0.318		2.0	
Acetophenone	0.490	0.886		80.8	
3+4-Methylphenols	1.412	1.529		8.3	
n-Nitroso-di-n-propylamine	0.890	0.928	0.050	4.3	
Hexachloroethane	0.569	0.567		0.4	
Nitrobenzene	0.378	0.379		0.4	
Isophorone	0.629	0.644		2.4	
2-Nitrophenol	0.243	0.245		0.8	20.0
2,4-Dimethylphenol	0.336	0.337		0.2	
bis(2-Chloroethoxy)methane	0.369	0.373		1.0	
2,4-Dichlorophenol	0.393	0.404		2.8	20.0
1,2,4-Trichlorobenzene	0.411	0.410		0.3	
Benzoic acid	0.125	0.143		14.5	
Naphthalene	1.034	1.027		0.7	
4-Chloroaniline	0.449	0.435		3.1	
Hexachlorobutadiene	0.277	0.265		4.5	20.0
Caprolactam	0.115	0.116		0.5	
4-Chloro-3-methylphenol	0.357	0.380		6.3	20.0
2-Methylnaphthalene	0.754	0.761		1.0	
Hexachlorocyclopentadiene	0.339	0.313	0.050	7.5	
2,4,6-Trichlorophenol	0.486	0.471		3.2	20.0
2,4,5-Trichlorophenol	0.479	0.464		3.1	
1,1-Biphenyl	1.356	1.347		0.7	
2-Chloronaphthalene	1.191	1.179		1.0	
2-Nitroaniline	0.245	0.241		1.5	
Dimethylphthalate	1.622	1.611		0.7	
Acenaphthylene	1.684	1.618		3.9	
2,6-Dinitrotoluene	0.340	0.342		0.7	
3-Nitroaniline	0.339	0.342		0.8	

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811

Instrument ID: BNA\_G Calibration Date/Time: 08/22/2012 01:04

Lab File ID: BG006813.D Init. Calib. Date(s): 08/20/2012 08/20/2012

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 12:43 16:18

GC Column: RXI-5 ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Acenaphthene	1.086	1.090		0.4	20.0
2,4-Dinitrophenol	0.112	0.163	0.050	45.8	
4-Nitrophenol	0.297	0.288	0.050	3.1	
Dibenzofuran	1.761	1.738		1.3	
2,4-Dinitrotoluene	0.457	0.462		1.2	
Diethylphthalate	1.514	1.524		0.6	
4-Chlorophenyl-phenylether	0.786	0.782		0.6	
Fluorene	1.387	1.394		0.5	
4-Nitroaniline	0.353	0.364		3.2	
4,6-Dinitro-2-methylphenol	0.131	0.165		26.1	
n-Nitrosodiphenylamine	0.660	0.641		2.9	20.0
Azobenzene	1.142	1.136		0.5	
4-Bromophenyl-phenylether	0.257	0.256		0.6	
Hexachlorobenzene	0.285	0.281		1.3	
Atrazine	0.234	0.231		1.1	
Pentachlorophenol	0.157	0.169		7.5	20.0
Phenanthrene	1.080	1.054		2.4	
Anthracene	1.078	1.033		4.2	
Carbazole	1.099	1.095		0.4	
Di-n-butylphthalate	1.345	1.336		0.7	
Fluoranthene	1.275	1.276		0.0	20.0
Benzidine	0.411	0.481		16.9	
Pyrene	1.194	1.141		4.5	
Butylbenzylphthalate	0.555	0.554		0.2	
3,3-Dichlorobenzidine	0.395	0.399		1.0	
Benzo(a)anthracene	1.090	1.062		2.6	
Chrysene	1.042	1.025		1.6	
Bis(2-ethylhexyl)phthalate	0.764	0.777		1.7	
Di-n-octyl phthalate	1.234	1.225		0.7	20.0
Benzo(b)fluoranthene	1.133	1.168		3.1	
Benzo(k)fluoranthene	1.138	1.141		0.3	
Benzo(a)pyrene	1.075	1.069		0.5	20.0
Indeno(1,2,3-cd)pyrene	1.245	1.115		10.4	
Dibenzo(a,h)anthracene	1.103	1.048		5.0	
Benzo(g,h,i)perylene	1.099	1.032		6.1	
1,2,4,5-Tetrachlorobenzene	0.641	0.617		3.8	
1,4-Dioxane	0.467	0.454		2.8	20.0
2,3,4,6-Tetrachlorophenol	0.437	0.425		2.7	
2-Fluorophenol	1.194	1.172		1.8	
Phenol-d5	1.556	1.578		1.4	
Nitrobenzene-d5	0.354	0.354		0.1	

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: MSAN01  
 Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
 Instrument ID: BNA\_G Calibration Date/Time: 08/22/2012 01:04  
 Lab File ID: BG006813.D Init. Calib. Date(s): 08/20/2012 08/20/2012  
 EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 12:43 16:18  
 GC Column: RXI-5 ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorobiphenyl	1.259	1.235		1.9	
2,4,6-Tribromophenol	0.252	0.243		3.5	
Terphenyl-d14	0.823	0.795		3.5	

All other compounds must meet a minimum RRF of 0.010.

## LAB CHRONICLE

<b>OrderID:</b>	D3811	<b>OrderDate:</b>	8/15/2012 11:38:54 AM
<b>Client:</b>	MS Analytical	<b>Project:</b>	12MS104 Kensington Heights
<b>Contact:</b>	Bryan Mayback	<b>Location:</b>	I23

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
<b>D3811-01</b>	<b>SB-2(4-8)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/07/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-02</b>	<b>SB-5(8-12)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/07/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-03</b>	<b>SB-9(4-7)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/07/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-05</b>	<b>SB-11(12-16)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/07/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-06</b>	<b>SB-15(12-16)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/08/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-07</b>	<b>SB-18(4-8)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/08/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-10</b>	<b>SB-21(16-19)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/09/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	

# LAB CHRONICLE

			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-10RE</b>	<b>SB-21(16-19)RE</b>	<b>SOIL</b>			<b>08/09/12</b>			<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
<b>D3811-11</b>	<b>SB-22(12-19)</b>	<b>SOIL</b>			<b>08/09/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-13</b>	<b>SB-37(8-10)</b>	<b>SOIL</b>			<b>08/10/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-14</b>	<b>SB-39(6-8)</b>	<b>SOIL</b>			<b>08/10/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-15</b>	<b>SB-41(8-11)</b>	<b>SOIL</b>			<b>08/10/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-17</b>	<b>SB-43(6-8)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-18</b>	<b>SB-43(10-12)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-18RE</b>	<b>SB-43(10-12)RE</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
<b>D3811-19</b>	<b>SB-43(16-20)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/18/12	



LAB CHRONICLE

D3811-21	SB-46(12-16)	SOIL			08/13/12		08/15/12
			Herbicide	8151A		08/15/12	08/23/12
			PCB	8082A		08/15/12	08/21/12
			Pesticide-TCL	8081B		08/15/12	08/18/12

Hit Summary Sheet  
SW-846

SDG No.:

Order ID:

Client:

Project ID:

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :								

Total Concentration:

A

B

C

D

E

F

G

# SAMPLE DATA



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12			
Project:	12MS104 Kensington Heights	Date Received:	08/15/12			
Client Sample ID:	SB-2(4-8)	SDG No.:	D3811			
Lab Sample ID:	D3811-01	Matrix:	SOIL			
Analytical Method:	SW8081B	% Moisture:	13.4	Decanted:		
Sample Wt/Vol:	30.05	Units:	g	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	Pesticide-TCL	
Extraction Type:				Injection Volume	1	
GPC Factor :	1.0	PH :	N/A			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012349.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	1	U	0.15	1	2	ug/Kg
319-85-7	beta-BHC	1	U	0.21	1	2	ug/Kg
319-86-8	delta-BHC	1	U	0.12	1	2	ug/Kg
58-89-9	gamma-BHC	1	U	0.17	1	2	ug/Kg
76-44-8	Heptachlor	1	U	0.16	1	2	ug/Kg
309-00-2	Aldrin	1	U	0.12	1	2	ug/Kg
1024-57-3	Heptachlor epoxide	1	U	0.18	1	2	ug/Kg
959-98-8	Endosulfan I	1	U	0.17	1	2	ug/Kg
60-57-1	Dieldrin	1	U	0.15	1	2	ug/Kg
72-55-9	4,4-DDE	1	U	0.23	1	2	ug/Kg
72-20-8	Endrin	1	U	0.21	1	2	ug/Kg
33213-65-9	Endosulfan II	1	U	0.16	1	2	ug/Kg
72-54-8	4,4-DDD	1	U	0.2	1	2	ug/Kg
1031-07-8	Endosulfan Sulfate	1	U	0.17	1	2	ug/Kg
50-29-3	4,4-DDT	1	U	0.16	1	2	ug/Kg
72-43-5	Methoxychlor	1	U	0.2	1	2	ug/Kg
53494-70-5	Endrin ketone	1	U	0.15	1	2	ug/Kg
7421-93-4	Endrin aldehyde	1	U	0.17	1	2	ug/Kg
5103-71-9	alpha-Chlordane	1	U	0.16	1	2	ug/Kg
5103-74-2	gamma-Chlordane	1	U	0.15	1	2	ug/Kg
8001-35-2	Toxaphene	10	U	3.9	10	20	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	40.4	*	10 - 169		202%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.3		31 - 151		112%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-01	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	13.4
Sample Wt/Vol:	30.05	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH : N/A		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012349.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-02	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	18.7
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012350.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	1.05	U	0.16	1.05	2.1	ug/Kg
319-85-7	beta-BHC	1.05	U	0.22	1.05	2.1	ug/Kg
319-86-8	delta-BHC	1.05	U	0.12	1.05	2.1	ug/Kg
58-89-9	gamma-BHC	1.05	U	0.18	1.05	2.1	ug/Kg
76-44-8	Heptachlor	1.05	U	0.17	1.05	2.1	ug/Kg
309-00-2	Aldrin	1.05	U	0.12	1.05	2.1	ug/Kg
1024-57-3	Heptachlor epoxide	1.05	U	0.2	1.05	2.1	ug/Kg
959-98-8	Endosulfan I	1.05	U	0.18	1.05	2.1	ug/Kg
60-57-1	Dieldrin	1.05	U	0.16	1.05	2.1	ug/Kg
72-55-9	4,4-DDE	1.05	U	0.25	1.05	2.1	ug/Kg
72-20-8	Endrin	1.05	U	0.22	1.05	2.1	ug/Kg
33213-65-9	Endosulfan II	1.05	U	0.17	1.05	2.1	ug/Kg
72-54-8	4,4-DDD	1.05	U	0.21	1.05	2.1	ug/Kg
1031-07-8	Endosulfan Sulfate	1.05	U	0.18	1.05	2.1	ug/Kg
50-29-3	4,4-DDT	1.05	U	0.17	1.05	2.1	ug/Kg
72-43-5	Methoxychlor	1.05	U	0.21	1.05	2.1	ug/Kg
53494-70-5	Endrin ketone	1.05	U	0.16	1.05	2.1	ug/Kg
7421-93-4	Endrin aldehyde	1.05	U	0.18	1.05	2.1	ug/Kg
5103-71-9	alpha-Chlordane	1.05	U	0.17	1.05	2.1	ug/Kg
5103-74-2	gamma-Chlordane	1.05	U	0.16	1.05	2.1	ug/Kg
8001-35-2	Toxaphene	10.5	U	4.2	10.5	21	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	19.5		10 - 169		97%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21		31 - 151		105%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-02	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	18.7
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH : N/A		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012350.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)	SDG No.:	D3811
Lab Sample ID:	D3811-03	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	16.1
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012351.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	1	U	0.15	1	2	ug/Kg
319-85-7	beta-BHC	1	U	0.21	1	2	ug/Kg
319-86-8	delta-BHC	1	U	0.12	1	2	ug/Kg
58-89-9	gamma-BHC	1	U	0.18	1	2	ug/Kg
76-44-8	Heptachlor	1	U	0.17	1	2	ug/Kg
309-00-2	Aldrin	1	U	0.12	1	2	ug/Kg
1024-57-3	Heptachlor epoxide	1	U	0.19	1	2	ug/Kg
959-98-8	Endosulfan I	1	U	0.18	1	2	ug/Kg
60-57-1	Dieldrin	1	U	0.15	1	2	ug/Kg
72-55-9	4,4-DDE	1	U	0.24	1	2	ug/Kg
72-20-8	Endrin	1	U	0.21	1	2	ug/Kg
33213-65-9	Endosulfan II	1	U	0.17	1	2	ug/Kg
72-54-8	4,4-DDD	1	U	0.2	1	2	ug/Kg
1031-07-8	Endosulfan Sulfate	1	U	0.18	1	2	ug/Kg
50-29-3	4,4-DDT	1	U	0.17	1	2	ug/Kg
72-43-5	Methoxychlor	1	U	0.2	1	2	ug/Kg
53494-70-5	Endrin ketone	1	U	0.15	1	2	ug/Kg
7421-93-4	Endrin aldehyde	1	U	0.18	1	2	ug/Kg
5103-71-9	alpha-Chlordane	1	U	0.17	1	2	ug/Kg
5103-74-2	gamma-Chlordane	1	U	0.15	1	2	ug/Kg
8001-35-2	Toxaphene	10	U	4	10	20	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	20.9		10 - 169		105%	SPK: 20
877-09-8	Tetrachloro-m-xylene	23.3		31 - 151		117%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)	SDG No.:	D3811
Lab Sample ID:	D3811-03	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	16.1
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012351.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12			
Project:	12MS104 Kensington Heights	Date Received:	08/15/12			
Client Sample ID:	SB-11(12-16)	SDG No.:	D3811			
Lab Sample ID:	D3811-05	Matrix:	SOIL			
Analytical Method:	SW8081B	% Moisture:	25.6	Decanted:		
Sample Wt/Vol:	30.05	Units:	g	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	Pesticide-TCL	
Extraction Type:				Injection Volume	1	
GPC Factor :	1.0	PH :	N/A			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012352.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	1.15	U	0.17	1.15	2.3	ug/Kg
319-85-7	beta-BHC	1.15	U	0.24	1.15	2.3	ug/Kg
319-86-8	delta-BHC	1.15	U	0.13	1.15	2.3	ug/Kg
58-89-9	gamma-BHC	1.15	U	0.2	1.15	2.3	ug/Kg
76-44-8	Heptachlor	1.15	U	0.19	1.15	2.3	ug/Kg
309-00-2	Aldrin	1.15	U	0.13	1.15	2.3	ug/Kg
1024-57-3	Heptachlor epoxide	1.15	U	0.21	1.15	2.3	ug/Kg
959-98-8	Endosulfan I	1.15	U	0.2	1.15	2.3	ug/Kg
60-57-1	Dieldrin	1.15	U	0.17	1.15	2.3	ug/Kg
72-55-9	4,4-DDE	1.15	U	0.27	1.15	2.3	ug/Kg
72-20-8	Endrin	1.15	U	0.24	1.15	2.3	ug/Kg
33213-65-9	Endosulfan II	1.15	U	0.19	1.15	2.3	ug/Kg
72-54-8	4,4-DDD	1.15	U	0.23	1.15	2.3	ug/Kg
1031-07-8	Endosulfan Sulfate	1.15	U	0.2	1.15	2.3	ug/Kg
50-29-3	4,4-DDT	1.15	U	0.19	1.15	2.3	ug/Kg
72-43-5	Methoxychlor	1.15	U	0.23	1.15	2.3	ug/Kg
53494-70-5	Endrin ketone	1.15	U	0.17	1.15	2.3	ug/Kg
7421-93-4	Endrin aldehyde	1.15	U	0.2	1.15	2.3	ug/Kg
5103-71-9	alpha-Chlordane	1.15	U	0.19	1.15	2.3	ug/Kg
5103-74-2	gamma-Chlordane	1.15	U	0.17	1.15	2.3	ug/Kg
8001-35-2	Toxaphene	11.5	U	4.6	11.5	23	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	18.6		10 - 169		93%	SPK: 20
877-09-8	Tetrachloro-m-xylene	18.7		31 - 151		94%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-05	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	25.6
Sample Wt/Vol:	30.05	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012352.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

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J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12			
Project:	12MS104 Kensington Heights	Date Received:	08/15/12			
Client Sample ID:	SB-15(12-16)	SDG No.:	D3811			
Lab Sample ID:	D3811-06	Matrix:	SOIL			
Analytical Method:	SW8081B	% Moisture:	28.4	Decanted:		
Sample Wt/Vol:	30.07	Units:	g	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	Pesticide-TCL	
Extraction Type:				Injection Volume	1	
GPC Factor :	1.0	PH :	N/A			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012353.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	1.2	U	0.18	1.2	2.4	ug/Kg
319-85-7	beta-BHC	1.2	U	0.25	1.2	2.4	ug/Kg
319-86-8	delta-BHC	1.2	U	0.14	1.2	2.4	ug/Kg
58-89-9	gamma-BHC	1.2	U	0.21	1.2	2.4	ug/Kg
76-44-8	Heptachlor	1.2	U	0.2	1.2	2.4	ug/Kg
309-00-2	Aldrin	1.2	U	0.14	1.2	2.4	ug/Kg
1024-57-3	Heptachlor epoxide	1.2	U	0.22	1.2	2.4	ug/Kg
959-98-8	Endosulfan I	1.2	U	0.21	1.2	2.4	ug/Kg
60-57-1	Dieldrin	1.2	U	0.18	1.2	2.4	ug/Kg
72-55-9	4,4-DDE	1.2	U	0.28	1.2	2.4	ug/Kg
72-20-8	Endrin	1.2	U	0.25	1.2	2.4	ug/Kg
33213-65-9	Endosulfan II	1.2	U	0.2	1.2	2.4	ug/Kg
72-54-8	4,4-DDD	1.2	U	0.24	1.2	2.4	ug/Kg
1031-07-8	Endosulfan Sulfate	1.2	U	0.21	1.2	2.4	ug/Kg
50-29-3	4,4-DDT	1.2	U	0.2	1.2	2.4	ug/Kg
72-43-5	Methoxychlor	1.2	U	0.24	1.2	2.4	ug/Kg
53494-70-5	Endrin ketone	1.2	U	0.18	1.2	2.4	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	0.21	1.2	2.4	ug/Kg
5103-71-9	alpha-Chlordane	1.2	U	0.2	1.2	2.4	ug/Kg
5103-74-2	gamma-Chlordane	1.2	U	0.18	1.2	2.4	ug/Kg
8001-35-2	Toxaphene	12	U	4.7	12	24	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	18.4		10 - 169		92%	SPK: 20
877-09-8	Tetrachloro-m-xylene	12.7		31 - 151		63%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-06	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	28.4
Sample Wt/Vol:	30.07	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012353.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12			
Project:	12MS104 Kensington Heights	Date Received:	08/15/12			
Client Sample ID:	SB-18(4-8)	SDG No.:	D3811			
Lab Sample ID:	D3811-07	Matrix:	SOIL			
Analytical Method:	SW8081B	% Moisture:	16.2	Decanted:		
Sample Wt/Vol:	30.07	Units:	g	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	Pesticide-TCL	
Extraction Type:				Injection Volume	1	
GPC Factor :	1.0	PH :	N/A			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012354.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	1	U	0.15	1	2	ug/Kg
319-85-7	beta-BHC	1	U	0.21	1	2	ug/Kg
319-86-8	delta-BHC	1	U	0.12	1	2	ug/Kg
58-89-9	gamma-BHC	1	U	0.18	1	2	ug/Kg
76-44-8	Heptachlor	1	U	0.17	1	2	ug/Kg
309-00-2	Aldrin	1	U	0.12	1	2	ug/Kg
1024-57-3	Heptachlor epoxide	1	U	0.19	1	2	ug/Kg
959-98-8	Endosulfan I	1	U	0.18	1	2	ug/Kg
60-57-1	Dieldrin	1	U	0.15	1	2	ug/Kg
72-55-9	4,4-DDE	1	U	0.24	1	2	ug/Kg
72-20-8	Endrin	1	U	0.21	1	2	ug/Kg
33213-65-9	Endosulfan II	1	U	0.17	1	2	ug/Kg
72-54-8	4,4-DDD	1	U	0.2	1	2	ug/Kg
1031-07-8	Endosulfan Sulfate	1	U	0.18	1	2	ug/Kg
50-29-3	4,4-DDT	1	U	0.17	1	2	ug/Kg
72-43-5	Methoxychlor	1	U	0.2	1	2	ug/Kg
53494-70-5	Endrin ketone	1	U	0.15	1	2	ug/Kg
7421-93-4	Endrin aldehyde	1	U	0.18	1	2	ug/Kg
5103-71-9	alpha-Chlordane	1	U	0.17	1	2	ug/Kg
5103-74-2	gamma-Chlordane	1	U	0.15	1	2	ug/Kg
8001-35-2	Toxaphene	10	U	4	10	20	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	21.8		10 - 169		109%	SPK: 20
877-09-8	Tetrachloro-m-xylene	25		31 - 151		125%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-07	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	16.2
Sample Wt/Vol:	30.07	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012354.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)	SDG No.:	D3811
Lab Sample ID:	D3811-10	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	31.9
Sample Wt/Vol:	30.09	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012355.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	1.25	U	0.19	1.25	2.5	ug/Kg
319-85-7	beta-BHC	1.25	U	0.26	1.25	2.5	ug/Kg
319-86-8	delta-BHC	1.25	U	0.15	1.25	2.5	ug/Kg
58-89-9	gamma-BHC	1.25	U	0.22	1.25	2.5	ug/Kg
76-44-8	Heptachlor	1.25	U	0.2	1.25	2.5	ug/Kg
309-00-2	Aldrin	1.25	U	0.15	1.25	2.5	ug/Kg
1024-57-3	Heptachlor epoxide	1.25	U	0.23	1.25	2.5	ug/Kg
959-98-8	Endosulfan I	1.25	U	0.22	1.25	2.5	ug/Kg
60-57-1	Dieldrin	1.25	U	0.19	1.25	2.5	ug/Kg
72-55-9	4,4-DDE	1.25	U	0.29	1.25	2.5	ug/Kg
72-20-8	Endrin	1.25	U	0.26	1.25	2.5	ug/Kg
33213-65-9	Endosulfan II	1.25	U	0.2	1.25	2.5	ug/Kg
72-54-8	4,4-DDD	1.25	U	0.25	1.25	2.5	ug/Kg
1031-07-8	Endosulfan Sulfate	1.25	U	0.22	1.25	2.5	ug/Kg
50-29-3	4,4-DDT	1.25	U	0.2	1.25	2.5	ug/Kg
72-43-5	Methoxychlor	1.25	U	0.25	1.25	2.5	ug/Kg
53494-70-5	Endrin ketone	1.25	U	0.19	1.25	2.5	ug/Kg
7421-93-4	Endrin aldehyde	1.25	U	0.22	1.25	2.5	ug/Kg
5103-71-9	alpha-Chlordane	1.25	U	0.2	1.25	2.5	ug/Kg
5103-74-2	gamma-Chlordane	1.25	U	0.19	1.25	2.5	ug/Kg
8001-35-2	Toxaphene	12.5	U	5	12.5	25	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	9.11		10 - 169		46%	SPK: 20
877-09-8	Tetrachloro-m-xylene	14.1		31 - 151		71%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)	SDG No.:	D3811
Lab Sample ID:	D3811-10	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	31.9
Sample Wt/Vol:	30.09	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012355.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12			
Project:	12MS104 Kensington Heights	Date Received:	08/15/12			
Client Sample ID:	SB-22(12-19)	SDG No.:	D3811			
Lab Sample ID:	D3811-11	Matrix:	SOIL			
Analytical Method:	SW8081B	% Moisture:	8.9	Decanted:		
Sample Wt/Vol:	30.04	Units:	g	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	Pesticide-TCL	
Extraction Type:				Injection Volume	1	
GPC Factor :	1.0	PH :	N/A			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012356.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	0.95	U	0.14	0.95	1.9	ug/Kg
319-85-7	beta-BHC	0.95	U	0.2	0.95	1.9	ug/Kg
319-86-8	delta-BHC	0.95	U	0.11	0.95	1.9	ug/Kg
58-89-9	gamma-BHC	0.95	U	0.16	0.95	1.9	ug/Kg
76-44-8	Heptachlor	0.95	U	0.15	0.95	1.9	ug/Kg
309-00-2	Aldrin	0.95	U	0.11	0.95	1.9	ug/Kg
1024-57-3	Heptachlor epoxide	0.95	U	0.18	0.95	1.9	ug/Kg
959-98-8	Endosulfan I	0.95	U	0.16	0.95	1.9	ug/Kg
60-57-1	Dieldrin	0.95	U	0.14	0.95	1.9	ug/Kg
72-55-9	4,4-DDE	0.95	U	0.22	0.95	1.9	ug/Kg
72-20-8	Endrin	0.95	U	0.2	0.95	1.9	ug/Kg
33213-65-9	Endosulfan II	0.95	U	0.15	0.95	1.9	ug/Kg
72-54-8	4,4-DDD	0.95	U	0.19	0.95	1.9	ug/Kg
1031-07-8	Endosulfan Sulfate	0.95	U	0.16	0.95	1.9	ug/Kg
50-29-3	4,4-DDT	0.95	U	0.15	0.95	1.9	ug/Kg
72-43-5	Methoxychlor	0.95	U	0.19	0.95	1.9	ug/Kg
53494-70-5	Endrin ketone	0.95	U	0.14	0.95	1.9	ug/Kg
7421-93-4	Endrin aldehyde	0.95	U	0.16	0.95	1.9	ug/Kg
5103-71-9	alpha-Chlordane	0.95	U	0.15	0.95	1.9	ug/Kg
5103-74-2	gamma-Chlordane	0.95	U	0.14	0.95	1.9	ug/Kg
8001-35-2	Toxaphene	9.5	U	3.7	9.5	19	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	18		10 - 169		90%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20		31 - 151		100%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)	SDG No.:	D3811
Lab Sample ID:	D3811-11	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	8.9
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012356.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12			
Project:	12MS104 Kensington Heights	Date Received:	08/15/12			
Client Sample ID:	SB-37(8-10)	SDG No.:	D3811			
Lab Sample ID:	D3811-13	Matrix:	SOIL			
Analytical Method:	SW8081B	% Moisture:	29.6	Decanted:		
Sample Wt/Vol:	30.06	Units:	g	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	Pesticide-TCL	
Extraction Type:				Injection Volume	1	
GPC Factor :	1.0	PH :	N/A			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012359.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	1.2	U	0.18	1.2	2.4	ug/Kg
319-85-7	beta-BHC	1.2	U	0.26	1.2	2.4	ug/Kg
319-86-8	delta-BHC	1.2	U	0.14	1.2	2.4	ug/Kg
58-89-9	gamma-BHC	1.2	U	0.21	1.2	2.4	ug/Kg
76-44-8	Heptachlor	1.2	U	0.2	1.2	2.4	ug/Kg
309-00-2	Aldrin	1.2	U	0.14	1.2	2.4	ug/Kg
1024-57-3	Heptachlor epoxide	1.2	U	0.23	1.2	2.4	ug/Kg
959-98-8	Endosulfan I	1.2	U	0.21	1.2	2.4	ug/Kg
60-57-1	Dieldrin	1.2	U	0.18	1.2	2.4	ug/Kg
72-55-9	4,4-DDE	1.2	U	0.28	1.2	2.4	ug/Kg
72-20-8	Endrin	1.2	U	0.26	1.2	2.4	ug/Kg
33213-65-9	Endosulfan II	1.2	U	0.2	1.2	2.4	ug/Kg
72-54-8	4,4-DDD	1.2	U	0.24	1.2	2.4	ug/Kg
1031-07-8	Endosulfan Sulfate	1.2	U	0.21	1.2	2.4	ug/Kg
50-29-3	4,4-DDT	1.2	U	0.2	1.2	2.4	ug/Kg
72-43-5	Methoxychlor	1.2	U	0.24	1.2	2.4	ug/Kg
53494-70-5	Endrin ketone	1.2	U	0.18	1.2	2.4	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	0.21	1.2	2.4	ug/Kg
5103-71-9	alpha-Chlordane	1.2	U	0.2	1.2	2.4	ug/Kg
5103-74-2	gamma-Chlordane	1.2	U	0.18	1.2	2.4	ug/Kg
8001-35-2	Toxaphene	12	U	4.8	12	24	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	4.89		10 - 169		24%	SPK: 20
877-09-8	Tetrachloro-m-xylene	16		31 - 151		80%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)	SDG No.:	D3811
Lab Sample ID:	D3811-13	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	29.6
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012359.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-14	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	8.1
Sample Wt/Vol:	30.11 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012360.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	0.9	U	0.14	0.9	1.8	ug/Kg
319-85-7	beta-BHC	0.9	U	0.2	0.9	1.8	ug/Kg
319-86-8	delta-BHC	0.9	U	0.11	0.9	1.8	ug/Kg
58-89-9	gamma-BHC	0.9	U	0.16	0.9	1.8	ug/Kg
76-44-8	Heptachlor	0.9	U	0.15	0.9	1.8	ug/Kg
309-00-2	Aldrin	0.9	U	0.11	0.9	1.8	ug/Kg
1024-57-3	Heptachlor epoxide	0.9	U	0.17	0.9	1.8	ug/Kg
959-98-8	Endosulfan I	0.9	U	0.16	0.9	1.8	ug/Kg
60-57-1	Dieldrin	0.9	U	0.14	0.9	1.8	ug/Kg
72-55-9	4,4-DDE	0.9	U	0.22	0.9	1.8	ug/Kg
72-20-8	Endrin	0.9	U	0.2	0.9	1.8	ug/Kg
33213-65-9	Endosulfan II	0.9	U	0.15	0.9	1.8	ug/Kg
72-54-8	4,4-DDD	0.9	U	0.18	0.9	1.8	ug/Kg
1031-07-8	Endosulfan Sulfate	0.9	U	0.16	0.9	1.8	ug/Kg
50-29-3	4,4-DDT	0.9	U	0.15	0.9	1.8	ug/Kg
72-43-5	Methoxychlor	0.9	U	0.18	0.9	1.8	ug/Kg
53494-70-5	Endrin ketone	0.9	U	0.14	0.9	1.8	ug/Kg
7421-93-4	Endrin aldehyde	0.9	U	0.16	0.9	1.8	ug/Kg
5103-71-9	alpha-Chlordane	0.9	U	0.15	0.9	1.8	ug/Kg
5103-74-2	gamma-Chlordane	0.9	U	0.14	0.9	1.8	ug/Kg
8001-35-2	Toxaphene	9	U	3.7	9	18	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	15.6		10 - 169		78%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.1		31 - 151		96%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-14	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	8.1
Sample Wt/Vol:	30.11	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012360.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

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LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

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B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)	SDG No.:	D3811
Lab Sample ID:	D3811-15	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	18.8
Sample Wt/Vol:	30.07 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012361.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	1.05	U	0.16	1.05	2.1	ug/Kg
319-85-7	beta-BHC	1.05	U	0.22	1.05	2.1	ug/Kg
319-86-8	delta-BHC	1.05	U	0.12	1.05	2.1	ug/Kg
58-89-9	gamma-BHC	1.05	U	0.18	1.05	2.1	ug/Kg
76-44-8	Heptachlor	1.05	U	0.17	1.05	2.1	ug/Kg
309-00-2	Aldrin	1.05	U	0.12	1.05	2.1	ug/Kg
1024-57-3	Heptachlor epoxide	1.05	U	0.2	1.05	2.1	ug/Kg
959-98-8	Endosulfan I	1.05	U	0.18	1.05	2.1	ug/Kg
60-57-1	Dieldrin	1.05	U	0.16	1.05	2.1	ug/Kg
72-55-9	4,4-DDE	1.05	U	0.25	1.05	2.1	ug/Kg
72-20-8	Endrin	1.05	U	0.22	1.05	2.1	ug/Kg
33213-65-9	Endosulfan II	1.05	U	0.17	1.05	2.1	ug/Kg
72-54-8	4,4-DDD	1.05	U	0.21	1.05	2.1	ug/Kg
1031-07-8	Endosulfan Sulfate	1.05	U	0.18	1.05	2.1	ug/Kg
50-29-3	4,4-DDT	1.05	U	0.17	1.05	2.1	ug/Kg
72-43-5	Methoxychlor	1.05	U	0.21	1.05	2.1	ug/Kg
53494-70-5	Endrin ketone	1.05	U	0.16	1.05	2.1	ug/Kg
7421-93-4	Endrin aldehyde	1.05	U	0.18	1.05	2.1	ug/Kg
5103-71-9	alpha-Chlordane	1.05	U	0.17	1.05	2.1	ug/Kg
5103-74-2	gamma-Chlordane	1.05	U	0.16	1.05	2.1	ug/Kg
8001-35-2	Toxaphene	10.5	U	4.2	10.5	21	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	20.6		10 - 169		103%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.7		31 - 151		109%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)	SDG No.:	D3811
Lab Sample ID:	D3811-15	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	18.8
Sample Wt/Vol:	30.07	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012361.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12			
Project:	12MS104 Kensington Heights	Date Received:	08/15/12			
Client Sample ID:	SB-43(6-8)	SDG No.:	D3811			
Lab Sample ID:	D3811-17	Matrix:	SOIL			
Analytical Method:	SW8081B	% Moisture:	8.2	Decanted:		
Sample Wt/Vol:	30.02	Units:	g	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	Pesticide-TCL	
Extraction Type:				Injection Volume	1	
GPC Factor :	1.0	PH :	N/A			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012362.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	0.95	U	0.14	0.95	1.9	ug/Kg
319-85-7	beta-BHC	0.95	U	0.2	0.95	1.9	ug/Kg
319-86-8	delta-BHC	0.95	U	0.11	0.95	1.9	ug/Kg
58-89-9	gamma-BHC	0.95	U	0.16	0.95	1.9	ug/Kg
76-44-8	Heptachlor	0.95	U	0.15	0.95	1.9	ug/Kg
309-00-2	Aldrin	0.95	U	0.11	0.95	1.9	ug/Kg
1024-57-3	Heptachlor epoxide	0.95	U	0.17	0.95	1.9	ug/Kg
959-98-8	Endosulfan I	0.95	U	0.16	0.95	1.9	ug/Kg
60-57-1	Dieldrin	0.95	U	0.14	0.95	1.9	ug/Kg
72-55-9	4,4-DDE	0.95	U	0.22	0.95	1.9	ug/Kg
72-20-8	Endrin	0.95	U	0.2	0.95	1.9	ug/Kg
33213-65-9	Endosulfan II	0.95	U	0.15	0.95	1.9	ug/Kg
72-54-8	4,4-DDD	0.95	U	0.19	0.95	1.9	ug/Kg
1031-07-8	Endosulfan Sulfate	0.95	U	0.16	0.95	1.9	ug/Kg
50-29-3	4,4-DDT	0.95	U	0.15	0.95	1.9	ug/Kg
72-43-5	Methoxychlor	0.95	U	0.19	0.95	1.9	ug/Kg
53494-70-5	Endrin ketone	0.95	U	0.14	0.95	1.9	ug/Kg
7421-93-4	Endrin aldehyde	0.95	U	0.16	0.95	1.9	ug/Kg
5103-71-9	alpha-Chlordane	0.95	U	0.15	0.95	1.9	ug/Kg
5103-74-2	gamma-Chlordane	0.95	U	0.14	0.95	1.9	ug/Kg
8001-35-2	Toxaphene	9.5	U	3.7	9.5	19	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	17.1		10 - 169		86%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.9		31 - 151		104%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-17	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	8.2
Sample Wt/Vol:	30.02	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012362.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

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J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12			
Project:	12MS104 Kensington Heights	Date Received:	08/15/12			
Client Sample ID:	SB-43(10-12)	SDG No.:	D3811			
Lab Sample ID:	D3811-18	Matrix:	SOIL			
Analytical Method:	SW8081B	% Moisture:	17.9	Decanted:		
Sample Wt/Vol:	30.04	Units:	g	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	Pesticide-TCL	
Extraction Type:				Injection Volume	1	
GPC Factor :	1.0	PH :	N/A			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012363.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	1.05	U	0.16	1.05	2.1	ug/Kg
319-85-7	beta-BHC	1.05	U	0.22	1.05	2.1	ug/Kg
319-86-8	delta-BHC	1.05	U	0.12	1.05	2.1	ug/Kg
58-89-9	gamma-BHC	1.05	U	0.18	1.05	2.1	ug/Kg
76-44-8	Heptachlor	1.05	U	0.17	1.05	2.1	ug/Kg
309-00-2	Aldrin	1.05	U	0.12	1.05	2.1	ug/Kg
1024-57-3	Heptachlor epoxide	1.05	U	0.19	1.05	2.1	ug/Kg
959-98-8	Endosulfan I	1.05	U	0.18	1.05	2.1	ug/Kg
60-57-1	Dieldrin	1.05	U	0.16	1.05	2.1	ug/Kg
72-55-9	4,4-DDE	1.05	U	0.24	1.05	2.1	ug/Kg
72-20-8	Endrin	1.05	U	0.22	1.05	2.1	ug/Kg
33213-65-9	Endosulfan II	1.05	U	0.17	1.05	2.1	ug/Kg
72-54-8	4,4-DDD	1.05	U	0.21	1.05	2.1	ug/Kg
1031-07-8	Endosulfan Sulfate	1.05	U	0.18	1.05	2.1	ug/Kg
50-29-3	4,4-DDT	1.05	U	0.17	1.05	2.1	ug/Kg
72-43-5	Methoxychlor	1.05	U	0.21	1.05	2.1	ug/Kg
53494-70-5	Endrin ketone	1.05	U	0.16	1.05	2.1	ug/Kg
7421-93-4	Endrin aldehyde	1.05	U	0.18	1.05	2.1	ug/Kg
5103-71-9	alpha-Chlordane	1.05	U	0.17	1.05	2.1	ug/Kg
5103-74-2	gamma-Chlordane	1.05	U	0.16	1.05	2.1	ug/Kg
8001-35-2	Toxaphene	10.5	U	4.1	10.5	21	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	15.5		10 - 169		78%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.3		31 - 151		96%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-18	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	17.9
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012363.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12			
Project:	12MS104 Kensington Heights	Date Received:	08/15/12			
Client Sample ID:	SB-43(16-20)	SDG No.:	D3811			
Lab Sample ID:	D3811-19	Matrix:	SOIL			
Analytical Method:	SW8081B	% Moisture:	29.3	Decanted:		
Sample Wt/Vol:	30.08	Units:	g	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	Pesticide-TCL	
Extraction Type:				Injection Volume	1	
GPC Factor :	1.0	PH :	N/A			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012364.D	1	08/15/12	08/18/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	1.2	U	0.18	1.2	2.4	ug/Kg
319-85-7	beta-BHC	1.2	U	0.25	1.2	2.4	ug/Kg
319-86-8	delta-BHC	1.2	U	0.14	1.2	2.4	ug/Kg
58-89-9	gamma-BHC	1.2	U	0.21	1.2	2.4	ug/Kg
76-44-8	Heptachlor	1.2	U	0.2	1.2	2.4	ug/Kg
309-00-2	Aldrin	1.2	U	0.14	1.2	2.4	ug/Kg
1024-57-3	Heptachlor epoxide	1.2	U	0.23	1.2	2.4	ug/Kg
959-98-8	Endosulfan I	1.2	U	0.21	1.2	2.4	ug/Kg
60-57-1	Dieldrin	1.2	U	0.18	1.2	2.4	ug/Kg
72-55-9	4,4-DDE	1.2	U	0.28	1.2	2.4	ug/Kg
72-20-8	Endrin	1.2	U	0.25	1.2	2.4	ug/Kg
33213-65-9	Endosulfan II	1.2	U	0.2	1.2	2.4	ug/Kg
72-54-8	4,4-DDD	1.2	U	0.24	1.2	2.4	ug/Kg
1031-07-8	Endosulfan Sulfate	1.2	U	0.21	1.2	2.4	ug/Kg
50-29-3	4,4-DDT	1.2	U	0.2	1.2	2.4	ug/Kg
72-43-5	Methoxychlor	1.2	U	0.24	1.2	2.4	ug/Kg
53494-70-5	Endrin ketone	1.2	U	0.18	1.2	2.4	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	0.21	1.2	2.4	ug/Kg
5103-71-9	alpha-Chlordane	1.2	U	0.2	1.2	2.4	ug/Kg
5103-74-2	gamma-Chlordane	1.2	U	0.18	1.2	2.4	ug/Kg
8001-35-2	Toxaphene	12	U	4.8	12	24	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	13.1		10 - 169		65%	SPK: 20
877-09-8	Tetrachloro-m-xylene	14.5		31 - 151		72%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)	SDG No.:	D3811
Lab Sample ID:	D3811-19	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	29.3
Sample Wt/Vol:	30.08	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012364.D	1	08/15/12	08/18/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

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LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

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J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-21	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	28.2
Sample Wt/Vol:	30.07 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012365.D	1	08/15/12	08/18/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	1.2	U	0.18	1.2	2.4	ug/Kg
319-85-7	beta-BHC	1.2	U	0.25	1.2	2.4	ug/Kg
319-86-8	delta-BHC	1.2	U	0.14	1.2	2.4	ug/Kg
58-89-9	gamma-BHC	1.2	U	0.21	1.2	2.4	ug/Kg
76-44-8	Heptachlor	1.2	U	0.19	1.2	2.4	ug/Kg
309-00-2	Aldrin	1.2	U	0.14	1.2	2.4	ug/Kg
1024-57-3	Heptachlor epoxide	1.2	U	0.22	1.2	2.4	ug/Kg
959-98-8	Endosulfan I	1.2	U	0.21	1.2	2.4	ug/Kg
60-57-1	Dieldrin	1.2	U	0.18	1.2	2.4	ug/Kg
72-55-9	4,4-DDE	1.2	U	0.28	1.2	2.4	ug/Kg
72-20-8	Endrin	1.2	U	0.25	1.2	2.4	ug/Kg
33213-65-9	Endosulfan II	1.2	U	0.19	1.2	2.4	ug/Kg
72-54-8	4,4-DDD	1.2	U	0.24	1.2	2.4	ug/Kg
1031-07-8	Endosulfan Sulfate	1.2	U	0.21	1.2	2.4	ug/Kg
50-29-3	4,4-DDT	1.2	U	0.19	1.2	2.4	ug/Kg
72-43-5	Methoxychlor	1.2	U	0.24	1.2	2.4	ug/Kg
53494-70-5	Endrin ketone	1.2	U	0.18	1.2	2.4	ug/Kg
7421-93-4	Endrin aldehyde	1.2	U	0.21	1.2	2.4	ug/Kg
5103-71-9	alpha-Chlordane	1.2	U	0.19	1.2	2.4	ug/Kg
5103-74-2	gamma-Chlordane	1.2	U	0.18	1.2	2.4	ug/Kg
8001-35-2	Toxaphene	12	U	4.7	12	24	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	14.9		10 - 169		75%	SPK: 20
877-09-8	Tetrachloro-m-xylene	16.4		31 - 151		82%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-21	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	28.2
Sample Wt/Vol:	30.07	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012365.D	1	08/15/12	08/18/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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# QC SUMMARY

# Surrogate Summary

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8081

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits	
								Low	High
I.BLK-PD012269.D	PIBLK-PD012269.D	Decachlorobiphenyl	1	20	21.67	108		10	192
		Tetrachloro-m-xylene	1	20	21.92	110		10	172
		Decachlorobiphenyl	2	20	22.56	113		10	192
		Tetrachloro-m-xylene	2	20	24.05	120		10	172
I.BLK-PD012344.D	PIBLK-PD012344.D	Decachlorobiphenyl	1	20	20.06	100		10	192
		Tetrachloro-m-xylene	1	20	21.64	108		10	172
		Decachlorobiphenyl	2	20	16.28	81		10	192
		Tetrachloro-m-xylene	2	20	22.88	114		10	172
PB65124BL	PB65124BL	Decachlorobiphenyl	1	20	18.61	93		10	169
		Tetrachloro-m-xylene	1	20	19.59	98		31	151
		Decachlorobiphenyl	2	20	15.13	76		10	169
		Tetrachloro-m-xylene	2	20	21.06	105		31	151
PB65124BS	PB65124BS	Decachlorobiphenyl	1	20	18.86	94		10	169
		Tetrachloro-m-xylene	1	20	20.16	101		31	151
		Decachlorobiphenyl	2	20	15.48	77		10	169
		Tetrachloro-m-xylene	2	20	20.07	100		31	151
D3811-01	SB-2(4-8)	Decachlorobiphenyl	1	20	40.45	202	*	10	169
		Tetrachloro-m-xylene	1	20	22.31	112		31	151
		Decachlorobiphenyl	2	20	13.61	68		10	169
		Tetrachloro-m-xylene	2	20	16.94	85		31	151
D3811-02	SB-5(8-12)	Decachlorobiphenyl	1	20	19.49	97		10	169
		Tetrachloro-m-xylene	1	20	20.97	105		31	151
		Decachlorobiphenyl	2	20	12.1	61		10	169
		Tetrachloro-m-xylene	2	20	16.37	82		31	151
D3811-03	SB-9(4-7)	Decachlorobiphenyl	1	20	20.93	105		10	169
		Tetrachloro-m-xylene	1	20	23.34	117		31	151
		Decachlorobiphenyl	2	20	14.63	73		10	169
		Tetrachloro-m-xylene	2	20	22.23	111		31	151
D3811-05	SB-11(12-16)	Decachlorobiphenyl	1	20	18.6	93		10	169
		Tetrachloro-m-xylene	1	20	18.71	94		31	151
		Decachlorobiphenyl	2	20	13.18	66		10	169
		Tetrachloro-m-xylene	2	20	14.17	71		31	151
D3811-06	SB-15(12-16)	Decachlorobiphenyl	1	20	18.36	92		10	169
		Tetrachloro-m-xylene	1	20	12.67	63		31	151
		Decachlorobiphenyl	2	20	10.9	55		10	169
		Tetrachloro-m-xylene	2	20	5.58	28	*	31	151
D3811-07	SB-18(4-8)	Decachlorobiphenyl	1	20	21.81	109		10	169
		Tetrachloro-m-xylene	1	20	25.04	125		31	151
		Decachlorobiphenyl	2	20	13.1	66		10	169
		Tetrachloro-m-xylene	2	20	22.72	114		31	151
D3811-10	SB-21(16-19)	Decachlorobiphenyl	1	20	9.11	46		10	169
		Tetrachloro-m-xylene	1	20	14.14	71		31	151
		Decachlorobiphenyl	2	20	8.05	40		10	169
		Tetrachloro-m-xylene	2	20	4.76	24	*	31	151



## Surrogate Summary

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8081

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits	
								Low	High
D3811-11	SB-22(12-19)	Decachlorobiphenyl	1	20	18.04	90		10	169
		Tetrachloro-m-xylene	1	20	20.03	100		31	151
		Decachlorobiphenyl	2	20	10.61	53		10	169
		Tetrachloro-m-xylene	2	20	12.78	64		31	151
I.BLK-PD012357.D	PIBLK-PD012357.D	Decachlorobiphenyl	1	20	24.85	124		10	192
		Tetrachloro-m-xylene	1	20	22.19	111		10	172
		Decachlorobiphenyl	2	20	9.93	50		10	192
		Tetrachloro-m-xylene	2	20	20.23	101		10	172
D3811-13	SB-37(8-10)	Decachlorobiphenyl	1	20	4.89	24		10	169
		Tetrachloro-m-xylene	1	20	15.95	80		31	151
		Decachlorobiphenyl	2	20	12.56	63		10	169
		Tetrachloro-m-xylene	2	20	15.73	79		31	151
D3811-14	SB-39(6-8)	Decachlorobiphenyl	1	20	15.6	78		10	169
		Tetrachloro-m-xylene	1	20	19.12	96		31	151
		Decachlorobiphenyl	2	20	10	50		10	169
		Tetrachloro-m-xylene	2	20	13.83	69		31	151
D3811-15	SB-41(8-11)	Decachlorobiphenyl	1	20	20.6	103		10	169
		Tetrachloro-m-xylene	1	20	21.71	109		31	151
		Decachlorobiphenyl	2	20	11.23	56		10	169
		Tetrachloro-m-xylene	2	20	15.05	75		31	151
D3811-17	SB-43(6-8)	Decachlorobiphenyl	1	20	17.11	86		10	169
		Tetrachloro-m-xylene	1	20	20.88	104		31	151
		Decachlorobiphenyl	2	20	16.67	83		10	169
		Tetrachloro-m-xylene	2	20	13.56	68		31	151
D3811-18	SB-43(10-12)	Decachlorobiphenyl	1	20	15.54	78		10	169
		Tetrachloro-m-xylene	1	20	19.27	96		31	151
		Decachlorobiphenyl	2	20	7.63	38		10	169
		Tetrachloro-m-xylene	2	20	13.33	67		31	151
D3811-19	SB-43(16-20)	Decachlorobiphenyl	1	20	13.06	65		10	169
		Tetrachloro-m-xylene	1	20	14.48	72		31	151
		Decachlorobiphenyl	2	20	5.1	26		10	169
		Tetrachloro-m-xylene	2	20	8.61	43		31	151
D3811-21	SB-46(12-16)	Decachlorobiphenyl	1	20	14.91	75		10	169
		Tetrachloro-m-xylene	1	20	16.43	82		31	151
		Decachlorobiphenyl	2	20	8.47	42		10	169
		Tetrachloro-m-xylene	2	20	12.99	65		31	151
D3811-06MS	SB-15(12-16)MS	Decachlorobiphenyl	1	20	18.91	95		10	169
		Tetrachloro-m-xylene	1	20	16.11	81		31	151
		Decachlorobiphenyl	2	20	6.74	34		10	169
		Tetrachloro-m-xylene	2	20	17.15	86		31	151
D3811-06MSD	SB-15(12-16)MSD	Decachlorobiphenyl	1	20	19.52	98		10	169
		Tetrachloro-m-xylene	1	20	16.09	80		31	151
		Decachlorobiphenyl	2	20	12.46	62		10	169
		Tetrachloro-m-xylene	2	20	13.11	66		31	151

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8081

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits	
								Low	High
I.BLK-PD012368.D	PIBLK-PD012368.D	Decachlorobiphenyl	1	20	20.46	102		10	192
		Tetrachloro-m-xylene	1	20	21.61	108		10	172
		Decachlorobiphenyl	2	20	9.59	48		10	192
		Tetrachloro-m-xylene	2	20	21.24	106		10	172

# Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: D3821

Client: Creamer Environmental, Inc.

Analytical Method: EPA SW-846 8081

Lab Sample ID:	Parameter	Spike	Sample		Rec	Rec		RPD		Limits	
			Result	Result		Qual	RPD	Qual	Low	High	RPD
Client Sample ID: D3811-06MS	SB-15(12-16)MS										
	alpha-BHC	23.2	0	23	99				16	147	
	beta-BHC	23.2	0	24	103				25	146	
	delta-BHC	23.2	0	19	82				11	146	
	gamma-BHC (Lindane)	23.2	0	24	103				21	147	
	Heptachlor	23.2	0	27	116				23	143	
	Aldrin	23.2	0	22	95				11	152	
	Heptachlor epoxide	23.2	0	21	91				22	147	
	Endosulfan I	23.2	0	24	103				10	164	
	Dieldrin	23.2	0	21	91				10	162	
	4,4-DDE	23.2	0	17	73				10	174	
	Endrin	23.2	0	22	95				10	171	
	Endosulfan II	23.2	0	19	82				11	146	
	4,4-DDD	23.2	0	26	112				10	150	
	Endosulfan sulfate	23.2	0	18	78				10	152	
	4,4-DDT	23.2	0	22	95				10	192	
	Methoxychlor	23.2	0	23	99				10	200	
	Endrin ketone	23.2	0	21	91				12	145	
	Endrin aldehyde	23.2	0	22	95				10	146	
	alpha-Chlordane	23.2	0	24	103				10	157	
	gamma-Chlordane	23.2	0	24	103				10	161	

# Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: D3821

Client: Creamer Environmental, Inc.

Analytical Method: EPA SW-846 8081

Lab Sample ID:	Parameter	Spike	Sample		Rec	Rec		RPD		Limits	
			Result	Result		Qual	RPD	Qual	Low	High	RPD
Client Sample ID: D3811-06MSD	SB-15(12-16)MSD										
	alpha-BHC	23.3	0	23	99		0		16	147	20
	beta-BHC	23.3	0	24	103		0		25	146	20
	delta-BHC	23.3	0	21	90		9		11	146	20
	gamma-BHC (Lindane)	23.3	0	25	107		4		21	147	20
	Heptachlor	23.3	0	28	120		3		23	143	20
	Aldrin	23.3	0	22	94		1		11	152	20
	Heptachlor epoxide	23.3	0	26	112		21	*	22	147	20
	Endosulfan I	23.3	0	26	112		8		10	164	20
	Dieldrin	23.3	0	24	103		12		10	162	20
	4,4-DDE	23.3	0	20	86		16		10	174	20
	Endrin	23.3	0	25	107		12		10	171	20
	Endosulfan II	23.3	0	21	90		9		11	146	20
	4,4-DDD	23.3	0	27	116		4		10	150	20
	Endosulfan sulfate	23.3	0	19	82		5		10	152	20
	4,4-DDT	23.3	0	22	94		1		10	192	20
	Methoxychlor	23.3	0	28	120		19		10	200	20
	Endrin ketone	23.3	0	22	94		3		12	145	20
	Endrin aldehyde	23.3	0	20	86		10		10	146	20
	alpha-Chlordane	23.3	0	26	112		8		10	157	20
	gamma-Chlordane	23.3	0	25	107		4		10	161	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8081

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	RPD		Limits	
							Qual	Low	High	RPD
PB65124BS	alpha-BHC	16.7	16	96				84	123	
	beta-BHC	16.7	15	90				82	123	
	delta-BHC	16.7	15	90				83	126	
	gamma-BHC (Lindane)	16.7	16	96				83	125	
	Heptachlor	16.7	17	102				83	122	
	Aldrin	16.7	16	96				82	124	
	Heptachlor epoxide	16.7	15	90				83	120	
	Endosulfan I	16.7	15	90				81	124	
	Dieldrin	16.7	16	96				85	121	
	4,4-DDE	16.7	16	96				81	123	
	Endrin	16.7	16	96				76	130	
	Endosulfan II	16.7	14	84				80	125	
	4,4-DDD	16.7	17	102				80	131	
	Endosulfan sulfate	16.7	14	84				81	122	
	4,4-DDT	16.7	14	84				70	129	
	Methoxychlor	16.7	19	114				78	129	
	Endrin ketone	16.7	16	96				77	132	
	Endrin aldehyde	16.7	14	84				79	124	
	alpha-Chlordane	16.7	15	90				84	120	
	gamma-Chlordane	16.7	15	90				83	122	

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB65124BL

Lab Name: CHEMTECH

Contract: MSAN01

Lab Code: CHEM Case No.: D3811

SAS No.: D3811 SDG NO.: D3811

Lab Sample ID: PB65124BL

Lab File ID: PD012347.D

Matrix: (soil/water) SOIL

Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N

Date Extracted: 08/15/2012

Date Analyzed (1): 08/17/2012

Date Analyzed (2): 08/17/2012

Time Analyzed (1): 20:18

Time Analyzed (2): 20:18

Instrument ID (1): ECD\_D

Instrument ID (2): ECD\_D

GC Column (1): ZB-MR2 ID: 0.32 (mm)

GC Column (2): ZB-MR1 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB65124BS	PB65124BS	PD012348.D	08/17/2012	08/17/2012
SB-2 (4-8)	D3811-01	PD012349.D	08/17/2012	08/17/2012
SB-5 (8-12)	D3811-02	PD012350.D	08/17/2012	08/17/2012
SB-9 (4-7)	D3811-03	PD012351.D	08/17/2012	08/17/2012
SB-11 (12-16)	D3811-05	PD012352.D	08/17/2012	08/17/2012
SB-15 (12-16)	D3811-06	PD012353.D	08/17/2012	08/17/2012
SB-18 (4-8)	D3811-07	PD012354.D	08/17/2012	08/17/2012
SB-21 (16-19)	D3811-10	PD012355.D	08/17/2012	08/17/2012
SB-22 (12-19)	D3811-11	PD012356.D	08/17/2012	08/17/2012
SB-37 (8-10)	D3811-13	PD012359.D	08/17/2012	08/17/2012
SB-39 (6-8)	D3811-14	PD012360.D	08/17/2012	08/17/2012
SB-41 (8-11)	D3811-15	PD012361.D	08/17/2012	08/17/2012
SB-43 (6-8)	D3811-17	PD012362.D	08/17/2012	08/17/2012
SB-43 (10-12)	D3811-18	PD012363.D	08/17/2012	08/17/2012
SB-43 (16-20)	D3811-19	PD012364.D	08/18/2012	08/18/2012
SB-46 (12-16)	D3811-21	PD012365.D	08/18/2012	08/18/2012
SB-15 (12-16) MS	D3811-06MS	PD012366.D	08/18/2012	08/18/2012
SB-15 (12-16) MSD	D3811-06MSD	PD012367.D	08/18/2012	08/18/2012

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

# QC SAMPLE DATA

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65124BL	SDG No.:	D3811
Lab Sample ID:	PB65124BL	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	0 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume	1
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012347.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	0.85	U	0.13	0.85	1.7	ug/Kg
319-85-7	beta-BHC	0.85	U	0.18	0.85	1.7	ug/Kg
319-86-8	delta-BHC	0.85	U	0.1	0.85	1.7	ug/Kg
58-89-9	gamma-BHC	0.85	U	0.15	0.85	1.7	ug/Kg
76-44-8	Heptachlor	0.85	U	0.14	0.85	1.7	ug/Kg
309-00-2	Aldrin	0.85	U	0.1	0.85	1.7	ug/Kg
1024-57-3	Heptachlor epoxide	0.85	U	0.16	0.85	1.7	ug/Kg
959-98-8	Endosulfan I	0.85	U	0.15	0.85	1.7	ug/Kg
60-57-1	Dieldrin	0.85	U	0.13	0.85	1.7	ug/Kg
72-55-9	4,4-DDE	0.85	U	0.2	0.85	1.7	ug/Kg
72-20-8	Endrin	0.85	U	0.18	0.85	1.7	ug/Kg
33213-65-9	Endosulfan II	0.85	U	0.14	0.85	1.7	ug/Kg
72-54-8	4,4-DDD	0.85	U	0.17	0.85	1.7	ug/Kg
1031-07-8	Endosulfan Sulfate	0.85	U	0.15	0.85	1.7	ug/Kg
50-29-3	4,4-DDT	0.85	U	0.14	0.85	1.7	ug/Kg
72-43-5	Methoxychlor	0.85	U	0.17	0.85	1.7	ug/Kg
53494-70-5	Endrin ketone	0.85	U	0.13	0.85	1.7	ug/Kg
7421-93-4	Endrin aldehyde	0.85	U	0.15	0.85	1.7	ug/Kg
5103-71-9	alpha-Chlordane	0.85	U	0.14	0.85	1.7	ug/Kg
5103-74-2	gamma-Chlordane	0.85	U	0.13	0.85	1.7	ug/Kg
8001-35-2	Toxaphene	8.5	U	3.4	8.5	17	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	18.6		10 - 169		93%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.6		31 - 151		98%	SPK: 20



## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65124BL	SDG No.:	D3811
Lab Sample ID:	PB65124BL	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	0
Sample Wt/Vol:	30.01	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012347.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/16/12
Project:	12MS104 Kensington Heights	Date Received:	08/16/12
Client Sample ID:	PIBLK-PD012269.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PD012269.D	Matrix:	WATER
Analytical Method:	SW8081B	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012269.D	1		08/16/12	PD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	0.025	U	0.0051	0.025	0.05	ug/L
319-85-7	beta-BHC	0.025	U	0.0086	0.025	0.05	ug/L
319-86-8	delta-BHC	0.025	U	0.0056	0.025	0.05	ug/L
58-89-9	gamma-BHC	0.025	U	0.0055	0.025	0.05	ug/L
76-44-8	Heptachlor	0.025	U	0.0069	0.025	0.05	ug/L
309-00-2	Aldrin	0.025	U	0.0062	0.025	0.05	ug/L
1024-57-3	Heptachlor epoxide	0.025	U	0.0067	0.025	0.05	ug/L
959-98-8	Endosulfan I	0.025	U	0.0061	0.025	0.05	ug/L
60-57-1	Dieldrin	0.025	U	0.0047	0.025	0.05	ug/L
72-55-9	4,4-DDE	0.025	U	0.004	0.025	0.05	ug/L
72-20-8	Endrin	0.025	U	0.0058	0.025	0.05	ug/L
33213-65-9	Endosulfan II	0.025	U	0.0055	0.025	0.05	ug/L
72-54-8	4,4-DDD	0.025	U	0.0071	0.025	0.05	ug/L
1031-07-8	Endosulfan Sulfate	0.025	U	0.006	0.025	0.05	ug/L
50-29-3	4,4-DDT	0.025	U	0.0059	0.025	0.05	ug/L
72-43-5	Methoxychlor	0.025	U	0.0042	0.025	0.05	ug/L
53494-70-5	Endrin ketone	0.025	U	0.0057	0.025	0.05	ug/L
7421-93-4	Endrin aldehyde	0.025	U	0.0045	0.025	0.05	ug/L
5103-71-9	alpha-Chlordane	0.025	U	0.0049	0.025	0.05	ug/L
5103-74-2	gamma-Chlordane	0.025	U	0.005	0.025	0.05	ug/L
8001-35-2	Toxaphene	0.25	U	0.1	0.25	0.5	ug/L
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	21.7		10 - 192		108%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.9		10 - 172		110%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/16/12
Project:	12MS104 Kensington Heights	Date Received:	08/16/12
Client Sample ID:	PIBLK-PD012269.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PD012269.D	Matrix:	WATER
Analytical Method:	SW8081B	% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012269.D	1		08/16/12	PD081612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/17/12
Project:	12MS104 Kensington Heights	Date Received:	08/17/12
Client Sample ID:	PIBLK-PD012344.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PD012344.D	Matrix:	WATER
Analytical Method:	SW8081B	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	10000 uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012344.D	1		08/17/12	PD081712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	0.025	U	0.0051	0.025	0.05	ug/L
319-85-7	beta-BHC	0.025	U	0.0086	0.025	0.05	ug/L
319-86-8	delta-BHC	0.025	U	0.0056	0.025	0.05	ug/L
58-89-9	gamma-BHC	0.025	U	0.0055	0.025	0.05	ug/L
76-44-8	Heptachlor	0.025	U	0.0069	0.025	0.05	ug/L
309-00-2	Aldrin	0.025	U	0.0062	0.025	0.05	ug/L
1024-57-3	Heptachlor epoxide	0.025	U	0.0067	0.025	0.05	ug/L
959-98-8	Endosulfan I	0.025	U	0.0061	0.025	0.05	ug/L
60-57-1	Dieldrin	0.025	U	0.0047	0.025	0.05	ug/L
72-55-9	4,4-DDE	0.025	U	0.004	0.025	0.05	ug/L
72-20-8	Endrin	0.025	U	0.0058	0.025	0.05	ug/L
33213-65-9	Endosulfan II	0.025	U	0.0055	0.025	0.05	ug/L
72-54-8	4,4-DDD	0.025	U	0.0071	0.025	0.05	ug/L
1031-07-8	Endosulfan Sulfate	0.025	U	0.006	0.025	0.05	ug/L
50-29-3	4,4-DDT	0.025	U	0.0059	0.025	0.05	ug/L
72-43-5	Methoxychlor	0.025	U	0.0042	0.025	0.05	ug/L
53494-70-5	Endrin ketone	0.025	U	0.0057	0.025	0.05	ug/L
7421-93-4	Endrin aldehyde	0.025	U	0.0045	0.025	0.05	ug/L
5103-71-9	alpha-Chlordane	0.025	U	0.0049	0.025	0.05	ug/L
5103-74-2	gamma-Chlordane	0.025	U	0.005	0.025	0.05	ug/L
8001-35-2	Toxaphene	0.25	U	0.1	0.25	0.5	ug/L
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	20.1		10 - 192		100%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.6		10 - 172		108%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/17/12
Project:	12MS104 Kensington Heights	Date Received:	08/17/12
Client Sample ID:	PIBLK-PD012344.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PD012344.D	Matrix:	WATER
Analytical Method:	SW8081B	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	10000 uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012344.D	1		08/17/12	PD081712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/17/12
Project:	12MS104 Kensington Heights	Date Received:	08/17/12
Client Sample ID:	PIBLK-PD012357.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PD012357.D	Matrix:	WATER
Analytical Method:	SW8081B	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012357.D	1		08/17/12	PD081712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	0.025	U	0.0051	0.025	0.05	ug/L
319-85-7	beta-BHC	0.025	U	0.0086	0.025	0.05	ug/L
319-86-8	delta-BHC	0.025	U	0.0056	0.025	0.05	ug/L
58-89-9	gamma-BHC	0.025	U	0.0055	0.025	0.05	ug/L
76-44-8	Heptachlor	0.025	U	0.0069	0.025	0.05	ug/L
309-00-2	Aldrin	0.025	U	0.0062	0.025	0.05	ug/L
1024-57-3	Heptachlor epoxide	0.025	U	0.0067	0.025	0.05	ug/L
959-98-8	Endosulfan I	0.025	U	0.0061	0.025	0.05	ug/L
60-57-1	Dieldrin	0.025	U	0.0047	0.025	0.05	ug/L
72-55-9	4,4-DDE	0.025	U	0.004	0.025	0.05	ug/L
72-20-8	Endrin	0.025	U	0.0058	0.025	0.05	ug/L
33213-65-9	Endosulfan II	0.025	U	0.0055	0.025	0.05	ug/L
72-54-8	4,4-DDD	0.025	U	0.0071	0.025	0.05	ug/L
1031-07-8	Endosulfan Sulfate	0.025	U	0.006	0.025	0.05	ug/L
50-29-3	4,4-DDT	0.025	U	0.0059	0.025	0.05	ug/L
72-43-5	Methoxychlor	0.025	U	0.0042	0.025	0.05	ug/L
53494-70-5	Endrin ketone	0.025	U	0.0057	0.025	0.05	ug/L
7421-93-4	Endrin aldehyde	0.025	U	0.0045	0.025	0.05	ug/L
5103-71-9	alpha-Chlordane	0.025	U	0.0049	0.025	0.05	ug/L
5103-74-2	gamma-Chlordane	0.025	U	0.005	0.025	0.05	ug/L
8001-35-2	Toxaphene	0.25	U	0.1	0.25	0.5	ug/L
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	24.8		10 - 192		124%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.2		10 - 172		111%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/17/12
Project:	12MS104 Kensington Heights	Date Received:	08/17/12
Client Sample ID:	PIBLK-PD012357.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PD012357.D	Matrix:	WATER
Analytical Method:	SW8081B	% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012357.D	1		08/17/12	PD081712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/18/12			
Project:	12MS104 Kensington Heights	Date Received:	08/18/12			
Client Sample ID:	PIBLK-PD012368.D	SDG No.:	D3811			
Lab Sample ID:	I.BLK-PD012368.D	Matrix:	WATER			
Analytical Method:	SW8081B	% Moisture:	100	Decanted:		
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	Pesticide-TCL	
Extraction Type:				Injection Volume	1	
GPC Factor :	1.0	PH :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012368.D	1		08/18/12	PD081712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	0.025	U	0.0051	0.025	0.05	ug/L
319-85-7	beta-BHC	0.025	U	0.0086	0.025	0.05	ug/L
319-86-8	delta-BHC	0.025	U	0.0056	0.025	0.05	ug/L
58-89-9	gamma-BHC	0.025	U	0.0055	0.025	0.05	ug/L
76-44-8	Heptachlor	0.025	U	0.0069	0.025	0.05	ug/L
309-00-2	Aldrin	0.025	U	0.0062	0.025	0.05	ug/L
1024-57-3	Heptachlor epoxide	0.025	U	0.0067	0.025	0.05	ug/L
959-98-8	Endosulfan I	0.025	U	0.0061	0.025	0.05	ug/L
60-57-1	Dieldrin	0.025	U	0.0047	0.025	0.05	ug/L
72-55-9	4,4-DDE	0.025	U	0.004	0.025	0.05	ug/L
72-20-8	Endrin	0.025	U	0.0058	0.025	0.05	ug/L
33213-65-9	Endosulfan II	0.025	U	0.0055	0.025	0.05	ug/L
72-54-8	4,4-DDD	0.025	U	0.0071	0.025	0.05	ug/L
1031-07-8	Endosulfan Sulfate	0.025	U	0.006	0.025	0.05	ug/L
50-29-3	4,4-DDT	0.025	U	0.0059	0.025	0.05	ug/L
72-43-5	Methoxychlor	0.025	U	0.0042	0.025	0.05	ug/L
53494-70-5	Endrin ketone	0.025	U	0.0057	0.025	0.05	ug/L
7421-93-4	Endrin aldehyde	0.025	U	0.0045	0.025	0.05	ug/L
5103-71-9	alpha-Chlordane	0.025	U	0.0049	0.025	0.05	ug/L
5103-74-2	gamma-Chlordane	0.025	U	0.005	0.025	0.05	ug/L
8001-35-2	Toxaphene	0.25	U	0.1	0.25	0.5	ug/L
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	20.5		10 - 192		102%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.6		10 - 172		108%	SPK: 20



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/18/12
Project:	12MS104 Kensington Heights	Date Received:	08/18/12
Client Sample ID:	PIBLK-PD012368.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PD012368.D	Matrix:	WATER
Analytical Method:	SW8081B	% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012368.D	1		08/18/12	PD081712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65124BS	SDG No.:	D3811
Lab Sample ID:	PB65124BS	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	0 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012348.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	16		0.13	0.85	1.7	ug/Kg
319-85-7	beta-BHC	15		0.18	0.85	1.7	ug/Kg
319-86-8	delta-BHC	15		0.1	0.85	1.7	ug/Kg
58-89-9	gamma-BHC	16		0.15	0.85	1.7	ug/Kg
76-44-8	Heptachlor	17		0.14	0.85	1.7	ug/Kg
309-00-2	Aldrin	16		0.1	0.85	1.7	ug/Kg
1024-57-3	Heptachlor epoxide	15		0.16	0.85	1.7	ug/Kg
959-98-8	Endosulfan I	15		0.15	0.85	1.7	ug/Kg
60-57-1	Dieldrin	16		0.13	0.85	1.7	ug/Kg
72-55-9	4,4-DDE	16		0.2	0.85	1.7	ug/Kg
72-20-8	Endrin	16		0.18	0.85	1.7	ug/Kg
33213-65-9	Endosulfan II	14		0.14	0.85	1.7	ug/Kg
72-54-8	4,4-DDD	17		0.17	0.85	1.7	ug/Kg
1031-07-8	Endosulfan Sulfate	14		0.15	0.85	1.7	ug/Kg
50-29-3	4,4-DDT	14		0.14	0.85	1.7	ug/Kg
72-43-5	Methoxychlor	19	P	0.17	0.85	1.7	ug/Kg
53494-70-5	Endrin ketone	16		0.13	0.85	1.7	ug/Kg
7421-93-4	Endrin aldehyde	14		0.15	0.85	1.7	ug/Kg
5103-71-9	alpha-Chlordane	15		0.14	0.85	1.7	ug/Kg
5103-74-2	gamma-Chlordane	15		0.13	0.85	1.7	ug/Kg
8001-35-2	Toxaphene	8.5	U	3.4	8.5	17	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	18.9		10 - 169		94%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.2		31 - 151		101%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65124BS	SDG No.:	D3811
Lab Sample ID:	PB65124BS	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	0
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012348.D	1	08/15/12	08/17/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)MS	SDG No.:	D3811
Lab Sample ID:	D3811-06MS	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	28.4
Sample Wt/Vol:	30.09 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012366.D	1	08/15/12	08/18/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	23	P	0.18	1.2	2.4	ug/Kg
319-85-7	beta-BHC	24	P	0.25	1.2	2.4	ug/Kg
319-86-8	delta-BHC	19	P	0.14	1.2	2.4	ug/Kg
58-89-9	gamma-BHC	24	P	0.21	1.2	2.4	ug/Kg
76-44-8	Heptachlor	27	P	0.19	1.2	2.4	ug/Kg
309-00-2	Aldrin	22	P	0.14	1.2	2.4	ug/Kg
1024-57-3	Heptachlor epoxide	21	P	0.22	1.2	2.4	ug/Kg
959-98-8	Endosulfan I	24	P	0.21	1.2	2.4	ug/Kg
60-57-1	Dieldrin	21	P	0.18	1.2	2.4	ug/Kg
72-55-9	4,4-DDE	17	P	0.28	1.2	2.4	ug/Kg
72-20-8	Endrin	22	P	0.25	1.2	2.4	ug/Kg
33213-65-9	Endosulfan II	19	P	0.19	1.2	2.4	ug/Kg
72-54-8	4,4-DDD	26	P	0.24	1.2	2.4	ug/Kg
1031-07-8	Endosulfan Sulfate	18	P	0.21	1.2	2.4	ug/Kg
50-29-3	4,4-DDT	22	P	0.19	1.2	2.4	ug/Kg
72-43-5	Methoxychlor	23		0.24	1.2	2.4	ug/Kg
53494-70-5	Endrin ketone	21	P	0.18	1.2	2.4	ug/Kg
7421-93-4	Endrin aldehyde	22	P	0.21	1.2	2.4	ug/Kg
5103-71-9	alpha-Chlordane	24	P	0.19	1.2	2.4	ug/Kg
5103-74-2	gamma-Chlordane	24	P	0.18	1.2	2.4	ug/Kg
8001-35-2	Toxaphene	12	U	4.7	12	24	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	18.9		10 - 169		95%	SPK: 20
877-09-8	Tetrachloro-m-xylene	16.1		31 - 151		81%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)MS	SDG No.:	D3811
Lab Sample ID:	D3811-06MS	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	28.4
Sample Wt/Vol:	30.09	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012366.D	1	08/15/12	08/18/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

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J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)MSD	SDG No.:	D3811
Lab Sample ID:	D3811-06MSD	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	28.4
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012367.D	1	08/15/12	08/18/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
319-84-6	alpha-BHC	23	P	0.18	1.2	2.4	ug/Kg
319-85-7	beta-BHC	24	P	0.25	1.2	2.4	ug/Kg
319-86-8	delta-BHC	21	P	0.14	1.2	2.4	ug/Kg
58-89-9	gamma-BHC	25	P	0.21	1.2	2.4	ug/Kg
76-44-8	Heptachlor	28	P	0.2	1.2	2.4	ug/Kg
309-00-2	Aldrin	22	P	0.14	1.2	2.4	ug/Kg
1024-57-3	Heptachlor epoxide	26	P	0.22	1.2	2.4	ug/Kg
959-98-8	Endosulfan I	26	P	0.21	1.2	2.4	ug/Kg
60-57-1	Dieldrin	24	P	0.18	1.2	2.4	ug/Kg
72-55-9	4,4-DDE	20	P	0.28	1.2	2.4	ug/Kg
72-20-8	Endrin	25	P	0.25	1.2	2.4	ug/Kg
33213-65-9	Endosulfan II	21	P	0.2	1.2	2.4	ug/Kg
72-54-8	4,4-DDD	27	P	0.24	1.2	2.4	ug/Kg
1031-07-8	Endosulfan Sulfate	19	P	0.21	1.2	2.4	ug/Kg
50-29-3	4,4-DDT	22	P	0.2	1.2	2.4	ug/Kg
72-43-5	Methoxychlor	28	P	0.24	1.2	2.4	ug/Kg
53494-70-5	Endrin ketone	22	P	0.18	1.2	2.4	ug/Kg
7421-93-4	Endrin aldehyde	20	P	0.21	1.2	2.4	ug/Kg
5103-71-9	alpha-Chlordane	26	P	0.2	1.2	2.4	ug/Kg
5103-74-2	gamma-Chlordane	25	P	0.18	1.2	2.4	ug/Kg
8001-35-2	Toxaphene	12	U	4.7	12	24	ug/Kg
<b>SURROGATES</b>							
2051-24-3	Decachlorobiphenyl	19.5		10 - 169		98%	SPK: 20
877-09-8	Tetrachloro-m-xylene	16.1		31 - 151		80%	SPK: 20

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)MSD	SDG No.:	D3811
Lab Sample ID:	D3811-06MSD	Matrix:	SOIL
Analytical Method:	SW8081B	% Moisture:	28.4
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Pesticide-TCL
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD012367.D	1	08/15/12	08/18/12	PB65124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# CALIBRATION SUMMURY



## RETENTION TIMES OF INITIAL CALIBRATION

**Contract:** MSAN01  
**Lab Code:** CHEM **Case No.:** D3811 **SAS No.:** D3811 **SDG NO.:** D3811  
**Instrument ID:** ECD\_D **Calibration Date(s):** 08/16/2012 08/16/2012  
**Calibration Times:** 12:02 12:56

**GC Column:** ZB-MR2 **ID:** 0.32 (mm)

<b>LAB FILE ID:</b>	<b>RT 005 =</b> <u>PD012276.D</u>	<b>RT 025 =</b> <u>PD012275.D</u>
<b>RT 050 =</b> <u>PD012274.D</u>	<b>RT 075 =</b> <u>PD012273.D</u>	<b>RT 100 =</b> <u>PD012272.D</u>

COMPOUND	RT 005	RT 025	RT 050	RT 075	RT 100	MEAN RT	RT WINDOW	
							FROM	TO
Decachlorobiphenyl	8.91	8.91	8.91	8.91	8.91	8.91	8.81	9.01
Tetrachloro-m-xylene	3.90	3.90	3.90	3.90	3.90	3.90	3.80	4.00
alpha-BHC	4.28	4.28	4.28	4.28	4.28	4.28	4.23	4.33
beta-BHC	4.73	4.73	4.73	4.73	4.73	4.73	4.68	4.78
delta-BHC	4.94	4.94	4.94	4.94	4.94	4.94	4.89	4.99
gamma-BHC (Lindane)	4.56	4.56	4.56	4.56	4.56	4.56	4.51	4.61
Heptachlor	5.07	5.07	5.07	5.07	5.07	5.07	5.02	5.12
Aldrin	5.37	5.37	5.37	5.37	5.37	5.37	5.32	5.42
Heptachlor epoxide	5.75	5.75	5.75	5.75	5.75	5.75	5.68	5.82
Endosulfan I	6.10	6.10	6.10	6.10	6.10	6.10	6.03	6.17
Dieldrin	6.36	6.36	6.36	6.36	6.36	6.36	6.29	6.43
4,4-DDE	6.22	6.22	6.22	6.22	6.22	6.22	6.15	6.29
Endrin	6.57	6.57	6.57	6.57	6.57	6.57	6.50	6.64
Endosulfan II	6.78	6.78	6.78	6.78	6.78	6.78	6.71	6.85
4,4-DDD	6.70	6.70	6.70	6.70	6.70	6.70	6.63	6.77
Endosulfan sulfate	7.12	7.12	7.12	7.12	7.12	7.12	7.05	7.19
4,4-DDT	7.00	7.00	7.00	7.00	7.00	7.00	6.93	7.07
Methoxychlor	7.46	7.46	7.46	7.46	7.46	7.46	7.39	7.53
Endrin ketone	7.59	7.59	7.59	7.59	7.59	7.58	7.51	7.65
Endrin aldehyde	6.90	6.90	6.90	6.90	6.90	6.90	6.83	6.97
alpha-Chlordane	6.06	6.06	6.06	6.06	6.06	6.06	5.99	6.13
gamma-Chlordane	5.98	5.99	5.99	5.99	5.99	5.98	5.91	6.05

## RETENTION TIMES OF INITIAL CALIBRATION

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Instrument ID: ECD\_D Calibration Date(s): 08/16/2012 08/16/2012

Calibration Times: 12:02 12:56

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 005 = PD012276.D RT 025 = PD012275.D

RT 050 = PD012274.D RT 075 = PD012273.D RT 100 = PD012272.D

COMPOUND	RT 005	RT 025	RT 050	RT 075	RT 100	MEAN RT	RT WINDOW	
							FROM	TO
Decachlorobiphenyl	8.20	8.20	8.20	8.21	8.21	8.20	8.10	8.30
Tetrachloro-m-xylene	3.43	3.43	3.43	3.43	3.43	3.43	3.33	3.53
alpha-BHC	3.87	3.87	3.88	3.88	3.88	3.87	3.82	3.92
beta-BHC	4.41	4.41	4.41	4.41	4.41	4.41	4.36	4.46
delta-BHC	4.61	4.62	4.62	4.62	4.62	4.62	4.57	4.67
gamma-BHC (Lindane)	4.16	4.16	4.16	4.16	4.16	4.16	4.11	4.21
Heptachlor	4.45	4.46	4.46	4.46	4.46	4.46	4.41	4.51
Aldrin	4.70	4.71	4.71	4.71	4.71	4.71	4.66	4.76
Heptachlor epoxide	5.15	5.15	5.15	5.15	5.15	5.15	5.08	5.22
Endosulfan I	5.49	5.49	5.49	5.49	5.49	5.49	5.42	5.56
Dieldrin	5.73	5.74	5.74	5.74	5.74	5.73	5.66	5.80
4,4-DDE	5.60	5.61	5.61	5.61	5.61	5.61	5.54	5.68
Endrin	5.99	5.99	5.99	6.00	6.00	5.99	5.92	6.06
Endosulfan II	6.27	6.27	6.27	6.27	6.27	6.27	6.20	6.34
4,4-DDD	6.12	6.12	6.12	6.12	6.13	6.12	6.05	6.19
Endosulfan sulfate	6.65	6.65	6.65	6.65	6.65	6.65	6.58	6.72
4,4-DDT	6.36	6.36	6.36	6.37	6.37	6.36	6.29	6.43
Methoxychlor	6.92	6.92	6.92	6.92	6.92	6.92	6.85	6.99
Endrin ketone	7.15	7.15	7.15	7.15	7.15	7.15	7.08	7.22
Endrin aldehyde	6.44	6.44	6.44	6.44	6.44	6.44	6.37	6.51
alpha-Chlordane	5.43	5.44	5.44	5.44	5.44	5.44	5.37	5.51
gamma-Chlordane	5.38	5.38	5.38	5.38	5.38	5.38	5.31	5.45

## CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Instrument ID: ECD\_D Calibration Date(s): 08/16/2012 08/16/2012

Calibration Times: 12:02 12:56

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID:		CF 005 =	<u>PD012276.D</u>	CF 025 =	<u>PD012275.D</u>		
CF 050 =		<u>PD012274.D</u>	CF 075 =	<u>PD012273.D</u>	CF 100 =	<u>PD012272.D</u>	
COMPOUND	CF 005	CF 025	CF 050	CF 075	CF 100	CF	% RSD
Decachlorobiphenyl	60086380	55305996	53039068	50200043	50346255	53795548	8
Tetrachloro-m-xylene	55252180	55999912	55535758	52668044	56291472	55149473	3
alpha-BHC	780495600	738997880	794879140	809014093	865533800	797784103	6
beta-BHC	379628400	355760880	340608420	329381707	337515530	348578987	6
delta-BHC	745304400	712768920	742438940	747000213	793026060	748107707	4
gamma-BHC (Lindane)	716175400	712226240	746353880	749251893	792064890	743214461	4
Heptachlor	753551400	713597600	730941960	727208200	761640230	737387878	3
Aldrin	692156200	677764440	697264340	692919880	731161540	698253280	3
Heptachlor epoxide	690155800	652075480	655398760	646674907	672437210	663348431	3
Endosulfan I	642065000	611655120	611523160	598188693	622267030	617139801	3
Dieldrin	654866600	639383440	654810500	638405813	670421870	651577645	2
4,4-DDE	592824400	589765880	604702180	599679253	629816510	603357645	3
Endrin	547733600	547590600	546933760	535273067	532429160	541992037	1
Endosulfan II	594253200	553025160	566501500	547128853	572681410	566718025	3
4,4-DDD	512019600	521005840	517949620	508701107	527171760	517369585	1
Endosulfan sulfate	588741600	546878560	539445580	517567613	532118720	544950415	5
4,4-DDT	558549000	546600080	551214080	536469293	559360660	550438623	2
Methoxychlor	322440800	307940600	301475140	284454907	288307330	300923755	5
Endrin ketone	664896000	631188480	624397500	599945333	615501660	627185795	4
Endrin aldehyde	514864800	485508960	478834940	460327000	470388130	481984766	4
alpha-Chlordane	700338800	664429120	663519240	650027440	673937440	670450408	3
gamma-Chlordane	694003000	661932400	670004140	655481760	686282470	673540754	2

## CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Instrument ID: ECD\_D

Calibration Date(s): 08/16/2012 08/16/2012

Calibration Times: 12:02 12:56

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID:		CF 005 = PD012276.D	CF 025 = PD012275.D				
CF 050 = PD012274.D	CF 075 = PD012273.D	CF 100 = PD012272.D					
COMPOUND	CF 005	CF 025	CF 050	CF 075	CF 100	CF	% RSD
Decachlorobiphenyl	15941954500	14883701856	14817147496	14152280571	14153479608	14789712806	5
Tetrachloro-m-xylene	15136497080	15804047596	15397742930	14435987509	14503496567	15055554336	4
alpha-BHC	171826202600	186444873320	166290180820	153132208387	152397546130	166018202251	9
beta-BHC	65909622800	59238303040	53919656720	49484785827	48547378380	55419949353	13
delta-BHC	155781081800	135686769800	128322417280	117603629173	116227641020	130724307815	12
gamma-BHC (Lindane)	158875838600	160324704680	146013487400	134687407267	133748943930	146730076375	9
Heptachlor	159694962200	135369020960	132934799680	121794959080	121603490000	134279446384	12
Aldrin	205873150000	200867667520	189624981520	176044619387	175490775860	189580238857	7
Heptachlor epoxide	166293468000	156717547080	141795530340	130698532960	128272823920	144755580460	11
Endosulfan I	193356868200	184486863240	169164151100	156557867893	154700297940	171653209675	10
Dieldrin	137953385600	134107131200	122452900380	112074142613	109704952690	123258502497	10
4,4-DDE	185916171200	184422672800	170577696780	158198690240	157135020520	171250050308	8
Endrin	99444070600	94047367120	86778086560	78632324880	76449832700	87070336372	11
Endosulfan II	128286323200	117690524120	108901110820	100000529133	98113287810	110598355017	11
4,4-DDD	102167924000	94510610080	84816294820	76761113813	74113891490	86473966841	14
Endosulfan sulfate	125128821000	129342946640	115153570800	105831448160	104603517810	116012060882	10
4,4-DDT	116707900200	109856495600	101002665900	92629681920	90920481180	102223444960	11
Methoxychlor	26120901200	29591432800	26726701680	23464572520	21846425830	25550006806	12
Endrin ketone	98710871000	95031310080	87705411860	79654947907	77403306080	87701169385	11
Endrin aldehyde	103752845000	101783136320	94270610220	85853244427	83545658900	93841098973	10
alpha-Chlordane	179648357200	167983593880	154336104860	142987139200	143129555280	157616950084	10
gamma-Chlordane	181114079400	154701405040	140704268540	130938335947	130395496250	147570717035	14

INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract:MSAN01

Lab Code:CHEMCase No.:D3811SAS No.:D3811SDG NO.:D3811

Instrument ID:ECD\_DDate(s) Analyzed:08/16/201208/16/2012

GC Column:ZB-MR2ID:0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW		CALIBRATION FACTOR
				FROM	TO	
Toxaphene	0.5000	1	6.26	6.21	6.31	4672854
		2	6.63	6.58	6.68	7826036
		3	7.03	6.98	7.08	26206500
		4	7.12	7.07	7.17	24520910
		5	7.21	7.16	7.26	18725140

INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract:MSAN01

Lab Code:CHEMCase No.:D3811SAS No.:D3811SDG NO.:D3811

Instrument ID:ECD\_DDate(s) Analyzed:08/16/201208/16/2012

GC Column:ZB-MR1ID:0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW		CALIBRATION FACTOR
				FROM	TO	
Toxaphene	0.5000	1	6.81	6.76	6.86	4193449000
		2	6.91	6.86	6.96	4633805000
		3	7.05	7.00	7.10	6681304000
		4	7.34	7.29	7.39	3560648000
		5	7.47	7.42	7.52	2685540000

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/17/2012 Initial Calibration Date(s): 08/16/2012 08/16/2012

Continuing Calib Time: 19:51 Initial Calibration Time(s): 12:02 12:56

GC Column: ZB-MR2 ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Decachlorobiphenyl	8.91	8.91	8.81	9.01	0.00
Tetrachloro-m-xylene	3.90	3.90	3.80	4.00	0.00
alpha-BHC	4.28	4.28	4.23	4.33	0.00
beta-BHC	4.73	4.73	4.68	4.78	0.00
delta-BHC	4.94	4.94	4.89	4.99	0.00
gamma-BHC (Lindane)	4.56	4.56	4.51	4.61	0.00
Heptachlor	5.07	5.07	5.02	5.12	0.00
Aldrin	5.37	5.37	5.32	5.42	0.00
Heptachlor epoxide	5.75	5.75	5.68	5.82	0.00
Endosulfan I	6.10	6.10	6.03	6.17	0.00
Dieldrin	6.36	6.36	6.29	6.43	0.00
4,4-DDE	6.22	6.22	6.15	6.29	0.00
Endrin	6.57	6.57	6.50	6.64	0.00
Endosulfan II	6.78	6.78	6.71	6.85	0.00
4,4-DDD	6.70	6.70	6.63	6.77	0.00
Endosulfan sulfate	7.12	7.12	7.05	7.19	0.00
4,4-DDT	7.00	7.00	6.93	7.07	0.00
Methoxychlor	7.46	7.46	7.39	7.53	0.00
Endrin ketone	7.59	7.58	7.51	7.65	-0.01
Endrin aldehyde	6.90	6.90	6.83	6.97	0.00
alpha-Chlordane	6.06	6.06	5.99	6.13	0.00
gamma-Chlordane	5.98	5.98	5.91	6.05	0.00

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/17/2012 Initial Calibration Date(s): 08/16/2012 08/16/2012

Continuing Calib Time: 19:51 Initial Calibration Time(s): 12:02 12:56

GC Column: ZB-MR1 ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Decachlorobiphenyl	8.20	8.20	8.10	8.30	0.00
Tetrachloro-m-xylene	3.43	3.43	3.33	3.53	0.00
alpha-BHC	3.87	3.87	3.82	3.92	0.00
beta-BHC	4.41	4.41	4.36	4.46	0.00
delta-BHC	4.62	4.62	4.57	4.67	0.01
gamma-BHC (Lindane)	4.16	4.16	4.11	4.21	0.00
Heptachlor	4.46	4.46	4.41	4.51	0.00
Aldrin	4.70	4.71	4.66	4.76	0.01
Heptachlor epoxide	5.15	5.15	5.08	5.22	0.00
Endosulfan I	5.49	5.49	5.42	5.56	0.00
Dieldrin	5.73	5.73	5.66	5.80	0.00
4,4-DDE	5.61	5.61	5.54	5.68	0.00
Endrin	5.99	5.99	5.92	6.06	0.00
Endosulfan II	6.27	6.27	6.20	6.34	0.00
4,4-DDD	6.12	6.12	6.05	6.19	0.00
Endosulfan sulfate	6.65	6.65	6.58	6.72	0.00
4,4-DDT	6.36	6.36	6.29	6.43	0.00
Methoxychlor	6.92	6.92	6.85	6.99	0.00
Endrin ketone	7.15	7.15	7.08	7.22	0.00
Endrin aldehyde	6.44	6.44	6.37	6.51	0.00
alpha-Chlordane	5.44	5.44	5.37	5.51	0.00
gamma-Chlordane	5.38	5.38	5.31	5.45	0.00



## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: ZB-MR2 ID: 0.32 (mm) Initi. Calib. Date(s): 08/16/2012 08/16/2012

Client Sample No.: CCAL01 Date Analyzed: 08/17/2012

Lab Sample No.: PSTDCCC050 Data File : PD012345.D Time Analyzed: 19:51

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
alpha-BHC	4.281	4.230	4.330	0.058	0.050	16.0
beta-BHC	4.728	4.680	4.780	0.051	0.050	2.0
delta-BHC	4.940	4.890	4.990	0.055	0.050	10.0
gamma-BHC (Lindane)	4.561	4.510	4.610	0.056	0.050	12.0
Heptachlor	5.069	5.020	5.120	0.055	0.050	10.0
Aldrin	5.370	5.320	5.420	0.055	0.050	10.0
Heptachlor epoxide	5.751	5.680	5.820	0.052	0.050	4.0
Endosulfan I	6.103	6.030	6.170	0.052	0.050	4.0
Dieldrin	6.357	6.290	6.430	0.052	0.050	4.0
4,4-DDE	6.218	6.150	6.290	0.054	0.050	8.0
Endrin	6.571	6.500	6.640	0.059	0.050	18.0
Endosulfan II	6.777	6.710	6.850	0.052	0.050	4.0
4,4-DDD	6.700	6.630	6.770	0.053	0.050	6.0
Endosulfan sulfate	7.123	7.050	7.190	0.050	0.050	0.0
4,4-DDT	6.999	6.930	7.070	0.050	0.050	0.0
Methoxychlor	7.458	7.390	7.530	0.046	0.050	8.0
Endrin ketone	7.585	7.510	7.650	0.050	0.050	0.0
Endrin aldehyde	6.900	6.830	6.970	0.050	0.050	0.0
alpha-Chlordane	6.057	5.990	6.130	0.052	0.050	4.0
gamma-Chlordane	5.984	5.910	6.050	0.052	0.050	4.0
Decachlorobiphenyl	8.913	8.810	9.010	0.050	0.050	0.0
Tetrachloro-m-xylene	3.899	3.800	4.000	0.055	0.050	10.0

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: ZB-MR1 ID: 0.32 (mm) Initi. Calib. Date(s): 08/16/2012 08/16/2012

Client Sample No.: CCAL01 Date Analyzed: 08/17/2012

Lab Sample No.: PSTDCCC050 Data File : PD012345.D Time Analyzed: 19:51

COMPOUND	RT	RT WINDOW		CALC	NOM	%D
		FROM	TO	AMOUNT(ng)	AMOUNT(ng)	
alpha-BHC	3.874	3.820	3.920	0.052	0.050	4.0
beta-BHC	4.410	4.360	4.460	0.049	0.050	2.0
delta-BHC	4.615	4.570	4.670	0.050	0.050	0.0
gamma-BHC (Lindane)	4.160	4.110	4.210	0.053	0.050	6.0
Heptachlor	4.456	4.410	4.510	0.055	0.050	10.0
Aldrin	4.704	4.660	4.760	0.049	0.050	2.0
Heptachlor epoxide	5.151	5.080	5.220	0.050	0.050	0.0
Endosulfan I	5.489	5.420	5.560	0.049	0.050	2.0
Dieldrin	5.734	5.660	5.800	0.052	0.050	4.0
4,4-DDE	5.606	5.540	5.680	0.049	0.050	2.0
Endrin	5.993	5.920	6.060	0.049	0.050	2.0
Endosulfan II	6.268	6.200	6.340	0.048	0.050	4.0
4,4-DDD	6.123	6.050	6.190	0.058	0.050	16.0
Endosulfan sulfate	6.651	6.580	6.720	0.046	0.050	8.0
4,4-DDT	6.363	6.290	6.430	0.047	0.050	6.0
Methoxychlor	6.917	6.850	6.990	0.062	0.050	24.0
Endrin ketone	7.146	7.080	7.220	0.048	0.050	4.0
Endrin aldehyde	6.439	6.370	6.510	0.049	0.050	2.0
alpha-Chlordane	5.436	5.370	5.510	0.047	0.050	6.0
gamma-Chlordane	5.377	5.310	5.450	0.046	0.050	8.0
Decachlorobiphenyl	8.203	8.100	8.300	0.041	0.050	18.0
Tetrachloro-m-xylene	3.428	3.330	3.530	0.055	0.050	10.0

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/17/2012 Initial Calibration Date(s): 08/16/2012 08/16/2012

Continuing Calib Time: 22:47 Initial Calibration Time(s): 12:02 12:56

GC Column: ZB-MR2 ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Decachlorobiphenyl	8.91	8.91	8.81	9.01	0.00
Tetrachloro-m-xylene	3.90	3.90	3.80	4.00	0.00
alpha-BHC	4.28	4.28	4.23	4.33	0.00
beta-BHC	4.73	4.73	4.68	4.78	0.00
delta-BHC	4.94	4.94	4.89	4.99	0.00
gamma-BHC (Lindane)	4.56	4.56	4.51	4.61	0.00
Heptachlor	5.07	5.07	5.02	5.12	0.00
Aldrin	5.37	5.37	5.32	5.42	0.00
Heptachlor epoxide	5.75	5.75	5.68	5.82	0.00
Endosulfan I	6.10	6.10	6.03	6.17	0.00
Dieldrin	6.36	6.36	6.29	6.43	0.00
4,4-DDE	6.22	6.22	6.15	6.29	0.00
Endrin	6.57	6.57	6.50	6.64	0.00
Endosulfan II	6.78	6.78	6.71	6.85	0.00
4,4-DDD	6.70	6.70	6.63	6.77	0.00
Endosulfan sulfate	7.12	7.12	7.05	7.19	0.00
4,4-DDT	7.00	7.00	6.93	7.07	0.00
Methoxychlor	7.46	7.46	7.39	7.53	0.00
Endrin ketone	7.59	7.58	7.51	7.65	-0.01
Endrin aldehyde	6.90	6.90	6.83	6.97	0.00
alpha-Chlordane	6.06	6.06	5.99	6.13	0.00
gamma-Chlordane	5.98	5.98	5.91	6.05	0.00

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/17/2012 Initial Calibration Date(s): 08/16/2012 08/16/2012

Continuing Calib Time: 22:47 Initial Calibration Time(s): 12:02 12:56

GC Column: ZB-MR1 ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Decachlorobiphenyl	8.20	8.20	8.10	8.30	0.00
Tetrachloro-m-xylene	3.43	3.43	3.33	3.53	0.00
alpha-BHC	3.88	3.87	3.82	3.92	-0.01
beta-BHC	4.41	4.41	4.36	4.46	0.00
delta-BHC	4.61	4.62	4.57	4.67	0.01
gamma-BHC (Lindane)	4.16	4.16	4.11	4.21	0.00
Heptachlor	4.46	4.46	4.41	4.51	0.01
Aldrin	4.70	4.71	4.66	4.76	0.01
Heptachlor epoxide	5.15	5.15	5.08	5.22	0.00
Endosulfan I	5.49	5.49	5.42	5.56	0.00
Dieldrin	5.73	5.73	5.66	5.80	0.00
4,4-DDE	5.61	5.61	5.54	5.68	0.00
Endrin	5.99	5.99	5.92	6.06	0.00
Endosulfan II	6.27	6.27	6.20	6.34	0.00
4,4-DDD	6.12	6.12	6.05	6.19	0.00
Endosulfan sulfate	6.65	6.65	6.58	6.72	0.00
4,4-DDT	6.36	6.36	6.29	6.43	0.00
Methoxychlor	6.92	6.92	6.85	6.99	0.00
Endrin ketone	7.15	7.15	7.08	7.22	0.00
Endrin aldehyde	6.44	6.44	6.37	6.51	0.00
alpha-Chlordane	5.44	5.44	5.37	5.51	0.00
gamma-Chlordane	5.38	5.38	5.31	5.45	0.00

# CALIBRATION VERIFICATION SUMMARY

**Contract:** MSAN01  
**Lab Code:** CHEM **Case No.:** D3811 **SAS No.:** D3811 **SDG NO.:** D3811  
**GC Column:** ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 08/16/2012 08/16/2012

**Client Sample No.:** CCAL02 **Date Analyzed:** 08/17/2012

**Lab Sample No.:** PSTDCCC050 **Data File :** PD012358.D **Time Analyzed:** 22:47

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
alpha-BHC	4.281	4.230	4.330	0.051	0.050	2.0
beta-BHC	4.729	4.680	4.780	0.046	0.050	8.0
delta-BHC	4.940	4.890	4.990	0.049	0.050	2.0
gamma-BHC (Lindane)	4.561	4.510	4.610	0.050	0.050	0.0
Heptachlor	5.069	5.020	5.120	0.048	0.050	4.0
Aldrin	5.370	5.320	5.420	0.049	0.050	2.0
Heptachlor epoxide	5.751	5.680	5.820	0.047	0.050	6.0
Endosulfan I	6.103	6.030	6.170	0.050	0.050	0.0
Dieldrin	6.358	6.290	6.430	0.051	0.050	2.0
4,4-DDE	6.219	6.150	6.290	0.053	0.050	6.0
Endrin	6.570	6.500	6.640	0.049	0.050	2.0
Endosulfan II	6.778	6.710	6.850	0.046	0.050	8.0
4,4-DDD	6.700	6.630	6.770	0.048	0.050	4.0
Endosulfan sulfate	7.123	7.050	7.190	0.045	0.050	10.0
4,4-DDT	7.000	6.930	7.070	0.042	0.050	16.0
Methoxychlor	7.456	7.390	7.530	0.042	0.050	16.0
Endrin ketone	7.585	7.510	7.650	0.045	0.050	10.0
Endrin aldehyde	6.900	6.830	6.970	0.044	0.050	12.0
alpha-Chlordane	6.057	5.990	6.130	0.049	0.050	2.0
gamma-Chlordane	5.984	5.910	6.050	0.048	0.050	4.0
Decachlorobiphenyl	8.913	8.810	9.010	0.049	0.050	2.0
Tetrachloro-m-xylene	3.899	3.800	4.000	0.051	0.050	2.0

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: ZB-MR1 ID: 0.32 (mm) Initi. Calib. Date(s): 08/16/2012 08/16/2012

Client Sample No.: CCAL02 Date Analyzed: 08/17/2012

Lab Sample No.: PSTDCCC050 Data File : PD012358.D Time Analyzed: 22:47

COMPOUND	RT	RT WINDOW		CALC	NOM	%D
		FROM	TO	AMOUNT(ng)	AMOUNT(ng)	
alpha-BHC	3.875	3.820	3.920	0.046	0.050	8.0
beta-BHC	4.410	4.360	4.460	0.040	0.050	20.0
delta-BHC	4.613	4.570	4.670	0.042	0.050	16.0
gamma-BHC (Lindane)	4.160	4.110	4.210	0.045	0.050	10.0
Heptachlor	4.455	4.410	4.510	0.045	0.050	10.0
Aldrin	4.704	4.660	4.760	0.041	0.050	18.0
Heptachlor epoxide	5.151	5.080	5.220	0.040	0.050	20.0
Endosulfan I	5.489	5.420	5.560	0.039	0.050	22.0
Dieldrin	5.734	5.660	5.800	0.041	0.050	18.0
4,4-DDE	5.606	5.540	5.680	0.038	0.050	24.0
Endrin	5.993	5.920	6.060	0.038	0.050	24.0
Endosulfan II	6.268	6.200	6.340	0.035	0.050	30.0
4,4-DDD	6.123	6.050	6.190	0.046	0.050	8.0
Endosulfan sulfate	6.651	6.580	6.720	0.034	0.050	32.0
4,4-DDT	6.363	6.290	6.430	0.033	0.050	34.0
Methoxychlor	6.917	6.850	6.990	0.046	0.050	8.0
Endrin ketone	7.146	7.080	7.220	0.038	0.050	24.0
Endrin aldehyde	6.439	6.370	6.510	0.036	0.050	28.0
alpha-Chlordane	5.436	5.370	5.510	0.037	0.050	26.0
gamma-Chlordane	5.377	5.310	5.450	0.036	0.050	28.0
Decachlorobiphenyl	8.202	8.100	8.300	0.033	0.050	34.0
Tetrachloro-m-xylene	3.428	3.330	3.530	0.049	0.050	2.0

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/18/2012 Initial Calibration Date(s): 08/16/2012 08/16/2012

Continuing Calib Time: 01:17 Initial Calibration Time(s): 12:02 12:56

GC Column: ZB-MR2 ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Decachlorobiphenyl	8.91	8.91	8.81	9.01	0.00
Tetrachloro-m-xylene	3.90	3.90	3.80	4.00	0.00
alpha-BHC	4.28	4.28	4.23	4.33	0.00
beta-BHC	4.73	4.73	4.68	4.78	0.00
delta-BHC	4.94	4.94	4.89	4.99	0.00
gamma-BHC (Lindane)	4.56	4.56	4.51	4.61	0.00
Heptachlor	5.07	5.07	5.02	5.12	0.00
Aldrin	5.37	5.37	5.32	5.42	0.00
Heptachlor epoxide	5.75	5.75	5.68	5.82	0.00
Endosulfan I	6.10	6.10	6.03	6.17	0.00
Dieldrin	6.36	6.36	6.29	6.43	0.00
4,4-DDE	6.22	6.22	6.15	6.29	0.00
Endrin	6.57	6.57	6.50	6.64	0.00
Endosulfan II	6.78	6.78	6.71	6.85	0.00
4,4-DDD	6.70	6.70	6.63	6.77	0.00
Endosulfan sulfate	7.12	7.12	7.05	7.19	0.00
4,4-DDT	7.00	7.00	6.93	7.07	0.00
Methoxychlor	7.46	7.46	7.39	7.53	0.00
Endrin ketone	7.59	7.58	7.51	7.65	-0.01
Endrin aldehyde	6.90	6.90	6.83	6.97	0.00
alpha-Chlordane	6.06	6.06	5.99	6.13	0.00
gamma-Chlordane	5.98	5.98	5.91	6.05	0.00

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/18/2012 Initial Calibration Date(s): 08/16/2012 08/16/2012

Continuing Calib Time: 01:17 Initial Calibration Time(s): 12:02 12:56

GC Column: ZB-MR1 ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Decachlorobiphenyl	8.20	8.20	8.10	8.30	0.00
Tetrachloro-m-xylene	3.43	3.43	3.33	3.53	0.00
alpha-BHC	3.87	3.87	3.82	3.92	0.00
beta-BHC	4.41	4.41	4.36	4.46	0.00
delta-BHC	4.62	4.62	4.57	4.67	0.01
gamma-BHC (Lindane)	4.16	4.16	4.11	4.21	0.00
Heptachlor	4.46	4.46	4.41	4.51	0.00
Aldrin	4.70	4.71	4.66	4.76	0.01
Heptachlor epoxide	5.15	5.15	5.08	5.22	0.00
Endosulfan I	5.49	5.49	5.42	5.56	0.00
Dieldrin	5.74	5.73	5.66	5.80	-0.01
4,4-DDE	5.61	5.61	5.54	5.68	0.00
Endrin	5.99	5.99	5.92	6.06	0.00
Endosulfan II	6.27	6.27	6.20	6.34	0.00
4,4-DDD	6.12	6.12	6.05	6.19	0.00
Endosulfan sulfate	6.65	6.65	6.58	6.72	0.00
4,4-DDT	6.36	6.36	6.29	6.43	0.00
Methoxychlor	6.92	6.92	6.85	6.99	0.00
Endrin ketone	7.15	7.15	7.08	7.22	0.00
Endrin aldehyde	6.44	6.44	6.37	6.51	0.00
alpha-Chlordane	5.44	5.44	5.37	5.51	0.00
gamma-Chlordane	5.38	5.38	5.31	5.45	0.00



## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: ZB-MR2 ID: 0.32 (mm) Initi. Calib. Date(s): 08/16/2012 08/16/2012

Client Sample No.: CCAL03 Date Analyzed: 08/18/2012

Lab Sample No.: PSTDCCC050 Data File : PD012369.D Time Analyzed: 01:17

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
alpha-BHC	4.281	4.230	4.330	0.053	0.050	6.0
beta-BHC	4.729	4.680	4.780	0.047	0.050	6.0
delta-BHC	4.940	4.890	4.990	0.050	0.050	0.0
gamma-BHC (Lindane)	4.561	4.510	4.610	0.051	0.050	2.0
Heptachlor	5.069	5.020	5.120	0.049	0.050	2.0
Aldrin	5.370	5.320	5.420	0.050	0.050	0.0
Heptachlor epoxide	5.751	5.680	5.820	0.048	0.050	4.0
Endosulfan I	6.103	6.030	6.170	0.047	0.050	6.0
Dieldrin	6.357	6.290	6.430	0.047	0.050	6.0
4,4-DDE	6.218	6.150	6.290	0.048	0.050	4.0
Endrin	6.571	6.500	6.640	0.049	0.050	2.0
Endosulfan II	6.778	6.710	6.850	0.046	0.050	8.0
4,4-DDD	6.702	6.630	6.770	0.056	0.050	12.0
Endosulfan sulfate	7.123	7.050	7.190	0.045	0.050	10.0
4,4-DDT	6.999	6.930	7.070	0.041	0.050	18.0
Methoxychlor	7.458	7.390	7.530	0.040	0.050	20.0
Endrin ketone	7.585	7.510	7.650	0.045	0.050	10.0
Endrin aldehyde	6.900	6.830	6.970	0.045	0.050	10.0
alpha-Chlordane	6.057	5.990	6.130	0.047	0.050	6.0
gamma-Chlordane	5.984	5.910	6.050	0.047	0.050	6.0
Decachlorobiphenyl	8.913	8.810	9.010	0.047	0.050	6.0
Tetrachloro-m-xylene	3.899	3.800	4.000	0.052	0.050	4.0

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: ZB-MR1 ID: 0.32 (mm) Initi. Calib. Date(s): 08/16/2012 08/16/2012

Client Sample No.: CCAL03 Date Analyzed: 08/18/2012

Lab Sample No.: PSTDCCC050 Data File : PD012369.D Time Analyzed: 01:17

COMPOUND	RT	RT WINDOW		CALC	NOM	%D
		FROM	TO	AMOUNT(ng)	AMOUNT(ng)	
alpha-BHC	3.874	3.820	3.920	0.049	0.050	2.0
beta-BHC	4.410	4.360	4.460	0.044	0.050	12.0
delta-BHC	4.615	4.570	4.670	0.046	0.050	8.0
gamma-BHC (Lindane)	4.160	4.110	4.210	0.049	0.050	2.0
Heptachlor	4.456	4.410	4.510	0.049	0.050	2.0
Aldrin	4.704	4.660	4.760	0.046	0.050	8.0
Heptachlor epoxide	5.151	5.080	5.220	0.041	0.050	18.0
Endosulfan I	5.489	5.420	5.560	0.038	0.050	24.0
Dieldrin	5.735	5.660	5.800	0.041	0.050	18.0
4,4-DDE	5.606	5.540	5.680	0.038	0.050	24.0
Endrin	5.993	5.920	6.060	0.036	0.050	28.0
Endosulfan II	6.268	6.200	6.340	0.035	0.050	30.0
4,4-DDD	6.123	6.050	6.190	0.047	0.050	6.0
Endosulfan sulfate	6.651	6.580	6.720	0.033	0.050	34.0
4,4-DDT	6.363	6.290	6.430	0.030	0.050	40.0
Methoxychlor	6.918	6.850	6.990	0.041	0.050	18.0
Endrin ketone	7.146	7.080	7.220	0.033	0.050	34.0
Endrin aldehyde	6.439	6.370	6.510	0.033	0.050	34.0
alpha-Chlordane	5.436	5.370	5.510	0.036	0.050	28.0
gamma-Chlordane	5.377	5.310	5.450	0.035	0.050	30.0
Decachlorobiphenyl	8.203	8.100	8.300	0.031	0.050	38.0
Tetrachloro-m-xylene	3.428	3.330	3.530	0.051	0.050	2.0

## PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: ZB-MR2 ID: 0.32 (mm) Initi. Calib. Date(s): 08/16/2012 08/16/2012

Client Sample No. (PEM): PEM - PD012270.D Date Analyzed: 08/16/2012

Lab Sample No.(PEM): PEM Time Analyzed: 11:34

PEM COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	8.912	8.810	9.010	0.025	0.020	25.0
Tetrachloro-m-xylene	3.899	3.800	4.000	0.026	0.020	30.0
alpha-BHC	4.281	4.230	4.330	0.011	0.010	10.0
beta-BHC	4.729	4.680	4.780	0.012	0.010	20.0
gamma-BHC (Lindane)	4.562	4.510	4.610	0.012	0.010	20.0
Endrin	6.572	6.500	6.640	0.057	0.050	14.0
4,4-DDT	7.000	6.930	7.070	0.126	0.100	26.0
Methoxychlor	7.459	7.390	7.530	0.291	0.250	16.4

GC Column: ZB-MR1 ID: 0.32 (mm) Initi. Calib. Date(s): 08/16/2012 08/16/2012

Client Sample No. (PEM): PEM - PD012270.D Date Analyzed: 08/16/2012

Lab Sample No.(PEM): PEM Time Analyzed: 11:34

PEM COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	8.203	8.100	8.300	0.024	0.020	20.0
Tetrachloro-m-xylene	3.428	3.330	3.530	0.028	0.020	40.0
alpha-BHC	3.874	3.820	3.920	0.016	0.010	60.0
beta-BHC	4.410	4.360	4.460	0.021	0.010	110.0
gamma-BHC (Lindane)	4.158	4.110	4.210	0.014	0.010	40.0
Endrin	5.994	5.920	6.060	0.056	0.050	12.0
4,4-DDT	6.365	6.290	6.430	0.118	0.100	18.0
Methoxychlor	6.918	6.850	6.990	0.211	0.250	15.6

## PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: ZB-MR2 ID: 0.32 (mm) Initi. Calib. Date(s): 08/16/2012 08/16/2012

Client Sample No. (PEM): PEM - PD012346.D Date Analyzed: 08/17/2012

Lab Sample No.(PEM): PEM Time Analyzed: 20:04

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
Decachlorobiphenyl	8.913	8.810	9.010	0.025	0.020	25.0
Tetrachloro-m-xylene	3.897	3.800	4.000	0.026	0.020	30.0
alpha-BHC	4.281	4.230	4.330	0.012	0.010	20.0
beta-BHC	4.728	4.680	4.780	0.012	0.010	20.0
gamma-BHC (Lindane)	4.561	4.510	4.610	0.013	0.010	30.0
Endrin	6.571	6.500	6.640	0.063	0.050	26.0
4,4-DDT	7.000	6.930	7.070	0.131	0.100	31.0
Methoxychlor	7.459	7.390	7.530	0.302	0.250	20.8

GC Column: ZB-MR1 ID: 0.32 (mm) Initi. Calib. Date(s): 08/16/2012 08/16/2012

Client Sample No. (PEM): PEM - PD012346.D Date Analyzed: 08/17/2012

Lab Sample No.(PEM): PEM Time Analyzed: 20:04

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
Decachlorobiphenyl	8.203	8.100	8.300	0.021	0.020	5.0
Tetrachloro-m-xylene	3.426	3.330	3.530	0.026	0.020	30.0
alpha-BHC	3.872	3.820	3.920	0.015	0.010	50.0
beta-BHC	4.410	4.360	4.460	0.020	0.010	100.0
gamma-BHC (Lindane)	4.157	4.110	4.210	0.015	0.010	50.0
Endrin	5.993	5.920	6.060	0.061	0.050	22.0
4,4-DDT	6.364	6.290	6.430	0.120	0.100	20.0
Methoxychlor	6.919	6.850	6.990	0.317	0.250	26.8

# Analytical Sequence

Client: MS Analytical

SDG No.: D3811

Project: 12MS104 Kensington Heights

Instrument ID: ECD\_D

GC Column: ZB-MR2

ID: 0.32 (mm)

Inst. Calib. Date(s): 08/16/2012

08/16/2012

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES,  
AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
PIBLK01	I.BLK01	08/16/2012	11:21	PD012269.D	8.91	3.90
PEM01	PEM01	08/16/2012	11:34	PD012270.D	8.91	3.90
RESC01	RESC01	08/16/2012	11:48	PD012271.D	8.91	3.90
PSTDICC100	PSTDICC100	08/16/2012	12:02	PD012272.D	8.91	3.90
PSTDICC075	PSTDICC075	08/16/2012	12:15	PD012273.D	8.91	3.90
PSTDICC050	PSTDICC050	08/16/2012	12:29	PD012274.D	8.91	3.90
PSTDICC025	PSTDICC025	08/16/2012	12:42	PD012275.D	8.91	3.90
PSTDICC005	PSTDICC005	08/16/2012	12:56	PD012276.D	8.91	3.90
PTOXICC500	PTOXICC500	08/16/2012	13:23	PD012278.D	8.91	3.90
PCHLORICC500	PCHLORICC500	08/16/2012	13:37	PD012279.D	8.91	3.90
PIBLK02	I.BLK02	08/17/2012	19:37	PD012344.D	8.91	3.90
CCAL01	PSTDCCC050	08/17/2012	19:51	PD012345.D	8.91	3.90
PEM02	PEM02	08/17/2012	20:04	PD012346.D	8.91	3.90
PB65124BL	PB65124BL	08/17/2012	20:18	PD012347.D	8.91	3.90
PB65124BS	PB65124BS	08/17/2012	20:32	PD012348.D	8.91	3.90
SB-2(4-8)	D3811-01	08/17/2012	20:45	PD012349.D	8.92	3.90
SB-5(8-12)	D3811-02	08/17/2012	20:59	PD012350.D	8.91	3.90
SB-9(4-7)	D3811-03	08/17/2012	21:12	PD012351.D	8.91	3.90
SB-11(12-16)	D3811-05	08/17/2012	21:26	PD012352.D	8.91	3.90
SB-15(12-16)	D3811-06	08/17/2012	21:39	PD012353.D	8.92	3.90
SB-18(4-8)	D3811-07	08/17/2012	21:53	PD012354.D	8.91	3.90
SB-21(16-19)	D3811-10	08/17/2012	22:06	PD012355.D	8.92	3.90
SB-22(12-19)	D3811-11	08/17/2012	22:20	PD012356.D	8.91	3.90
PIBLK03	I.BLK03	08/17/2012	22:34	PD012357.D	8.91	3.90
CCAL02	PSTDCCC050	08/17/2012	22:47	PD012358.D	8.91	3.90
SB-37(8-10)	D3811-13	08/17/2012	23:01	PD012359.D	8.92	3.90
SB-39(6-8)	D3811-14	08/17/2012	23:15	PD012360.D	8.91	3.90
SB-41(8-11)	D3811-15	08/17/2012	23:28	PD012361.D	8.91	3.90
SB-43(6-8)	D3811-17	08/17/2012	23:42	PD012362.D	8.91	3.90
SB-43(10-12)	D3811-18	08/17/2012	23:55	PD012363.D	8.91	3.90
SB-43(16-20)	D3811-19	08/18/2012	00:09	PD012364.D	8.91	3.90
SB-46(12-16)	D3811-21	08/18/2012	00:22	PD012365.D	8.91	3.90
SB-15(12-16)MS	D3811-06MS	08/18/2012	00:36	PD012366.D	8.91	3.90
SB-15(12-16)MSD	D3811-06MSD	08/18/2012	00:50	PD012367.D	8.91	3.90
PIBLK04	I.BLK04	08/18/2012	01:03	PD012368.D	8.91	3.90
CCAL03	PSTDCCC050	08/18/2012	01:17	PD012369.D	8.91	3.90

## Analytical Sequence

Client: MS Analytical

SDG No.: D3811

Project: 12MS104 Kensington Heights

Instrument ID: ECD\_D

GC Column: ZB-MR1

ID: 0.32 (mm)

Inst. Calib. Date(s): 08/16/2012

08/16/2012

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES,  
AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
PIBLK01	I.BLK01	08/16/2012	11:21	PD012269.D	8.20	3.43
PEM01	PEM01	08/16/2012	11:34	PD012270.D	8.20	3.43
RESC01	RESC01	08/16/2012	11:48	PD012271.D	8.20	3.43
PSTDICC100	PSTDICC100	08/16/2012	12:02	PD012272.D	8.21	3.43
PSTDICC075	PSTDICC075	08/16/2012	12:15	PD012273.D	8.21	3.43
PSTDICC050	PSTDICC050	08/16/2012	12:29	PD012274.D	8.20	3.43
PSTDICC025	PSTDICC025	08/16/2012	12:42	PD012275.D	8.20	3.43
PSTDICC005	PSTDICC005	08/16/2012	12:56	PD012276.D	8.20	3.43
PTOXICC500	PTOXICC500	08/16/2012	13:23	PD012278.D	8.20	3.43
PCHLORICC500	PCHLORICC500	08/16/2012	13:37	PD012279.D	8.20	3.43
PIBLK02	I.BLK02	08/17/2012	19:37	PD012344.D	8.20	3.43
CCAL01	PSTDCCC050	08/17/2012	19:51	PD012345.D	8.20	3.43
PEM02	PEM02	08/17/2012	20:04	PD012346.D	8.20	3.43
PB65124BL	PB65124BL	08/17/2012	20:18	PD012347.D	8.20	3.43
PB65124BS	PB65124BS	08/17/2012	20:32	PD012348.D	8.20	3.43
SB-2(4-8)	D3811-01	08/17/2012	20:45	PD012349.D	8.20	3.43
SB-5(8-12)	D3811-02	08/17/2012	20:59	PD012350.D	8.20	3.43
SB-9(4-7)	D3811-03	08/17/2012	21:12	PD012351.D	8.20	3.43
SB-11(12-16)	D3811-05	08/17/2012	21:26	PD012352.D	8.20	3.43
SB-15(12-16)	D3811-06	08/17/2012	21:39	PD012353.D	8.20	3.43
SB-18(4-8)	D3811-07	08/17/2012	21:53	PD012354.D	8.20	3.43
SB-21(16-19)	D3811-10	08/17/2012	22:06	PD012355.D	8.20	3.43
SB-22(12-19)	D3811-11	08/17/2012	22:20	PD012356.D	8.20	3.43
PIBLK03	I.BLK03	08/17/2012	22:34	PD012357.D	8.20	3.43
CCAL02	PSTDCCC050	08/17/2012	22:47	PD012358.D	8.20	3.43
SB-37(8-10)	D3811-13	08/17/2012	23:01	PD012359.D	8.20	3.43
SB-39(6-8)	D3811-14	08/17/2012	23:15	PD012360.D	8.20	3.43
SB-41(8-11)	D3811-15	08/17/2012	23:28	PD012361.D	8.20	3.43
SB-43(6-8)	D3811-17	08/17/2012	23:42	PD012362.D	8.20	3.43
SB-43(10-12)	D3811-18	08/17/2012	23:55	PD012363.D	8.20	3.43
SB-43(16-20)	D3811-19	08/18/2012	00:09	PD012364.D	8.20	3.43
SB-46(12-16)	D3811-21	08/18/2012	00:22	PD012365.D	8.20	3.43
SB-15(12-16)MS	D3811-06MS	08/18/2012	00:36	PD012366.D	8.20	3.43
SB-15(12-16)MSD	D3811-06MSD	08/18/2012	00:50	PD012367.D	8.20	3.43
PIBLK04	I.BLK04	08/18/2012	01:03	PD012368.D	8.20	3.43
CCAL03	PSTDCCC050	08/18/2012	01:17	PD012369.D	8.20	3.43

# LAB CHRONICLE

<b>OrderID:</b>	D3811	<b>OrderDate:</b>	8/15/2012 11:38:54 AM
<b>Client:</b>	MS Analytical	<b>Project:</b>	12MS104 Kensington Heights
<b>Contact:</b>	Bryan Mayback	<b>Location:</b>	I23

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
<b>D3811-01</b>	<b>SB-2(4-8)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/07/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-02</b>	<b>SB-5(8-12)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/07/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-03</b>	<b>SB-9(4-7)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/07/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-05</b>	<b>SB-11(12-16)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/07/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-06</b>	<b>SB-15(12-16)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/08/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-07</b>	<b>SB-18(4-8)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/08/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-10</b>	<b>SB-21(16-19)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/09/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	

# LAB CHRONICLE

			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-10RE</b>	<b>SB-21(16-19)RE</b>	<b>SOIL</b>			<b>08/09/12</b>			<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
<b>D3811-11</b>	<b>SB-22(12-19)</b>	<b>SOIL</b>			<b>08/09/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-13</b>	<b>SB-37(8-10)</b>	<b>SOIL</b>			<b>08/10/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-14</b>	<b>SB-39(6-8)</b>	<b>SOIL</b>			<b>08/10/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-15</b>	<b>SB-41(8-11)</b>	<b>SOIL</b>			<b>08/10/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-17</b>	<b>SB-43(6-8)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-18</b>	<b>SB-43(10-12)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-18RE</b>	<b>SB-43(10-12)RE</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
<b>D3811-19</b>	<b>SB-43(16-20)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/18/12	





LAB CHRONICLE

D3811-21	SB-46(12-16)	SOIL			08/13/12		08/15/12
			Herbicide	8151A		08/15/12	08/23/12
			PCB	8082A		08/15/12	08/21/12
			Pesticide-TCL	8081B		08/15/12	08/18/12

Hit Summary Sheet  
SW-846

SDG No.:

Order ID:

Client:

Project ID:

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :								

Total Concentration:

A

B

C

D

E

F

G

# SAMPLE DATA

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-01	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	13
Sample Wt/Vol:	30.05	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009887.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	10	U	4	10	20	ug/Kg
11104-28-2	Aroclor-1221	10	U	3.9	10	20	ug/Kg
11141-16-5	Aroclor-1232	10	U	8.6	10	20	ug/Kg
53469-21-9	Aroclor-1242	10	U	3.9	10	20	ug/Kg
12672-29-6	Aroclor-1248	10	U	7.6	10	20	ug/Kg
11097-69-1	Aroclor-1254	10	U	1.7	10	20	ug/Kg
11096-82-5	Aroclor-1260	10	U	4.7	10	20	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	18.8		10 - 166		94%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.5		60 - 125		83%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-02	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	19
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009888.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	10.5	U	4.3	10.5	21	ug/Kg
11104-28-2	Aroclor-1221	10.5	U	4.2	10.5	21	ug/Kg
11141-16-5	Aroclor-1232	10.5	U	9.2	10.5	21	ug/Kg
53469-21-9	Aroclor-1242	10.5	U	4.2	10.5	21	ug/Kg
12672-29-6	Aroclor-1248	10.5	U	8.1	10.5	21	ug/Kg
11097-69-1	Aroclor-1254	10.5	U	1.8	10.5	21	ug/Kg
11096-82-5	Aroclor-1260	10.5	U	5.1	10.5	21	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	18.2		10 - 166		91%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.6		60 - 125		78%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)	SDG No.:	D3811
Lab Sample ID:	D3811-03	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	16
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009889.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	10	U	4.1	10	20	ug/Kg
11104-28-2	Aroclor-1221	10	U	4	10	20	ug/Kg
11141-16-5	Aroclor-1232	10	U	8.9	10	20	ug/Kg
53469-21-9	Aroclor-1242	10	U	4	10	20	ug/Kg
12672-29-6	Aroclor-1248	10	U	7.8	10	20	ug/Kg
11097-69-1	Aroclor-1254	10	U	1.8	10	20	ug/Kg
11096-82-5	Aroclor-1260	10	U	4.9	10	20	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	21.3		10 - 166		107%	SPK: 20
2051-24-3	Decachlorobiphenyl	20.8		60 - 125		104%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-05	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	26
Sample Wt/Vol:	30.05	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009890.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	11.5	U	4.7	11.5	23	ug/Kg
11104-28-2	Aroclor-1221	11.5	U	4.6	11.5	23	ug/Kg
11141-16-5	Aroclor-1232	11.5	U	10	11.5	23	ug/Kg
53469-21-9	Aroclor-1242	11.5	U	4.6	11.5	23	ug/Kg
12672-29-6	Aroclor-1248	11.5	U	8.9	11.5	23	ug/Kg
11097-69-1	Aroclor-1254	11.5	U	2	11.5	23	ug/Kg
11096-82-5	Aroclor-1260	11.5	U	5.5	11.5	23	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	16.3		10 - 166		82%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.6		60 - 125		78%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-06	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	28
Sample Wt/Vol:	30.07	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009893.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	12	U	4.8	12	24	ug/Kg
11104-28-2	Aroclor-1221	12	U	4.7	12	24	ug/Kg
11141-16-5	Aroclor-1232	12	U	10	12	24	ug/Kg
53469-21-9	Aroclor-1242	12	U	4.7	12	24	ug/Kg
12672-29-6	Aroclor-1248	12	U	9.1	12	24	ug/Kg
11097-69-1	Aroclor-1254	12	U	2.1	12	24	ug/Kg
11096-82-5	Aroclor-1260	12	U	5.7	12	24	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	12.8		10 - 166		64%	SPK: 20
2051-24-3	Decachlorobiphenyl	13.4		60 - 125		67%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-07	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	16
Sample Wt/Vol:	30.07	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009894.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	10	U	4.1	10	20	ug/Kg
11104-28-2	Aroclor-1221	10	U	4	10	20	ug/Kg
11141-16-5	Aroclor-1232	10	U	8.9	10	20	ug/Kg
53469-21-9	Aroclor-1242	10	U	4	10	20	ug/Kg
12672-29-6	Aroclor-1248	10	U	7.8	10	20	ug/Kg
11097-69-1	Aroclor-1254	10	U	1.8	10	20	ug/Kg
11096-82-5	Aroclor-1260	10	U	4.9	10	20	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	20.9		10 - 166		105%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.5		60 - 125		83%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)	SDG No.:	D3811
Lab Sample ID:	D3811-10	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	32
Sample Wt/Vol:	30.09	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009895.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	12.5	U	5.1	12.5	25	ug/Kg
11104-28-2	Aroclor-1221	12.5	U	5	12.5	25	ug/Kg
11141-16-5	Aroclor-1232	12.5	U	11	12.5	25	ug/Kg
53469-21-9	Aroclor-1242	12.5	U	5	12.5	25	ug/Kg
12672-29-6	Aroclor-1248	12.5	U	9.7	12.5	25	ug/Kg
11097-69-1	Aroclor-1254	12.5	U	2.2	12.5	25	ug/Kg
11096-82-5	Aroclor-1260	12.5	U	6	12.5	25	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	10.1		10 - 166		51%	SPK: 20
2051-24-3	Decachlorobiphenyl	58.4	*	60 - 125		292%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)RE	SDG No.:	D3811
Lab Sample ID:	D3811-10RE	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	32
Sample Wt/Vol:	30.09	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009914.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	12.5	U	5.1	12.5	25	ug/Kg
11104-28-2	Aroclor-1221	12.5	U	5	12.5	25	ug/Kg
11141-16-5	Aroclor-1232	12.5	U	11	12.5	25	ug/Kg
53469-21-9	Aroclor-1242	12.5	U	5	12.5	25	ug/Kg
12672-29-6	Aroclor-1248	12.5	U	9.7	12.5	25	ug/Kg
11097-69-1	Aroclor-1254	12.5	U	2.2	12.5	25	ug/Kg
11096-82-5	Aroclor-1260	12.5	U	6	12.5	25	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	11.6		10 - 166		58%	SPK: 20
2051-24-3	Decachlorobiphenyl	65.2	*	60 - 125		326%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)	SDG No.:	D3811
Lab Sample ID:	D3811-11	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	9
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009896.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	9.5	U	3.8	9.5	19	ug/Kg
11104-28-2	Aroclor-1221	9.5	U	3.7	9.5	19	ug/Kg
11141-16-5	Aroclor-1232	9.5	U	8.2	9.5	19	ug/Kg
53469-21-9	Aroclor-1242	9.5	U	3.7	9.5	19	ug/Kg
12672-29-6	Aroclor-1248	9.5	U	7.2	9.5	19	ug/Kg
11097-69-1	Aroclor-1254	9.5	U	1.6	9.5	19	ug/Kg
11096-82-5	Aroclor-1260	9.5	U	4.5	9.5	19	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	15.1		10 - 166		76%	SPK: 20
2051-24-3	Decachlorobiphenyl	14.4		60 - 125		72%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)	SDG No.:	D3811
Lab Sample ID:	D3811-13	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	30
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009897.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	12	U	4.9	12	24	ug/Kg
11104-28-2	Aroclor-1221	12	U	4.8	12	24	ug/Kg
11141-16-5	Aroclor-1232	12	U	11	12	24	ug/Kg
53469-21-9	Aroclor-1242	12	U	4.8	12	24	ug/Kg
12672-29-6	Aroclor-1248	12	U	9.4	12	24	ug/Kg
11097-69-1	Aroclor-1254	12	U	2.1	12	24	ug/Kg
11096-82-5	Aroclor-1260	12	U	5.9	12	24	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	10.4		10 - 166		52%	SPK: 20
2051-24-3	Decachlorobiphenyl	82.4	*	60 - 125		412%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-14	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	8
Sample Wt/Vol:	30.11	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009898.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	9	U	3.8	9	18	ug/Kg
11104-28-2	Aroclor-1221	9	U	3.7	9	18	ug/Kg
11141-16-5	Aroclor-1232	9	U	8.1	9	18	ug/Kg
53469-21-9	Aroclor-1242	9	U	3.7	9	18	ug/Kg
12672-29-6	Aroclor-1248	9	U	7.1	9	18	ug/Kg
11097-69-1	Aroclor-1254	9	U	1.6	9	18	ug/Kg
11096-82-5	Aroclor-1260	9	U	4.5	9	18	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	16.6		10 - 166		83%	SPK: 20
2051-24-3	Decachlorobiphenyl	14.9		60 - 125		74%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)	SDG No.:	D3811
Lab Sample ID:	D3811-15	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	19
Sample Wt/Vol:	30.07 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009899.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	10.5	U	4.3	10.5	21	ug/Kg
11104-28-2	Aroclor-1221	10.5	U	4.2	10.5	21	ug/Kg
11141-16-5	Aroclor-1232	10.5	U	9.2	10.5	21	ug/Kg
53469-21-9	Aroclor-1242	10.5	U	4.2	10.5	21	ug/Kg
12672-29-6	Aroclor-1248	10.5	U	8.1	10.5	21	ug/Kg
11097-69-1	Aroclor-1254	10.5	U	1.8	10.5	21	ug/Kg
11096-82-5	Aroclor-1260	10.5	U	5.1	10.5	21	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	13.8		10 - 166		69%	SPK: 20
2051-24-3	Decachlorobiphenyl	14.3		60 - 125		72%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12		
Project:	12MS104 Kensington Heights	Date Received:	08/15/12		
Client Sample ID:	SB-43(6-8)	SDG No.:	D3811		
Lab Sample ID:	D3811-17	Matrix:	SOIL		
Analytical Method:	SW8082A	% Moisture:	8	Decanted:	
Sample Wt/Vol:	30.02	Units:	g	Final Vol:	10000 uL
Soil Aliquot Vol:			uL	Test:	PCB
Extraction Type:				Injection Volume	1
GPC Factor :	1.0	PH :	N/A		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009900.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	9	U	3.8	9	18	ug/Kg
11104-28-2	Aroclor-1221	9	U	3.7	9	18	ug/Kg
11141-16-5	Aroclor-1232	9	U	8.1	9	18	ug/Kg
53469-21-9	Aroclor-1242	9	U	3.7	9	18	ug/Kg
12672-29-6	Aroclor-1248	9	U	7.2	9	18	ug/Kg
11097-69-1	Aroclor-1254	9	U	1.6	9	18	ug/Kg
11096-82-5	Aroclor-1260	9	U	4.5	9	18	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	17		10 - 166		85%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.1		60 - 125		76%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-18	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	18
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009901.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	10.5	U	4.2	10.5	21	ug/Kg
11104-28-2	Aroclor-1221	10.5	U	4.1	10.5	21	ug/Kg
11141-16-5	Aroclor-1232	10.5	U	9.1	10.5	21	ug/Kg
53469-21-9	Aroclor-1242	10.5	U	4.1	10.5	21	ug/Kg
12672-29-6	Aroclor-1248	10.5	U	8	10.5	21	ug/Kg
11097-69-1	Aroclor-1254	10.5	U	1.8	10.5	21	ug/Kg
11096-82-5	Aroclor-1260	10.5	U	5	10.5	21	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	14.9		10 - 166		75%	SPK: 20
2051-24-3	Decachlorobiphenyl	10	*	60 - 125		50%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)RE	SDG No.:	D3811
Lab Sample ID:	D3811-18RE	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	18
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009915.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	10.5	U	4.2	10.5	21	ug/Kg
11104-28-2	Aroclor-1221	10.5	U	4.1	10.5	21	ug/Kg
11141-16-5	Aroclor-1232	10.5	U	9.1	10.5	21	ug/Kg
53469-21-9	Aroclor-1242	10.5	U	4.1	10.5	21	ug/Kg
12672-29-6	Aroclor-1248	10.5	U	8	10.5	21	ug/Kg
11097-69-1	Aroclor-1254	10.5	U	1.8	10.5	21	ug/Kg
11096-82-5	Aroclor-1260	10.5	U	5	10.5	21	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	16.1		10 - 166		80%	SPK: 20
2051-24-3	Decachlorobiphenyl	9.95	*	60 - 125		50%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)	SDG No.:	D3811
Lab Sample ID:	D3811-19	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	29
Sample Wt/Vol:	30.08	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009904.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	12	U	4.9	12	24	ug/Kg
11104-28-2	Aroclor-1221	12	U	4.8	12	24	ug/Kg
11141-16-5	Aroclor-1232	12	U	10	12	24	ug/Kg
53469-21-9	Aroclor-1242	12	U	4.8	12	24	ug/Kg
12672-29-6	Aroclor-1248	12	U	9.3	12	24	ug/Kg
11097-69-1	Aroclor-1254	12	U	2.1	12	24	ug/Kg
11096-82-5	Aroclor-1260	12	U	5.8	12	24	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	14.2		10 - 166		71%	SPK: 20
2051-24-3	Decachlorobiphenyl	12.7		60 - 125		64%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-21	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	28
Sample Wt/Vol:	30.07 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009905.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	12	U	4.8	12	24	ug/Kg
11104-28-2	Aroclor-1221	12	U	4.7	12	24	ug/Kg
11141-16-5	Aroclor-1232	12	U	10	12	24	ug/Kg
53469-21-9	Aroclor-1242	12	U	4.7	12	24	ug/Kg
12672-29-6	Aroclor-1248	12	U	9.1	12	24	ug/Kg
11097-69-1	Aroclor-1254	12	U	2.1	12	24	ug/Kg
11096-82-5	Aroclor-1260	12	U	5.7	12	24	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	15.8		10 - 166		79%	SPK: 20
2051-24-3	Decachlorobiphenyl	12.7		60 - 125		63%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# QC SUMMARY

## Surrogate Summary

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8082

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits	
								Low	High
I.BLK-PC009843.D	PIBLK-PC009843.D	Tetrachloro-m-xylene	1	20	21.57	108		35	137
		Decachlorobiphenyl	1	20	19.54	98		40	135
		Tetrachloro-m-xylene	2	20	21.85	109		35	137
		Decachlorobiphenyl	2	20	19.82	99		40	135
I.BLK-PC009879.D	PIBLK-PC009879.D	Tetrachloro-m-xylene	1	20	22.04	110		35	137
		Decachlorobiphenyl	1	20	22.29	111		40	135
		Tetrachloro-m-xylene	2	20	23.3	117		35	137
		Decachlorobiphenyl	2	20	22.47	112		40	135
PB65123BL	PB65123BL	Tetrachloro-m-xylene	1	20	20.83	104		10	166
		Decachlorobiphenyl	1	20	21.18	106		60	125
		Tetrachloro-m-xylene	2	20	22.17	111		10	166
		Decachlorobiphenyl	2	20	21.52	108		60	125
PB65123BS	PB65123BS	Tetrachloro-m-xylene	1	20	20.69	103		10	166
		Decachlorobiphenyl	1	20	21.33	107		60	125
		Tetrachloro-m-xylene	2	20	21.47	107		10	166
		Decachlorobiphenyl	2	20	22.19	111		60	125
D3811-01	SB-2(4-8)	Tetrachloro-m-xylene	1	20	18.85	94		10	166
		Decachlorobiphenyl	1	20	16.54	83		60	125
		Tetrachloro-m-xylene	2	20	20.09	100		10	166
		Decachlorobiphenyl	2	20	16.51	83		60	125
D3811-02	SB-5(8-12)	Tetrachloro-m-xylene	1	20	18.22	91		10	166
		Decachlorobiphenyl	1	20	15.56	78		60	125
		Tetrachloro-m-xylene	2	20	19.51	98		10	166
		Decachlorobiphenyl	2	20	14.5	73		60	125
D3811-03	SB-9(4-7)	Tetrachloro-m-xylene	1	20	21.34	107		10	166
		Decachlorobiphenyl	1	20	20.76	104		60	125
		Tetrachloro-m-xylene	2	20	22.72	114		10	166
		Decachlorobiphenyl	2	20	20.88	104		60	125
D3811-05	SB-11(12-16)	Tetrachloro-m-xylene	1	20	16.32	82		10	166
		Decachlorobiphenyl	1	20	15.55	78		60	125
		Tetrachloro-m-xylene	2	20	17.38	87		10	166
		Decachlorobiphenyl	2	20	14.75	74		60	125
I.BLK-PC009891.D	PIBLK-PC009891.D	Tetrachloro-m-xylene	1	20	21.88	109		35	137
		Decachlorobiphenyl	1	20	21.96	110		40	135
		Tetrachloro-m-xylene	2	20	23.38	117		35	137
		Decachlorobiphenyl	2	20	21.95	110		40	135
D3811-06	SB-15(12-16)	Tetrachloro-m-xylene	1	20	12.76	64		10	166
		Decachlorobiphenyl	1	20	13.36	67		60	125
		Tetrachloro-m-xylene	2	20	13.09	65		10	166
		Decachlorobiphenyl	2	20	11.84	59	*	60	125
D3811-07	SB-18(4-8)	Tetrachloro-m-xylene	1	20	20.92	105		10	166
		Decachlorobiphenyl	1	20	16.5	83		60	125
		Tetrachloro-m-xylene	2	20	22.25	111		10	166
		Decachlorobiphenyl	2	20	14.8	74		60	125

## Surrogate Summary

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8082

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits	
								Low	High
D3811-10	SB-21(16-19)	Tetrachloro-m-xylene	1	20	10.14	51		10	166
		Decachlorobiphenyl	1	20	58.43	292	*	60	125
		Tetrachloro-m-xylene	2	20	13.67	68		10	166
		Decachlorobiphenyl	2	20	11.09	55	*	60	125
D3811-11	SB-22(12-19)	Tetrachloro-m-xylene	1	20	15.1	76		10	166
		Decachlorobiphenyl	1	20	14.35	72		60	125
		Tetrachloro-m-xylene	2	20	17.32	87		10	166
		Decachlorobiphenyl	2	20	11.46	57	*	60	125
D3811-13	SB-37(8-10)	Tetrachloro-m-xylene	1	20	10.38	52		10	166
		Decachlorobiphenyl	1	20	82.43	412	*	60	125
		Tetrachloro-m-xylene	2	20	10.57	53		10	166
		Decachlorobiphenyl	2	20	13.81	69		60	125
D3811-14	SB-39(6-8)	Tetrachloro-m-xylene	1	20	16.63	83		10	166
		Decachlorobiphenyl	1	20	14.88	74		60	125
		Tetrachloro-m-xylene	2	20	18.07	90		10	166
		Decachlorobiphenyl	2	20	12.79	64		60	125
D3811-15	SB-41(8-11)	Tetrachloro-m-xylene	1	20	13.75	69		10	166
		Decachlorobiphenyl	1	20	14.32	72		60	125
		Tetrachloro-m-xylene	2	20	14.25	71		10	166
		Decachlorobiphenyl	2	20	8.48	42	*	60	125
D3811-17	SB-43(6-8)	Tetrachloro-m-xylene	1	20	17.01	85		10	166
		Decachlorobiphenyl	1	20	15.12	76		60	125
		Tetrachloro-m-xylene	2	20	18.8	94		10	166
		Decachlorobiphenyl	2	20	12.66	63		60	125
D3811-18	SB-43(10-12)	Tetrachloro-m-xylene	1	20	14.92	75		10	166
		Decachlorobiphenyl	1	20	10.02	50	*	60	125
		Tetrachloro-m-xylene	2	20	15.21	76		10	166
		Decachlorobiphenyl	2	20	6.68	33	*	60	125
I.BLK-PC009902.D	PIBLK-PC009902.D	Tetrachloro-m-xylene	1	20	21.63	108		35	137
		Decachlorobiphenyl	1	20	17.11	86		40	135
		Tetrachloro-m-xylene	2	20	23.05	115		35	137
		Decachlorobiphenyl	2	20	11.56	58		40	135
D3811-19	SB-43(16-20)	Tetrachloro-m-xylene	1	20	14.21	71		10	166
		Decachlorobiphenyl	1	20	12.73	64		60	125
		Tetrachloro-m-xylene	2	20	15.45	77		10	166
		Decachlorobiphenyl	2	20	10.62	53	*	60	125
D3811-21	SB-46(12-16)	Tetrachloro-m-xylene	1	20	15.78	79		10	166
		Decachlorobiphenyl	1	20	12.67	63		60	125
		Tetrachloro-m-xylene	2	20	15.48	77		10	166
		Decachlorobiphenyl	2	20	8.69	43	*	60	125
D3811-01MS	SB-2(4-8)MS	Tetrachloro-m-xylene	1	20	20.13	101		10	166
		Decachlorobiphenyl	1	20	17.11	86		60	125
		Tetrachloro-m-xylene	2	20	20.76	104		10	166
		Decachlorobiphenyl	2	20	14.75	74		60	125

# Surrogate Summary

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8082

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits	
								Low	High
D3811-01MSD	SB-2(4-8)MSD	Tetrachloro-m-xylene	1	20	20.78	104		10	166
		Decachlorobiphenyl	1	20	19.3	97		60	125
		Tetrachloro-m-xylene	2	20	19.2	96		10	166
		Decachlorobiphenyl	2	20	16.3	81		60	125
I.BLK-PC009910.D	PIBLK-PC009910.D	Tetrachloro-m-xylene	1	20	21.95	110		35	137
		Decachlorobiphenyl	1	20	21.42	107		40	135
		Tetrachloro-m-xylene	2	20	23.13	116		35	137
		Decachlorobiphenyl	2	20	20.83	104		40	135
I.BLK-PC009912.D	PIBLK-PC009912.D	Tetrachloro-m-xylene	1	20	21.74	109		35	137
		Decachlorobiphenyl	1	20	19.83	99		40	135
		Tetrachloro-m-xylene	2	20	20.09	100		35	137
		Decachlorobiphenyl	2	20	16.97	85		40	135
D3811-10RE	SB-21(16-19)RE	Tetrachloro-m-xylene	1	20	11.57	58		10	166
		Decachlorobiphenyl	1	20	65.23	326	*	60	125
		Tetrachloro-m-xylene	2	20	19.16	96		10	166
		Decachlorobiphenyl	2	20	9.93	50	*	60	125
D3811-18RE	SB-43(10-12)RE	Tetrachloro-m-xylene	1	20	16.06	80		10	166
		Decachlorobiphenyl	1	20	9.95	50	*	60	125
		Tetrachloro-m-xylene	2	20	13.95	70		10	166
		Decachlorobiphenyl	2	20	6.21	31	*	60	125
I.BLK-PC009925.D	PIBLK-PC009925.D	Tetrachloro-m-xylene	1	20	22.66	113		35	137
		Decachlorobiphenyl	1	20	21.06	105		40	135
		Tetrachloro-m-xylene	2	20	20.92	105		35	137
		Decachlorobiphenyl	2	20	18.52	93		40	135



Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8082

Lab Sample ID:		Parameter	Spike	Sample Result	Result	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Client Sample ID:		SB-2(4-8)MS										
D3811-01MS		AR1016	76.4	0	92	120				40	140	
		AR1260	76.4	0	100	131	*			60	130	

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: D3811  
Client: MS Analytical  
Analytical Method: EPA SW-846 8082

Lab Sample ID:		Parameter	Spike	Sample Result	Result	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Client Sample ID:		SB-2(4-8)MSD										
D3811-01MSD		AR1016	76.5	0	94	123		2		40	140	20
		AR1260	76.5	0	82	107		20		60	130	20

A  
B  
C  
D  
E  
F  
G

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: D3811  
Client: MS Analytical  
Analytical Method: EPA SW-846 8082

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	RPD		Limits	
							Qual	Low	High	RPD
PB65123BS	AR1016	66.7	80	120				53	140	
	AR1260	66.7	75	112				65	130	

A  
B  
C  
D  
E  
F  
G

## PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB65123BL

Lab Name: CHEMTECHContract: MSAN01Lab Code: CHEM Case No.: D3811SAS No.: D3811 SDG NO.: D3811Lab Sample ID: PB65123BLLab File ID: PC009885.DMatrix: (soil/water) SOILExtraction: (Type) SOXHSulfur Cleanup: (Y/N) NDate Extracted: 08/15/2012Date Analyzed (1): 08/20/2012Date Analyzed (2): 08/20/2012Time Analyzed (1): 23:41Time Analyzed (2): 23:41Instrument ID (1): ECD\_CInstrument ID (2): ECD\_CGC Column (1): RTX-CLPest ID: 0.32 (mm)GC Column (2): RTX-CLPest II ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB65123BS	PB65123BS	PC009886.D	08/20/2012	08/20/2012
SB-2 (4-8)	D3811-01	PC009887.D	08/21/2012	08/21/2012
SB-5 (8-12)	D3811-02	PC009888.D	08/21/2012	08/21/2012
SB-9 (4-7)	D3811-03	PC009889.D	08/21/2012	08/21/2012
SB-11 (12-16)	D3811-05	PC009890.D	08/21/2012	08/21/2012
SB-15 (12-16)	D3811-06	PC009893.D	08/21/2012	08/21/2012
SB-18 (4-8)	D3811-07	PC009894.D	08/21/2012	08/21/2012
SB-21 (16-19)	D3811-10	PC009895.D	08/21/2012	08/21/2012
SB-22 (12-19)	D3811-11	PC009896.D	08/21/2012	08/21/2012
SB-37 (8-10)	D3811-13	PC009897.D	08/21/2012	08/21/2012
SB-39 (6-8)	D3811-14	PC009898.D	08/21/2012	08/21/2012
SB-41 (8-11)	D3811-15	PC009899.D	08/21/2012	08/21/2012
SB-43 (6-8)	D3811-17	PC009900.D	08/21/2012	08/21/2012
SB-43 (10-12)	D3811-18	PC009901.D	08/21/2012	08/21/2012
SB-43 (16-20)	D3811-19	PC009904.D	08/21/2012	08/21/2012
SB-46 (12-16)	D3811-21	PC009905.D	08/21/2012	08/21/2012
SB-2 (4-8) MS	D3811-01MS	PC009906.D	08/21/2012	08/21/2012
SB-2 (4-8) MSD	D3811-01MSD	PC009907.D	08/21/2012	08/21/2012

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_

# CALIBRATION SUMMURY

## RETENTION TIMES OF INITIAL CALIBRATION

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Instrument ID: ECD\_C Calibration Date(s): 08/20/2012 08/20/2012

Calibration Times: 10:04 11:09

GC Column: RTX-CLPest ID: 0.32 (mm)

LAB FILE ID: RT 50 = PC009848.D RT 250 = PC009847.D

RT 500 = PC009846.D RT 750 = PC009845.D RT 1000 = PC009844.D

COMPOUND	RT 50	RT 250	RT 500	RT 750	RT 1000	MEAN RT	RT WINDOW FROM TO	
Tetrachloro-m-xylene	1.49	1.49	1.48	1.49	1.49	1.49	1.44	1.54
Decachlorobiphenyl	8.24	8.24	8.24	8.24	8.24	8.24	8.14	8.34
AR1016 (1)	2.14	2.14	2.13	2.13	2.13	2.13	2.08	2.18
AR1016 (2)	2.63	2.62	2.61	2.61	2.61	2.61	2.56	2.66
AR1016 (3)	2.77	2.77	2.76	2.76	2.76	2.76	2.71	2.81
AR1016 (4)	3.23	3.23	3.22	3.22	3.22	3.22	3.17	3.27
AR1016 (5)	3.68	3.67	3.67	3.67	3.67	3.67	3.62	3.72
AR1260 (1)	4.74	4.73	4.73	4.73	4.73	4.73	4.68	4.78
AR1260 (2)	5.11	5.10	5.10	5.10	5.10	5.10	5.05	5.15
AR1260 (3)	5.47	5.46	5.46	5.46	5.46	5.46	5.41	5.51
AR1260 (4)	6.37	6.37	6.37	6.37	6.36	6.37	6.32	6.42
AR1260 (5)	6.74	6.74	6.74	6.73	6.73	6.74	6.69	6.79

## RETENTION TIMES OF INITIAL CALIBRATION

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Instrument ID: ECD\_C Calibration Date(s): 08/20/2012 08/20/2012

Calibration Times: 10:04 11:09

GC Column: RTX-CLPest II ID: 0.32 (mm)

LAB FILE ID: RT 50 = PC009848.D RT 250 = PC009847.D

RT 500 = PC009846.D RT 750 = PC009845.D RT 1000 = PC009844.D

COMPOUND	RT 50	RT 250	RT 500	RT 750	RT 1000	MEAN RT	RT WINDOW	
							FROM	TO
Tetrachloro-m-xylene	1.93	1.93	1.92	1.93	1.93	1.93	1.88	1.98
Decachlorobiphenyl	9.79	9.80	9.79	9.79	9.79	9.79	9.69	9.89
AR1016 (1)	2.95	2.95	2.94	2.95	2.95	2.95	2.90	3.00
AR1016 (2)	3.51	3.51	3.50	3.51	3.51	3.51	3.46	3.56
AR1016 (3)	3.68	3.68	3.68	3.68	3.68	3.68	3.63	3.73
AR1016 (4)	3.81	3.81	3.81	3.81	3.81	3.81	3.76	3.86
AR1016 (5)	4.45	4.45	4.45	4.45	4.45	4.45	4.40	4.50
AR1260 (1)	6.00	6.00	6.00	6.00	6.00	6.00	5.95	6.05
AR1260 (2)	6.31	6.31	6.31	6.31	6.31	6.31	6.26	6.36
AR1260 (3)	6.78	6.78	6.78	6.78	6.78	6.78	6.73	6.83
AR1260 (4)	7.68	7.68	7.68	7.68	7.68	7.68	7.63	7.73
AR1260 (5)	8.18	8.18	8.18	8.18	8.17	8.18	8.13	8.23

## CALIBRATION FACTOR OF INITIAL CALIBRATION

**Contract:** MSAN01  
**Lab Code:** CHEM **Case No.:** D3811 **SAS No.:** D3811 **SDG NO.:** D3811  
**Instrument ID:** ECD\_C **Calibration Date(s):** 08/20/2012 08/20/2012  
**Calibration Times:** 10:04 11:09  
**GC Column:** RTX-CLPest **ID:** 0.32 (mm)

<b>LAB FILE ID:</b>		<b>CF 50 =</b> <u>PC009848.D</u>		<b>CF 250 =</b> <u>PC009847.D</u>				
<b>CF 500 =</b> <u>PC009846.D</u>		<b>CF 750 =</b> <u>PC009845.D</u>		<b>CF 1000 =</b> <u>PC009844.D</u>				
COMPOUND		CF 50	CF 250	CF 500	CF 750	CF 1000	CF	% RSD
Tetrachloro-m-xylene		1999980	1821808	1863568	1754097	1598540	1807599	8
Decachlorobiphenyl		2996560	2433216	2326362	2103856	1891341	2350267	18
AR1016	(1)	82006	69174	67840	61502	55705	67245	15
AR1016	(2)	172424	164411	169370	156459	143438	161220	7
AR1016	(3)	63392	65041	65667	60457	54692	61850	7
AR1016	(4)	67274	59658	63508	58977	53948	60673	8
AR1016	(5)	44542	42726	43773	40811	37416	41854	7
AR1260	(1)	109870	96182	95101	93030	81609	95158	11
AR1260	(2)	203380	194033	190797	181178	157002	185278	10
AR1260	(3)	186660	181858	182372	173925	152889	175541	8
AR1260	(4)	230944	215778	216789	200536	182502	209310	9
AR1260	(5)	106548	110676	114090	106962	97641	107184	6



## CALIBRATION FACTOR OF INITIAL CALIBRATION

**Contract:** MSAN01  
**Lab Code:** CHEM **Case No.:** D3811 **SAS No.:** D3811 **SDG NO.:** D3811  
**Instrument ID:** ECD\_C **Calibration Date(s):** 08/20/2012 08/20/2012  
**Calibration Times:** 10:04 11:09  
**GC Column:** RTX-CLPest II **ID:** 0.32 (mm)

<b>LAB FILE ID:</b>		<b>CF 50 =</b> <u>PC009848.D</u>		<b>CF 250 =</b> <u>PC009847.D</u>				
<b>CF 500 =</b> <u>PC009846.D</u>		<b>CF 750 =</b> <u>PC009845.D</u>		<b>CF 1000 =</b> <u>PC009844.D</u>				
COMPOUND		CF 50	CF 250	CF 500	CF 750	CF 1000	CF	% RSD
Tetrachloro-m-xylene		7336580	6499292	6400238	5887619	5274995	6279745	12
Decachlorobiphenyl		11188220	9080824	8661108	7847315	7096657	8774825	18
AR1016	(1)	269650	238773	232445	211117	195607	229518	12
AR1016	(2)	550802	501720	486858	443678	405109	477633	12
AR1016	(3)	216758	236138	234534	216182	200697	220862	7
AR1016	(4)	161336	187995	192819	180436	169085	178334	7
AR1016	(5)	218348	216289	221868	206674	191578	210951	6
AR1260	(1)	485854	395200	383977	347895	314217	385428	17
AR1260	(2)	523152	475017	462715	417932	375411	450845	13
AR1260	(3)	730800	688552	683057	620293	560492	656639	10
AR1260	(4)	952914	850021	856136	779729	704564	828673	11
AR1260	(5)	678218	642149	650126	590469	536404	619473	9

## INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Instrument ID: ECD\_C Date(s) Analyzed: 08/20/2012 08/20/2012

GC Column: RTX-CLPest ID: 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW		CALIBRATION FACTOR
				FROM	TO	
AR1221	0.5000	1	1.13	1.08	1.18	11269
		2	1.65	1.60	1.70	18381
		3	1.81	1.76	1.86	56585
		4	0.00			0
		5	0.00			0
AR1232	0.5000	1	1.81	1.76	1.86	45904
		2	2.14	2.09	2.19	30960
		3	2.62	2.57	2.67	75521
		4	2.99	2.94	3.04	39442
		5	3.76	3.71	3.81	38974
AR1242	0.5000	1	2.13	2.08	2.18	65926
		2	2.61	2.56	2.66	164601
		3	2.76	2.71	2.81	63848
		4	3.22	3.17	3.27	63485
		5	3.32	3.27	3.37	67011
AR1248	0.5000	1	2.61	2.56	2.66	91980
		2	2.98	2.93	3.03	134579
		3	3.22	3.17	3.27	86657
		4	3.74	3.69	3.79	159757
		5	4.50	4.45	4.55	46945
AR1254	0.5000	1	3.67	3.62	3.72	79117
		2	4.49	4.44	4.54	153563
		3	4.86	4.81	4.91	124115
		4	5.10	5.05	5.15	118049
		5	5.46	5.41	5.51	148368

## INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Instrument ID: ECD\_C Date(s) Analyzed: 08/20/2012 08/20/2012

GC Column: RTX-CLPest II ID: 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW		CALIBRATION FACTOR
				FROM	TO	
AR1221	0.5000	1	2.25	2.20	2.30	63776
		2	2.40	2.35	2.45	36953
		3	2.47	2.42	2.52	161733
		4	0.00			0
		5	0.00			0
AR1232	0.5000	1	2.47	2.42	2.52	150211
		2	2.95	2.90	3.00	128828
		3	3.51	3.46	3.56	234283
		4	3.68	3.63	3.73	110216
		5	3.81	3.76	3.86	86537
AR1242	0.5000	1	2.95	2.90	3.00	237567
		2	3.51	3.46	3.56	480540
		3	3.68	3.63	3.73	230640
		4	4.81	4.76	4.86	163557
		5	4.86	4.81	4.91	245001
AR1248	0.5000	1	3.51	3.46	3.56	278523
		2	4.29	4.24	4.34	329834
		3	4.45	4.40	4.50	285819
		4	4.80	4.75	4.85	250235
		5	4.85	4.80	4.90	332979
AR1254	0.5000	1	5.12	5.07	5.17	350062
		2	5.20	5.15	5.25	306728
		3	5.73	5.68	5.78	550611
		4	6.05	6.00	6.10	419680
		5	6.78	6.73	6.83	595304

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/20/2012 Initial Calibration Date(s): 08/20/2012 08/20/2012

Continuing Calib Time: 22:20 Initial Calibration Time(s): 10:04 11:09

GC Column: RTX-CLPest ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Tetrachloro-m-xylene	1.49	1.49	1.44	1.54	0.00
Decachlorobiphenyl	8.24	8.24	8.14	8.34	0.00
AR1016 (1)	2.14	2.13	2.08	2.18	-0.01
AR1016 (2)	2.61	2.61	2.56	2.66	0.00
AR1016 (3)	2.76	2.76	2.71	2.81	0.00
AR1016 (4)	3.22	3.22	3.17	3.27	0.00
AR1016 (5)	3.67	3.67	3.62	3.72	0.00
AR1260 (1)	4.73	4.73	4.68	4.78	0.00
AR1260 (2)	5.10	5.10	5.05	5.15	0.00
AR1260 (3)	5.46	5.46	5.41	5.51	0.00
AR1260 (4)	6.36	6.37	6.32	6.42	0.01
AR1260 (5)	6.73	6.74	6.69	6.79	0.01

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/20/2012 Initial Calibration Date(s): 08/20/2012 08/20/2012

Continuing Calib Time: 22:20 Initial Calibration Time(s): 10:04 11:09

GC Column: RTX-CLPest II ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Tetrachloro-m-xylene	1.93	1.93	1.88	1.98	0.00
Decachlorobiphenyl	9.79	9.79	9.69	9.89	0.00
AR1016 (1)	2.95	2.95	2.90	3.00	0.00
AR1016 (2)	3.51	3.51	3.46	3.56	0.00
AR1016 (3)	3.68	3.68	3.63	3.73	0.00
AR1016 (4)	3.81	3.81	3.76	3.86	0.00
AR1016 (5)	4.45	4.45	4.40	4.50	0.00
AR1260 (1)	6.00	6.00	5.95	6.05	0.00
AR1260 (2)	6.31	6.31	6.26	6.36	0.00
AR1260 (3)	6.78	6.78	6.73	6.83	0.00
AR1260 (4)	7.68	7.68	7.63	7.73	0.00
AR1260 (5)	8.17	8.18	8.13	8.23	0.01

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: RTX-CLPest ID: 0.32 (mm) Initi. Calib. Date(s): 08/20/2012 08/20/2012

Client Sample No.: CCAL01 Date Analyzed: 08/20/2012

Lab Sample No.: AR1660CCC250 Data File : PC009880.D Time Analyzed: 22:20

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
AR1016 (1)	2.136	2.080	2.180	0.264	0.250	5.6
AR1016 (2)	2.613	2.560	2.660	0.265	0.250	6.0
AR1016 (3)	2.761	2.710	2.810	0.261	0.250	4.4
AR1016 (4)	3.223	3.170	3.270	0.240	0.250	4.0
AR1016 (5)	3.671	3.620	3.720	0.270	0.250	8.0
AR1260 (1)	4.731	4.680	4.780	0.286	0.250	14.4
AR1260 (2)	5.098	5.050	5.150	0.249	0.250	0.4
AR1260 (3)	5.458	5.410	5.510	0.255	0.250	2.0
AR1260 (4)	6.363	6.320	6.420	0.242	0.250	3.2
AR1260 (5)	6.733	6.690	6.790	0.258	0.250	3.2
Tetrachloro-m-xylene	1.490	1.440	1.540	0.026	0.025	4.0
Decachlorobiphenyl	8.240	8.140	8.340	0.026	0.025	4.0

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: RTX-CLPest II ID: 0.32 (mm) Initi. Calib. Date(s): 08/20/2012 08/20/2012

Client Sample No.: CCAL01 Date Analyzed: 08/20/2012

Lab Sample No.: AR1660CCC250 Data File : PC009880.D Time Analyzed: 22:20

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
AR1016 (1)	2.946	2.900	3.000	0.281	0.250	12.4
AR1016 (2)	3.505	3.460	3.560	0.278	0.250	11.2
AR1016 (3)	3.676	3.630	3.730	0.285	0.250	14.0
AR1016 (4)	3.807	3.760	3.860	0.279	0.250	11.6
AR1016 (5)	4.447	4.400	4.500	0.277	0.250	10.8
AR1260 (1)	6.000	5.950	6.050	0.291	0.250	16.4
AR1260 (2)	6.306	6.260	6.360	0.292	0.250	16.8
AR1260 (3)	6.778	6.730	6.830	0.283	0.250	13.2
AR1260 (4)	7.681	7.630	7.730	0.272	0.250	8.8
AR1260 (5)	8.174	8.130	8.230	0.274	0.250	9.6
Tetrachloro-m-xylene	1.930	1.880	1.980	0.026	0.025	4.0
Decachlorobiphenyl	9.793	9.690	9.890	0.026	0.025	4.0

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811Continuing Calib Date: 08/21/2012 Initial Calibration Date(s): 08/20/2012 08/20/2012Continuing Calib Time: 01:34 Initial Calibration Time(s): 10:04 11:09GC Column: RTX-CLPest ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Tetrachloro-m-xylene	1.49	1.49	1.44	1.54	0.00
Decachlorobiphenyl	8.24	8.24	8.14	8.34	0.00
AR1016 (1)	2.13	2.13	2.08	2.18	0.00
AR1016 (2)	2.61	2.61	2.56	2.66	0.00
AR1016 (3)	2.76	2.76	2.71	2.81	0.00
AR1016 (4)	3.22	3.22	3.17	3.27	0.00
AR1016 (5)	3.67	3.67	3.62	3.72	0.00
AR1260 (1)	4.73	4.73	4.68	4.78	0.00
AR1260 (2)	5.10	5.10	5.05	5.15	0.00
AR1260 (3)	5.46	5.46	5.41	5.51	0.00
AR1260 (4)	6.36	6.37	6.32	6.42	0.01
AR1260 (5)	6.73	6.74	6.69	6.79	0.01



# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/21/2012 Initial Calibration Date(s): 08/20/2012 08/20/2012

Continuing Calib Time: 01:34 Initial Calibration Time(s): 10:04 11:09

GC Column: RTX-CLPest II ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Tetrachloro-m-xylene	1.93	1.93	1.88	1.98	0.00
Decachlorobiphenyl	9.79	9.79	9.69	9.89	0.00
AR1016 (1)	2.94	2.95	2.90	3.00	0.01
AR1016 (2)	3.51	3.51	3.46	3.56	0.00
AR1016 (3)	3.68	3.68	3.63	3.73	0.00
AR1016 (4)	3.81	3.81	3.76	3.86	0.00
AR1016 (5)	4.45	4.45	4.40	4.50	0.00
AR1260 (1)	6.00	6.00	5.95	6.05	0.00
AR1260 (2)	6.30	6.31	6.26	6.36	0.01
AR1260 (3)	6.78	6.78	6.73	6.83	0.00
AR1260 (4)	7.68	7.68	7.63	7.73	0.00
AR1260 (5)	8.17	8.18	8.13	8.23	0.01

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: RTX-CLPest ID: 0.32 (mm) Initi. Calib. Date(s): 08/20/2012 08/20/2012

Client Sample No.: CCAL02 Date Analyzed: 08/21/2012

Lab Sample No.: AR1660CCC250 Data File : PC009892.D Time Analyzed: 01:34

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
AR1016 (1)	2.134	2.080	2.180	0.262	0.250	4.8
AR1016 (2)	2.610	2.560	2.660	0.262	0.250	4.8
AR1016 (3)	2.759	2.710	2.810	0.258	0.250	3.2
AR1016 (4)	3.221	3.170	3.270	0.238	0.250	4.8
AR1016 (5)	3.670	3.620	3.720	0.268	0.250	7.2
AR1260 (1)	4.728	4.680	4.780	0.263	0.250	5.2
AR1260 (2)	5.096	5.050	5.150	0.245	0.250	2.0
AR1260 (3)	5.456	5.410	5.510	0.254	0.250	1.6
AR1260 (4)	6.361	6.320	6.420	0.239	0.250	4.4
AR1260 (5)	6.732	6.690	6.790	0.257	0.250	2.8
Tetrachloro-m-xylene	1.488	1.440	1.540	0.025	0.025	0.0
Decachlorobiphenyl	8.240	8.140	8.340	0.025	0.025	0.0

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: RTX-CLPest II ID: 0.32 (mm) Initi. Calib. Date(s): 08/20/2012 08/20/2012

Client Sample No.: CCAL02 Date Analyzed: 08/21/2012

Lab Sample No.: AR1660CCC250 Data File : PC009892.D Time Analyzed: 01:34

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
AR1016 (1)	2.944	2.900	3.000	0.285	0.250	14.0
AR1016 (2)	3.505	3.460	3.560	0.280	0.250	12.0
AR1016 (3)	3.676	3.630	3.730	0.286	0.250	14.4
AR1016 (4)	3.806	3.760	3.860	0.280	0.250	12.0
AR1016 (5)	4.446	4.400	4.500	0.275	0.250	10.0
AR1260 (1)	6.000	5.950	6.050	0.293	0.250	17.2
AR1260 (2)	6.304	6.260	6.360	0.292	0.250	16.8
AR1260 (3)	6.778	6.730	6.830	0.287	0.250	14.8
AR1260 (4)	7.681	7.630	7.730	0.271	0.250	8.4
AR1260 (5)	8.174	8.130	8.230	0.270	0.250	8.0
Tetrachloro-m-xylene	1.928	1.880	1.980	0.025	0.025	0.0
Decachlorobiphenyl	9.792	9.690	9.890	0.026	0.025	4.0

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/21/2012 Initial Calibration Date(s): 08/20/2012 08/20/2012

Continuing Calib Time: 04:33 Initial Calibration Time(s): 10:04 11:09

GC Column: RTX-CLPest ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM   TO		DIFF RT
Tetrachloro-m-xylene	1.49	1.49	1.44	1.54	0.00
Decachlorobiphenyl	8.24	8.24	8.14	8.34	0.00
AR1016 (1)	2.13	2.13	2.08	2.18	0.00
AR1016 (2)	2.61	2.61	2.56	2.66	0.00
AR1016 (3)	2.76	2.76	2.71	2.81	0.00
AR1016 (4)	3.22	3.22	3.17	3.27	0.00
AR1016 (5)	3.67	3.67	3.62	3.72	0.00
AR1260 (1)	4.73	4.73	4.68	4.78	0.00
AR1260 (2)	5.10	5.10	5.05	5.15	0.01
AR1260 (3)	5.45	5.46	5.41	5.51	0.01
AR1260 (4)	6.36	6.37	6.32	6.42	0.01
AR1260 (5)	6.73	6.74	6.69	6.79	0.01

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/21/2012 Initial Calibration Date(s): 08/20/2012 08/20/2012

Continuing Calib Time: 04:33 Initial Calibration Time(s): 10:04 11:09

GC Column: RTX-CLPest II ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Tetrachloro-m-xylene	1.93	1.93	1.88	1.98	0.00
Decachlorobiphenyl	9.79	9.79	9.69	9.89	0.00
AR1016 (1)	2.94	2.95	2.90	3.00	0.01
AR1016 (2)	3.50	3.51	3.46	3.56	0.01
AR1016 (3)	3.67	3.68	3.63	3.73	0.01
AR1016 (4)	3.80	3.81	3.76	3.86	0.01
AR1016 (5)	4.44	4.45	4.40	4.50	0.01
AR1260 (1)	6.00	6.00	5.95	6.05	0.00
AR1260 (2)	6.30	6.31	6.26	6.36	0.01
AR1260 (3)	6.78	6.78	6.73	6.83	0.00
AR1260 (4)	7.68	7.68	7.63	7.73	0.00
AR1260 (5)	8.17	8.18	8.13	8.23	0.01

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: RTX-CLPest ID: 0.32 (mm) Initi. Calib. Date(s): 08/20/2012 08/20/2012

Client Sample No.: CCAL03 Date Analyzed: 08/21/2012

Lab Sample No.: AR1660CCC250 Data File : PC009903.D Time Analyzed: 04:33

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
AR1016 (1)	2.133	2.080	2.180	0.264	0.250	5.6
AR1016 (2)	2.607	2.560	2.660	0.264	0.250	5.6
AR1016 (3)	2.756	2.710	2.810	0.257	0.250	2.8
AR1016 (4)	3.220	3.170	3.270	0.245	0.250	2.0
AR1016 (5)	3.669	3.620	3.720	0.273	0.250	9.2
AR1260 (1)	4.727	4.680	4.780	0.262	0.250	4.8
AR1260 (2)	5.095	5.050	5.150	0.240	0.250	4.0
AR1260 (3)	5.454	5.410	5.510	0.250	0.250	0.0
AR1260 (4)	6.362	6.320	6.420	0.245	0.250	2.0
AR1260 (5)	6.730	6.690	6.790	0.246	0.250	1.6
Tetrachloro-m-xylene	1.487	1.440	1.540	0.025	0.025	0.0
Decachlorobiphenyl	8.240	8.140	8.340	0.023	0.025	8.0

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: RTX-CLPest II ID: 0.32 (mm) Initi. Calib. Date(s): 08/20/2012 08/20/2012

Client Sample No.: CCAL03 Date Analyzed: 08/21/2012

Lab Sample No.: AR1660CCC250 Data File : PC009903.D Time Analyzed: 04:33

COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
AR1016 (1)	2.943	2.900	3.000	0.290	0.250	16.0
AR1016 (2)	3.503	3.460	3.560	0.289	0.250	15.6
AR1016 (3)	3.674	3.630	3.730	0.293	0.250	17.2
AR1016 (4)	3.804	3.760	3.860	0.287	0.250	14.8
AR1016 (5)	4.443	4.400	4.500	0.248	0.250	0.8
AR1260 (1)	5.998	5.950	6.050	0.280	0.250	12.0
AR1260 (2)	6.304	6.260	6.360	0.281	0.250	12.4
AR1260 (3)	6.777	6.730	6.830	0.263	0.250	5.2
AR1260 (4)	7.678	7.630	7.730	0.221	0.250	11.6
AR1260 (5)	8.172	8.130	8.230	0.213	0.250	14.8
Tetrachloro-m-xylene	1.928	1.880	1.980	0.027	0.025	8.0
Decachlorobiphenyl	9.792	9.690	9.890	0.018	0.025	28.0

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/21/2012 Initial Calibration Date(s): 08/20/2012 08/20/2012

Continuing Calib Time: 06:42 Initial Calibration Time(s): 10:04 11:09

GC Column: RTX-CLPest ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM   TO		DIFF RT
Tetrachloro-m-xylene	1.49	1.49	1.44	1.54	0.00
Decachlorobiphenyl	8.24	8.24	8.14	8.34	0.00
AR1016 (1)	2.13	2.13	2.08	2.18	0.00
AR1016 (2)	2.61	2.61	2.56	2.66	0.00
AR1016 (3)	2.76	2.76	2.71	2.81	0.00
AR1016 (4)	3.22	3.22	3.17	3.27	0.00
AR1016 (5)	3.67	3.67	3.62	3.72	0.00
AR1260 (1)	4.73	4.73	4.68	4.78	0.00
AR1260 (2)	5.09	5.10	5.05	5.15	0.01
AR1260 (3)	5.45	5.46	5.41	5.51	0.01
AR1260 (4)	6.36	6.37	6.32	6.42	0.01
AR1260 (5)	6.73	6.74	6.69	6.79	0.01



## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/21/2012 Initial Calibration Date(s): 08/20/2012 08/20/2012

Continuing Calib Time: 06:42 Initial Calibration Time(s): 10:04 11:09

GC Column: RTX-CLPest II ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Tetrachloro-m-xylene	1.93	1.93	1.88	1.98	0.00
Decachlorobiphenyl	9.79	9.79	9.69	9.89	0.00
AR1016 (1)	2.94	2.95	2.90	3.00	0.01
AR1016 (2)	3.50	3.51	3.46	3.56	0.01
AR1016 (3)	3.67	3.68	3.63	3.73	0.01
AR1016 (4)	3.81	3.81	3.76	3.86	0.00
AR1016 (5)	4.45	4.45	4.40	4.50	0.00
AR1260 (1)	6.00	6.00	5.95	6.05	0.00
AR1260 (2)	6.30	6.31	6.26	6.36	0.01
AR1260 (3)	6.78	6.78	6.73	6.83	0.00
AR1260 (4)	7.68	7.68	7.63	7.73	0.00
AR1260 (5)	8.17	8.18	8.13	8.23	0.01

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: RTX-CLPest ID: 0.32 (mm) Initi. Calib. Date(s): 08/20/2012 08/20/2012

Client Sample No.: CCAL04 Date Analyzed: 08/21/2012

Lab Sample No.: AR1660CCC250 Data File : PC009911.D Time Analyzed: 06:42

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
AR1016 (1)	2.134	2.080	2.180	0.265	0.250	6.0
AR1016 (2)	2.608	2.560	2.660	0.266	0.250	6.4
AR1016 (3)	2.757	2.710	2.810	0.261	0.250	4.4
AR1016 (4)	3.220	3.170	3.270	0.250	0.250	0.0
AR1016 (5)	3.669	3.620	3.720	0.277	0.250	10.8
AR1260 (1)	4.728	4.680	4.780	0.285	0.250	14.0
AR1260 (2)	5.094	5.050	5.150	0.254	0.250	1.6
AR1260 (3)	5.454	5.410	5.510	0.264	0.250	5.6
AR1260 (4)	6.360	6.320	6.420	0.236	0.250	5.6
AR1260 (5)	6.730	6.690	6.790	0.254	0.250	1.6
Tetrachloro-m-xylene	1.489	1.440	1.540	0.025	0.025	0.0
Decachlorobiphenyl	8.239	8.140	8.340	0.024	0.025	4.0

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: RTX-CLPest II ID: 0.32 (mm) Initi. Calib. Date(s): 08/20/2012 08/20/2012

Client Sample No.: CCAL04 Date Analyzed: 08/21/2012

Lab Sample No.: AR1660CCC250 Data File : PC009911.D Time Analyzed: 06:42

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
AR1016 (1)	2.944	2.900	3.000	0.286	0.250	14.4
AR1016 (2)	3.503	3.460	3.560	0.286	0.250	14.4
AR1016 (3)	3.674	3.630	3.730	0.291	0.250	16.4
AR1016 (4)	3.805	3.760	3.860	0.286	0.250	14.4
AR1016 (5)	4.445	4.400	4.500	0.277	0.250	10.8
AR1260 (1)	5.997	5.950	6.050	0.275	0.250	10.0
AR1260 (2)	6.303	6.260	6.360	0.283	0.250	13.2
AR1260 (3)	6.776	6.730	6.830	0.271	0.250	8.4
AR1260 (4)	7.680	7.630	7.730	0.272	0.250	8.8
AR1260 (5)	8.172	8.130	8.230	0.269	0.250	7.6
Tetrachloro-m-xylene	1.929	1.880	1.980	0.026	0.025	4.0
Decachlorobiphenyl	9.791	9.690	9.890	0.024	0.025	4.0

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811Continuing Calib Date: 08/21/2012 Initial Calibration Date(s): 08/20/2012 08/20/2012Continuing Calib Time: 14:27 Initial Calibration Time(s): 10:04 11:09GC Column: RTX-CLPest ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Tetrachloro-m-xylene	1.49	1.49	1.44	1.54	0.00
Decachlorobiphenyl	8.24	8.24	8.14	8.34	0.00
AR1016 (1)	2.13	2.13	2.08	2.18	0.00
AR1016 (2)	2.61	2.61	2.56	2.66	0.00
AR1016 (3)	2.76	2.76	2.71	2.81	0.00
AR1016 (4)	3.22	3.22	3.17	3.27	0.00
AR1016 (5)	3.67	3.67	3.62	3.72	0.00
AR1260 (1)	4.73	4.73	4.68	4.78	0.00
AR1260 (2)	5.10	5.10	5.05	5.15	0.01
AR1260 (3)	5.46	5.46	5.41	5.51	0.01
AR1260 (4)	6.36	6.37	6.32	6.42	0.01
AR1260 (5)	6.73	6.74	6.69	6.79	0.01

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811Continuing Calib Date: 08/21/2012 Initial Calibration Date(s): 08/20/2012 08/20/2012Continuing Calib Time: 14:27 Initial Calibration Time(s): 10:04 11:09GC Column: RTX-CLPest II ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Tetrachloro-m-xylene	1.93	1.93	1.88	1.98	0.00
Decachlorobiphenyl	9.79	9.79	9.69	9.89	0.00
AR1016 (1)	2.94	2.95	2.90	3.00	0.01
AR1016 (2)	3.50	3.51	3.46	3.56	0.01
AR1016 (3)	3.68	3.68	3.63	3.73	0.01
AR1016 (4)	3.81	3.81	3.76	3.86	0.00
AR1016 (5)	4.45	4.45	4.40	4.50	0.00
AR1260 (1)	6.00	6.00	5.95	6.05	0.00
AR1260 (2)	6.30	6.31	6.26	6.36	0.01
AR1260 (3)	6.78	6.78	6.73	6.83	0.00
AR1260 (4)	7.68	7.68	7.63	7.73	0.00
AR1260 (5)	8.17	8.18	8.13	8.23	0.01

## CALIBRATION VERIFICATION SUMMARY

**Contract:** MSAN01  
**Lab Code:** CHEM **Case No.:** D3811 **SAS No.:** D3811 **SDG NO.:** D3811  
**GC Column:** RTX-CLPest **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 08/20/2012 08/20/2012  
**Client Sample No.:** CCAL05 **Date Analyzed:** 08/21/2012  
**Lab Sample No.:** AR1660CCC250 **Data File :** PC009913.D **Time Analyzed:** 14:27

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
AR1016 (1)	2.133	2.080	2.180	0.248	0.250	0.8
AR1016 (2)	2.608	2.560	2.660	0.256	0.250	2.4
AR1016 (3)	2.756	2.710	2.810	0.247	0.250	1.2
AR1016 (4)	3.220	3.170	3.270	0.245	0.250	2.0
AR1016 (5)	3.669	3.620	3.720	0.253	0.250	1.2
AR1260 (1)	4.727	4.680	4.780	0.257	0.250	2.8
AR1260 (2)	5.095	5.050	5.150	0.247	0.250	1.2
AR1260 (3)	5.455	5.410	5.510	0.252	0.250	0.8
AR1260 (4)	6.360	6.320	6.420	0.227	0.250	9.2
AR1260 (5)	6.730	6.690	6.790	0.257	0.250	2.8
Tetrachloro-m-xylene	1.488	1.440	1.540	0.026	0.025	4.0
Decachlorobiphenyl	8.239	8.140	8.340	0.024	0.025	4.0

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: RTX-CLPest II ID: 0.32 (mm) Initi. Calib. Date(s): 08/20/2012 08/20/2012

Client Sample No.: CCAL05 Date Analyzed: 08/21/2012

Lab Sample No.: AR1660CCC250 Data File : PC009913.D Time Analyzed: 14:27

COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
AR1016 (1)	2.944	2.900	3.000	0.219	0.250	12.4
AR1016 (2)	3.504	3.460	3.560	0.237	0.250	5.2
AR1016 (3)	3.675	3.630	3.730	0.223	0.250	10.8
AR1016 (4)	3.805	3.760	3.860	0.226	0.250	9.6
AR1016 (5)	4.446	4.400	4.500	0.224	0.250	10.4
AR1260 (1)	5.997	5.950	6.050	0.237	0.250	5.2
AR1260 (2)	6.303	6.260	6.360	0.237	0.250	5.2
AR1260 (3)	6.776	6.730	6.830	0.233	0.250	6.8
AR1260 (4)	7.678	7.630	7.730	0.237	0.250	5.2
AR1260 (5)	8.173	8.130	8.230	0.236	0.250	5.6
Tetrachloro-m-xylene	1.929	1.880	1.980	0.023	0.025	8.0
Decachlorobiphenyl	9.792	9.690	9.890	0.021	0.025	16.0

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/21/2012 Initial Calibration Date(s): 08/20/2012 08/20/2012

Continuing Calib Time: 20:38 Initial Calibration Time(s): 10:04 11:09

GC Column: RTX-CLPest ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM   TO		DIFF RT
Tetrachloro-m-xylene	1.49	1.49	1.44	1.54	0.00
Decachlorobiphenyl	8.24	8.24	8.14	8.34	0.00
AR1016 (1)	2.13	2.13	2.08	2.18	0.00
AR1016 (2)	2.61	2.61	2.56	2.66	0.00
AR1016 (3)	2.76	2.76	2.71	2.81	0.00
AR1016 (4)	3.22	3.22	3.17	3.27	0.00
AR1016 (5)	3.67	3.67	3.62	3.72	0.00
AR1260 (1)	4.73	4.73	4.68	4.78	0.00
AR1260 (2)	5.09	5.10	5.05	5.15	0.01
AR1260 (3)	5.45	5.46	5.41	5.51	0.01
AR1260 (4)	6.36	6.37	6.32	6.42	0.01
AR1260 (5)	6.73	6.74	6.69	6.79	0.01



## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/21/2012 Initial Calibration Date(s): 08/20/2012 08/20/2012

Continuing Calib Time: 20:38 Initial Calibration Time(s): 10:04 11:09

GC Column: RTX-CLPest II ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
Tetrachloro-m-xylene	1.93	1.93	1.88	1.98	0.00
Decachlorobiphenyl	9.79	9.79	9.69	9.89	0.00
AR1016 (1)	2.95	2.95	2.90	3.00	0.01
AR1016 (2)	3.50	3.51	3.46	3.56	0.01
AR1016 (3)	3.68	3.68	3.63	3.73	0.00
AR1016 (4)	3.81	3.81	3.76	3.86	0.00
AR1016 (5)	4.45	4.45	4.40	4.50	0.00
AR1260 (1)	6.00	6.00	5.95	6.05	0.00
AR1260 (2)	6.30	6.31	6.26	6.36	0.01
AR1260 (3)	6.78	6.78	6.73	6.83	0.00
AR1260 (4)	7.68	7.68	7.63	7.73	0.00
AR1260 (5)	8.17	8.18	8.13	8.23	0.01

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: RTX-CLPest ID: 0.32 (mm) Initi. Calib. Date(s): 08/20/2012 08/20/2012

Client Sample No.: CCAL06 Date Analyzed: 08/21/2012

Lab Sample No.: AR1660CCC250 Data File : PC009926.D Time Analyzed: 20:38

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
AR1016 (1)	2.134	2.080	2.180	0.253	0.250	1.2
AR1016 (2)	2.608	2.560	2.660	0.259	0.250	3.6
AR1016 (3)	2.756	2.710	2.810	0.251	0.250	0.4
AR1016 (4)	3.219	3.170	3.270	0.244	0.250	2.4
AR1016 (5)	3.669	3.620	3.720	0.262	0.250	4.8
AR1260 (1)	4.727	4.680	4.780	0.265	0.250	6.0
AR1260 (2)	5.094	5.050	5.150	0.257	0.250	2.8
AR1260 (3)	5.454	5.410	5.510	0.260	0.250	4.0
AR1260 (4)	6.360	6.320	6.420	0.239	0.250	4.4
AR1260 (5)	6.730	6.690	6.790	0.262	0.250	4.8
Tetrachloro-m-xylene	1.488	1.440	1.540	0.027	0.025	8.0
Decachlorobiphenyl	8.239	8.140	8.340	0.024	0.025	4.0

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: RTX-CLPest II ID: 0.32 (mm) Initi. Calib. Date(s): 08/20/2012 08/20/2012

Client Sample No.: CCAL06 Date Analyzed: 08/21/2012

Lab Sample No.: AR1660CCC250 Data File : PC009926.D Time Analyzed: 20:38

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
AR1016 (1)	2.945	2.900	3.000	0.221	0.250	11.6
AR1016 (2)	3.504	3.460	3.560	0.242	0.250	3.2
AR1016 (3)	3.676	3.630	3.730	0.224	0.250	10.4
AR1016 (4)	3.805	3.760	3.860	0.229	0.250	8.4
AR1016 (5)	4.446	4.400	4.500	0.225	0.250	10.0
AR1260 (1)	5.998	5.950	6.050	0.237	0.250	5.2
AR1260 (2)	6.304	6.260	6.360	0.233	0.250	6.8
AR1260 (3)	6.776	6.730	6.830	0.236	0.250	5.6
AR1260 (4)	7.679	7.630	7.730	0.237	0.250	5.2
AR1260 (5)	8.173	8.130	8.230	0.246	0.250	1.6
Tetrachloro-m-xylene	1.929	1.880	1.980	0.024	0.025	4.0
Decachlorobiphenyl	9.792	9.690	9.890	0.022	0.025	12.0

## Analytical Sequence

Client: MS Analytical

SDG No.: D3811

Project: 12MS104 Kensington Heights

Instrument ID: ECD\_C

GC Column: RTX-CLPest

ID: 0.32 (mm)

Inst. Calib. Date(s): 08/20/2012

08/20/2012

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES,  
AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	TCX RT #	DCB RT #
PIBLK01	I.BLK01	08/20/2012	09:48	PC009843.D	1.49	8.24
AR166001	AR1660ICC1000	08/20/2012	10:04	PC009844.D	1.49	8.24
AR166002	AR1660ICC750	08/20/2012	10:21	PC009845.D	1.49	8.24
AR166003	AR1660ICC500	08/20/2012	10:37	PC009846.D	1.48	8.24
AR166004	AR1660ICC250	08/20/2012	10:53	PC009847.D	1.49	8.24
AR166005	AR1660ICC50	08/20/2012	11:09	PC009848.D	1.49	8.24
AR122101	AR1221ICC500	08/20/2012	11:53	PC009849.D	1.49	8.25
AR123201	AR1232ICC500	08/20/2012	12:09	PC009850.D	1.49	8.24
AR124201	AR1242ICC500	08/20/2012	12:25	PC009851.D	1.49	8.24
AR124801	AR1248ICC500	08/20/2012	12:42	PC009852.D	1.49	8.24
AR125401	AR1254ICC500	08/20/2012	12:58	PC009853.D	1.49	8.24
PIBLK02	I.BLK02	08/20/2012	22:03	PC009879.D	1.49	8.24
CCAL01	AR1660CCC250	08/20/2012	22:20	PC009880.D	1.49	8.24
PB65123BL	PB65123BL	08/20/2012	23:41	PC009885.D	1.49	8.24
PB65123BS	PB65123BS	08/20/2012	23:57	PC009886.D	1.49	8.24
SB-2(4-8)	D3811-01	08/21/2012	00:13	PC009887.D	1.48	8.24
SB-5(8-12)	D3811-02	08/21/2012	00:29	PC009888.D	1.49	8.24
SB-9(4-7)	D3811-03	08/21/2012	00:46	PC009889.D	1.49	8.24
SB-11(12-16)	D3811-05	08/21/2012	01:02	PC009890.D	1.49	8.24
PIBLK03	I.BLK03	08/21/2012	01:18	PC009891.D	1.49	8.24
CCAL02	AR1660CCC250	08/21/2012	01:34	PC009892.D	1.49	8.24
SB-15(12-16)	D3811-06	08/21/2012	01:50	PC009893.D	1.49	8.22
SB-18(4-8)	D3811-07	08/21/2012	02:07	PC009894.D	1.49	8.24
SB-21(16-19)	D3811-10	08/21/2012	02:23	PC009895.D	1.49	8.19
SB-22(12-19)	D3811-11	08/21/2012	02:39	PC009896.D	1.49	8.24
SB-37(8-10)	D3811-13	08/21/2012	02:55	PC009897.D	1.49	8.19
SB-39(6-8)	D3811-14	08/21/2012	03:11	PC009898.D	1.49	8.24
SB-41(8-11)	D3811-15	08/21/2012	03:28	PC009899.D	1.49	8.24
SB-43(6-8)	D3811-17	08/21/2012	03:44	PC009900.D	1.49	8.24
SB-43(10-12)	D3811-18	08/21/2012	04:00	PC009901.D	1.49	8.25
PIBLK04	I.BLK04	08/21/2012	04:16	PC009902.D	1.49	8.24
CCAL03	AR1660CCC250	08/21/2012	04:33	PC009903.D	1.49	8.24
SB-43(16-20)	D3811-19	08/21/2012	04:49	PC009904.D	1.49	8.24
SB-46(12-16)	D3811-21	08/21/2012	05:05	PC009905.D	1.48	8.24
SB-2(4-8)MS	D3811-01MS	08/21/2012	05:21	PC009906.D	1.49	8.24
SB-2(4-8)MSD	D3811-01MSD	08/21/2012	05:38	PC009907.D	1.49	8.24
PIBLK05	I.BLK05	08/21/2012	06:26	PC009910.D	1.49	8.24
CCAL04	AR1660CCC250	08/21/2012	06:42	PC009911.D	1.49	8.24
PIBLK06	I.BLK06	08/21/2012	14:10	PC009912.D	1.49	8.25
CCAL05	AR1660CCC250	08/21/2012	14:27	PC009913.D	1.49	8.24
SB-21(16-19)RE	D3811-10RE	08/21/2012	17:23	PC009914.D	1.49	8.20
SB-43(10-12)RE	D3811-18RE	08/21/2012	17:39	PC009915.D	1.49	8.25
PIBLK07	I.BLK07	08/21/2012	20:21	PC009925.D	1.49	8.24
CCAL06	AR1660CCC250	08/21/2012	20:38	PC009926.D	1.49	8.24

**Analytical Sequence**

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# Analytical Sequence

Client: MS Analytical

SDG No.: D3811

Project: 12MS104 Kensington Heights

Instrument ID: ECD\_C

GC Column: RTX-CLPest II

ID: 0.32 (mm)

Inst. Calib. Date(s): 08/20/2012

08/20/2012

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES,  
AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	TCX RT #	DCB RT #
PIBLK01	I.BLK01	08/20/2012	09:48	PC009843.D	1.93	9.79
AR166001	AR1660ICC1000	08/20/2012	10:04	PC009844.D	1.93	9.79
AR166002	AR1660ICC750	08/20/2012	10:21	PC009845.D	1.93	9.79
AR166003	AR1660ICC500	08/20/2012	10:37	PC009846.D	1.92	9.79
AR166004	AR1660ICC250	08/20/2012	10:53	PC009847.D	1.93	9.80
AR166005	AR1660ICC50	08/20/2012	11:09	PC009848.D	1.93	9.79
AR122101	AR1221ICC500	08/20/2012	11:53	PC009849.D	1.93	9.80
AR123201	AR1232ICC500	08/20/2012	12:09	PC009850.D	1.93	9.79
AR124201	AR1242ICC500	08/20/2012	12:25	PC009851.D	1.93	9.79
AR124801	AR1248ICC500	08/20/2012	12:42	PC009852.D	1.93	9.79
AR125401	AR1254ICC500	08/20/2012	12:58	PC009853.D	1.93	9.79
PIBLK02	I.BLK02	08/20/2012	22:03	PC009879.D	1.93	9.79
CCAL01	AR1660CCC250	08/20/2012	22:20	PC009880.D	1.93	9.79
PB65123BL	PB65123BL	08/20/2012	23:41	PC009885.D	1.93	9.79
PB65123BS	PB65123BS	08/20/2012	23:57	PC009886.D	1.93	9.79
SB-2(4-8)	D3811-01	08/21/2012	00:13	PC009887.D	1.92	9.79
SB-5(8-12)	D3811-02	08/21/2012	00:29	PC009888.D	1.93	9.79
SB-9(4-7)	D3811-03	08/21/2012	00:46	PC009889.D	1.93	9.79
SB-11(12-16)	D3811-05	08/21/2012	01:02	PC009890.D	1.93	9.79
PIBLK03	I.BLK03	08/21/2012	01:18	PC009891.D	1.93	9.79
CCAL02	AR1660CCC250	08/21/2012	01:34	PC009892.D	1.93	9.79
SB-15(12-16)	D3811-06	08/21/2012	01:50	PC009893.D	1.93	9.79
SB-18(4-8)	D3811-07	08/21/2012	02:07	PC009894.D	1.93	9.79
SB-21(16-19)	D3811-10	08/21/2012	02:23	PC009895.D	1.93	9.79
SB-22(12-19)	D3811-11	08/21/2012	02:39	PC009896.D	1.93	9.79
SB-37(8-10)	D3811-13	08/21/2012	02:55	PC009897.D	1.93	9.79
SB-39(6-8)	D3811-14	08/21/2012	03:11	PC009898.D	1.93	9.79
SB-41(8-11)	D3811-15	08/21/2012	03:28	PC009899.D	1.93	9.79
SB-43(6-8)	D3811-17	08/21/2012	03:44	PC009900.D	1.93	9.79
SB-43(10-12)	D3811-18	08/21/2012	04:00	PC009901.D	1.93	9.80
PIBLK04	I.BLK04	08/21/2012	04:16	PC009902.D	1.93	9.79
CCAL03	AR1660CCC250	08/21/2012	04:33	PC009903.D	1.93	9.79
SB-43(16-20)	D3811-19	08/21/2012	04:49	PC009904.D	1.93	9.79
SB-46(12-16)	D3811-21	08/21/2012	05:05	PC009905.D	1.92	9.79
SB-2(4-8)MS	D3811-01MS	08/21/2012	05:21	PC009906.D	1.93	9.79
SB-2(4-8)MSD	D3811-01MSD	08/21/2012	05:38	PC009907.D	1.93	9.79
PIBLK05	I.BLK05	08/21/2012	06:26	PC009910.D	1.93	9.79
CCAL04	AR1660CCC250	08/21/2012	06:42	PC009911.D	1.93	9.79
PIBLK06	I.BLK06	08/21/2012	14:10	PC009912.D	1.93	9.80
CCAL05	AR1660CCC250	08/21/2012	14:27	PC009913.D	1.93	9.79
SB-21(16-19)RE	D3811-10RE	08/21/2012	17:23	PC009914.D	1.93	9.79
SB-43(10-12)RE	D3811-18RE	08/21/2012	17:39	PC009915.D	1.93	9.80
PIBLK07	I.BLK07	08/21/2012	20:21	PC009925.D	1.93	9.79
CCAL06	AR1660CCC250	08/21/2012	20:38	PC009926.D	1.93	9.79

**Analytical Sequence**

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# QC SAMPLE DATA



# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65123BL	SDG No.:	D3811
Lab Sample ID:	PB65123BL	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	0
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009885.D	1	08/15/12	08/20/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	8.5	U	3.5	8.5	17	ug/Kg
11104-28-2	Aroclor-1221	8.5	U	3.4	8.5	17	ug/Kg
11141-16-5	Aroclor-1232	8.5	U	7.5	8.5	17	ug/Kg
53469-21-9	Aroclor-1242	8.5	U	3.4	8.5	17	ug/Kg
12672-29-6	Aroclor-1248	8.5	U	6.6	8.5	17	ug/Kg
11097-69-1	Aroclor-1254	8.5	U	1.5	8.5	17	ug/Kg
11096-82-5	Aroclor-1260	8.5	U	4.1	8.5	17	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	20.8		10 - 166		104%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.2		60 - 125		106%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/20/12
Project:	12MS104 Kensington Heights	Date Received:	08/20/12
Client Sample ID:	PIBLK-PC009879.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PC009879.D	Matrix:	WATER
Analytical Method:	SW8082A	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009879.D	1		08/20/12	PC082012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	0.25	U	0.096	0.25	0.5	ug/L
11104-28-2	Aroclor-1221	0.25	U	0.19	0.25	0.5	ug/L
11141-16-5	Aroclor-1232	0.25	U	0.15	0.25	0.5	ug/L
53469-21-9	Aroclor-1242	0.25	U	0.089	0.25	0.5	ug/L
12672-29-6	Aroclor-1248	0.25	U	0.24	0.25	0.5	ug/L
11097-69-1	Aroclor-1254	0.25	U	0.044	0.25	0.5	ug/L
11096-82-5	Aroclor-1260	0.25	U	0.081	0.25	0.5	ug/L
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	22		35 - 137		110%	SPK: 20
2051-24-3	Decachlorobiphenyl	22.3		40 - 135		111%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/21/12			
Project:	12MS104 Kensington Heights	Date Received:	08/21/12			
Client Sample ID:	PIBLK-PC009891.D	SDG No.:	D3811			
Lab Sample ID:	I.BLK-PC009891.D	Matrix:	WATER			
Analytical Method:	SW8082A	% Moisture:	100	Decanted:		
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	PCB	
Extraction Type:				Injection Volume	1	
GPC Factor :	1.0	PH :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009891.D	1		08/21/12	PC082012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	0.25	U	0.096	0.25	0.5	ug/L
11104-28-2	Aroclor-1221	0.25	U	0.19	0.25	0.5	ug/L
11141-16-5	Aroclor-1232	0.25	U	0.15	0.25	0.5	ug/L
53469-21-9	Aroclor-1242	0.25	U	0.089	0.25	0.5	ug/L
12672-29-6	Aroclor-1248	0.25	U	0.24	0.25	0.5	ug/L
11097-69-1	Aroclor-1254	0.25	U	0.044	0.25	0.5	ug/L
11096-82-5	Aroclor-1260	0.25	U	0.081	0.25	0.5	ug/L
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	21.9		35 - 137		109%	SPK: 20
2051-24-3	Decachlorobiphenyl	22		40 - 135		110%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/21/12
Project:	12MS104 Kensington Heights	Date Received:	08/21/12
Client Sample ID:	PIBLK-PC009902.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PC009902.D	Matrix:	WATER
Analytical Method:	SW8082A	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009902.D	1		08/21/12	PC082012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	0.25	U	0.096	0.25	0.5	ug/L
11104-28-2	Aroclor-1221	0.25	U	0.19	0.25	0.5	ug/L
11141-16-5	Aroclor-1232	0.25	U	0.15	0.25	0.5	ug/L
53469-21-9	Aroclor-1242	0.25	U	0.089	0.25	0.5	ug/L
12672-29-6	Aroclor-1248	0.25	U	0.24	0.25	0.5	ug/L
11097-69-1	Aroclor-1254	0.25	U	0.044	0.25	0.5	ug/L
11096-82-5	Aroclor-1260	0.25	U	0.081	0.25	0.5	ug/L
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	21.6		35 - 137		108%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.1		40 - 135		86%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/21/12			
Project:	12MS104 Kensington Heights	Date Received:	08/21/12			
Client Sample ID:	PIBLK-PC009910.D	SDG No.:	D3811			
Lab Sample ID:	I.BLK-PC009910.D	Matrix:	WATER			
Analytical Method:	SW8082A	% Moisture:	100	Decanted:		
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	PCB	
Extraction Type:				Injection Volume	1	
GPC Factor :	1.0	PH :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009910.D	1		08/21/12	PC082012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	0.25	U	0.096	0.25	0.5	ug/L
11104-28-2	Aroclor-1221	0.25	U	0.19	0.25	0.5	ug/L
11141-16-5	Aroclor-1232	0.25	U	0.15	0.25	0.5	ug/L
53469-21-9	Aroclor-1242	0.25	U	0.089	0.25	0.5	ug/L
12672-29-6	Aroclor-1248	0.25	U	0.24	0.25	0.5	ug/L
11097-69-1	Aroclor-1254	0.25	U	0.044	0.25	0.5	ug/L
11096-82-5	Aroclor-1260	0.25	U	0.081	0.25	0.5	ug/L
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	22		35 - 137		110%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.4		40 - 135		107%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/21/12
Project:	12MS104 Kensington Heights	Date Received:	08/21/12
Client Sample ID:	PIBLK-PC009912.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PC009912.D	Matrix:	WATER
Analytical Method:	SW8082A	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009912.D	1		08/21/12	PC082112

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	0.25	U	0.096	0.25	0.5	ug/L
11104-28-2	Aroclor-1221	0.25	U	0.19	0.25	0.5	ug/L
11141-16-5	Aroclor-1232	0.25	U	0.15	0.25	0.5	ug/L
53469-21-9	Aroclor-1242	0.25	U	0.089	0.25	0.5	ug/L
12672-29-6	Aroclor-1248	0.25	U	0.24	0.25	0.5	ug/L
11097-69-1	Aroclor-1254	0.25	U	0.044	0.25	0.5	ug/L
11096-82-5	Aroclor-1260	0.25	U	0.081	0.25	0.5	ug/L
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	21.7		35 - 137		109%	SPK: 20
2051-24-3	Decachlorobiphenyl	19.8		40 - 135		99%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/21/12
Project:	12MS104 Kensington Heights	Date Received:	08/21/12
Client Sample ID:	PIBLK-PC009925.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PC009925.D	Matrix:	WATER
Analytical Method:	SW8082A	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009925.D	1		08/21/12	PC082112

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	0.25	U	0.096	0.25	0.5	ug/L
11104-28-2	Aroclor-1221	0.25	U	0.19	0.25	0.5	ug/L
11141-16-5	Aroclor-1232	0.25	U	0.15	0.25	0.5	ug/L
53469-21-9	Aroclor-1242	0.25	U	0.089	0.25	0.5	ug/L
12672-29-6	Aroclor-1248	0.25	U	0.24	0.25	0.5	ug/L
11097-69-1	Aroclor-1254	0.25	U	0.044	0.25	0.5	ug/L
11096-82-5	Aroclor-1260	0.25	U	0.081	0.25	0.5	ug/L
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	22.7		35 - 137		113%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.1		40 - 135		105%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65123BS	SDG No.:	D3811
Lab Sample ID:	PB65123BS	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	0
Sample Wt/Vol:	30 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009886.D	1	08/15/12	08/20/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	80		3.5	8.5	17	ug/Kg
11104-28-2	Aroclor-1221	8.5	U	3.4	8.5	17	ug/Kg
11141-16-5	Aroclor-1232	8.5	U	7.5	8.5	17	ug/Kg
53469-21-9	Aroclor-1242	8.5	U	3.4	8.5	17	ug/Kg
12672-29-6	Aroclor-1248	8.5	U	6.6	8.5	17	ug/Kg
11097-69-1	Aroclor-1254	8.5	U	1.5	8.5	17	ug/Kg
11096-82-5	Aroclor-1260	75		4.1	8.5	17	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	20.7		10 - 166		103%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.3		60 - 125		107%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)MS	SDG No.:	D3811
Lab Sample ID:	D3811-01MS	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	13
Sample Wt/Vol:	30.09	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	PCB
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009906.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	92		4	9.5	19	ug/Kg
11104-28-2	Aroclor-1221	9.5	U	3.9	9.5	19	ug/Kg
11141-16-5	Aroclor-1232	9.5	U	8.6	9.5	19	ug/Kg
53469-21-9	Aroclor-1242	9.5	U	3.9	9.5	19	ug/Kg
12672-29-6	Aroclor-1248	9.5	U	7.6	9.5	19	ug/Kg
11097-69-1	Aroclor-1254	9.5	U	1.7	9.5	19	ug/Kg
11096-82-5	Aroclor-1260	100		4.7	9.5	19	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	20.1		10 - 166		101%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.1		60 - 125		86%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)MSD	SDG No.:	D3811
Lab Sample ID:	D3811-01MSD	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	13
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC009907.D	1	08/15/12	08/21/12	PB65123

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
12674-11-2	Aroclor-1016	94		4	10	20	ug/Kg
11104-28-2	Aroclor-1221	10	U	3.9	10	20	ug/Kg
11141-16-5	Aroclor-1232	10	U	8.6	10	20	ug/Kg
53469-21-9	Aroclor-1242	10	U	3.9	10	20	ug/Kg
12672-29-6	Aroclor-1248	10	U	7.6	10	20	ug/Kg
11097-69-1	Aroclor-1254	10	U	1.7	10	20	ug/Kg
11096-82-5	Aroclor-1260	82		4.7	10	20	ug/Kg
<b>SURROGATES</b>							
877-09-8	Tetrachloro-m-xylene	20.8		10 - 166		104%	SPK: 20
2051-24-3	Decachlorobiphenyl	19.3		60 - 125		97%	SPK: 20

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## LAB CHRONICLE

**OrderID:** D3811  
**Client:** MS Analytical  
**Contact:** Bryan Mayback

**OrderDate:** 8/15/2012 11:38:54 AM  
**Project:** 12MS104 Kensington Heights  
**Location:** I23

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
<b>D3811-01</b>	<b>SB-2(4-8)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/07/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-02</b>	<b>SB-5(8-12)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/07/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-03</b>	<b>SB-9(4-7)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/07/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-05</b>	<b>SB-11(12-16)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/07/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-06</b>	<b>SB-15(12-16)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/08/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-07</b>	<b>SB-18(4-8)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/08/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-10</b>	<b>SB-21(16-19)</b>	<b>SOIL</b>	Herbicide	8151A	<b>08/09/12</b>	08/15/12	08/23/12	<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	

**LAB CHRONICLE**

			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-10RE</b>	<b>SB-21(16-19)RE</b>	<b>SOIL</b>			<b>08/09/12</b>			<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
<b>D3811-11</b>	<b>SB-22(12-19)</b>	<b>SOIL</b>			<b>08/09/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-13</b>	<b>SB-37(8-10)</b>	<b>SOIL</b>			<b>08/10/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-14</b>	<b>SB-39(6-8)</b>	<b>SOIL</b>			<b>08/10/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-15</b>	<b>SB-41(8-11)</b>	<b>SOIL</b>			<b>08/10/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-17</b>	<b>SB-43(6-8)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-18</b>	<b>SB-43(10-12)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/17/12	
<b>D3811-18RE</b>	<b>SB-43(10-12)RE</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			PCB	8082A		08/15/12	08/21/12	
<b>D3811-19</b>	<b>SB-43(16-20)</b>	<b>SOIL</b>			<b>08/13/12</b>			<b>08/15/12</b>
			Herbicide	8151A		08/15/12	08/23/12	
			PCB	8082A		08/15/12	08/21/12	
			Pesticide-TCL	8081B		08/15/12	08/18/12	



LAB CHRONICLE

D3811-21	SB-46(12-16)	SOIL			08/13/12		08/15/12
			Herbicide	8151A		08/15/12	08/23/12
			PCB	8082A		08/15/12	08/21/12
			Pesticide-TCL	8081B		08/15/12	08/18/12

Hit Summary Sheet  
SW-846

SDG No.:

Order ID:

Client:

Project ID:

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :								

Total Concentration:

A

B

C

D

E

F

G

# SAMPLE DATA

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-01	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	13.4
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Herbicide
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005722.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	43	U	15.3	43	86	ug/Kg
120-36-5	DICHLORPROP	38.5	U	14.2	38.5	77	ug/Kg
94-75-7	2,4-D	43	U	37.7	43	86	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	38.5	U	12.6	38.5	77	ug/Kg
93-76-5	2,4,5-T	38.5	U	11.8	38.5	77	ug/Kg
94-82-6	2,4-DB	38.5	U	34.1	38.5	77	ug/Kg
88-85-7	DINOSEB	38.5	U	28.2	38.5	77	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	235		12 - 189		47%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-02	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	18.7
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Herbicide
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005723.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	46	U	16.3	46	92	ug/Kg
120-36-5	DICHLORPROP	41	U	15.2	41	82	ug/Kg
94-75-7	2,4-D	46	U	40.2	46	92	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	41	U	13.4	41	82	ug/Kg
93-76-5	2,4,5-T	41	U	12.6	41	82	ug/Kg
94-82-6	2,4-DB	41	U	36.3	41	82	ug/Kg
88-85-7	DINOSEB	41	U	30.1	41	82	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	264		12 - 189		53%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)	SDG No.:	D3811
Lab Sample ID:	D3811-03	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	16.1
Sample Wt/Vol:	30.05	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Herbicide
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005724.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	44.5	U	15.8	44.5	89	ug/Kg
120-36-5	DICHLORPROP	40	U	14.7	40	80	ug/Kg
94-75-7	2,4-D	44.5	U	38.9	44.5	89	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	40	U	13	40	80	ug/Kg
93-76-5	2,4,5-T	40	U	12.2	40	80	ug/Kg
94-82-6	2,4-DB	40	U	35.2	40	80	ug/Kg
88-85-7	DINOSEB	40	U	29.1	40	80	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	311		12 - 189		62%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-05	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	25.6
Sample Wt/Vol:	30.1	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Herbicide
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005725.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	50	U	17.8	50	100	ug/Kg
120-36-5	DICHLORPROP	45	U	16.5	45	90	ug/Kg
94-75-7	2,4-D	50	U	43.8	50	100	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	45	U	14.6	45	90	ug/Kg
93-76-5	2,4,5-T	45	U	13.7	45	90	ug/Kg
94-82-6	2,4-DB	45	U	39.6	45	90	ug/Kg
88-85-7	DINOSEB	45	U	32.8	45	90	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	316		12 - 189		63%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-06	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	28.4
Sample Wt/Vol:	30.07	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Herbicide
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005726.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	50	U	18.5	50	100	ug/Kg
120-36-5	DICHLORPROP	46.5	U	17.2	46.5	93	ug/Kg
94-75-7	2,4-D	50	U	45.6	50	100	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	46.5	U	15.2	46.5	93	ug/Kg
93-76-5	2,4,5-T	46.5	U	14.3	46.5	93	ug/Kg
94-82-6	2,4-DB	46.5	U	41.2	46.5	93	ug/Kg
88-85-7	DINOSEB	46.5	U	34.1	46.5	93	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	216		12 - 189		43%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-07	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	16.2
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005727.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	44.5	U	15.8	44.5	89	ug/Kg
120-36-5	DICHLORPROP	40	U	14.7	40	80	ug/Kg
94-75-7	2,4-D	44.5	U	39	44.5	89	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	40	U	13	40	80	ug/Kg
93-76-5	2,4,5-T	40	U	12.2	40	80	ug/Kg
94-82-6	2,4-DB	40	U	35.3	40	80	ug/Kg
88-85-7	DINOSEB	40	U	29.2	40	80	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	358		12 - 189		72%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)	SDG No.:	D3811
Lab Sample ID:	D3811-10	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	31.9
Sample Wt/Vol:	30.07 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005728.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	55	U	19.4	55	110	ug/Kg
120-36-5	DICHLORPROP	49	U	18.1	49	98	ug/Kg
94-75-7	2,4-D	55	U	47.9	55	110	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	49	U	16	49	98	ug/Kg
93-76-5	2,4,5-T	49	U	15	49	98	ug/Kg
94-82-6	2,4-DB	49	U	43.3	49	98	ug/Kg
88-85-7	DINOSEB	49	U	35.9	49	98	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	331		12 - 189		66%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)	SDG No.:	D3811
Lab Sample ID:	D3811-11	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	8.9
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Herbicide
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005729.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	41	U	14.5	41	82	ug/Kg
120-36-5	DICHLORPROP	36.5	U	13.5	36.5	73	ug/Kg
94-75-7	2,4-D	41	U	35.8	41	82	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	36.5	U	12	36.5	73	ug/Kg
93-76-5	2,4,5-T	36.5	U	11.2	36.5	73	ug/Kg
94-82-6	2,4-DB	36.5	U	32.4	36.5	73	ug/Kg
88-85-7	DINOSEB	36.5	U	26.8	36.5	73	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	377		12 - 189		75%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)	SDG No.:	D3811
Lab Sample ID:	D3811-13	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	29.6
Sample Wt/Vol:	30.08	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Herbicide
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005732.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	55	U	18.8	55	110	ug/Kg
120-36-5	DICHLORPROP	47.5	U	17.5	47.5	95	ug/Kg
94-75-7	2,4-D	55	U	46.3	55	110	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	47.5	U	15.5	47.5	95	ug/Kg
93-76-5	2,4,5-T	47.5	U	14.5	47.5	95	ug/Kg
94-82-6	2,4-DB	47.5	U	41.9	47.5	95	ug/Kg
88-85-7	DINOSEB	47.5	U	34.7	47.5	95	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	339		12 - 189		68%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12			
Project:	12MS104 Kensington Heights	Date Received:	08/15/12			
Client Sample ID:	SB-39(6-8)	SDG No.:	D3811			
Lab Sample ID:	D3811-14	Matrix:	SOIL			
Analytical Method:	SW8151A	% Moisture:	8.1	Decanted:		
Sample Wt/Vol:	30.05	Units:	g	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	Herbicide	
Extraction Type:				Injection Volume	1	
GPC Factor :	1.0	PH :	N/A			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005733.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	40.5	U	14.4	40.5	81	ug/Kg
120-36-5	DICHLORPROP	36.5	U	13.4	36.5	73	ug/Kg
94-75-7	2,4-D	40.5	U	35.5	40.5	81	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	36.5	U	11.9	36.5	73	ug/Kg
93-76-5	2,4,5-T	36.5	U	11.1	36.5	73	ug/Kg
94-82-6	2,4-DB	36.5	U	32.1	36.5	73	ug/Kg
88-85-7	DINOSEB	36.5	U	26.6	36.5	73	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	230		12 - 189		46%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)	SDG No.:	D3811
Lab Sample ID:	D3811-15	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	18.8
Sample Wt/Vol:	30 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005734.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	46	U	16.3	46	92	ug/Kg
120-36-5	DICHLORPROP	41.5	U	15.2	41.5	83	ug/Kg
94-75-7	2,4-D	46	U	40.3	46	92	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	41.5	U	13.4	41.5	83	ug/Kg
93-76-5	2,4,5-T	41.5	U	12.6	41.5	83	ug/Kg
94-82-6	2,4-DB	41.5	U	36.4	41.5	83	ug/Kg
88-85-7	DINOSEB	41.5	U	30.1	41.5	83	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	392		12 - 189		78%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-17	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	8.2
Sample Wt/Vol:	30.07	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Herbicide
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005735.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	41	U	14.4	41	82	ug/Kg
120-36-5	DICHLORPROP	36.5	U	13.4	36.5	73	ug/Kg
94-75-7	2,4-D	41	U	35.5	41	82	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	36.5	U	11.9	36.5	73	ug/Kg
93-76-5	2,4,5-T	36.5	U	11.1	36.5	73	ug/Kg
94-82-6	2,4-DB	36.5	U	32.1	36.5	73	ug/Kg
88-85-7	DINOSEB	36.5	U	26.6	36.5	73	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	337		12 - 189		67%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-18	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	17.9
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005736.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	45.5	U	16.1	45.5	91	ug/Kg
120-36-5	DICHLORPROP	40.5	U	15	40.5	81	ug/Kg
94-75-7	2,4-D	45.5	U	39.8	45.5	91	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	40.5	U	13.3	40.5	81	ug/Kg
93-76-5	2,4,5-T	40.5	U	12.5	40.5	81	ug/Kg
94-82-6	2,4-DB	40.5	U	36	40.5	81	ug/Kg
88-85-7	DINOSEB	40.5	U	29.8	40.5	81	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	290		12 - 189		58%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)	SDG No.:	D3811
Lab Sample ID:	D3811-19	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	29.3
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Herbicide
GPC Factor :	1.0	Injection Volume	1
	PH :	N/A	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005737.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	55	U	18.7	55	110	ug/Kg
120-36-5	DICHLORPROP	47.5	U	17.4	47.5	95	ug/Kg
94-75-7	2,4-D	55	U	46.2	55	110	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	47.5	U	15.4	47.5	95	ug/Kg
93-76-5	2,4,5-T	47.5	U	14.5	47.5	95	ug/Kg
94-82-6	2,4-DB	47.5	U	41.8	47.5	95	ug/Kg
88-85-7	DINOSEB	47.5	U	34.6	47.5	95	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	255		12 - 189		51%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-21	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	28.2
Sample Wt/Vol:	30.11 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005738.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	50	U	18.4	50	100	ug/Kg
120-36-5	DICHLORPROP	46.5	U	17.1	46.5	93	ug/Kg
94-75-7	2,4-D	50	U	45.4	50	100	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	46.5	U	15.1	46.5	93	ug/Kg
93-76-5	2,4,5-T	46.5	U	14.2	46.5	93	ug/Kg
94-82-6	2,4-DB	46.5	U	41	46.5	93	ug/Kg
88-85-7	DINOSEB	46.5	U	34	46.5	93	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	401		12 - 189		80%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# QC SUMMARY

## Surrogate Summary

SDG No.: D3811Client: MS AnalyticalAnalytical Method: EPA SW-846 8151

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits	
								Low	High
I.BLK-PE005674.D	PIBLK-PE005674.D	2,4-DCAA	1	500	566.33	113		43	172
		2,4-DCAA	2	500	575.57	115		43	172
I.BLK-PE005718.D	PIBLK-PE005718.D	2,4-DCAA	1	500	562.69	113		43	172
		2,4-DCAA	2	500	610.09	122		43	172
PB65122BL	PB65122BL	2,4-DCAA	1	500	379.82	76		12	189
		2,4-DCAA	2	500	389.9	78		12	189
PB65122BS	PB65122BS	2,4-DCAA	1	500	542.92	109		12	189
		2,4-DCAA	2	500	537.43	107		12	189
D3811-01	SB-2(4-8)	2,4-DCAA	1	500	235.58	47		12	189
		2,4-DCAA	2	500	245.2	49		12	189
D3811-02	SB-5(8-12)	2,4-DCAA	1	500	264.58	53		12	189
		2,4-DCAA	2	500	274.07	55		12	189
D3811-03	SB-9(4-7)	2,4-DCAA	1	500	311.1	62		12	189
		2,4-DCAA	2	500	336.23	67		12	189
D3811-05	SB-11(12-16)	2,4-DCAA	1	500	316.03	63		12	189
		2,4-DCAA	2	500	329.39	66		12	189
D3811-06	SB-15(12-16)	2,4-DCAA	1	500	216.91	43		12	189
		2,4-DCAA	2	500	229.42	46		12	189
D3811-07	SB-18(4-8)	2,4-DCAA	1	500	358.63	72		12	189
		2,4-DCAA	2	500	384.71	77		12	189
D3811-10	SB-21(16-19)	2,4-DCAA	1	500	331	66		12	189
		2,4-DCAA	2	500	364.88	73		12	189
D3811-11	SB-22(12-19)	2,4-DCAA	1	500	377.07	75		12	189
		2,4-DCAA	2	500	387.72	78		12	189
I.BLK-PE005730.D	PIBLK-PE005730.D	2,4-DCAA	1	500	634.47	127		43	172
		2,4-DCAA	2	500	613.9	123		43	172
D3811-13	SB-37(8-10)	2,4-DCAA	1	500	339.49	68		12	189
		2,4-DCAA	2	500	345.6	69		12	189
D3811-14	SB-39(6-8)	2,4-DCAA	1	500	230.24	46		12	189
		2,4-DCAA	2	500	247.99	50		12	189
D3811-15	SB-41(8-11)	2,4-DCAA	1	500	392.42	78		12	189
		2,4-DCAA	2	500	415.35	83		12	189
D3811-17	SB-43(6-8)	2,4-DCAA	1	500	337.46	67		12	189
		2,4-DCAA	2	500	356.56	71		12	189
D3811-18	SB-43(10-12)	2,4-DCAA	1	500	290.2	58		12	189
		2,4-DCAA	2	500	295.37	59		12	189
D3811-19	SB-43(16-20)	2,4-DCAA	1	500	255.71	51		12	189
		2,4-DCAA	2	500	284.98	57		12	189
D3811-21	SB-46(12-16)	2,4-DCAA	1	500	401.67	80		12	189
		2,4-DCAA	2	500	411.97	82		12	189
D3811-19MS	SB-43(16-20)MS	2,4-DCAA	1	500	300.46	60		12	189
		2,4-DCAA	2	500	322.12	64		12	189
D3811-19MSD	SB-43(16-20)MSD	2,4-DCAA	1	500	286.99	57		12	189
		2,4-DCAA	2	500	309.05	62		12	189



Surrogate Summary

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8151

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Recovery	Qual	Limits	
								Low	High
I.BLK-PE005741.D	PIBLK-PE005741.D	2,4-DCAA	1	500	747.17	149		43	172
		2,4-DCAA	2	500	681.96	136		43	172

A  
B  
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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8151

			Sample			Rec	RPD		Limits		
Lab Sample ID:	Parameter	Spike	Result	Result	Rec	Qual	RPD	Qual	Low	High	RPD
Client Sample ID: D3811-19MS	SB-43(16-20)MS										
	DICAMBA	235	0	150	64				34	148	
	DICHLORPROP	235	0	230	98				10	224	
	2,4-D	235	0	150	64				11	196	
	2,4,5-TP(Silvex)	235	0	140	60				13	154	
	2,4,5-T	235	0	140	60				15	147	
	2,4-DB	235	0	140	60				10	155	
	Dinoseb	235	0	160	68				10	161	

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: D3811

Client: MS Analytical

Analytical Method: EPA SW-846 8151

Lab Sample ID:		Parameter	Spike	Sample Result		Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Client Sample ID: D3811-19MSD	SB-43(16-20)MSD											
		DICAMBA	235	0	140	60		6		34	148	20
		DICHLORPROP	235	0	210	89		10		10	224	20
		2,4-D	235	0	150	64		0		11	196	20
		2,4,5-TP(Silvex)	235	0	140	60		0		13	154	20
		2,4,5-T	235	0	140	60		0		15	147	20
		2,4-DB	235	0	140	60		0		10	155	20
		Dinoseb	235	0	150	64		6		10	161	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: D3811  
Client: MS Analytical  
Analytical Method: EPA SW-846 8151

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	RPD		Limits	
							Qual	Low	High	RPD
PB65122BS	DICAMBA	167	180	108				78	123	
	DICHLORPROP	167	180	108				78	126	
	2,4-D	167	190	114				68	134	
	2,4,5-TP(Silvex)	167	180	108				63	134	
	2,4,5-T	167	180	108				59	140	
	2,4-DB	167	180	108				51	141	
	Dinoseb	167	170	102				57	152	

A  
B  
C  
D  
E  
F  
G

## PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB65122BL

Lab Name: CHEMTECHContract: MSAN01Lab Code: CHEM Case No.: D3811SAS No.: D3811 SDG NO.: D3811Lab Sample ID: PB65122BLLab File ID: PE005720.DMatrix: (soil/water) SOILExtraction: (Type) SOXHSulfur Cleanup: (Y/N) NDate Extracted: 08/15/2012Date Analyzed (1): 08/23/2012Date Analyzed (2): 08/23/2012Time Analyzed (1): 12:15Time Analyzed (2): 12:15Instrument ID (1): ECD\_EInstrument ID (2): ECD\_EGC Column (1): ZB-35-HT INFERNO ID: 0.25 (mm)GC Column (2): ZB-XLB-HT INFERNO ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB65122BS	PB65122BS	PE005721.D	08/23/2012	08/23/2012
SB-2 (4-8)	D3811-01	PE005722.D	08/23/2012	08/23/2012
SB-5 (8-12)	D3811-02	PE005723.D	08/23/2012	08/23/2012
SB-9 (4-7)	D3811-03	PE005724.D	08/23/2012	08/23/2012
SB-11 (12-16)	D3811-05	PE005725.D	08/23/2012	08/23/2012
SB-15 (12-16)	D3811-06	PE005726.D	08/23/2012	08/23/2012
SB-18 (4-8)	D3811-07	PE005727.D	08/23/2012	08/23/2012
SB-21 (16-19)	D3811-10	PE005728.D	08/23/2012	08/23/2012
SB-22 (12-19)	D3811-11	PE005729.D	08/23/2012	08/23/2012
SB-37 (8-10)	D3811-13	PE005732.D	08/23/2012	08/23/2012
SB-39 (6-8)	D3811-14	PE005733.D	08/23/2012	08/23/2012
SB-41 (8-11)	D3811-15	PE005734.D	08/23/2012	08/23/2012
SB-43 (6-8)	D3811-17	PE005735.D	08/23/2012	08/23/2012
SB-43 (10-12)	D3811-18	PE005736.D	08/23/2012	08/23/2012
SB-43 (16-20)	D3811-19	PE005737.D	08/23/2012	08/23/2012
SB-46 (12-16)	D3811-21	PE005738.D	08/23/2012	08/23/2012
SB-43 (16-20) MS	D3811-19MS	PE005739.D	08/23/2012	08/23/2012
SB-43 (16-20) MSD	D3811-19MSD	PE005740.D	08/23/2012	08/23/2012

COMMENTS: \_\_\_\_\_

# QC SAMPLE DATA

## Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65122BL	SDG No.:	D3811
Lab Sample ID:	PB65122BL	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	0
Sample Wt/Vol:	30 Units: g	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	10000 uL
Extraction Type:		Test:	Herbicide
GPC Factor :	1.0	Injection Volume	1
PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005720.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	37.5	U	13.3	37.5	75	ug/Kg
120-36-5	DICHLORPROP	33.5	U	12.4	33.5	67	ug/Kg
94-75-7	2,4-D	37.5	U	32.7	37.5	75	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	33.5	U	10.9	33.5	67	ug/Kg
93-76-5	2,4,5-T	33.5	U	10.2	33.5	67	ug/Kg
94-82-6	2,4-DB	33.5	U	29.6	33.5	67	ug/Kg
88-85-7	DINOSEB	33.5	U	24.5	33.5	67	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	379		12 - 189		76%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/22/12
Project:	12MS104 Kensington Heights	Date Received:	08/22/12
Client Sample ID:	PIBLK-PE005674.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PE005674.D	Matrix:	WATER
Analytical Method:	SW8151A	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005674.D	1		08/22/12	PE082212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	1	U	0.163	1	2	ug/L
120-36-5	DICHLORPROP	1	U	0.263	1	2	ug/L
94-75-7	2,4-D	1	U	0.348	1	2	ug/L
93-72-1	2,4,5-TP (SILVEX)	1	U	0.151	1	2	ug/L
93-76-5	2,4,5-T	1	U	0.172	1	2	ug/L
94-82-6	2,4-DB	1	U	0.631	1	2	ug/L
88-85-7	DINOSEB	1	U	0.179	1	2	ug/L
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	566		43 - 172		113%	SPK: 500

U = Not Detected

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LOD = Limit of Detection

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Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/23/12
Project:	12MS104 Kensington Heights	Date Received:	08/23/12
Client Sample ID:	PIBLK-PE005718.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PE005718.D	Matrix:	WATER
Analytical Method:	SW8151A	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	10000 uL
Extraction Type:		Test:	Herbicide
GPC Factor :	1.0	Injection Volume	1
PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005718.D	1		08/23/12	PE082312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	1	U	0.163	1	2	ug/L
120-36-5	DICHLORPROP	1	U	0.263	1	2	ug/L
94-75-7	2,4-D	1	U	0.348	1	2	ug/L
93-72-1	2,4,5-TP (SILVEX)	1	U	0.151	1	2	ug/L
93-76-5	2,4,5-T	1	U	0.172	1	2	ug/L
94-82-6	2,4-DB	1	U	0.631	1	2	ug/L
88-85-7	DINOSEB	1	U	0.179	1	2	ug/L
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	562		43 - 172		113%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/23/12
Project:	12MS104 Kensington Heights	Date Received:	08/23/12
Client Sample ID:	PIBLK-PE005730.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PE005730.D	Matrix:	WATER
Analytical Method:	SW8151A	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005730.D	1		08/23/12	PE082312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	1	U	0.163	1	2	ug/L
120-36-5	DICHLORPROP	1	U	0.263	1	2	ug/L
94-75-7	2,4-D	1	U	0.348	1	2	ug/L
93-72-1	2,4,5-TP (SILVEX)	1	U	0.151	1	2	ug/L
93-76-5	2,4,5-T	1	U	0.172	1	2	ug/L
94-82-6	2,4-DB	1	U	0.631	1	2	ug/L
88-85-7	DINOSEB	1	U	0.179	1	2	ug/L
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	634		43 - 172		127%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/23/12
Project:	12MS104 Kensington Heights	Date Received:	08/23/12
Client Sample ID:	PIBLK-PE005741.D	SDG No.:	D3811
Lab Sample ID:	I.BLK-PE005741.D	Matrix:	WATER
Analytical Method:	SW8151A	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	10000 uL
Extraction Type:		Test:	Herbicide
GPC Factor :	1.0	Injection Volume	1
PH :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005741.D	1		08/23/12	PE082312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	1	U	0.163	1	2	ug/L
120-36-5	DICHLORPROP	1	U	0.263	1	2	ug/L
94-75-7	2,4-D	1	U	0.348	1	2	ug/L
93-72-1	2,4,5-TP (SILVEX)	1	U	0.151	1	2	ug/L
93-76-5	2,4,5-T	1	U	0.172	1	2	ug/L
94-82-6	2,4-DB	1	U	0.631	1	2	ug/L
88-85-7	DINOSEB	1	U	0.179	1	2	ug/L
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	747		43 - 172		149%	SPK: 500

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LOD = Limit of Detection

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B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	
Project:	12MS104 Kensington Heights	Date Received:	
Client Sample ID:	PB65122BS	SDG No.:	D3811
Lab Sample ID:	PB65122BS	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	0
Sample Wt/Vol:	30.02 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005721.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	180		13.3	37.5	75	ug/Kg
120-36-5	DICHLORPROP	180		12.3	33.5	67	ug/Kg
94-75-7	2,4-D	190		32.7	37.5	75	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	180		10.9	33.5	67	ug/Kg
93-76-5	2,4,5-T	180		10.2	33.5	67	ug/Kg
94-82-6	2,4-DB	180		29.6	33.5	67	ug/Kg
88-85-7	DINOSEB	170		24.5	33.5	67	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	542		12 - 189		109%	SPK: 500

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MDL = Method Detection Limit

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P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)MS	SDG No.:	D3811
Lab Sample ID:	D3811-19MS	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	29.3
Sample Wt/Vol:	30.08 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005739.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	150		18.7	55	110	ug/Kg
120-36-5	DICHLORPROP	230	P	17.4	47.5	95	ug/Kg
94-75-7	2,4-D	150		46.1	55	110	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	140		15.4	47.5	95	ug/Kg
93-76-5	2,4,5-T	140		14.5	47.5	95	ug/Kg
94-82-6	2,4-DB	140		41.7	47.5	95	ug/Kg
88-85-7	DINOSEB	160	P	34.5	47.5	95	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	300		12 - 189		60%	SPK: 500

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LOD = Limit of Detection

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Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)MSD	SDG No.:	D3811
Lab Sample ID:	D3811-19MSD	Matrix:	SOIL
Analytical Method:	SW8151A	% Moisture:	29.3
Sample Wt/Vol:	30.1 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Herbicide
Extraction Type:		Injection Volume	1
GPC Factor :	1.0	PH :	N/A

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PE005740.D	1	08/15/12	08/23/12	PB65122

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
1918-00-9	DICAMBA	140		18.7	55	110	ug/Kg
120-36-5	DICHLORPROP	210	P	17.4	47	94	ug/Kg
94-75-7	2,4-D	150		46.1	55	110	ug/Kg
93-72-1	2,4,5-TP (SILVEX)	140		15.4	47	94	ug/Kg
93-76-5	2,4,5-T	140		14.4	47	94	ug/Kg
94-82-6	2,4-DB	140		41.7	47	94	ug/Kg
88-85-7	DINOSEB	150		34.5	47	94	ug/Kg
<b>SURROGATES</b>							
19719-28-9	2,4-DCAA	286		12 - 189		57%	SPK: 500

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates &gt;25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

# CALIBRATION SUMMURY

## RETENTION TIMES OF INITIAL CALIBRATION

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Instrument ID: ECD\_E Calibration Date(s): 08/22/2012 08/22/2012

Calibration Times: 11:33 13:34

GC Column: ZB-35-HT INFERNO ID: 0.25 (mm)

LAB FILE ID: RT 200 = PE005675.D RT 500 = PE005676.D

RT 750 = PE005677.D RT 1000 = PE005678.D RT 1500 = PE005679.D

COMPOUND	RT 200	RT 500	RT 750	RT 1000	RT 1500	MEAN RT	RT WINDOW	
							FROM	TO
DICAMBA	12.25	12.25	12.25	12.25	12.25	12.25	12.05	12.45
2,4-DCAA	12.09	12.08	12.08	12.08	12.08	12.08	11.88	12.28
DICHLORPROP	13.22	13.22	13.21	13.21	13.21	13.21	13.01	13.41
2,4-D	13.85	13.82	13.81	13.81	13.80	13.82	13.62	14.02
2,4,5-TP(Silvex)	14.69	14.68	14.67	14.67	14.67	14.68	14.48	14.88
2,4,5-T	15.35	15.34	15.33	15.33	15.32	15.33	15.13	15.53
2,4-DB	15.75	15.74	15.74	15.74	15.73	15.74	15.54	15.94
Dinoseb	15.95	15.94	15.94	15.93	15.92	15.94	15.74	16.14



# RETENTION TIMES OF INITIAL CALIBRATION

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Instrument ID: ECD\_E Calibration Date(s): 08/22/2012 08/22/2012

Calibration Times: 11:33 13:34

GC Column: ZB-XLB-HT INFERNO ID: 0.25 (mm)

LAB FILE ID:	RT 200 = <u>PE005675.D</u>	RT 500 = <u>PE005676.D</u>
RT 750 = <u>PE005677.D</u>	RT 1000 = <u>PE005678.D</u>	RT 1500 = <u>PE005679.D</u>

COMPOUND	RT 200	RT 500	RT 750	RT 1000	RT 1500	MEAN RT	RT WINDOW	
							FROM	TO
DICAMBA	12.25	12.24	12.24	12.24	12.24	12.24	12.04	12.44
2,4-DCAA	12.13	12.12	12.12	12.12	12.12	12.12	11.92	12.32
DICHLORPROP	13.31	13.30	13.30	13.30	13.30	13.30	13.10	13.50
2,4-D	13.74	13.71	13.70	13.70	13.69	13.71	13.51	13.91
2,4,5-TP(Silvex)	14.87	14.86	14.85	14.85	14.84	14.86	14.66	15.06
2,4,5-T	15.32	15.31	15.30	15.30	15.29	15.30	15.10	15.50
2,4-DB	16.10	16.09	16.09	16.09	16.08	16.09	15.89	16.29
Dinoseb	15.98	15.98	15.97	15.97	15.96	15.97	15.77	16.17

## CALIBRATION FACTOR OF INITIAL CALIBRATION

**Contract:** MSAN01  
**Lab Code:** CHEM **Case No.:** D3811 **SAS No.:** D3811 **SDG NO.:** D3811  
**Instrument ID:** ECD\_E **Calibration Date(s):** 08/22/2012 08/22/2012  
**Calibration Times:** 11:33 13:34  
**GC Column:** ZB-35-HT INFERNO **ID:** 0.25 (mm)

<b>LAB FILE ID:</b>		<b>CF 200 =</b> <u>PE005675.D</u>		<b>CF 500 =</b> <u>PE005676.D</u>			
<b>CF 750 =</b> <u>PE005677.D</u>		<b>CF 1000 =</b> <u>PE005678.D</u>		<b>CF 1500 =</b> <u>PE005679.D</u>			
COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
DICAMBA	3913795	3616068	3672295	3317699	3103525	3524676	9
2,4-DCAA	1070445	977524	999853	895821	836585	956046	10
DICHLORPROP	1204475	1161046	1207787	1088292	995940	1131508	8
2,4-D	1407785	1408806	1464967	1313845	1246293	1368339	6
2,4,5-TP(Silvex)	7061145	6566348	6723785	6080112	5648435	6415965	9
2,4,5-T	5979850	5938362	6211925	5655306	5324405	5821970	6
2,4-DB	5438175	5045506	5115037	4672125	4374155	4929000	8
Dinoseb	678535	744470	801208	778067	754099	751276	6

## CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Instrument ID: ECD\_E Calibration Date(s): 08/22/2012 08/22/2012

Calibration Times: 11:33 13:34

GC Column: ZB-XLB-HT INFERNO ID: 0.25 (mm)

LAB FILE ID:		CF 200 =	<u>PE005675.D</u>	CF 500 =	<u>PE005676.D</u>		
CF 750 =		<u>PE005677.D</u>	CF 1000 =	<u>PE005678.D</u>	CF 1500 =	<u>PE005679.D</u>	
COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
DICAMBA	3227240	2980668	3028235	2752522	2608101	2919353	8
2,4-DCAA	857460	782126	794537	716225	678267	765723	9
DICHLORPROP	1116510	1020782	1026551	927952	863402	991039	10
2,4-D	968995	1152922	1197280	1085531	1040581	1089062	8
2,4,5-TP(Silvex)	6035630	5666470	5616528	5320462	4862711	5500360	8
2,4,5-T	5553430	5910026	6059688	5425128	5106157	5610886	7
2,4-DB	3907655	3688396	3818985	3512311	3357393	3656948	6
Dinoseb	545585	545272	631184	598439	614567	587009	7

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/23/2012 Initial Calibration Date(s): 08/22/2012 08/22/2012

Continuing Calib Time: 11:28 Initial Calibration Time(s): 11:33 13:34

GC Column: ZB-35-HT INFERNO ID: 0.25 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
DICAMBA	12.25	12.25	12.05	12.45	0.00
2,4-DCAA	12.08	12.08	11.88	12.28	0.00
DICHLORPROP	13.22	13.21	13.01	13.41	-0.01
2,4-D	13.80	13.82	13.62	14.02	0.02
2,4,5-TP(Silvex)	14.67	14.68	14.48	14.88	0.01
2,4,5-T	15.32	15.33	15.13	15.53	0.01
2,4-DB	15.73	15.74	15.54	15.94	0.01
Dinoseb	15.92	15.94	15.74	16.14	0.02

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/23/2012 Initial Calibration Date(s): 08/22/2012 08/22/2012

Continuing Calib Time: 11:28 Initial Calibration Time(s): 11:33 13:34

GC Column: ZB-XLB-HT INFERNO ID: 0.25 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
DICAMBA	12.24	12.24	12.04	12.44	0.00
2,4-DCAA	12.12	12.12	11.92	12.32	0.00
DICHLORPROP	13.30	13.30	13.10	13.50	0.00
2,4-D	13.70	13.71	13.51	13.91	0.02
2,4,5-TP(Silvex)	14.85	14.86	14.66	15.06	0.01
2,4,5-T	15.29	15.30	15.10	15.50	0.01
2,4-DB	16.09	16.09	15.89	16.29	0.00
Dinoseb	15.95	15.97	15.77	16.17	0.02

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: ZB-35-HT INFERNO ID: 0.25 (mm) Initi. Calib. Date(s): 08/22/2012 08/22/2012

Client Sample No.: CCAL01 Date Analyzed: 08/23/2012

Lab Sample No.: HSTDCCC1000 Data File : PE005719.D Time Analyzed: 11:28

COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
DICAMBA	12.250	12.050	12.450	0.946	1.000	5.4
DICHLORPROP	13.216	13.010	13.410	0.953	1.000	4.7
2,4-D	13.804	13.620	14.020	0.988	1.000	1.2
2,4,5-TP(Silvex)	14.671	14.480	14.880	0.946	1.000	5.4
2,4,5-T	15.320	15.130	15.530	0.967	1.000	3.3
2,4-DB	15.734	15.540	15.940	0.916	1.000	8.4
Dinoseb	15.916	15.740	16.140	1.054	1.000	5.4
2,4-DCAA	12.081	11.880	12.280	0.953	1.000	4.7

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: ZB-XLB-HT INFERNO ID: 0.25 (mm) Initi. Calib. Date(s): 08/22/2012 08/22/2012

Client Sample No.: CCAL01 Date Analyzed: 08/23/2012

Lab Sample No.: HSTDCCC1000 Data File : PE005719.D Time Analyzed: 11:28

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
DICAMBA	12.243	12.040	12.440	0.947	1.000	5.3
DICHLORPROP	13.303	13.100	13.500	0.935	1.000	6.5
2,4-D	13.695	13.510	13.910	1.003	1.000	0.3
2,4,5-TP(Silvex)	14.848	14.660	15.060	0.945	1.000	5.5
2,4,5-T	15.293	15.100	15.500	0.927	1.000	7.3
2,4-DB	16.086	15.890	16.290	0.962	1.000	3.8
Dinoseb	15.953	15.770	16.170	1.083	1.000	8.3
2,4-DCAA	12.121	11.920	12.320	0.948	1.000	5.2

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/23/2012 Initial Calibration Date(s): 08/22/2012 08/22/2012

Continuing Calib Time: 18:02 Initial Calibration Time(s): 11:33 13:34

GC Column: ZB-35-HT INFERNO ID: 0.25 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
DICAMBA	12.24	12.25	12.05	12.45	0.01
2,4-DCAA	12.08	12.08	11.88	12.28	0.00
DICHLORPROP	13.21	13.21	13.01	13.41	0.00
2,4-D	13.81	13.82	13.62	14.02	0.01
2,4,5-TP(Silvex)	14.67	14.68	14.48	14.88	0.01
2,4,5-T	15.33	15.33	15.13	15.53	0.00
2,4-DB	15.74	15.74	15.54	15.94	0.01
Dinoseb	15.94	15.94	15.74	16.14	0.00



# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/23/2012 Initial Calibration Date(s): 08/22/2012 08/22/2012

Continuing Calib Time: 18:02 Initial Calibration Time(s): 11:33 13:34

GC Column: ZB-XLB-HT INFERNO ID: 0.25 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
DICAMBA	12.24	12.24	12.04	12.44	0.00
2,4-DCAA	12.12	12.12	11.92	12.32	0.00
DICHLORPROP	13.30	13.30	13.10	13.50	0.00
2,4-D	13.70	13.71	13.51	13.91	0.01
2,4,5-TP(Silvex)	14.85	14.86	14.66	15.06	0.01
2,4,5-T	15.30	15.30	15.10	15.50	0.00
2,4-DB	16.09	16.09	15.89	16.29	0.00
Dinoseb	15.98	15.97	15.77	16.17	-0.01

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: ZB-35-HT INFERNO ID: 0.25 (mm) Initi. Calib. Date(s): 08/22/2012 08/22/2012

Client Sample No.: CCAL02 Date Analyzed: 08/23/2012

Lab Sample No.: HSTDCCC1000 Data File : PE005731.D Time Analyzed: 18:02

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
DICAMBA	12.244	12.050	12.450	0.981	1.000	1.9
DICHLORPROP	13.210	13.010	13.410	1.021	1.000	2.1
2,4-D	13.805	13.620	14.020	1.023	1.000	2.3
2,4,5-TP(Silvex)	14.672	14.480	14.880	0.989	1.000	1.1
2,4,5-T	15.326	15.130	15.530	1.024	1.000	2.4
2,4-DB	15.735	15.540	15.940	1.004	1.000	0.4
Dinoseb	15.941	15.740	16.140	1.046	1.000	4.6
2,4-DCAA	12.076	11.880	12.280	1.010	1.000	1.0

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: ZB-XLB-HT INFERNO ID: 0.25 (mm) Initi. Calib. Date(s): 08/22/2012 08/22/2012

Client Sample No.: CCAL02 Date Analyzed: 08/23/2012

Lab Sample No.: HSTDCCC1000 Data File : PE005731.D Time Analyzed: 18:02

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
DICAMBA	12.237	12.040	12.440	0.975	1.000	2.5
DICHLORPROP	13.298	13.100	13.500	0.974	1.000	2.6
2,4-D	13.699	13.510	13.910	1.032	1.000	3.2
2,4,5-TP(Silvex)	14.852	14.660	15.060	0.973	1.000	2.7
2,4,5-T	15.300	15.100	15.500	1.057	1.000	5.7
2,4-DB	16.088	15.890	16.290	1.002	1.000	0.2
Dinoseb	15.982	15.770	16.170	1.002	1.000	0.2
2,4-DCAA	12.116	11.920	12.320	0.977	1.000	2.3

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/23/2012 Initial Calibration Date(s): 08/22/2012 08/22/2012

Continuing Calib Time: 23:43 Initial Calibration Time(s): 11:33 13:34

GC Column: ZB-35-HT INFERNO ID: 0.25 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
DICAMBA	12.24	12.25	12.05	12.45	0.01
2,4-DCAA	12.07	12.08	11.88	12.28	0.01
DICHLORPROP	13.21	13.21	13.01	13.41	0.00
2,4-D	13.81	13.82	13.62	14.02	0.01
2,4,5-TP(Silvex)	14.67	14.68	14.48	14.88	0.01
2,4,5-T	15.33	15.33	15.13	15.53	0.00
2,4-DB	15.74	15.74	15.54	15.94	0.01
Dinoseb	15.95	15.94	15.74	16.14	-0.01

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

Continuing Calib Date: 08/23/2012 Initial Calibration Date(s): 08/22/2012 08/22/2012

Continuing Calib Time: 23:43 Initial Calibration Time(s): 11:33 13:34

GC Column: ZB-XLB-HT INFERNO ID: 0.25 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
DICAMBA	12.24	12.24	12.04	12.44	0.00
2,4-DCAA	12.12	12.12	11.92	12.32	0.01
DICHLORPROP	13.30	13.30	13.10	13.50	0.00
2,4-D	13.70	13.71	13.51	13.91	0.01
2,4,5-TP(Silvex)	14.85	14.86	14.66	15.06	0.01
2,4,5-T	15.30	15.30	15.10	15.50	0.00
2,4-DB	16.09	16.09	15.89	16.29	0.00
Dinoseb	15.99	15.97	15.77	16.17	-0.02

## CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: ZB-35-HT INFERNO ID: 0.25 (mm) Initi. Calib. Date(s): 08/22/2012 08/22/2012

Client Sample No.: CCAL03 Date Analyzed: 08/23/2012

Lab Sample No.: HSTDCCC1000 Data File : PE005742.D Time Analyzed: 23:43

COMPOUND	RT	RT WINDOW		CALC	NOM	%D
		FROM	TO	AMOUNT(ng)	AMOUNT(ng)	
DICAMBA	12.242	12.050	12.450	0.985	1.000	1.5
DICHLORPROP	13.208	13.010	13.410	1.020	1.000	2.0
2,4-D	13.807	13.620	14.020	1.031	1.000	3.1
2,4,5-TP(Silvex)	14.672	14.480	14.880	0.994	1.000	0.6
2,4,5-T	15.327	15.130	15.530	1.026	1.000	2.6
2,4-DB	15.735	15.540	15.940	1.037	1.000	3.7
Dinoseb	15.951	15.740	16.140	1.009	1.000	0.9
2,4-DCAA	12.074	11.880	12.280	1.003	1.000	0.3

# CALIBRATION VERIFICATION SUMMARY

Contract: MSAN01

Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG NO.: D3811

GC Column: ZB-XLB-HT INFERNO ID: 0.25 (mm) Initi. Calib. Date(s): 08/22/2012 08/22/2012

Client Sample No.: CCAL03 Date Analyzed: 08/23/2012

Lab Sample No.: HSTDCCC1000 Data File : PE005742.D Time Analyzed: 23:43

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
DICAMBA	12.236	12.040	12.440	0.984	1.000	1.6
DICHLORPROP	13.296	13.100	13.500	0.988	1.000	1.2
2,4-D	13.699	13.510	13.910	1.032	1.000	3.2
2,4,5-TP(Silvex)	14.853	14.660	15.060	1.007	1.000	0.7
2,4,5-T	15.301	15.100	15.500	1.101	1.000	10.1
2,4-DB	16.089	15.890	16.290	1.030	1.000	3.0
Dinoseb	15.993	15.770	16.170	0.920	1.000	8.0
2,4-DCAA	12.115	11.920	12.320	0.984	1.000	1.6

# Analytical Sequence

Client: MS Analytical

SDG No.: D3811

Project: 12MS104 Kensington Heights

Instrument ID: ECD\_E

GC Column: ZB-35-HT INFERNO

ID: 0.25 (mm)

Inst. Calib. Date(s): 08/22/2012

08/22/2012

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES,  
AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCAA RT #	RT #
PIBLK01	I.BLK01	08/22/2012	11:02	PE005674.D	12.12	0.00
HSTDICC200	HSTDICC200	08/22/2012	11:33	PE005675.D	12.09	0.00
HSTDICC500	HSTDICC500	08/22/2012	12:03	PE005676.D	12.08	0.00
HSTDICC750	HSTDICC750	08/22/2012	12:33	PE005677.D	12.08	0.00
HSTDICC1000	HSTDICC1000	08/22/2012	13:03	PE005678.D	12.08	0.00
HSTDICC1500	HSTDICC1500	08/22/2012	13:34	PE005679.D	12.08	0.00
PIBLK02	I.BLK02	08/23/2012	10:58	PE005718.D	12.11	0.00
CCAL01	HSTDCCC1000	08/23/2012	11:28	PE005719.D	12.08	0.00
PB65122BL	PB65122BL	08/23/2012	12:15	PE005720.D	12.12	0.00
PB65122BS	PB65122BS	08/23/2012	12:45	PE005721.D	12.09	0.00
SB-2(4-8)	D3811-01	08/23/2012	13:16	PE005722.D	12.12	0.00
SB-5(8-12)	D3811-02	08/23/2012	13:46	PE005723.D	12.10	0.00
SB-9(4-7)	D3811-03	08/23/2012	14:17	PE005724.D	12.10	0.00
SB-11(12-16)	D3811-05	08/23/2012	14:47	PE005725.D	12.12	0.00
SB-15(12-16)	D3811-06	08/23/2012	15:18	PE005726.D	12.12	0.00
SB-18(4-8)	D3811-07	08/23/2012	15:49	PE005727.D	12.11	0.00
SB-21(16-19)	D3811-10	08/23/2012	16:29	PE005728.D	12.11	0.00
SB-22(12-19)	D3811-11	08/23/2012	17:00	PE005729.D	12.11	0.00
PIBLK03	I.BLK03	08/23/2012	17:31	PE005730.D	12.21	0.00
CCAL02	HSTDCCC1000	08/23/2012	18:02	PE005731.D	12.08	0.00
SB-37(8-10)	D3811-13	08/23/2012	18:33	PE005732.D	12.11	0.00
SB-39(6-8)	D3811-14	08/23/2012	19:04	PE005733.D	12.11	0.00
SB-41(8-11)	D3811-15	08/23/2012	19:35	PE005734.D	12.10	0.00
SB-43(6-8)	D3811-17	08/23/2012	20:06	PE005735.D	12.09	0.00
SB-43(10-12)	D3811-18	08/23/2012	20:37	PE005736.D	12.09	0.00
SB-43(16-20)	D3811-19	08/23/2012	21:08	PE005737.D	12.11	0.00
SB-46(12-16)	D3811-21	08/23/2012	21:39	PE005738.D	12.10	0.00
SB-43(16-20)MS	D3811-19MS	08/23/2012	22:10	PE005739.D	12.08	0.00
SB-43(16-20)MSD	D3811-19MSD	08/23/2012	22:41	PE005740.D	12.08	0.00
PIBLK04	I.BLK04	08/23/2012	23:12	PE005741.D	12.22	0.00
CCAL03	HSTDCCC1000	08/23/2012	23:43	PE005742.D	12.07	0.00



# Analytical Sequence

Client: MS Analytical

SDG No.: D3811

Project: 12MS104 Kensington Heights

Instrument ID: ECD\_E

GC Column: ZB-XLB-HT INFERNO

ID: 0.25 (mm)

Inst. Calib. Date(s): 08/22/2012

08/22/2012

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES,  
AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCAA RT #	RT #
PIBLK01	I.BLK01	08/22/2012	11:02	PE005674.D	12.16	0.00
HSTDICC200	HSTDICC200	08/22/2012	11:33	PE005675.D	12.13	0.00
HSTDICC500	HSTDICC500	08/22/2012	12:03	PE005676.D	12.12	0.00
HSTDICC750	HSTDICC750	08/22/2012	12:33	PE005677.D	12.12	0.00
HSTDICC1000	HSTDICC1000	08/22/2012	13:03	PE005678.D	12.12	0.00
HSTDICC1500	HSTDICC1500	08/22/2012	13:34	PE005679.D	12.12	0.00
PIBLK02	I.BLK02	08/23/2012	10:58	PE005718.D	12.16	0.00
CCAL01	HSTDCCC1000	08/23/2012	11:28	PE005719.D	12.12	0.00
PB65122BL	PB65122BL	08/23/2012	12:15	PE005720.D	12.16	0.00
PB65122BS	PB65122BS	08/23/2012	12:45	PE005721.D	12.13	0.00
SB-2(4-8)	D3811-01	08/23/2012	13:16	PE005722.D	12.16	0.00
SB-5(8-12)	D3811-02	08/23/2012	13:46	PE005723.D	12.15	0.00
SB-9(4-7)	D3811-03	08/23/2012	14:17	PE005724.D	12.14	0.00
SB-11(12-16)	D3811-05	08/23/2012	14:47	PE005725.D	12.16	0.00
SB-15(12-16)	D3811-06	08/23/2012	15:18	PE005726.D	12.17	0.00
SB-18(4-8)	D3811-07	08/23/2012	15:49	PE005727.D	12.15	0.00
SB-21(16-19)	D3811-10	08/23/2012	16:29	PE005728.D	12.16	0.00
SB-22(12-19)	D3811-11	08/23/2012	17:00	PE005729.D	12.16	0.00
PIBLK03	I.BLK03	08/23/2012	17:31	PE005730.D	12.27	0.00
CCAL02	HSTDCCC1000	08/23/2012	18:02	PE005731.D	12.12	0.00
SB-37(8-10)	D3811-13	08/23/2012	18:33	PE005732.D	12.15	0.00
SB-39(6-8)	D3811-14	08/23/2012	19:04	PE005733.D	12.16	0.00
SB-41(8-11)	D3811-15	08/23/2012	19:35	PE005734.D	12.15	0.00
SB-43(6-8)	D3811-17	08/23/2012	20:06	PE005735.D	12.13	0.00
SB-43(10-12)	D3811-18	08/23/2012	20:37	PE005736.D	12.14	0.00
SB-43(16-20)	D3811-19	08/23/2012	21:08	PE005737.D	12.16	0.00
SB-46(12-16)	D3811-21	08/23/2012	21:39	PE005738.D	12.15	0.00
SB-43(16-20)MS	D3811-19MS	08/23/2012	22:10	PE005739.D	12.12	0.00
SB-43(16-20)MSD	D3811-19MSD	08/23/2012	22:41	PE005740.D	12.12	0.00
PIBLK04	I.BLK04	08/23/2012	23:12	PE005741.D	12.28	0.00
CCAL03	HSTDCCC1000	08/23/2012	23:43	PE005742.D	12.12	0.00

# LAB CHRONICLE

<b>OrderID:</b>	D3811	<b>OrderDate:</b>	8/15/2012 11:38:54 AM
<b>Client:</b>	MS Analytical	<b>Project:</b>	12MS104 Kensington Heights
<b>Contact:</b>	Bryan Mayback	<b>Location:</b>	I23

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
<b>D3811-01</b>	<b>SB-2(4-8)</b>	<b>SOIL</b>			<b>08/07/12</b>			<b>08/15/12</b>
			Mercury	7471A		08/16/12	08/17/12	
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
<b>D3811-02</b>	<b>SB-5(8-12)</b>	<b>SOIL</b>			<b>08/07/12</b>			<b>08/15/12</b>
			Mercury	7471A		08/16/12	08/17/12	
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
<b>D3811-03</b>	<b>SB-9(4-7)</b>	<b>SOIL</b>			<b>08/07/12</b>			<b>08/15/12</b>
			Mercury	7471A		08/16/12	08/17/12	
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
<b>D3811-04</b>	<b>SB-10(8-12)</b>	<b>SOIL</b>			<b>08/07/12</b>			<b>08/15/12</b>
			Mercury	7471A		08/16/12	08/17/12	
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
<b>D3811-05</b>	<b>SB-11(12-16)</b>	<b>SOIL</b>			<b>08/07/12</b>			<b>08/15/12</b>
			Mercury	7471A		08/16/12	08/17/12	
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
<b>D3811-06</b>	<b>SB-15(12-16)</b>	<b>SOIL</b>			<b>08/08/12</b>			<b>08/15/12</b>
			Mercury	7471A		08/16/12	08/17/12	
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
<b>D3811-07</b>	<b>SB-18(4-8)</b>	<b>SOIL</b>			<b>08/08/12</b>			<b>08/15/12</b>
			Mercury	7471A		08/16/12	08/17/12	
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
<b>D3811-08</b>	<b>SB-19(12-18)</b>	<b>SOIL</b>			<b>08/08/12</b>			<b>08/15/12</b>
			Mercury	7471A		08/16/12	08/17/12	
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
<b>D3811-09</b>	<b>SB-21(12-16)</b>	<b>SOIL</b>			<b>08/09/12</b>			<b>08/15/12</b>
			Mercury	7471A		08/16/12	08/17/12	

# LAB CHRONICLE

D3811-09DL	SB-21(12-16)DL	SOIL	Metals ICP-TAL	6010B	08/09/12	08/16/12	08/16/12	08/15/12
			Metals ICP-TAL	6010B		08/16/12	08/17/12	
D3811-10	SB-21(16-19)	SOIL	Mercury	7471A	08/09/12	08/16/12	08/17/12	08/15/12
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
D3811-11	SB-22(12-19)	SOIL	Mercury	7471A	08/09/12	08/16/12	08/17/12	08/15/12
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
D3811-12	SB-27(8-12)	SOIL	Mercury	7471A	08/09/12	08/16/12	08/17/12	08/15/12
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
D3811-13	SB-37(8-10)	SOIL	Mercury	7471A	08/10/12	08/16/12	08/17/12	08/15/12
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
D3811-14	SB-39(6-8)	SOIL	Mercury	7471A	08/10/12	08/16/12	08/17/12	08/15/12
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
D3811-15	SB-41(8-11)	SOIL	Mercury	7471A	08/10/12	08/16/12	08/17/12	08/15/12
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
D3811-16	SB-42(14-16)	SOIL	Mercury	7471A	08/13/12	08/16/12	08/17/12	08/15/12
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
D3811-17	SB-43(6-8)	SOIL	Mercury	7471A	08/13/12	08/16/12	08/17/12	08/15/12
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
D3811-18	SB-43(10-12)	SOIL	Mercury	7471A	08/13/12	08/16/12	08/17/12	08/15/12
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
D3811-19	SB-43(16-20)	SOIL	Mercury	7471A	08/13/12	08/16/12	08/17/12	08/15/12
			Metals ICP-TAL	6010B		08/16/12	08/16/12	



LAB CHRONICLE

D3811-20	SB-45(10-12)	SOIL	Metals ICP-TAL	6010B	08/13/12	08/16/12	08/16/12	08/15/12
			Mercury	7471A		08/16/12	08/17/12	
			Metals ICP-TAL	6010B		08/16/12	08/16/12	
D3811-21	SB-46(12-16)	SOIL	Mercury	7471A	08/13/12	08/16/12	08/17/12	08/15/12
			Metals ICP-TAL	6010B		08/16/12	08/16/12	

### Hit Summary Sheet SW-846

SDG No.: D3811

Order ID: D3811

Client: MS Analytical

Project ID: 12MS104 Kensington Heights

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
<b>Client ID : SB-2(4-8)</b>									
D3811-01	SB-2(4-8)	SOIL	Aluminum	6,300.000		0.693	2.06	4.120	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Antimony	1.170	J	0.462	1.03	2.060	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Arsenic	10.200		0.272	0.4125	0.825	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Barium	84.400		0.330	2.06	4.120	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Beryllium	0.207	J	0.049	0.1235	0.247	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Cadmium	0.432		0.049	0.1235	0.247	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Calcium	5,970.000		0.883	41.25	82.5	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Chromium	8.950		0.107	0.206	0.412	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Cobalt	6.540		0.470	0.62	1.240	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Copper	40.200		0.264	0.4125	0.825	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Iron	21,600.000		1.100	2.06	4.120	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Lead	1,040.000		0.099	0.2475	0.495	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Magnesium	921.000		3.780	41.25	82.5	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Manganese	379.000		0.157	0.4125	0.825	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Mercury	1.540	D	0.021	0.0515	0.103	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Nickel	13.700		0.379	0.825	1.650	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Potassium	488.000		2.890	41.25	82.5	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Silver	0.561		0.124	0.206	0.412	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Sodium	301.000		2.080	41.25	82.5	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Thallium	0.562	J	0.223	0.825	1.650	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Vanadium	18.900		0.487	0.825	1.650	mg/Kg
D3811-01	SB-2(4-8)	SOIL	Zinc	97.100		0.577	0.825	1.650	mg/Kg
<b>Client ID : SB-5(18-12)</b>									
D3811-02	SB-5(18-12)	SOIL	Aluminum	4,290.000		0.743	2.21	4.420	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Antimony	1.200	J	0.496	1.105	2.210	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Arsenic	9.000		0.292	0.4425	0.885	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Barium	190.000		0.354	2.21	4.420	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Beryllium	0.283		0.053	0.1325	0.265	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Cadmium	1.310		0.053	0.1325	0.265	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Calcium	87,400.000		0.947	44.25	88.5	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Chromium	10.300		0.115	0.221	0.442	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Cobalt	5.590		0.504	0.665	1.330	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Copper	46.700		0.283	0.4425	0.885	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Iron	9,790.000		1.180	2.21	4.420	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Lead	628.000		0.106	0.2655	0.531	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Magnesium	2,580.000		4.050	44.25	88.5	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Manganese	143.000		0.168	0.4425	0.885	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Mercury	0.132		0.002	0.006	0.012	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Nickel	39.800		0.407	0.885	1.770	mg/Kg

Hit Summary Sheet  
SW-846

SDG No.: D3811

Order ID: D3811

Client: MS Analytical

Project ID: 12MS104 Kensington Heights

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-02	SB-5(18-12)	SOIL	Potassium	576.000		3.100	44.25	88.5	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Silver	0.213	J	0.133	0.221	0.442	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Sodium	83.600	J	2.230	44.25	88.5	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Vanadium	15.400		0.522	0.885	1.770	mg/Kg
D3811-02	SB-5(18-12)	SOIL	Zinc	273.000		0.619	0.885	1.770	mg/Kg
Client ID : SB-9(4-7)									
D3811-03	SB-9(4-7)	SOIL	Aluminum	4,550.000		0.705	2.1	4.200	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Arsenic	4.950		0.277	0.4195	0.839	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Barium	36.500		0.336	2.1	4.200	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Beryllium	0.067	J	0.050	0.126	0.252	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Cadmium	0.345		0.050	0.126	0.252	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Calcium	18,900.000		0.898	41.95	83.9	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Chromium	8.680		0.109	0.21	0.420	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Cobalt	8.470		0.478	0.63	1.260	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Copper	19.000		0.269	0.4195	0.839	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Iron	26,400.000		1.120	2.1	4.200	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Lead	22.700		0.101	0.252	0.504	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Magnesium	10,700.000		3.840	41.95	83.9	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Manganese	416.000		0.159	0.4195	0.839	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Mercury	0.111		0.002	0.0055	0.011	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Nickel	11.200		0.386	0.84	1.680	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Potassium	774.000		2.940	41.95	83.9	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Silver	0.592		0.126	0.21	0.420	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Thallium	1.390	J	0.227	0.84	1.680	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Vanadium	8.980		0.495	0.84	1.680	mg/Kg
D3811-03	SB-9(4-7)	SOIL	Zinc	33.000		0.588	0.84	1.680	mg/Kg
Client ID : SB-10(8-12)									
D3811-04	SB-10(8-12)	SOIL	Aluminum	2,730.000		0.812	2.415	4.830	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Antimony	4.450		0.542	1.21	2.420	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Arsenic	13.300		0.319	0.4835	0.967	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Barium	252.000		0.387	2.415	4.830	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Beryllium	0.126	J	0.058	0.145	0.290	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Cadmium	0.948		0.058	0.145	0.290	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Calcium	20,400.000		1.030	48.35	96.7	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Chromium	7.850		0.126	0.2415	0.483	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Cobalt	4.910		0.551	0.725	1.450	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Copper	120.000		0.309	0.4835	0.967	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Iron	24,900.000		1.290	2.415	4.830	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Lead	263.000		0.116	0.29	0.580	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Magnesium	884.000		4.430	48.35	96.7	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Manganese	159.000		0.184	0.4835	0.967	mg/Kg

Hit Summary Sheet  
SW-846SDG No.: D3811  
Client: MS AnalyticalOrder ID: D3811  
Project ID: 12MS104 Kensington Heights

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-04	SB-10(8-12)	SOIL	Mercury	0.150		0.002	0.006	0.012	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Nickel	12.200		0.445	0.965	1.930	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Potassium	397.000		3.380	48.35	96.7	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Selenium	1.780		0.396	0.4835	0.967	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Silver	0.715		0.145	0.2415	0.483	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Sodium	4,930.000		2.440	48.35	96.7	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Thallium	0.804	J	0.261	0.965	1.930	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Vanadium	14.900		0.571	0.965	1.930	mg/Kg
D3811-04	SB-10(8-12)	SOIL	Zinc	341.000		0.677	0.965	1.930	mg/Kg

## Client ID : SB-11(12-16)

D3811-05	SB-11(12-16)	SOIL	Aluminum	3,370.000		0.824	2.455	4.910	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Arsenic	13.700		0.324	0.4905	0.981	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Barium	62.800		0.392	2.455	4.910	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Beryllium	0.146	J	0.059	0.147	0.294	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Cadmium	0.480		0.059	0.147	0.294	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Calcium	10,500.000		1.050	49.05	98.1	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Chromium	7.050		0.128	0.2455	0.491	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Cobalt	6.260		0.559	0.735	1.470	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Copper	51.500		0.314	0.4905	0.981	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Iron	37,300.000		1.300	2.455	4.910	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Lead	59.000		0.118	0.2945	0.589	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Magnesium	1,280.000		4.490	49.05	98.1	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Manganese	255.000		0.186	0.4905	0.981	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Mercury	0.130		0.002	0.006	0.012	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Nickel	11.000		0.451	0.98	1.960	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Potassium	526.000		3.430	49.05	98.1	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Silver	0.808		0.147	0.2455	0.491	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Sodium	13.700	J	2.470	49.05	98.1	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Thallium	1.520	J	0.265	0.98	1.960	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Vanadium	19.800		0.579	0.98	1.960	mg/Kg
D3811-05	SB-11(12-16)	SOIL	Zinc	101.000		0.687	0.98	1.960	mg/Kg

## Client ID : SB-15(12-16)

D3811-06	SB-15(12-16)	SOIL	Aluminum	5,640.000		0.844	2.51	5.020	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Antimony	2.490	J	0.563	1.255	2.510	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Arsenic	15.400		0.332	0.5	1.000	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Barium	128.000		0.402	2.51	5.020	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Beryllium	0.180	J	0.060	0.1505	0.301	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Cadmium	0.878		0.060	0.1505	0.301	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Calcium	5,340.000		1.080	50	100	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Chromium	13.000		0.131	0.251	0.502	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Cobalt	7.830		0.573	0.755	1.510	mg/Kg

# Hit Summary Sheet SW-846

SDG No.: D3811

Order ID: D3811

Client: MS Analytical

Project ID: 12MS104 Kensington Heights

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-06	SB-15(12-16)	SOIL	Copper	42.900		0.322	0.5	1.000	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Iron	44,400.000		1.340	2.51	5.020	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Lead	236.000		0.121	0.3015	0.603	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Magnesium	954.000		4.600	50	100	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Manganese	190.000		0.191	0.5	1.000	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Mercury	0.054		0.003	0.0065	0.013	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Nickel	15.200		0.462	1.005	2.010	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Potassium	724.000		3.520	50	100	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Silver	2.450		0.151	0.251	0.502	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Thallium	1.810	J	0.271	1.005	2.010	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Vanadium	26.000		0.593	1.005	2.010	mg/Kg
D3811-06	SB-15(12-16)	SOIL	Zinc	308.000		0.703	1.005	2.010	mg/Kg

## Client ID : SB-18(4-8)

D3811-07	SB-18(4-8)	SOIL	Aluminum	4,890.000		0.706	2.1	4.200	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Antimony	1.960	J	0.471	1.05	2.100	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Arsenic	7.350		0.277	0.42	0.840	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Barium	97.100		0.336	2.1	4.200	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Cadmium	0.849		0.050	0.126	0.252	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Calcium	14,800.000		0.899	42	84.0	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Chromium	25.400		0.109	0.21	0.420	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Cobalt	6.210		0.479	0.63	1.260	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Copper	54.000		0.269	0.42	0.840	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Iron	61,200.000		1.120	2.1	4.200	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Lead	96.100		0.101	0.252	0.504	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Magnesium	3,580.000		3.850	42	84.0	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Manganese	793.000		0.160	0.42	0.840	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Mercury	0.022		0.002	0.0055	0.011	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Nickel	17.200		0.387	0.84	1.680	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Potassium	733.000		2.940	42	84.0	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Silver	1.330		0.126	0.21	0.420	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Thallium	3.280		0.227	0.84	1.680	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Vanadium	22.000		0.496	0.84	1.680	mg/Kg
D3811-07	SB-18(4-8)	SOIL	Zinc	101.000		0.588	0.84	1.680	mg/Kg

## Client ID : SB-19(12-18)

D3811-08	SB-19(12-18)	SOIL	Aluminum	5,650.000		0.903	2.69	5.380	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Antimony	0.891	J	0.602	1.345	2.690	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Arsenic	31.600		0.355	0.54	1.080	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Barium	597.000		0.430	2.69	5.380	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Cadmium	0.814		0.065	0.1615	0.323	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Calcium	11,900.000		1.150	54	108	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Chromium	12.800		0.140	0.269	0.538	mg/Kg



# Hit Summary Sheet SW-846

SDG No.: D3811

Order ID: D3811

Client: MS Analytical

Project ID: 12MS104 Kensington Heights

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-08	SB-19(12-18)	SOIL	Cobalt	8.590		0.613	0.805	1.610	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Copper	110.000		0.344	0.54	1.080	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Iron	20,500.000		1.430	2.69	5.380	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Lead	410.000		0.129	0.3225	0.645	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Magnesium	1,080.000		4.930	54	108	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Manganese	6,770.000		0.204	0.54	1.080	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Mercury	0.219		0.003	0.008	0.016	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Nickel	28.100		0.495	1.075	2.150	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Potassium	834.000		3.760	54	108	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Selenium	1.450		0.441	0.54	1.080	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Silver	1.510		0.161	0.269	0.538	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Sodium	240.000		2.710	54	108	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Thallium	7.020		0.290	1.075	2.150	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Vanadium	28.100		0.635	1.075	2.150	mg/Kg
D3811-08	SB-19(12-18)	SOIL	Zinc	790.000		0.753	1.075	2.150	mg/Kg

Client ID : SB-21(12-16)

D3811-09	SB-21(12-16)	SOIL	Aluminum	3,700.000		0.829	2.465	4.930	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Antimony	174.000		0.552	1.235	2.470	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Arsenic	23.800		0.326	0.493	0.986	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Barium	461.000		0.395	2.465	4.930	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Beryllium	0.130	J	0.059	0.148	0.296	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Cadmium	2.720		0.059	0.148	0.296	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Calcium	20,800.000		1.060	49.3	98.6	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Chromium	14.200		0.128	0.2465	0.493	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Cobalt	4.250		0.562	0.74	1.480	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Copper	425.000		0.316	0.493	0.986	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Iron	27,600.000		1.310	2.465	4.930	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Lead	20,500.000	OR	0.118	0.296	0.592	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Magnesium	3,880.000		4.520	49.3	98.6	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Manganese	238.000		0.187	0.493	0.986	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Mercury	0.125		0.003	0.0065	0.013	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Nickel	12.400		0.454	0.985	1.970	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Potassium	477.000		3.450	49.3	98.6	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Selenium	2.150		0.404	0.493	0.986	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Silver	3.110		0.148	0.2465	0.493	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Thallium	0.897	J	0.266	0.985	1.970	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Vanadium	15.500		0.582	0.985	1.970	mg/Kg
D3811-09	SB-21(12-16)	SOIL	Zinc	941.000		0.690	0.985	1.970	mg/Kg

Client ID : SB-21(12-16)DL

D3811-09DL	SB-21(12-16)DL	SOIL	Lead	21,800.000	D	1.180	2.96	5.920	mg/Kg
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Client ID : SB-21(16-19)

Hit Summary Sheet  
SW-846SDG No.: D3811  
Client: MS AnalyticalOrder ID: D3811  
Project ID: 12MS104 Kensington Heights

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-10	SB-21(16-19)	SOIL	Aluminum	3,920.000		0.863	2.565	5.130	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Antimony	146.000		0.575	1.285	2.570	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Arsenic	27.400		0.339	0.515	1.030	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Barium	977.000		0.411	2.565	5.130	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Cadmium	2.550		0.062	0.154	0.308	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Calcium	56,100.000		1.100	51.5	103	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Chromium	29.900		0.133	0.2565	0.513	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Cobalt	9.980		0.585	0.77	1.540	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Copper	130.000		0.329	0.515	1.030	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Iron	74,700.000		1.370	2.565	5.130	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Lead	6,540.000		0.123	0.308	0.616	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Magnesium	7,890.000		4.700	51.5	103	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Manganese	583.000		0.195	0.515	1.030	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Mercury	0.598		0.003	0.007	0.014	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Nickel	22.100		0.472	1.025	2.050	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Potassium	865.000		3.590	51.5	103	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Silver	2.330		0.154	0.2565	0.513	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Thallium	4.540		0.277	1.025	2.050	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Vanadium	10.900		0.606	1.025	2.050	mg/Kg
D3811-10	SB-21(16-19)	SOIL	Zinc	1,120.000		0.719	1.025	2.050	mg/Kg

## Client ID : SB-22(12-19)

D3811-11	SB-22(12-19)	SOIL	Aluminum	5,180.000		0.668	1.99	3.980	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Antimony	1.610	J	0.445	0.995	1.990	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Arsenic	5.240		0.262	0.3975	0.795	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Barium	65.900		0.318	1.99	3.980	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Cadmium	0.315		0.048	0.1195	0.239	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Calcium	26,500.000		0.851	39.75	79.5	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Chromium	9.530		0.103	0.199	0.398	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Cobalt	4.760		0.453	0.595	1.190	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Copper	89.200		0.255	0.3975	0.795	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Iron	28,900.000		1.060	1.99	3.980	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Lead	68.100		0.095	0.2385	0.477	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Magnesium	2,200.000		3.640	39.75	79.5	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Manganese	776.000		0.151	0.3975	0.795	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Mercury	0.014		0.002	0.005	0.010	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Nickel	14.000		0.366	0.795	1.590	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Potassium	624.000		2.780	39.75	79.5	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Silver	0.692		0.119	0.199	0.398	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Thallium	1.240	J	0.215	0.795	1.590	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Vanadium	11.900		0.469	0.795	1.590	mg/Kg
D3811-11	SB-22(12-19)	SOIL	Zinc	339.000		0.557	0.795	1.590	mg/Kg

# Hit Summary Sheet SW-846

SDG No.: D3811  
Client: MS Analytical

Order ID: D3811  
Project ID: 12MS104 Kensington Heights

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
<b>Client ID : SB-27(8-12)</b>									
D3811-12	SB-27(8-12)	SOIL	Aluminum	2,420.000		0.761	2.265	4.530	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Antimony	3.710		0.507	1.13	2.260	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Arsenic	11.700		0.299	0.453	0.906	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Barium	675.000		0.362	2.265	4.530	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Cadmium	2.040		0.054	0.136	0.272	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Calcium	9,710.000		0.969	45.3	90.6	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Chromium	46.400		0.118	0.2265	0.453	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Cobalt	5.270		0.516	0.68	1.360	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Copper	407.000		0.290	0.453	0.906	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Iron	56,600.000		1.200	2.265	4.530	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Lead	1,910.000		0.109	0.2715	0.543	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Magnesium	1,240.000		4.150	45.3	90.6	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Manganese	452.000		0.172	0.453	0.906	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Mercury	0.464		0.002	0.0055	0.011	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Nickel	29.400		0.417	0.905	1.810	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Potassium	254.000		3.170	45.3	90.6	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Silver	1.360		0.136	0.2265	0.453	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Thallium	3.300		0.245	0.905	1.810	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Vanadium	6.920		0.534	0.905	1.810	mg/Kg
D3811-12	SB-27(8-12)	SOIL	Zinc	712.000		0.634	0.905	1.810	mg/Kg
<b>Client ID : SB-37(8-10)</b>									
D3811-13	SB-37(8-10)	SOIL	Aluminum	5,290.000		0.897	2.67	5.340	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Antimony	0.904	J	0.598	1.335	2.670	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Arsenic	12.000		0.352	0.535	1.070	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Barium	71.400		0.427	2.67	5.340	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Beryllium	0.356		0.064	0.16	0.320	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Cadmium	0.452		0.064	0.16	0.320	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Calcium	54,000.000		1.140	53.5	107	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Chromium	7.420		0.139	0.267	0.534	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Cobalt	5.410		0.609	0.8	1.600	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Copper	39.500		0.342	0.535	1.070	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Iron	8,300.000		1.420	2.67	5.340	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Lead	290.000		0.128	0.3205	0.641	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Magnesium	3,610.000		4.890	53.5	107	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Manganese	121.000		0.203	0.535	1.070	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Mercury	0.091		0.003	0.007	0.014	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Nickel	12.700		0.491	1.07	2.140	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Potassium	593.000		3.740	53.5	107	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Silver	0.214	J	0.160	0.267	0.534	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Sodium	118.000		2.690	53.5	107	mg/Kg
D3811-13	SB-37(8-10)	SOIL	Vanadium	18.700		0.630	1.07	2.140	mg/Kg

Hit Summary Sheet  
SW-846

SDG No.: D3811

Order ID: D3811

Client: MS Analytical

Project ID: 12MS104 Kensington Heights

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-13	SB-37(8-10)	SOIL	Zinc	165.000		0.748	1.07	2.140	mg/Kg
Client ID : SB-39(6-8)									
D3811-14	SB-39(6-8)	SOIL	Aluminum	7,000.000	J	0.658	1.955	3.910	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Antimony	1.630		0.438	0.98	1.960	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Arsenic	5.370		0.258	0.3915	0.783	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Barium	85.900		0.313	1.955	3.910	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Cadmium	0.459		0.047	0.1175	0.235	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Calcium	14,200.000		0.838	39.15	78.3	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Chromium	9.250		0.102	0.1955	0.391	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Cobalt	11.800		0.446	0.585	1.170	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Copper	59.200		0.251	0.3915	0.783	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Iron	35,700.000		1.040	1.955	3.910	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Lead	27.400		0.094	0.235	0.470	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Magnesium	1,150.000		3.590	39.15	78.3	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Manganese	1,500.000		0.149	0.3915	0.783	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Mercury	0.024		0.002	0.005	0.010	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Nickel	7.790		0.360	0.785	1.570	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Potassium	830.000		2.740	39.15	78.3	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Silver	0.920		0.117	0.1955	0.391	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Thallium	2.160		0.211	0.785	1.570	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Vanadium	15.100		0.462	0.785	1.570	mg/Kg
D3811-14	SB-39(6-8)	SOIL	Zinc	50.300		0.548	0.785	1.570	mg/Kg
Client ID : SB-41(8-11)									
D3811-15	SB-41(8-11)	SOIL	Aluminum	8,490.000		0.699	2.08	4.160	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Antimony	42.000		0.466	1.04	2.080	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Arsenic	73.000		0.275	0.416	0.832	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Barium	113.000		0.333	2.08	4.160	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Beryllium	16.000		0.050	0.125	0.250	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Cadmium	17.000		0.050	0.125	0.250	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Calcium	6,530.000		0.890	41.6	83.2	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Chromium	41.100		0.108	0.208	0.416	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Cobalt	24.700		0.474	0.625	1.250	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Copper	62.300		0.266	0.416	0.832	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Iron	34,600.000		1.110	2.08	4.160	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Lead	527.000		0.100	0.2495	0.499	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Magnesium	1,360.000		3.810	41.6	83.2	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Manganese	498.000		0.158	0.416	0.832	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Mercury	0.145		0.002	0.0055	0.011	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Nickel	56.400		0.383	0.83	1.660	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Potassium	1,430.000		2.910	41.6	83.2	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Selenium	149.000		0.341	0.416	0.832	mg/Kg

Hit Summary Sheet  
SW-846

SDG No.: D3811

Order ID: D3811

Client: MS Analytical

Project ID: 12MS104 Kensington Heights

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-15	SB-41(8-11)	SOIL	Silver	6.330		0.125	0.208	0.416	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Sodium	432.000		2.100	41.6	83.2	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Thallium	158.000		0.225	0.83	1.660	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Vanadium	47.700		0.491	0.83	1.660	mg/Kg
D3811-15	SB-41(8-11)	SOIL	Zinc	121.000		0.582	0.83	1.660	mg/Kg

## Client ID : SB-42(14-16)

D3811-16	SB-42(14-16)	SOIL	Aluminum	3,910.000		0.709	2.11	4.220	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Antimony	0.712	J	0.473	1.055	2.110	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Arsenic	8.790		0.279	0.4225	0.845	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Barium	90.200		0.338	2.11	4.220	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Beryllium	0.338		0.051	0.1265	0.253	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Cadmium	0.398		0.051	0.1265	0.253	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Calcium	4,420.000		0.904	42.25	84.5	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Chromium	8.630		0.110	0.211	0.422	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Cobalt	7.890		0.481	0.635	1.270	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Copper	33.100		0.270	0.4225	0.845	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Iron	11,200.000		1.120	2.11	4.220	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Lead	99.500		0.101	0.2535	0.507	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Magnesium	517.000		3.870	42.25	84.5	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Manganese	140.000		0.160	0.4225	0.845	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Mercury	0.155		0.002	0.0055	0.011	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Nickel	13.500		0.389	0.845	1.690	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Potassium	553.000		2.960	42.25	84.5	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Silver	0.294	J	0.127	0.211	0.422	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Sodium	90.400		2.130	42.25	84.5	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Vanadium	19.900		0.498	0.845	1.690	mg/Kg
D3811-16	SB-42(14-16)	SOIL	Zinc	128.000		0.591	0.845	1.690	mg/Kg

## Client ID : SB-43(6-8)

D3811-17	SB-43(6-8)	SOIL	Aluminum	5,650.000		0.688	2.05	4.100	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Antimony	7.640		0.459	1.025	2.050	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Arsenic	6.910		0.270	0.4095	0.819	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Barium	36.300		0.328	2.05	4.100	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Cadmium	1.470		0.049	0.123	0.246	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Calcium	30,300.000		0.876	40.95	81.9	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Chromium	7.900		0.106	0.205	0.410	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Cobalt	4.240		0.467	0.615	1.230	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Copper	34.100		0.262	0.4095	0.819	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Iron	22,400.000		1.090	2.05	4.100	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Lead	63.500		0.098	0.2455	0.491	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Magnesium	3,190.000		3.750	40.95	81.9	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Manganese	1,390.000		0.156	0.4095	0.819	mg/Kg

# Hit Summary Sheet SW-846

SDG No.: D3811  
Client: MS Analytical

Order ID: D3811  
Project ID: 12MS104 Kensington Heights

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-17	SB-43(6-8)	SOIL	Mercury	0.007	J	0.002	0.0055	0.011	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Nickel	8.750		0.377	0.82	1.640	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Potassium	621.000		2.870	40.95	81.9	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Silver	0.659		0.123	0.205	0.410	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Thallium	1.460	J	0.221	0.82	1.640	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Vanadium	12.200		0.483	0.82	1.640	mg/Kg
D3811-17	SB-43(6-8)	SOIL	Zinc	1,610.000		0.573	0.82	1.640	mg/Kg

## Client ID : SB-43(10-12)

D3811-18	SB-43(10-12)	SOIL	Aluminum	4,210.000		0.747	2.225	4.450	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Antimony	2.110	J	0.498	1.11	2.220	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Arsenic	18.700		0.293	0.4445	0.889	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Barium	973.000		0.356	2.225	4.450	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Beryllium	0.315		0.053	0.1335	0.267	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Cadmium	1.140		0.053	0.1335	0.267	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Calcium	20,600.000		0.951	44.45	88.9	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Chromium	6.870		0.116	0.2225	0.445	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Cobalt	6.070		0.507	0.665	1.330	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Copper	38.400		0.285	0.4445	0.889	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Iron	26,200.000		1.180	2.225	4.450	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Lead	1,100.000		0.107	0.2665	0.533	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Magnesium	536.000		4.070	44.45	88.9	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Manganese	135.000		0.169	0.4445	0.889	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Mercury	0.157		0.002	0.006	0.012	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Nickel	15.600		0.409	0.89	1.780	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Potassium	446.000		3.110	44.45	88.9	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Silver	0.604		0.133	0.2225	0.445	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Sodium	49.700	J	2.240	44.45	88.9	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Thallium	0.693	J	0.240	0.89	1.780	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Vanadium	22.100		0.525	0.89	1.780	mg/Kg
D3811-18	SB-43(10-12)	SOIL	Zinc	935.000		0.622	0.89	1.780	mg/Kg

## Client ID : SB-43(16-20)

D3811-19	SB-43(16-20)	SOIL	Aluminum	4,020.000		0.880	2.62	5.240	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Antimony	1.050	J	0.587	1.31	2.620	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Arsenic	14.400		0.346	0.525	1.050	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Barium	174.000		0.419	2.62	5.240	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Beryllium	0.537		0.063	0.157	0.314	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Cadmium	0.284	J	0.063	0.157	0.314	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Calcium	2,300.000		1.120	52.5	105	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Chromium	7.060		0.136	0.262	0.524	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Cobalt	6.400		0.597	0.785	1.570	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Copper	43.100		0.335	0.525	1.050	mg/Kg



Hit Summary Sheet  
SW-846

SDG No.: D3811

Order ID: D3811

Client: MS Analytical

Project ID: 12MS104 Kensington Heights

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-19	SB-43(16-20)	SOIL	Iron	8,690.000	J	1.390	2.62	5.240	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Lead	606.000		0.126	0.3145	0.629	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Magnesium	317.000		4.800	52.5	105	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Manganese	80.900		0.199	0.525	1.050	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Mercury	0.040		0.003	0.007	0.014	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Nickel	12.800		0.482	1.05	2.100	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Potassium	497.000		3.670	52.5	105	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Selenium	1.580		0.430	0.525	1.050	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Silver	0.328		0.157	0.262	0.524	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Sodium	988.000		2.640	52.5	105	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Vanadium	25.800		0.618	1.05	2.100	mg/Kg
D3811-19	SB-43(16-20)	SOIL	Zinc	109.000		0.733	1.05	2.100	mg/Kg
Client ID : SB-45(10-12)									
D3811-20	SB-45(10-12)	SOIL	Aluminum	5,350.000	J	0.847	2.52	5.040	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Antimony	1.110		0.564	1.26	2.520	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Arsenic	23.300		0.333	0.505	1.010	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Barium	266.000		0.403	2.52	5.040	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Beryllium	0.422		0.060	0.151	0.302	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Cadmium	82.300		0.060	0.151	0.302	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Calcium	16,200.000		1.080	50.5	101	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Chromium	15.200		0.131	0.252	0.504	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Cobalt	7.800		0.574	0.755	1.510	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Copper	139.000		0.323	0.505	1.010	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Iron	20,700.000		1.340	2.52	5.040	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Lead	481.000		0.121	0.3025	0.605	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Magnesium	473.000		4.620	50.5	101	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Manganese	208.000		0.191	0.505	1.010	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Mercury	0.119		0.002	0.006	0.012	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Nickel	18.100		0.464	1.01	2.020	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Potassium	494.000		3.530	50.5	101	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Silver	0.607	0.151	0.252	0.504	mg/Kg	
D3811-20	SB-45(10-12)	SOIL	Sodium	78.200	J	2.540	50.5	101	mg/Kg
D3811-20	SB-45(10-12)	SOIL	Vanadium	29.700		0.595	1.01	2.020	mg/Kg
Client ID : SB-46(12-16)									
D3811-21	SB-46(12-16)	SOIL	Aluminum	3,460.000	J	0.818	2.435	4.870	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Antimony	2.090		0.545	1.215	2.430	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Arsenic	12.200		0.321	0.487	0.974	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Barium	113.000		0.390	2.435	4.870	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Beryllium	0.294		0.058	0.146	0.292	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Cadmium	0.392		0.058	0.146	0.292	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Calcium	12,100.000		1.040	48.7	97.4	mg/Kg

Hit Summary Sheet  
SW-846

SDG No.:

D3811

Order ID:

D3811

Client:

MS Analytical

Project ID:

12MS104 Kensington Heights

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D3811-21	SB-46(12-16)	SOIL	Chromium	8.070		0.127	0.2435	0.487	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Cobalt	6.470		0.555	0.73	1.460	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Copper	47.400		0.312	0.487	0.974	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Iron	8,440.000		1.300	2.435	4.870	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Lead	246.000		0.117	0.292	0.584	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Magnesium	1,560.000		4.460	48.7	97.4	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Manganese	142.000		0.185	0.487	0.974	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Mercury	0.044		0.003	0.0065	0.013	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Nickel	14.400		0.448	0.975	1.950	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Potassium	359.000		3.410	48.7	97.4	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Selenium	1.420		0.399	0.487	0.974	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Silver	0.312	J	0.146	0.2435	0.487	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Sodium	82.000	J	2.450	48.7	97.4	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Vanadium	20.500		0.575	0.975	1.950	mg/Kg
D3811-21	SB-46(12-16)	SOIL	Zinc	169.000		0.682	0.975	1.950	mg/Kg



# SAMPLE DATA

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-2(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-01	Matrix:	SOIL
Level (low/med):	low	% Solid:	86.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	6300		1	0.693	2.06	4.12	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	1.17	J	1	0.462	1.03	2.06	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	10.2		1	0.272	0.413	0.825	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	84.4		1	0.33	2.06	4.12	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.207	J	1	0.049	0.124	0.247	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	0.432		1	0.049	0.124	0.247	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	5970		1	0.883	41.25	82.5	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	8.95	N	1	0.107	0.206	0.412	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	6.54		1	0.47	0.62	1.24	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	40.2	N	1	0.264	0.413	0.825	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	21600		1	1.1	2.06	4.12	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	1040		1	0.099	0.248	0.495	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	921		1	3.78	41.25	82.5	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	379		1	0.157	0.413	0.825	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	1.54	D	10	0.021	0.052	0.103	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	13.7		1	0.379	0.825	1.65	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	488	N	1	2.89	41.25	82.5	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.413	U	1	0.338	0.413	0.825	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.561		1	0.124	0.206	0.412	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	301	N	1	2.08	41.25	82.5	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	0.562	J	1	0.223	0.825	1.65	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	18.9		1	0.487	0.825	1.65	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	97.1		1	0.577	0.825	1.65	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-5(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-02	Matrix:	SOIL
Level (low/med):	low	% Solid:	81.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	4290		1	0.743	2.21	4.42	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	1.2	J	1	0.496	1.105	2.21	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	9		1	0.292	0.443	0.885	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	190		1	0.354	2.21	4.42	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.283		1	0.053	0.133	0.265	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	1.31		1	0.053	0.133	0.265	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	87400		1	0.947	44.25	88.5	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	10.3	N	1	0.115	0.221	0.442	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	5.59		1	0.504	0.665	1.33	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	46.7	N	1	0.283	0.443	0.885	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	9790		1	1.18	2.21	4.42	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	628		1	0.106	0.266	0.531	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	2580		1	4.05	44.25	88.5	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	143		1	0.168	0.443	0.885	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.132		1	0.002	0.006	0.012	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	39.8		1	0.407	0.885	1.77	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	576	N	1	3.1	44.25	88.5	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.443	U	1	0.363	0.443	0.885	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.213	J	1	0.133	0.221	0.442	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	83.6	JN	1	2.23	44.25	88.5	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	0.885	U	1	0.239	0.885	1.77	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	15.4		1	0.522	0.885	1.77	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	273		1	0.619	0.885	1.77	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-9(4-7)	SDG No.:	D3811
Lab Sample ID:	D3811-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	83.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	4550		1	0.705	2.1	4.2	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	1.05	U	1	0.47	1.05	2.1	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	4.95		1	0.277	0.42	0.839	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	36.5		1	0.336	2.1	4.2	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.067	J	1	0.05	0.126	0.252	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	0.345		1	0.05	0.126	0.252	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	18900		1	0.898	41.95	83.9	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	8.68	N	1	0.109	0.21	0.42	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	8.47		1	0.478	0.63	1.26	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	19	N	1	0.269	0.42	0.839	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	26400		1	1.12	2.1	4.2	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	22.7		1	0.101	0.252	0.504	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	10700		1	3.84	41.95	83.9	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	416		1	0.159	0.42	0.839	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.111		1	0.002	0.006	0.011	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	11.2		1	0.386	0.84	1.68	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	774	N	1	2.94	41.95	83.9	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.42	U	1	0.344	0.42	0.839	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.592		1	0.126	0.21	0.42	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	41.95	UN	1	2.12	41.95	83.9	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	1.39	J	1	0.227	0.84	1.68	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	8.98		1	0.495	0.84	1.68	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	33		1	0.588	0.84	1.68	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-10(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-04	Matrix:	SOIL
Level (low/med):	low	% Solid:	74.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	2730		1	0.812	2.415	4.83	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	4.45		1	0.542	1.21	2.42	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	13.3		1	0.319	0.484	0.967	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	252		1	0.387	2.415	4.83	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.126	J	1	0.058	0.145	0.29	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	0.948		1	0.058	0.145	0.29	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	20400		1	1.03	48.35	96.7	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	7.85	N	1	0.126	0.242	0.483	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	4.91		1	0.551	0.725	1.45	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	120	N	1	0.309	0.484	0.967	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	24900		1	1.29	2.415	4.83	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	263		1	0.116	0.29	0.58	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	884		1	4.43	48.35	96.7	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	159		1	0.184	0.484	0.967	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.15		1	0.002	0.006	0.012	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	12.2		1	0.445	0.965	1.93	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	397	N	1	3.38	48.35	96.7	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	1.78		1	0.396	0.484	0.967	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.715		1	0.145	0.242	0.483	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	4930	N	1	2.44	48.35	96.7	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	0.804	J	1	0.261	0.965	1.93	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	14.9		1	0.571	0.965	1.93	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	341		1	0.677	0.965	1.93	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/07/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-11(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-05	Matrix:	SOIL
Level (low/med):	low	% Solid:	74.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	3370		1	0.824	2.455	4.91	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	1.225	U	1	0.549	1.225	2.45	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	13.7		1	0.324	0.491	0.981	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	62.8		1	0.392	2.455	4.91	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.146	J	1	0.059	0.147	0.294	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	0.48		1	0.059	0.147	0.294	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	10500		1	1.05	49.05	98.1	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	7.05	N	1	0.128	0.246	0.491	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	6.26		1	0.559	0.735	1.47	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	51.5	N	1	0.314	0.491	0.981	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	37300		1	1.3	2.455	4.91	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	59		1	0.118	0.295	0.589	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	1280		1	4.49	49.05	98.1	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	255		1	0.186	0.491	0.981	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.13		1	0.002	0.006	0.012	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	11		1	0.451	0.98	1.96	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	526	N	1	3.43	49.05	98.1	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.491	U	1	0.402	0.491	0.981	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.808		1	0.147	0.246	0.491	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	13.7	JN	1	2.47	49.05	98.1	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	1.52	J	1	0.265	0.98	1.96	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	19.8		1	0.579	0.98	1.96	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	101		1	0.687	0.98	1.96	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-15(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-06	Matrix:	SOIL
Level (low/med):	low	% Solid:	71.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	5640		1	0.844	2.51	5.02	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	2.49	J	1	0.563	1.255	2.51	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	15.4		1	0.332	0.5	1	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	128		1	0.402	2.51	5.02	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.18	J	1	0.06	0.151	0.301	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	0.878		1	0.06	0.151	0.301	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	5340		1	1.08	50	100	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	13	N	1	0.131	0.251	0.502	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	7.83		1	0.573	0.755	1.51	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	42.9	N	1	0.322	0.5	1	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	44400		1	1.34	2.51	5.02	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	236		1	0.121	0.302	0.603	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	954		1	4.6	50	100	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	190		1	0.191	0.5	1	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.054		1	0.003	0.007	0.013	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	15.2		1	0.462	1.005	2.01	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	724	N	1	3.52	50	100	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.5	U	1	0.412	0.5	1	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	2.45		1	0.151	0.251	0.502	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	50	UN	1	2.53	50	100	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	1.81	J	1	0.271	1.005	2.01	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	26		1	0.593	1.005	2.01	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	308		1	0.703	1.005	2.01	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-18(4-8)	SDG No.:	D3811
Lab Sample ID:	D3811-07	Matrix:	SOIL
Level (low/med):	low	% Solid:	83.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	4890		1	0.706	2.1	4.2	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	1.96	J	1	0.471	1.05	2.1	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	7.35		1	0.277	0.42	0.84	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	97.1		1	0.336	2.1	4.2	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.126	U	1	0.05	0.126	0.252	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	0.849		1	0.05	0.126	0.252	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	14800		1	0.899	42	84	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	25.4	N	1	0.109	0.21	0.42	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	6.21		1	0.479	0.63	1.26	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	54	N	1	0.269	0.42	0.84	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	61200		1	1.12	2.1	4.2	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	96.1		1	0.101	0.252	0.504	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	3580		1	3.85	42	84	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	793		1	0.16	0.42	0.84	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.022		1	0.002	0.006	0.011	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	17.2		1	0.387	0.84	1.68	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	733	N	1	2.94	42	84	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.42	U	1	0.345	0.42	0.84	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	1.33		1	0.126	0.21	0.42	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	42	UN	1	2.12	42	84	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	3.28		1	0.227	0.84	1.68	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	22		1	0.496	0.84	1.68	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	101		1	0.588	0.84	1.68	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits



# Report of Analysis

Client:	MS Analytical	Date Collected:	08/08/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-19(12-18)	SDG No.:	D3811
Lab Sample ID:	D3811-08	Matrix:	SOIL
Level (low/med):	low	% Solid:	62.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	5650		1	0.903	2.69	5.38	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	0.891	J	1	0.602	1.345	2.69	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	31.6		1	0.355	0.54	1.08	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	597		1	0.43	2.69	5.38	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.162	U	1	0.065	0.162	0.323	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	0.814		1	0.065	0.162	0.323	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	11900		1	1.15	54	108	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	12.8	N	1	0.14	0.269	0.538	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	8.59		1	0.613	0.805	1.61	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	110	N	1	0.344	0.54	1.08	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	20500		1	1.43	2.69	5.38	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	410		1	0.129	0.323	0.645	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	1080		1	4.93	54	108	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	6770		1	0.204	0.54	1.08	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.219		1	0.003	0.008	0.016	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	28.1		1	0.495	1.075	2.15	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	834	N	1	3.76	54	108	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	1.45		1	0.441	0.54	1.08	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	1.51		1	0.161	0.269	0.538	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	240	N	1	2.71	54	108	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	7.02		1	0.29	1.075	2.15	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	28.1		1	0.635	1.075	2.15	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	790		1	0.753	1.075	2.15	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

# Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-09	Matrix:	SOIL
Level (low/med):	low	% Solid:	70.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	3700		1	0.829	2.465	4.93	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	174		1	0.552	1.235	2.47	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	23.8		1	0.326	0.493	0.986	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	461		1	0.395	2.465	4.93	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.13	J	1	0.059	0.148	0.296	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	2.72		1	0.059	0.148	0.296	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	20800		1	1.06	49.3	98.6	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	14.2	N	1	0.128	0.247	0.493	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	4.25		1	0.562	0.74	1.48	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	425	N	1	0.316	0.493	0.986	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	27600		1	1.31	2.465	4.93	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	20500	OR	1	0.118	0.296	0.592	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	3880		1	4.52	49.3	98.6	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	238		1	0.187	0.493	0.986	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.125		1	0.003	0.007	0.013	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	12.4		1	0.454	0.985	1.97	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	477	N	1	3.45	49.3	98.6	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	2.15		1	0.404	0.493	0.986	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	3.11		1	0.148	0.247	0.493	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	49.3	UN	1	2.49	49.3	98.6	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	0.897	J	1	0.266	0.985	1.97	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	15.5		1	0.582	0.985	1.97	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	941		1	0.69	0.985	1.97	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(12-16)DL	SDG No.:	D3811
Lab Sample ID:	D3811-09DL	Matrix:	SOIL
Level (low/med):	low	% Solid:	70.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7439-92-1	Lead	21800	D	10	1.18	2.96	5.92	mg/Kg	08/16/12	08/17/12	SW6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-21(16-19)	SDG No.:	D3811
Lab Sample ID:	D3811-10	Matrix:	SOIL
Level (low/med):	low	% Solid:	68.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	3920		1	0.863	2.565	5.13	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	146		1	0.575	1.285	2.57	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	27.4		1	0.339	0.515	1.03	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	977		1	0.411	2.565	5.13	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.154	U	1	0.062	0.154	0.308	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	2.55		1	0.062	0.154	0.308	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	56100		1	1.1	51.5	103	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	29.9	N	1	0.133	0.257	0.513	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	9.98		1	0.585	0.77	1.54	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	130	N	1	0.329	0.515	1.03	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	74700		1	1.37	2.565	5.13	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	6540		1	0.123	0.308	0.616	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	7890		1	4.7	51.5	103	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	583		1	0.195	0.515	1.03	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.598		1	0.003	0.007	0.014	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	22.1		1	0.472	1.025	2.05	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	865	N	1	3.59	51.5	103	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.515	U	1	0.421	0.515	1.03	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	2.33		1	0.154	0.257	0.513	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	51.5	UN	1	2.59	51.5	103	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	4.54		1	0.277	1.025	2.05	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	10.9		1	0.606	1.025	2.05	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	1120		1	0.719	1.025	2.05	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-22(12-19)	SDG No.:	D3811
Lab Sample ID:	D3811-11	Matrix:	SOIL
Level (low/med):	low	% Solid:	91.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	5180		1	0.668	1.99	3.98	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	1.61	J	1	0.445	0.995	1.99	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	5.24		1	0.262	0.398	0.795	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	65.9		1	0.318	1.99	3.98	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.12	U	1	0.048	0.12	0.239	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	0.315		1	0.048	0.12	0.239	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	26500		1	0.851	39.75	79.5	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	9.53	N	1	0.103	0.199	0.398	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	4.76		1	0.453	0.595	1.19	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	89.2	N	1	0.255	0.398	0.795	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	28900		1	1.06	1.99	3.98	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	68.1		1	0.095	0.239	0.477	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	2200		1	3.64	39.75	79.5	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	776		1	0.151	0.398	0.795	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.014		1	0.002	0.005	0.01	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	14		1	0.366	0.795	1.59	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	624	N	1	2.78	39.75	79.5	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.398	U	1	0.326	0.398	0.795	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.692		1	0.119	0.199	0.398	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	39.75	UN	1	2	39.75	79.5	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	1.24	J	1	0.215	0.795	1.59	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	11.9		1	0.469	0.795	1.59	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	339		1	0.557	0.795	1.59	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/09/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-27(8-12)	SDG No.:	D3811
Lab Sample ID:	D3811-12	Matrix:	SOIL
Level (low/med):	low	% Solid:	80.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	2420		1	0.761	2.265	4.53	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	3.71		1	0.507	1.13	2.26	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	11.7		1	0.299	0.453	0.906	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	675		1	0.362	2.265	4.53	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.136	U	1	0.054	0.136	0.272	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	2.04		1	0.054	0.136	0.272	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	9710		1	0.969	45.3	90.6	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	46.4	N	1	0.118	0.227	0.453	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	5.27		1	0.516	0.68	1.36	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	407	N	1	0.29	0.453	0.906	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	56600		1	1.2	2.265	4.53	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	1910		1	0.109	0.272	0.543	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	1240		1	4.15	45.3	90.6	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	452		1	0.172	0.453	0.906	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.464		1	0.002	0.006	0.011	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	29.4		1	0.417	0.905	1.81	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	254	N	1	3.17	45.3	90.6	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.453	U	1	0.371	0.453	0.906	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	1.36		1	0.136	0.227	0.453	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	45.3	UN	1	2.28	45.3	90.6	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	3.3		1	0.245	0.905	1.81	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	6.92		1	0.534	0.905	1.81	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	712		1	0.634	0.905	1.81	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-37(8-10)	SDG No.:	D3811
Lab Sample ID:	D3811-13	Matrix:	SOIL
Level (low/med):	low	% Solid:	70.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	5290		1	0.897	2.67	5.34	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	0.904	J	1	0.598	1.335	2.67	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	12		1	0.352	0.535	1.07	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	71.4		1	0.427	2.67	5.34	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.356		1	0.064	0.16	0.32	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	0.452		1	0.064	0.16	0.32	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	54000		1	1.14	53.5	107	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	7.42	N	1	0.139	0.267	0.534	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	5.41		1	0.609	0.8	1.6	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	39.5	N	1	0.342	0.535	1.07	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	8300		1	1.42	2.67	5.34	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	290		1	0.128	0.321	0.641	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	3610		1	4.89	53.5	107	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	121		1	0.203	0.535	1.07	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.091		1	0.003	0.007	0.014	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	12.7		1	0.491	1.07	2.14	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	593	N	1	3.74	53.5	107	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.535	U	1	0.438	0.535	1.07	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.214	J	1	0.16	0.267	0.534	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	118	N	1	2.69	53.5	107	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	1.07	U	1	0.288	1.07	2.14	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	18.7		1	0.63	1.07	2.14	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	165		1	0.748	1.07	2.14	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-39(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-14	Matrix:	SOIL
Level (low/med):	low	% Solid:	91.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	7000		1	0.658	1.955	3.91	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	1.63	J	1	0.438	0.98	1.96	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	5.37		1	0.258	0.392	0.783	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	85.9		1	0.313	1.955	3.91	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.118	U	1	0.047	0.118	0.235	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	0.459		1	0.047	0.118	0.235	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	14200		1	0.838	39.15	78.3	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	9.25	N	1	0.102	0.196	0.391	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	11.8		1	0.446	0.585	1.17	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	59.2	N	1	0.251	0.392	0.783	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	35700		1	1.04	1.955	3.91	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	27.4		1	0.094	0.235	0.47	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	1150		1	3.59	39.15	78.3	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	1500		1	0.149	0.392	0.783	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.024		1	0.002	0.005	0.01	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	7.79		1	0.36	0.785	1.57	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	830	N	1	2.74	39.15	78.3	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.392	U	1	0.321	0.392	0.783	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.92		1	0.117	0.196	0.391	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	39.15	UN	1	1.97	39.15	78.3	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	2.16		1	0.211	0.785	1.57	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	15.1		1	0.462	0.785	1.57	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	50.3		1	0.548	0.785	1.57	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits



## Report of Analysis

Client:	MS Analytical	Date Collected:	08/10/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-41(8-11)	SDG No.:	D3811
Lab Sample ID:	D3811-15	Matrix:	SOIL
Level (low/med):	low	% Solid:	81.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	8490		1	0.699	2.08	4.16	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	42		1	0.466	1.04	2.08	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	73		1	0.275	0.416	0.832	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	113		1	0.333	2.08	4.16	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	16		1	0.05	0.125	0.25	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	17		1	0.05	0.125	0.25	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	6530		1	0.89	41.6	83.2	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	41.1	N	1	0.108	0.208	0.416	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	24.7		1	0.474	0.625	1.25	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	62.3	N	1	0.266	0.416	0.832	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	34600		1	1.11	2.08	4.16	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	527		1	0.1	0.25	0.499	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	1360		1	3.81	41.6	83.2	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	498		1	0.158	0.416	0.832	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.145		1	0.002	0.006	0.011	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	56.4		1	0.383	0.83	1.66	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	1430	N	1	2.91	41.6	83.2	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	149		1	0.341	0.416	0.832	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	6.33		1	0.125	0.208	0.416	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	432	N	1	2.1	41.6	83.2	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	158		1	0.225	0.83	1.66	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	47.7		1	0.491	0.83	1.66	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	121		1	0.582	0.83	1.66	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

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OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-42(14-16)	SDG No.:	D3811
Lab Sample ID:	D3811-16	Matrix:	SOIL
Level (low/med):	low	% Solid:	82.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	3910		1	0.709	2.11	4.22	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	0.712	J	1	0.473	1.055	2.11	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	8.79		1	0.279	0.423	0.845	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	90.2		1	0.338	2.11	4.22	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.338		1	0.051	0.127	0.253	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	0.398		1	0.051	0.127	0.253	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	4420		1	0.904	42.25	84.5	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	8.63	N	1	0.11	0.211	0.422	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	7.89		1	0.481	0.635	1.27	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	33.1	N	1	0.27	0.423	0.845	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	11200		1	1.12	2.11	4.22	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	99.5		1	0.101	0.254	0.507	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	517		1	3.87	42.25	84.5	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	140		1	0.16	0.423	0.845	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.155		1	0.002	0.006	0.011	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	13.5		1	0.389	0.845	1.69	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	553	N	1	2.96	42.25	84.5	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.423	U	1	0.346	0.423	0.845	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.294	J	1	0.127	0.211	0.422	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	90.4	N	1	2.13	42.25	84.5	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	0.845	U	1	0.228	0.845	1.69	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	19.9		1	0.498	0.845	1.69	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	128		1	0.591	0.845	1.69	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(6-8)	SDG No.:	D3811
Lab Sample ID:	D3811-17	Matrix:	SOIL
Level (low/med):	low	% Solid:	91.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	5650		1	0.688	2.05	4.1	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	7.64		1	0.459	1.025	2.05	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	6.91		1	0.27	0.41	0.819	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	36.3		1	0.328	2.05	4.1	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.123	U	1	0.049	0.123	0.246	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	1.47		1	0.049	0.123	0.246	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	30300		1	0.876	40.95	81.9	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	7.9	N	1	0.106	0.205	0.41	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	4.24		1	0.467	0.615	1.23	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	34.1	N	1	0.262	0.41	0.819	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	22400		1	1.09	2.05	4.1	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	63.5		1	0.098	0.246	0.491	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	3190		1	3.75	40.95	81.9	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	1390		1	0.156	0.41	0.819	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.007	J	1	0.002	0.006	0.011	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	8.75		1	0.377	0.82	1.64	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	621	N	1	2.87	40.95	81.9	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.41	U	1	0.336	0.41	0.819	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.659		1	0.123	0.205	0.41	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	40.95	UN	1	2.06	40.95	81.9	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	1.46	J	1	0.221	0.82	1.64	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	12.2		1	0.483	0.82	1.64	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	1610		1	0.573	0.82	1.64	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-18	Matrix:	SOIL
Level (low/med):	low	% Solid:	82.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	4210		1	0.747	2.225	4.45	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	2.11	J	1	0.498	1.11	2.22	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	18.7		1	0.293	0.445	0.889	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	973		1	0.356	2.225	4.45	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.315		1	0.053	0.134	0.267	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	1.14		1	0.053	0.134	0.267	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	20600		1	0.951	44.45	88.9	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	6.87	N	1	0.116	0.223	0.445	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	6.07		1	0.507	0.665	1.33	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	38.4	N	1	0.285	0.445	0.889	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	26200		1	1.18	2.225	4.45	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	1100		1	0.107	0.267	0.533	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	536		1	4.07	44.45	88.9	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	135		1	0.169	0.445	0.889	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.157		1	0.002	0.006	0.012	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	15.6		1	0.409	0.89	1.78	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	446	N	1	3.11	44.45	88.9	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.445	U	1	0.365	0.445	0.889	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.604		1	0.133	0.223	0.445	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	49.7	JN	1	2.24	44.45	88.9	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	0.693	J	1	0.24	0.89	1.78	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	22.1		1	0.525	0.89	1.78	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	935		1	0.622	0.89	1.78	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-43(16-20)	SDG No.:	D3811
Lab Sample ID:	D3811-19	Matrix:	SOIL
Level (low/med):	low	% Solid:	70.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	4020		1	0.88	2.62	5.24	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	1.05	J	1	0.587	1.31	2.62	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	14.4		1	0.346	0.525	1.05	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	174		1	0.419	2.62	5.24	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.537		1	0.063	0.157	0.314	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	0.284	J	1	0.063	0.157	0.314	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	2300		1	1.12	52.5	105	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	7.06	N	1	0.136	0.262	0.524	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	6.4		1	0.597	0.785	1.57	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	43.1	N	1	0.335	0.525	1.05	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	8690		1	1.39	2.62	5.24	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	606		1	0.126	0.315	0.629	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	317		1	4.8	52.5	105	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	80.9		1	0.199	0.525	1.05	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.04		1	0.003	0.007	0.014	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	12.8		1	0.482	1.05	2.1	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	497	N	1	3.67	52.5	105	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	1.58		1	0.43	0.525	1.05	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.328	J	1	0.157	0.262	0.524	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	988	N	1	2.64	52.5	105	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	1.05	U	1	0.283	1.05	2.1	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	25.8		1	0.618	1.05	2.1	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	109		1	0.733	1.05	2.1	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-45(10-12)	SDG No.:	D3811
Lab Sample ID:	D3811-20	Matrix:	SOIL
Level (low/med):	low	% Solid:	71.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	5350		1	0.847	2.52	5.04	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	1.11	J	1	0.564	1.26	2.52	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	23.3		1	0.333	0.505	1.01	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	266		1	0.403	2.52	5.04	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.422		1	0.06	0.151	0.302	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	82.3		1	0.06	0.151	0.302	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	16200		1	1.08	50.5	101	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	15.2	N	1	0.131	0.252	0.504	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	7.8		1	0.574	0.755	1.51	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	139	N	1	0.323	0.505	1.01	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	20700		1	1.34	2.52	5.04	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	481		1	0.121	0.303	0.605	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	473		1	4.62	50.5	101	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	208		1	0.191	0.505	1.01	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.119		1	0.002	0.006	0.012	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	18.1		1	0.464	1.01	2.02	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	494	N	1	3.53	50.5	101	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	0.505	U	1	0.413	0.505	1.01	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.607		1	0.151	0.252	0.504	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	78.2	JN	1	2.54	50.5	101	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	1.01	U	1	0.272	1.01	2.02	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	29.7		1	0.595	1.01	2.02	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Brown	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

## Report of Analysis

Client:	MS Analytical	Date Collected:	08/13/12
Project:	12MS104 Kensington Heights	Date Received:	08/15/12
Client Sample ID:	SB-46(12-16)	SDG No.:	D3811
Lab Sample ID:	D3811-21	Matrix:	SOIL
Level (low/med):	low	% Solid:	71.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	3460		1	0.818	2.435	4.87	mg/Kg	08/16/12	08/16/12	6010B
7440-36-0	Antimony	2.09	J	1	0.545	1.215	2.43	mg/Kg	08/16/12	08/16/12	6010B
7440-38-2	Arsenic	12.2		1	0.321	0.487	0.974	mg/Kg	08/16/12	08/16/12	6010B
7440-39-3	Barium	113		1	0.39	2.435	4.87	mg/Kg	08/16/12	08/16/12	6010B
7440-41-7	Beryllium	0.294		1	0.058	0.146	0.292	mg/Kg	08/16/12	08/16/12	6010B
7440-43-9	Cadmium	0.392		1	0.058	0.146	0.292	mg/Kg	08/16/12	08/16/12	6010B
7440-70-2	Calcium	12100		1	1.04	48.7	97.4	mg/Kg	08/16/12	08/16/12	6010B
7440-47-3	Chromium	8.07		1	0.127	0.244	0.487	mg/Kg	08/16/12	08/16/12	6010B
7440-48-4	Cobalt	6.47		1	0.555	0.73	1.46	mg/Kg	08/16/12	08/16/12	6010B
7440-50-8	Copper	47.4		1	0.312	0.487	0.974	mg/Kg	08/16/12	08/16/12	6010B
7439-89-6	Iron	8440		1	1.3	2.435	4.87	mg/Kg	08/16/12	08/16/12	6010B
7439-92-1	Lead	246		1	0.117	0.292	0.584	mg/Kg	08/16/12	08/16/12	6010B
7439-95-4	Magnesium	1560		1	4.46	48.7	97.4	mg/Kg	08/16/12	08/16/12	6010B
7439-96-5	Manganese	142		1	0.185	0.487	0.974	mg/Kg	08/16/12	08/16/12	6010B
7439-97-6	Mercury	0.044		1	0.003	0.007	0.013	mg/Kg	08/16/12	08/17/12	SW7471A
7440-02-0	Nickel	14.4		1	0.448	0.975	1.95	mg/Kg	08/16/12	08/16/12	6010B
7440-09-7	Potassium	359		1	3.41	48.7	97.4	mg/Kg	08/16/12	08/16/12	6010B
7782-49-2	Selenium	1.42		1	0.399	0.487	0.974	mg/Kg	08/16/12	08/16/12	6010B
7440-22-4	Silver	0.312	J	1	0.146	0.244	0.487	mg/Kg	08/16/12	08/16/12	6010B
7440-23-5	Sodium	82	JN	1	2.45	48.7	97.4	mg/Kg	08/16/12	08/16/12	6010B
7440-28-0	Thallium	0.975	U	1	0.263	0.975	1.95	mg/Kg	08/16/12	08/16/12	6010B
7440-62-2	Vanadium	20.5		1	0.575	0.975	1.95	mg/Kg	08/16/12	08/16/12	6010B
7440-66-6	Zinc	169	N	1	0.682	0.975	1.95	mg/Kg	08/16/12	08/16/12	6010B

Color Before:	Gray	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	No
Comments:	METALS-TAL			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits

# METAL CALIBRATION DATA



## INITIAL AND CONTINUING CALIBRATION VERIFICATION

**Client:** MS Analytical **SDG No.:** D3811  
**Contract:** MSAN01 **Lab Code:** CHEM **Case No.:** D3811 **SAS No.:** D3811  
**Initial Calibration Source:** EPA  
**Continuing Calibration Source:** INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2670.03	2521.0	105.9	95 - 105	P	08/16/2012	14:01	LB62171
	Antimony	975.35	994.0	98.1	95 - 105	P	08/16/2012	14:01	LB62171
	Arsenic	972.83	999.0	97.4	95 - 105	P	08/16/2012	14:01	LB62171
	Barium	520.91	503.0	103.6	95 - 105	P	08/16/2012	14:01	LB62171
	Beryllium	490.24	495.0	99.0	95 - 105	P	08/16/2012	14:01	LB62171
	Cadmium	482.25	496.0	97.2	95 - 105	P	08/16/2012	14:01	LB62171
	Calcium	10181.45	10026.0	101.6	95 - 105	P	08/16/2012	14:01	LB62171
	Chromium	490.59	490.0	100.1	95 - 105	P	08/16/2012	14:01	LB62171
	Cobalt	493.19	499.0	98.8	95 - 105	P	08/16/2012	14:01	LB62171
	Copper	509.73	492.0	103.6	95 - 105	P	08/16/2012	14:01	LB62171
	Iron	5029.37	5082.0	99.0	95 - 105	P	08/16/2012	14:01	LB62171
	Lead	973.11	1002.0	97.1	95 - 105	P	08/16/2012	14:01	LB62171
	Magnesium	5997.23	6074.0	98.7	95 - 105	P	08/16/2012	14:01	LB62171
	Manganese	501.65	499.0	100.5	95 - 105	P	08/16/2012	14:01	LB62171
	Nickel	490.64	503.0	97.5	95 - 105	P	08/16/2012	14:01	LB62171
	Potassium	9903.44	10021.0	98.8	95 - 105	P	08/16/2012	14:01	LB62171
	Selenium	976.17	1029.0	94.9	95 - 105	P	08/16/2012	14:01	LB62171
	Silver	477.09	501.0	95.2	95 - 105	P	08/16/2012	14:01	LB62171
	Sodium	10230.22	10097.0	101.3	95 - 105	P	08/16/2012	14:01	LB62171
	Thallium	994.08	1028.0	96.7	95 - 105	P	08/16/2012	14:01	LB62171
	Vanadium	503.60	501.0	100.5	95 - 105	P	08/16/2012	14:01	LB62171
	Zinc	1004.36	1025.0	98.0	95 - 105	P	08/16/2012	14:01	LB62171
CCV01	Aluminum	10115.14	10000.0	101.2	90 - 110	P	08/16/2012	14:21	LB62171
	Antimony	4994.19	5000.0	99.9	90 - 110	P	08/16/2012	14:21	LB62171
	Arsenic	4989.97	5000.0	99.8	90 - 110	P	08/16/2012	14:21	LB62171
	Barium	9824.41	10000.0	98.2	90 - 110	P	08/16/2012	14:21	LB62171
	Beryllium	249.06	250.0	99.6	90 - 110	P	08/16/2012	14:21	LB62171
	Cadmium	2492.21	2500.0	99.7	90 - 110	P	08/16/2012	14:21	LB62171
	Calcium	25092.04	25000.0	100.4	90 - 110	P	08/16/2012	14:21	LB62171
	Chromium	986.91	1000.0	98.7	90 - 110	P	08/16/2012	14:21	LB62171
	Cobalt	2481.49	2500.0	99.3	90 - 110	P	08/16/2012	14:21	LB62171
	Copper	1256.05	1250.0	100.5	90 - 110	P	08/16/2012	14:21	LB62171
	Iron	5078.36	5000.0	101.6	90 - 110	P	08/16/2012	14:21	LB62171
	Lead	4943.70	5000.0	98.9	90 - 110	P	08/16/2012	14:21	LB62171
	Magnesium	25177.89	25000.0	100.7	90 - 110	P	08/16/2012	14:21	LB62171

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Manganese	2491.85	2500.0	99.7	90 - 110	P	08/16/2012	14:21	LB62171
	Nickel	2483.10	2500.0	99.3	90 - 110	P	08/16/2012	14:21	LB62171
	Potassium	25243.50	25000.0	101.0	90 - 110	P	08/16/2012	14:21	LB62171
	Selenium	5010.43	5000.0	100.2	90 - 110	P	08/16/2012	14:21	LB62171
	Silver	1226.30	1250.0	98.1	90 - 110	P	08/16/2012	14:21	LB62171
	Sodium	24886.30	25000.0	99.5	90 - 110	P	08/16/2012	14:21	LB62171
	Thallium	4983.32	5000.0	99.7	90 - 110	P	08/16/2012	14:21	LB62171
	Vanadium	2511.70	2500.0	100.5	90 - 110	P	08/16/2012	14:21	LB62171
	Zinc	2496.94	2500.0	99.9	90 - 110	P	08/16/2012	14:21	LB62171
CCV02	Aluminum	10311.88	10000.0	103.1	90 - 110	P	08/16/2012	15:02	LB62171
	Antimony	4965.16	5000.0	99.3	90 - 110	P	08/16/2012	15:02	LB62171
	Arsenic	4944.53	5000.0	98.9	90 - 110	P	08/16/2012	15:02	LB62171
	Barium	10236.82	10000.0	102.4	90 - 110	P	08/16/2012	15:02	LB62171
	Beryllium	257.16	250.0	102.9	90 - 110	P	08/16/2012	15:02	LB62171
	Cadmium	2472.88	2500.0	98.9	90 - 110	P	08/16/2012	15:02	LB62171
	Calcium	26036.03	25000.0	104.1	90 - 110	P	08/16/2012	15:02	LB62171
	Chromium	991.38	1000.0	99.1	90 - 110	P	08/16/2012	15:02	LB62171
	Cobalt	2465.98	2500.0	98.6	90 - 110	P	08/16/2012	15:02	LB62171
	Copper	1287.73	1250.0	103.0	90 - 110	P	08/16/2012	15:02	LB62171
	Iron	5222.78	5000.0	104.5	90 - 110	P	08/16/2012	15:02	LB62171
	Lead	4907.87	5000.0	98.2	90 - 110	P	08/16/2012	15:02	LB62171
	Magnesium	25862.31	25000.0	103.4	90 - 110	P	08/16/2012	15:02	LB62171
	Manganese	2582.50	2500.0	103.3	90 - 110	P	08/16/2012	15:02	LB62171
	Nickel	2466.36	2500.0	98.7	90 - 110	P	08/16/2012	15:02	LB62171
	Potassium	25867.09	25000.0	103.5	90 - 110	P	08/16/2012	15:02	LB62171
	Selenium	4962.71	5000.0	99.3	90 - 110	P	08/16/2012	15:02	LB62171
	Silver	1240.05	1250.0	99.2	90 - 110	P	08/16/2012	15:02	LB62171
	Sodium	25823.99	25000.0	103.3	90 - 110	P	08/16/2012	15:02	LB62171
	Thallium	4971.96	5000.0	99.4	90 - 110	P	08/16/2012	15:02	LB62171
	Vanadium	2583.97	2500.0	103.4	90 - 110	P	08/16/2012	15:02	LB62171
	Zinc	2539.86	2500.0	101.6	90 - 110	P	08/16/2012	15:02	LB62171
CCV03	Aluminum	9803.00	10000.0	98.0	90 - 110	P	08/16/2012	15:42	LB62171
	Antimony	4927.75	5000.0	98.6	90 - 110	P	08/16/2012	15:42	LB62171
	Arsenic	4968.80	5000.0	99.4	90 - 110	P	08/16/2012	15:42	LB62171
	Barium	9857.43	10000.0	98.6	90 - 110	P	08/16/2012	15:42	LB62171

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Beryllium	246.36	250.0	98.5	90 - 110	P	08/16/2012	15:42	LB62171
	Cadmium	2504.02	2500.0	100.2	90 - 110	P	08/16/2012	15:42	LB62171
	Calcium	24359.26	25000.0	97.4	90 - 110	P	08/16/2012	15:42	LB62171
	Chromium	1006.83	1000.0	100.7	90 - 110	P	08/16/2012	15:42	LB62171
	Cobalt	2475.89	2500.0	99.0	90 - 110	P	08/16/2012	15:42	LB62171
	Copper	1227.61	1250.0	98.2	90 - 110	P	08/16/2012	15:42	LB62171
	Iron	4884.50	5000.0	97.7	90 - 110	P	08/16/2012	15:42	LB62171
	Lead	4958.36	5000.0	99.2	90 - 110	P	08/16/2012	15:42	LB62171
	Magnesium	24477.15	25000.0	97.9	90 - 110	P	08/16/2012	15:42	LB62171
	Manganese	2453.27	2500.0	98.1	90 - 110	P	08/16/2012	15:42	LB62171
	Nickel	2489.92	2500.0	99.6	90 - 110	P	08/16/2012	15:42	LB62171
	Potassium	24707.73	25000.0	98.8	90 - 110	P	08/16/2012	15:42	LB62171
	Selenium	4971.64	5000.0	99.4	90 - 110	P	08/16/2012	15:42	LB62171
	Silver	1234.56	1250.0	98.8	90 - 110	P	08/16/2012	15:42	LB62171
	Sodium	24970.42	25000.0	99.9	90 - 110	P	08/16/2012	15:42	LB62171
	Thallium	4998.11	5000.0	100.0	90 - 110	P	08/16/2012	15:42	LB62171
	Vanadium	2488.59	2500.0	99.5	90 - 110	P	08/16/2012	15:42	LB62171
	Zinc	2487.99	2500.0	99.5	90 - 110	P	08/16/2012	15:42	LB62171
CCV04	Aluminum	9867.94	10000.0	98.7	90 - 110	P	08/16/2012	16:22	LB62171
	Antimony	4946.69	5000.0	98.9	90 - 110	P	08/16/2012	16:22	LB62171
	Arsenic	4964.73	5000.0	99.3	90 - 110	P	08/16/2012	16:22	LB62171
	Barium	10013.22	10000.0	100.1	90 - 110	P	08/16/2012	16:22	LB62171
	Beryllium	246.50	250.0	98.6	90 - 110	P	08/16/2012	16:22	LB62171
	Cadmium	2479.70	2500.0	99.2	90 - 110	P	08/16/2012	16:22	LB62171
	Calcium	24624.86	25000.0	98.5	90 - 110	P	08/16/2012	16:22	LB62171
	Chromium	1004.23	1000.0	100.4	90 - 110	P	08/16/2012	16:22	LB62171
	Cobalt	2461.34	2500.0	98.5	90 - 110	P	08/16/2012	16:22	LB62171
	Copper	1236.41	1250.0	98.9	90 - 110	P	08/16/2012	16:22	LB62171
	Iron	4926.48	5000.0	98.5	90 - 110	P	08/16/2012	16:22	LB62171
	Lead	4942.79	5000.0	98.9	90 - 110	P	08/16/2012	16:22	LB62171
	Magnesium	24478.73	25000.0	97.9	90 - 110	P	08/16/2012	16:22	LB62171
	Manganese	2475.46	2500.0	99.0	90 - 110	P	08/16/2012	16:22	LB62171
	Nickel	2477.35	2500.0	99.1	90 - 110	P	08/16/2012	16:22	LB62171
	Potassium	24812.55	25000.0	99.3	90 - 110	P	08/16/2012	16:22	LB62171
	Selenium	4982.56	5000.0	99.7	90 - 110	P	08/16/2012	16:22	LB62171

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
Initial Calibration Source: EPA  
Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Silver	1249.99	1250.0	100.0	90 - 110	P	08/16/2012	16:22	LB62171
	Sodium	25601.34	25000.0	102.4	90 - 110	P	08/16/2012	16:22	LB62171
	Thallium	5000.63	5000.0	100.0	90 - 110	P	08/16/2012	16:22	LB62171
	Vanadium	2475.75	2500.0	99.0	90 - 110	P	08/16/2012	16:22	LB62171
	Zinc	2457.09	2500.0	98.3	90 - 110	P	08/16/2012	16:22	LB62171
CCV05	Aluminum	9775.90	10000.0	97.8	90 - 110	P	08/16/2012	17:03	LB62171
	Antimony	4926.44	5000.0	98.5	90 - 110	P	08/16/2012	17:03	LB62171
	Arsenic	4967.63	5000.0	99.4	90 - 110	P	08/16/2012	17:03	LB62171
	Barium	9866.37	10000.0	98.7	90 - 110	P	08/16/2012	17:03	LB62171
	Beryllium	243.00	250.0	97.2	90 - 110	P	08/16/2012	17:03	LB62171
	Cadmium	2491.80	2500.0	99.7	90 - 110	P	08/16/2012	17:03	LB62171
	Calcium	24092.20	25000.0	96.4	90 - 110	P	08/16/2012	17:03	LB62171
	Chromium	1009.43	1000.0	100.9	90 - 110	P	08/16/2012	17:03	LB62171
	Cobalt	2464.21	2500.0	98.6	90 - 110	P	08/16/2012	17:03	LB62171
	Copper	1231.18	1250.0	98.5	90 - 110	P	08/16/2012	17:03	LB62171
	Iron	4829.47	5000.0	96.6	90 - 110	P	08/16/2012	17:03	LB62171
	Lead	4953.59	5000.0	99.1	90 - 110	P	08/16/2012	17:03	LB62171
	Magnesium	24004.45	25000.0	96.0	90 - 110	P	08/16/2012	17:03	LB62171
	Manganese	2433.03	2500.0	97.3	90 - 110	P	08/16/2012	17:03	LB62171
	Nickel	2487.05	2500.0	99.5	90 - 110	P	08/16/2012	17:03	LB62171
	Potassium	24657.83	25000.0	98.6	90 - 110	P	08/16/2012	17:03	LB62171
	Selenium	4984.95	5000.0	99.7	90 - 110	P	08/16/2012	17:03	LB62171
	Silver	1242.38	1250.0	99.4	90 - 110	P	08/16/2012	17:03	LB62171
	Sodium	25162.31	25000.0	100.6	90 - 110	P	08/16/2012	17:03	LB62171
	Thallium	5010.51	5000.0	100.2	90 - 110	P	08/16/2012	17:03	LB62171
CCV06	Vanadium	2464.31	2500.0	98.6	90 - 110	P	08/16/2012	17:03	LB62171
	Zinc	2447.37	2500.0	97.9	90 - 110	P	08/16/2012	17:03	LB62171
	Aluminum	9776.59	10000.0	97.8	90 - 110	P	08/16/2012	17:43	LB62171
	Antimony	4915.72	5000.0	98.3	90 - 110	P	08/16/2012	17:43	LB62171
	Arsenic	4957.54	5000.0	99.2	90 - 110	P	08/16/2012	17:43	LB62171
	Barium	9810.47	10000.0	98.1	90 - 110	P	08/16/2012	17:43	LB62171
	Beryllium	242.90	250.0	97.2	90 - 110	P	08/16/2012	17:43	LB62171
	Cadmium	2496.20	2500.0	99.8	90 - 110	P	08/16/2012	17:43	LB62171
	Calcium	24143.77	25000.0	96.6	90 - 110	P	08/16/2012	17:43	LB62171
	Chromium	1012.89	1000.0	101.3	90 - 110	P	08/16/2012	17:43	LB62171

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

**Client:** MS Analytical **SDG No.:** D3811  
**Contract:** MSAN01 **Lab Code:** CHEM **Case No.:** D3811 **SAS No.:** D3811  
**Initial Calibration Source:** EPA  
**Continuing Calibration Source:** INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV06	Cobalt	2464.92	2500.0	98.6	90 - 110	P	08/16/2012	17:43	LB62171
	Copper	1230.84	1250.0	98.5	90 - 110	P	08/16/2012	17:43	LB62171
	Iron	4836.94	5000.0	96.7	90 - 110	P	08/16/2012	17:43	LB62171
	Lead	4957.83	5000.0	99.2	90 - 110	P	08/16/2012	17:43	LB62171
	Magnesium	24094.11	25000.0	96.4	90 - 110	P	08/16/2012	17:43	LB62171
	Manganese	2436.99	2500.0	97.5	90 - 110	P	08/16/2012	17:43	LB62171
	Nickel	2487.64	2500.0	99.5	90 - 110	P	08/16/2012	17:43	LB62171
	Potassium	24718.40	25000.0	98.9	90 - 110	P	08/16/2012	17:43	LB62171
	Selenium	4972.32	5000.0	99.4	90 - 110	P	08/16/2012	17:43	LB62171
	Silver	1243.31	1250.0	99.5	90 - 110	P	08/16/2012	17:43	LB62171
	Sodium	25145.72	25000.0	100.6	90 - 110	P	08/16/2012	17:43	LB62171
	Thallium	5004.53	5000.0	100.1	90 - 110	P	08/16/2012	17:43	LB62171
	Vanadium	2475.51	2500.0	99.0	90 - 110	P	08/16/2012	17:43	LB62171
	Zinc	2447.32	2500.0	97.9	90 - 110	P	08/16/2012	17:43	LB62171
CCV07	Aluminum	9771.55	10000.0	97.7	90 - 110	P	08/16/2012	18:22	LB62171
	Antimony	4975.46	5000.0	99.5	90 - 110	P	08/16/2012	18:22	LB62171
	Arsenic	4988.24	5000.0	99.8	90 - 110	P	08/16/2012	18:22	LB62171
	Barium	9874.43	10000.0	98.7	90 - 110	P	08/16/2012	18:22	LB62171
	Beryllium	242.39	250.0	97.0	90 - 110	P	08/16/2012	18:22	LB62171
	Cadmium	2461.42	2500.0	98.5	90 - 110	P	08/16/2012	18:22	LB62171
	Calcium	24085.98	25000.0	96.3	90 - 110	P	08/16/2012	18:22	LB62171
	Chromium	998.43	1000.0	99.8	90 - 110	P	08/16/2012	18:22	LB62171
	Cobalt	2454.07	2500.0	98.2	90 - 110	P	08/16/2012	18:22	LB62171
	Copper	1233.16	1250.0	98.7	90 - 110	P	08/16/2012	18:22	LB62171
	Iron	4854.35	5000.0	97.1	90 - 110	P	08/16/2012	18:22	LB62171
	Lead	4916.25	5000.0	98.3	90 - 110	P	08/16/2012	18:22	LB62171
	Magnesium	23889.62	25000.0	95.6	90 - 110	P	08/16/2012	18:22	LB62171
	Manganese	2423.74	2500.0	96.9	90 - 110	P	08/16/2012	18:22	LB62171
	Nickel	2460.00	2500.0	98.4	90 - 110	P	08/16/2012	18:22	LB62171
	Potassium	24852.92	25000.0	99.4	90 - 110	P	08/16/2012	18:22	LB62171
	Selenium	5006.79	5000.0	100.1	90 - 110	P	08/16/2012	18:22	LB62171
	Silver	1229.77	1250.0	98.4	90 - 110	P	08/16/2012	18:22	LB62171
	Sodium	25189.62	25000.0	100.8	90 - 110	P	08/16/2012	18:22	LB62171
	Thallium	5003.93	5000.0	100.1	90 - 110	P	08/16/2012	18:22	LB62171
	Vanadium	2470.30	2500.0	98.8	90 - 110	P	08/16/2012	18:22	LB62171

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Zinc	2411.58	2500.0	96.5	90 - 110	P	08/16/2012	18:22	LB62171
CCV08	Aluminum	9814.26	10000.0	98.1	90 - 110	P	08/16/2012	19:02	LB62171
	Antimony	4946.23	5000.0	98.9	90 - 110	P	08/16/2012	19:02	LB62171
	Arsenic	4948.53	5000.0	99.0	90 - 110	P	08/16/2012	19:02	LB62171
	Barium	9785.50	10000.0	97.9	90 - 110	P	08/16/2012	19:02	LB62171
	Beryllium	241.13	250.0	96.5	90 - 110	P	08/16/2012	19:02	LB62171
	Cadmium	2437.30	2500.0	97.5	90 - 110	P	08/16/2012	19:02	LB62171
	Calcium	24366.99	25000.0	97.5	90 - 110	P	08/16/2012	19:02	LB62171
	Chromium	975.10	1000.0	97.5	90 - 110	P	08/16/2012	19:02	LB62171
	Cobalt	2435.12	2500.0	97.4	90 - 110	P	08/16/2012	19:02	LB62171
	Copper	1231.90	1250.0	98.6	90 - 110	P	08/16/2012	19:02	LB62171
	Iron	4910.65	5000.0	98.2	90 - 110	P	08/16/2012	19:02	LB62171
	Lead	4856.29	5000.0	97.1	90 - 110	P	08/16/2012	19:02	LB62171
	Magnesium	24257.83	25000.0	97.0	90 - 110	P	08/16/2012	19:02	LB62171
	Manganese	2423.60	2500.0	96.9	90 - 110	P	08/16/2012	19:02	LB62171
	Nickel	2433.20	2500.0	97.3	90 - 110	P	08/16/2012	19:02	LB62171
	Potassium	25085.50	25000.0	100.3	90 - 110	P	08/16/2012	19:02	LB62171
	Selenium	4969.00	5000.0	99.4	90 - 110	P	08/16/2012	19:02	LB62171
	Silver	1212.23	1250.0	97.0	90 - 110	P	08/16/2012	19:02	LB62171
	Sodium	25039.19	25000.0	100.2	90 - 110	P	08/16/2012	19:02	LB62171
	Thallium	4926.60	5000.0	98.5	90 - 110	P	08/16/2012	19:02	LB62171
	Vanadium	2456.71	2500.0	98.3	90 - 110	P	08/16/2012	19:02	LB62171
	Zinc	2359.46	2500.0	94.4	90 - 110	P	08/16/2012	19:02	LB62171
CCV09	Aluminum	9946.49	10000.0	99.5	90 - 110	P	08/16/2012	19:43	LB62171
	Antimony	4972.02	5000.0	99.4	90 - 110	P	08/16/2012	19:43	LB62171
	Arsenic	4962.72	5000.0	99.3	90 - 110	P	08/16/2012	19:43	LB62171
	Barium	9864.77	10000.0	98.6	90 - 110	P	08/16/2012	19:43	LB62171
	Beryllium	245.94	250.0	98.4	90 - 110	P	08/16/2012	19:43	LB62171
	Cadmium	2465.70	2500.0	98.6	90 - 110	P	08/16/2012	19:43	LB62171
	Calcium	25006.31	25000.0	100.0	90 - 110	P	08/16/2012	19:43	LB62171
	Chromium	984.03	1000.0	98.4	90 - 110	P	08/16/2012	19:43	LB62171
	Cobalt	2460.24	2500.0	98.4	90 - 110	P	08/16/2012	19:43	LB62171
	Copper	1245.93	1250.0	99.7	90 - 110	P	08/16/2012	19:43	LB62171
	Iron	5033.98	5000.0	100.7	90 - 110	P	08/16/2012	19:43	LB62171
	Lead	4900.07	5000.0	98.0	90 - 110	P	08/16/2012	19:43	LB62171

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV09	Magnesium	24942.90	25000.0	99.8	90 - 110	P	08/16/2012	19:43	LB62171
	Manganese	2473.09	2500.0	98.9	90 - 110	P	08/16/2012	19:43	LB62171
	Nickel	2454.42	2500.0	98.2	90 - 110	P	08/16/2012	19:43	LB62171
	Potassium	25581.83	25000.0	102.3	90 - 110	P	08/16/2012	19:43	LB62171
	Selenium	4975.34	5000.0	99.5	90 - 110	P	08/16/2012	19:43	LB62171
	Silver	1226.25	1250.0	98.1	90 - 110	P	08/16/2012	19:43	LB62171
	Sodium	25318.47	25000.0	101.3	90 - 110	P	08/16/2012	19:43	LB62171
	Thallium	4941.01	5000.0	98.8	90 - 110	P	08/16/2012	19:43	LB62171
	Vanadium	2550.78	2500.0	102.0	90 - 110	P	08/16/2012	19:43	LB62171
	Zinc	2401.02	2500.0	96.0	90 - 110	P	08/16/2012	19:43	LB62171
CCV10	Aluminum	10064.88	10000.0	100.6	90 - 110	P	08/16/2012	20:23	LB62171
	Antimony	5010.13	5000.0	100.2	90 - 110	P	08/16/2012	20:23	LB62171
	Arsenic	4939.60	5000.0	98.8	90 - 110	P	08/16/2012	20:23	LB62171
	Barium	10053.37	10000.0	100.5	90 - 110	P	08/16/2012	20:23	LB62171
	Beryllium	245.73	250.0	98.3	90 - 110	P	08/16/2012	20:23	LB62171
	Cadmium	2442.43	2500.0	97.7	90 - 110	P	08/16/2012	20:23	LB62171
	Calcium	25448.85	25000.0	101.8	90 - 110	P	08/16/2012	20:23	LB62171
	Chromium	966.43	1000.0	96.6	90 - 110	P	08/16/2012	20:23	LB62171
	Cobalt	2457.94	2500.0	98.3	90 - 110	P	08/16/2012	20:23	LB62171
	Copper	1258.50	1250.0	100.7	90 - 110	P	08/16/2012	20:23	LB62171
	Iron	5097.07	5000.0	101.9	90 - 110	P	08/16/2012	20:23	LB62171
	Lead	4862.75	5000.0	97.3	90 - 110	P	08/16/2012	20:23	LB62171
	Magnesium	25242.33	25000.0	101.0	90 - 110	P	08/16/2012	20:23	LB62171
	Manganese	2491.77	2500.0	99.7	90 - 110	P	08/16/2012	20:23	LB62171
	Nickel	2433.10	2500.0	97.3	90 - 110	P	08/16/2012	20:23	LB62171
	Potassium	26059.05	25000.0	104.2	90 - 110	P	08/16/2012	20:23	LB62171
	Selenium	4963.91	5000.0	99.3	90 - 110	P	08/16/2012	20:23	LB62171
	Silver	1207.41	1250.0	96.6	90 - 110	P	08/16/2012	20:23	LB62171
	Sodium	25537.61	25000.0	102.2	90 - 110	P	08/16/2012	20:23	LB62171
	Thallium	4912.62	5000.0	98.3	90 - 110	P	08/16/2012	20:23	LB62171
	Vanadium	2576.13	2500.0	103.0	90 - 110	P	08/16/2012	20:23	LB62171
	Zinc	2385.63	2500.0	95.4	90 - 110	P	08/16/2012	20:23	LB62171
CCV11	Aluminum	10291.64	10000.0	102.9	90 - 110	P	08/16/2012	21:05	LB62171
	Antimony	5008.18	5000.0	100.2	90 - 110	P	08/16/2012	21:05	LB62171
	Arsenic	4954.81	5000.0	99.1	90 - 110	P	08/16/2012	21:05	LB62171

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
Initial Calibration Source: EPA  
Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV11	Barium	10082.09	10000.0	100.8	90 - 110	P	08/16/2012	21:05	LB62171
	Beryllium	248.40	250.0	99.4	90 - 110	P	08/16/2012	21:05	LB62171
	Cadmium	2450.27	2500.0	98.0	90 - 110	P	08/16/2012	21:05	LB62171
	Calcium	25951.43	25000.0	103.8	90 - 110	P	08/16/2012	21:05	LB62171
	Chromium	967.50	1000.0	96.8	90 - 110	P	08/16/2012	21:05	LB62171
	Cobalt	2463.09	2500.0	98.5	90 - 110	P	08/16/2012	21:05	LB62171
	Copper	1280.80	1250.0	102.5	90 - 110	P	08/16/2012	21:05	LB62171
	Iron	5211.34	5000.0	104.2	90 - 110	P	08/16/2012	21:05	LB62171
	Lead	4873.63	5000.0	97.5	90 - 110	P	08/16/2012	21:05	LB62171
	Magnesium	25736.24	25000.0	102.9	90 - 110	P	08/16/2012	21:05	LB62171
	Manganese	2522.58	2500.0	100.9	90 - 110	P	08/16/2012	21:05	LB62171
	Nickel	2439.14	2500.0	97.6	90 - 110	P	08/16/2012	21:05	LB62171
	Potassium	26702.73	25000.0	106.8	90 - 110	P	08/16/2012	21:05	LB62171
	Selenium	4968.48	5000.0	99.4	90 - 110	P	08/16/2012	21:05	LB62171
	Silver	1204.46	1250.0	96.4	90 - 110	P	08/16/2012	21:05	LB62171
	Sodium	25789.86	25000.0	103.2	90 - 110	P	08/16/2012	21:05	LB62171
	Thallium	4918.20	5000.0	98.4	90 - 110	P	08/16/2012	21:05	LB62171
	Vanadium	2614.92	2500.0	104.6	90 - 110	P	08/16/2012	21:05	LB62171
	Zinc	2403.58	2500.0	96.1	90 - 110	P	08/16/2012	21:05	LB62171
CCV12	Aluminum	10059.67	10000.0	100.6	90 - 110	P	08/16/2012	21:46	LB62171
	Antimony	4984.82	5000.0	99.7	90 - 110	P	08/16/2012	21:46	LB62171
	Arsenic	4945.28	5000.0	98.9	90 - 110	P	08/16/2012	21:46	LB62171
	Barium	9933.34	10000.0	99.3	90 - 110	P	08/16/2012	21:46	LB62171
	Beryllium	243.52	250.0	97.4	90 - 110	P	08/16/2012	21:46	LB62171
	Cadmium	2467.22	2500.0	98.7	90 - 110	P	08/16/2012	21:46	LB62171
	Calcium	25422.36	25000.0	101.7	90 - 110	P	08/16/2012	21:46	LB62171
	Chromium	976.08	1000.0	97.6	90 - 110	P	08/16/2012	21:46	LB62171
	Cobalt	2465.92	2500.0	98.6	90 - 110	P	08/16/2012	21:46	LB62171
	Copper	1247.32	1250.0	99.8	90 - 110	P	08/16/2012	21:46	LB62171
	Iron	5038.94	5000.0	100.8	90 - 110	P	08/16/2012	21:46	LB62171
	Lead	4879.09	5000.0	97.6	90 - 110	P	08/16/2012	21:46	LB62171
	Magnesium	25198.17	25000.0	100.8	90 - 110	P	08/16/2012	21:46	LB62171
	Manganese	2477.55	2500.0	99.1	90 - 110	P	08/16/2012	21:46	LB62171
	Nickel	2452.06	2500.0	98.1	90 - 110	P	08/16/2012	21:46	LB62171
	Potassium	25859.27	25000.0	103.4	90 - 110	P	08/16/2012	21:46	LB62171



## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
Initial Calibration Source: EPA  
Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV12	Selenium	4965.54	5000.0	99.3	90 - 110	P	08/16/2012	21:46	LB62171
	Silver	1213.79	1250.0	97.1	90 - 110	P	08/16/2012	21:46	LB62171
	Sodium	25575.82	25000.0	102.3	90 - 110	P	08/16/2012	21:46	LB62171
	Thallium	4927.74	5000.0	98.6	90 - 110	P	08/16/2012	21:46	LB62171
	Vanadium	2567.31	2500.0	102.7	90 - 110	P	08/16/2012	21:46	LB62171
	Zinc	2389.90	2500.0	95.6	90 - 110	P	08/16/2012	21:46	LB62171
CCV13	Aluminum	10064.18	10000.0	100.6	90 - 110	P	08/16/2012	22:29	LB62171
	Antimony	4997.01	5000.0	99.9	90 - 110	P	08/16/2012	22:29	LB62171
	Arsenic	4928.96	5000.0	98.6	90 - 110	P	08/16/2012	22:29	LB62171
	Barium	10139.30	10000.0	101.4	90 - 110	P	08/16/2012	22:29	LB62171
	Beryllium	242.87	250.0	97.1	90 - 110	P	08/16/2012	22:29	LB62171
	Cadmium	2453.98	2500.0	98.2	90 - 110	P	08/16/2012	22:29	LB62171
	Calcium	25351.29	25000.0	101.4	90 - 110	P	08/16/2012	22:29	LB62171
	Chromium	971.65	1000.0	97.2	90 - 110	P	08/16/2012	22:29	LB62171
	Cobalt	2459.98	2500.0	98.4	90 - 110	P	08/16/2012	22:29	LB62171
	Copper	1249.93	1250.0	100.0	90 - 110	P	08/16/2012	22:29	LB62171
	Iron	5090.88	5000.0	101.8	90 - 110	P	08/16/2012	22:29	LB62171
	Lead	4874.45	5000.0	97.5	90 - 110	P	08/16/2012	22:29	LB62171
	Magnesium	25041.40	25000.0	100.2	90 - 110	P	08/16/2012	22:29	LB62171
	Manganese	2472.74	2500.0	98.9	90 - 110	P	08/16/2012	22:29	LB62171
	Nickel	2447.77	2500.0	97.9	90 - 110	P	08/16/2012	22:29	LB62171
	Potassium	25824.72	25000.0	103.3	90 - 110	P	08/16/2012	22:29	LB62171
	Selenium	4963.74	5000.0	99.3	90 - 110	P	08/16/2012	22:29	LB62171
	Silver	1217.55	1250.0	97.4	90 - 110	P	08/16/2012	22:29	LB62171
	Sodium	25655.42	25000.0	102.6	90 - 110	P	08/16/2012	22:29	LB62171
	Thallium	4936.07	5000.0	98.7	90 - 110	P	08/16/2012	22:29	LB62171
	Vanadium	2584.63	2500.0	103.4	90 - 110	P	08/16/2012	22:29	LB62171
	Zinc	2389.66	2500.0	95.6	90 - 110	P	08/16/2012	22:29	LB62171
CCV14	Aluminum	10036.27	10000.0	100.4	90 - 110	P	08/16/2012	22:53	LB62171
	Antimony	4986.81	5000.0	99.7	90 - 110	P	08/16/2012	22:53	LB62171
	Arsenic	4939.92	5000.0	98.8	90 - 110	P	08/16/2012	22:53	LB62171
	Barium	10030.71	10000.0	100.3	90 - 110	P	08/16/2012	22:53	LB62171
	Beryllium	241.83	250.0	96.7	90 - 110	P	08/16/2012	22:53	LB62171
	Cadmium	2451.94	2500.0	98.1	90 - 110	P	08/16/2012	22:53	LB62171
	Calcium	25233.84	25000.0	100.9	90 - 110	P	08/16/2012	22:53	LB62171

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical      SDG No.: D3811  
Contract: MSAN01      Lab Code: CHEM      Case No.: D3811      SAS No.: D3811  
Initial Calibration Source: EPA  
Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV14	Chromium	973.20	1000.0	97.3	90 - 110	P	08/16/2012	22:53	LB62171
	Cobalt	2457.78	2500.0	98.3	90 - 110	P	08/16/2012	22:53	LB62171
	Copper	1245.42	1250.0	99.6	90 - 110	P	08/16/2012	22:53	LB62171
	Iron	5037.77	5000.0	100.8	90 - 110	P	08/16/2012	22:53	LB62171
	Lead	4873.52	5000.0	97.5	90 - 110	P	08/16/2012	22:53	LB62171
	Magnesium	24954.43	25000.0	99.8	90 - 110	P	08/16/2012	22:53	LB62171
	Manganese	2459.27	2500.0	98.4	90 - 110	P	08/16/2012	22:53	LB62171
	Nickel	2444.62	2500.0	97.8	90 - 110	P	08/16/2012	22:53	LB62171
	Potassium	25977.96	25000.0	103.9	90 - 110	P	08/16/2012	22:53	LB62171
	Selenium	4961.48	5000.0	99.2	90 - 110	P	08/16/2012	22:53	LB62171
	Silver	1214.78	1250.0	97.2	90 - 110	P	08/16/2012	22:53	LB62171
	Sodium	25532.13	25000.0	102.1	90 - 110	P	08/16/2012	22:53	LB62171
	Thallium	4922.09	5000.0	98.4	90 - 110	P	08/16/2012	22:53	LB62171
	Vanadium	2591.05	2500.0	103.6	90 - 110	P	08/16/2012	22:53	LB62171
	Zinc	2368.05	2500.0	94.7	90 - 110	P	08/16/2012	22:53	LB62171

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
Initial Calibration Source: EPA  
Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2590	2520	102.7	90 - 110	P	08/17/2012	12:00	LB62199
	Antimony	971	994	97.7	90 - 110	P	08/17/2012	12:00	LB62199
	Arsenic	961	999	96.2	90 - 110	P	08/17/2012	12:00	LB62199
	Barium	511	503	101.5	90 - 110	P	08/17/2012	12:00	LB62199
	Beryllium	485	495	97.9	90 - 110	P	08/17/2012	12:00	LB62199
	Cadmium	485	496	97.8	90 - 110	P	08/17/2012	12:00	LB62199
	Calcium	10100	10000	100.8	90 - 110	P	08/17/2012	12:00	LB62199
	Chromium	502	490	102.5	90 - 110	P	08/17/2012	12:00	LB62199
	Cobalt	488	499	97.7	90 - 110	P	08/17/2012	12:00	LB62199
	Copper	504	492	102.5	90 - 110	P	08/17/2012	12:00	LB62199
	Iron	5090	5080	100.1	90 - 110	P	08/17/2012	12:00	LB62199
	Lead	984	1000	98.3	90 - 110	P	08/17/2012	12:00	LB62199
	Magnesium	5980	6070	98.4	90 - 110	P	08/17/2012	12:00	LB62199
	Manganese	509	499	102.0	90 - 110	P	08/17/2012	12:00	LB62199
	Nickel	491	503	97.6	90 - 110	P	08/17/2012	12:00	LB62199
	Potassium	10100	10000	100.6	90 - 110	P	08/17/2012	12:00	LB62199
	Selenium	980	1000	97.7	90 - 110	P	08/17/2012	12:00	LB62199
	Silver	489	501	97.5	90 - 110	P	08/17/2012	12:00	LB62199
	Sodium	10400	10100	103.3	90 - 110	P	08/17/2012	12:00	LB62199
	Thallium	992	1000	98.9	90 - 110	P	08/17/2012	12:00	LB62199
	Vanadium	498	501	99.4	90 - 110	P	08/17/2012	12:00	LB62199
	Zinc	1020	1020	99.8	90 - 110	P	08/17/2012	12:00	LB62199
CCV01	Aluminum	9750	10000	97.5	90 - 110	P	08/17/2012	12:34	LB62199
	Antimony	4930	5000	98.7	90 - 110	P	08/17/2012	12:34	LB62199
	Arsenic	4950	5000	99.0	90 - 110	P	08/17/2012	12:34	LB62199
	Barium	9890	10000	98.9	90 - 110	P	08/17/2012	12:34	LB62199
	Beryllium	245	250	98.1	90 - 110	P	08/17/2012	12:34	LB62199
	Cadmium	2470	2500	98.8	90 - 110	P	08/17/2012	12:34	LB62199
	Calcium	24900	25000	99.6	90 - 110	P	08/17/2012	12:34	LB62199
	Chromium	995	1000	99.5	90 - 110	P	08/17/2012	12:34	LB62199
	Cobalt	2460	2500	98.3	90 - 110	P	08/17/2012	12:34	LB62199
	Copper	1240	1250	99.3	90 - 110	P	08/17/2012	12:34	LB62199
	Iron	4960	5000	99.1	90 - 110	P	08/17/2012	12:34	LB62199
	Lead	4940	5000	98.8	90 - 110	P	08/17/2012	12:34	LB62199
	Magnesium	24400	25000	97.8	90 - 110	P	08/17/2012	12:34	LB62199

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Manganese	2480	2500	99.0	90 - 110	P	08/17/2012	12:34	LB62199
	Nickel	2480	2500	99.2	90 - 110	P	08/17/2012	12:34	LB62199
	Potassium	24800	25000	99.1	90 - 110	P	08/17/2012	12:34	LB62199
	Selenium	4980	5000	99.7	90 - 110	P	08/17/2012	12:34	LB62199
	Silver	1240	1250	99.6	90 - 110	P	08/17/2012	12:34	LB62199
	Sodium	25100	25000	100.3	90 - 110	P	08/17/2012	12:34	LB62199
	Thallium	4970	5000	99.4	90 - 110	P	08/17/2012	12:34	LB62199
	Vanadium	2460	2500	98.6	90 - 110	P	08/17/2012	12:34	LB62199
	Zinc	2450	2500	98.0	90 - 110	P	08/17/2012	12:34	LB62199
CCV02	Aluminum	9680	10000	96.8	90 - 110	P	08/17/2012	13:19	LB62199
	Antimony	4850	5000	96.9	90 - 110	P	08/17/2012	13:19	LB62199
	Arsenic	4870	5000	97.4	90 - 110	P	08/17/2012	13:19	LB62199
	Barium	9840	10000	98.4	90 - 110	P	08/17/2012	13:19	LB62199
	Beryllium	243	250	97.2	90 - 110	P	08/17/2012	13:19	LB62199
	Cadmium	2440	2500	97.7	90 - 110	P	08/17/2012	13:19	LB62199
	Calcium	25000	25000	100.0	90 - 110	P	08/17/2012	13:19	LB62199
	Chromium	994	1000	99.4	90 - 110	P	08/17/2012	13:19	LB62199
	Cobalt	2420	2500	96.7	90 - 110	P	08/17/2012	13:19	LB62199
	Copper	1220	1250	97.8	90 - 110	P	08/17/2012	13:19	LB62199
	Iron	4910	5000	98.1	90 - 110	P	08/17/2012	13:19	LB62199
	Lead	4880	5000	97.6	90 - 110	P	08/17/2012	13:19	LB62199
	Magnesium	24100	25000	96.5	90 - 110	P	08/17/2012	13:19	LB62199
	Manganese	2460	2500	98.3	90 - 110	P	08/17/2012	13:19	LB62199
	Nickel	2460	2500	98.6	90 - 110	P	08/17/2012	13:19	LB62199
	Potassium	24500	25000	98.2	90 - 110	P	08/17/2012	13:19	LB62199
	Selenium	4940	5000	98.9	90 - 110	P	08/17/2012	13:19	LB62199
	Silver	1240	1250	99.3	90 - 110	P	08/17/2012	13:19	LB62199
	Sodium	24700	25000	98.8	90 - 110	P	08/17/2012	13:19	LB62199
	Thallium	4920	5000	98.3	90 - 110	P	08/17/2012	13:19	LB62199
	Vanadium	2450	2500	98.1	90 - 110	P	08/17/2012	13:19	LB62199
	Zinc	2460	2500	98.3	90 - 110	P	08/17/2012	13:19	LB62199
CCV03	Aluminum	9680	10000	96.8	90 - 110	P	08/17/2012	14:05	LB62199
	Antimony	4820	5000	96.4	90 - 110	P	08/17/2012	14:05	LB62199
	Arsenic	4860	5000	97.1	90 - 110	P	08/17/2012	14:05	LB62199
	Barium	9510	10000	95.1	90 - 110	P	08/17/2012	14:05	LB62199

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Beryllium	242	250	96.7	90 - 110	P	08/17/2012	14:05	LB62199
	Cadmium	2430	2500	97.4	90 - 110	P	08/17/2012	14:05	LB62199
	Calcium	24500	25000	98.2	90 - 110	P	08/17/2012	14:05	LB62199
	Chromium	1010	1000	101.0	90 - 110	P	08/17/2012	14:05	LB62199
	Cobalt	2410	2500	96.4	90 - 110	P	08/17/2012	14:05	LB62199
	Copper	1220	1250	97.6	90 - 110	P	08/17/2012	14:05	LB62199
	Iron	5000	5000	100.1	90 - 110	P	08/17/2012	14:05	LB62199
	Lead	4880	5000	97.6	90 - 110	P	08/17/2012	14:05	LB62199
	Magnesium	23000	25000	92.1	90 - 110	P	08/17/2012	14:05	LB62199
	Manganese	2450	2500	98.2	90 - 110	P	08/17/2012	14:05	LB62199
	Nickel	2470	2500	98.7	90 - 110	P	08/17/2012	14:05	LB62199
	Potassium	23900	25000	95.7	90 - 110	P	08/17/2012	14:05	LB62199
	Selenium	5000	5000	100.1	90 - 110	P	08/17/2012	14:05	LB62199
	Silver	1260	1250	100.9	90 - 110	P	08/17/2012	14:05	LB62199
	Sodium	24300	25000	97.4	90 - 110	P	08/17/2012	14:05	LB62199
	Thallium	4910	5000	98.1	90 - 110	P	08/17/2012	14:05	LB62199
	Vanadium	2440	2500	97.7	90 - 110	P	08/17/2012	14:05	LB62199
	Zinc	2440	2500	97.5	90 - 110	P	08/17/2012	14:05	LB62199
CCV04	Aluminum	9600	10000	96.0	90 - 110	P	08/17/2012	14:51	LB62199
	Antimony	4840	5000	96.8	90 - 110	P	08/17/2012	14:51	LB62199
	Arsenic	4860	5000	97.2	90 - 110	P	08/17/2012	14:51	LB62199
	Barium	9680	10000	96.8	90 - 110	P	08/17/2012	14:51	LB62199
	Beryllium	241	250	96.4	90 - 110	P	08/17/2012	14:51	LB62199
	Cadmium	2430	2500	97.0	90 - 110	P	08/17/2012	14:51	LB62199
	Calcium	24600	25000	98.2	90 - 110	P	08/17/2012	14:51	LB62199
	Chromium	991	1000	99.1	90 - 110	P	08/17/2012	14:51	LB62199
	Cobalt	2410	2500	96.3	90 - 110	P	08/17/2012	14:51	LB62199
	Copper	1220	1250	97.3	90 - 110	P	08/17/2012	14:51	LB62199
	Iron	4870	5000	97.4	90 - 110	P	08/17/2012	14:51	LB62199
	Lead	4860	5000	97.1	90 - 110	P	08/17/2012	14:51	LB62199
	Magnesium	23500	25000	94.0	90 - 110	P	08/17/2012	14:51	LB62199
	Manganese	2440	2500	97.7	90 - 110	P	08/17/2012	14:51	LB62199
	Nickel	2460	2500	98.2	90 - 110	P	08/17/2012	14:51	LB62199
	Potassium	24100	25000	96.5	90 - 110	P	08/17/2012	14:51	LB62199
	Selenium	4960	5000	99.1	90 - 110	P	08/17/2012	14:51	LB62199

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
Initial Calibration Source: EPA  
Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Silver	1240	1250	99.2	90 - 110	P	08/17/2012	14:51	LB62199
	Sodium	24400	25000	97.7	90 - 110	P	08/17/2012	14:51	LB62199
	Thallium	4890	5000	97.8	90 - 110	P	08/17/2012	14:51	LB62199
	Vanadium	2430	2500	97.4	90 - 110	P	08/17/2012	14:51	LB62199
	Zinc	2380	2500	95.1	90 - 110	P	08/17/2012	14:51	LB62199
CCV05	Aluminum	9600	10000	96.0	90 - 110	P	08/17/2012	15:37	LB62199
	Antimony	4790	5000	95.8	90 - 110	P	08/17/2012	15:37	LB62199
	Arsenic	4840	5000	96.9	90 - 110	P	08/17/2012	15:37	LB62199
	Barium	9470	10000	94.7	90 - 110	P	08/17/2012	15:37	LB62199
	Beryllium	242	250	96.6	90 - 110	P	08/17/2012	15:37	LB62199
	Cadmium	2430	2500	97.2	90 - 110	P	08/17/2012	15:37	LB62199
	Calcium	24700	25000	98.9	90 - 110	P	08/17/2012	15:37	LB62199
	Chromium	1000	1000	100.0	90 - 110	P	08/17/2012	15:37	LB62199
	Cobalt	2410	2500	96.3	90 - 110	P	08/17/2012	15:37	LB62199
	Copper	1210	1250	97.0	90 - 110	P	08/17/2012	15:37	LB62199
	Iron	4940	5000	98.8	90 - 110	P	08/17/2012	15:37	LB62199
	Lead	4860	5000	97.3	90 - 110	P	08/17/2012	15:37	LB62199
	Magnesium	23100	25000	92.5	90 - 110	P	08/17/2012	15:37	LB62199
	Manganese	2450	2500	98.0	90 - 110	P	08/17/2012	15:37	LB62199
	Nickel	2470	2500	98.6	90 - 110	P	08/17/2012	15:37	LB62199
	Potassium	23600	25000	94.5	90 - 110	P	08/17/2012	15:37	LB62199
	Selenium	4990	5000	99.9	90 - 110	P	08/17/2012	15:37	LB62199
	Silver	1250	1250	99.8	90 - 110	P	08/17/2012	15:37	LB62199
	Sodium	24000	25000	96.1	90 - 110	P	08/17/2012	15:37	LB62199
	Thallium	4910	5000	98.1	90 - 110	P	08/17/2012	15:37	LB62199
CCV06	Vanadium	2440	2500	97.6	90 - 110	P	08/17/2012	15:37	LB62199
	Zinc	2520	2500	100.7	90 - 110	P	08/17/2012	15:37	LB62199
	Aluminum	9570	10000	95.7	90 - 110	P	08/17/2012	16:23	LB62199
	Antimony	4800	5000	96.0	90 - 110	P	08/17/2012	16:23	LB62199
	Arsenic	4850	5000	97.0	90 - 110	P	08/17/2012	16:23	LB62199
	Barium	9600	10000	96.0	90 - 110	P	08/17/2012	16:23	LB62199
	Beryllium	240	250	96.2	90 - 110	P	08/17/2012	16:23	LB62199
	Cadmium	2430	2500	97.1	90 - 110	P	08/17/2012	16:23	LB62199
	Calcium	25100	25000	100.2	90 - 110	P	08/17/2012	16:23	LB62199
	Chromium	993	1000	99.3	90 - 110	P	08/17/2012	16:23	LB62199

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS AnalyticalSDG No.: D3811Contract: MSAN01 Lab Code: CHEMCase No.: D3811 SAS No.: D3811Initial Calibration Source: EPAContinuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV06	Cobalt	2400	2500	96.2	90 - 110	P	08/17/2012	16:23	LB62199
	Copper	1210	1250	96.8	90 - 110	P	08/17/2012	16:23	LB62199
	Iron	4950	5000	98.9	90 - 110	P	08/17/2012	16:23	LB62199
	Lead	4850	5000	97.1	90 - 110	P	08/17/2012	16:23	LB62199
	Magnesium	23400	25000	93.5	90 - 110	P	08/17/2012	16:23	LB62199
	Manganese	2440	2500	97.7	90 - 110	P	08/17/2012	16:23	LB62199
	Nickel	2460	2500	98.4	90 - 110	P	08/17/2012	16:23	LB62199
	Potassium	23800	25000	95.0	90 - 110	P	08/17/2012	16:23	LB62199
	Selenium	4980	5000	99.7	90 - 110	P	08/17/2012	16:23	LB62199
	Silver	1240	1250	99.0	90 - 110	P	08/17/2012	16:23	LB62199
	Sodium	24000	25000	96.1	90 - 110	P	08/17/2012	16:23	LB62199
	Thallium	4890	5000	97.7	90 - 110	P	08/17/2012	16:23	LB62199
	Vanadium	2440	2500	97.5	90 - 110	P	08/17/2012	16:23	LB62199
	Zinc	2560	2500	102.2	90 - 110	P	08/17/2012	16:23	LB62199
CCV07	Aluminum	9580	10000	95.8	90 - 110	P	08/17/2012	17:02	LB62199
	Antimony	4780	5000	95.6	90 - 110	P	08/17/2012	17:02	LB62199
	Arsenic	4840	5000	96.8	90 - 110	P	08/17/2012	17:02	LB62199
	Barium	9560	10000	95.5	90 - 110	P	08/17/2012	17:02	LB62199
	Beryllium	241	250	96.3	90 - 110	P	08/17/2012	17:02	LB62199
	Cadmium	2450	2500	98.0	90 - 110	P	08/17/2012	17:02	LB62199
	Calcium	25200	25000	100.7	90 - 110	P	08/17/2012	17:02	LB62199
	Chromium	1000	1000	100.4	90 - 110	P	08/17/2012	17:02	LB62199
	Cobalt	2420	2500	96.6	90 - 110	P	08/17/2012	17:02	LB62199
	Copper	1210	1250	96.7	90 - 110	P	08/17/2012	17:02	LB62199
	Iron	4850	5000	97.1	90 - 110	P	08/17/2012	17:02	LB62199
	Lead	4910	5000	98.1	90 - 110	P	08/17/2012	17:02	LB62199
	Magnesium	23700	25000	94.8	90 - 110	P	08/17/2012	17:02	LB62199
	Manganese	2450	2500	98.1	90 - 110	P	08/17/2012	17:02	LB62199
	Nickel	2480	2500	99.0	90 - 110	P	08/17/2012	17:02	LB62199
	Potassium	23700	25000	94.7	90 - 110	P	08/17/2012	17:02	LB62199
	Selenium	4990	5000	99.8	90 - 110	P	08/17/2012	17:02	LB62199
	Silver	1250	1250	100.1	90 - 110	P	08/17/2012	17:02	LB62199
	Sodium	24000	25000	96.0	90 - 110	P	08/17/2012	17:02	LB62199
	Thallium	4930	5000	98.6	90 - 110	P	08/17/2012	17:02	LB62199
	Vanadium	2440	2500	97.7	90 - 110	P	08/17/2012	17:02	LB62199

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
Initial Calibration Source: EPA  
Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Zinc	2510	2500	100.2	90 - 110	P	08/17/2012	17:02	LB62199
CCV08	Aluminum	9530	10000	95.3	90 - 110	P	08/17/2012	18:13	LB62199
	Antimony	4820	5000	96.3	90 - 110	P	08/17/2012	18:13	LB62199
	Arsenic	4870	5000	97.3	90 - 110	P	08/17/2012	18:13	LB62199
	Barium	9550	10000	95.5	90 - 110	P	08/17/2012	18:13	LB62199
	Beryllium	242	250	96.8	90 - 110	P	08/17/2012	18:13	LB62199
	Cadmium	2450	2500	98.0	90 - 110	P	08/17/2012	18:13	LB62199
	Calcium	25300	25000	101.2	90 - 110	P	08/17/2012	18:13	LB62199
	Chromium	992	1000	99.2	90 - 110	P	08/17/2012	18:13	LB62199
	Cobalt	2420	2500	96.9	90 - 110	P	08/17/2012	18:13	LB62199
	Copper	1210	1250	96.8	90 - 110	P	08/17/2012	18:13	LB62199
	Iron	5000	5000	99.9	90 - 110	P	08/17/2012	18:13	LB62199
	Lead	4890	5000	97.7	90 - 110	P	08/17/2012	18:13	LB62199
	Magnesium	24200	25000	96.9	90 - 110	P	08/17/2012	18:13	LB62199
	Manganese	2450	2500	97.9	90 - 110	P	08/17/2012	18:13	LB62199
	Nickel	2460	2500	98.5	90 - 110	P	08/17/2012	18:13	LB62199
	Potassium	23700	25000	94.9	90 - 110	P	08/17/2012	18:13	LB62199
	Selenium	4930	5000	98.7	90 - 110	P	08/17/2012	18:13	LB62199
	Silver	1230	1250	98.2	90 - 110	P	08/17/2012	18:13	LB62199
	Sodium	24100	25000	96.4	90 - 110	P	08/17/2012	18:13	LB62199
	Thallium	4900	5000	98.1	90 - 110	P	08/17/2012	18:13	LB62199
	Vanadium	2420	2500	97.0	90 - 110	P	08/17/2012	18:13	LB62199
	Zinc	2590	2500	103.6	90 - 110	P	08/17/2012	18:13	LB62199
CCV09	Aluminum	9510	10000	95.1	90 - 110	P	08/17/2012	19:00	LB62199
	Antimony	4740	5000	94.7	90 - 110	P	08/17/2012	19:00	LB62199
	Arsenic	4800	5000	96.1	90 - 110	P	08/17/2012	19:00	LB62199
	Barium	9510	10000	95.1	90 - 110	P	08/17/2012	19:00	LB62199
	Beryllium	241	250	96.6	90 - 110	P	08/17/2012	19:00	LB62199
	Cadmium	2440	2500	97.8	90 - 110	P	08/17/2012	19:00	LB62199
	Calcium	25500	25000	101.8	90 - 110	P	08/17/2012	19:00	LB62199
	Chromium	994	1000	99.4	90 - 110	P	08/17/2012	19:00	LB62199
	Cobalt	2410	2500	96.5	90 - 110	P	08/17/2012	19:00	LB62199
	Copper	1200	1250	96.0	90 - 110	P	08/17/2012	19:00	LB62199
	Iron	4920	5000	98.5	90 - 110	P	08/17/2012	19:00	LB62199
	Lead	4880	5000	97.6	90 - 110	P	08/17/2012	19:00	LB62199



## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
Initial Calibration Source: EPA  
Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV09	Magnesium	24100	25000	96.4	90 - 110	P	08/17/2012	19:00	LB62199
	Manganese	2450	2500	97.9	90 - 110	P	08/17/2012	19:00	LB62199
	Nickel	2470	2500	98.6	90 - 110	P	08/17/2012	19:00	LB62199
	Potassium	23700	25000	94.8	90 - 110	P	08/17/2012	19:00	LB62199
	Selenium	4920	5000	98.4	90 - 110	P	08/17/2012	19:00	LB62199
	Silver	1220	1250	97.9	90 - 110	P	08/17/2012	19:00	LB62199
	Sodium	23700	25000	94.8	90 - 110	P	08/17/2012	19:00	LB62199
	Thallium	4890	5000	97.8	90 - 110	P	08/17/2012	19:00	LB62199
	Vanadium	2440	2500	97.4	90 - 110	P	08/17/2012	19:00	LB62199
	Zinc	2610	2500	104.6	90 - 110	P	08/17/2012	19:00	LB62199
CCV10	Aluminum	9540	10000	95.4	90 - 110	P	08/17/2012	19:47	LB62199
	Antimony	4720	5000	94.4	90 - 110	P	08/17/2012	19:47	LB62199
	Arsenic	4780	5000	95.7	90 - 110	P	08/17/2012	19:47	LB62199
	Barium	9370	10000	93.7	90 - 110	P	08/17/2012	19:47	LB62199
	Beryllium	243	250	97.2	90 - 110	P	08/17/2012	19:47	LB62199
	Cadmium	2410	2500	96.5	90 - 110	P	08/17/2012	19:47	LB62199
	Calcium	24900	25000	99.8	90 - 110	P	08/17/2012	19:47	LB62199
	Chromium	993	1000	99.3	90 - 110	P	08/17/2012	19:47	LB62199
	Cobalt	2400	2500	95.9	90 - 110	P	08/17/2012	19:47	LB62199
	Copper	1190	1250	95.2	90 - 110	P	08/17/2012	19:47	LB62199
	Iron	5010	5000	100.1	90 - 110	P	08/17/2012	19:47	LB62199
	Lead	4830	5000	96.6	90 - 110	P	08/17/2012	19:47	LB62199
	Magnesium	23700	25000	94.8	90 - 110	P	08/17/2012	19:47	LB62199
	Manganese	2430	2500	97.3	90 - 110	P	08/17/2012	19:47	LB62199
	Nickel	2440	2500	97.5	90 - 110	P	08/17/2012	19:47	LB62199
	Potassium	23300	25000	93.1	90 - 110	P	08/17/2012	19:47	LB62199
	Selenium	4890	5000	97.9	90 - 110	P	08/17/2012	19:47	LB62199
	Silver	1240	1250	98.9	90 - 110	P	08/17/2012	19:47	LB62199
	Sodium	23600	25000	94.3	90 - 110	P	08/17/2012	19:47	LB62199
	Thallium	4840	5000	96.9	90 - 110	P	08/17/2012	19:47	LB62199
	Vanadium	2420	2500	96.6	90 - 110	P	08/17/2012	19:47	LB62199
	Zinc	2560	2500	102.6	90 - 110	P	08/17/2012	19:47	LB62199

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2670.03	2521.0	105.9	90 - 110	P	08/16/2012	14:01	LB62172
	Antimony	975.35	994.0	98.1	90 - 110	P	08/16/2012	14:01	LB62172
	Arsenic	972.83	999.0	97.4	90 - 110	P	08/16/2012	14:01	LB62172
	Barium	520.91	503.0	103.6	90 - 110	P	08/16/2012	14:01	LB62172
	Beryllium	490.24	495.0	99.0	90 - 110	P	08/16/2012	14:01	LB62172
	Cadmium	482.25	496.0	97.2	90 - 110	P	08/16/2012	14:01	LB62172
	Calcium	10181.45	10026.0	101.6	90 - 110	P	08/16/2012	14:01	LB62172
	Chromium	490.59	490.0	100.1	90 - 110	P	08/16/2012	14:01	LB62172
	Cobalt	493.19	499.0	98.8	90 - 110	P	08/16/2012	14:01	LB62172
	Copper	509.73	492.0	103.6	90 - 110	P	08/16/2012	14:01	LB62172
	Iron	5029.37	5082.0	99.0	90 - 110	P	08/16/2012	14:01	LB62172
	Lead	973.11	1002.0	97.1	90 - 110	P	08/16/2012	14:01	LB62172
	Magnesium	5997.23	6074.0	98.7	90 - 110	P	08/16/2012	14:01	LB62172
	Manganese	501.65	499.0	100.5	90 - 110	P	08/16/2012	14:01	LB62172
	Nickel	490.64	503.0	97.5	90 - 110	P	08/16/2012	14:01	LB62172
	Potassium	9903.44	10021.0	98.8	90 - 110	P	08/16/2012	14:01	LB62172
	Selenium	976.17	1003.0	97.3	90 - 110	P	08/16/2012	14:01	LB62172
	Silver	477.09	501.0	95.2	90 - 110	P	08/16/2012	14:01	LB62172
	Sodium	10230.22	10097.0	101.3	90 - 110	P	08/16/2012	14:01	LB62172
	Thallium	994.08	1003.0	99.1	90 - 110	P	08/16/2012	14:01	LB62172
	Vanadium	503.60	501.0	100.5	90 - 110	P	08/16/2012	14:01	LB62172
	Zinc	1004.36	1025.0	98.0	90 - 110	P	08/16/2012	14:01	LB62172
CCV01	Aluminum	10115.14	10000.0	101.2	90 - 110	P	08/16/2012	14:21	LB62172
	Antimony	4994.19	5000.0	99.9	90 - 110	P	08/16/2012	14:21	LB62172
	Arsenic	4989.97	5000.0	99.8	90 - 110	P	08/16/2012	14:21	LB62172
	Barium	9824.41	10000.0	98.2	90 - 110	P	08/16/2012	14:21	LB62172
	Beryllium	249.06	250.0	99.6	90 - 110	P	08/16/2012	14:21	LB62172
	Cadmium	2492.21	2500.0	99.7	90 - 110	P	08/16/2012	14:21	LB62172
	Calcium	25092.04	25000.0	100.4	90 - 110	P	08/16/2012	14:21	LB62172
	Chromium	986.91	1000.0	98.7	90 - 110	P	08/16/2012	14:21	LB62172
	Cobalt	2481.49	2500.0	99.3	90 - 110	P	08/16/2012	14:21	LB62172
	Copper	1256.05	1250.0	100.5	90 - 110	P	08/16/2012	14:21	LB62172
	Iron	5078.36	5000.0	101.6	90 - 110	P	08/16/2012	14:21	LB62172
	Lead	4943.70	5000.0	98.9	90 - 110	P	08/16/2012	14:21	LB62172
	Magnesium	25177.89	25000.0	100.7	90 - 110	P	08/16/2012	14:21	LB62172

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Manganese	2491.85	2500.0	99.7	90 - 110	P	08/16/2012	14:21	LB62172
	Nickel	2483.10	2500.0	99.3	90 - 110	P	08/16/2012	14:21	LB62172
	Potassium	25243.50	25000.0	101.0	90 - 110	P	08/16/2012	14:21	LB62172
	Selenium	5010.43	5000.0	100.2	90 - 110	P	08/16/2012	14:21	LB62172
	Silver	1226.30	1250.0	98.1	90 - 110	P	08/16/2012	14:21	LB62172
	Sodium	24886.30	25000.0	99.5	90 - 110	P	08/16/2012	14:21	LB62172
	Thallium	4983.32	5000.0	99.7	90 - 110	P	08/16/2012	14:21	LB62172
	Vanadium	2511.70	2500.0	100.5	90 - 110	P	08/16/2012	14:21	LB62172
	Zinc	2496.94	2500.0	99.9	90 - 110	P	08/16/2012	14:21	LB62172
CCV02	Aluminum	10311.88	10000.0	103.1	90 - 110	P	08/16/2012	15:02	LB62172
	Antimony	4965.16	5000.0	99.3	90 - 110	P	08/16/2012	15:02	LB62172
	Arsenic	4944.53	5000.0	98.9	90 - 110	P	08/16/2012	15:02	LB62172
	Barium	10236.82	10000.0	102.4	90 - 110	P	08/16/2012	15:02	LB62172
	Beryllium	257.16	250.0	102.9	90 - 110	P	08/16/2012	15:02	LB62172
	Cadmium	2472.88	2500.0	98.9	90 - 110	P	08/16/2012	15:02	LB62172
	Calcium	26036.03	25000.0	104.1	90 - 110	P	08/16/2012	15:02	LB62172
	Chromium	991.38	1000.0	99.1	90 - 110	P	08/16/2012	15:02	LB62172
	Cobalt	2465.98	2500.0	98.6	90 - 110	P	08/16/2012	15:02	LB62172
	Copper	1287.73	1250.0	103.0	90 - 110	P	08/16/2012	15:02	LB62172
	Iron	5222.78	5000.0	104.5	90 - 110	P	08/16/2012	15:02	LB62172
	Lead	4907.87	5000.0	98.2	90 - 110	P	08/16/2012	15:02	LB62172
	Magnesium	25862.31	25000.0	103.4	90 - 110	P	08/16/2012	15:02	LB62172
	Manganese	2582.50	2500.0	103.3	90 - 110	P	08/16/2012	15:02	LB62172
	Nickel	2466.36	2500.0	98.7	90 - 110	P	08/16/2012	15:02	LB62172
	Potassium	25867.09	25000.0	103.5	90 - 110	P	08/16/2012	15:02	LB62172
	Selenium	4962.71	5000.0	99.3	90 - 110	P	08/16/2012	15:02	LB62172
	Silver	1240.05	1250.0	99.2	90 - 110	P	08/16/2012	15:02	LB62172
	Sodium	25823.99	25000.0	103.3	90 - 110	P	08/16/2012	15:02	LB62172
	Thallium	4971.96	5000.0	99.4	90 - 110	P	08/16/2012	15:02	LB62172
	Vanadium	2583.97	2500.0	103.4	90 - 110	P	08/16/2012	15:02	LB62172
	Zinc	2539.86	2500.0	101.6	90 - 110	P	08/16/2012	15:02	LB62172
CCV03	Aluminum	9803.00	10000.0	98.0	90 - 110	P	08/16/2012	15:42	LB62172
	Antimony	4927.75	5000.0	98.6	90 - 110	P	08/16/2012	15:42	LB62172
	Arsenic	4968.80	5000.0	99.4	90 - 110	P	08/16/2012	15:42	LB62172
	Barium	9857.43	10000.0	98.6	90 - 110	P	08/16/2012	15:42	LB62172

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Beryllium	246.36	250.0	98.5	90 - 110	P	08/16/2012	15:42	LB62172
	Cadmium	2504.02	2500.0	100.2	90 - 110	P	08/16/2012	15:42	LB62172
	Calcium	24359.26	25000.0	97.4	90 - 110	P	08/16/2012	15:42	LB62172
	Chromium	1006.83	1000.0	100.7	90 - 110	P	08/16/2012	15:42	LB62172
	Cobalt	2475.89	2500.0	99.0	90 - 110	P	08/16/2012	15:42	LB62172
	Copper	1227.61	1250.0	98.2	90 - 110	P	08/16/2012	15:42	LB62172
	Iron	4884.50	5000.0	97.7	90 - 110	P	08/16/2012	15:42	LB62172
	Lead	4958.36	5000.0	99.2	90 - 110	P	08/16/2012	15:42	LB62172
	Magnesium	24477.15	25000.0	97.9	90 - 110	P	08/16/2012	15:42	LB62172
	Manganese	2453.27	2500.0	98.1	90 - 110	P	08/16/2012	15:42	LB62172
	Nickel	2489.92	2500.0	99.6	90 - 110	P	08/16/2012	15:42	LB62172
	Potassium	24707.73	25000.0	98.8	90 - 110	P	08/16/2012	15:42	LB62172
	Selenium	4971.64	5000.0	99.4	90 - 110	P	08/16/2012	15:42	LB62172
	Silver	1234.56	1250.0	98.8	90 - 110	P	08/16/2012	15:42	LB62172
	Sodium	24970.42	25000.0	99.9	90 - 110	P	08/16/2012	15:42	LB62172
	Thallium	4998.11	5000.0	100.0	90 - 110	P	08/16/2012	15:42	LB62172
	Vanadium	2488.59	2500.0	99.5	90 - 110	P	08/16/2012	15:42	LB62172
	Zinc	2487.99	2500.0	99.5	90 - 110	P	08/16/2012	15:42	LB62172
CCV04	Aluminum	9867.94	10000.0	98.7	90 - 110	P	08/16/2012	16:22	LB62172
	Antimony	4946.69	5000.0	98.9	90 - 110	P	08/16/2012	16:22	LB62172
	Arsenic	4964.73	5000.0	99.3	90 - 110	P	08/16/2012	16:22	LB62172
	Barium	10013.22	10000.0	100.1	90 - 110	P	08/16/2012	16:22	LB62172
	Beryllium	246.50	250.0	98.6	90 - 110	P	08/16/2012	16:22	LB62172
	Cadmium	2479.70	2500.0	99.2	90 - 110	P	08/16/2012	16:22	LB62172
	Calcium	24624.86	25000.0	98.5	90 - 110	P	08/16/2012	16:22	LB62172
	Chromium	1004.23	1000.0	100.4	90 - 110	P	08/16/2012	16:22	LB62172
	Cobalt	2461.34	2500.0	98.5	90 - 110	P	08/16/2012	16:22	LB62172
	Copper	1236.41	1250.0	98.9	90 - 110	P	08/16/2012	16:22	LB62172
	Iron	4926.48	5000.0	98.5	90 - 110	P	08/16/2012	16:22	LB62172
	Lead	4942.79	5000.0	98.9	90 - 110	P	08/16/2012	16:22	LB62172
	Magnesium	24478.73	25000.0	97.9	90 - 110	P	08/16/2012	16:22	LB62172
	Manganese	2475.46	2500.0	99.0	90 - 110	P	08/16/2012	16:22	LB62172
	Nickel	2477.35	2500.0	99.1	90 - 110	P	08/16/2012	16:22	LB62172
	Potassium	24812.55	25000.0	99.3	90 - 110	P	08/16/2012	16:22	LB62172
	Selenium	4982.56	5000.0	99.7	90 - 110	P	08/16/2012	16:22	LB62172

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Silver	1249.99	1250.0	100.0	90 - 110	P	08/16/2012	16:22	LB62172
	Sodium	25601.34	25000.0	102.4	90 - 110	P	08/16/2012	16:22	LB62172
	Thallium	5000.63	5000.0	100.0	90 - 110	P	08/16/2012	16:22	LB62172
	Vanadium	2475.75	2500.0	99.0	90 - 110	P	08/16/2012	16:22	LB62172
	Zinc	2457.09	2500.0	98.3	90 - 110	P	08/16/2012	16:22	LB62172
CCV05	Aluminum	9775.90	10000.0	97.8	90 - 110	P	08/16/2012	17:03	LB62172
	Antimony	4926.44	5000.0	98.5	90 - 110	P	08/16/2012	17:03	LB62172
	Arsenic	4967.63	5000.0	99.4	90 - 110	P	08/16/2012	17:03	LB62172
	Barium	9866.37	10000.0	98.7	90 - 110	P	08/16/2012	17:03	LB62172
	Beryllium	243.00	250.0	97.2	90 - 110	P	08/16/2012	17:03	LB62172
	Cadmium	2491.80	2500.0	99.7	90 - 110	P	08/16/2012	17:03	LB62172
	Calcium	24092.20	25000.0	96.4	90 - 110	P	08/16/2012	17:03	LB62172
	Chromium	1009.43	1000.0	100.9	90 - 110	P	08/16/2012	17:03	LB62172
	Cobalt	2464.21	2500.0	98.6	90 - 110	P	08/16/2012	17:03	LB62172
	Copper	1231.18	1250.0	98.5	90 - 110	P	08/16/2012	17:03	LB62172
	Iron	4829.47	5000.0	96.6	90 - 110	P	08/16/2012	17:03	LB62172
	Lead	4953.59	5000.0	99.1	90 - 110	P	08/16/2012	17:03	LB62172
	Magnesium	24004.45	25000.0	96.0	90 - 110	P	08/16/2012	17:03	LB62172
	Manganese	2433.03	2500.0	97.3	90 - 110	P	08/16/2012	17:03	LB62172
	Nickel	2487.05	2500.0	99.5	90 - 110	P	08/16/2012	17:03	LB62172
	Potassium	24657.83	25000.0	98.6	90 - 110	P	08/16/2012	17:03	LB62172
	Selenium	4984.95	5000.0	99.7	90 - 110	P	08/16/2012	17:03	LB62172
	Silver	1242.38	1250.0	99.4	90 - 110	P	08/16/2012	17:03	LB62172
	Sodium	25162.31	25000.0	100.6	90 - 110	P	08/16/2012	17:03	LB62172
	Thallium	5010.51	5000.0	100.2	90 - 110	P	08/16/2012	17:03	LB62172
	Vanadium	2464.31	2500.0	98.6	90 - 110	P	08/16/2012	17:03	LB62172
	Zinc	2447.37	2500.0	97.9	90 - 110	P	08/16/2012	17:03	LB62172
CCV06	Aluminum	9776.59	10000.0	97.8	90 - 110	P	08/16/2012	17:43	LB62172
	Antimony	4915.72	5000.0	98.3	90 - 110	P	08/16/2012	17:43	LB62172
	Arsenic	4957.54	5000.0	99.2	90 - 110	P	08/16/2012	17:43	LB62172
	Barium	9810.47	10000.0	98.1	90 - 110	P	08/16/2012	17:43	LB62172
	Beryllium	242.90	250.0	97.2	90 - 110	P	08/16/2012	17:43	LB62172
	Cadmium	2496.20	2500.0	99.8	90 - 110	P	08/16/2012	17:43	LB62172
	Calcium	24143.77	25000.0	96.6	90 - 110	P	08/16/2012	17:43	LB62172
	Chromium	1012.89	1000.0	101.3	90 - 110	P	08/16/2012	17:43	LB62172

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

**Client:** MS Analytical **SDG No.:** D3811  
**Contract:** MSAN01 **Lab Code:** CHEM **Case No.:** D3811 **SAS No.:** D3811  
**Initial Calibration Source:** EPA  
**Continuing Calibration Source:** INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV06	Cobalt	2464.92	2500.0	98.6	90 - 110	P	08/16/2012	17:43	LB62172
	Copper	1230.84	1250.0	98.5	90 - 110	P	08/16/2012	17:43	LB62172
	Iron	4836.94	5000.0	96.7	90 - 110	P	08/16/2012	17:43	LB62172
	Lead	4957.83	5000.0	99.2	90 - 110	P	08/16/2012	17:43	LB62172
	Magnesium	24094.11	25000.0	96.4	90 - 110	P	08/16/2012	17:43	LB62172
	Manganese	2436.99	2500.0	97.5	90 - 110	P	08/16/2012	17:43	LB62172
	Nickel	2487.64	2500.0	99.5	90 - 110	P	08/16/2012	17:43	LB62172
	Potassium	24718.40	25000.0	98.9	90 - 110	P	08/16/2012	17:43	LB62172
	Selenium	4972.32	5000.0	99.4	90 - 110	P	08/16/2012	17:43	LB62172
	Silver	1243.31	1250.0	99.5	90 - 110	P	08/16/2012	17:43	LB62172
	Sodium	25145.72	25000.0	100.6	90 - 110	P	08/16/2012	17:43	LB62172
	Thallium	5004.53	5000.0	100.1	90 - 110	P	08/16/2012	17:43	LB62172
	Vanadium	2475.51	2500.0	99.0	90 - 110	P	08/16/2012	17:43	LB62172
	Zinc	2447.32	2500.0	97.9	90 - 110	P	08/16/2012	17:43	LB62172
CCV07	Aluminum	9771.55	10000.0	97.7	90 - 110	P	08/16/2012	18:22	LB62172
	Antimony	4975.46	5000.0	99.5	90 - 110	P	08/16/2012	18:22	LB62172
	Arsenic	4988.24	5000.0	99.8	90 - 110	P	08/16/2012	18:22	LB62172
	Barium	9874.43	10000.0	98.7	90 - 110	P	08/16/2012	18:22	LB62172
	Beryllium	242.39	250.0	97.0	90 - 110	P	08/16/2012	18:22	LB62172
	Cadmium	2461.42	2500.0	98.5	90 - 110	P	08/16/2012	18:22	LB62172
	Calcium	24085.98	25000.0	96.3	90 - 110	P	08/16/2012	18:22	LB62172
	Chromium	998.43	1000.0	99.8	90 - 110	P	08/16/2012	18:22	LB62172
	Cobalt	2454.07	2500.0	98.2	90 - 110	P	08/16/2012	18:22	LB62172
	Copper	1233.16	1250.0	98.7	90 - 110	P	08/16/2012	18:22	LB62172
	Iron	4854.35	5000.0	97.1	90 - 110	P	08/16/2012	18:22	LB62172
	Lead	4916.25	5000.0	98.3	90 - 110	P	08/16/2012	18:22	LB62172
	Magnesium	23889.62	25000.0	95.6	90 - 110	P	08/16/2012	18:22	LB62172
	Manganese	2423.74	2500.0	96.9	90 - 110	P	08/16/2012	18:22	LB62172
	Nickel	2460.00	2500.0	98.4	90 - 110	P	08/16/2012	18:22	LB62172
	Potassium	24852.92	25000.0	99.4	90 - 110	P	08/16/2012	18:22	LB62172
	Selenium	5006.79	5000.0	100.1	90 - 110	P	08/16/2012	18:22	LB62172
	Silver	1229.77	1250.0	98.4	90 - 110	P	08/16/2012	18:22	LB62172
	Sodium	25189.62	25000.0	100.8	90 - 110	P	08/16/2012	18:22	LB62172
	Thallium	5003.93	5000.0	100.1	90 - 110	P	08/16/2012	18:22	LB62172
	Vanadium	2470.30	2500.0	98.8	90 - 110	P	08/16/2012	18:22	LB62172

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Zinc	2411.58	2500.0	96.5	90 - 110	P	08/16/2012	18:22	LB62172
CCV08	Aluminum	9814.26	10000.0	98.1	90 - 110	P	08/16/2012	19:02	LB62172
	Antimony	4946.23	5000.0	98.9	90 - 110	P	08/16/2012	19:02	LB62172
	Arsenic	4948.53	5000.0	99.0	90 - 110	P	08/16/2012	19:02	LB62172
	Barium	9785.50	10000.0	97.9	90 - 110	P	08/16/2012	19:02	LB62172
	Beryllium	241.13	250.0	96.5	90 - 110	P	08/16/2012	19:02	LB62172
	Cadmium	2437.30	2500.0	97.5	90 - 110	P	08/16/2012	19:02	LB62172
	Calcium	24366.99	25000.0	97.5	90 - 110	P	08/16/2012	19:02	LB62172
	Chromium	975.10	1000.0	97.5	90 - 110	P	08/16/2012	19:02	LB62172
	Cobalt	2435.12	2500.0	97.4	90 - 110	P	08/16/2012	19:02	LB62172
	Copper	1231.90	1250.0	98.6	90 - 110	P	08/16/2012	19:02	LB62172
	Iron	4910.65	5000.0	98.2	90 - 110	P	08/16/2012	19:02	LB62172
	Lead	4856.29	5000.0	97.1	90 - 110	P	08/16/2012	19:02	LB62172
	Magnesium	24257.83	25000.0	97.0	90 - 110	P	08/16/2012	19:02	LB62172
	Manganese	2423.60	2500.0	96.9	90 - 110	P	08/16/2012	19:02	LB62172
	Nickel	2433.20	2500.0	97.3	90 - 110	P	08/16/2012	19:02	LB62172
	Potassium	25085.50	25000.0	100.3	90 - 110	P	08/16/2012	19:02	LB62172
	Selenium	4969.00	5000.0	99.4	90 - 110	P	08/16/2012	19:02	LB62172
	Silver	1212.23	1250.0	97.0	90 - 110	P	08/16/2012	19:02	LB62172
	Sodium	25039.19	25000.0	100.2	90 - 110	P	08/16/2012	19:02	LB62172
	Thallium	4926.60	5000.0	98.5	90 - 110	P	08/16/2012	19:02	LB62172
	Vanadium	2456.71	2500.0	98.3	90 - 110	P	08/16/2012	19:02	LB62172
	Zinc	2359.46	2500.0	94.4	90 - 110	P	08/16/2012	19:02	LB62172
CCV09	Aluminum	9946.49	10000.0	99.5	90 - 110	P	08/16/2012	19:43	LB62172
	Antimony	4972.02	5000.0	99.4	90 - 110	P	08/16/2012	19:43	LB62172
	Arsenic	4962.72	5000.0	99.3	90 - 110	P	08/16/2012	19:43	LB62172
	Barium	9864.77	10000.0	98.6	90 - 110	P	08/16/2012	19:43	LB62172
	Beryllium	245.94	250.0	98.4	90 - 110	P	08/16/2012	19:43	LB62172
	Cadmium	2465.70	2500.0	98.6	90 - 110	P	08/16/2012	19:43	LB62172
	Calcium	25006.31	25000.0	100.0	90 - 110	P	08/16/2012	19:43	LB62172
	Chromium	984.03	1000.0	98.4	90 - 110	P	08/16/2012	19:43	LB62172
	Cobalt	2460.24	2500.0	98.4	90 - 110	P	08/16/2012	19:43	LB62172
	Copper	1245.93	1250.0	99.7	90 - 110	P	08/16/2012	19:43	LB62172
	Iron	5033.98	5000.0	100.7	90 - 110	P	08/16/2012	19:43	LB62172
	Lead	4900.07	5000.0	98.0	90 - 110	P	08/16/2012	19:43	LB62172

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV09	Magnesium	24942.90	25000.0	99.8	90 - 110	P	08/16/2012	19:43	LB62172
	Manganese	2473.09	2500.0	98.9	90 - 110	P	08/16/2012	19:43	LB62172
	Nickel	2454.42	2500.0	98.2	90 - 110	P	08/16/2012	19:43	LB62172
	Potassium	25581.83	25000.0	102.3	90 - 110	P	08/16/2012	19:43	LB62172
	Selenium	4975.34	5000.0	99.5	90 - 110	P	08/16/2012	19:43	LB62172
	Silver	1226.25	1250.0	98.1	90 - 110	P	08/16/2012	19:43	LB62172
	Sodium	25318.47	25000.0	101.3	90 - 110	P	08/16/2012	19:43	LB62172
	Thallium	4941.01	5000.0	98.8	90 - 110	P	08/16/2012	19:43	LB62172
	Vanadium	2550.78	2500.0	102.0	90 - 110	P	08/16/2012	19:43	LB62172
	Zinc	2401.02	2500.0	96.0	90 - 110	P	08/16/2012	19:43	LB62172
CCV10	Aluminum	10064.88	10000.0	100.6	90 - 110	P	08/16/2012	20:23	LB62172
	Antimony	5010.13	5000.0	100.2	90 - 110	P	08/16/2012	20:23	LB62172
	Arsenic	4939.60	5000.0	98.8	90 - 110	P	08/16/2012	20:23	LB62172
	Barium	10053.37	10000.0	100.5	90 - 110	P	08/16/2012	20:23	LB62172
	Beryllium	245.73	250.0	98.3	90 - 110	P	08/16/2012	20:23	LB62172
	Cadmium	2442.43	2500.0	97.7	90 - 110	P	08/16/2012	20:23	LB62172
	Calcium	25448.85	25000.0	101.8	90 - 110	P	08/16/2012	20:23	LB62172
	Chromium	966.43	1000.0	96.6	90 - 110	P	08/16/2012	20:23	LB62172
	Cobalt	2457.94	2500.0	98.3	90 - 110	P	08/16/2012	20:23	LB62172
	Copper	1258.50	1250.0	100.7	90 - 110	P	08/16/2012	20:23	LB62172
	Iron	5097.07	5000.0	101.9	90 - 110	P	08/16/2012	20:23	LB62172
	Lead	4862.75	5000.0	97.3	90 - 110	P	08/16/2012	20:23	LB62172
	Magnesium	25242.33	25000.0	101.0	90 - 110	P	08/16/2012	20:23	LB62172
	Manganese	2491.77	2500.0	99.7	90 - 110	P	08/16/2012	20:23	LB62172
	Nickel	2433.10	2500.0	97.3	90 - 110	P	08/16/2012	20:23	LB62172
	Potassium	26059.05	25000.0	104.2	90 - 110	P	08/16/2012	20:23	LB62172
	Selenium	4963.91	5000.0	99.3	90 - 110	P	08/16/2012	20:23	LB62172
	Silver	1207.41	1250.0	96.6	90 - 110	P	08/16/2012	20:23	LB62172
	Sodium	25537.61	25000.0	102.2	90 - 110	P	08/16/2012	20:23	LB62172
	Thallium	4912.62	5000.0	98.3	90 - 110	P	08/16/2012	20:23	LB62172
	Vanadium	2576.13	2500.0	103.0	90 - 110	P	08/16/2012	20:23	LB62172
	Zinc	2385.63	2500.0	95.4	90 - 110	P	08/16/2012	20:23	LB62172
CCV11	Aluminum	10291.64	10000.0	102.9	90 - 110	P	08/16/2012	21:05	LB62172
	Antimony	5008.18	5000.0	100.2	90 - 110	P	08/16/2012	21:05	LB62172
	Arsenic	4954.81	5000.0	99.1	90 - 110	P	08/16/2012	21:05	LB62172



INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV11	Barium	10082.09	10000.0	100.8	90 - 110	P	08/16/2012	21:05	LB62172
	Beryllium	248.40	250.0	99.4	90 - 110	P	08/16/2012	21:05	LB62172
	Cadmium	2450.27	2500.0	98.0	90 - 110	P	08/16/2012	21:05	LB62172
	Calcium	25951.43	25000.0	103.8	90 - 110	P	08/16/2012	21:05	LB62172
	Chromium	967.50	1000.0	96.8	90 - 110	P	08/16/2012	21:05	LB62172
	Cobalt	2463.09	2500.0	98.5	90 - 110	P	08/16/2012	21:05	LB62172
	Copper	1280.80	1250.0	102.5	90 - 110	P	08/16/2012	21:05	LB62172
	Iron	5211.34	5000.0	104.2	90 - 110	P	08/16/2012	21:05	LB62172
	Lead	4873.63	5000.0	97.5	90 - 110	P	08/16/2012	21:05	LB62172
	Magnesium	25736.24	25000.0	102.9	90 - 110	P	08/16/2012	21:05	LB62172
	Manganese	2522.58	2500.0	100.9	90 - 110	P	08/16/2012	21:05	LB62172
	Nickel	2439.14	2500.0	97.6	90 - 110	P	08/16/2012	21:05	LB62172
	Potassium	26702.73	25000.0	106.8	90 - 110	P	08/16/2012	21:05	LB62172
	Selenium	4968.48	5000.0	99.4	90 - 110	P	08/16/2012	21:05	LB62172
	Silver	1204.46	1250.0	96.4	90 - 110	P	08/16/2012	21:05	LB62172
	Sodium	25789.86	25000.0	103.2	90 - 110	P	08/16/2012	21:05	LB62172
	Thallium	4918.20	5000.0	98.4	90 - 110	P	08/16/2012	21:05	LB62172
	Vanadium	2614.92	2500.0	104.6	90 - 110	P	08/16/2012	21:05	LB62172
	Zinc	2403.58	2500.0	96.1	90 - 110	P	08/16/2012	21:05	LB62172
CCV12	Aluminum	10059.67	10000.0	100.6	90 - 110	P	08/16/2012	21:46	LB62172
	Antimony	4984.82	5000.0	99.7	90 - 110	P	08/16/2012	21:46	LB62172
	Arsenic	4945.28	5000.0	98.9	90 - 110	P	08/16/2012	21:46	LB62172
	Barium	9933.34	10000.0	99.3	90 - 110	P	08/16/2012	21:46	LB62172
	Beryllium	243.52	250.0	97.4	90 - 110	P	08/16/2012	21:46	LB62172
	Cadmium	2467.22	2500.0	98.7	90 - 110	P	08/16/2012	21:46	LB62172
	Calcium	25422.36	25000.0	101.7	90 - 110	P	08/16/2012	21:46	LB62172
	Chromium	976.08	1000.0	97.6	90 - 110	P	08/16/2012	21:46	LB62172
	Cobalt	2465.92	2500.0	98.6	90 - 110	P	08/16/2012	21:46	LB62172
	Copper	1247.32	1250.0	99.8	90 - 110	P	08/16/2012	21:46	LB62172
	Iron	5038.94	5000.0	100.8	90 - 110	P	08/16/2012	21:46	LB62172
	Lead	4879.09	5000.0	97.6	90 - 110	P	08/16/2012	21:46	LB62172
	Magnesium	25198.17	25000.0	100.8	90 - 110	P	08/16/2012	21:46	LB62172
	Manganese	2477.55	2500.0	99.1	90 - 110	P	08/16/2012	21:46	LB62172
	Nickel	2452.06	2500.0	98.1	90 - 110	P	08/16/2012	21:46	LB62172
	Potassium	25859.27	25000.0	103.4	90 - 110	P	08/16/2012	21:46	LB62172

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV12	Selenium	4965.54	5000.0	99.3	90 - 110	P	08/16/2012	21:46	LB62172
	Silver	1213.79	1250.0	97.1	90 - 110	P	08/16/2012	21:46	LB62172
	Sodium	25575.82	25000.0	102.3	90 - 110	P	08/16/2012	21:46	LB62172
	Thallium	4927.74	5000.0	98.6	90 - 110	P	08/16/2012	21:46	LB62172
	Vanadium	2567.31	2500.0	102.7	90 - 110	P	08/16/2012	21:46	LB62172
	Zinc	2389.90	2500.0	95.6	90 - 110	P	08/16/2012	21:46	LB62172
CCV13	Aluminum	10064.18	10000.0	100.6	90 - 110	P	08/16/2012	22:29	LB62172
	Antimony	4997.01	5000.0	99.9	90 - 110	P	08/16/2012	22:29	LB62172
	Arsenic	4928.96	5000.0	98.6	90 - 110	P	08/16/2012	22:29	LB62172
	Barium	10139.30	10000.0	101.4	90 - 110	P	08/16/2012	22:29	LB62172
	Beryllium	242.87	250.0	97.1	90 - 110	P	08/16/2012	22:29	LB62172
	Cadmium	2453.98	2500.0	98.2	90 - 110	P	08/16/2012	22:29	LB62172
	Calcium	25351.29	25000.0	101.4	90 - 110	P	08/16/2012	22:29	LB62172
	Chromium	971.65	1000.0	97.2	90 - 110	P	08/16/2012	22:29	LB62172
	Cobalt	2459.98	2500.0	98.4	90 - 110	P	08/16/2012	22:29	LB62172
	Copper	1249.93	1250.0	100.0	90 - 110	P	08/16/2012	22:29	LB62172
	Iron	5090.88	5000.0	101.8	90 - 110	P	08/16/2012	22:29	LB62172
	Lead	4874.45	5000.0	97.5	90 - 110	P	08/16/2012	22:29	LB62172
	Magnesium	25041.40	25000.0	100.2	90 - 110	P	08/16/2012	22:29	LB62172
	Manganese	2472.74	2500.0	98.9	90 - 110	P	08/16/2012	22:29	LB62172
	Nickel	2447.77	2500.0	97.9	90 - 110	P	08/16/2012	22:29	LB62172
	Potassium	25824.72	25000.0	103.3	90 - 110	P	08/16/2012	22:29	LB62172
	Selenium	4963.74	5000.0	99.3	90 - 110	P	08/16/2012	22:29	LB62172
	Silver	1217.55	1250.0	97.4	90 - 110	P	08/16/2012	22:29	LB62172
	Sodium	25655.42	25000.0	102.6	90 - 110	P	08/16/2012	22:29	LB62172
	Thallium	4936.07	5000.0	98.7	90 - 110	P	08/16/2012	22:29	LB62172
	Vanadium	2584.63	2500.0	103.4	90 - 110	P	08/16/2012	22:29	LB62172
	Zinc	2389.66	2500.0	95.6	90 - 110	P	08/16/2012	22:29	LB62172
CCV14	Aluminum	10036.27	10000.0	100.4	90 - 110	P	08/16/2012	22:53	LB62172
	Antimony	4986.81	5000.0	99.7	90 - 110	P	08/16/2012	22:53	LB62172
	Arsenic	4939.92	5000.0	98.8	90 - 110	P	08/16/2012	22:53	LB62172
	Barium	10030.71	10000.0	100.3	90 - 110	P	08/16/2012	22:53	LB62172
	Beryllium	241.83	250.0	96.7	90 - 110	P	08/16/2012	22:53	LB62172
	Cadmium	2451.94	2500.0	98.1	90 - 110	P	08/16/2012	22:53	LB62172
	Calcium	25233.84	25000.0	100.9	90 - 110	P	08/16/2012	22:53	LB62172

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical      SDG No.: D3811  
 Contract: MSAN01      Lab Code: CHEM      Case No.: D3811      SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: INORGANIC VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV14	Chromium	973.20	1000.0	97.3	90 - 110	P	08/16/2012	22:53	LB62172
	Cobalt	2457.78	2500.0	98.3	90 - 110	P	08/16/2012	22:53	LB62172
	Copper	1245.42	1250.0	99.6	90 - 110	P	08/16/2012	22:53	LB62172
	Iron	5037.77	5000.0	100.8	90 - 110	P	08/16/2012	22:53	LB62172
	Lead	4873.52	5000.0	97.5	90 - 110	P	08/16/2012	22:53	LB62172
	Magnesium	24954.43	25000.0	99.8	90 - 110	P	08/16/2012	22:53	LB62172
	Manganese	2459.27	2500.0	98.4	90 - 110	P	08/16/2012	22:53	LB62172
	Nickel	2444.62	2500.0	97.8	90 - 110	P	08/16/2012	22:53	LB62172
	Potassium	25977.96	25000.0	103.9	90 - 110	P	08/16/2012	22:53	LB62172
	Selenium	4961.48	5000.0	99.2	90 - 110	P	08/16/2012	22:53	LB62172
	Silver	1214.78	1250.0	97.2	90 - 110	P	08/16/2012	22:53	LB62172
	Sodium	25532.13	25000.0	102.1	90 - 110	P	08/16/2012	22:53	LB62172
	Thallium	4922.09	5000.0	98.4	90 - 110	P	08/16/2012	22:53	LB62172
	Vanadium	2591.05	2500.0	103.6	90 - 110	P	08/16/2012	22:53	LB62172
	Zinc	2368.05	2500.0	94.7	90 - 110	P	08/16/2012	22:53	LB62172

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MS Analytical      SDG No.: D3811  
 Contract: MSAN01      Lab Code: CHEM      Case No.: D3811      SAS No.: D3811  
 Initial Calibration Source: EPA  
 Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Mercury	3.80	4	95.0	90 - 110	CV	08/17/2012	15:23	LB62194
CCV01	Mercury	4.75	5	95.0	90 - 110	CV	08/17/2012	15:28	LB62194
CCV02	Mercury	4.78	5	95.6	90 - 110	CV	08/17/2012	15:57	LB62194
CCV03	Mercury	4.85	5	97.0	90 - 110	CV	08/17/2012	16:04	LB62194
CCV04	Mercury	4.84	5	96.8	90 - 110	CV	08/17/2012	16:28	LB62194
CCV05	Mercury	4.79	5	95.8	90 - 110	CV	08/17/2012	16:51	LB62194
CCV06	Mercury	4.81	5	96.2	90 - 110	CV	08/17/2012	17:33	LB62194
CCV07	Mercury	4.91	5	98.2	90 - 110	CV	08/17/2012	18:03	LB62194
CCV08	Mercury	4.85	5	97.0	90 - 110	CV	08/17/2012	18:26	LB62194
CCV09	Mercury	4.85	5	97.0	90 - 110	CV	08/17/2012	18:52	LB62194



## Metals

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## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	14:04	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	14:04	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	14:04	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	14:04	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	14:04	LB62171
	Cadmium	0.4	+/-3.0	J	0.4	3.0	P	08/16/2012	14:04	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	14:04	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	14:04	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	14:04	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	14:04	LB62171
	Iron	10.1	+/-50.0	U	10.1	50.0	P	08/16/2012	14:04	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	14:04	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	14:04	LB62171
	Manganese	1.3	+/-10.0	U	1.3	10.0	P	08/16/2012	14:04	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	14:04	LB62171
	Potassium	17.4	+/-1000.0	U	17.4	1000.0	P	08/16/2012	14:04	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	14:04	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	14:04	LB62171
	Sodium	45.2	+/-1000.0	J	10.9	1000.0	P	08/16/2012	14:04	LB62171
	Thallium	4.3	+/-20.0	J	2.2	20.0	P	08/16/2012	14:04	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	14:04	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	14:04	LB62171
CCB01	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	14:25	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	14:25	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	14:25	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	14:25	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	14:25	LB62171
	Cadmium	0.4	+/-3.0	J	0.4	3.0	P	08/16/2012	14:25	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	14:25	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	14:25	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	14:25	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	14:25	LB62171
	Iron	10.1	+/-50.0	U	10.1	50.0	P	08/16/2012	14:25	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	14:25	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	14:25	LB62171
	Manganese	1.3	+/-10.0	U	1.3	10.0	P	08/16/2012	14:25	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	14:25	LB62171
	Potassium	17.4	+/-1000.0	U	17.4	1000.0	P	08/16/2012	14:25	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	14:25	LB62171

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical		SDG No.: D3811								
Contract: MSAN01	Lab Code: CHEM	Case No.: D3811			SAS No.: D3811					
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	14:25	LB62171
	Sodium	197.0	+/-1000.0	J	10.9	1000.0	P	08/16/2012	14:25	LB62171
	Thallium	2.2	+/-20.0	U	2.2	20.0	P	08/16/2012	14:25	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	14:25	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	14:25	LB62171
CCB02	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	15:05	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	15:05	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	15:05	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	15:05	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	15:05	LB62171
	Cadmium	0.4	+/-3.0	U	0.4	3.0	P	08/16/2012	15:05	LB62171
	Calcium	22.9	+/-1000.0	J	21.7	1000.0	P	08/16/2012	15:05	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	15:05	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	15:05	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	15:05	LB62171
	Iron	10.1	+/-50.0	U	10.1	50.0	P	08/16/2012	15:05	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	15:05	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	15:05	LB62171
	Manganese	1.3	+/-10.0	U	1.3	10.0	P	08/16/2012	15:05	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	15:05	LB62171
	Potassium	17.4	+/-1000.0	U	17.4	1000.0	P	08/16/2012	15:05	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	15:05	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	15:05	LB62171
	Sodium	153.8	+/-1000.0	J	10.9	1000.0	P	08/16/2012	15:05	LB62171
	Thallium	2.2	+/-20.0	U	2.2	20.0	P	08/16/2012	15:05	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	15:05	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	15:05	LB62171
CCB03	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	15:45	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	15:45	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	15:45	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	15:45	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	15:45	LB62171
	Cadmium	0.4	+/-3.0	U	0.4	3.0	P	08/16/2012	15:45	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	15:45	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	15:45	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	15:45	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	15:45	LB62171
	Iron	10.1	+/-50.0	U	10.1	50.0	P	08/16/2012	15:45	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	15:45	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	15:45	LB62171
	Manganese	1.3	+/-10.0	U	1.3	10.0	P	08/16/2012	15:45	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	15:45	LB62171

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## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical		SDG No.: D3811								
Contract: MSAN01	Lab Code: CHEM	Case No.: D3811	SAS No.: D3811							
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Potassium	96.8	+/-1000.0	J	17.4	1000.0	P	08/16/2012	15:45	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	15:45	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	15:45	LB62171
	Sodium	118.9	+/-1000.0	J	10.9	1000.0	P	08/16/2012	15:45	LB62171
	Thallium	2.2	+/-20.0	U	2.2	20.0	P	08/16/2012	15:45	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	15:45	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	15:45	LB62171
CCB04	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	16:26	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	16:26	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	16:26	LB62171
	Barium	3.8	+/-50.0	J	3.7	50.0	P	08/16/2012	16:26	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	16:26	LB62171
	Cadmium	0.5	+/-3.0	J	0.4	3.0	P	08/16/2012	16:26	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	16:26	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	16:26	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	16:26	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	16:26	LB62171
	Iron	10.1	+/-50.0	U	10.1	50.0	P	08/16/2012	16:26	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	16:26	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	16:26	LB62171
	Manganese	1.3	+/-10.0	U	1.3	10.0	P	08/16/2012	16:26	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	16:26	LB62171
	Potassium	17.4	+/-1000.0	U	17.4	1000.0	P	08/16/2012	16:26	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	16:26	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	16:26	LB62171
	Sodium	484.7	+/-1000.0	J	10.9	1000.0	P	08/16/2012	16:26	LB62171
	Thallium	3.8	+/-20.0	J	2.2	20.0	P	08/16/2012	16:26	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	16:26	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	16:26	LB62171
CCB05	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	17:06	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	17:06	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	17:06	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	17:06	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	17:06	LB62171
	Cadmium	0.4	+/-3.0	U	0.4	3.0	P	08/16/2012	17:06	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	17:06	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	17:06	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	17:06	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	17:06	LB62171
	Iron	10.1	+/-50.0	U	10.1	50.0	P	08/16/2012	17:06	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	17:06	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	17:06	LB62171

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical		SDG No.: D3811								
Contract: MSAN01	Lab Code: CHEM	Case No.: D3811			SAS No.: D3811					
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB05	Manganese	1.3	+/-10.0	U	1.3	10.0	P	08/16/2012	17:06	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	17:06	LB62171
	Potassium	93.7	+/-1000.0	J	17.4	1000.0	P	08/16/2012	17:06	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	17:06	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	17:06	LB62171
	Sodium	79.1	+/-1000.0	J	10.9	1000.0	P	08/16/2012	17:06	LB62171
	Thallium	2.6	+/-20.0	J	2.2	20.0	P	08/16/2012	17:06	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	17:06	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	17:06	LB62171
CCB06	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	17:46	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	17:46	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	17:46	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	17:46	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	17:46	LB62171
	Cadmium	0.4	+/-3.0	U	0.4	3.0	P	08/16/2012	17:46	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	17:46	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	17:46	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	17:46	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	17:46	LB62171
	Iron	10.2	+/-50.0	J	10.1	50.0	P	08/16/2012	17:46	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	17:46	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	17:46	LB62171
	Manganese	1.3	+/-10.0	U	1.3	10.0	P	08/16/2012	17:46	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	17:46	LB62171
	Potassium	43.8	+/-1000.0	J	17.4	1000.0	P	08/16/2012	17:46	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	17:46	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	17:46	LB62171
	Sodium	10.9	+/-1000.0	U	10.9	1000.0	P	08/16/2012	17:46	LB62171
	Thallium	2.5	+/-20.0	J	2.2	20.0	P	08/16/2012	17:46	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	17:46	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	17:46	LB62171
CCB07	Aluminum	6.5	+/-50.0	J	4.8	50.0	P	08/16/2012	18:26	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	18:26	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	18:26	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	18:26	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	18:26	LB62171
	Cadmium	0.4	+/-3.0	U	0.4	3.0	P	08/16/2012	18:26	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	18:26	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	18:26	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	18:26	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	18:26	LB62171
	Iron	10.1	+/-50.0	U	10.1	50.0	P	08/16/2012	18:26	LB62171



## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: <u>MS Analytical</u>		SDG No.: <u>D3811</u>								
Contract: <u>MSAN01</u>	Lab Code: <u>CHEM</u>	Case No.: <u>D3811</u>			SAS No.: <u>D3811</u>					
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB07	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	18:26	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	18:26	LB62171
	Manganese	1.3	+/-10.0	J	1.3	10.0	P	08/16/2012	18:26	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	18:26	LB62171
	Potassium	75.3	+/-1000.0	J	17.4	1000.0	P	08/16/2012	18:26	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	18:26	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	18:26	LB62171
	Sodium	400.4	+/-1000.0	J	10.9	1000.0	P	08/16/2012	18:26	LB62171
	Thallium	5.9	+/-20.0	J	2.2	20.0	P	08/16/2012	18:26	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	18:26	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	18:26	LB62171
CCB08	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	19:06	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	19:06	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	19:06	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	19:06	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	19:06	LB62171
	Cadmium	0.4	+/-3.0	U	0.4	3.0	P	08/16/2012	19:06	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	19:06	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	19:06	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	19:06	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	19:06	LB62171
	Iron	22.8	+/-50.0	J	10.1	50.0	P	08/16/2012	19:06	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	19:06	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	19:06	LB62171
	Manganese	1.3	+/-10.0	U	1.3	10.0	P	08/16/2012	19:06	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	19:06	LB62171
	Potassium	45.3	+/-1000.0	J	17.4	1000.0	P	08/16/2012	19:06	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	19:06	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	19:06	LB62171
	Sodium	313.7	+/-1000.0	J	10.9	1000.0	P	08/16/2012	19:06	LB62171
	Thallium	2.2	+/-20.0	U	2.2	20.0	P	08/16/2012	19:06	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	19:06	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	19:06	LB62171
CCB09	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	19:46	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	19:46	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	19:46	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	19:46	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	19:46	LB62171
	Cadmium	0.4	+/-3.0	U	0.4	3.0	P	08/16/2012	19:46	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	19:46	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	19:46	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	19:46	LB62171

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical		SDG No.: D3811								
Contract: MSAN01	Lab Code: CHEM	Case No.: D3811			SAS No.: D3811					
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB09	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	19:46	LB62171
	Iron	20.0	+/-50.0	J	10.1	50.0	P	08/16/2012	19:46	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	19:46	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	19:46	LB62171
	Manganese	1.3	+/-10.0	U	1.3	10.0	P	08/16/2012	19:46	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	19:46	LB62171
	Potassium	17.4	+/-1000.0	U	17.4	1000.0	P	08/16/2012	19:46	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	19:46	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	19:46	LB62171
	Sodium	332.6	+/-1000.0	J	10.9	1000.0	P	08/16/2012	19:46	LB62171
	Thallium	3.0	+/-20.0	J	2.2	20.0	P	08/16/2012	19:46	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	19:46	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	19:46	LB62171
CCB10	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	20:27	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	20:27	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	20:27	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	20:27	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	20:27	LB62171
	Cadmium	0.4	+/-3.0	U	0.4	3.0	P	08/16/2012	20:27	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	20:27	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	20:27	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	20:27	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	20:27	LB62171
	Iron	36.5	+/-50.0	J	10.1	50.0	P	08/16/2012	20:27	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	20:27	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	20:27	LB62171
	Manganese	3.5	+/-10.0	J	1.3	10.0	P	08/16/2012	20:27	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	20:27	LB62171
	Potassium	17.4	+/-1000.0	U	17.4	1000.0	P	08/16/2012	20:27	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	20:27	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	20:27	LB62171
	Sodium	307.7	+/-1000.0	J	10.9	1000.0	P	08/16/2012	20:27	LB62171
	Thallium	2.2	+/-20.0	U	2.2	20.0	P	08/16/2012	20:27	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	20:27	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	20:27	LB62171
CCB11	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	21:08	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	21:08	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	21:08	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	21:08	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	21:08	LB62171
	Cadmium	0.4	+/-3.0	U	0.4	3.0	P	08/16/2012	21:08	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	21:08	LB62171

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB11	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	21:08	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	21:08	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	21:08	LB62171
	Iron	24.7	+/-50.0	J	10.1	50.0	P	08/16/2012	21:08	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	21:08	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	21:08	LB62171
	Manganese	1.3	+/-10.0	U	1.3	10.0	P	08/16/2012	21:08	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	21:08	LB62171
	Potassium	53.4	+/-1000.0	J	17.4	1000.0	P	08/16/2012	21:08	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	21:08	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	21:08	LB62171
	Sodium	250.6	+/-1000.0	J	10.9	1000.0	P	08/16/2012	21:08	LB62171
	Thallium	2.7	+/-20.0	J	2.2	20.0	P	08/16/2012	21:08	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	21:08	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	21:08	LB62171
CCB12	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	21:49	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	21:49	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	21:49	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	21:49	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	21:49	LB62171
	Cadmium	0.4	+/-3.0	U	0.4	3.0	P	08/16/2012	21:49	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	21:49	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	21:49	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	21:49	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	21:49	LB62171
	Iron	32.4	+/-50.0	J	10.1	50.0	P	08/16/2012	21:49	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	21:49	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	21:49	LB62171
	Manganese	1.3	+/-10.0	U	1.3	10.0	P	08/16/2012	21:49	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	21:49	LB62171
	Potassium	104.5	+/-1000.0	J	17.4	1000.0	P	08/16/2012	21:49	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	21:49	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	21:49	LB62171
	Sodium	230.4	+/-1000.0	J	10.9	1000.0	P	08/16/2012	21:49	LB62171
	Thallium	2.4	+/-20.0	J	2.2	20.0	P	08/16/2012	21:49	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	21:49	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	21:49	LB62171
CCB13	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	22:32	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	22:32	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	22:32	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	22:32	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	22:32	LB62171

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical		SDG No.: D3811								
Contract: MSAN01	Lab Code: CHEM	Case No.: D3811	SAS No.: D3811							
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB13	Cadmium	0.4	+/-3.0	U	0.4	3.0	P	08/16/2012	22:32	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	22:32	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	22:32	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	22:32	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	22:32	LB62171
	Iron	45.1	+/-50.0	J	10.1	50.0	P	08/16/2012	22:32	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	22:32	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	22:32	LB62171
	Manganese	1.3	+/-10.0	U	1.3	10.0	P	08/16/2012	22:32	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	22:32	LB62171
	Potassium	17.4	+/-1000.0	U	17.4	1000.0	P	08/16/2012	22:32	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	22:32	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	22:32	LB62171
	Sodium	65.6	+/-1000.0	J	10.9	1000.0	P	08/16/2012	22:32	LB62171
	Thallium	2.2	+/-20.0	U	2.2	20.0	P	08/16/2012	22:32	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	22:32	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	22:32	LB62171
CCB14	Aluminum	4.8	+/-50.0	U	4.8	50.0	P	08/16/2012	22:57	LB62171
	Antimony	5.5	+/-25.0	U	5.5	25.0	P	08/16/2012	22:57	LB62171
	Arsenic	4.0	+/-10.0	U	4.0	10.0	P	08/16/2012	22:57	LB62171
	Barium	3.7	+/-50.0	U	3.7	50.0	P	08/16/2012	22:57	LB62171
	Beryllium	0.3	+/-3.0	U	0.3	3.0	P	08/16/2012	22:57	LB62171
	Cadmium	0.4	+/-3.0	U	0.4	3.0	P	08/16/2012	22:57	LB62171
	Calcium	21.7	+/-1000.0	U	21.7	1000.0	P	08/16/2012	22:57	LB62171
	Chromium	1.7	+/-5.0	U	1.7	5.0	P	08/16/2012	22:57	LB62171
	Cobalt	4.9	+/-15.0	U	4.9	15.0	P	08/16/2012	22:57	LB62171
	Copper	2.6	+/-10.0	U	2.6	10.0	P	08/16/2012	22:57	LB62171
	Iron	30.4	+/-50.0	J	10.1	50.0	P	08/16/2012	22:57	LB62171
	Lead	1.8	+/-6.0	U	1.8	6.0	P	08/16/2012	22:57	LB62171
	Magnesium	23.8	+/-1000.0	U	23.8	1000.0	P	08/16/2012	22:57	LB62171
	Manganese	1.3	+/-10.0	U	1.3	10.0	P	08/16/2012	22:57	LB62171
	Nickel	3.7	+/-20.0	U	3.7	20.0	P	08/16/2012	22:57	LB62171
	Potassium	62.1	+/-1000.0	J	17.4	1000.0	P	08/16/2012	22:57	LB62171
	Selenium	4.9	+/-10.0	U	4.9	10.0	P	08/16/2012	22:57	LB62171
	Silver	1.3	+/-5.0	U	1.3	5.0	P	08/16/2012	22:57	LB62171
	Sodium	172.5	+/-1000.0	J	10.9	1000.0	P	08/16/2012	22:57	LB62171
	Thallium	2.2	+/-20.0	U	2.2	20.0	P	08/16/2012	22:57	LB62171
	Vanadium	4.0	+/-20.0	U	4.0	20.0	P	08/16/2012	22:57	LB62171
	Zinc	5.6	+/-20.0	U	5.6	20.0	P	08/16/2012	22:57	LB62171
ICB01	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	14:04	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	14:04	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	14:04	LB62172

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: <u>MS Analytical</u>		SDG No.: <u>D3811</u>								
Contract: <u>MSAN01</u>	Lab Code: <u>CHEM</u>	Case No.: <u>D3811</u>	SAS No.: <u>D3811</u>							
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	14:04	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	14:04	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	14:04	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	14:04	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	14:04	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	14:04	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	14:04	LB62172
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/16/2012	14:04	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	14:04	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	14:04	LB62172
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	14:04	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	14:04	LB62172
	Potassium	38.8	+/-1000.0	U	38.8	1000.0	P	08/16/2012	14:04	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	14:04	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	14:04	LB62172
	Sodium	45.2	+/-1000.0	J	13.9	1000.0	P	08/16/2012	14:04	LB62172
	Thallium	4.3	+/-20.0	J	2.4	20.0	P	08/16/2012	14:04	LB62172
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	14:04	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	14:04	LB62172
CCB01	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	14:25	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	14:25	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	14:25	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	14:25	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	14:25	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	14:25	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	14:25	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	14:25	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	14:25	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	14:25	LB62172
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/16/2012	14:25	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	14:25	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	14:25	LB62172
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	14:25	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	14:25	LB62172
	Potassium	38.8	+/-1000.0	U	38.8	1000.0	P	08/16/2012	14:25	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	14:25	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	14:25	LB62172
	Sodium	197.0	+/-1000.0	J	13.9	1000.0	P	08/16/2012	14:25	LB62172
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/16/2012	14:25	LB62172
CCB02	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	14:25	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	14:25	LB62172
CCB02	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	15:05	LB62172

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## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical      SDG No.: D3811  
 Contract: MSAN01      Lab Code: CHEM      Case No.: D3811      SAS No.: D3811

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	15:05	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	15:05	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	15:05	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	15:05	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	15:05	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	15:05	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	15:05	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	15:05	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	15:05	LB62172
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/16/2012	15:05	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	15:05	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	15:05	LB62172
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	15:05	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	15:05	LB62172
	Potassium	38.8	+/-1000.0	U	38.8	1000.0	P	08/16/2012	15:05	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	15:05	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	15:05	LB62172
	Sodium	153.8	+/-1000.0	J	13.9	1000.0	P	08/16/2012	15:05	LB62172
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/16/2012	15:05	LB62172
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	15:05	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	15:05	LB62172
CCB03	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	15:45	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	15:45	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	15:45	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	15:45	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	15:45	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	15:45	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	15:45	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	15:45	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	15:45	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	15:45	LB62172
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/16/2012	15:45	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	15:45	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	15:45	LB62172
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	15:45	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	15:45	LB62172
	Potassium	96.8	+/-1000.0	J	38.8	1000.0	P	08/16/2012	15:45	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	15:45	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	15:45	LB62172
	Sodium	118.9	+/-1000.0	J	13.9	1000.0	P	08/16/2012	15:45	LB62172
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/16/2012	15:45	LB62172
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	15:45	LB62172

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## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical		SDG No.: D3811								
Contract: MSAN01	Lab Code: CHEM	Case No.: D3811			SAS No.: D3811					
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	15:45	LB62172
CCB04	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	16:26	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	16:26	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	16:26	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	16:26	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	16:26	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	16:26	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	16:26	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	16:26	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	16:26	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	16:26	LB62172
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/16/2012	16:26	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	16:26	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	16:26	LB62172
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	16:26	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	16:26	LB62172
	Potassium	38.8	+/-1000.0	U	38.8	1000.0	P	08/16/2012	16:26	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	16:26	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	16:26	LB62172
	Sodium	484.7	+/-1000.0	J	13.9	1000.0	P	08/16/2012	16:26	LB62172
	Thallium	3.8	+/-20.0	J	2.4	20.0	P	08/16/2012	16:26	LB62172
CCB05	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	16:26	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	16:26	LB62172
	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	17:06	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	17:06	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	17:06	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	17:06	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	17:06	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	17:06	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	17:06	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	17:06	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	17:06	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	17:06	LB62172
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/16/2012	17:06	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	17:06	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	17:06	LB62172
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	17:06	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	17:06	LB62172
	Potassium	93.7	+/-1000.0	J	38.8	1000.0	P	08/16/2012	17:06	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	17:06	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	17:06	LB62172
	Sodium	79.1	+/-1000.0	J	13.9	1000.0	P	08/16/2012	17:06	LB62172

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical		SDG No.: D3811								
Contract: MSAN01	Lab Code: CHEM	Case No.: D3811	SAS No.: D3811							
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB05	Thallium	2.6	+/-20.0	J	2.4	20.0	P	08/16/2012	17:06	LB62172
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	17:06	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	17:06	LB62172
CCB06	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	17:46	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	17:46	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	17:46	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	17:46	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	17:46	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	17:46	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	17:46	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	17:46	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	17:46	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	17:46	LB62172
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/16/2012	17:46	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	17:46	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	17:46	LB62172
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	17:46	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	17:46	LB62172
	Potassium	43.8	+/-1000.0	J	38.8	1000.0	P	08/16/2012	17:46	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	17:46	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	17:46	LB62172
	Sodium	13.9	+/-1000.0	U	13.9	1000.0	P	08/16/2012	17:46	LB62172
	Thallium	2.5	+/-20.0	J	2.4	20.0	P	08/16/2012	17:46	LB62172
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	17:46	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	17:46	LB62172
CCB07	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	18:26	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	18:26	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	18:26	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	18:26	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	18:26	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	18:26	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	18:26	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	18:26	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	18:26	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	18:26	LB62172
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/16/2012	18:26	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	18:26	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	18:26	LB62172
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	18:26	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	18:26	LB62172
	Potassium	75.3	+/-1000.0	J	38.8	1000.0	P	08/16/2012	18:26	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	18:26	LB62172



## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: <u>MS Analytical</u>		SDG No.: <u>D3811</u>								
Contract: <u>MSAN01</u>	Lab Code: <u>CHEM</u>	Case No.: <u>D3811</u>			SAS No.: <u>D3811</u>					
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB07	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	18:26	LB62172
	Sodium	400.4	+/-1000.0	J	13.9	1000.0	P	08/16/2012	18:26	LB62172
	Thallium	5.9	+/-20.0	J	2.4	20.0	P	08/16/2012	18:26	LB62172
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	18:26	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	18:26	LB62172
CCB08	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	19:06	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	19:06	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	19:06	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	19:06	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	19:06	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	19:06	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	19:06	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	19:06	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	19:06	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	19:06	LB62172
	Iron	22.8	+/-50.0	J	20.4	50.0	P	08/16/2012	19:06	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	19:06	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	19:06	LB62172
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	19:06	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	19:06	LB62172
	Potassium	45.3	+/-1000.0	J	38.8	1000.0	P	08/16/2012	19:06	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	19:06	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	19:06	LB62172
	Sodium	313.7	+/-1000.0	J	13.9	1000.0	P	08/16/2012	19:06	LB62172
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/16/2012	19:06	LB62172
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	19:06	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	19:06	LB62172
CCB09	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	19:46	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	19:46	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	19:46	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	19:46	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	19:46	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	19:46	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	19:46	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	19:46	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	19:46	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	19:46	LB62172
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/16/2012	19:46	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	19:46	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	19:46	LB62172
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	19:46	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	19:46	LB62172

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical      SDG No.: D3811  
 Contract: MSAN01      Lab Code: CHEM      Case No.: D3811      SAS No.: D3811

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB09	Potassium	38.8	+/-1000.0	U	38.8	1000.0	P	08/16/2012	19:46	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	19:46	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	19:46	LB62172
	Sodium	332.6	+/-1000.0	J	13.9	1000.0	P	08/16/2012	19:46	LB62172
	Thallium	3.0	+/-20.0	J	2.4	20.0	P	08/16/2012	19:46	LB62172
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	19:46	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	19:46	LB62172
CCB10	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	20:27	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	20:27	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	20:27	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	20:27	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	20:27	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	20:27	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	20:27	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	20:27	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	20:27	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	20:27	LB62172
	Iron	36.5	+/-50.0	J	20.4	50.0	P	08/16/2012	20:27	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	20:27	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	20:27	LB62172
	Manganese	3.5	+/-10.0	J	1.7	10.0	P	08/16/2012	20:27	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	20:27	LB62172
	Potassium	38.8	+/-1000.0	U	38.8	1000.0	P	08/16/2012	20:27	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	20:27	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	20:27	LB62172
	Sodium	307.7	+/-1000.0	J	13.9	1000.0	P	08/16/2012	20:27	LB62172
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/16/2012	20:27	LB62172
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	20:27	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	20:27	LB62172
CCB11	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	21:08	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	21:08	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	21:08	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	21:08	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	21:08	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	21:08	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	21:08	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	21:08	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	21:08	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	21:08	LB62172
	Iron	24.7	+/-50.0	J	20.4	50.0	P	08/16/2012	21:08	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	21:08	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	21:08	LB62172

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical      SDG No.: D3811  
 Contract: MSAN01      Lab Code: CHEM      Case No.: D3811      SAS No.: D3811

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB11	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	21:08	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	21:08	LB62172
	Potassium	53.4	+/-1000.0	J	38.8	1000.0	P	08/16/2012	21:08	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	21:08	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	21:08	LB62172
	Sodium	250.6	+/-1000.0	J	13.9	1000.0	P	08/16/2012	21:08	LB62172
	Thallium	2.7	+/-20.0	J	2.4	20.0	P	08/16/2012	21:08	LB62172
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	21:08	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	21:08	LB62172
CCB12	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	21:49	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	21:49	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	21:49	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	21:49	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	21:49	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	21:49	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	21:49	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	21:49	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	21:49	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	21:49	LB62172
	Iron	32.4	+/-50.0	J	20.4	50.0	P	08/16/2012	21:49	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	21:49	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	21:49	LB62172
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	21:49	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	21:49	LB62172
	Potassium	104.5	+/-1000.0	J	38.8	1000.0	P	08/16/2012	21:49	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	21:49	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	21:49	LB62172
	Sodium	230.4	+/-1000.0	J	13.9	1000.0	P	08/16/2012	21:49	LB62172
	Thallium	2.4	+/-20.0	J	2.4	20.0	P	08/16/2012	21:49	LB62172
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	21:49	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	21:49	LB62172
CCB13	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	22:32	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	22:32	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	22:32	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	22:32	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	22:32	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	22:32	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	22:32	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	22:32	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	22:32	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	22:32	LB62172
	Iron	45.1	+/-50.0	J	20.4	50.0	P	08/16/2012	22:32	LB62172

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: <u>MS Analytical</u>		SDG No.: <u>D3811</u>								
Contract: <u>MSAN01</u>	Lab Code: <u>CHEM</u>	Case No.: <u>D3811</u>			SAS No.: <u>D3811</u>					
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB13	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	22:32	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	22:32	LB62172
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	22:32	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	22:32	LB62172
	Potassium	38.8	+/-1000.0	U	38.8	1000.0	P	08/16/2012	22:32	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	22:32	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	22:32	LB62172
	Sodium	65.6	+/-1000.0	J	13.9	1000.0	P	08/16/2012	22:32	LB62172
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/16/2012	22:32	LB62172
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	22:32	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	22:32	LB62172
CCB14	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/16/2012	22:57	LB62172
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/16/2012	22:57	LB62172
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/16/2012	22:57	LB62172
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/16/2012	22:57	LB62172
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	08/16/2012	22:57	LB62172
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	08/16/2012	22:57	LB62172
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	08/16/2012	22:57	LB62172
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/16/2012	22:57	LB62172
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/16/2012	22:57	LB62172
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/16/2012	22:57	LB62172
	Iron	30.4	+/-50.0	J	20.4	50.0	P	08/16/2012	22:57	LB62172
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/16/2012	22:57	LB62172
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	08/16/2012	22:57	LB62172
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/16/2012	22:57	LB62172
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/16/2012	22:57	LB62172
	Potassium	62.1	+/-1000.0	J	38.8	1000.0	P	08/16/2012	22:57	LB62172
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/16/2012	22:57	LB62172
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/16/2012	22:57	LB62172
	Sodium	172.5	+/-1000.0	J	13.9	1000.0	P	08/16/2012	22:57	LB62172
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/16/2012	22:57	LB62172
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/16/2012	22:57	LB62172
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/16/2012	22:57	LB62172
ICB01	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/17/2012	15:24	LB62194
CCB01	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/17/2012	15:30	LB62194
CCB02	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/17/2012	15:59	LB62194
CCB03	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/17/2012	16:06	LB62194
CCB04	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/17/2012	16:30	LB62194
CCB05	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/17/2012	16:53	LB62194
CCB06	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/17/2012	17:35	LB62194
CCB07	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/17/2012	18:05	LB62194

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB08	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/17/2012	18:28	LB62194
CCB09	Mercury	0.092	+/-0.200	U	0.092	0.200	CV	08/17/2012	18:53	LB62194
ICB01	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/17/2012	12:08	LB62199
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/17/2012	12:08	LB62199
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/17/2012	12:08	LB62199
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/17/2012	12:08	LB62199
	Beryllium	0.70	+/-3.0	U	0.70	3.0	P	08/17/2012	12:08	LB62199
	Cadmium	0.50	+/-3.0	U	0.50	3.0	P	08/17/2012	12:08	LB62199
	Calcium	31.8	+/-1000	U	31.8	1000	P	08/17/2012	12:08	LB62199
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/17/2012	12:08	LB62199
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/17/2012	12:08	LB62199
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/17/2012	12:08	LB62199
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/17/2012	12:08	LB62199
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/17/2012	12:08	LB62199
	Magnesium	32.5	+/-1000	U	32.5	1000	P	08/17/2012	12:08	LB62199
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/17/2012	12:08	LB62199
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/17/2012	12:08	LB62199
	Potassium	38.8	+/-1000	U	38.8	1000	P	08/17/2012	12:08	LB62199
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/17/2012	12:08	LB62199
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/17/2012	12:08	LB62199
	Sodium	13.9	+/-1000	U	13.9	1000	P	08/17/2012	12:08	LB62199
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/17/2012	12:08	LB62199
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/17/2012	12:08	LB62199
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/17/2012	12:08	LB62199
CCB01	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/17/2012	12:37	LB62199
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/17/2012	12:37	LB62199
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/17/2012	12:37	LB62199
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/17/2012	12:37	LB62199
	Beryllium	0.70	+/-3.0	U	0.70	3.0	P	08/17/2012	12:37	LB62199
	Cadmium	0.60	+/-3.0	J	0.50	3.0	P	08/17/2012	12:37	LB62199
	Calcium	31.8	+/-1000	U	31.8	1000	P	08/17/2012	12:37	LB62199
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/17/2012	12:37	LB62199
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/17/2012	12:37	LB62199
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/17/2012	12:37	LB62199
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/17/2012	12:37	LB62199
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/17/2012	12:37	LB62199
	Magnesium	32.5	+/-1000	U	32.5	1000	P	08/17/2012	12:37	LB62199
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/17/2012	12:37	LB62199
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/17/2012	12:37	LB62199
	Potassium	38.8	+/-1000	U	38.8	1000	P	08/17/2012	12:37	LB62199
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/17/2012	12:37	LB62199
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/17/2012	12:37	LB62199

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical		SDG No.: D3811								
Contract: MSAN01	Lab Code: CHEM	Case No.: D3811		SAS No.: D3811						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Sodium	13.9	+/-1000	U	13.9	1000	P	08/17/2012	12:37	LB62199
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/17/2012	12:37	LB62199
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/17/2012	12:37	LB62199
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/17/2012	12:37	LB62199
CCB02	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/17/2012	13:23	LB62199
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/17/2012	13:23	LB62199
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/17/2012	13:23	LB62199
	Barium	4.2	+/-50.0	J	4.0	50.0	P	08/17/2012	13:23	LB62199
	Beryllium	0.70	+/-3.0	U	0.70	3.0	P	08/17/2012	13:23	LB62199
	Cadmium	0.50	+/-3.0	U	0.50	3.0	P	08/17/2012	13:23	LB62199
	Calcium	51.6	+/-1000	J	31.8	1000	P	08/17/2012	13:23	LB62199
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/17/2012	13:23	LB62199
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/17/2012	13:23	LB62199
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/17/2012	13:23	LB62199
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/17/2012	13:23	LB62199
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/17/2012	13:23	LB62199
	Magnesium	32.5	+/-1000	U	32.5	1000	P	08/17/2012	13:23	LB62199
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/17/2012	13:23	LB62199
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/17/2012	13:23	LB62199
	Potassium	38.8	+/-1000	U	38.8	1000	P	08/17/2012	13:23	LB62199
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/17/2012	13:23	LB62199
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/17/2012	13:23	LB62199
	Sodium	13.9	+/-1000	U	13.9	1000	P	08/17/2012	13:23	LB62199
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/17/2012	13:23	LB62199
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/17/2012	13:23	LB62199
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/17/2012	13:23	LB62199
CCB03	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/17/2012	14:09	LB62199
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/17/2012	14:09	LB62199
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/17/2012	14:09	LB62199
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/17/2012	14:09	LB62199
	Beryllium	0.70	+/-3.0	U	0.70	3.0	P	08/17/2012	14:09	LB62199
	Cadmium	0.50	+/-3.0	U	0.50	3.0	P	08/17/2012	14:09	LB62199
	Calcium	31.8	+/-1000	U	31.8	1000	P	08/17/2012	14:09	LB62199
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/17/2012	14:09	LB62199
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/17/2012	14:09	LB62199
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/17/2012	14:09	LB62199
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/17/2012	14:09	LB62199
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/17/2012	14:09	LB62199
	Magnesium	32.5	+/-1000	U	32.5	1000	P	08/17/2012	14:09	LB62199
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/17/2012	14:09	LB62199
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/17/2012	14:09	LB62199
	Potassium	38.8	+/-1000	U	38.8	1000	P	08/17/2012	14:09	LB62199

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical      SDG No.: D3811  
 Contract: MSAN01      Lab Code: CHEM      Case No.: D3811      SAS No.: D3811

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/17/2012	14:09	LB62199
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/17/2012	14:09	LB62199
	Sodium	13.9	+/-1000	U	13.9	1000	P	08/17/2012	14:09	LB62199
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/17/2012	14:09	LB62199
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/17/2012	14:09	LB62199
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/17/2012	14:09	LB62199
CCB04	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/17/2012	14:55	LB62199
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/17/2012	14:55	LB62199
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/17/2012	14:55	LB62199
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/17/2012	14:55	LB62199
	Beryllium	0.70	+/-3.0	U	0.70	3.0	P	08/17/2012	14:55	LB62199
	Cadmium	0.50	+/-3.0	U	0.50	3.0	P	08/17/2012	14:55	LB62199
	Calcium	31.8	+/-1000	U	31.8	1000	P	08/17/2012	14:55	LB62199
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/17/2012	14:55	LB62199
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/17/2012	14:55	LB62199
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/17/2012	14:55	LB62199
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/17/2012	14:55	LB62199
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/17/2012	14:55	LB62199
	Magnesium	32.5	+/-1000	U	32.5	1000	P	08/17/2012	14:55	LB62199
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/17/2012	14:55	LB62199
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/17/2012	14:55	LB62199
	Potassium	38.8	+/-1000	U	38.8	1000	P	08/17/2012	14:55	LB62199
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/17/2012	14:55	LB62199
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/17/2012	14:55	LB62199
	Sodium	13.9	+/-1000	U	13.9	1000	P	08/17/2012	14:55	LB62199
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/17/2012	14:55	LB62199
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/17/2012	14:55	LB62199
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/17/2012	14:55	LB62199
CCB05	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/17/2012	15:40	LB62199
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/17/2012	15:40	LB62199
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/17/2012	15:40	LB62199
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/17/2012	15:40	LB62199
	Beryllium	0.70	+/-3.0	U	0.70	3.0	P	08/17/2012	15:40	LB62199
	Cadmium	0.50	+/-3.0	U	0.50	3.0	P	08/17/2012	15:40	LB62199
	Calcium	31.8	+/-1000	U	31.8	1000	P	08/17/2012	15:40	LB62199
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/17/2012	15:40	LB62199
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/17/2012	15:40	LB62199
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/17/2012	15:40	LB62199
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/17/2012	15:40	LB62199
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/17/2012	15:40	LB62199
	Magnesium	32.5	+/-1000	U	32.5	1000	P	08/17/2012	15:40	LB62199
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/17/2012	15:40	LB62199

## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical      SDG No.: D3811  
 Contract: MSAN01      Lab Code: CHEM      Case No.: D3811      SAS No.: D3811

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB05	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/17/2012	15:40	LB62199
	Potassium	38.8	+/-1000	U	38.8	1000	P	08/17/2012	15:40	LB62199
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/17/2012	15:40	LB62199
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/17/2012	15:40	LB62199
	Sodium	13.9	+/-1000	U	13.9	1000	P	08/17/2012	15:40	LB62199
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/17/2012	15:40	LB62199
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/17/2012	15:40	LB62199
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/17/2012	15:40	LB62199
CCB06	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/17/2012	16:27	LB62199
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/17/2012	16:27	LB62199
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/17/2012	16:27	LB62199
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/17/2012	16:27	LB62199
	Beryllium	0.70	+/-3.0	U	0.70	3.0	P	08/17/2012	16:27	LB62199
	Cadmium	0.50	+/-3.0	U	0.50	3.0	P	08/17/2012	16:27	LB62199
	Calcium	31.8	+/-1000	U	31.8	1000	P	08/17/2012	16:27	LB62199
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/17/2012	16:27	LB62199
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/17/2012	16:27	LB62199
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/17/2012	16:27	LB62199
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/17/2012	16:27	LB62199
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/17/2012	16:27	LB62199
	Magnesium	32.5	+/-1000	U	32.5	1000	P	08/17/2012	16:27	LB62199
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/17/2012	16:27	LB62199
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/17/2012	16:27	LB62199
	Potassium	38.8	+/-1000	U	38.8	1000	P	08/17/2012	16:27	LB62199
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/17/2012	16:27	LB62199
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/17/2012	16:27	LB62199
	Sodium	13.9	+/-1000	U	13.9	1000	P	08/17/2012	16:27	LB62199
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/17/2012	16:27	LB62199
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/17/2012	16:27	LB62199
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/17/2012	16:27	LB62199
CCB07	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/17/2012	17:05	LB62199
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/17/2012	17:05	LB62199
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/17/2012	17:05	LB62199
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/17/2012	17:05	LB62199
	Beryllium	0.70	+/-3.0	U	0.70	3.0	P	08/17/2012	17:05	LB62199
	Cadmium	0.50	+/-3.0	U	0.50	3.0	P	08/17/2012	17:05	LB62199
	Calcium	31.8	+/-1000	U	31.8	1000	P	08/17/2012	17:05	LB62199
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/17/2012	17:05	LB62199
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/17/2012	17:05	LB62199
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/17/2012	17:05	LB62199
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/17/2012	17:05	LB62199
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/17/2012	17:05	LB62199



## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MS Analytical      SDG No.: D3811  
 Contract: MSAN01      Lab Code: CHEM      Case No.: D3811      SAS No.: D3811

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB07	Magnesium	32.5	+/-1000	U	32.5	1000	P	08/17/2012	17:05	LB62199
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/17/2012	17:05	LB62199
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/17/2012	17:05	LB62199
	Potassium	38.8	+/-1000	U	38.8	1000	P	08/17/2012	17:05	LB62199
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/17/2012	17:05	LB62199
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/17/2012	17:05	LB62199
	Sodium	13.9	+/-1000	U	13.9	1000	P	08/17/2012	17:05	LB62199
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	08/17/2012	17:05	LB62199
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/17/2012	17:05	LB62199
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/17/2012	17:05	LB62199
CCB08	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/17/2012	18:17	LB62199
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/17/2012	18:17	LB62199
	Arsenic	4.3	+/-10.0	J	4.2	10.0	P	08/17/2012	18:17	LB62199
	Barium	4.0	+/-50.0	U	4.0	50.0	P	08/17/2012	18:17	LB62199
	Beryllium	0.70	+/-3.0	U	0.70	3.0	P	08/17/2012	18:17	LB62199
	Cadmium	1.0	+/-3.0	J	0.50	3.0	P	08/17/2012	18:17	LB62199
	Calcium	31.8	+/-1000	U	31.8	1000	P	08/17/2012	18:17	LB62199
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/17/2012	18:17	LB62199
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/17/2012	18:17	LB62199
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/17/2012	18:17	LB62199
	Iron	20.4	+/-50.0	U	20.4	50.0	P	08/17/2012	18:17	LB62199
	Lead	2.6	+/-6.0	U	2.6	6.0	P	08/17/2012	18:17	LB62199
	Magnesium	32.5	+/-1000	U	32.5	1000	P	08/17/2012	18:17	LB62199
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	08/17/2012	18:17	LB62199
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	08/17/2012	18:17	LB62199
	Potassium	38.8	+/-1000	U	38.8	1000	P	08/17/2012	18:17	LB62199
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	08/17/2012	18:17	LB62199
	Silver	1.5	+/-5.0	U	1.5	5.0	P	08/17/2012	18:17	LB62199
	Sodium	13.9	+/-1000	U	13.9	1000	P	08/17/2012	18:17	LB62199
	Thallium	2.9	+/-20.0	J	2.4	20.0	P	08/17/2012	18:17	LB62199
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	08/17/2012	18:17	LB62199
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	08/17/2012	18:17	LB62199
CCB09	Aluminum	6.5	+/-50.0	U	6.5	50.0	P	08/17/2012	19:04	LB62199
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	08/17/2012	19:04	LB62199
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	08/17/2012	19:04	LB62199
	Barium	8.1	+/-50.0	J	4.0	50.0	P	08/17/2012	19:04	LB62199
	Beryllium	0.70	+/-3.0	U	0.70	3.0	P	08/17/2012	19:04	LB62199
	Cadmium	1.5	+/-3.0	J	0.50	3.0	P	08/17/2012	19:04	LB62199
	Calcium	31.8	+/-1000	U	31.8	1000	P	08/17/2012	19:04	LB62199
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	08/17/2012	19:04	LB62199
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	08/17/2012	19:04	LB62199
	Copper	2.0	+/-10.0	U	2.0	10.0	P	08/17/2012	19:04	LB62199

### INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

**SAS No.:** D3811

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**Metals**  
**- 3b -**  
**PREPARATION BLANK SUMMARY**

Client: MS Analytical

SDG No.: D3811

Instrument: P5

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	MDL mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
<b>PB65134BL</b>	<b>SOIL</b>			<b>Batch Number:</b>	<b>PB65134</b>			<b>Prep Date:</b>	<b>08/16/2012</b>	
	Aluminum	0.840	<5.000	U	0.840	5.000	P	08/16/2012	14:41	LB62172
	Antimony	0.560	<2.500	U	0.560	2.500	P	08/16/2012	14:41	LB62172
	Arsenic	0.330	<1.000	U	0.330	1.000	P	08/16/2012	14:41	LB62172
	Barium	0.400	<5.000	U	0.400	5.000	P	08/16/2012	14:41	LB62172
	Beryllium	0.060	<0.300	U	0.060	0.300	P	08/16/2012	14:41	LB62172
	Cadmium	0.060	<0.300	U	0.060	0.300	P	08/16/2012	14:41	LB62172
	Calcium	1.070	<100.000	U	1.070	100.000	P	08/16/2012	14:41	LB62172
	Chromium	0.130	<0.500	U	0.130	0.500	P	08/16/2012	14:41	LB62172
	Cobalt	0.570	<1.500	U	0.570	1.500	P	08/16/2012	14:41	LB62172
	Copper	0.320	<1.000	U	0.320	1.000	P	08/16/2012	14:41	LB62172
	Iron	1.330	<5.000	U	1.330	5.000	P	08/16/2012	14:41	LB62172
	Lead	0.120	<0.600	U	0.120	0.600	P	08/16/2012	14:41	LB62172
	Magnesium	4.580	<100.000	U	4.580	100.000	P	08/16/2012	14:41	LB62172
	Manganese	0.190	<1.000	U	0.190	1.000	P	08/16/2012	14:41	LB62172
	Nickel	0.460	<2.000	U	0.460	2.000	P	08/16/2012	14:41	LB62172
	Potassium	6.720	<100.000	J	3.500	100.000	P	08/16/2012	14:41	LB62172
	Selenium	0.410	<1.000	U	0.410	1.000	P	08/16/2012	14:41	LB62172
	Silver	0.150	<0.500	U	0.150	0.500	P	08/16/2012	14:41	LB62172
	Sodium	19.942	<100.000	J	2.520	100.000	P	08/16/2012	14:41	LB62172
	Thallium	0.270	<2.000	U	0.270	2.000	P	08/16/2012	14:41	LB62172
	Vanadium	0.590	<2.000	U	0.590	2.000	P	08/16/2012	14:41	LB62172
	Zinc	0.700	<2.000	U	0.700	2.000	P	08/16/2012	14:41	LB62172
<b>PB65135BL</b>	<b>SOIL</b>			<b>Batch Number:</b>	<b>PB65135</b>			<b>Prep Date:</b>	<b>08/16/2012</b>	
	Aluminum	0.840	<5.000	U	0.840	5.000	P	08/16/2012	19:26	LB62172
	Antimony	0.560	<2.500	U	0.560	2.500	P	08/16/2012	19:26	LB62172
	Arsenic	0.330	<1.000	U	0.330	1.000	P	08/16/2012	19:26	LB62172
	Barium	0.400	<5.000	U	0.400	5.000	P	08/16/2012	19:26	LB62172
	Beryllium	0.060	<0.300	U	0.060	0.300	P	08/16/2012	19:26	LB62172
	Cadmium	0.060	<0.300	U	0.060	0.300	P	08/16/2012	19:26	LB62172
	Calcium	1.070	<100.000	U	1.070	100.000	P	08/16/2012	19:26	LB62172
	Chromium	0.130	<0.500	U	0.130	0.500	P	08/16/2012	19:26	LB62172
	Cobalt	0.570	<1.500	U	0.570	1.500	P	08/16/2012	19:26	LB62172
	Copper	0.320	<1.000	U	0.320	1.000	P	08/16/2012	19:26	LB62172
	Iron	2.644	<5.000	J	1.330	5.000	P	08/16/2012	19:26	LB62172
	Lead	0.120	<0.600	U	0.120	0.600	P	08/16/2012	19:26	LB62172
	Magnesium	4.580	<100.000	U	4.580	100.000	P	08/16/2012	19:26	LB62172
	Manganese	0.190	<1.000	U	0.190	1.000	P	08/16/2012	19:26	LB62172
	Nickel	0.460	<2.000	U	0.460	2.000	P	08/16/2012	19:26	LB62172
	Potassium	10.923	<100.000	J	3.500	100.000	P	08/16/2012	19:26	LB62172
	Selenium	0.410	<1.000	U	0.410	1.000	P	08/16/2012	19:26	LB62172

Metals  
- 3b -  
PREPARATION BLANK SUMMARY

Client: MS Analytical

SDG No.: D3811

Instrument: P5

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	MDL mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
	Silver	0.150	<0.500	U	0.150	0.500	P	08/16/2012	19:26	LB62172
	Sodium	25.280	<100.000	J	2.520	100.000	P	08/16/2012	19:26	LB62172
	Thallium	0.270	<2.000	U	0.270	2.000	P	08/16/2012	19:26	LB62172
	Vanadium	0.590	<2.000	U	0.590	2.000	P	08/16/2012	19:26	LB62172
	Zinc	0.700	<2.000	U	0.700	2.000	P	08/16/2012	19:26	LB62172

<b>PB65160BL</b>		<b>SOIL</b>		<b>Batch Number:</b>	<b>PB65160</b>		<b>Prep Date:</b>	<b>08/16/2012</b>	
	Mercury	0.002	<0.010	U	0.002	0.010	CV	08/17/2012	16:14 LB62194

<b>PB65166BL</b>		<b>SOIL</b>		<b>Batch Number:</b>	<b>PB65166</b>		<b>Prep Date:</b>	<b>08/16/2012</b>	
	Mercury	0.002	<0.010	U	0.002	0.010	CV	08/17/2012	15:38 LB62194

**Metals**  
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**INTERFERENCE CHECK SAMPLE**

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 ICS Source: EPA Instrument ID: P5

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Aluminum	247000	244100	101.2	80 - 120%	08/16/2012	14:14	LB62171
	Antimony	1.8				08/16/2012	14:14	LB62171
	Arsenic	1.5				08/16/2012	14:14	LB62171
	Barium	4.3				08/16/2012	14:14	LB62171
	Beryllium	-0.13				08/16/2012	14:14	LB62171
	Cadmium	0.46				08/16/2012	14:14	LB62171
	Calcium	247000	234900	105.2	80 - 120%	08/16/2012	14:14	LB62171
	Chromium	43.3	43	100.7	80 - 120%	08/16/2012	14:14	LB62171
	Cobalt	4.4	4	110.0	80 - 120%	08/16/2012	14:14	LB62171
	Copper	22.5				08/16/2012	14:14	LB62171
	Iron	95400	95600	99.8	80 - 120%	08/16/2012	14:14	LB62171
	Lead	8.0				08/16/2012	14:14	LB62171
	Magnesium	252000	247500	101.8	80 - 120%	08/16/2012	14:14	LB62171
	Manganese	22.6	19	118.9	80 - 120%	08/16/2012	14:14	LB62171
	Nickel	17.1				08/16/2012	14:14	LB62171
	Potassium	-198				08/16/2012	14:14	LB62171
	Selenium	-6.9				08/16/2012	14:14	LB62171
	Silver	1.5				08/16/2012	14:14	LB62171
	Sodium	-650				08/16/2012	14:14	LB62171
	Thallium	8.8				08/16/2012	14:14	LB62171
	Vanadium	-2.9				08/16/2012	14:14	LB62171
	Zinc	24.7				08/16/2012	14:14	LB62171
ICSAB01	Aluminum	246000	241100	102.0	80 - 120%	08/16/2012	14:18	LB62171
	Antimony	616	589	104.6	80 - 120%	08/16/2012	14:18	LB62171
	Arsenic	96.6	101	95.6	80 - 120%	08/16/2012	14:18	LB62171
	Barium	515	495	104.0	80 - 120%	08/16/2012	14:18	LB62171
	Beryllium	510	475	107.4	80 - 120%	08/16/2012	14:18	LB62171
	Cadmium	994	940	105.7	80 - 120%	08/16/2012	14:18	LB62171
	Calcium	244000	231100	105.6	80 - 120%	08/16/2012	14:18	LB62171
	Chromium	531	511	103.9	80 - 120%	08/16/2012	14:18	LB62171
	Cobalt	496	461	107.6	80 - 120%	08/16/2012	14:18	LB62171
	Copper	527	548	96.2	80 - 120%	08/16/2012	14:18	LB62171
	Iron	95400	94800	100.6	80 - 120%	08/16/2012	14:18	LB62171
	Lead	58.4	61	95.7	80 - 120%	08/16/2012	14:18	LB62171
	Magnesium	251000	251100	100.0	80 - 120%	08/16/2012	14:18	LB62171
	Manganese	518	502	103.2	80 - 120%	08/16/2012	14:18	LB62171
	Nickel	1000	984	101.6	80 - 120%	08/16/2012	14:18	LB62171
	Potassium	-382				08/16/2012	14:18	LB62171
	Selenium	47.2	53	89.1	80 - 120%	08/16/2012	14:18	LB62171
	Silver	209	206	101.5	80 - 120%	08/16/2012	14:18	LB62171
	Sodium	-570				08/16/2012	14:18	LB62171
	Thallium	91.5	103	88.8	80 - 120%	08/16/2012	14:18	LB62171
	Vanadium	481	494	97.4	80 - 120%	08/16/2012	14:18	LB62171
	Zinc	1040	1028	101.2	80 - 120%	08/16/2012	14:18	LB62171
ICSA01	Aluminum	247000	244100	101.2	80 - 120%	08/16/2012	14:14	LB62172
	Antimony	1.8				08/16/2012	14:14	LB62172

**Metals**  
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**INTERFERENCE CHECK SAMPLE**

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 ICS Source: EPA Instrument ID: P5

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Arsenic	1.5				08/16/2012	14:14	LB62172
	Barium	4.3				08/16/2012	14:14	LB62172
	Beryllium	-0.13				08/16/2012	14:14	LB62172
	Cadmium	0.46				08/16/2012	14:14	LB62172
	Calcium	247000	234900	105.2	80 - 120%	08/16/2012	14:14	LB62172
	Chromium	43.3	43	100.7	77 - 123%	08/16/2012	14:14	LB62172
	Cobalt	4.4	4	110.0	-1150 - 1350%	08/16/2012	14:14	LB62172
	Copper	22.5				08/16/2012	14:14	LB62172
	Iron	95400	95600	99.8	80 - 120%	08/16/2012	14:14	LB62172
	Lead	8.0				08/16/2012	14:14	LB62172
	Magnesium	252000	247500	101.8	80 - 120%	08/16/2012	14:14	LB62172
	Manganese	22.6	19	118.9	21 - 179%	08/16/2012	14:14	LB62172
	Nickel	17.1				08/16/2012	14:14	LB62172
	Potassium	-198				08/16/2012	14:14	LB62172
	Selenium	-6.9				08/16/2012	14:14	LB62172
	Silver	1.5				08/16/2012	14:14	LB62172
	Sodium	-650				08/16/2012	14:14	LB62172
	Thallium	8.8				08/16/2012	14:14	LB62172
	Vanadium	-2.9				08/16/2012	14:14	LB62172
	Zinc	24.7				08/16/2012	14:14	LB62172
ICSAB01	Aluminum	246000	241100	102.0	80 - 120%	08/16/2012	14:18	LB62172
	Antimony	616	589	104.6	80 - 120%	08/16/2012	14:18	LB62172
	Arsenic	96.6	101	95.6	80 - 120%	08/16/2012	14:18	LB62172
	Barium	515	495	104.0	60 - 140%	08/16/2012	14:18	LB62172
	Beryllium	510	475	107.4	80 - 120%	08/16/2012	14:18	LB62172
	Cadmium	994	940	105.7	80 - 120%	08/16/2012	14:18	LB62172
	Calcium	244000	231100	105.6	80 - 120%	08/16/2012	14:18	LB62172
	Chromium	531	511	103.9	80 - 120%	08/16/2012	14:18	LB62172
	Cobalt	496	461	107.6	80 - 120%	08/16/2012	14:18	LB62172
	Copper	527	548	96.2	80 - 120%	08/16/2012	14:18	LB62172
	Iron	95400	94800	100.6	80 - 120%	08/16/2012	14:18	LB62172
	Lead	58.4				08/16/2012	14:18	LB62172
	Magnesium	251000	251100	100.0	80 - 120%	08/16/2012	14:18	LB62172
	Manganese	518	502	103.2	80 - 120%	08/16/2012	14:18	LB62172
	Nickel	1000	984	101.6	80 - 120%	08/16/2012	14:18	LB62172
	Potassium	-382				08/16/2012	14:18	LB62172
	Selenium	47.2	53	89.1	34 - 166%	08/16/2012	14:18	LB62172
	Silver	209	206	101.5	80 - 120%	08/16/2012	14:18	LB62172
	Sodium	-570				08/16/2012	14:18	LB62172
	Thallium	91.5	103	88.8	76 - 124%	08/16/2012	14:18	LB62172
	Vanadium	481	494	97.4	80 - 120%	08/16/2012	14:18	LB62172
	Zinc	1040	1028	101.2	80 - 120%	08/16/2012	14:18	LB62172
ICSA01	Aluminum	246000	244000	100.8	80 - 120%	08/17/2012	12:19	LB62199
	Antimony	-18.6				08/17/2012	12:19	LB62199
	Arsenic	4.3				08/17/2012	12:19	LB62199
	Barium	6.9	2.0	345.0	-9900 - 10100%	08/17/2012	12:19	LB62199

**Metals**  
- 4 -  
**INTERFERENCE CHECK SAMPLE**

Client: MS Analytical SDG No.: D3811  
 Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
 ICS Source: EPA Instrument ID: P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Beryllium	0.38				08/17/2012	12:19	LB62199
	Cadmium	-1.9				08/17/2012	12:19	LB62199
	Calcium	242000	235000	103.0	80 - 120%	08/17/2012	12:19	LB62199
	Chromium	47.0	43.0	109.3	77 - 123%	08/17/2012	12:19	LB62199
	Cobalt	4.7	4.0	117.5	-1150 - 1350%	08/17/2012	12:19	LB62199
	Copper	21.9	23.0	95.2	-9 - 209%	08/17/2012	12:19	LB62199
	Iron	95800	95600	100.2	80 - 120%	08/17/2012	12:19	LB62199
	Lead	8.1	10.0	81.0	0 - 200%	08/17/2012	12:19	LB62199
	Magnesium	248000	248000	100.2	80 - 120%	08/17/2012	12:19	LB62199
	Manganese	21.8	19.0	114.7	21 - 179%	08/17/2012	12:19	LB62199
	Nickel	19.2	21.0	91.4	-90 - 290%	08/17/2012	12:19	LB62199
	Potassium	-44.6				08/17/2012	12:19	LB62199
	Selenium	2.2				08/17/2012	12:19	LB62199
	Silver	1.8				08/17/2012	12:19	LB62199
	Sodium	786				08/17/2012	12:19	LB62199
	Thallium	2.1				08/17/2012	12:19	LB62199
	Vanadium	-3.1				08/17/2012	12:19	LB62199
	Zinc	23.8				08/17/2012	12:19	LB62199
ICSAB01	Aluminum	246000	241000	102.0	80 - 120%	08/17/2012	12:22	LB62199
	Antimony	575	589	97.6	80 - 120%	08/17/2012	12:22	LB62199
	Arsenic	92.6	101	91.7	80 - 120%	08/17/2012	12:22	LB62199
	Barium	499	495	100.8	60 - 140%	08/17/2012	12:22	LB62199
	Beryllium	507	475	106.7	80 - 120%	08/17/2012	12:22	LB62199
	Cadmium	980	940	104.3	80 - 120%	08/17/2012	12:22	LB62199
	Calcium	244000	231000	105.6	80 - 120%	08/17/2012	12:22	LB62199
	Chromium	529	511	103.5	80 - 120%	08/17/2012	12:22	LB62199
	Cobalt	496	461	107.6	80 - 120%	08/17/2012	12:22	LB62199
	Copper	503	548	91.8	80 - 120%	08/17/2012	12:22	LB62199
	Iron	99600	94800	105.1	80 - 120%	08/17/2012	12:22	LB62199
	Lead	58.9	61.0	96.6	80 - 120%	08/17/2012	12:22	LB62199
	Magnesium	247000	251000	98.4	80 - 120%	08/17/2012	12:22	LB62199
	Manganese	514	502	102.4	80 - 120%	08/17/2012	12:22	LB62199
	Nickel	1010	984	102.6	80 - 120%	08/17/2012	12:22	LB62199
	Potassium	-81.2				08/17/2012	12:22	LB62199
	Selenium	57.3	53.0	108.1	34 - 166%	08/17/2012	12:22	LB62199
	Silver	209	206	101.5	80 - 120%	08/17/2012	12:22	LB62199
	Sodium	791				08/17/2012	12:22	LB62199
	Thallium	98.9	103	96.0	76 - 124%	08/17/2012	12:22	LB62199
	Vanadium	484	494	98.0	80 - 120%	08/17/2012	12:22	LB62199
	Zinc	998	1030	97.1	80 - 120%	08/17/2012	12:22	LB62199

# METAL QC DATA



Metals  
- 5a -  
MATRIX SPIKE SUMMARY

Client: MS AnalyticalLevel: LOWSDG No.: D3811

Contract: MSAN01Lab Code: CHEMCase No.: D3811SAS No.: D3811

Matrix: SOILSample ID: D3811-01Client ID: SB-2(4-8)S

Percent Solids for Sample: 86.6Spiked ID: D3811-01SPercent Solids for Spike Sample: 86.6

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	10 - 240	9362.8270		6299.6780		164.96	1856.9		P
Antimony	mg/Kg	47 - 131	51.4600		1.1748	J	65.98	76.2		P
Arsenic	mg/Kg	73 - 114	66.9064		10.1960		65.98	86.0		P
Barium	mg/Kg	39 - 158	93.0753		84.4384		16.50	52.3		P
Beryllium	mg/Kg	79 - 112	15.5768		0.2069	J	16.50	93.2		P
Cadmium	mg/Kg	73 - 114	16.2263		0.4315		16.50	95.7		P
Calcium	mg/Kg	10 - 194	52083.0600		5965.5740		82.48	55913.5		P
Chromium	mg/Kg	68 - 122	50.2075		8.9484		32.99	125.1	N	P
Cobalt	mg/Kg	68 - 119	23.2218		6.5354		16.50	101.1		P
Copper	mg/Kg	59 - 132	41.7447		40.2076		24.74	6.2	N	P
Iron	mg/Kg	10 - 289	12115.2400		21564.0400		247.44	-3818.6		P
Lead	mg/Kg	66 - 125	126.0251		1039.8010		82.48	-1107.9		P
Magnesium	mg/Kg	10 - 208	5212.2320		920.6121		164.96	2601.6		P
Manganese	mg/Kg	10 - 205	232.8049		378.7031		16.50	-884.2		P
Nickel	mg/Kg	64 - 129	56.4908		13.7374		41.24	103.7		P
Potassium	mg/Kg	37 - 158	3075.7250		488.2649		824.81	313.7	N	P
Selenium	mg/Kg	69 - 105	150.3467		0.3382	U	164.96	91.1		P
Silver	mg/Kg	54 - 131	5.8237		0.5607		6.19	85.0		P
Sodium	mg/Kg	10 - 139	964.7964		301.1857		247.44	268.2	N	P
Thallium	mg/Kg	74 - 116	149.2782		0.5620	J	164.96	90.2		P
Vanadium	mg/Kg	67 - 127	42.6980		18.8957		24.74	96.2		P
Zinc	mg/Kg	67 - 127	93.5100		97.0502		16.50	-21.5		P

Metals  
- 5a -  
MATRIX SPIKE DUPLICATE SUMMARY

Client: MS AnalyticalLevel: LOWSDG No.: D3811

Contract: MSAN01Lab Code: CHEMCase No.: D3811SAS No.: D3811

Matrix: SOILSample ID: D3811-01Client ID: SB-2(4-8)SD

Percent Solids for Sample: 86.6Spiked ID: D3811-01SDPercent Solids for Spike Sample: 86.6

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	10 - 240	9368.8800		6299.6780		164.96	1860.6		P
Antimony	mg/Kg	47 - 131	51.5150		1.1748	J	65.98	76.3		P
Arsenic	mg/Kg	73 - 114	67.1141		10.1960		65.98	86.3		P
Barium	mg/Kg	39 - 158	93.0915		84.4384		16.50	52.4		P
Beryllium	mg/Kg	79 - 112	15.5928		0.2069	J	16.50	93.2		P
Cadmium	mg/Kg	73 - 114	16.2978		0.4315		16.50	96.2		P
Calcium	mg/Kg	10 - 194	52238.5800		5965.5740		82.48	56102.1		P
Chromium	mg/Kg	68 - 122	50.0404		8.9484		32.99	124.6	N	P
Cobalt	mg/Kg	68 - 119	23.2520		6.5354		16.50	101.3		P
Copper	mg/Kg	59 - 132	41.8272		40.2076		24.74	6.5	N	P
Iron	mg/Kg	10 - 289	12131.5400		21564.0400		247.44	-3812.0		P
Lead	mg/Kg	66 - 125	126.8558		1039.8010		82.48	-1106.9		P
Magnesium	mg/Kg	10 - 208	5224.2840		920.6121		164.96	2608.9		P
Manganese	mg/Kg	10 - 205	233.2493		378.7031		16.50	-881.5		P
Nickel	mg/Kg	64 - 129	56.6947		13.7374		41.24	104.2		P
Potassium	mg/Kg	37 - 158	3079.0140		488.2649		824.81	314.1	N	P
Selenium	mg/Kg	69 - 105	150.5097		0.3382	U	164.96	91.2		P
Silver	mg/Kg	54 - 131	5.8248		0.5607		6.19	85.0		P
Sodium	mg/Kg	10 - 139	962.8027		301.1857		247.44	267.4	N	P
Thallium	mg/Kg	74 - 116	149.8904		0.5620	J	164.96	90.5		P
Vanadium	mg/Kg	67 - 127	42.5927		18.8957		24.74	95.8		P
Zinc	mg/Kg	67 - 127	92.9042		97.0502		16.50	-25.1		P

Metals  
- 5a -  
MATRIX SPIKE SUMMARY

Client: MS Analytical

Level: LOW

SDG No.: D3811

Contract: MSAN01

Lab Code: CHEM

Case No.: D3811

SAS No.: D3811

Matrix: SOIL

Sample ID: D3811-18

Client ID: SB-43(10-12)S

Percent Solids for Sample: 82.1

Spiked ID: D3811-18S

Percent Solids for Spike Sample: 82.1

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	34 - 153	0.3959		0.1568		0.24	99.6		CV

Metals  
- 5a -  
MATRIX SPIKE DUPLICATE SUMMARY

Client: MS AnalyticalLevel: LOWSDG No.: D3811

Contract: MSAN01Lab Code: CHEMCase No.: D3811SAS No.: D3811

Matrix: SOILSample ID: D3811-18Client ID: SB-43(10-12)SD

Percent Solids for Sample: 82.1Spiked ID: D3811-18SDPercent Solids for Spike Sample: 82.1

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	34 - 153	0.4017		0.1568		0.24	102.0		CV

Metals  
- 5a -  
MATRIX SPIKE SUMMARY

Client: MS Analytical

Level: LOW

SDG No.: D3811

Contract: MSAN01

Lab Code: CHEM

Case No.: D3811

SAS No.: D3811

Matrix: SOIL

Sample ID: D3813-01

Client ID: SS-01AS

Percent Solids for Sample: 87.2

Spiked ID: D3813-01S

Percent Solids for Spike Sample: 87.2

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	10 - 240	9478.8560		7491.5230		167.41	1187.1		P
Antimony	mg/Kg	47 - 131	52.2263		1.2258	J	66.97	76.2		P
Arsenic	mg/Kg	73 - 114	67.9115		4.1927		66.97	95.1		P
Barium	mg/Kg	39 - 158	94.1485		71.2883		16.74	136.6		P
Beryllium	mg/Kg	79 - 112	16.0017		0.3584		16.74	93.4		P
Cadmium	mg/Kg	73 - 114	16.5899		0.2878		16.74	97.4		P
Calcium	mg/Kg	10 - 194	53037.2800		42490.9000		83.71	12598.7		P
Chromium	mg/Kg	68 - 122	52.3907		16.3340		33.48	107.7		P
Cobalt	mg/Kg	68 - 119	23.6511		6.5302		16.74	102.3		P
Copper	mg/Kg	59 - 132	42.2778		13.1985		25.11	115.8		P
Iron	mg/Kg	10 - 289	12306.4600		10909.6600		251.12	556.2		P
Lead	mg/Kg	66 - 125	128.8565		47.0920		83.71	97.7		P
Magnesium	mg/Kg	10 - 208	5302.8910		4807.4970		167.41	295.9		P
Manganese	mg/Kg	10 - 205	237.8367		191.2354		16.74	278.4		P
Nickel	mg/Kg	64 - 129	57.7459		14.1791		41.85	104.1		P
Potassium	mg/Kg	37 - 158	3073.7810		2455.9030		837.07	73.8		P
Selenium	mg/Kg	69 - 105	152.8813		0.3432	U	167.41	91.3		P
Silver	mg/Kg	54 - 131	6.0840		0.2490	J	6.28	92.9		P
Sodium	mg/Kg	10 - 139	936.1742		442.9517		251.12	196.4	N	P
Thallium	mg/Kg	74 - 116	152.7404		0.2260	U	167.41	91.2		P
Vanadium	mg/Kg	67 - 127	42.9485		17.3126		25.11	102.1		P
Zinc	mg/Kg	67 - 127	96.4971		61.0666		16.74	211.7	N	P

Metals  
- 5a -  
MATRIX SPIKE DUPLICATE SUMMARY

Client: MS AnalyticalLevel: LOWSDG No.: D3811

Contract: MSAN01Lab Code: CHEMCase No.: D3811SAS No.: D3811

Matrix: SOILSample ID: D3813-01Client ID: SS-01ASD

Percent Solids for Sample: 87.2Spiked ID: D3813-01SDPercent Solids for Spike Sample: 87.2

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	10 - 240	9412.6090		7491.5230		167.41	1147.5		P
Antimony	mg/Kg	47 - 131	52.1597		1.2258	J	66.97	76.1		P
Arsenic	mg/Kg	73 - 114	68.1792		4.1927		66.97	95.5		P
Barium	mg/Kg	39 - 158	94.5654		71.2883		16.74	139.1		P
Beryllium	mg/Kg	79 - 112	16.0085		0.3584		16.74	93.5		P
Cadmium	mg/Kg	73 - 114	16.6638		0.2878		16.74	97.8		P
Calcium	mg/Kg	10 - 194	52764.4900		42490.9000		83.71	12272.8		P
Chromium	mg/Kg	68 - 122	52.1854		16.3340		33.48	107.1		P
Cobalt	mg/Kg	68 - 119	23.7246		6.5302		16.74	102.7		P
Copper	mg/Kg	59 - 132	42.0249		13.1985		25.11	114.8		P
Iron	mg/Kg	10 - 289	12176.8700		10909.6600		251.12	504.6		P
Lead	mg/Kg	66 - 125	129.4615		47.0920		83.71	98.4		P
Magnesium	mg/Kg	10 - 208	5241.4530		4807.4970		167.41	259.2		P
Manganese	mg/Kg	10 - 205	236.9077		191.2354		16.74	272.8		P
Nickel	mg/Kg	64 - 129	58.0834		14.1791		41.85	104.9		P
Potassium	mg/Kg	37 - 158	3038.4660		2455.9030		837.07	69.6		P
Selenium	mg/Kg	69 - 105	153.0385		0.3432	U	167.41	91.4		P
Silver	mg/Kg	54 - 131	6.0430		0.2490	J	6.28	92.3		P
Sodium	mg/Kg	10 - 139	957.8644		442.9517		251.12	205.0	N	P
Thallium	mg/Kg	74 - 116	153.5570		0.2260	U	167.41	91.7		P
Vanadium	mg/Kg	67 - 127	42.7400		17.3126		25.11	101.3		P
Zinc	mg/Kg	67 - 127	97.0333		61.0666		16.74	214.9	N	P

Metals  
- 5a -  
MATRIX SPIKE SUMMARY

Client: MS Analytical

Level: LOW

SDG No.: D3811

Contract: MSAN01

Lab Code: CHEM

Case No.: D3811

SAS No.: D3811

Matrix: SOIL

Sample ID: D3841-03

Client ID: STOCKPILE081512S

Percent Solids for Sample: 83.9

Spiked ID: D3841-03S

Percent Solids for Spike Sample: 83.9

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	34 - 153	0.2707		0.0296		0.24	100.5		CV

Metals  
- 5a -  
MATRIX SPIKE DUPLICATE SUMMARY

Client: MS AnalyticalLevel: LOWSDG No.: D3811

Contract: MSAN01Lab Code: CHEMCase No.: D3811SAS No.: D3811

Matrix: SOILSample ID: D3841-03Client ID: STOCKPILE081512SD

Percent Solids for Sample: 83.9Spiked ID: D3841-03SDPercent Solids for Spike Sample: 83.9

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	34 - 153	0.2813		0.0296		0.24	104.9		CV



Metals  
- 5b -  
POST DIGEST SPIKE SUMMARY

Client: MS AnalyticalSDG No.: D3811

Contract: MSAN01Lab Code: CHEMCase No.: D3811SAS No.: D3811

Matrix: WATERLevel: LOWClient ID: SB-2(4-8)A

Sample ID: D3811-01Spiked ID: D3811-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Chromium	ug/L	68 - 122	771.00		108.49		400.0	165.6		P
Copper	ug/L	59 - 132	1004.87		487.48		300.0	172.5		P
Potassium	ug/L	37 - 158	23578.84		5919.72		10000.0	176.6		P
Sodium	ug/L	10 - 139	8875.95		3651.58		3000.0	174.1		P

Metals  
- 5b -  
POST DIGEST SPIKE SUMMARY

Client: MS AnalyticalSDG No.: D3811

Contract: MSAN01Lab Code: CHEMCase No.: D3811SAS No.: D3811

Matrix: WATERLevel: LOWClient ID: SS-01AA

Sample ID: D3813-01Spiked ID: D3813-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Sodium	ug/L	10 - 139	8080.58		5291.68		3000.0	93.0		P
Zinc	ug/L	67 - 127	920.11		729.53		200.0	95.3		P

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client:	MS Analytical	Level:	LOW	SDG No.:	D3811		
Contract:	MSAN01	Lab Code:	CHEM	Case No.:	D3811	SAS No.:	D3811
Matrix:	SOIL	Sample ID:	D3811-01	Client ID:	SB-2(4-8)D		
Percent Solids for Sample:	86.6	Duplicate ID	D3811-01D	Percent Solids for Spike Sample:	86.6		

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	6299.6780		6230.7500		1.1		P
Antimony	mg/Kg	20	1.1748	J	1.1868	J	1.0		P
Arsenic	mg/Kg	20	10.1960		10.1827		0.1		P
Barium	mg/Kg	20	84.4384		82.8266		1.9		P
Beryllium	mg/Kg	20	0.2069	J	0.2269	J	9.2		P
Cadmium	mg/Kg	20	0.4315		0.4493		4.0		P
Calcium	mg/Kg	20	5965.5740		5867.4830		1.7		P
Chromium	mg/Kg	20	8.9484		8.9481		0.0		P
Cobalt	mg/Kg	20	6.5354		6.5038		0.5		P
Copper	mg/Kg	20	40.2076		39.6008		1.5		P
Iron	mg/Kg	20	21564.0400		20957.0700		2.9		P
Lead	mg/Kg	20	1039.8010		1045.0980		0.5		P
Magnesium	mg/Kg	20	920.6121		909.3460		1.2		P
Manganese	mg/Kg	20	378.7031		373.4995		1.4		P
Nickel	mg/Kg	20	13.7374		13.8641		0.9		P
Potassium	mg/Kg	20	488.2649		478.0315		2.1		P
Selenium	mg/Kg	20	0.3382	U	0.3382	U			P
Silver	mg/Kg	20	0.5607		0.5250		6.6		P
Sodium	mg/Kg	20	301.1857		305.3980		1.4		P
Thallium	mg/Kg	20	0.5620	J	0.6207	J	9.9		P
Vanadium	mg/Kg	20	18.8957		18.7993		0.5		P
Zinc	mg/Kg	20	97.0502		96.7456		0.3		P

“A control limit of  $\pm 20\%$  RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client:	MS Analytical	Level:	LOW	SDG No.:	D3811		
Contract:	MSAN01	Lab Code:	CHEM	Case No.:	D3811	SAS No.:	D3811
Matrix:	SOIL	Sample ID:	D3811-01	Client ID:	SB-2(4-8)SD		
Percent Solids for Sample:	86.6	Duplicate ID	D3811-01SD	Percent Solids for Spike Sample:	86.6		

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	9362.8260		9368.8800		0.1		P
Antimony	mg/Kg	20	51.4600		51.5150		0.1		P
Arsenic	mg/Kg	20	66.9064		67.1141		0.3		P
Barium	mg/Kg	20	93.0753		93.0915		0.0		P
Beryllium	mg/Kg	20	15.5768		15.5928		0.1		P
Cadmium	mg/Kg	20	16.2263		16.2978		0.4		P
Calcium	mg/Kg	20	52083.0600		52238.5800		0.3		P
Chromium	mg/Kg	20	50.2075		50.0404		0.3		P
Cobalt	mg/Kg	20	23.2218		23.2520		0.1		P
Copper	mg/Kg	20	41.7447		41.8272		0.2		P
Iron	mg/Kg	20	12115.2400		12131.5400		0.1		P
Lead	mg/Kg	20	126.0251		126.8558		0.7		P
Magnesium	mg/Kg	20	5212.2320		5224.2840		0.2		P
Manganese	mg/Kg	20	232.8049		233.2493		0.2		P
Nickel	mg/Kg	20	56.4908		56.6947		0.4		P
Potassium	mg/Kg	20	3075.7250		3079.0140		0.1		P
Selenium	mg/Kg	20	150.3467		150.5097		0.1		P
Silver	mg/Kg	20	5.8237		5.8248		0.0		P
Sodium	mg/Kg	20	964.7964		962.8027		0.2		P
Thallium	mg/Kg	20	149.2782		149.8904		0.4		P
Vanadium	mg/Kg	20	42.6980		42.5927		0.2		P
Zinc	mg/Kg	20	93.5100		92.9042		0.6		P

“A control limit of  $\pm 20\%$  RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: MS Analytical

Level: LOW

SDG No.: D3811

Contract: MSAN01

Lab Code: CHEM

Case No.: D3811

SAS No.: D3811

Matrix: SOIL

Sample ID: D3811-18

Client ID: SB-43(10-12)D

Percent Solids for Sample: 82.1

Duplicate ID D3811-18D

Percent Solids for Spike Sample: 82.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20			0.15				CV

“A control limit of +20% RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: MS Analytical

Contract: MSAN01

Matrix: SOIL

Percent Solids for Sample: 82.1

Level: LOW

Lab Code: CHEM

Sample ID: D3811-18

Duplicate ID D3811-18SD

SDG No.: D3811

Case No.: D3811

Client ID: SB-43(10-12)SD

Percent Solids for Spike Sample: 82.1

SAS No.: D3811

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20			0.40				CV

“A control limit of +20% RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

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DUPLICATE SAMPLE SUMMARY

Client:	MS Analytical	Level:	LOW	SDG No.:	D3811		
Contract:	MSAN01	Lab Code:	CHEM	Case No.:	D3811	SAS No.:	D3811
Matrix:	SOIL	Sample ID:	D3813-01	Client ID:	SS-01AD		
Percent Solids for Sample:	87.2	Duplicate ID	D3813-01D	Percent Solids for Spike Sample:	87.2		

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	7491.5230		7446.7500		0.6		P
Antimony	mg/Kg	20	1.2258	J	1.4661	J	17.9		P
Arsenic	mg/Kg	20	4.1927		4.2224		0.7		P
Barium	mg/Kg	20	71.2883		71.9703		1.0		P
Beryllium	mg/Kg	20	0.3584		0.3456		3.6		P
Cadmium	mg/Kg	20	0.2878		0.2991		3.9		P
Calcium	mg/Kg	20	42490.9000		42541.2200		0.1		P
Chromium	mg/Kg	20	16.3340		16.4861		0.9		P
Cobalt	mg/Kg	20	6.5302		6.4764		0.8		P
Copper	mg/Kg	20	13.1985		13.0773		0.9		P
Iron	mg/Kg	20	10909.6600		10799.5400		1.0		P
Lead	mg/Kg	20	47.0920		46.9350		0.3		P
Magnesium	mg/Kg	20	4807.4970		4761.3400		1.0		P
Manganese	mg/Kg	20	191.2354		191.3441		0.1		P
Nickel	mg/Kg	20	14.1791		14.0710		0.8		P
Potassium	mg/Kg	20	2455.9030		2409.7270		1.9		P
Selenium	mg/Kg	20	0.3432	U	0.3432	U			P
Silver	mg/Kg	20	0.2490	J	0.2816	J	12.3		P
Sodium	mg/Kg	20	442.9517		431.3171		2.7		P
Thallium	mg/Kg	20	0.2260	U	0.2260	U			P
Vanadium	mg/Kg	20	17.3126		17.2652		0.3		P
Zinc	mg/Kg	20	61.0666		61.5403		0.8		P

“A control limit of  $\pm 20\%$  RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

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DUPLICATE SAMPLE SUMMARY

Client:	MS Analytical	Level:	LOW	SDG No.:	D3811		
Contract:	MSAN01	Lab Code:	CHEM	Case No.:	D3811	SAS No.:	D3811
Matrix:	SOIL	Sample ID:	D3813-01	Client ID:	SS-01ASD		
Percent Solids for Sample:	87.2	Duplicate ID	D3813-01SD	Percent Solids for Spike Sample:	87.2		

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	9478.8560		9412.6090		0.7		P
Antimony	mg/Kg	20	52.2263		52.1597		0.1		P
Arsenic	mg/Kg	20	67.9115		68.1792		0.4		P
Barium	mg/Kg	20	94.1485		94.5654		0.4		P
Beryllium	mg/Kg	20	16.0017		16.0085		0.0		P
Cadmium	mg/Kg	20	16.5899		16.6638		0.4		P
Calcium	mg/Kg	20	53037.2800		52764.4900		0.5		P
Chromium	mg/Kg	20	52.3907		52.1854		0.4		P
Cobalt	mg/Kg	20	23.6511		23.7246		0.3		P
Copper	mg/Kg	20	42.2778		42.0249		0.6		P
Iron	mg/Kg	20	12306.4600		12176.8700		1.1		P
Lead	mg/Kg	20	128.8565		129.4615		0.5		P
Magnesium	mg/Kg	20	5302.8920		5241.4530		1.2		P
Manganese	mg/Kg	20	237.8367		236.9077		0.4		P
Nickel	mg/Kg	20	57.7459		58.0834		0.6		P
Potassium	mg/Kg	20	3073.7810		3038.4660		1.2		P
Selenium	mg/Kg	20	152.8813		153.0385		0.1		P
Silver	mg/Kg	20	6.0840		6.0430		0.7		P
Sodium	mg/Kg	20	936.1743		957.8644		2.3		P
Thallium	mg/Kg	20	152.7404		153.5570		0.5		P
Vanadium	mg/Kg	20	42.9486		42.7400		0.5		P
Zinc	mg/Kg	20	96.4971		97.0333		0.6		P

“A control limit of  $\pm 20\%$  RPD for each matrix applies for sample values greater than 10 times Detection Limit”



Metals

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DUPLICATE SAMPLE SUMMARY

Client: MS Analytical

Contract: MSAN01

Matrix: SOIL

Percent Solids for Sample: 83.9

Level: LOW

Lab Code: CHEM

Sample ID: D3841-03

Duplicate ID D3841-03D

SDG No.: D3811

Case No.: D3811

Client ID: STOCKPILE081512D

Percent Solids for Spike Sample: 83.9

SAS No.: D3811

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.0296		0.0267		10.3		CV

“A control limit of +20% RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

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DUPLICATE SAMPLE SUMMARY

Client:	MS Analytical	Level:	LOW	SDG No.:	D3811		
Contract:	MSAN01	Lab Code:	CHEM	Case No.:	D3811	SAS No.:	D3811
Matrix:	SOIL	Sample ID:	D3841-03	Client ID:	STOCKPILE081512SD		
Percent Solids for Sample:	83.9	Duplicate ID	D3841-03SD	Percent Solids for Spike Sample:	83.9		

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.2707		0.2813		3.8		CV

“A control limit of +20% RPD for each matrix applies for sample values greater than 10 times Detection Limit”

LABORATORY CONTROL SAMPLE SUMMARY

Client: MS Analytical

SDG No.: D3811

Contract: MSAN01

Lab Code: CHEM

Case No.: D3811

SAS No.: D3811

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB65134BS							
Aluminum	mg/Kg	200.0	196.7		98.4	76 - 118	P
Antimony	mg/Kg	80.0	76.7		95.9	81 - 112	P
Arsenic	mg/Kg	80.0	75.2		94.0	82 - 112	P
Barium	mg/Kg	20.0	19.9		99.5	83 - 118	P
Beryllium	mg/Kg	20.0	19.7		98.5	84 - 113	P
Cadmium	mg/Kg	20.0	18.9		94.5	82 - 117	P
Calcium	mg/Kg	100.0	104.2		104.2	78 - 138	P
Chromium	mg/Kg	40.0	38.6		96.5	84 - 115	P
Cobalt	mg/Kg	20.0	19.2		96.0	84 - 114	P
Copper	mg/Kg	30.0	30.5		101.7	80 - 115	P
Iron	mg/Kg	300.0	305.7		101.9	78 - 109	P
Lead	mg/Kg	100.0	93.6		93.6	82 - 117	P
Magnesium	mg/Kg	200.0	202.4		101.2	80 - 121	P
Manganese	mg/Kg	20.0	20.1		100.5	84 - 114	P
Nickel	mg/Kg	50.0	47.8		95.6	85 - 118	P
Potassium	mg/Kg	1000.0	1019.3		101.9	67 - 116	P
Selenium	mg/Kg	200.0	192.0		96.0	74 - 110	P
Silver	mg/Kg	7.5	6.7		89.3	81 - 123	P
Sodium	mg/Kg	300.0	299.0		99.7	70 - 135	P
Thallium	mg/Kg	200.0	190.3		95.2	86 - 119	P
Vanadium	mg/Kg	30.0	30.5		101.7	84 - 113	P
Zinc	mg/Kg	20.0	19.6		98.0	88 - 127	P

LABORATORY CONTROL SAMPLE SUMMARY

Client: MS Analytical

SDG No.: D3811

Contract: MSAN01

Lab Code: CHEM

Case No.: D3811

SAS No.: D3811

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB65135BS							
Aluminum	mg/Kg	200.0	200.9		100.4	76 - 118	P
Antimony	mg/Kg	80.0	79.8		99.8	81 - 112	P
Arsenic	mg/Kg	80.0	77.7		97.1	82 - 112	P
Barium	mg/Kg	20.0	20.6		103.0	83 - 118	P
Beryllium	mg/Kg	20.0	20.1		100.5	84 - 113	P
Cadmium	mg/Kg	20.0	19.5		97.5	82 - 117	P
Calcium	mg/Kg	100.0	109.0		109.0	78 - 138	P
Chromium	mg/Kg	40.0	40.1		100.2	84 - 115	P
Cobalt	mg/Kg	20.0	19.9		99.5	84 - 114	P
Copper	mg/Kg	30.0	31.3		104.3	80 - 115	P
Iron	mg/Kg	300.0	308.9		103.0	78 - 109	P
Lead	mg/Kg	100.0	97.0		97.0	82 - 117	P
Magnesium	mg/Kg	200.0	203.2		101.6	80 - 121	P
Manganese	mg/Kg	20.0	20.5		102.5	84 - 114	P
Nickel	mg/Kg	50.0	49.5		99.0	85 - 118	P
Potassium	mg/Kg	1000.0	1035.8		103.6	67 - 116	P
Selenium	mg/Kg	200.0	198.5		99.2	74 - 110	P
Silver	mg/Kg	7.5	7.0		93.3	81 - 123	P
Sodium	mg/Kg	300.0	345.4		115.1	70 - 135	P
Thallium	mg/Kg	200.0	197.3		98.6	86 - 119	P
Vanadium	mg/Kg	30.0	31.6		105.3	84 - 113	P
Zinc	mg/Kg	20.0	20.7		103.5	88 - 127	P

LABORATORY CONTROL SAMPLE SUMMARY

Client: MS Analytical

SDG No.: D3811

Contract: MSAN01

Lab Code: CHEM

Case No.: D3811

SAS No.: D3811

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB65160BS Mercury	mg/Kg	.2	0.188		94.0	73 - 121	CV

LABORATORY CONTROL SAMPLE SUMMARY

Client:

MS Analytical

Contract:

MSAN01

SDG No.:

D3811

Lab Code:

CHEM

Case No.:

D3811

SAS No.:

D3811

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB65166BS Mercury	mg/Kg	.2	0.183		91.5	73 - 121	CV

Metals  
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ICP SERIAL DILUTIONS

SAMPLE NO.

SB-2(4-8)L

Lab Name: Chemtech Consulting Group Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
Matrix (soil/water): WATER Level (low/med): LOW  
Concentration Units: ug/L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Differ- ence	Q	M
	C		C				
Aluminum	76377.29		81498.95		6.7		P
Antimony	14.24	J	40.00	U	100.0		P
Arsenic	123.62		143.60		16.2		P
Barium	1023.73		1095.48		7.0		P
Beryllium	2.51	J	3.50	U	100.0		P
Cadmium	5.23		5.20	J	0.6		P
Calcium	72326.61		78277.70		8.2		P
Chromium	108.49		118.42		9.2		P
Cobalt	79.23		81.05		2.3		P
Copper	487.48		522.41		7.2		P
Iron	261442.40		284926.80		9.0		P
Lead	12606.55		13054.33		3.6		P
Magnesium	11161.50		12332.23		10.5		P
Manganese	4591.40		5020.27		9.3		P
Nickel	166.55		167.15		0.4		P
Potassium	5919.72		6543.81		10.5		P
Selenium	4.80	U	24.00	U			P
Silver	6.80		7.50	U	100.0		P
Sodium	3651.58		5264.31		44.2		P
Thallium	6.81	J	12.00	U	100.0		P
Vanadium	229.09		252.07		10.0		P
Zinc	1176.64		1253.51		6.5		P

Metals  
-9 -  
ICP SERIAL DILUTIONS

SAMPLE NO.  
SB-43(10-12)L

Lab Name: Chemtech Consulting Group Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
Matrix (soil/water): WATER Level (low/med): LOW  
Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Differ- ence	Q	M
Mercury	0.00	0.11			CV



Metals  
-9 -  
ICP SERIAL DILUTIONS

SAMPLE NO.

SS-01AL

Lab Name: Chemtech Consulting Group Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
Matrix (soil/water): WATER Level (low/med): LOW  
Concentration Units: ug/L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Differ-ence	Q	M
	C		C				
Aluminum	89496.72		99813.80		11.5		P
Antimony	14.64	J	40.00	U	100.0		P
Arsenic	50.09		69.09		37.9		P
Barium	851.64		952.39		11.8		P
Beryllium	4.28		4.32	J	0.9		P
Cadmium	3.44		3.99	J	16.0		P
Calcium	507613.20		603280.50		18.8		P
Chromium	195.13		224.72		15.2		P
Cobalt	78.01		77.84		0.2		P
Copper	157.67		178.13		13.0		P
Iron	130331.10		152047.30		16.7		P
Lead	562.58		595.89		5.9		P
Magnesium	57432.27		67504.75		17.5		P
Manganese	2284.57		2674.18		17.1		P
Nickel	169.39		170.89		0.9		P
Potassium	29339.19		33297.48		13.5		P
Selenium	4.80	U	24.00	U			P
Silver	2.97	J	7.50	U	100.0		P
Sodium	5291.68		6920.44		30.8		P
Thallium	2.40	U	12.00	U			P
Vanadium	206.82		245.89		18.9		P
Zinc	729.53		832.84		14.2		P

Metals  
-9 -  
ICP SERIAL DILUTIONS

SAMPLE NO.  
STOCKPILE081512L

Lab Name: Chemtech Consulting Group Contract: MSAN01  
Lab Code: CHEM Case No.: D3811 SAS No.: D3811 SDG No.: D3811  
Matrix (soil/water): WATER Level (low/med): LOW  
Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Differ- ence	Q	M
Mercury	0.03	0.01 J	66.7		CV

# METAL PREPARATION & INSTRUMENT DATA

# Metals

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## METHOD DETECTION LIMITS

Client: MS Analytical SDG No.: D3811  
Contract: MSAN01 Lab Code: CHEM Case No.: D3811 SAS No.: D3811  
Instrument ID: P5 Date: 02/14/2009 Preparation Method: \_\_\_\_\_

		MDL	CRQL	Date: 02/14/2009
Analyte	Wave- length (nm)	ug/L	ug/L	
<b>Matrix Category: LIQUID</b>				
Aluminum	396.10	6.50	50.0	
Antimony	206.83	8.00	25.0	
Arsenic	189.00	4.20	10.0	
Barium	493.41	4.00	50.0	
Beryllium	234.86	0.70	3.0	
Cadmium	214.40	0.50	3.0	
Calcium	373.69	31.80	1000.0	
Chromium	267.72	1.10	5.0	
Cobalt	228.62	5.80	15.0	
Copper	324.70	2.00	10.0	
Iron	259.83	20.40	50.0	
Lead	220.35	2.60	6.0	
Magnesium	279.08	32.50	1000.0	
Manganese	257.61	1.70	10.0	
Nickel	231.60	4.20	20.0	
Potassium	769.80	38.80	1000.0	
Selenium	196.02	4.80	10.0	
Silver	328.07	1.50	5.0	
Sodium	818.30	13.90	1000.0	
Thallium	190.86	2.40	20.0	
Vanadium	292.40	6.10	20.0	
Zinc	213.8	6.50	20.0	
Mercury	253.70	0.0915	0.2000	
<b>Matrix Category: SOLIDS</b>				
Aluminum	396.10	0.84	5.00	
Antimony	206.83	0.56	2.50	
Arsenic	189.00	0.33	1.00	
Barium	493.41	0.40	5.00	
Beryllium	234.86	0.06	0.30	
Cadmium	214.40	0.06	0.30	
Calcium	373.69	1.07	100.00	
Chromium	267.72	0.13	0.50	
Cobalt	228.62	0.57	1.50	
Copper	324.70	0.32	1.00	
Iron	259.83	1.33	5.00	
Lead	220.35	0.12	0.60	
Magnesium	279.08	4.58	100.00	
Manganese	257.61	0.19	1.00	
Nickel	231.60	0.46	2.00	
Potassium	769.80	3.50	100.00	
Selenium	196.02	0.41	1.00	
Silver	328.07	0.15	0.50	
Sodium	818.30	2.52	100.00	
Thallium	190.86	0.27	2.00	
Vanadium	292.40	0.59	2.00	
Zinc	213.8	0.70	2.00	
Mercury	253.70	0.0020	0.01	

## Metals

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## ICP INTERELEMENT CORRECTION FACTORS

Client: MS AnalyticalSDG No.: D3811Contract: MSAN01Lab Code: CHEMCase No.: D3811SAS No.: D3811Instrument ID: P5Date: 01/03/2012

Interelement Correction Factors (apparent ppb analyte/ppm interferent )

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Al	Ca	Fe	Mg	Ag
Aluminum	396.152	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000360	0.0000000	0.0000000	0.0000000
Arsenic	193.759	-0.0001500	0.0000000	-0.0000610	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000060	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000720	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000160	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	-0.0001000	0.0000000	0.0000000
Iron	259.837	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0001080	0.0000160	0.0000290	-0.0000100	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0003100	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001330	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000260	0.0000000	0.0000000
Zinc	213.856	0.0000000	0.0000000	0.0000680	0.0000000	0.0000000

## Metals

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## ICP INTERELEMENT CORRECTION FACTORS

Client: MS AnalyticalSDG No.: D3811Contract: MSAN01Lab Code: CHEMCase No.: D3811SAS No.: D3811Instrument ID: P5Date: 01/03/2012

Interelement Correction Factors (apparent ppb analyte/ppm interferent )

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		As	Ba	Be	Cd	Co
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0002060
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	-0.0006380
Iron	259.837	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0006250
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0030300
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.200	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

## Metals

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## ICP INTERELEMENT CORRECTION FACTORS

Client: MS AnalyticalSDG No.: D3811Contract: MSAN01Lab Code: CHEMCase No.: D3811SAS No.: D3811Instrument ID: P5Date: 01/03/2012

Interelement Correction Factors (apparent ppb analyte/ppm interferent )

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Cr	Cu	K	Mn	Mo
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0029760	0.0100500
Antimony	206.833	0.0067600	0.0000000	0.0000000	0.0000000	-0.0017880
Arsenic	189.042	-0.0020280	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	-0.0000530	-0.0003670
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0003130	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0021550
Copper	324.754	0.0000000	0.0000000	0.0000000	0.0000000	0.0003190
Iron	259.837	0.0000000	0.0000000	0.0000000	0.0019120	0.0000000
Lead	220.353	0.0000000	0.0002700	0.0000000	0.0000630	-0.0013230
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0001570	0.0003540
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0003760	0.0001160
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	818.326	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0002910	0.0000000	0.0000000	0.0007730	0.0000000
Vanadium	292.402	-0.0052870	0.0000000	0.0000000	-0.0003620	0.0000000
Zinc	206.200	-0.0007800	0.0000000	0.0000000	0.0000000	-0.0001600

## Metals

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## ICP INTERELEMENT CORRECTION FACTORS

Client: MS Analytical

SDG No.: D3811

Contract: MSAN01

Lab Code: CHEM

Case No.: D3811

SAS No.: D3811

Instrument ID: P5

Date: 01/03/2012

Interelement Correction Factors (apparent ppb analyte/ppm interferent )

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Na	Ni	Pb	Sb	Se
Aluminum	396.152	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.042	0.0000000	0.0000880	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	214.438	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0004160	0.0000000
Cobalt	228.616	0.0000000	0.0001510	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0042280	0.0027390	0.0000000	0.0000000
Iron	259.837	0.0000000	0.0000000	0.0000000	0.0030850	0.0000000
Lead	220.353	0.0000000	0.0001900	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	769.896	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.856	0.0000000	0.0037520	0.0000000	0.0000000	0.0000000



## Metals

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## ICP INTERELEMENT CORRECTION FACTORS

Client: MS AnalyticalSDG No.: D3811Contract: MSAN01Lab Code: CHEMCase No.: D3811SAS No.: D3811Instrument ID: P5Date: 01/03/2012

Interelement Correction Factors (apparent ppb analyte/ppm interferent )

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Sn	Ti	Tl	V	Zn
Aluminum	396.152	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	-0.0105520	0.0000000	0.0000000	-0.0011770	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	-0.0034790	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0015730	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	-0.0009590	0.0000000	-0.0001540	0.0000000
Iron	259.837	0.0034480	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	-0.0002710	0.0000000	-0.0001150	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0004130	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0035820	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	-0.0007660	0.0000000
Sodium	818.326	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	-0.0011920	0.0000000	-0.0265550	0.0000000
Vanadium	292.402	0.0000000	0.0008050	0.0000000	0.0000000	0.0000000
Zinc	213.856	0.0000000	-0.0002440	0.0000000	0.0000000	0.0000000

## Metals

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## LINEAR RANGES

Client: MS AnalyticalSDG No.: D3811Contract: MSAN01Lab Code: CHEMCase No.: D3811SAS No.: D3811Instrument ID: P4Date: 07/19/2011

Analyte	Integration Time (sec)	LDR ug/L
Aluminum	10	1500000
Antimony	10	50000
Arsenic	10	85000
Barium	10	55000
Beryllium	10	10000
Cadmium	10	11000
Calcium	10	3500000
Chromium	10	100000
Cobalt	10	50000
Copper	10	100000
Iron	10	2300000
Lead	10	200000
Magnesium	10	3500000
Manganese	10	200000
Nickel	10	100000
Potassium	10	2000000
Selenium	10	50000
Silver	10	11000
Sodium	10	2000000
Thallium	10	20000
Vanadium	10	100000
Zinc	10	50000

# METAL PREPARATION & ANALYICAL SUMMARY

Metals  
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SAMPLE PREPARATION SUMMARY

Client: MS Analytical

Contract: MSAN01

SDG No.: D3811

Lab Code: CHEM

Method: P

Case No.: D3811

SAS No.: D3811

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB65134							
D3811-21	SB-46(12-16)	SAM	SOIL	08/16/2012	1.43	100.0	71.80
D3813-01D	SS-01AD	DUP	SOIL	08/16/2012	1.48	100.0	87.20
D3813-01S	SS-01AS	MS	SOIL	08/16/2012	1.40	100.0	87.20
D3813-01SD	SS-01ASD	MSD	SOIL	08/16/2012	1.39	100.0	87.20
PB65134BL	PB65134BL	MB	SOIL	08/16/2012	1.00	100.0	100.00
PB65134BS	PB65134BS	LCS	SOIL	08/16/2012	1.00	100.0	100.00

**Metals**  
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**SAMPLE PREPARATION SUMMARY**

<b>Client:</b> <u>MS Analytical</u>	<b>SDG No.:</b> <u>D3811</u>	
<b>Contract:</b> <u>MSAN01</u>	<b>Lab Code:</b> <u>CHEM</u>	<b>Method:</b> <u>P</u>
	<b>Case No.:</b> <u>D3811</u>	<b>SAS No.:</b> <u>D3811</u>

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
<b>Batch Number: PB65135</b>							
D3811-01	SB-2(4-8)	SAM	SOIL	08/16/2012	1.40	100.0	86.60
D3811-01D	SB-2(4-8)D	DUP	SOIL	08/16/2012	1.33	100.0	86.60
D3811-01S	SB-2(4-8)S	MS	SOIL	08/16/2012	1.37	100.0	86.60
D3811-01SD	SB-2(4-8)SD	MSD	SOIL	08/16/2012	1.38	100.0	86.60
D3811-02	SB-5(18-12)	SAM	SOIL	08/16/2012	1.39	100.0	81.30
D3811-03	SB-9(4-7)	SAM	SOIL	08/16/2012	1.42	100.0	83.90
D3811-04	SB-10(8-12)	SAM	SOIL	08/16/2012	1.39	100.0	74.40
D3811-05	SB-11(12-16)	SAM	SOIL	08/16/2012	1.37	100.0	74.40
D3811-06	SB-15(12-16)	SAM	SOIL	08/16/2012	1.39	100.0	71.60
D3811-07	SB-18(4-8)	SAM	SOIL	08/16/2012	1.42	100.0	83.80
D3811-08	SB-19(12-18)	SAM	SOIL	08/16/2012	1.49	100.0	62.40
D3811-09	SB-21(12-16)	SAM	SOIL	08/16/2012	1.44	100.0	70.40
D3811-09DL	SB-21(12-16)DL	SAM	SOIL	08/16/2012	1.44	100.0	70.40
D3811-10	SB-21(16-19)	SAM	SOIL	08/16/2012	1.43	100.0	68.10
D3811-11	SB-22(12-19)	SAM	SOIL	08/16/2012	1.38	100.0	91.10
D3811-12	SB-27(8-12)	SAM	SOIL	08/16/2012	1.37	100.0	80.60
D3811-13	SB-37(8-10)	SAM	SOIL	08/16/2012	1.33	100.0	70.40
D3811-14	SB-39(6-8)	SAM	SOIL	08/16/2012	1.39	100.0	91.90
D3811-15	SB-41(8-11)	SAM	SOIL	08/16/2012	1.48	100.0	81.20
D3811-16	SB-42(14-16)	SAM	SOIL	08/16/2012	1.43	100.0	82.80
D3811-17	SB-43(6-8)	SAM	SOIL	08/16/2012	1.33	100.0	91.80
D3811-18	SB-43(10-12)	SAM	SOIL	08/16/2012	1.37	100.0	82.10
D3811-19	SB-43(16-20)	SAM	SOIL	08/16/2012	1.35	100.0	70.70
D3811-20	SB-45(10-12)	SAM	SOIL	08/16/2012	1.38	100.0	71.90
PB65135BL	PB65135BL	MB	SOIL	08/16/2012	1.00	100.0	100.00
PB65135BS	PB65135BS	LCS	SOIL	08/16/2012	1.00	100.0	100.00

**Metals**  
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**SAMPLE PREPARATION SUMMARY**

<b>Client:</b> <u>MS Analytical</u>	<b>SDG No.:</b> <u>D3811</u>	
<b>Contract:</b> <u>MSAN01</u>	<b>Lab Code:</b> <u>CHEM</u>	<b>Method:</b> <u>CV</u>
	<b>Case No.:</b> <u>D3811</u>	<b>SAS No.:</b> <u>D3811</u>

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
<b>Batch Number: PB65160</b>							
D3811-01	SB-2(4-8)	SAM	SOIL	08/16/2012	0.67	30.0	86.60
D3811-02	SB-5(12-18)	SAM	SOIL	08/16/2012	0.63	30.0	81.30
D3811-03	SB-9(4-7)	SAM	SOIL	08/16/2012	0.64	30.0	83.90
D3811-04	SB-10(8-12)	SAM	SOIL	08/16/2012	0.69	30.0	74.40
D3811-05	SB-11(12-16)	SAM	SOIL	08/16/2012	0.67	30.0	74.40
D3811-06	SB-15(12-16)	SAM	SOIL	08/16/2012	0.63	30.0	71.60
D3811-07	SB-18(4-8)	SAM	SOIL	08/16/2012	0.65	30.0	83.80
D3811-08	SB-19(12-18)	SAM	SOIL	08/16/2012	0.62	30.0	62.40
D3811-09	SB-21(12-16)	SAM	SOIL	08/16/2012	0.65	30.0	70.40
D3811-10	SB-21(16-19)	SAM	SOIL	08/16/2012	0.65	30.0	68.10
D3811-11	SB-22(12-19)	SAM	SOIL	08/16/2012	0.63	30.0	91.10
D3811-12	SB-27(8-12)	SAM	SOIL	08/16/2012	0.69	30.0	80.60
D3811-13	SB-37(8-10)	SAM	SOIL	08/16/2012	0.63	30.0	70.40
D3811-14	SB-39(6-8)	SAM	SOIL	08/16/2012	0.66	30.0	91.90
D3811-15	SB-41(8-11)	SAM	SOIL	08/16/2012	0.65	30.0	81.20
D3811-16	SB-42(14-16)	SAM	SOIL	08/16/2012	0.66	30.0	82.80
D3811-17	SB-43(6-8)	SAM	SOIL	08/16/2012	0.62	30.0	91.80
D3811-18	SB-43(10-12)	SAM	SOIL	08/16/2012	0.60	30.0	82.10
D3811-18D	SB-43(10-12)D	DUP	SOIL	08/16/2012	0.60	30.0	82.10
D3811-18S	SB-43(10-12)S	MS	SOIL	08/16/2012	0.60	30.0	82.10
D3811-18SD	SB-43(10-12)SD	MSD	SOIL	08/16/2012	0.60	30.0	82.10
D3811-19	SB-43(16-20)	SAM	SOIL	08/16/2012	0.61	30.0	70.70
D3811-20	SB-45(10-12)	SAM	SOIL	08/16/2012	0.67	30.0	71.90
PB65160BL	PB65160BL	MB	SOIL	08/16/2012	0.60	30.0	100.00
PB65160BS	PB65160BS	LCS	SOIL	08/16/2012	0.60	30.0	100.00

Metals  
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SAMPLE PREPARATION SUMMARY

Client: MS Analytical

SDG No.: D3811

Contract: MSAN01

Lab Code: CHEM

Method: CV

Case No.: D3811

SAS No.: D3811

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB65166							
D3811-21	SB-46(12-16)	SAM	SOIL	08/16/2012	0.65	30.0	71.80
D3841-03D	STOCKPILE081512D	DUP	SOIL	08/16/2012	0.60	30.0	83.90
D3841-03S	STOCKPILE081512S	MS	SOIL	08/16/2012	0.60	30.0	83.90
D3841-03SD	STOCKPILE081512SD	MSD	SOIL	08/16/2012	0.60	30.0	83.90
PB65166BL	PB65166BL	MB	SOIL	08/16/2012	0.60	30.0	100.00
PB65166BS	PB65166BS	LCS	SOIL	08/16/2012	0.60	30.0	100.00

**Metals**  
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**ANALYSIS RUN LOG**

Client: MS AnalyticalContract: MSAN01Lab Code: CHEM Case No.: D3811 SAS No.: D3811SDG No.: D3811Instrument ID Number: P5 Method: PRun Number: LB62171Start Date: 08/16/2012End Date: 08/16/2012

EPA Sample No.	D/F	Time	% R	Analytes																					
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K S	E S	A G	N A	T L	V Z
S0	1	1341		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
S1	1	1344		X	X	X	X	X	X		X	X	X	X	X		X		X	X		X	X	X	
S2	1	1347								X						X				X		X			
S3	1	1351		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
S4	1	1354		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
S5	1	1357		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV01	1	1401		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICB01	1	1404		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CRI01	1	1407		X	X	X	X	X	X		X	X	X	X	X		X		X	X		X	X	X	
CRI02	1	1411								X						X				X		X			
ICSA01	1	1414		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB01	1	1418		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV01	1	1421		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB01	1	1425		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV02	1	1502		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB02	1	1505		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV03	1	1542		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB03	1	1545		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV04	1	1622		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB04	1	1626		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV05	1	1703		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB05	1	1706		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV06	1	1743		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB06	1	1746		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV07	1	1822		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB07	1	1826		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV08	1	1902		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB08	1	1906		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV09	1	1943		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB09	1	1946		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV10	1	2023		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB10	1	2027		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV11	1	2105		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB11	1	2108		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV12	1	2146		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB12	1	2149		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV13	1	2229		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB13	1	2232		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV14	1	2253		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB14	1	2257		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X



**Metals**  
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**ANALYSIS RUN LOG**

Client: MS AnalyticalContract: MSAN01Lab Code: CHEM Case No.: D3811 SAS No.: D3811SDG No.: D3811Instrument ID Number: P5 Method: PRun Number: LB62172Start Date: 08/16/2012End Date: 08/16/2012

EPA Sample No.	D/F	Time	% R	Analytes																					
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K S	E G	A A	T L	V N	Z N
S0	1	1341		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
S1	1	1344		X	X	X	X	X	X		X	X	X	X	X		X	X		X	X		X	X	X
S2	1	1347								X						X				X		X			
S3	1	1351		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
S4	1	1354		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
S5	1	1357		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV01	1	1401		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICB01	1	1404		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CRI01	1	1407		X	X	X	X	X	X		X	X	X	X	X		X	X		X	X		X	X	X
CRI02	1	1411								X						X				X		X			
ICSA01	1	1414		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB01	1	1418		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV01	1	1421		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB01	1	1425		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PB65134BL	1	1441		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PB65134BS	1	1445		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SS-01AD	1	1458		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV02	1	1502		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB02	1	1505		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SS-01AL	5	1509		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SS-01AS	1	1512		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SS-01ASD	1	1515		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SS-01AA	1	1519																				X			X
CCV03	1	1542		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB03	1	1545		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV04	1	1622		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB04	1	1626		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV05	1	1703		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB05	1	1706		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV06	1	1743		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB06	1	1746		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV07	1	1822		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB07	1	1826		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV08	1	1902		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB08	1	1906		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SB-46(12-16)	1	1916		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PB65135BL	1	1926		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PB65135BS	1	1929		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SB-2(4-8)	1	1933		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SB-2(4-8)D	1	1936		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SB-2(4-8)L	5	1939		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

**Metals**  
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**ANALYSIS RUN LOG**

Client: MS AnalyticalContract: MSAN01Lab Code: CHEM Case No.: D3811 SAS No.: D3811SDG No.: D3811Instrument ID Number: P5 Method: PRun Number: LB62172Start Date: 08/16/2012End Date: 08/16/2012

EPA Sample No.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S E	A G	N A	T L	V N	Z N	C N				
CCV09	1	1943		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
CCB09	1	1946		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-2(4-8)S	1	1949		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-2(4-8)SD	1	1953		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-2(4-8)A	1	1956									X		X						X			X									
SB-5(18-12)	1	1959		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-9(4-7)	1	2003		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-10(8-12)	1	2006		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-11(12-16)	1	2010		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-15(12-16)	1	2013		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-18(4-8)	1	2016		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-19(12-18)	1	2020		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
CCV10	1	2023		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
CCB10	1	2027		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-21(12-16)	1	2030		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-21(16-19)	1	2034		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-22(12-19)	1	2037		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-27(8-12)	1	2041		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-37(8-10)	1	2044		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-39(6-8)	1	2048		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-41(8-11)	1	2051		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-42(14-16)	1	2054		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-43(6-8)	1	2058		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-43(10-12)	1	2101		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
CCV11	1	2105		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
CCB11	1	2108		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-43(16-20)	1	2111		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
SB-45(10-12)	1	2115		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X						
CCV12	1	2146		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
CCB12	1	2149		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
CCV13	1	2229		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
CCB13	1	2232		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
CCV14	1	2253		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					
CCB14	1	2257		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X					

**Metals**  
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**ANALYSIS RUN LOG**

Client: MS AnalyticalContract: MSAN01Lab Code: CHEM Case No.: D3811 SAS No.: D3811SDG No.: D3811Instrument ID Number: CV1 Method: CVRun Number: LB62194Start Date: 08/17/2012End Date: 08/17/2012

EPA Sample No.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K S	E G	A L	T V	Z N	C N				
Std01Rep1	1	1505																X											
Std02Rep1	1	1507																X											
Std03Rep1	1	1509																X											
Std04Rep1	1	1511																X											
Std05Rep1	1	1513																X											
Std06Rep1	1	1517																X											
ICV01	1	1523																X											
ICB01	1	1524																X											
CCV01	1	1528																X											
CCB01	1	1530																X											
CRI01	1	1532																X											
PB65166BL	1	1538																X											
PB65166BS	1	1540																X											
SB-46(12-16)	1	1542																X											
STOCKPILE081512D	1	1551																X											
STOCKPILE081512S	1	1553																X											
STOCKPILE081512SD	1	1555																X											
CCV02	1	1557																X											
CCB02	1	1559																X											
STOCKPILE081512A	1	1601																											
STOCKPILE081512L	5	1602																X											
CCV03	1	1604																X											
CCB03	1	1606																X											
PB65160BL	1	1614																X											
PB65160BS	1	1616																X											
SB-2(4-8)	1	1618																											
SB-5(18-12)	1	1620																X											
SB-9(4-7)	1	1622																X											
SB-10(8-12)	1	1624																X											
SB-11(12-16)	1	1626																X											
CCV04	1	1628																X											
CCB04	1	1630																X											
SB-15(12-16)	1	1632																X											
SB-18(4-8)	1	1634																X											
SB-19(12-18)	1	1636																X											
SB-21(12-16)	1	1637																X											
SB-21(16-19)	1	1639																X											
SB-22(12-19)	1	1641																X											
SB-27(8-12)	1	1643																X											
SB-37(8-10)	1	1645																X											
SB-39(6-8)	1	1647																X											

**Metals**  
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**ANALYSIS RUN LOG**

Client: MS AnalyticalContract: MSAN01Lab Code: CHEM Case No.: D3811 SAS No.: D3811SDG No.: D3811Instrument ID Number: CV1 Method: CVRun Number: LB62194Start Date: 08/17/2012End Date: 08/17/2012

EPA Sample No.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
SB-41(8-11)	1	1649															X												
CCV05	1	1651															X												
CCB05	1	1653															X												
SB-42(14-16)	1	1655															X												
SB-43(6-8)	1	1657															X												
SB-43(10-12)D	1	1701															X												
SB-43(10-12)S	1	1706															X												
SB-43(10-12)SD	1	1717															X												
SB-43(10-12)A	1	1718																											
SB-43(10-12)L	5	1720															X												
SB-43(16-20)	1	1723															X												
SB-45(10-12)	1	1731															X												
CCV06	1	1733															X												
CCB06	1	1735															X												
CCV07	1	1803															X												
CCB07	1	1805															X												
CCV08	1	1826															X												
CCB08	1	1828															X												
SB-2(4-8)	1	1843															X												
SB-43(10-12)	1	1850															X												
CCV09	1	1852															X												
CCB09	1	1853															X												

**Metals**  
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**ANALYSIS RUN LOG**

Client: MS AnalyticalContract: MSAN01Lab Code: CHEM Case No.: D3811 SAS No.: D3811SDG No.: D3811Instrument ID Number: P4 Method: PRun Number: LB62199Start Date: 08/17/2012End Date: 08/17/2012

EPA Sample No.	D/F	Time	% R	Analytes																					
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K S	E G	A A	T L	V N	Z N
S0	1	1138		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
S1	1	1141		X	X	X	X	X	X		X	X	X	X	X		X		X	X		X	X	X	
S2	1	1146								X						X				X		X			
S3	1	1150		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
S4	1	1153		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
S5	1	1157		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV01	1	1200		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LLICV01	1	1204		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICB01	1	1208		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CRI01	1	1211		X	X	X	X	X	X		X	X	X	X	X		X	X		X	X		X	X	X
CRI02	1	1215								X						X				X		X			
ICSA01	1	1219		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB01	1	1222		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LLCCV01	1	1226								X						X				X		X			
LLCCV01	1	1230		X	X	X	X	X	X		X	X	X	X	X		X	X		X	X		X	X	X
CCV01	1	1234		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB01	1	1237		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SB-21(12-16)DL	10	1304													X										
CCV02	1	1319		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB02	1	1323		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV03	1	1405		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB03	1	1409		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV04	1	1451		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB04	1	1455		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV05	1	1537		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB05	1	1540		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV06	1	1623		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB06	1	1627		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV07	1	1702		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB07	1	1705		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV08	1	1813		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB08	1	1817		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV09	1	1900		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB09	1	1904		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV10	1	1947		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB10	1	1950		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

# SHIPPING DOCUMENTS

# CHEMTECH

## CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
(908) 789-8900 Fax (908) 789-8922  
www.chemtech.net

CHEMTECH PROJECT NO.

QUOTE NO.

COC Number 024280

D3811

11

### CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: MS Analytical  
ADDRESS: 4169 Allendale Pkwy Suite 200  
CITY: Blasdell STATE: NY ZIP: 14219  
ATTENTION: Bryan Mayback  
PHONE: (716) 649-9718 FAX:

### CLIENT PROJECT INFORMATION

PROJECT NAME: 12MS104 Kensington Heights  
PROJECT NO.: 12MS104 LOCATION:  
PROJECT MANAGER: Bryan Mayback  
e-mail: bmayback@rjsenviro.com  
PHONE: (716) 649-9718 FAX:

### CLIENT BILLING INFORMATION

BILL TO: PO#:  
ADDRESS:  
CITY: STATE: ZIP:  
ATTENTION: PHONE:

### DATA TURNAROUND INFORMATION

FAX: TO DAYS \*  
HARD COPY: TO DAYS \*  
EDD: 10 DAYS \*  
PREAPPROVED TAT: ☐ YES ☐ NO  
\* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

### DATA DELIVERABLE INFORMATION

☐ LEVEL 1: Results only ☐ Others  
☐ LEVEL 2: Results + QC  
☐ LEVEL 3: Results (plus results raw data) + QC  
☐ LEVEL 4: Results + QC (all raw data)  
☐ EDD Format:

### ANALYSIS

1 Fall Lst Vals 8260  
2 TCL S-Vals 8270  
3 TAL Metals  
4 PCBs 8042  
5 Pesticides 8081  
6 Herbicides 8151  
7  
8  
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	SB-2 (4-8)	SO			8/7/12	0900	3	X	X	X	X	X	X				
2.	SB-5 (8-12)	SO			8/7/12	1015	3	X	X	X	X	X	X				
3.	SB-9 (4-7)	SO			8/7/12	1330	2	X	X	X	X	X	X				
4.	SB-10 (8-12)	SO			8/7/12	1415	2		X	X							
5.	SB-11 (12-16)	SO			8/7/12	1515	2	X	X	X	X	X	X				
6.	SB-15 (12-16)	SO			8/8/12	1110	3	X	X	X	X	X	X				
7.	SB-18 (4-8)	SO			8/8/12	1330	3	X	X	X	X	X	X				
8.	SB-19 (12-18) *jm	SO			8/8/12	1400	3		X	X							
9.	SB-21 (12-16)	SO			8/9/12	0800	2		X	X							
10.	SB-21 (16-19)	SO			8/9/12	0830	3	X	X	X	X	X	X				

### SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <i>JS</i>	DATE/TIME: 8/14/2012	RECEIVED BY: 1. FEDEX →	Conditions of bottles or coolers at receipt: <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant MeOH extraction requires an additional 4 oz jar for percent solid.	Cooler Temp. 6°C Ice in Cooler?: YES
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY:	Comments:	
RELINQUISHED BY: 3. FEDEX	DATE/TIME: 8/15/12 920	RECEIVED FOR LAB BY: 3. UDT	SHIPPED VIA: CLIENT: <input type="checkbox"/> HAND DELIVERED <input checked="" type="checkbox"/> OVERNIGHT CHEMTECH: <input type="checkbox"/> PICKED UP <input type="checkbox"/> OVERNIGHT	Shipment Complete: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO



# CHEMTECH

## CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
(908) 789-8900 Fax (908) 789-8922  
www.chemtech.net

CHEMTECH PROJECT NO.

QUOTE NO.

COC Number 024281

D3811

11

### CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: MS Analytical  
ADDRESS: 4169 Allendale Pkwy Suite 200  
CITY: Blasdell STATE: NY ZIP: 14219  
ATTENTION: Bryan May back  
PHONE: (716) 649-9718 FAX:

### CLIENT PROJECT INFORMATION

PROJECT NAME: 12MS104 Kensington Hery hts  
PROJECT NO.: 12MS104 LOCATION:  
PROJECT MANAGER: Bryan May back  
e-mail: bmayback@rjsenviro.com  
PHONE: (716) 649-9718 FAX:

### CLIENT BILLING INFORMATION

BILL TO: PO#: ADDRESS:  
CITY: STATE: ZIP: ATTENTION: PHONE:

### ANALYSIS

### DATA TURNAROUND INFORMATION

FAX: DAYS \*  
HARD COPY: DAYS \*  
EDD: 10 DAYS \*  
PREAPPROVED TAT: ☐ YES ☐ NO  
\* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

### DATA DELIVERABLE INFORMATION

☐ LEVEL 1: Results only ☐ Others  
☐ LEVEL 2: Results + QC  
☐ LEVEL 3: Results (plus results raw data) + QC  
☐ LEVEL 4: Results + QC (all raw data)  
☐ EDD Format:

1 Full List Vol 8260  
2 ILL 5-VOL 8270  
3 IAL Metals  
4 PCBs 8082  
5 Pesticides 8081  
6 Herbicides 8081  
7  
8  
9

### PRESERVATIVES

### COMMENTS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES										← Specify Preservatives A-HCl B-HNO <sub>3</sub> C-H <sub>2</sub> SO <sub>4</sub> D-NaOH E-ICE F-Other
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
11.	SB-22 (12-18) (12-19)*JM	SD			8/9/12	0935	3	X	X	X	X	X	X				
12.	SB-27 (8-12)	SD			8/9/12	1340	2		X	X							
13.	SB-37 (8-10)	SD			8/10/12	1215	3	X	X	X	X	X	X				
14.	SB-39 (6-8)	SD			8/10/12	1330	3	X	X	X	X	X	X				
15.	SB-41 (8-11)	SD			8/10/12	1415	2	X	X	X	X	X	X				
16.	SB-42 (14-16)	SD			8/10/12	1450	3		X	X							
17.	SB-43 (6-8)	SD			8/13/12	0850	3	X	X	X	X	X	X				
18.	SB-43 (10-12)	SD			8/13/12	0850	3	X	X	X	X	X	X				
19.	SB-43 (16-20)	SD			8/13/12	0850	2	X	X	X	X	X	X				
20.	SB-45 (10-12)	SD			8/13/12	1155	3		X	X							

### SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <i>gsh</i>	DATE/TIME: 8/14/2012	RECEIVED BY: 1. PEDEX →	Conditions of bottles or coolers at receipt: <input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant	Cooler Temp. 6°C
RELINQUISHED BY: 2. <i>gsh</i>	DATE/TIME:	RECEIVED BY:	MeOH extraction requires an additional 4 oz jar for percent solid.	Ice in Cooler?: YES
RELINQUISHED BY: 3. PEDEX	DATE/TIME: 8/15/12 920	RECEIVED FOR LAB BY: 3. JDT	Comments:	

Page 2 of 3

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☒ OVERNIGHT  
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO



21/5/19

**NEW Package**  
**US Airbill**

FedEx  
Tracking  
Number

8996 1219 1358

Information can be removed for Recipient's records.

FedEx  
Tracking Number

899612191358

Joseph Mecca

Phone 716 849-9718

ENVIRONMENTAL

69 ALLENDALE PKWY STE 200

Dept./Floor/Suite/Room

DELL State NY ZIP 14219-2941

Billing Reference 12MS104

Receipt

Phone 908 754-8860

heartech

4 Sheffield Street

0 boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Location address or for continuation of your shipping address.

inside

State NY

ZIP

07042

**HOLD Weekday**  
FedEx location address  
REQUIRED. NOT available for  
FedEx First Overnight.

**HOLD Saturday**  
FedEx location address  
REQUIRED. Available ONLY for  
FedEx Priority Overnight and  
FedEx 2Day to select locations.



8996 1219 1358

STA  
8/15/12  
920

Form  
ID No. 0215

Recipient's Copy

**4 Express Package Service**

\* To most locations.

NOTE: Service order has changed. Please select carefully.

**Packages up to 150 lbs.**  
For packages over 150 lbs., see the new  
FedEx Express Freight US Airbill.

**Next Business Day**

☐ **FedEx First Overnight**  
Earliest next business morning delivery to select  
locations. Friday shipments will be delivered on  
Monday unless SATURDAY Delivery is selected.

☒ **FedEx Priority Overnight**  
Next business morning.\* Friday shipments will be  
delivered on Monday unless SATURDAY Delivery  
is selected.

☐ **FedEx Standard Overnight**  
Next business afternoon.\*  
Saturday Delivery NOT available.

**2 or 3 Business Days**

☐ **NEW FedEx 2Day A.M.**  
Second business morning.\*  
Saturday Delivery NOT available.

☐ **FedEx 2Day**  
Second business afternoon.\* Thursday shipments  
will be delivered on Monday unless SATURDAY  
Delivery is selected.

☐ **FedEx Express Saver**  
Third business day.\*  
Saturday Delivery NOT available.

**5 Packaging**

\* Declared value limit \$500.

☐ **FedEx Envelope\***

☐ **FedEx Pak\***

☐ **FedEx  
Box**

☐ **FedEx  
Tube**

☐ **Other**

**6 Special Handling and Delivery Signature Options**

☐ **SATURDAY Delivery**

NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ **No Signature Required**  
Package may be left without  
obtaining a signature for delivery.

☐ **Direct Signature**  
Someone at recipient's address  
may sign for delivery. *Fee applies.*

☐ **Indirect Signature**  
If no one is available at recipient's  
address, someone at a neighboring  
address may sign for delivery. For  
residential deliveries only. *Fee applies.*

**Does this shipment contain dangerous goods?**

One box must be checked.

☒ **No** ☐ **Yes**  
As per attached  
Shipper's Declaration.

☐ **Yes**  
Shipper's Declaration  
not required.

☐ **Dry Ice**  
Dry ice, 9 UN 1845 \_\_\_\_\_ x \_\_\_\_\_ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging  
or placed in a FedEx Express Drop Box.

☐ **Cargo Aircraft Only**

**7 Payment Bill to:**

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip.  
Acct. No. ☐

☒ **Sender**  
Acct. No. in Section  
1 will be billed.

☐ **Recipient**

☐ **Third Party**

☐ **Credit Card**

☐ **Cash/Check**

Total Packages

Total Weight

Credit Card Auth.

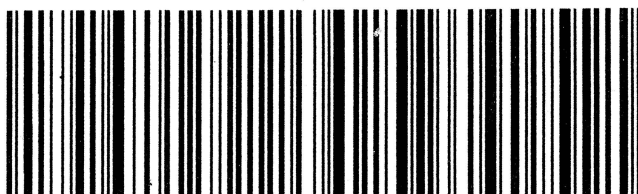
2 72 lbs.

30

\*Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

611

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Part # 156297-435 FIT2 12/10 66  
 4906/430/2315 41/80 3881

J12201207160125

865 of 870



D3811

From: Joe Mecca-RJS <jmecca@rjsenviro.com>  
 Sent: Wednesday, August 15, 2012 2:47 PM  
 To: khummler@chemtech.net  
 Subject: RE: Samples for 12MS104

8/13/2012 is the correct date.

Joseph S Mecca  
 Environmental Analyst  
 RJS Environmental  
 4169 Allendale Parkway  
 Blasdell, New York 14219  
 Office (716) 649-9718  
 Cell (716) 912-1172  
 Fax (716) 312-8297  
 E-Mail jmecca@rjsenviro.com

---

Specializing in Real Estate Due Diligence, including  
 \* ASTM Phase I & II Investigations  
 \* Remedial Investigations  
 \* Lender Policy Design and Implementation  
 \* Asbestos Surveys and Abatement  
 \* Lead-based Paint, PCB's & Microbial Contamination Services

From: Kurt Hummler [mailto:kurt@chemtech.net]  
 Sent: Wednesday, August 15, 2012 2:23 PM  
 To: Joe Mecca-RJS  
 Subject: RE: Samples for 12MS104

Joe,

Can you confirm the collection date for sample SB-42(14-16). The date on the chain of custody is 8/10/12 and the date on the sample jar is 8/13/12.

Thanks,

Kurt

From: Joe Mecca-RJS [mailto:jmecca@rjsenviro.com]  
 Sent: Wednesday, August 15, 2012 9:27 AM  
 To: Kurt Hummler (khummler@chemtech.net)  
 Subject: Samples for 12MS104

Kurt,

We overnighted 21 soil samples yesterday. The samples should be delivered this morning to the NJ lab.

Also, last week on the phone you mentioned a form for the online data portal. Can you please forward the form to me?

Thank you,

Joseph S Mecca  
 Environmental Analyst  
 RJS Environmental  
 4169 Allendale Parkway  
 Blasdell, New York 14219  
 Office (716) 649-9718  
 Cell (716) 912-1172

Page 1

D3811

Fax (716) 312-8297  
E-Mail jmecca@rjsenviro.com

---

Specializing in Real Estate Due Diligence, including

- \* ASTM Phase I & II Investigations
- \* Remedial Investigations
- \* Lender Policy Design and Implementation
- \* Asbestos Surveys and Abatement
- \* Lead-based Paint, PCB's & Microbial Contamination Services



284 Sheffield Street Mountainside NJ 07092 Tel

## Laboratory Certification

State	License No.
New Jersey	20012
New York	11376
Connecticut	PH-0649
Florida	E87935
Maryland	296
Massachusetts	M-NJ503
Oklahoma	9705
Pennsylvania	68-548
Rhode Island	LAO00259
Virginia	460220
Texas	T10470448-10-1

Other:

DOD ELAP	L2219
Soil Permit	P330-11-00012
CLP Inorganic Contract	EPW09038
CLP Organic Contract	EPW11030

QA Control Code: A2070148



## LOGIN REPORT/SAMPLE TRANSFER

11

Order ID:	D3811	MSAN01	Order Date:	8/15/2012	Project Mgr:	snehal
Client Name:	MS Analytical		Project Name:	12MS104 Kensington Heights	Report Type:	NYS ASP A
Client Contact:	Bryan Mayback		Rec DateTime	8/15/2012 9:20:00 AM	EDD:	EXCEL NOCLEANUP
Invoice Name:	MS Analytical		Purchase Order:	12MS104	Hard Copy Date:	
Invoice Contact	Bryan Mayback		Login Tech:	Nikul	Date Signoff:	8/15/2012 2:22:35 PM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE QTY	TEST TIME	TEST GROUP	METHOD	COMMENT	FAX DATE	Due Dates
D3811-01	SB-2(4-8)	Solid	8/7/2012	9:00	3	VOC-Chemtech Full -15	8260C		10 Bus.	8/21/2012 8/21/20
D3811-02	SB-5(18-12)	Solid	8/7/2012	10:15	3	VOC-Chemtech Full -15	8260C		10 Bus.	8/21/2012 8/21/20
D3811-03	SB-9(4-7)	Solid	8/7/2012	13:30	2	VOC-Chemtech Full -15	8260C		10 Bus.	8/21/2012 8/21/20
D3811-05	SB-11(12-16)	Solid	8/7/2012	15:15	2	VOC-Chemtech Full -15	8260C		10 Bus.	8/21/2012 8/21/20
D3811-06	SB-15(12-16)	Solid	8/8/2012	11:10	3	VOC-Chemtech Full -15	8260C		10 Bus.	8/22/2012 8/22/20
D3811-07	SB-18(4-8)	Solid	8/8/2012	13:30	3	VOC-Chemtech Full -15	8260C		10 Bus.	8/22/2012 8/22/20
D3811-10	SB-21(16-19)	Solid	8/9/2012	8:30	3	VOC-Chemtech Full -15	8260C		10 Bus.	8/23/2012 8/23/20
D3811-11	SB-22(12-19)	Solid	8/9/2012	9:35	3	VOC-Chemtech Full -15	8260C		10 Bus.	8/23/2012 8/23/20
D3811-13	SB-37(8-10)	Solid	8/10/2012	12:15	3	VOC-Chemtech Full -15	8260C		10 Bus.	8/24/2012 8/24/20
D3811-14	SB-39(6-8)	Solid	8/10/2012	13:30	3	VOC-Chemtech Full -15	8260C		10 Bus.	8/24/2012 8/24/20
D3811-15	SB-41(8-11)	Solid	8/10/2012	14:15	3	VOC-Chemtech Full -15	8260C		10 Bus.	8/24/2012 8/24/20



## LOGIN REPORT/SAMPLE TRANSFER

Order ID: D3811 MSAN01 Order Date: 8/15/2012 Project Mgr: snehal  
Client Name: MS Analytical Project Name: 12MS104 Kensington Heights Report Type: NYS ASP A  
Client Contact: Bryan Mayback Rec DateTime: 8/15/2012 9:20:00 AM EDD: EXCEL NOCLEANUP  
Invoice Name: MS Analytical Purchase Order: 12MS104 Hard Copy Date:  
Invoice Contact Bryan Mayback Login Tech: Nikul Date Signoff: 8/15/2012 2:22:35 PM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE QTY	TEST TIME	TEST GROUP	METHOD	COMMENT	FAX DATE	Due Dates
D3811-17	SB-43(6-8)	Solid	8/13/2012	8:50	3	VOC-Chemtech Full -15	8260C		10 Bus.	8/27/2012 8/27/20
D3811-18	SB-43(10-12)	Solid	8/13/2012	8:50	3	VOC-Chemtech Full -15	8260C		10 Bus.	8/27/2012 8/27/20
D3811-19	SB-43(16-20)	Solid	8/13/2012	8:50	2	VOC-Chemtech Full -15	8260C		10 Bus.	8/27/2012 8/27/20
D3811-21	SB-46(12-16)	Solid	8/13/2012	12:30	3	VOC-Chemtech Full -15	8260C		10 Bus.	8/27/2012 8/27/20

### SAMPLE CONDITION RECORD

Are samples submitted with a chain of custody? Yes  
Are the number of samples the same as stated on the chain of custody? Yes  
Are bottle caps tight and securely in place? Yes  
Were all containers intact when received? Yes  
Were samples submitted in an ice chest? Yes  
Were samples received cold? Yes  
Were samples within the holding time for the requested test(s)? Yes  
Is the volume of sample submitted sufficient for the requested test(s)? Yes  
Are all samples for volatile organic analyses free of headspace? NA

### ORDER COMMENT

Relinquished By: SDT

Date / Time: 8/15/12 2:25

Received By: Nikhil Patel

Date / Time: 08-15-12 14:25

Storage Area:

VOA Refridgerator Room