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YSI INCORPORATED

SCIA Soil Investigation Report

1700/1725 Brannum Lane, Yellow Springs, Ohio 45387

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POWER ENGINEERS

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ACRONYMS AND ABBREVIATIONS

ACO	Administrative Consent Order
GCLs	Groundwater Compliance Levels
OEPA	Ohio Environmental Protection Agency
RCRA	Resource Conservation and Recovery Act
SC/GWIA	Source Control / Groundwater Interim Action
SRGs	Soil Remediation Goals
VOCs	Volatile Organic Compounds
YSI	YSI Incorporated
GPS	Geographic Positioning System
PID	Photoionization Detector

EXECUTIVE SUMMARY

On April 1, 2002, based on the detection of several volatile organic compounds (VOC) in samples from YSI Incorporated (YSI) water wells and neighboring water wells, the Ohio Environmental Protection Agency (OEPA) issued an Administrative Consent Order (ACO) to YSI. The ACO directed YSI to complete a Source Control / Groundwater Interim Action (SC/GIA) at the YSI facility located at 1700/1725 Brannum Lane in Yellow Springs, Greene County, Ohio. The technical requirements of the ACO were outlined in *Statement of Work for Conducting Source Control / Groundwater Interim Actions* (Statement of Work), included as an attachment to the ACO.

The ACO and Statement of Work directed YSI to investigate and characterize source areas on the YSI facility, delineate the resulting groundwater plume, and design and implement remedies (termed "interim actions" in the SCIA process) to remove or control contaminants in source areas as well as in the groundwater plume. As part of this process, YSI developed groundwater compliance levels (GCLs) for constituents of concern at the site. From these GCLs and site-specific data, soil remediation goals (SRGs) were developed. The SRGs are leach-based cleanup goals that, if attained, prevent leaching of contaminants from soil to groundwater at levels that result in exceedances of GCLs.

Soil and groundwater investigations at the site, conducted as required by the ACO, identified two source areas (the Current Shipping Dock Area and Former Shipping Dock Area) where soil and groundwater exceeded SRGs and GCLs. In response to these findings, YSI implemented a reductive dechlorination interim action for the source area, described in *Source Area Interim Action Detailed Plans and Specifications* (Detailed Plans and Specifications, May 2006). The Detailed Plans and Specifications document included a provision for monitoring of soil conditions (after attainment of GCLs) to determine if SRGs had been attained. As of late 2014, GCLs have been attained in all areas of the groundwater plume, including in source areas.

In September 2015, after attainment of the GCLs, YSI conducted a soil investigation to determine if SRGs had been attained. The soil investigation was conducted as outlined in the Detailed Plans and Specifications document and following the requirements of *SCIA Soil Monitoring Work Plan* (POWER Engineers, July 2015). The soil investigation consisted of the collection of soil samples from the Current Shipping Dock Area and Former Shipping Dock Area, analysis of the samples from VOCs, and comparison of analytical results to SRGs. All analytical results were less than SRGs, indicating that the soil goals have been met and that no additional soil interim action is required at the YSI facility.

Based on the attainment of SCIA GCLs applicable to groundwater and SRGs applicable to soil, the SCIA interim action in the Former Shipping Dock Area and the Current Shipping Dock Area is complete.

1.0 INTRODUCTION

1.1 Background

YSI, a Xylem brand, is located at 1700 / 1725 Brannum Lane in Yellow Springs, Greene County, Ohio (Figure 1). The northern portion of the site is located in the Village of Yellow Springs, while the southern portion of the site is located in Miami Township, Ohio. The site houses three primary buildings identified as the Brannum East Building, the Brannum West Building, and the Webb Building, plus associated parking areas, access roads, and walkways.

As described in the Executive Summary of this document, a reductive dechlorination interim action was implemented in the Current Shipping Dock Area and Former Shipping Dock Area. On several occasions in the past, monitoring of wells associated with the plume resulting from these source areas, as well as the source areas themselves, has been discontinued with the approval of Ohio EPA after YSI demonstrated that GCLs had been attained in the area of the wells. YSI submitted a *Request for Discontinuation of Groundwater Monitoring* to Ohio EPA in February 2015. The February 2015 document requested Ohio EPA approval to discontinue monitoring of the final two interim action monitoring wells and was approved verbally by Ohio EPA representatives during a May 19, 2015 meeting.

In July 2015, Ohio EPA approved a *SCIA Soil Monitoring Work Plan* that described sample collection, analysis, and data review methods to determine if SCIA SRGs had been attained in the Current Shipping Dock Area and Former Shipping Dock Area. Soil sample collection described in the plan was conducted on September 1, 2015. The remainder of this document discusses methods and findings of the September 1, 2015 soil investigation.

2.0 SOIL INVESTIGATION METHODS

2.1 Sampling Locations

Previous soil sample analytical results exceeded SRGs at three locations at the YSI facility. These samples were collected in 2002 and 2003. These locations are shown in Table 1.

TABLE 1. LOCATION OF SOIL REMEDIATION GOAL EXCEEDANCES, YSI INCORPORATED, YELLOW SPRINGS, OHIO.

LOCATION	CONSTITUENT OF CONCERN	LOCATION OF EXCEEDANCES	MEASURED CONCENTRATION (UG/KG)	SOIL REMEDIATION GOAL (UG/KG)
Current Dock Area	Tetrachloroethene	Soil Boring B56	5,280	1,800
	1,1,1-Trichloroethene	Soil Boring B56	30,000	18,000
	1,1-Dichloroethene	Soil Boring B103	279; 378 (2 samples)	265
Former Dock Area	Carbon Tetrachloride	Soil Boring B64	651; 3,610 (2 samples)	410

Note: Samples from soil borings B56 and B64 were collected in 2002. Samples from soil boring B103 were collected in 2003.

Geographic positioning system (GPS) devices with sub-meter accuracy were used to identify the locations of previous soil borings B56 and B64, while a scaled building diagram was used to locate

previous boring B103. In order to evaluate current VOC concentrations in soil, a soil boring was advanced at the locations of B56, B64, and B103. Two additional soil borings were advanced near these three locations, in the area where groundwater interim actions were completed. Soil boring locations are shown in Figure 3. As shown in this figure, the soil borings advanced in the Former Dock Area were identified as SB-1, SB-2, and SB-3. Soil borings in the area of previous soil boring B56 (in the Current Dock Area) were identified as SB-4, SB-5, and SB-6. Soil borings in the vicinity of previous soil boring B103 were identified as SB-7, SB-8, and SB-9. These locations are depicted on Figure 2.

2.2 Soil Sample Collection and Field Screening Methods

Soil borings were advanced using Geoprobe direct-push sampling equipment operated by Direct Push Analytical, St. Charles, Illinois. Direct Push Analytical utilized a truck-mounted Geoprobe 5400 unit for soil borings SB-1 through SB-6. Soil borings SB-7, SB-8, and SB-9 were advanced through the basement floor of a facility building; Direct Push Analytical utilized a Geoprobe 4200-series unit mounted on a small cart to advance these soil borings. Geoprobe dual-tube sampling equipment was utilized for all soil borings.

Unless poor recovery required a modification to the sample collection plan, soil samples were collected in two-foot intervals from ground surface (0-2 feet below ground surface, 2-4 feet below ground surface, and continuing) to the bottom of the soil boring. At every sample interval, samples were collected for possible VOC analysis using Terracore samplers and pre-preserved sample containers provided by the laboratory, then placed in a cooler containing ice. A portion of the soil from each interval was also collected in a resealable plastic bag for field screening. Field screening was conducted with a photoionization detector (PID) equipped with an 11.7 electron volt photolamp.

As described in the SCIA *Soil Investigation Work Plan*, the soil sample with the highest field screening response and the sample just above groundwater were selected for laboratory analysis, with the exception of soil borings SB-8 and SB-9. Because of poor recovery, only one soil sample each from SB-8 and SB-9 was submitted for analysis. Samples from the surface to two feet below ground surface interval in soil borings SB-1, SB-2, and SB-3 were also selected for analysis, as described in the *SCIA Soil Investigation Work Plan*.

An Ohio EPA representative (Mr. Anthony Campbell) observed the soil investigation activities and split select samples for independent analysis.

2.3 Sample Analysis

Samples were submitted to SGS Environmental Services, Wilmington, North Carolina for analysis for VOPCs by U.S. EPA SW846 Method 8260B. The analyte list for the samples matched that used during SCIA and RCRA activities at the YSI facility.

3.0 RESULTS

Soil boring logs are provided in Appendix A. The boring logs include results of field screening conducted with the PID.

A total of 19 soil samples were submitted to the laboratory for VOC analysis, including 3 per boring from soil borings SB-1, SB-2, and SB-3, and 2 from soil borings SB-4 through SB-9.

The analytical laboratory report is provided as Appendix B. A limited data review / validation of the laboratory data is provided in Appendix C.

3.1 Former Shipping Dock Area

3.1.1 YSI Results

As shown in Table 1, carbon tetrachloride was present in soils of the Former Dock Area at concentrations above the SCIA SRG prior to implementation of the SCIA interim action. Two soil samples from previous soil boring B64 contained a carbon tetrachloride concentration above 410 micrograms per kilogram (ug/kg, or parts per billion, ppb), the SCIA SRG. Soil boring SB-2 was placed at the location of previous soil boring B64, with soil borings SB-1 and SB-3 were placed near this location in the area where carbon tetrachloride interim actions occurred.

A total of nine soil samples from this area (3 samples from each soil boring) were selected for laboratory analysis. Analytical results for these samples are provided in Table 2 and are summarized below.

- Acetone was identified at an estimated concentration (below the laboratory Limit of Quantitation but above the Method Detection Limit) of 13.8 ug/kg in a sample from soil boring SB-3 at a depth of 4 to 6 feet below ground surface [sample SB-3(4-6)].

- Methylene chloride, a reduction dechlorination product of carbon tetrachloride, was identified in samples SB-1(10-12), SB-3(4-6), and SB-3(8-10) at estimated concentrations ranging from 2.28 to 2.53 ug/kg.

- Toluene was identified at an estimated concentration of 2.67 ug/kg in sample SB-2(0-2).

SCIA SRGs were not established for acetone, methylene chloride, or toluene as these compounds were not identified as constituents of concern requiring SCIA interim action at the YSI facility. Carbon tetrachloride, the compound for which a SCIA interim action was required in the Former Dock Area, was not detected in any soil samples from the area. Based on these results, the SCIA soil remediation goals have been met in the Former Shipping Dock Area.

3.1.2 Ohio EPA Sample Results

YSI received a tabular summary of analytical results for samples collected by Ohio EPA on September 28, 2015. These results are provided in Table 4. As shown in this table, acetone was identified in one sample from soil boring SB-1 at a concentration of 18.9 ug/kg. An interim action was not required for acetone; therefore, a SCIA SRG was not been established for this compound. Based on these results, the SCIA SRGs have been met in the Former Shipping Dock Area.

3.2 Current Shipping Dock Area

3.2.1 YSI Results

As shown in Table 1, 1,1,1-trichloroethane, tetrachloroethene, and 1,1-dichloroethene were present in soils of the Current Shipping Dock Area at concentrations prior to implementation of the SCIA

interim action. A soil sample from soil boring B56 contained tetrachloroethene at a concentration above the 1,800 ug/kg SCIA SRG and a 1,1,1-trichloroethane above the 18,000 ug/kg SCIA SRG. A sample from soil boring B103 contained 1,1-dichloroethene at concentrations slightly above the 265 ug/kg SCIA SRG.

A total of 10 soil samples from the area were submitted for analysis. Analytical results are provided in Table 3 and are summarized below.

- 1,1,1-trichloroethane was identified in four samples at concentrations ranging from 3.07 ug/kg (an estimated concentration) to 24.6 ug/kg. The SCIA SRG for 1,1,1-trichloroethane is 18,000 ug/kg.

- Two reductive dechlorination breakdown products of 1,1,1-trichloroethane were detected:

    - 1,1-dichloroethane was detected in five samples at concentrations from 4.55 ug/kg to 17.7 ug/kg. This compound was not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

    - Chloroethane was identified at an estimated concentration of 3.59 ug/kg in one sample. This compound was not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

- 1,2,4-trimethylbenzene was identified in eight samples. All detections were at estimated concentrations below the laboratory Limit of Quantitation and below the Method Detection Limit. The maximum estimated concentration of this compound in a sample was 4.43 ug/kg. This compound was not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

- Acetone was identified at an estimated concentration in eight samples. The maximum estimated concentration in these samples was 23.8 ug/kg. This compound was not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

- Benzene was detected in nine of the ten samples at concentrations ranging from 1.47 ug/kg (estimated) to 5.54 ug/kg. This compound was not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

- Carbon tetrachloride was identified at estimated concentrations of 1.85 ug/kg and 3.49 ug/kg in two samples. These estimated concentrations are well below the SCIA SRG of 410 ug/kg.

- Chloromethane was identified at an estimated concentration of 1.76 ug/kg in one sample. This compound was not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

- The concentration of cis-1,2-dichloroethene was estimated to be 1.94 ug/kg in one sample. This compound was not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

- Ethylbenzene was identified in eight samples, at concentrations ranging from 2.13 ug/kg (an estimated concentration) to 5.88 ug/kg. This compound was not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

- Xylenes (meta- and para-) were identified in none samples at concentrations ranging from 1.67 ug/kg (estimated) to 7.86 ug/kg. Xylenes were not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

- O-xylene was detected in eight samples at estimated concentrations ranging from 1.5 ug/kg to 3.68 ug/kg. This compound was not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

- Tetrachloroethene was detected in one sample at a concentration of 6.21 ug/kg, below the 1,800 ug/kg SCIA SRG.

- Toluene was identified in nine samples at concentrations from 3.92 ug/kg to 15.4 ug/kg. This compound was not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

As described, two of the three compounds for which a SCIA interim action was required were detected in one or more samples from the area, but at concentrations below their SCIA SRGs. 1,1-dichloroethene, the third constituent requiring a SCIA interim action, was not detected in any soil samples from the area. Based on these results, the SCIA soil remediation goals have been met in the Current Shipping Dock Area.

3.2.2 Ohio EPA Sample Results

As shown in Table 4, the compounds 1,1,1-trichloroethane; 1,1-dichloroethane; acetone; cis-1,2-dichloroethene; trichloroethene; 1,1-dichloroethene; and tetrachloroethene were identified in one or more samples from the site.

- 1,1,1-trichloroethane was identified in four samples at concentrations ranging from 17 ug/kg to 58.4 ug/kg. The SCIA SRG for 1,1,1-trichloroethane is 18,000 ug/kg.

- 1,1-dichloroethane, a reductive dechlorination breakdown product of 1,1,1-trichloroehthene, was detected in three samples at concentrations ranging from 22.1 ug/kg to 23.2 ug/kg. This compound was not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

- Acetone was identified in four samples at concentrations ranging from 14.3 ug/kg to 20.8 ug/kg. This compound was not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

- Cis-1,2-dichloroethene was detected in two samples at concentrations of 1.54 ug/kg and 3.13 ug/kg. This compound was not identified as a constituent of concern requiring interim action at the YSI site; therefore, a SCIA SRG was not developed.

- Trichloroethene was identified at a concentration of 2.2 ug/kg in one sample. This compound was not identified as a constituent of concern requiring interim action at the YSI site and a SCIA SRG was not developed.

- 1,1-dichloroethene was detected in two soil samples, at concentrations of 1.75 ug/kg and 3.1 ug/kg. The SCIA SRG for this compound is 265 ug/kg.

- Tetrachloroethene was detected in four samples at concentrations ranging from 1.78 ug/kg to 23.5 ug/kg. The SCIA SRG for tetrachloroethene is 1,800 ug/kg.

4.0 CONCLUSIONS

Previous SCIA investigation identified the need for SCIA interim actions in the Current Shipping Dock Area and the Former Shipping Dock Area of the YSI facility. SCIA interim actions were required to address concentrations of select VOCs in groundwater, as well as VOC concentrations in soil that were contributing to the groundwater conditions.

YSI implemented a reductive dechlorination interim action in the two areas. Groundwater cleanup levels have previously been attained, and the soil investigation described in this document was conducted to determine if SCIA SRGs have been attained. A total of 19 soil samples (9 from the Former Shipping Dock Area, 10 from the Current Shipping Dock Area) were analyzed for VOCs. Additional samples collected by Ohio EPA were also analyzed for VOCs. Carbon tetrachloride, the VOC for which an interim action was required in the Former Shipping Dock Area, was not detected in soil samples collected during this investigation. An interim action was required in the Current Shipping Dock Area for 1,1,1-trichloroethane, tetrachloroethene, and 1,1-dichloroethene. 1,1,1-trichloroethane and tetrachloroethene were detected in one or more samples from this area, but at concentrations well below SCIA SRGs. 1,1-dichloroethene was detected in two samples collected by Ohio EPA at concentrations well below the SCIA SRG.

Based on the soil analytical results documented during this investigation, SCIA SRGs have been met in the Current Shipping Dock Area and Former Shipping Dock Area. No additional interim action to meet SCIA goals for groundwater or soil are required.

5.0 REFERENCES

BHE Environmental. 2002. Sampling and Analysis Plan for Source Control / Groundwater Interim Action Investigation at YSI incorporated, Yellow Springs, Ohio. Consultant's report, prepared for YSI Incorporated.

BHE Environmental. 2003. Source Area Characterization / Delineation Report. Consultant's report, prepared for YSI Incorporated.

BHE Environmental. 2006. Source Area Interim Action Detailed Plans and Specifications. Consultant's report, prepared for YSI Incorporated.

Ohio Environmental Protection Agency. 2002. Statement of Work for Conducting Source Control / Groundwater Interim Actions.

Ohio Environmental Protection Agency. 2006. Letter titled RFI Report, October 2005, Notice of Deficiency, YSI Inc., Yellow Springs, Ohio, OHD093941565.

Table 2. Analytical Results for September 2015 Soil Samples from the Former Dock Area at YSI Incorporated, Yellow Springs, Ohio.

Analyte	SB-1 (0-2)		SB-1 (6-8)		SB-1 (8-10)		SB-2 (0-2)		SB-2 (2-4)		SB-2 (6-8)		SB-3 (0-2)		SB-3 (4-6)		SB-3 (8-10)		SCIA Soil Remediation Goal
	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	
1,1,1,2-Tetrachloroethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
1,1,1-Trichloroethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	18000
1,1,2,2-Tetrachloroethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
1,1,2-Trichloroethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
1,1-Dichloroethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
1,1-Dichloroethene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	265
1,2,3-Trichloropropane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
1,2,4-Trimethylbenzene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
1,2-Dibromo-3-chloropropane	35.6	U	28.3	U	30.7	U	34.3	U	33.8	U	282	U	30.1	U	33.3	U	33.6	U	NE
1,2-Dibromoethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
1,2-Dichloroethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
1,2-Dichloropropane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
1,4 Dioxane	593	U	472	U	511	U	572	U	563	U	4700	U	501	U	555	U	559	U	NE
2-Butanone	29.6	U	23.6	U	25.6	U	28.6	U	28.1	U	235	U	25.1	U	27.8	U	28	U	NE
2-Hexanone	14.8	U	11.8	U	12.8	U	14.3	U	14.1	U	118	U	12.5	U	13.9	U	14	U	NE
4-Methyl-2-pentanone	14.8	U	11.8	U	12.8	U	14.3	U	14.1	U	118	U	12.5	U	13.9	U	14	U	NE
Acetone	59.3	U	47.2	U	51.1	U	57.2	U	56.3	U	470	U	50.1	U	**13.8**	J	55.9	U	NE
Acetonitrile	119	U	94.5	U	102	U	114	U	113	U	940	U	100	U	111	U	112	U	NE
Acrolein	59.3	U	47.2	U	51.1	U	57.2	U	56.3	U	470	U	50.1	U	55.5	U	55.9	U	NE
Acrylonitrile	59.3	U	47.2	U	51.1	U	57.2	U	56.3	U	470	U	50.1	U	55.5	U	55.9	U	NE
Allyl chloride	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Benzene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Bromodichloromethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Bromoform	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Bromomethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Carbon disulfide	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Carbon tetrachloride	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	410
Chlorobenzene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Chloroethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Chloroform	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Chloromethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Chloroprene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
cis-1,2-Dichloroethene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
cis-1,3-Dichloropropene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Dibromochloromethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Dibromomethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Dichlorodifluoromethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Ethyl Benzene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Ethyl methacrylate	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
m,p-Xylene	11.9	U	9.45	U	10.2	U	11.4	U	11.3	U	94	U	10	U	11.1	U	11.2	U	NE
Methyl iodide	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE

Table 2. Analytical Results for September 2015 Soil Samples from the Former Dock Area at YSI Incorporated, Yellow Springs, Ohio.

Analyte	SB-1 (0-2)		SB-1 (6-8)		SB-1 (8-10)		SB-2 (0-2)		SB-2 (2-4)		SB-2 (6-8)		SB-3 (0-2)		SB-3 (4-6)		SB-3 (8-10)		SCIA Soil Remediation Goal
	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	
Methyl methacrylate	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Methylacrylonitrile	59.3	U	47.2	U	51.1	U	57.2	U	56.3	U	470	U	50.1	U	55.5	U	55.9	U	NE
Methylene chloride	**2.38**	J	18.9	U	20.4	U	22.9	U	22.5	U	188	U	20	U	**2.28**	J	**2.53**	J	NE
o-Xylene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Pentachloroethane	11.9	U	9.45	U	10.2	U	11.4	U	11.3	U	94	U	10	U	11.1	U	11.2	U	NE
Propionitrile	119	U	94.5	U	102	U	114	U	113	U	940	U	100	U	111	U	112	U	NE
Styrene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Tetrachloroethene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	1800
Toluene	5.93	U	4.72	U	5.11	U	**2.67**	J	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
trans-1,2-Dichloroethene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
trans-1,3-Dichloropropene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
trans-1,4-Dichloro-2-butene	29.6	U	23.6	U	25.6	U	28.6	U	28.1	U	235	U	25.1	U	27.8	U	28	U	NE
Trichloroethene	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Trichlorofluoromethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Trichlorotrifluoroethane	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE
Vinyl acetate	14.8	U	11.8	U	12.8	U	14.3	U	14.1	U	118	U	12.5	U	13.9	U	14	U	NE
Vinyl chloride	5.93	U	4.72	U	5.11	U	5.72	U	5.63	U	47	U	5.01	U	5.55	U	5.59	U	NE

Notes:

1. U indicates that the compound was not detected at the indicated laboratory Limit of Quantitation.
2. J indicates that the compound was detected at an estimated concentration above the Method Detection Limit but below the laboratory Limit of Quantitation.
3. NE - not established. A SCIA soil remediation goal was not established because a SCIA interim action was not required for this compound.
4. All soil samples were collected on September 1, 2015.
5. Detected compounds are identified in bold font.

Table 3. Analytical Results for September 2015 Soil Samples from the Current Dock Area at YSI Incorporated, Yellow Springs, Ohio.

Analyte	SB-4 (6-8)		SB-4 (10-12)		SB-5 (4-6)		SB-5 (6-8)		SB-6 (2-4)		SB-6 (6-8)		SB-7 (2-4)		SB-7 (4-6)		SB-8 (3-6)		SB-9 (3-6)		SCIA Soil
	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Remediation Goal
1,1,1,2-Tetrachloroethane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
1,1,1-Trichloroethane	**13**		**24.6**		3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	**3.07**	J	**5.99**		18000
1,1,2,2-Tetrachloroethane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
1,1,2-Trichloroethane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
1,1-Dichloroethane	3.91	U	**5.84**		**7.15**		**6.79**		4.04	U	3.69	U	3.72	U	4.1	U	**4.55**		**17.7**		NE
1,1-Dichloroethene	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	265
1,2,3-Trichloropropane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
1,2,4-Trimethylbenzene	**3.07**	J	**3.52**	J	**4.43**		3.61	U	**3.26**	J	**2.2**	J	**2.84**	J	**3.25**	J	**2.53**	J	5.65	U	NE
1,2-Dibromo-3-chloropropane	23.5	U	23.8	U	23.3	U	21.7	U	24.3	U	22.1	U	22.3	U	24.6	U	24.6	U	33.9	U	NE
1,2-Dibromoethane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
1,2-Dichloroethane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
1,2-Dichloropropane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
1,4 Dioxane	391	U	397	U	389	U	361	U	404	U	369	U	372	U	410	U	410	U	565	U	NE
2-Butanone	19.6	U	19.9	U	19.4	U	18.1	U	20.2	U	18.4	U	18.6	U	20.5	U	20.5	U	28.3	U	NE
2-Hexanone	9.78	U	9.93	U	9.71	U	9.03	U	10.1	U	9.22	U	9.31	U	10.3	U	10.3	U	14.1	U	NE
4-Methyl-2-pentanone	9.78	U	9.93	U	9.71	U	9.03	U	10.1	U	9.22	U	9.31	U	10.3	U	10.3	U	14.1	U	NE
Acetone	39.1	U	**7.38**	J	**9.4**	J	36.1	U	**10.2**	J	**7.13**	J	**5.8**	J	**8.45**	J	**13.3**	J	**23.8**	J	NE
Acetonitrile	78.2	U	79.4	U	77.7	U	72.3	U	80.9	U	73.7	U	74.5	U	82.1	U	82.1	U	113	U	NE
Acrolein	39.1	U	39.7	U	38.9	U	36.1	U	40.4	U	36.9	U	37.2	U	41	U	41	U	56.5	U	NE
Acrylonitrile	39.1	U	39.7	U	38.9	U	36.1	U	40.4	U	36.9	U	37.2	U	41	U	41	U	56.5	U	NE
Allyl chloride	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Benzene	**3.04**	J	**5.54**		**5.11**		**1.47**	J	**3.06**	J	**2.17**	J	**3.78**		**3.76**	J	**3.68**	J	5.65	U	NE
Bromodichloromethane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Bromoform	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Bromomethane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Carbon disulfide	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Carbon tetrachloride	**1.85**	J	**3.49**	J	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	410
Chlorobenzene	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Chloroethane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	**3.59**	J	5.65	U	NE
Chloroform	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Chloromethane	3.91	U	**1.76**	J	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Chloroprene	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
cis-1,2-Dichloroethene	3.91	U	3.97	U	**1.94**	J	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
cis-1,3-Dichloropropene	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Dibromochloromethane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Dibromomethane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Dichlorodifluoromethane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Ethyl Benzene	**3.25**	J	**4.54**		**5.88**		3.61	U	**3.78**	J	**2.13**	J	**3.16**	J	**3.52**	J	**3.45**	J	5.65	U	NE
Ethyl methacrylate	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
m,p-Xylene	**4.94**	J	**7.08**	J	**7.86**		**1.67**	J	**5.13**	J	**3.29**	J	**5.18**	J	**5.36**	J	**4.58**	J	11.3	U	NE
Methyl iodide	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE

Table 3. Analytical Results for September 2015 Soil Samples from the Current Dock Area at YSI Incorporated, Yellow Springs, Ohio.

Analyte	SB-4 (6-8)		SB-4 (10-12)		SB-5 (4-6)		SB-5 (6-8)		SB-6 (2-4)		SB-6 (6-8)		SB-7 (2-4)		SB-7 (4-6)		SB-8 (3-6)		SB-9 (3-6)		SCIA Soil
	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Remediation Goal
Methyl methacrylate	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Methylacrylonitrile	39.1	U	39.7	U	38.9	U	36.1	U	40.4	U	36.9	U	37.2	U	41	U	41	U	56.5	U	NE
Methylene chloride	15.6	U	15.9	U	15.5	U	14.5	U	16.2	U	14.7	U	14.9	U	16.4	U	16.4	U	22.6	U	NE
o-Xylene	**2.15**	J	**3.03**	J	**3.68**	J	3.61	U	**2.41**	J	**1.5**	J	**2.09**	J	**2.31**	J	**2.19**	J	5.65	U	NE
Pentachloroethane	7.82	U	7.94	U	7.77	U	7.23	U	8.09	U	7.37	U	7.45	U	8.21	U	8.21	U	11.3	U	NE
Propionitrile	78.2	U	79.4	U	77.7	U	72.3	U	80.9	U	73.7	U	74.5	U	82.1	U	82.1	U	113	U	NE
Styrene	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Tetrachloroethene	**6.21**		3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	1800
Toluene	**9.34**		**14.6**		**15.4**		**3.92**		**9.64**		**6.28**		**10.4**		**10.5**		**10.2**		5.65	U	NE
trans-1,2-Dichloroethene	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
trans-1,3-Dichloropropene	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
trans-1,4-Dichloro-2-butene	19.6	U	19.9	U	19.4	U	18.1	U	20.2	U	18.4	U	18.6	U	20.5	U	20.5	U	28.3	U	NE
Trichloroethene	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Trichlorofluoromethane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Trichlorotrifluoroethane	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE
Vinyl acetate	9.78	U	9.93	U	9.71	U	9.03	U	10.1	U	9.22	U	9.31	U	10.3	U	10.3	U	14.1	U	NE
Vinyl chloride	3.91	U	3.97	U	3.89	U	3.61	U	4.04	U	3.69	U	3.72	U	4.1	U	4.1	U	5.65	U	NE

Notes:

1. U indicates that the compound was not detected at the indicated laboratory Limit of Quantitation.
2. J indicates that the compound was detected at an estimated concentration above the Method Detection Limit but below the laboratory Limit of Quantitation.
3. NE - not established. A SCIA soil remediation goal was not established because a SCIA interim action was not required for this compound.
4. All soil samples were collected on September 1, 2015.
5. Detected compounds are identified in bold font.

Table 4. Analytical Results for Samples Collected by Ohio EPA during SCIA Soil Investigation at YSI Incorporated, Yellow Springs, Ohio (detected compounds only).

Sample	Analyte	Units	Ohio EPA Result	SCIA Soil Goal
Former Shipping Dock Area				
SB-1 (8-10)	Acetone	ug/Kg	18.9	Not Established
Current Shipping Dock Area				
SB-7 (8-10)	1,1,1-Trichloroethane	ug/Kg	30.4	
SB-5 (10-12)	1,1,1-Trichloroethane	ug/Kg	58.4	
SB-9 (3-6)	1,1,1-Trichloroethane	ug/Kg	17	
SB-4 (6-8)	1,1,1-Trichloroethane	ug/Kg	19.7	18,000
SB-5 (10-12)	1,1-Dichloroethane	ug/Kg	22.9	
SB-7 (8-10)	1,1-Dichloroethane	ug/Kg	23.2	
SB-9 (3-6)	1,1-Dichloroethane	ug/Kg	22.1	Not Established
SB-4 (6-8)	Acetone	ug/Kg	14.3	
SB-5 (10-12)	Acetone	ug/Kg	18.7	
SB-3 (6-8)	Acetone	ug/Kg	15.8	
SB-9 (3-6)	Acetone	ug/Kg	20.8	Not Established
SB-5 (10-12)	cis-1,2-Dichloroethene	ug/Kg	3.13	
SB-7 (8-10)	cis-1,2-Dichloroethene	ug/Kg	1.54	Not Established
SB-5 (10-12)	Trichloroethene	ug/Kg	2.2	Not Established
SB-5 (10-12)	1,1-Dichloroethene	ug/Kg	1.75	
SB-7 (8-10)	1,1-Dichloroethene	ug/Kg	3.1	265
SB-4 (6-8)	Tetrachloroethene	ug/Kg	9.31	
SB-5 (10-12)	Tetrachloroethene	ug/Kg	23.5	
SB-7 (8-10)	Tetrachloroethene	ug/Kg	3.83	
SB-9 (3-6)	Tetrachloroethene	ug/Kg	1.78	1,800

Notes:

1. Samples identified as SB-1, SB-2, and SB-3 are from the former shipping dock area.
2. Samples identified as SB-4, SB-5, and SB-6 are from the current shipping dock area.
3. Samples identified as SB-7, SB-8, and SB-9 are from beneath the basement of the East Building.
4. SCIA Soil Goal - SCIA soil remediation goal, calculated during SCIA investigation.

FIGURES

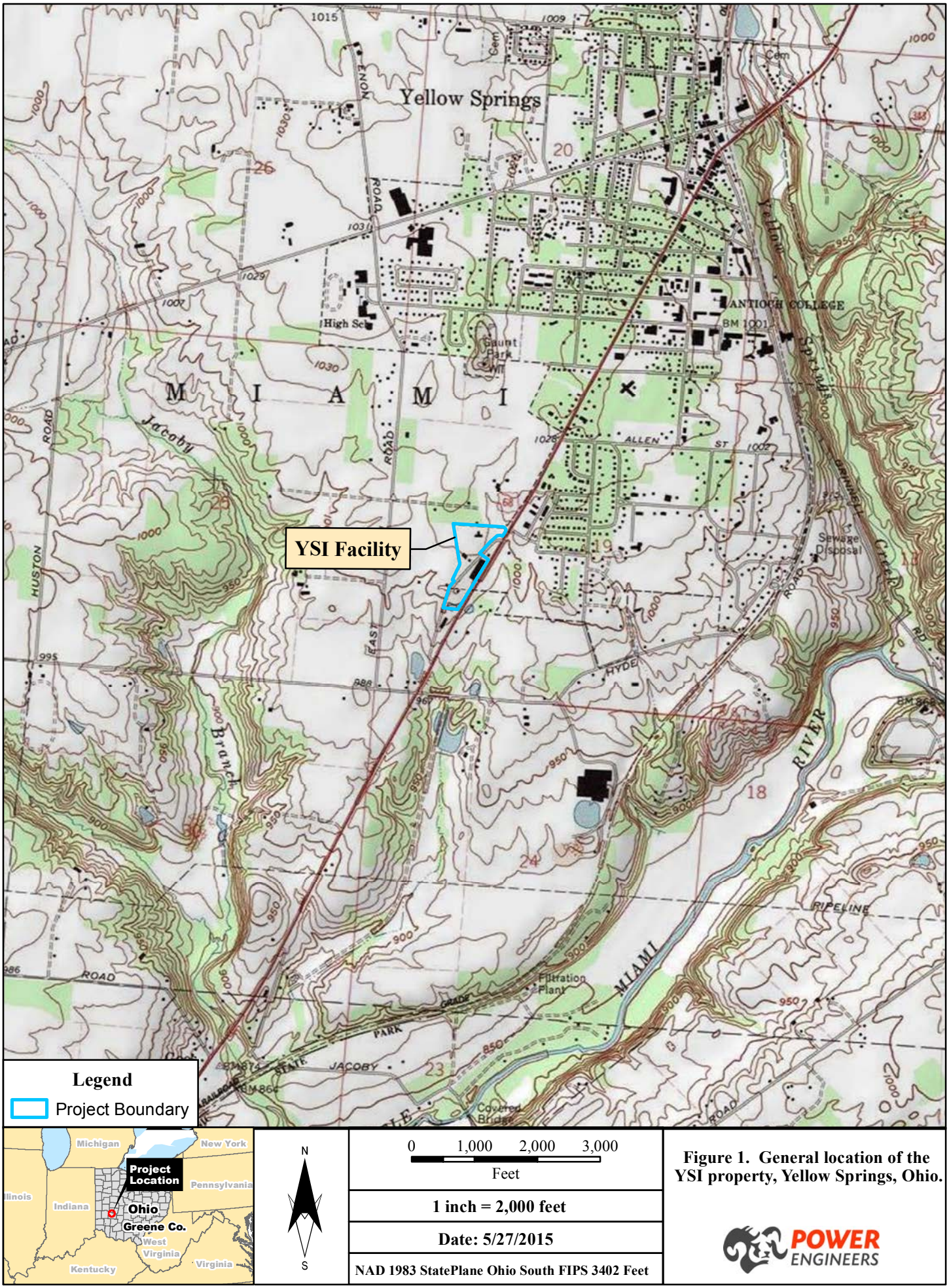

Figure 1. General location of the YSI property, Yellow Springs, Ohio.

POWER ENGINEERS

Path: P:\PROJECTS\Y\YSI_138794\Fig1_Facility_05262015.mxd

Former Dock Area

Current Dock Area

SB-3
SB-2
B64
SB-1
B56
SB-6
SB-5
SB-4
SB-8
SB-9
B103
SB-7

Legend

- Historic SCIA Soil Boring Location
- Source Area Interim Action
- September 2015 SCIA Soil Boring Location

N

S

0 20 40 60

Feet

1 inch = 38 feet

Date: 9/15/2015

Basemap: ESRI Imagery (2013)

Figure 2. SCIA Soil Investigation Sampling Locations, YSI Incorporated, Yellow Springs, Ohio.

POWER ENGINEERS

Path: P:\PROJECTS\YYSL_138794\Fig2_SoilSmpling_SCIA_FieldSurvey_20150915.mxd

APPENDIX A

BORING/DRILLING LOG

Boring No.: SB-1 Date: 9/1/2015

PE Mgr.: EAR

Proj. No.: 138794 Total Depth (ft.): 12

Location: YSI

Drilling Co: Direct Push Analytical Rig: Truck Mounted Geoprobe - Dual Tube

POWER Personnel Onsite: LEB, EAR OVA: Multi-RAE 3000

Laboratory Used & Date Samples Sent: SGS Environmental Serives, 9/2/15

POWER Engineers, INC.
11733 Chesterdale Road
Cincinnati, Ohio 45246
(513) 326-1500
FAX: (513) 326-1550

Sample Interval (ft.)	To Lab? TIME	Field Screening (PPM)	Recovery (in.)	USCS Class.	Description of Strata (Color, Texture, Composition, Structures, etc.)
0-2	1322 To lab	-	20	FILL	Dark Brown FILL - silty, sandy CLAY with gravel
2-4	1322	3.2	20	CL	Medium brown silty CLAY with sand, slightly moist
4-6	1346	2.6	14	CL	Medium brown silty CLAY with gravel, slightly moist
6-8	1346 To Lab	19.9	14	CL	Medium brown silty CLAY with gravel and rock fragments, moist/damp
8-10	1349 To Lab	-	16	CL	Medium brown silty CLAY with gravel and rock fragments, very soft Water at 10'.
10-12	1349	-	16	CL	Medium brown silty CLAY with gravel and rock fragments, iron mottleing, very soft and wet. Well sorted sand (4") at 12'

BORING/DRILLING LOG

Boring No.: SB-2 Date: 9/1/2015

PE Mgr.: EAR

Proj. No.: 138794 Total Depth (ft.): 16

Location: YSI

Drilling Co: Direct Push Analytical Rig: Truck Mounted Geoprobe - Dual Tube

POWER Personnel Onsite: LEB, EAR OVA: MultiRAE3000

Laboratory Used & Date Samples Sent: SGS Environmental Serives, 9/2/15

POWER Engineers, INC.
11733 Chesterdale Road
Cincinnati, Ohio 45246
(513) 326-1500
FAX: (513) 326-1550

Sample Interval (ft.)	To Lab? TIME	Field Screening (PPM)	Recovery (in.)	USCS Class.	Description of Strata (Color, Texture, Composition, Structures, etc.)
0-2	1415 To Lab		20	FILL	Dark brown SILT with clay and rock fragments and gravel, FILL
2-4	1415 To lab	4.6	20	CL	Medium brown SILT and CLAY with coarse rock fragments, black spots, soft and moist
4-6	1418	4.5	14	CL	Medium brown SILT and CLAY with rock fragments and gravel, very soft and moist. Thin band of coarse sand at 5' with pyrite.
6-8	1418 To Lab		14	CL GC	Medium brown SILT and CLAY, very soft and moist. Light brown and gray SILT and CLAY towards 8', with large rock fragments and gravel. Iron staining observed.
8-10	1422		20	CL	Light brown SILT and CLAY with fine gravel. Very soft and moist with mottling. Water at 10'
10-12	1422		20	CL	Light brown SILT and CLAY with fine gravel, very soft and moist.
12-14	1426		24	CL	Brown SILTY and CLAY with gravel to 13'. Gray SILT and CLAY with sand, wet.
14-16	1426		24	CL	Brown SILTY and CLAY with sand and gravel, wet.

BORING/DRILLING LOG

Boring No.: SB-3 Date: 9/1/2015

PE Mgr.: EAR

Proj. No.: 138794 Total Depth (ft.): 16

Location: YSI

Drilling Co: Direct Push Analytical Rig: Truck Mounted Geoprobe - Dual Tube

POWER Personnel Onsite: LEB, EAR OVA: MultiRAE3000

Laboratory Used & Date Samples Sent: SGS Environmental Serives, 9/2/15

POWER Engineers, INC.
11733 Chesterdale Road
Cincinnati, Ohio 45246
(513) 326-1500
FAX: (513) 326-1550

Sample Interval (ft.)	To Lab? TIME	Field Screening (PPM)	Recovery (in.)	USCS Class.	Description of Strata (Color, Texture, Composition, Structures, etc.)
0-2	1452 To Lab		16	FILL	Brown mixture of sand, gravel and silty clay with rock fragments. FILL
2-4	1452	5.9	16	CL	Dark brown SILT and CLAY with rock fragments and gravel. 4" thin band of gray CLAY with sand.
4-6	1458 To Lab	12.2	12	CL	Light brown/gray SILT and CLAY with rock fragments and fine gravel, iron mottling, soft and moist.
6-8	1458	4.7	12	CL	Light brown/gray SILT and CLAY, few gravel, highly mottled.
8-10	1505 To Lab		14	CL	Gray/brown/green SILT and CLAY with sand, some gravel and rock fragments and gravel, soft and moist. Water at 10'.
10-12	1505		14	CL	Brown to gray SILT and CLAY with sand and gravel, very soft and moist. Wet at 10'.

BORING/DRILLING LOG

Boring No.: SB-4 Date: 9/1/2015

PE Mgr.: EAR

Proj. No.: 138794 Total Depth (ft.): 16

Location: YSI

Drilling Co: Direct Push Analytical Rig: Truck Mounted Geoprobe - Dual Tube

POWER Personnel Onsite: LEB, EAR OVA: MultiRAE3000

Laboratory Used & Date Samples Sent: SGS Environmental Serives, 9/2/15

POWER Engineers, INC.
11733 Chesterdale Road
Cincinnati, Ohio 45246
(513) 326-1500
FAX: (513) 326-1550

Sample Interval (ft.)	To Lab? TIME	Field Screening (PPM)	Recovery (in.)	USCS Class.	Description of Strata (Color, Texture, Composition, Structures, etc.)
0-2	1708	1.2	14	FILL	Light gray SAND with rock fragments, FILL.
2-4	1708	3.5	14	FILL	Medium/light brown mixture gravel, sand and silty clay. FILL.
4-6	1711	3.7	14	CL	Dark brown SILT and CLAY, soft and damp with fine gravel.
6-8	1711 To Lab	7.5	14	CL	Light brown CLAY with silty, some gravel, very soft and damp.
8-10	1727	4.4	12	CL	Light brown SILT and CLAY with sand and gravel, slightly moist.
10-12	1727 To Lab	1.8	12	CL	Light brown SILT and CLAY, iron mottling and wet. Water at 12'.
12-14	1730		22	CL	Brown SILT and CLAY with sand, saturated.
14-16	1730		22	CL	Brown SILT and CLAY with sand, saturated.

BORING/DRILLING LOG

Boring No.: SB-5 Date: 9/1/2015

PE Mgr.: EAR

Proj. No.: 138794 Total Depth (ft.): 16

Location: YSI

Drilling Co: Direct Push Analytical Rig: Truck Mounted Geoprobe - Dual Tube

POWER Personnel Onsite: LEB, EAR OVA: MultiRAE3000

Laboratory Used & Date Samples Sent: SGS Environmental Serives, 9/2/15

POWER Engineers, INC.
11733 Chesterdale Road
Cincinnati, Ohio 45246
(513) 326-1500
FAX: (513) 326-1550

Sample Interval (ft.)	To Lab? TIME	Field Screening (PPM)	Recovery (in.)	USCS Class.	Description of Strata (Color, Texture, Composition, Structures, etc.)
0-2	1743	0.7	14	FILL	Brown/light gray sand and gravel mixture-FILL.
2-4	1743	0.8	14	FILL	Light gray SAND with rock fragments, few fines-FILL.
4-6	1745 To Lab	1.9	16	CL	Brown SILT and CLAY with gravel, iron mottling.
6-8	1745 To Lab	0.2	16	CL	Light brown SILT and CLAY with gravel and rock fragments, iron mottling, soft and moist.
8-10	1748	0.9	16	CL	Light brown SILT and CLAY with gravel and rock fragments, iron mottling, soft and very moist.
10-12	1748		16	CL	Light brown SILT and CLAY with gravel and rock fragments, iron mottling, soft and wet. Water at 12'.
12-14			24	CL	Light brown sandy SILT and CLAY, gravel and rock fragments, iron mottling, wet.
14-16			24	CL	Light brown sandy SILT and CLAY, gravel and rock fragments, iron mottling, wet.

BORING/DRILLING LOG

Boring No.: SB-6 Date: 9/1/2015

PE Mgr.: EAR

Proj. No.: 138794 Total Depth (ft.): 16

Location: YSI

Drilling Co: Direct Push Analytical Rig: Truck Mounted Geoprobe - Dual Tube

POWER Personnel Onsite: LEB, EAR OVA: MultiRAE3000

Laboratory Used & Date Samples Sent: SGS Environmental Serives, 9/2/15

POWER Engineers, INC.
11733 Chesterdale Road
Cincinnati, Ohio 45246
(513) 326-1500
FAX: (513) 326-1550

Sample Interval (ft.)	To Lab? TIME	Field Screening (PPM)	Recovery (in.)	USCS Class.	Description of Strata (Color, Texture, Composition, Structures, etc.)
0-2	1804	5.6	16	FILL	FILL-mix of asphalt bits with light brown/tan sand and gravel.
2-4	1804 To Lab	8.4	16	CL/GC	Brown CLAY with rock fragments and gravel, stiff.
4-6	1807	1.6	9	CL	Medium/dark SILT and CLAY with gravel, iron mottling, slightly soft.
6-8	1807 To Lab		9	CL	Light brown/gray SILT and CLAY with gravel, very soft and wet. Water at 8'.
8-10	1810		20	CL	Light brown SILT and CLAY with gravel, wet.
10-12	1810		20	CL	Brown SILT and CLAY and gravel, saturated.

BORING/DRILLING LOG

Boring No.: SB-7 Date: 9/1/2015

PE Mgr.: EAR

Proj. No.: 138794 Total Depth (ft.): 9

Location: YSI

Drilling Co: Direct Push Analytical Rig: Hand cart geoprobe 0 dual tube

POWER Personnel Onsite: LEB, EAR OVA: MultiRAE3000

Laboratory Used & Date Samples Sent: SGS Environmental Serives, 9/2/15

POWER Engineers, INC.
11733 Chesterdale Road
Cincinnati, Ohio 45246
(513) 326-1500
FAX: (513) 326-1550

Sample Interval (ft.)	To Lab? TIME	Field Screening (PPM)	Recovery (in.)	USCS Class.	Description of Strata (Color, Texture, Composition, Structures, etc.)
0-2	1911	0.0	16	FILL CL	PEA GRAVEL at top, abrupt shift to brown SILT and SAND with gravel, iron mottling, soft and damp.
2-4	1911 To Lab	0.1	16	CL	Brown SILT and CLAY, iron mottling, soft and moist. Damp at 4'.
4-6	1915 To Lab	0.0	14	CL	Brown SILT and CLAY, iron mottling, very soft and damp/moist. Water at 6'.
6-8	1915		10	CL	Brown SILT and CLAY, iron molling, very soft and damp.
8-10	1915		10	CL	Brown SILT and CLAY, saturated.

BORING/DRILLING LOG

Boring No.: SB-8 Date: 9/1/2015

PE Mgr.: EAR

Proj. No.: 138794 Total Depth (ft.): 9

Location: YSI

Drilling Co: Direct Push Analytical Rig: Hand cart geoprobe - dual tube

POWER Personnel Onsite: LEB, EAR OVA: MultiRAE3000

Laboratory Used & Date Samples Sent: SGS Environmental Serives, 9/2/15

POWER Engineers, INC.
11733 Chesterdale Road
Cincinnati, Ohio 45246
(513) 326-1500
FAX: (513) 326-1550

Sample Interval (ft.)	To Lab? TIME	Field Screening (PPM)	Recovery (in.)	USCS Class.	Description of Strata (Color, Texture, Composition, Structures, etc.)
0-2	1946		12	FILL CL	PEA GRAVEL at top - poor recovery, wet. Dark brown SILT and CLAY with rock fragments, slightly moist. (Actual core length 0-3)
2-4	1946		24	CL	Dark brown SILT and CLAY with rock fragments, slightly moist. Brown CLAY, slightly moist.
4-6	1946 1948		20	CL/ML	Gray/light brown SILT with clay, mottling. Water at 6'.
6-8	1948		20	CL/ML	Gray/light brown SILT with clay, mottling. Wet.
8-10	1948		12	ML SM	Gray/light brown SILT with clay, mottling. Sandy Silt with clay at 10'.
	Sample from 3-6' interval to lab.				

BORING/DRILLING LOG

Boring No.: SB-9 Date: 9/1/2015

PE Mgr.: EAR

Proj. No.: 138794 Total Depth (ft.): 9

Location: YSI

Drilling Co: Direct Push Analytical Rig: Hand cart geoprobe - dual tube

POWER Personnel Onsite: LEB, EAR OVA: MultiRAE3000

Laboratory Used & Date Samples Sent: SGS Environmental Serives, 9/2/15

POWER Engineers, INC.
11733 Chesterdale Road
Cincinnati, Ohio 45246
(513) 326-1500
FAX: (513) 326-1550

Sample Interval (ft.)	To Lab? TIME	Field Screening (PPM)	Recovery (in.)	USCS Class.	Description of Strata (Color, Texture, Composition, Structures, etc.)
0-2	2004	0.1	10	FILL CL	PEA GRAVEL at top of core. Medium/light brown SILT and CLAY.
2-4	2004 2007	0.1	4	CL	Dark brown SILT and CLAY. Dark brown SILT and CLAY with fine gravel, soft and moist.
4-6	2007		5	CL	Dark brown SILT and CLAY with fine gravel, soft and moist, iron mottling. Water at 6'.
6-8	2011		10	ML	Dark brown clayey SILT with fine gravel and iron mottling. Water at 6'.
8-10	2011		10	ML	Dark brown sandy, clayey SILT with fine gravel. Wet.
	Sample from 3-6' interval to lab.				

APPENDIX B

Laboratory Report of Analysis

To: Eric Riekert
POWER Engineers, Inc.
11733 Chesterdale Rd.
Cincinnati, OH 45246

Report Number: **31501597**

Client Project: **YSI**

Dear Eric Riekert,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Michael D. Page at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

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

Sincerely,
SGS North America Inc.

Michael D. Page Date
Project Manager
michael.page@sgs.com

Print Date: 09/14/2015 N.C. Certification # 481

Laboratory Qualifiers

Report Definitions

DL	Method, Instrument, or Estimated Detection Limit per Analytical Method
CL	Control Limits for the recovery result of a parameter
LOQ	Reporting Limit
DF	Dilution Factor
RPD	Relative Percent Difference
LCS(D)	Laboratory Control Spike (Duplicate)
MS(D)	Matrix Spike (Duplicate)
MB	Method Blank

Qualifier Definitions

*	Recovery or RPD outside of control limits
B	Analyte was detected in the Lab Method Blank at a level above the LOQ
U	Undetected (Reported as ND or < DL)
J	Estimated Concentration.
E	Amount detected is greater than the Upper Calibration Limit
TIC	Tentatively Identified Compound
ND	Not Detected
P	RPD > 40% between results of dual columns
D	Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration range

Samples requiring manual integrations for various congeners and/or standards are marked and dated by the analyst. A code definition is provided below:

M1	Mis-identified peak
M2	Software did not integrate peak
M3	Incorrect baseline construction (i.e. not all of peak included; two peaks integrated as one)
M4	Pattern integration required (i.e. DRO, GRO, PCB, Toxaphene and Technical Chlordane)
M5	Other - Explained in case narrative

Note Results pages that include a value for "Solids (%)" have been adjusted for moisture content.

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
SB-1 (0-2)	31501597001	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-1 (8-10)	31501597002	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-1 (6-8)	31501597003	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-2 (0-2)	31501597004	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-2 (2-4)	31501597005	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-2 (6-8)	31501597006	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-3 (0-2)	31501597007	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-3 (4-6)	31501597008	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-3 (8-10)	31501597009	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-4 (6-8)	31501597010	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-4 (10-12)	31501597011	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-5 (4-6)	31501597012	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-5 (6-8)	31501597013	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-6 (2-4)	31501597014	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-6 (6-8))	31501597015	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-7 (2-4)	31501597016	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-7 (4-6)	31501597017	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-8 (3-6)	31501597018	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
SB-9 (3-6)	31501597019	09/01/2015 00:00	09/03/2015 09:55	Soil-Solid as dry weight
Trip Blank	31501597020		09/03/2015 09:55	Soil-Solid as received

Case Narrative

SB-2 (6-8)

8260B: Only methanol preserved containers received for this sample. Per client's instructions the dry weight was taken from the container labelled SB-2 (2-4). Sample was analyzed at a 10x dilution from the methanol preserved container.

SB-5 (4-6)

8260B: A dry weight container was not received for this sample. Per client's instructions the dry weight was taken from the container labelled SB-6 (6-8).

SB-5 (6-8)

8260B: A dry weight container was not received for this sample. Per client's instructions the dry weight was taken from the container labelled SB-6 (6-8).

Detectable Results Summary

Client Sample ID: **SB-1 (0-2)**
Lab Sample ID: 31501597001-A
SW-846 8260B

Parameter	Result	Units	
Methylene chloride	2.38	ug/Kg	J

Client Sample ID: **SB-2 (0-2)**
Lab Sample ID: 31501597004-A
SW-846 8260B

Parameter	Result	Units	
Toluene	2.67	ug/Kg	J

Client Sample ID: **SB-3 (4-6)**
Lab Sample ID: 31501597008-A
SW-846 8260B

Parameter	Result	Units	
Acetone	13.8	ug/Kg	J
Methylene chloride	2.28	ug/Kg	J

Client Sample ID: **SB-3 (8-10)**
Lab Sample ID: 31501597009-A
SW-846 8260B

Parameter	Result	Units	
Methylene chloride	2.53	ug/Kg	J

Client Sample ID: **SB-4 (6-8)**
Lab Sample ID: 31501597010-A
SW-846 8260B

Parameter	Result	Units	
1,1,1-Trichloroethane	13.0	ug/Kg	
1,2,4-Trimethylbenzene	3.07	ug/Kg	J
Benzene	3.04	ug/Kg	J
Carbon tetrachloride	1.85	ug/Kg	J
Ethyl Benzene	3.25	ug/Kg	J
Tetrachloroethene	6.21	ug/Kg	
Toluene	9.34	ug/Kg	
m,p-Xylene	4.94	ug/Kg	J
o-Xylene	2.15	ug/Kg	J

Client Sample ID: **SB-4 (10-12)**
Lab Sample ID: 31501597011-A
SW-846 8260B

Parameter	Result	Units	
1,1,1-Trichloroethane	24.6	ug/Kg	
1,1-Dichloroethane	5.84	ug/Kg	
1,2,4-Trimethylbenzene	3.52	ug/Kg	J
Acetone	7.38	ug/Kg	J
Benzene	5.54	ug/Kg	
Carbon tetrachloride	3.49	ug/Kg	J
Chloromethane	1.76	ug/Kg	J
Ethyl Benzene	4.54	ug/Kg	
Toluene	14.6	ug/Kg	
m,p-Xylene	7.08	ug/Kg	J
o-Xylene	3.03	ug/Kg	J

Detectable Results Summary

Client Sample ID: **SB-5 (4-6)**
Lab Sample ID: 31501597012-A
SW-846 8260B

Parameter	Result	Units	
1,1-Dichloroethane	7.15	ug/Kg	
1,2,4-Trimethylbenzene	4.43	ug/Kg	
Acetone	9.40	ug/Kg	J
Benzene	5.11	ug/Kg	
Ethyl Benzene	5.88	ug/Kg	
Toluene	15.4	ug/Kg	
cis-1,2-Dichloroethene	1.94	ug/Kg	J
m,p-Xylene	7.86	ug/Kg	
o-Xylene	3.68	ug/Kg	J

Client Sample ID: **SB-5 (6-8)**
Lab Sample ID: 31501597013-A
SW-846 8260B

Parameter	Result	Units	
1,1-Dichloroethane	6.79	ug/Kg	
Benzene	1.47	ug/Kg	J
Toluene	3.92	ug/Kg	
m,p-Xylene	1.67	ug/Kg	J

Client Sample ID: **SB-6 (2-4)**
Lab Sample ID: 31501597014-A
SW-846 8260B

Parameter	Result	Units	
1,2,4-Trimethylbenzene	3.26	ug/Kg	J
Acetone	10.2	ug/Kg	J
Benzene	3.06	ug/Kg	J
Ethyl Benzene	3.78	ug/Kg	J
Toluene	9.64	ug/Kg	
m,p-Xylene	5.13	ug/Kg	J
o-Xylene	2.41	ug/Kg	J

Client Sample ID: **SB-6 (6-8))**
Lab Sample ID: 31501597015-A
SW-846 8260B

Parameter	Result	Units	
1,2,4-Trimethylbenzene	2.20	ug/Kg	J
Acetone	7.13	ug/Kg	J
Benzene	2.17	ug/Kg	J
Ethyl Benzene	2.13	ug/Kg	J
Toluene	6.28	ug/Kg	
m,p-Xylene	3.29	ug/Kg	J
o-Xylene	1.50	ug/Kg	J

Client Sample ID: **SB-7 (2-4)**
Lab Sample ID: 31501597016-A
SW-846 8260B

Parameter	Result	Units	
1,2,4-Trimethylbenzene	2.84	ug/Kg	J
Acetone	5.80	ug/Kg	J
Benzene	3.78	ug/Kg	
Ethyl Benzene	3.16	ug/Kg	J
Toluene	10.4	ug/Kg	
m,p-Xylene	5.18	ug/Kg	J
o-Xylene	2.09	ug/Kg	J

Detectable Results Summary

Client Sample ID: **SB-7 (4-6)**
Lab Sample ID: 31501597017-A
SW-846 8260B

Parameter	Result	Units	
1,2,4-Trimethylbenzene	3.25	ug/Kg	J
Acetone	8.45	ug/Kg	J
Benzene	3.76	ug/Kg	J
Ethyl Benzene	3.52	ug/Kg	J
Toluene	10.5	ug/Kg	
m,p-Xylene	5.36	ug/Kg	J
o-Xylene	2.31	ug/Kg	J

Client Sample ID: **SB-8 (3-6)**
Lab Sample ID: 31501597018-A
SW-846 8260B

Parameter	Result	Units	
1,1,1-Trichloroethane	3.07	ug/Kg	J
1,1-Dichloroethane	4.55	ug/Kg	
1,2,4-Trimethylbenzene	2.53	ug/Kg	J
Acetone	13.3	ug/Kg	J
Benzene	3.68	ug/Kg	J
Chloroethane	3.59	ug/Kg	J
Ethyl Benzene	3.45	ug/Kg	J
Toluene	10.2	ug/Kg	
m,p-Xylene	4.58	ug/Kg	J
o-Xylene	2.19	ug/Kg	J

Client Sample ID: **SB-9 (3-6)**
Lab Sample ID: 31501597019-A
SW-846 8260B

Parameter	Result	Units	
1,1,1-Trichloroethane	5.99	ug/Kg	
1,1-Dichloroethane	17.7	ug/Kg	
Acetone	23.8	ug/Kg	J

Client Sample ID: **Trip Blank**
Lab Sample ID: 31501597020-A
SW-846 8260B

Parameter	Result	Units	
Methylene chloride	6.37	ug/Kg	J

Results of **SB-1 (0-2)**

Client Sample ID: **SB-1 (0-2)**
Client Project ID: **YSI**
Lab Sample ID: 31501597001-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 83.00

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.627	5.93	ug/Kg	1	09/4/2015 20:58
1,1,1-Trichloroethane	ND	U	1.30	5.93	ug/Kg	1	09/4/2015 20:58
1,1,2,2-Tetrachloroethane	ND	U	0.734	5.93	ug/Kg	1	09/4/2015 20:58
1,1,2-Trichloroethane	ND	U	0.906	5.93	ug/Kg	1	09/4/2015 20:58
1,1-Dichloroethane	ND	U	1.12	5.93	ug/Kg	1	09/4/2015 20:58
1,1-Dichloroethene	ND	U	0.912	5.93	ug/Kg	1	09/4/2015 20:58
1,2,3-Trichloropropane	ND	U	0.706	5.93	ug/Kg	1	09/4/2015 20:58
1,2,4-Trimethylbenzene	ND	U	0.864	5.93	ug/Kg	1	09/4/2015 20:58
1,2-Dibromo-3-chloropropane	ND	U	6.07	35.6	ug/Kg	1	09/4/2015 20:58
1,2-Dibromoethane	ND	U	0.864	5.93	ug/Kg	1	09/4/2015 20:58
1,2-Dichloroethane	ND	U	0.651	5.93	ug/Kg	1	09/4/2015 20:58
1,2-Dichloropropane	ND	U	0.808	5.93	ug/Kg	1	09/4/2015 20:58
1,4 Dioxane	ND	U	80.7	593	ug/Kg	1	09/4/2015 20:58
2-Butanone	ND	U	2.02	29.6	ug/Kg	1	09/4/2015 20:58
2-Hexanone	ND	U	2.75	14.8	ug/Kg	1	09/4/2015 20:58
4-Methyl-2-pentanone	ND	U	1.84	14.8	ug/Kg	1	09/4/2015 20:58
Acetone	ND	U	1.47	59.3	ug/Kg	1	09/4/2015 20:58
Acetonitrile	ND	U	14.6	119	ug/Kg	1	09/4/2015 20:58
Acrolein	ND	U	7.57	59.3	ug/Kg	1	09/4/2015 20:58
Acrylonitrile	ND	U	10.1	59.3	ug/Kg	1	09/4/2015 20:58
Allyl chloride	ND	U	1.03	5.93	ug/Kg	1	09/4/2015 20:58
Benzene	ND	U	0.880	5.93	ug/Kg	1	09/4/2015 20:58
Bromodichloromethane	ND	U	0.814	5.93	ug/Kg	1	09/4/2015 20:58
Bromoform	ND	U	0.531	5.93	ug/Kg	1	09/4/2015 20:58
Bromomethane	ND	U	1.10	5.93	ug/Kg	1	09/4/2015 20:58
Carbon disulfide	ND	U	2.93	5.93	ug/Kg	1	09/4/2015 20:58
Carbon tetrachloride	ND	U	1.09	5.93	ug/Kg	1	09/4/2015 20:58
Chlorobenzene	ND	U	0.798	5.93	ug/Kg	1	09/4/2015 20:58
Chloroethane	ND	U	0.676	5.93	ug/Kg	1	09/4/2015 20:58
Chloroform	ND	U	1.06	5.93	ug/Kg	1	09/4/2015 20:58
Chloromethane	ND	U	1.08	5.93	ug/Kg	1	09/4/2015 20:58
Chloroprene	ND	U	0.440	5.93	ug/Kg	1	09/4/2015 20:58
Dibromochloromethane	ND	U	0.736	5.93	ug/Kg	1	09/4/2015 20:58
Dibromomethane	ND	U	0.940	5.93	ug/Kg	1	09/4/2015 20:58
Dichlorodifluoromethane	ND	U	0.897	5.93	ug/Kg	1	09/4/2015 20:58
cis-1,3-Dichloropropene	ND	U	0.642	5.93	ug/Kg	1	09/4/2015 20:58
trans-1,3-Dichloropropene	ND	U	0.593	5.93	ug/Kg	1	09/4/2015 20:58
Ethyl Benzene	ND	U	1.01	5.93	ug/Kg	1	09/4/2015 20:58
Ethyl methacrylate	ND	U	0.503	5.93	ug/Kg	1	09/4/2015 20:58
Methyl iodide	ND	U	0.826	5.93	ug/Kg	1	09/4/2015 20:58
Methyl methacrylate	ND	U	0.606	5.93	ug/Kg	1	09/4/2015 20:58
Methylacrylonitrile	ND	U	5.63	59.3	ug/Kg	1	09/4/2015 20:58

Results of **SB-1 (0-2)**

Client Sample ID: **SB-1 (0-2)**
Client Project ID: **YSI**
Lab Sample ID: 31501597001-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 83.00

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	**2.38**	J	1.01	23.7	ug/Kg	1	09/4/2015 20:58
Pentachloroethane	ND	U	0.747	11.9	ug/Kg	1	09/4/2015 20:58
Propionitrile	ND	U	10.0	119	ug/Kg	1	09/4/2015 20:58
Styrene	ND	U	0.845	5.93	ug/Kg	1	09/4/2015 20:58
Tetrachloroethene	ND	U	1.51	5.93	ug/Kg	1	09/4/2015 20:58
Toluene	ND	U	1.06	5.93	ug/Kg	1	09/4/2015 20:58
Trichloroethene	ND	U	1.29	5.93	ug/Kg	1	09/4/2015 20:58
Trichlorofluoromethane	ND	U	1.32	5.93	ug/Kg	1	09/4/2015 20:58
Trichlorotrifluoroethane	ND	U	5.93	5.93	ug/Kg	1	09/4/2015 20:58
Vinyl acetate	ND	U	2.38	14.8	ug/Kg	1	09/4/2015 20:58
Vinyl chloride	ND	U	0.833	5.93	ug/Kg	1	09/4/2015 20:58
cis-1,2-Dichloroethene	ND	U	1.13	5.93	ug/Kg	1	09/4/2015 20:58
m,p-Xylene	ND	U	1.73	11.9	ug/Kg	1	09/4/2015 20:58
o-Xylene	ND	U	0.870	5.93	ug/Kg	1	09/4/2015 20:58
trans-1,2-Dichloroethene	ND	U	1.49	5.93	ug/Kg	1	09/4/2015 20:58
trans-1,4-Dichloro-2-butene	ND	U	3.00	29.6	ug/Kg	1	09/4/2015 20:58
Surrogates							
1,2-Dichloroethane-d4	112			55.0-173	%	1	09/4/2015 20:58
4-Bromofluorobenzene	88.0			23.0-141	%	1	09/4/2015 20:58
Toluene d8	98.0			57.0-134	%	1	09/4/2015 20:58

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **5.08 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-1 (8-10)**

Client Sample ID: **SB-1 (8-10)**
Client Project ID: **YSI**
Lab Sample ID: 31501597002-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 85.60

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.541	5.11	ug/Kg	1	09/4/2015 20:31
1,1,1-Trichloroethane	ND	U	1.12	5.11	ug/Kg	1	09/4/2015 20:31
1,1,2,2-Tetrachloroethane	ND	U	0.633	5.11	ug/Kg	1	09/4/2015 20:31
1,1,2-Trichloroethane	ND	U	0.781	5.11	ug/Kg	1	09/4/2015 20:31
1,1-Dichloroethane	ND	U	0.970	5.11	ug/Kg	1	09/4/2015 20:31
1,1-Dichloroethene	ND	U	0.786	5.11	ug/Kg	1	09/4/2015 20:31
1,2,3-Trichloropropane	ND	U	0.609	5.11	ug/Kg	1	09/4/2015 20:31
1,2,4-Trimethylbenzene	ND	U	0.745	5.11	ug/Kg	1	09/4/2015 20:31
1,2-Dibromo-3-chloropropane	ND	U	5.23	30.7	ug/Kg	1	09/4/2015 20:31
1,2-Dibromoethane	ND	U	0.745	5.11	ug/Kg	1	09/4/2015 20:31
1,2-Dichloroethane	ND	U	0.561	5.11	ug/Kg	1	09/4/2015 20:31
1,2-Dichloropropane	ND	U	0.697	5.11	ug/Kg	1	09/4/2015 20:31
1,4 Dioxane	ND	U	69.6	511	ug/Kg	1	09/4/2015 20:31
2-Butanone	ND	U	1.74	25.6	ug/Kg	1	09/4/2015 20:31
2-Hexanone	ND	U	2.37	12.8	ug/Kg	1	09/4/2015 20:31
4-Methyl-2-pentanone	ND	U	1.58	12.8	ug/Kg	1	09/4/2015 20:31
Acetone	ND	U	1.27	51.1	ug/Kg	1	09/4/2015 20:31
Acetonitrile	ND	U	12.6	102	ug/Kg	1	09/4/2015 20:31
Acrolein	ND	U	6.53	51.1	ug/Kg	1	09/4/2015 20:31
Acrylonitrile	ND	U	8.75	51.1	ug/Kg	1	09/4/2015 20:31
Allyl chloride	ND	U	0.887	5.11	ug/Kg	1	09/4/2015 20:31
Benzene	ND	U	0.759	5.11	ug/Kg	1	09/4/2015 20:31
Bromodichloromethane	ND	U	0.702	5.11	ug/Kg	1	09/4/2015 20:31
Bromoform	ND	U	0.458	5.11	ug/Kg	1	09/4/2015 20:31
Bromomethane	ND	U	0.951	5.11	ug/Kg	1	09/4/2015 20:31
Carbon disulfide	ND	U	2.53	5.11	ug/Kg	1	09/4/2015 20:31
Carbon tetrachloride	ND	U	0.944	5.11	ug/Kg	1	09/4/2015 20:31
Chlorobenzene	ND	U	0.688	5.11	ug/Kg	1	09/4/2015 20:31
Chloroethane	ND	U	0.583	5.11	ug/Kg	1	09/4/2015 20:31
Chloroform	ND	U	0.918	5.11	ug/Kg	1	09/4/2015 20:31
Chloromethane	ND	U	0.927	5.11	ug/Kg	1	09/4/2015 20:31
Chloroprene	ND	U	0.379	5.11	ug/Kg	1	09/4/2015 20:31
Dibromochloromethane	ND	U	0.635	5.11	ug/Kg	1	09/4/2015 20:31
Dibromomethane	ND	U	0.811	5.11	ug/Kg	1	09/4/2015 20:31
Dichlorodifluoromethane	ND	U	0.774	5.11	ug/Kg	1	09/4/2015 20:31
cis-1,3-Dichloropropene	ND	U	0.554	5.11	ug/Kg	1	09/4/2015 20:31
trans-1,3-Dichloropropene	ND	U	0.511	5.11	ug/Kg	1	09/4/2015 20:31
Ethyl Benzene	ND	U	0.872	5.11	ug/Kg	1	09/4/2015 20:31
Ethyl methacrylate	ND	U	0.434	5.11	ug/Kg	1	09/4/2015 20:31
Methyl iodide	ND	U	0.713	5.11	ug/Kg	1	09/4/2015 20:31
Methyl methacrylate	ND	U	0.522	5.11	ug/Kg	1	09/4/2015 20:31
Methylacrylonitrile	ND	U	4.86	51.1	ug/Kg	1	09/4/2015 20:31

Results of **SB-1 (8-10)**

Client Sample ID: **SB-1 (8-10)**
Client Project ID: **YSI**
Lab Sample ID: 31501597002-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 85.60

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.867	20.4	ug/Kg	1	09/4/2015 20:31
Pentachloroethane	ND	U	0.644	10.2	ug/Kg	1	09/4/2015 20:31
Propionitrile	ND	U	8.66	102	ug/Kg	1	09/4/2015 20:31
Styrene	ND	U	0.729	5.11	ug/Kg	1	09/4/2015 20:31
Tetrachloroethene	ND	U	1.30	5.11	ug/Kg	1	09/4/2015 20:31
Toluene	ND	U	0.910	5.11	ug/Kg	1	09/4/2015 20:31
Trichloroethene	ND	U	1.11	5.11	ug/Kg	1	09/4/2015 20:31
Trichlorofluoromethane	ND	U	1.13	5.11	ug/Kg	1	09/4/2015 20:31
Trichlorotrifluoroethane	ND	U	5.11	5.11	ug/Kg	1	09/4/2015 20:31
Vinyl acetate	ND	U	2.06	12.8	ug/Kg	1	09/4/2015 20:31
Vinyl chloride	ND	U	0.719	5.11	ug/Kg	1	09/4/2015 20:31
cis-1,2-Dichloroethene	ND	U	0.974	5.11	ug/Kg	1	09/4/2015 20:31
m,p-Xylene	ND	U	1.49	10.2	ug/Kg	1	09/4/2015 20:31
o-Xylene	ND	U	0.750	5.11	ug/Kg	1	09/4/2015 20:31
trans-1,2-Dichloroethene	ND	U	1.29	5.11	ug/Kg	1	09/4/2015 20:31
trans-1,4-Dichloro-2-butene	ND	U	2.59	25.6	ug/Kg	1	09/4/2015 20:31
Surrogates							
1,2-Dichloroethane-d4	104			55.0-173	%	1	09/4/2015 20:31
4-Bromofluorobenzene	87.0			23.0-141	%	1	09/4/2015 20:31
Toluene d8	99.0			57.0-134	%	1	09/4/2015 20:31

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **5.71 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

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Results of **SB-1 (6-8)**

Client Sample ID: **SB-1 (6-8)**
Client Project ID: **YSI**
Lab Sample ID: 31501597003-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 85.60

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.500	4.72	ug/Kg	1	09/4/2015 20:05
1,1,1-Trichloroethane	ND	U	1.04	4.72	ug/Kg	1	09/4/2015 20:05
1,1,2,2-Tetrachloroethane	ND	U	0.585	4.72	ug/Kg	1	09/4/2015 20:05
1,1,2-Trichloroethane	ND	U	0.722	4.72	ug/Kg	1	09/4/2015 20:05
1,1-Dichloroethane	ND	U	0.897	4.72	ug/Kg	1	09/4/2015 20:05
1,1-Dichloroethene	ND	U	0.727	4.72	ug/Kg	1	09/4/2015 20:05
1,2,3-Trichloropropane	ND	U	0.563	4.72	ug/Kg	1	09/4/2015 20:05
1,2,4-Trimethylbenzene	ND	U	0.689	4.72	ug/Kg	1	09/4/2015 20:05
1,2-Dibromo-3-chloropropane	ND	U	4.84	28.3	ug/Kg	1	09/4/2015 20:05
1,2-Dibromoethane	ND	U	0.689	4.72	ug/Kg	1	09/4/2015 20:05
1,2-Dichloroethane	ND	U	0.519	4.72	ug/Kg	1	09/4/2015 20:05
1,2-Dichloropropane	ND	U	0.644	4.72	ug/Kg	1	09/4/2015 20:05
1,4 Dioxane	ND	U	64.3	472	ug/Kg	1	09/4/2015 20:05
2-Butanone	ND	U	1.61	23.6	ug/Kg	1	09/4/2015 20:05
2-Hexanone	ND	U	2.19	11.8	ug/Kg	1	09/4/2015 20:05
4-Methyl-2-pentanone	ND	U	1.46	11.8	ug/Kg	1	09/4/2015 20:05
Acetone	ND	U	1.17	47.2	ug/Kg	1	09/4/2015 20:05
Acetonitrile	ND	U	11.6	94.5	ug/Kg	1	09/4/2015 20:05
Acrolein	ND	U	6.04	47.2	ug/Kg	1	09/4/2015 20:05
Acrylonitrile	ND	U	8.09	47.2	ug/Kg	1	09/4/2015 20:05
Allyl chloride	ND	U	0.820	4.72	ug/Kg	1	09/4/2015 20:05
Benzene	ND	U	0.701	4.72	ug/Kg	1	09/4/2015 20:05
Bromodichloromethane	ND	U	0.649	4.72	ug/Kg	1	09/4/2015 20:05
Bromoform	ND	U	0.423	4.72	ug/Kg	1	09/4/2015 20:05
Bromomethane	ND	U	0.879	4.72	ug/Kg	1	09/4/2015 20:05
Carbon disulfide	ND	U	2.33	4.72	ug/Kg	1	09/4/2015 20:05
Carbon tetrachloride	ND	U	0.872	4.72	ug/Kg	1	09/4/2015 20:05
Chlorobenzene	ND	U	0.636	4.72	ug/Kg	1	09/4/2015 20:05
Chloroethane	ND	U	0.539	4.72	ug/Kg	1	09/4/2015 20:05
Chloroform	ND	U	0.849	4.72	ug/Kg	1	09/4/2015 20:05
Chloromethane	ND	U	0.857	4.72	ug/Kg	1	09/4/2015 20:05
Chloroprene	ND	U	0.351	4.72	ug/Kg	1	09/4/2015 20:05
Dibromochloromethane	ND	U	0.587	4.72	ug/Kg	1	09/4/2015 20:05
Dibromomethane	ND	U	0.749	4.72	ug/Kg	1	09/4/2015 20:05
Dichlorodifluoromethane	ND	U	0.715	4.72	ug/Kg	1	09/4/2015 20:05
cis-1,3-Dichloropropene	ND	U	0.512	4.72	ug/Kg	1	09/4/2015 20:05
trans-1,3-Dichloropropene	ND	U	0.472	4.72	ug/Kg	1	09/4/2015 20:05
Ethyl Benzene	ND	U	0.806	4.72	ug/Kg	1	09/4/2015 20:05
Ethyl methacrylate	ND	U	0.401	4.72	ug/Kg	1	09/4/2015 20:05
Methyl iodide	ND	U	0.659	4.72	ug/Kg	1	09/4/2015 20:05
Methyl methacrylate	ND	U	0.483	4.72	ug/Kg	1	09/4/2015 20:05
Methylacrylonitrile	ND	U	4.49	47.2	ug/Kg	1	09/4/2015 20:05

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-1 (6-8)**

Client Sample ID: **SB-1 (6-8)**
Client Project ID: **YSI**
Lab Sample ID: 31501597003-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 85.60

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.801	18.9	ug/Kg	1	09/4/2015 20:05
Pentachloroethane	ND	U	0.595	9.45	ug/Kg	1	09/4/2015 20:05
Propionitrile	ND	U	8.00	94.5	ug/Kg	1	09/4/2015 20:05
Styrene	ND	U	0.674	4.72	ug/Kg	1	09/4/2015 20:05
Tetrachloroethene	ND	U	1.20	4.72	ug/Kg	1	09/4/2015 20:05
Toluene	ND	U	0.841	4.72	ug/Kg	1	09/4/2015 20:05
Trichloroethene	ND	U	1.03	4.72	ug/Kg	1	09/4/2015 20:05
Trichlorofluoromethane	ND	U	1.05	4.72	ug/Kg	1	09/4/2015 20:05
Trichlorotrifluoroethane	ND	U	4.72	4.72	ug/Kg	1	09/4/2015 20:05
Vinyl acetate	ND	U	1.90	11.8	ug/Kg	1	09/4/2015 20:05
Vinyl chloride	ND	U	0.664	4.72	ug/Kg	1	09/4/2015 20:05
cis-1,2-Dichloroethene	ND	U	0.900	4.72	ug/Kg	1	09/4/2015 20:05
m,p-Xylene	ND	U	1.38	9.45	ug/Kg	1	09/4/2015 20:05
o-Xylene	ND	U	0.694	4.72	ug/Kg	1	09/4/2015 20:05
trans-1,2-Dichloroethene	ND	U	1.19	4.72	ug/Kg	1	09/4/2015 20:05
trans-1,4-Dichloro-2-butene	ND	U	2.39	23.6	ug/Kg	1	09/4/2015 20:05
Surrogates							
1,2-Dichloroethane-d4	108			55.0-173	%	1	09/4/2015 20:05
4-Bromofluorobenzene	88.0			23.0-141	%	1	09/4/2015 20:05
Toluene d8	99.0			57.0-134	%	1	09/4/2015 20:05

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **6.18 g**
Prep Extract Vol: **5 mL**

Results of **SB-2 (0-2)**

Client Sample ID: **SB-2 (0-2)**
Client Project ID: **YSI**
Lab Sample ID: 31501597004-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 87.40

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.605	5.72	ug/Kg	1	09/4/2015 19:38
1,1,1-Trichloroethane	ND	U	1.26	5.72	ug/Kg	1	09/4/2015 19:38
1,1,2,2-Tetrachloroethane	ND	U	0.708	5.72	ug/Kg	1	09/4/2015 19:38
1,1,2-Trichloroethane	ND	U	0.874	5.72	ug/Kg	1	09/4/2015 19:38
1,1-Dichloroethane	ND	U	1.09	5.72	ug/Kg	1	09/4/2015 19:38
1,1-Dichloroethene	ND	U	0.880	5.72	ug/Kg	1	09/4/2015 19:38
1,2,3-Trichloropropane	ND	U	0.682	5.72	ug/Kg	1	09/4/2015 19:38
1,2,4-Trimethylbenzene	ND	U	0.834	5.72	ug/Kg	1	09/4/2015 19:38
1,2-Dibromo-3-chloropropane	ND	U	5.86	34.3	ug/Kg	1	09/4/2015 19:38
1,2-Dibromoethane	ND	U	0.834	5.72	ug/Kg	1	09/4/2015 19:38
1,2-Dichloroethane	ND	U	0.628	5.72	ug/Kg	1	09/4/2015 19:38
1,2-Dichloropropane	ND	U	0.781	5.72	ug/Kg	1	09/4/2015 19:38
1,4 Dioxane	ND	U	77.9	572	ug/Kg	1	09/4/2015 19:38
2-Butanone	ND	U	1.95	28.6	ug/Kg	1	09/4/2015 19:38
2-Hexanone	ND	U	2.66	14.3	ug/Kg	1	09/4/2015 19:38
4-Methyl-2-pentanone	ND	U	1.77	14.3	ug/Kg	1	09/4/2015 19:38
Acetone	ND	U	1.42	57.2	ug/Kg	1	09/4/2015 19:38
Acetonitrile	ND	U	14.1	114	ug/Kg	1	09/4/2015 19:38
Acrolein	ND	U	7.31	57.2	ug/Kg	1	09/4/2015 19:38
Acrylonitrile	ND	U	9.80	57.2	ug/Kg	1	09/4/2015 19:38
Allyl chloride	ND	U	0.993	5.72	ug/Kg	1	09/4/2015 19:38
Benzene	ND	U	0.849	5.72	ug/Kg	1	09/4/2015 19:38
Bromodichloromethane	ND	U	0.786	5.72	ug/Kg	1	09/4/2015 19:38
Bromoform	ND	U	0.513	5.72	ug/Kg	1	09/4/2015 19:38
Bromomethane	ND	U	1.06	5.72	ug/Kg	1	09/4/2015 19:38
Carbon disulfide	ND	U	2.83	5.72	ug/Kg	1	09/4/2015 19:38
Carbon tetrachloride	ND	U	1.06	5.72	ug/Kg	1	09/4/2015 19:38
Chlorobenzene	ND	U	0.770	5.72	ug/Kg	1	09/4/2015 19:38
Chloroethane	ND	U	0.652	5.72	ug/Kg	1	09/4/2015 19:38
Chloroform	ND	U	1.03	5.72	ug/Kg	1	09/4/2015 19:38
Chloromethane	ND	U	1.04	5.72	ug/Kg	1	09/4/2015 19:38
Chloroprene	ND	U	0.425	5.72	ug/Kg	1	09/4/2015 19:38
Dibromochloromethane	ND	U	0.711	5.72	ug/Kg	1	09/4/2015 19:38
Dibromomethane	ND	U	0.908	5.72	ug/Kg	1	09/4/2015 19:38
Dichlorodifluoromethane	ND	U	0.866	5.72	ug/Kg	1	09/4/2015 19:38
cis-1,3-Dichloropropene	ND	U	0.620	5.72	ug/Kg	1	09/4/2015 19:38
trans-1,3-Dichloropropene	ND	U	0.572	5.72	ug/Kg	1	09/4/2015 19:38
Ethyl Benzene	ND	U	0.976	5.72	ug/Kg	1	09/4/2015 19:38
Ethyl methacrylate	ND	U	0.485	5.72	ug/Kg	1	09/4/2015 19:38
Methyl iodide	ND	U	0.798	5.72	ug/Kg	1	09/4/2015 19:38
Methyl methacrylate	ND	U	0.585	5.72	ug/Kg	1	09/4/2015 19:38
Methylacrylonitrile	ND	U	5.44	57.2	ug/Kg	1	09/4/2015 19:38

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-2 (0-2)**

Client Sample ID: **SB-2 (0-2)**
Client Project ID: **YSI**
Lab Sample ID: 31501597004-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 87.40

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.971	22.9	ug/Kg	1	09/4/2015 19:38
Pentachloroethane	ND	U	0.721	11.4	ug/Kg	1	09/4/2015 19:38
Propionitrile	ND	U	9.69	114	ug/Kg	1	09/4/2015 19:38
Styrene	ND	U	0.816	5.72	ug/Kg	1	09/4/2015 19:38
Tetrachloroethene	ND	U	1.45	5.72	ug/Kg	1	09/4/2015 19:38
Toluene	**2.67**	J	1.02	5.72	ug/Kg	1	09/4/2015 19:38
Trichloroethene	ND	U	1.25	5.72	ug/Kg	1	09/4/2015 19:38
Trichlorofluoromethane	ND	U	1.27	5.72	ug/Kg	1	09/4/2015 19:38
Trichlorotrifluoroethane	ND	U	5.72	5.72	ug/Kg	1	09/4/2015 19:38
Vinyl acetate	ND	U	2.30	14.3	ug/Kg	1	09/4/2015 19:38
Vinyl chloride	ND	U	0.805	5.72	ug/Kg	1	09/4/2015 19:38
cis-1,2-Dichloroethene	ND	U	1.09	5.72	ug/Kg	1	09/4/2015 19:38
m,p-Xylene	ND	U	1.67	11.4	ug/Kg	1	09/4/2015 19:38
o-Xylene	ND	U	0.840	5.72	ug/Kg	1	09/4/2015 19:38
trans-1,2-Dichloroethene	ND	U	1.44	5.72	ug/Kg	1	09/4/2015 19:38
trans-1,4-Dichloro-2-butene	ND	U	2.90	28.6	ug/Kg	1	09/4/2015 19:38
Surrogates							
1,2-Dichloroethane-d4	102			55.0-173	%	1	09/4/2015 19:38
4-Bromofluorobenzene	88.0			23.0-141	%	1	09/4/2015 19:38
Toluene d8	98.0			57.0-134	%	1	09/4/2015 19:38

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **5 g**
Prep Extract Vol: **5 mL**

Results of **SB-2 (2-4)**

Client Sample ID: **SB-2 (2-4)**
Client Project ID: **YSI**
Lab Sample ID: 31501597005-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 81.80

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.596	5.63	ug/Kg	1	09/4/2015 19:11
1,1,1-Trichloroethane	ND	U	1.24	5.63	ug/Kg	1	09/4/2015 19:11
1,1,2,2-Tetrachloroethane	ND	U	0.697	5.63	ug/Kg	1	09/4/2015 19:11
1,1,2-Trichloroethane	ND	U	0.860	5.63	ug/Kg	1	09/4/2015 19:11
1,1-Dichloroethane	ND	U	1.07	5.63	ug/Kg	1	09/4/2015 19:11
1,1-Dichloroethene	ND	U	0.866	5.63	ug/Kg	1	09/4/2015 19:11
1,2,3-Trichloropropane	ND	U	0.671	5.63	ug/Kg	1	09/4/2015 19:11
1,2,4-Trimethylbenzene	ND	U	0.821	5.63	ug/Kg	1	09/4/2015 19:11
1,2-Dibromo-3-chloropropane	ND	U	5.76	33.8	ug/Kg	1	09/4/2015 19:11
1,2-Dibromoethane	ND	U	0.821	5.63	ug/Kg	1	09/4/2015 19:11
1,2-Dichloroethane	ND	U	0.618	5.63	ug/Kg	1	09/4/2015 19:11
1,2-Dichloropropane	ND	U	0.768	5.63	ug/Kg	1	09/4/2015 19:11
1,4 Dioxane	ND	U	76.7	563	ug/Kg	1	09/4/2015 19:11
2-Butanone	ND	U	1.91	28.1	ug/Kg	1	09/4/2015 19:11
2-Hexanone	ND	U	2.61	14.1	ug/Kg	1	09/4/2015 19:11
4-Methyl-2-pentanone	ND	U	1.75	14.1	ug/Kg	1	09/4/2015 19:11
Acetone	ND	U	1.40	56.3	ug/Kg	1	09/4/2015 19:11
Acetonitrile	ND	U	13.8	113	ug/Kg	1	09/4/2015 19:11
Acrolein	ND	U	7.19	56.3	ug/Kg	1	09/4/2015 19:11
Acrylonitrile	ND	U	9.64	56.3	ug/Kg	1	09/4/2015 19:11
Allyl chloride	ND	U	0.977	5.63	ug/Kg	1	09/4/2015 19:11
Benzene	ND	U	0.835	5.63	ug/Kg	1	09/4/2015 19:11
Bromodichloromethane	ND	U	0.773	5.63	ug/Kg	1	09/4/2015 19:11
Bromoform	ND	U	0.504	5.63	ug/Kg	1	09/4/2015 19:11
Bromomethane	ND	U	1.05	5.63	ug/Kg	1	09/4/2015 19:11
Carbon disulfide	ND	U	2.78	5.63	ug/Kg	1	09/4/2015 19:11
Carbon tetrachloride	ND	U	1.04	5.63	ug/Kg	1	09/4/2015 19:11
Chlorobenzene	ND	U	0.758	5.63	ug/Kg	1	09/4/2015 19:11
Chloroethane	ND	U	0.642	5.63	ug/Kg	1	09/4/2015 19:11
Chloroform	ND	U	1.01	5.63	ug/Kg	1	09/4/2015 19:11
Chloromethane	ND	U	1.02	5.63	ug/Kg	1	09/4/2015 19:11
Chloroprene	ND	U	0.418	5.63	ug/Kg	1	09/4/2015 19:11
Dibromochloromethane	ND	U	0.699	5.63	ug/Kg	1	09/4/2015 19:11
Dibromomethane	ND	U	0.893	5.63	ug/Kg	1	09/4/2015 19:11
Dichlorodifluoromethane	ND	U	0.852	5.63	ug/Kg	1	09/4/2015 19:11
cis-1,3-Dichloropropene	ND	U	0.610	5.63	ug/Kg	1	09/4/2015 19:11
trans-1,3-Dichloropropene	ND	U	0.563	5.63	ug/Kg	1	09/4/2015 19:11
Ethyl Benzene	ND	U	0.960	5.63	ug/Kg	1	09/4/2015 19:11
Ethyl methacrylate	ND	U	0.477	5.63	ug/Kg	1	09/4/2015 19:11
Methyl iodide	ND	U	0.785	5.63	ug/Kg	1	09/4/2015 19:11
Methyl methacrylate	ND	U	0.575	5.63	ug/Kg	1	09/4/2015 19:11
Methylacrylonitrile	ND	U	5.35	56.3	ug/Kg	1	09/4/2015 19:11

Results of **SB-2 (2-4)**

Client Sample ID: **SB-2 (2-4)**
Client Project ID: **YSI**
Lab Sample ID: 31501597005-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 81.80

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.955	22.5	ug/Kg	1	09/4/2015 19:11
Pentachloroethane	ND	U	0.709	11.3	ug/Kg	1	09/4/2015 19:11
Propionitrile	ND	U	9.54	113	ug/Kg	1	09/4/2015 19:11
Styrene	ND	U	0.803	5.63	ug/Kg	1	09/4/2015 19:11
Tetrachloroethene	ND	U	1.43	5.63	ug/Kg	1	09/4/2015 19:11
Toluene	ND	U	1.00	5.63	ug/Kg	1	09/4/2015 19:11
Trichloroethene	ND	U	1.23	5.63	ug/Kg	1	09/4/2015 19:11
Trichlorofluoromethane	ND	U	1.25	5.63	ug/Kg	1	09/4/2015 19:11
Trichlorotrifluoroethane	ND	U	5.63	5.63	ug/Kg	1	09/4/2015 19:11
Vinyl acetate	ND	U	2.26	14.1	ug/Kg	1	09/4/2015 19:11
Vinyl chloride	ND	U	0.791	5.63	ug/Kg	1	09/4/2015 19:11
cis-1,2-Dichloroethene	ND	U	1.07	5.63	ug/Kg	1	09/4/2015 19:11
m,p-Xylene	ND	U	1.64	11.3	ug/Kg	1	09/4/2015 19:11
o-Xylene	ND	U	0.826	5.63	ug/Kg	1	09/4/2015 19:11
trans-1,2-Dichloroethene	ND	U	1.42	5.63	ug/Kg	1	09/4/2015 19:11
trans-1,4-Dichloro-2-butene	ND	U	2.85	28.1	ug/Kg	1	09/4/2015 19:11
Surrogates							
1,2-Dichloroethane-d4	105			55.0-173	%	1	09/4/2015 19:11
4-Bromofluorobenzene	88.0			23.0-141	%	1	09/4/2015 19:11
Toluene d8	98.0			57.0-134	%	1	09/4/2015 19:11

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **5.43 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-2 (6-8)**

Client Sample ID: **SB-2 (6-8)**
Client Project ID: **YSI**
Lab Sample ID: 31501597006-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 81.90

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	4.97	47.0	ug/Kg	10	09/8/2015 14:07
1,1,1-Trichloroethane	ND	U	10.3	47.0	ug/Kg	10	09/8/2015 14:07
1,1,2,2-Tetrachloroethane	ND	U	5.82	47.0	ug/Kg	10	09/8/2015 14:07
1,1,2-Trichloroethane	ND	U	7.18	47.0	ug/Kg	10	09/8/2015 14:07
1,1-Dichloroethane	ND	U	8.92	47.0	ug/Kg	10	09/8/2015 14:07
1,1-Dichloroethene	ND	U	7.23	47.0	ug/Kg	10	09/8/2015 14:07
1,2,3-Trichloropropane	ND	U	5.60	47.0	ug/Kg	10	09/8/2015 14:07
1,2,4-Trimethylbenzene	ND	U	6.85	47.0	ug/Kg	10	09/8/2015 14:07
1,2-Dibromo-3-chloropropane	ND	U	48.1	282	ug/Kg	10	09/8/2015 14:07
1,2-Dibromoethane	ND	U	6.85	47.0	ug/Kg	10	09/8/2015 14:07
1,2-Dichloroethane	ND	U	5.16	47.0	ug/Kg	10	09/8/2015 14:07
1,2-Dichloropropane	ND	U	6.41	47.0	ug/Kg	10	09/8/2015 14:07
1,4 Dioxane	ND	U	640	4700	ug/Kg	10	09/8/2015 14:07
2-Butanone	ND	U	16.0	235	ug/Kg	10	09/8/2015 14:07
2-Hexanone	ND	U	21.8	118	ug/Kg	10	09/8/2015 14:07
4-Methyl-2-pentanone	ND	U	14.6	118	ug/Kg	10	09/8/2015 14:07
Acetone	ND	U	11.7	470	ug/Kg	10	09/8/2015 14:07
Acetonitrile	ND	U	116	940	ug/Kg	10	09/8/2015 14:07
Acrolein	ND	U	60.1	470	ug/Kg	10	09/8/2015 14:07
Acrylonitrile	ND	U	80.5	470	ug/Kg	10	09/8/2015 14:07
Allyl chloride	ND	U	8.16	47.0	ug/Kg	10	09/8/2015 14:07
Benzene	ND	U	6.98	47.0	ug/Kg	10	09/8/2015 14:07
Bromodichloromethane	ND	U	6.46	47.0	ug/Kg	10	09/8/2015 14:07
Bromoform	ND	U	4.21	47.0	ug/Kg	10	09/8/2015 14:07
Bromomethane	ND	U	8.74	47.0	ug/Kg	10	09/8/2015 14:07
Carbon disulfide	ND	U	23.2	47.0	ug/Kg	10	09/8/2015 14:07
Carbon tetrachloride	ND	U	8.68	47.0	ug/Kg	10	09/8/2015 14:07
Chlorobenzene	ND	U	6.33	47.0	ug/Kg	10	09/8/2015 14:07
Chloroethane	ND	U	5.36	47.0	ug/Kg	10	09/8/2015 14:07
Chloroform	ND	U	8.44	47.0	ug/Kg	10	09/8/2015 14:07
Chloromethane	ND	U	8.53	47.0	ug/Kg	10	09/8/2015 14:07
Chloroprene	ND	U	3.49	47.0	ug/Kg	10	09/8/2015 14:07
Dibromochloromethane	ND	U	5.84	47.0	ug/Kg	10	09/8/2015 14:07
Dibromomethane	ND	U	7.46	47.0	ug/Kg	10	09/8/2015 14:07
Dichlorodifluoromethane	ND	U	7.12	47.0	ug/Kg	10	09/8/2015 14:07
cis-1,3-Dichloropropene	ND	U	5.10	47.0	ug/Kg	10	09/8/2015 14:07
trans-1,3-Dichloropropene	ND	U	4.70	47.0	ug/Kg	10	09/8/2015 14:07
Ethyl Benzene	ND	U	8.02	47.0	ug/Kg	10	09/8/2015 14:07
Ethyl methacrylate	ND	U	3.99	47.0	ug/Kg	10	09/8/2015 14:07
Methyl iodide	ND	U	6.55	47.0	ug/Kg	10	09/8/2015 14:07
Methyl methacrylate	ND	U	4.80	47.0	ug/Kg	10	09/8/2015 14:07
Methylacrylonitrile	ND	U	44.7	470	ug/Kg	10	09/8/2015 14:07

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-2 (6-8)**

Client Sample ID: **SB-2 (6-8)**
Client Project ID: **YSI**
Lab Sample ID: 31501597006-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 81.90

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	7.97	188	ug/Kg	10	09/8/2015 14:07
Pentachloroethane	ND	U	5.92	94.0	ug/Kg	10	09/8/2015 14:07
Propionitrile	ND	U	79.6	940	ug/Kg	10	09/8/2015 14:07
Styrene	ND	U	6.70	47.0	ug/Kg	10	09/8/2015 14:07
Tetrachloroethene	ND	U	11.9	47.0	ug/Kg	10	09/8/2015 14:07
Toluene	ND	U	8.37	47.0	ug/Kg	10	09/8/2015 14:07
Trichloroethene	ND	U	10.2	47.0	ug/Kg	10	09/8/2015 14:07
Trichlorofluoromethane	ND	U	10.4	47.0	ug/Kg	10	09/8/2015 14:07
Trichlorotrifluoroethane	ND	U	47.0	47.0	ug/Kg	10	09/8/2015 14:07
Vinyl acetate	ND	U	18.9	118	ug/Kg	10	09/8/2015 14:07
Vinyl chloride	ND	U	6.61	47.0	ug/Kg	10	09/8/2015 14:07
cis-1,2-Dichloroethene	ND	U	8.96	47.0	ug/Kg	10	09/8/2015 14:07
m,p-Xylene	ND	U	13.7	94.0	ug/Kg	10	09/8/2015 14:07
o-Xylene	ND	U	6.90	47.0	ug/Kg	10	09/8/2015 14:07
trans-1,2-Dichloroethene	ND	U	11.8	47.0	ug/Kg	10	09/8/2015 14:07
trans-1,4-Dichloro-2-butene	ND	U	23.8	235	ug/Kg	10	09/8/2015 14:07
Surrogates							
1,2-Dichloroethane-d4	101			55.0-173	%	10	09/8/2015 14:07
4-Bromofluorobenzene	85.0			23.0-141	%	10	09/8/2015 14:07
Toluene d8	99.0			57.0-134	%	10	09/8/2015 14:07

Batch Information

Analytical Batch: **VMS3734**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5939**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/03/2015 14:52**
Prep Initial Wt./Vol.: **6.49 g**
Prep Extract Vol: **5 mL**

Results of **SB-3 (0-2)**

Client Sample ID: **SB-3 (0-2)**
Client Project ID: **YSI**
Lab Sample ID: 31501597007-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 90.40

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.530	5.01	ug/Kg	1	09/4/2015 18:45
1,1,1-Trichloroethane	ND	U	1.10	5.01	ug/Kg	1	09/4/2015 18:45
1,1,2,2-Tetrachloroethane	ND	U	0.620	5.01	ug/Kg	1	09/4/2015 18:45
1,1,2-Trichloroethane	ND	U	0.766	5.01	ug/Kg	1	09/4/2015 18:45
1,1-Dichloroethane	ND	U	0.951	5.01	ug/Kg	1	09/4/2015 18:45
1,1-Dichloroethene	ND	U	0.771	5.01	ug/Kg	1	09/4/2015 18:45
1,2,3-Trichloropropane	ND	U	0.597	5.01	ug/Kg	1	09/4/2015 18:45
1,2,4-Trimethylbenzene	ND	U	0.730	5.01	ug/Kg	1	09/4/2015 18:45
1,2-Dibromo-3-chloropropane	ND	U	5.13	30.1	ug/Kg	1	09/4/2015 18:45
1,2-Dibromoethane	ND	U	0.730	5.01	ug/Kg	1	09/4/2015 18:45
1,2-Dichloroethane	ND	U	0.550	5.01	ug/Kg	1	09/4/2015 18:45
1,2-Dichloropropane	ND	U	0.683	5.01	ug/Kg	1	09/4/2015 18:45
1,4 Dioxane	ND	U	68.2	501	ug/Kg	1	09/4/2015 18:45
2-Butanone	ND	U	1.70	25.1	ug/Kg	1	09/4/2015 18:45
2-Hexanone	ND	U	2.32	12.5	ug/Kg	1	09/4/2015 18:45
4-Methyl-2-pentanone	ND	U	1.55	12.5	ug/Kg	1	09/4/2015 18:45
Acetone	ND	U	1.24	50.1	ug/Kg	1	09/4/2015 18:45
Acetonitrile	ND	U	12.3	100	ug/Kg	1	09/4/2015 18:45
Acrolein	ND	U	6.40	50.1	ug/Kg	1	09/4/2015 18:45
Acrylonitrile	ND	U	8.58	50.1	ug/Kg	1	09/4/2015 18:45
Allyl chloride	ND	U	0.870	5.01	ug/Kg	1	09/4/2015 18:45
Benzene	ND	U	0.744	5.01	ug/Kg	1	09/4/2015 18:45
Bromodichloromethane	ND	U	0.688	5.01	ug/Kg	1	09/4/2015 18:45
Bromoform	ND	U	0.449	5.01	ug/Kg	1	09/4/2015 18:45
Bromomethane	ND	U	0.932	5.01	ug/Kg	1	09/4/2015 18:45
Carbon disulfide	ND	U	2.48	5.01	ug/Kg	1	09/4/2015 18:45
Carbon tetrachloride	ND	U	0.925	5.01	ug/Kg	1	09/4/2015 18:45
Chlorobenzene	ND	U	0.674	5.01	ug/Kg	1	09/4/2015 18:45
Chloroethane	ND	U	0.571	5.01	ug/Kg	1	09/4/2015 18:45
Chloroform	ND	U	0.900	5.01	ug/Kg	1	09/4/2015 18:45
Chloromethane	ND	U	0.909	5.01	ug/Kg	1	09/4/2015 18:45
Chloroprene	ND	U	0.372	5.01	ug/Kg	1	09/4/2015 18:45
Dibromochloromethane	ND	U	0.622	5.01	ug/Kg	1	09/4/2015 18:45
Dibromomethane	ND	U	0.795	5.01	ug/Kg	1	09/4/2015 18:45
Dichlorodifluoromethane	ND	U	0.759	5.01	ug/Kg	1	09/4/2015 18:45
cis-1,3-Dichloropropene	ND	U	0.543	5.01	ug/Kg	1	09/4/2015 18:45
trans-1,3-Dichloropropene	ND	U	0.501	5.01	ug/Kg	1	09/4/2015 18:45
Ethyl Benzene	ND	U	0.855	5.01	ug/Kg	1	09/4/2015 18:45
Ethyl methacrylate	ND	U	0.425	5.01	ug/Kg	1	09/4/2015 18:45
Methyl iodide	ND	U	0.698	5.01	ug/Kg	1	09/4/2015 18:45
Methyl methacrylate	ND	U	0.512	5.01	ug/Kg	1	09/4/2015 18:45
Methylacrylonitrile	ND	U	4.76	50.1	ug/Kg	1	09/4/2015 18:45

Results of **SB-3 (0-2)**

Client Sample ID: **SB-3 (0-2)**
Client Project ID: **YSI**
Lab Sample ID: 31501597007-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 90.40

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.850	20.0	ug/Kg	1	09/4/2015 18:45
Pentachloroethane	ND	U	0.631	10.0	ug/Kg	1	09/4/2015 18:45
Propionitrile	ND	U	8.49	100	ug/Kg	1	09/4/2015 18:45
Styrene	ND	U	0.714	5.01	ug/Kg	1	09/4/2015 18:45
Tetrachloroethene	ND	U	1.27	5.01	ug/Kg	1	09/4/2015 18:45
Toluene	ND	U	0.892	5.01	ug/Kg	1	09/4/2015 18:45
Trichloroethene	ND	U	1.09	5.01	ug/Kg	1	09/4/2015 18:45
Trichlorofluoromethane	ND	U	1.11	5.01	ug/Kg	1	09/4/2015 18:45
Trichlorotrifluoroethane	ND	U	5.01	5.01	ug/Kg	1	09/4/2015 18:45
Vinyl acetate	ND	U	2.01	12.5	ug/Kg	1	09/4/2015 18:45
Vinyl chloride	ND	U	0.704	5.01	ug/Kg	1	09/4/2015 18:45
cis-1,2-Dichloroethene	ND	U	0.955	5.01	ug/Kg	1	09/4/2015 18:45
m,p-Xylene	ND	U	1.46	10.0	ug/Kg	1	09/4/2015 18:45
o-Xylene	ND	U	0.735	5.01	ug/Kg	1	09/4/2015 18:45
trans-1,2-Dichloroethene	ND	U	1.26	5.01	ug/Kg	1	09/4/2015 18:45
trans-1,4-Dichloro-2-butene	ND	U	2.54	25.1	ug/Kg	1	09/4/2015 18:45
Surrogates							
1,2-Dichloroethane-d4	110			55.0-173	%	1	09/4/2015 18:45
4-Bromofluorobenzene	89.0			23.0-141	%	1	09/4/2015 18:45
Toluene d8	99.0			57.0-134	%	1	09/4/2015 18:45

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **5.52 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-3 (4-6)**

Client Sample ID: **SB-3 (4-6)**
Client Project ID: **YSI**
Lab Sample ID: 31501597008-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 86.80

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.587	5.55	ug/Kg	1	09/4/2015 18:18
1,1,1-Trichloroethane	ND	U	1.22	5.55	ug/Kg	1	09/4/2015 18:18
1,1,2,2-Tetrachloroethane	ND	U	0.687	5.55	ug/Kg	1	09/4/2015 18:18
1,1,2-Trichloroethane	ND	U	0.848	5.55	ug/Kg	1	09/4/2015 18:18
1,1-Dichloroethane	ND	U	1.05	5.55	ug/Kg	1	09/4/2015 18:18
1,1-Dichloroethene	ND	U	0.854	5.55	ug/Kg	1	09/4/2015 18:18
1,2,3-Trichloropropane	ND	U	0.662	5.55	ug/Kg	1	09/4/2015 18:18
1,2,4-Trimethylbenzene	ND	U	0.809	5.55	ug/Kg	1	09/4/2015 18:18
1,2-Dibromo-3-chloropropane	ND	U	5.68	33.3	ug/Kg	1	09/4/2015 18:18
1,2-Dibromoethane	ND	U	0.809	5.55	ug/Kg	1	09/4/2015 18:18
1,2-Dichloroethane	ND	U	0.609	5.55	ug/Kg	1	09/4/2015 18:18
1,2-Dichloropropane	ND	U	0.757	5.55	ug/Kg	1	09/4/2015 18:18
1,4 Dioxane	ND	U	75.6	555	ug/Kg	1	09/4/2015 18:18
2-Butanone	ND	U	1.89	27.8	ug/Kg	1	09/4/2015 18:18
2-Hexanone	ND	U	2.58	13.9	ug/Kg	1	09/4/2015 18:18
4-Methyl-2-pentanone	ND	U	1.72	13.9	ug/Kg	1	09/4/2015 18:18
Acetone	**13.8**	J	1.38	55.5	ug/Kg	1	09/4/2015 18:18
Acetonitrile	ND	U	13.7	111	ug/Kg	1	09/4/2015 18:18
Acrolein	ND	U	7.09	55.5	ug/Kg	1	09/4/2015 18:18
Acrylonitrile	ND	U	9.50	55.5	ug/Kg	1	09/4/2015 18:18
Allyl chloride	ND	U	0.964	5.55	ug/Kg	1	09/4/2015 18:18
Benzene	ND	U	0.824	5.55	ug/Kg	1	09/4/2015 18:18
Bromodichloromethane	ND	U	0.763	5.55	ug/Kg	1	09/4/2015 18:18
Bromoform	ND	U	0.497	5.55	ug/Kg	1	09/4/2015 18:18
Bromomethane	ND	U	1.03	5.55	ug/Kg	1	09/4/2015 18:18
Carbon disulfide	ND	U	2.74	5.55	ug/Kg	1	09/4/2015 18:18
Carbon tetrachloride	ND	U	1.02	5.55	ug/Kg	1	09/4/2015 18:18
Chlorobenzene	ND	U	0.747	5.55	ug/Kg	1	09/4/2015 18:18
Chloroethane	ND	U	0.633	5.55	ug/Kg	1	09/4/2015 18:18
Chloroform	ND	U	0.997	5.55	ug/Kg	1	09/4/2015 18:18
Chloromethane	ND	U	1.01	5.55	ug/Kg	1	09/4/2015 18:18
Chloroprene	ND	U	0.412	5.55	ug/Kg	1	09/4/2015 18:18
Dibromochloromethane	ND	U	0.689	5.55	ug/Kg	1	09/4/2015 18:18
Dibromomethane	ND	U	0.880	5.55	ug/Kg	1	09/4/2015 18:18
Dichlorodifluoromethane	ND	U	0.840	5.55	ug/Kg	1	09/4/2015 18:18
cis-1,3-Dichloropropene	ND	U	0.602	5.55	ug/Kg	1	09/4/2015 18:18
trans-1,3-Dichloropropene	ND	U	0.555	5.55	ug/Kg	1	09/4/2015 18:18
Ethyl Benzene	ND	U	0.947	5.55	ug/Kg	1	09/4/2015 18:18
Ethyl methacrylate	ND	U	0.471	5.55	ug/Kg	1	09/4/2015 18:18
Methyl iodide	ND	U	0.774	5.55	ug/Kg	1	09/4/2015 18:18
Methyl methacrylate	ND	U	0.567	5.55	ug/Kg	1	09/4/2015 18:18
Methylacrylonitrile	ND	U	5.27	55.5	ug/Kg	1	09/4/2015 18:18

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-3 (4-6)**

Client Sample ID: **SB-3 (4-6)**
Client Project ID: **YSI**
Lab Sample ID: 31501597008-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 86.80

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	**2.28**	J	0.941	22.2	ug/Kg	1	09/4/2015 18:18
Pentachloroethane	ND	U	0.699	11.1	ug/Kg	1	09/4/2015 18:18
Propionitrile	ND	U	9.40	111	ug/Kg	1	09/4/2015 18:18
Styrene	ND	U	0.792	5.55	ug/Kg	1	09/4/2015 18:18
Tetrachloroethene	ND	U	1.41	5.55	ug/Kg	1	09/4/2015 18:18
Toluene	ND	U	0.988	5.55	ug/Kg	1	09/4/2015 18:18
Trichloroethene	ND	U	1.21	5.55	ug/Kg	1	09/4/2015 18:18
Trichlorofluoromethane	ND	U	1.23	5.55	ug/Kg	1	09/4/2015 18:18
Trichlorotrifluoroethane	ND	U	5.55	5.55	ug/Kg	1	09/4/2015 18:18
Vinyl acetate	ND	U	2.23	13.9	ug/Kg	1	09/4/2015 18:18
Vinyl chloride	ND	U	0.780	5.55	ug/Kg	1	09/4/2015 18:18
cis-1,2-Dichloroethene	ND	U	1.06	5.55	ug/Kg	1	09/4/2015 18:18
m,p-Xylene	ND	U	1.62	11.1	ug/Kg	1	09/4/2015 18:18
o-Xylene	ND	U	0.815	5.55	ug/Kg	1	09/4/2015 18:18
trans-1,2-Dichloroethene	ND	U	1.40	5.55	ug/Kg	1	09/4/2015 18:18
trans-1,4-Dichloro-2-butene	ND	U	2.81	27.8	ug/Kg	1	09/4/2015 18:18
Surrogates							
1,2-Dichloroethane-d4	112			55.0-173	%	1	09/4/2015 18:18
4-Bromofluorobenzene	92.0			23.0-141	%	1	09/4/2015 18:18
Toluene d8	99.0			57.0-134	%	1	09/4/2015 18:18

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **5.19 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-3 (8-10)**

Client Sample ID: **SB-3 (8-10)**
Client Project ID: **YSI**
Lab Sample ID: 31501597009-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 88.90

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.592	5.59	ug/Kg	1	09/4/2015 17:51
1,1,1-Trichloroethane	ND	U	1.23	5.59	ug/Kg	1	09/4/2015 17:51
1,1,2,2-Tetrachloroethane	ND	U	0.692	5.59	ug/Kg	1	09/4/2015 17:51
1,1,2-Trichloroethane	ND	U	0.855	5.59	ug/Kg	1	09/4/2015 17:51
1,1-Dichloroethane	ND	U	1.06	5.59	ug/Kg	1	09/4/2015 17:51
1,1-Dichloroethene	ND	U	0.860	5.59	ug/Kg	1	09/4/2015 17:51
1,2,3-Trichloropropane	ND	U	0.667	5.59	ug/Kg	1	09/4/2015 17:51
1,2,4-Trimethylbenzene	ND	U	0.815	5.59	ug/Kg	1	09/4/2015 17:51
1,2-Dibromo-3-chloropropane	ND	U	5.73	33.6	ug/Kg	1	09/4/2015 17:51
1,2-Dibromoethane	ND	U	0.815	5.59	ug/Kg	1	09/4/2015 17:51
1,2-Dichloroethane	ND	U	0.614	5.59	ug/Kg	1	09/4/2015 17:51
1,2-Dichloropropane	ND	U	0.763	5.59	ug/Kg	1	09/4/2015 17:51
1,4 Dioxane	ND	U	76.2	559	ug/Kg	1	09/4/2015 17:51
2-Butanone	ND	U	1.90	28.0	ug/Kg	1	09/4/2015 17:51
2-Hexanone	ND	U	2.60	14.0	ug/Kg	1	09/4/2015 17:51
4-Methyl-2-pentanone	ND	U	1.73	14.0	ug/Kg	1	09/4/2015 17:51
Acetone	ND	U	1.39	55.9	ug/Kg	1	09/4/2015 17:51
Acetonitrile	ND	U	13.8	112	ug/Kg	1	09/4/2015 17:51
Acrolein	ND	U	7.15	55.9	ug/Kg	1	09/4/2015 17:51
Acrylonitrile	ND	U	9.57	55.9	ug/Kg	1	09/4/2015 17:51
Allyl chloride	ND	U	0.971	5.59	ug/Kg	1	09/4/2015 17:51
Benzene	ND	U	0.830	5.59	ug/Kg	1	09/4/2015 17:51
Bromodichloromethane	ND	U	0.768	5.59	ug/Kg	1	09/4/2015 17:51
Bromoform	ND	U	0.501	5.59	ug/Kg	1	09/4/2015 17:51
Bromomethane	ND	U	1.04	5.59	ug/Kg	1	09/4/2015 17:51
Carbon disulfide	ND	U	2.76	5.59	ug/Kg	1	09/4/2015 17:51
Carbon tetrachloride	ND	U	1.03	5.59	ug/Kg	1	09/4/2015 17:51
Chlorobenzene	ND	U	0.753	5.59	ug/Kg	1	09/4/2015 17:51
Chloroethane	ND	U	0.638	5.59	ug/Kg	1	09/4/2015 17:51
Chloroform	ND	U	1.00	5.59	ug/Kg	1	09/4/2015 17:51
Chloromethane	ND	U	1.01	5.59	ug/Kg	1	09/4/2015 17:51
Chloroprene	ND	U	0.415	5.59	ug/Kg	1	09/4/2015 17:51
Dibromochloromethane	ND	U	0.695	5.59	ug/Kg	1	09/4/2015 17:51
Dibromomethane	ND	U	0.887	5.59	ug/Kg	1	09/4/2015 17:51
Dichlorodifluoromethane	ND	U	0.847	5.59	ug/Kg	1	09/4/2015 17:51
cis-1,3-Dichloropropene	ND	U	0.606	5.59	ug/Kg	1	09/4/2015 17:51
trans-1,3-Dichloropropene	ND	U	0.559	5.59	ug/Kg	1	09/4/2015 17:51
Ethyl Benzene	ND	U	0.954	5.59	ug/Kg	1	09/4/2015 17:51
Ethyl methacrylate	ND	U	0.474	5.59	ug/Kg	1	09/4/2015 17:51
Methyl iodide	ND	U	0.780	5.59	ug/Kg	1	09/4/2015 17:51
Methyl methacrylate	ND	U	0.572	5.59	ug/Kg	1	09/4/2015 17:51
Methylacrylonitrile	ND	U	5.31	55.9	ug/Kg	1	09/4/2015 17:51

Results of **SB-3 (8-10)**

Client Sample ID: **SB-3 (8-10)**
Client Project ID: **YSI**
Lab Sample ID: 31501597009-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 88.90

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	**2.53**	J	0.949	22.4	ug/Kg	1	09/4/2015 17:51
Pentachloroethane	ND	U	0.705	11.2	ug/Kg	1	09/4/2015 17:51
Propionitrile	ND	U	9.47	112	ug/Kg	1	09/4/2015 17:51
Styrene	ND	U	0.798	5.59	ug/Kg	1	09/4/2015 17:51
Tetrachloroethene	ND	U	1.42	5.59	ug/Kg	1	09/4/2015 17:51
Toluene	ND	U	0.996	5.59	ug/Kg	1	09/4/2015 17:51
Trichloroethene	ND	U	1.22	5.59	ug/Kg	1	09/4/2015 17:51
Trichlorofluoromethane	ND	U	1.24	5.59	ug/Kg	1	09/4/2015 17:51
Trichlorotrifluoroethane	ND	U	5.59	5.59	ug/Kg	1	09/4/2015 17:51
Vinyl acetate	ND	U	2.25	14.0	ug/Kg	1	09/4/2015 17:51
Vinyl chloride	ND	U	0.786	5.59	ug/Kg	1	09/4/2015 17:51
cis-1,2-Dichloroethene	ND	U	1.07	5.59	ug/Kg	1	09/4/2015 17:51
m,p-Xylene	ND	U	1.63	11.2	ug/Kg	1	09/4/2015 17:51
o-Xylene	ND	U	0.821	5.59	ug/Kg	1	09/4/2015 17:51
trans-1,2-Dichloroethene	ND	U	1.41	5.59	ug/Kg	1	09/4/2015 17:51
trans-1,4-Dichloro-2-butene	ND	U	2.83	28.0	ug/Kg	1	09/4/2015 17:51
Surrogates							
1,2-Dichloroethane-d4	110			55.0-173	%	1	09/4/2015 17:51
4-Bromofluorobenzene	91.0			23.0-141	%	1	09/4/2015 17:51
Toluene d8	100			57.0-134	%	1	09/4/2015 17:51

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **5.03 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-4 (6-8)**

Client Sample ID: **SB-4 (6-8)**
Client Project ID: **YSI**
Lab Sample ID: 31501597010-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 83.90

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.414	3.91	ug/Kg	1	09/4/2015 16:56
1,1,1-Trichloroethane	**13.0**		0.860	3.91	ug/Kg	1	09/4/2015 16:56
1,1,2,2-Tetrachloroethane	ND	U	0.484	3.91	ug/Kg	1	09/4/2015 16:56
1,1,2-Trichloroethane	ND	U	0.598	3.91	ug/Kg	1	09/4/2015 16:56
1,1-Dichloroethane	ND	U	0.742	3.91	ug/Kg	1	09/4/2015 16:56
1,1-Dichloroethene	ND	U	0.601	3.91	ug/Kg	1	09/4/2015 16:56
1,2,3-Trichloropropane	ND	U	0.466	3.91	ug/Kg	1	09/4/2015 16:56
1,2,4-Trimethylbenzene	**3.07**	J	0.570	3.91	ug/Kg	1	09/4/2015 16:56
1,2-Dibromo-3-chloropropane	ND	U	4.00	23.5	ug/Kg	1	09/4/2015 16:56
1,2-Dibromoethane	ND	U	0.570	3.91	ug/Kg	1	09/4/2015 16:56
1,2-Dichloroethane	ND	U	0.429	3.91	ug/Kg	1	09/4/2015 16:56
1,2-Dichloropropane	ND	U	0.533	3.91	ug/Kg	1	09/4/2015 16:56
1,4 Dioxane	ND	U	53.3	391	ug/Kg	1	09/4/2015 16:56
2-Butanone	ND	U	1.33	19.6	ug/Kg	1	09/4/2015 16:56
2-Hexanone	ND	U	1.81	9.78	ug/Kg	1	09/4/2015 16:56
4-Methyl-2-pentanone	ND	U	1.21	9.78	ug/Kg	1	09/4/2015 16:56
Acetone	ND	U	0.970	39.1	ug/Kg	1	09/4/2015 16:56
Acetonitrile	ND	U	9.62	78.2	ug/Kg	1	09/4/2015 16:56
Acrolein	ND	U	5.00	39.1	ug/Kg	1	09/4/2015 16:56
Acrylonitrile	ND	U	6.69	39.1	ug/Kg	1	09/4/2015 16:56
Allyl chloride	ND	U	0.679	3.91	ug/Kg	1	09/4/2015 16:56
Benzene	**3.04**	J	0.580	3.91	ug/Kg	1	09/4/2015 16:56
Bromodichloromethane	ND	U	0.537	3.91	ug/Kg	1	09/4/2015 16:56
Bromoform	ND	U	0.350	3.91	ug/Kg	1	09/4/2015 16:56
Bromomethane	ND	U	0.727	3.91	ug/Kg	1	09/4/2015 16:56
Carbon disulfide	ND	U	1.93	3.91	ug/Kg	1	09/4/2015 16:56
Carbon tetrachloride	**1.85**	J	0.722	3.91	ug/Kg	1	09/4/2015 16:56
Chlorobenzene	ND	U	0.526	3.91	ug/Kg	1	09/4/2015 16:56
Chloroethane	ND	U	0.446	3.91	ug/Kg	1	09/4/2015 16:56
Chloroform	ND	U	0.702	3.91	ug/Kg	1	09/4/2015 16:56
Chloromethane	ND	U	0.709	3.91	ug/Kg	1	09/4/2015 16:56
Chloroprene	ND	U	0.290	3.91	ug/Kg	1	09/4/2015 16:56
Dibromochloromethane	ND	U	0.486	3.91	ug/Kg	1	09/4/2015 16:56
Dibromomethane	ND	U	0.620	3.91	ug/Kg	1	09/4/2015 16:56
Dichlorodifluoromethane	ND	U	0.592	3.91	ug/Kg	1	09/4/2015 16:56
cis-1,3-Dichloropropene	ND	U	0.424	3.91	ug/Kg	1	09/4/2015 16:56
trans-1,3-Dichloropropene	ND	U	0.391	3.91	ug/Kg	1	09/4/2015 16:56
Ethyl Benzene	**3.25**	J	0.667	3.91	ug/Kg	1	09/4/2015 16:56
Ethyl methacrylate	ND	U	0.332	3.91	ug/Kg	1	09/4/2015 16:56
Methyl iodide	ND	U	0.545	3.91	ug/Kg	1	09/4/2015 16:56
Methyl methacrylate	ND	U	0.400	3.91	ug/Kg	1	09/4/2015 16:56
Methylacrylonitrile	ND	U	3.72	39.1	ug/Kg	1	09/4/2015 16:56

Results of **SB-4 (6-8)**

Client Sample ID: **SB-4 (6-8)**
Client Project ID: **YSI**
Lab Sample ID: 31501597010-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 83.90

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.663	15.6	ug/Kg	1	09/4/2015 16:56
Pentachloroethane	ND	U	0.493	7.82	ug/Kg	1	09/4/2015 16:56
Propionitrile	ND	U	6.62	78.2	ug/Kg	1	09/4/2015 16:56
Styrene	ND	U	0.558	3.91	ug/Kg	1	09/4/2015 16:56
Tetrachloroethene	**6.21**		0.993	3.91	ug/Kg	1	09/4/2015 16:56
Toluene	**9.34**		0.696	3.91	ug/Kg	1	09/4/2015 16:56
Trichloroethene	ND	U	0.853	3.91	ug/Kg	1	09/4/2015 16:56
Trichlorofluoromethane	ND	U	0.868	3.91	ug/Kg	1	09/4/2015 16:56
Trichlorotrifluoroethane	ND	U	3.91	3.91	ug/Kg	1	09/4/2015 16:56
Vinyl acetate	ND	U	1.57	9.78	ug/Kg	1	09/4/2015 16:56
Vinyl chloride	ND	U	0.550	3.91	ug/Kg	1	09/4/2015 16:56
cis-1,2-Dichloroethene	ND	U	0.745	3.91	ug/Kg	1	09/4/2015 16:56
m,p-Xylene	**4.94**	J	1.14	7.82	ug/Kg	1	09/4/2015 16:56
o-Xylene	**2.15**	J	0.574	3.91	ug/Kg	1	09/4/2015 16:56
trans-1,2-Dichloroethene	ND	U	0.985	3.91	ug/Kg	1	09/4/2015 16:56
trans-1,4-Dichloro-2-butene	ND	U	1.98	19.6	ug/Kg	1	09/4/2015 16:56
Surrogates							
1,2-Dichloroethane-d4	111			55.0-173	%	1	09/4/2015 16:56
4-Bromofluorobenzene	94.0			23.0-141	%	1	09/4/2015 16:56
Toluene d8	105			57.0-134	%	1	09/4/2015 16:56

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **7.62 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

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Results of **SB-4 (10-12)**

Client Sample ID: **SB-4 (10-12)**
Client Project ID: **YSI**
Lab Sample ID: 31501597011-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 82.30

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.420	3.97	ug/Kg	1	09/4/2015 16:30
1,1,1-Trichloroethane	**24.6**		0.874	3.97	ug/Kg	1	09/4/2015 16:30
1,1,2,2-Tetrachloroethane	ND	U	0.492	3.97	ug/Kg	1	09/4/2015 16:30
1,1,2-Trichloroethane	ND	U	0.607	3.97	ug/Kg	1	09/4/2015 16:30
1,1-Dichloroethane	**5.84**		0.754	3.97	ug/Kg	1	09/4/2015 16:30
1,1-Dichloroethene	ND	U	0.611	3.97	ug/Kg	1	09/4/2015 16:30
1,2,3-Trichloropropane	ND	U	0.473	3.97	ug/Kg	1	09/4/2015 16:30
1,2,4-Trimethylbenzene	**3.52**	J	0.579	3.97	ug/Kg	1	09/4/2015 16:30
1,2-Dibromo-3-chloropropane	ND	U	4.07	23.8	ug/Kg	1	09/4/2015 16:30
1,2-Dibromoethane	ND	U	0.579	3.97	ug/Kg	1	09/4/2015 16:30
1,2-Dichloroethane	ND	U	0.436	3.97	ug/Kg	1	09/4/2015 16:30
1,2-Dichloropropane	ND	U	0.542	3.97	ug/Kg	1	09/4/2015 16:30
1,4 Dioxane	ND	U	54.1	397	ug/Kg	1	09/4/2015 16:30
2-Butanone	ND	U	1.35	19.9	ug/Kg	1	09/4/2015 16:30
2-Hexanone	ND	U	1.84	9.93	ug/Kg	1	09/4/2015 16:30
4-Methyl-2-pentanone	ND	U	1.23	9.93	ug/Kg	1	09/4/2015 16:30
Acetone	**7.38**	J	0.985	39.7	ug/Kg	1	09/4/2015 16:30
Acetonitrile	ND	U	9.77	79.4	ug/Kg	1	09/4/2015 16:30
Acrolein	ND	U	5.08	39.7	ug/Kg	1	09/4/2015 16:30
Acrylonitrile	ND	U	6.80	39.7	ug/Kg	1	09/4/2015 16:30
Allyl chloride	ND	U	0.689	3.97	ug/Kg	1	09/4/2015 16:30
Benzene	**5.54**		0.589	3.97	ug/Kg	1	09/4/2015 16:30
Bromodichloromethane	ND	U	0.546	3.97	ug/Kg	1	09/4/2015 16:30
Bromoform	ND	U	0.356	3.97	ug/Kg	1	09/4/2015 16:30
Bromomethane	ND	U	0.739	3.97	ug/Kg	1	09/4/2015 16:30
Carbon disulfide	ND	U	1.96	3.97	ug/Kg	1	09/4/2015 16:30
Carbon tetrachloride	**3.49**	J	0.733	3.97	ug/Kg	1	09/4/2015 16:30
Chlorobenzene	ND	U	0.535	3.97	ug/Kg	1	09/4/2015 16:30
Chloroethane	ND	U	0.453	3.97	ug/Kg	1	09/4/2015 16:30
Chloroform	ND	U	0.713	3.97	ug/Kg	1	09/4/2015 16:30
Chloromethane	**1.76**	J	0.720	3.97	ug/Kg	1	09/4/2015 16:30
Chloroprene	ND	U	0.295	3.97	ug/Kg	1	09/4/2015 16:30
Dibromochloromethane	ND	U	0.493	3.97	ug/Kg	1	09/4/2015 16:30
Dibromomethane	ND	U	0.630	3.97	ug/Kg	1	09/4/2015 16:30
Dichlorodifluoromethane	ND	U	0.601	3.97	ug/Kg	1	09/4/2015 16:30
cis-1,3-Dichloropropene	ND	U	0.430	3.97	ug/Kg	1	09/4/2015 16:30
trans-1,3-Dichloropropene	ND	U	0.397	3.97	ug/Kg	1	09/4/2015 16:30
Ethyl Benzene	**4.54**		0.677	3.97	ug/Kg	1	09/4/2015 16:30
Ethyl methacrylate	ND	U	0.337	3.97	ug/Kg	1	09/4/2015 16:30
Methyl iodide	ND	U	0.554	3.97	ug/Kg	1	09/4/2015 16:30
Methyl methacrylate	ND	U	0.406	3.97	ug/Kg	1	09/4/2015 16:30
Methylacrylonitrile	ND	U	3.77	39.7	ug/Kg	1	09/4/2015 16:30

Print Date: 09/14/2015

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Results of **SB-4 (10-12)**

Client Sample ID: **SB-4 (10-12)**
Client Project ID: **YSI**
Lab Sample ID: 31501597011-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 82.30

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.674	15.9	ug/Kg	1	09/4/2015 16:30
Pentachloroethane	ND	U	0.500	7.94	ug/Kg	1	09/4/2015 16:30
Propionitrile	ND	U	6.73	79.4	ug/Kg	1	09/4/2015 16:30
Styrene	ND	U	0.566	3.97	ug/Kg	1	09/4/2015 16:30
Tetrachloroethene	ND	U	1.01	3.97	ug/Kg	1	09/4/2015 16:30
Toluene	**14.6**		0.707	3.97	ug/Kg	1	09/4/2015 16:30
Trichloroethene	ND	U	0.866	3.97	ug/Kg	1	09/4/2015 16:30
Trichlorofluoromethane	ND	U	0.882	3.97	ug/Kg	1	09/4/2015 16:30
Trichlorotrifluoroethane	ND	U	3.97	3.97	ug/Kg	1	09/4/2015 16:30
Vinyl acetate	ND	U	1.60	9.93	ug/Kg	1	09/4/2015 16:30
Vinyl chloride	ND	U	0.558	3.97	ug/Kg	1	09/4/2015 16:30
cis-1,2-Dichloroethene	ND	U	0.757	3.97	ug/Kg	1	09/4/2015 16:30
m,p-Xylene	**7.08**	J	1.16	7.94	ug/Kg	1	09/4/2015 16:30
o-Xylene	**3.03**	J	0.583	3.97	ug/Kg	1	09/4/2015 16:30
trans-1,2-Dichloroethene	ND	U	1.00	3.97	ug/Kg	1	09/4/2015 16:30
trans-1,4-Dichloro-2-butene	ND	U	2.01	19.9	ug/Kg	1	09/4/2015 16:30
Surrogates							
1,2-Dichloroethane-d4	112			55.0-173	%	1	09/4/2015 16:30
4-Bromofluorobenzene	94.0			23.0-141	%	1	09/4/2015 16:30
Toluene d8	103			57.0-134	%	1	09/4/2015 16:30

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **7.65 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-5 (4-6)**

Client Sample ID: **SB-5 (4-6)**
Client Project ID: **YSI**
Lab Sample ID: 31501597012-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 88.10

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.411	3.89	ug/Kg	1	09/4/2015 16:03
1,1,1-Trichloroethane	ND	U	0.855	3.89	ug/Kg	1	09/4/2015 16:03
1,1,2,2-Tetrachloroethane	ND	U	0.481	3.89	ug/Kg	1	09/4/2015 16:03
1,1,2-Trichloroethane	ND	U	0.594	3.89	ug/Kg	1	09/4/2015 16:03
1,1-Dichloroethane	**7.15**		0.738	3.89	ug/Kg	1	09/4/2015 16:03
1,1-Dichloroethene	ND	U	0.598	3.89	ug/Kg	1	09/4/2015 16:03
1,2,3-Trichloropropane	ND	U	0.463	3.89	ug/Kg	1	09/4/2015 16:03
1,2,4-Trimethylbenzene	**4.43**		0.567	3.89	ug/Kg	1	09/4/2015 16:03
1,2-Dibromo-3-chloropropane	ND	U	3.98	23.3	ug/Kg	1	09/4/2015 16:03
1,2-Dibromoethane	ND	U	0.567	3.89	ug/Kg	1	09/4/2015 16:03
1,2-Dichloroethane	ND	U	0.427	3.89	ug/Kg	1	09/4/2015 16:03
1,2-Dichloropropane	ND	U	0.530	3.89	ug/Kg	1	09/4/2015 16:03
1,4 Dioxane	ND	U	52.9	389	ug/Kg	1	09/4/2015 16:03
2-Butanone	ND	U	1.32	19.4	ug/Kg	1	09/4/2015 16:03
2-Hexanone	ND	U	1.80	9.71	ug/Kg	1	09/4/2015 16:03
4-Methyl-2-pentanone	ND	U	1.20	9.71	ug/Kg	1	09/4/2015 16:03
Acetone	**9.40**	J	0.964	38.9	ug/Kg	1	09/4/2015 16:03
Acetonitrile	ND	U	9.56	77.7	ug/Kg	1	09/4/2015 16:03
Acrolein	ND	U	4.97	38.9	ug/Kg	1	09/4/2015 16:03
Acrylonitrile	ND	U	6.65	38.9	ug/Kg	1	09/4/2015 16:03
Allyl chloride	ND	U	0.675	3.89	ug/Kg	1	09/4/2015 16:03
Benzene	**5.11**		0.577	3.89	ug/Kg	1	09/4/2015 16:03
Bromodichloromethane	ND	U	0.534	3.89	ug/Kg	1	09/4/2015 16:03
Bromoform	ND	U	0.348	3.89	ug/Kg	1	09/4/2015 16:03
Bromomethane	ND	U	0.723	3.89	ug/Kg	1	09/4/2015 16:03
Carbon disulfide	ND	U	1.92	3.89	ug/Kg	1	09/4/2015 16:03
Carbon tetrachloride	ND	U	0.717	3.89	ug/Kg	1	09/4/2015 16:03
Chlorobenzene	ND	U	0.523	3.89	ug/Kg	1	09/4/2015 16:03
Chloroethane	ND	U	0.443	3.89	ug/Kg	1	09/4/2015 16:03
Chloroform	ND	U	0.698	3.89	ug/Kg	1	09/4/2015 16:03
Chloromethane	ND	U	0.705	3.89	ug/Kg	1	09/4/2015 16:03
Chloroprene	ND	U	0.288	3.89	ug/Kg	1	09/4/2015 16:03
Dibromochloromethane	ND	U	0.483	3.89	ug/Kg	1	09/4/2015 16:03
Dibromomethane	ND	U	0.616	3.89	ug/Kg	1	09/4/2015 16:03
Dichlorodifluoromethane	ND	U	0.588	3.89	ug/Kg	1	09/4/2015 16:03
cis-1,3-Dichloropropene	ND	U	0.421	3.89	ug/Kg	1	09/4/2015 16:03
trans-1,3-Dichloropropene	ND	U	0.389	3.89	ug/Kg	1	09/4/2015 16:03
Ethyl Benzene	**5.88**		0.663	3.89	ug/Kg	1	09/4/2015 16:03
Ethyl methacrylate	ND	U	0.330	3.89	ug/Kg	1	09/4/2015 16:03
Methyl iodide	ND	U	0.542	3.89	ug/Kg	1	09/4/2015 16:03
Methyl methacrylate	ND	U	0.397	3.89	ug/Kg	1	09/4/2015 16:03
Methylacrylonitrile	ND	U	3.69	38.9	ug/Kg	1	09/4/2015 16:03

Print Date: 09/14/2015

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Results of **SB-5 (4-6)**

Client Sample ID: **SB-5 (4-6)**
Client Project ID: **YSI**
Lab Sample ID: 31501597012-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 88.10

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.659	15.5	ug/Kg	1	09/4/2015 16:03
Pentachloroethane	ND	U	0.490	7.77	ug/Kg	1	09/4/2015 16:03
Propionitrile	ND	U	6.58	77.7	ug/Kg	1	09/4/2015 16:03
Styrene	ND	U	0.554	3.89	ug/Kg	1	09/4/2015 16:03
Tetrachloroethene	ND	U	0.987	3.89	ug/Kg	1	09/4/2015 16:03
Toluene	**15.4**		0.692	3.89	ug/Kg	1	09/4/2015 16:03
Trichloroethene	ND	U	0.847	3.89	ug/Kg	1	09/4/2015 16:03
Trichlorofluoromethane	ND	U	0.863	3.89	ug/Kg	1	09/4/2015 16:03
Trichlorotrifluoroethane	ND	U	3.89	3.89	ug/Kg	1	09/4/2015 16:03
Vinyl acetate	ND	U	1.56	9.71	ug/Kg	1	09/4/2015 16:03
Vinyl chloride	ND	U	0.546	3.89	ug/Kg	1	09/4/2015 16:03
cis-1,2-Dichloroethene	**1.94**	J	0.741	3.89	ug/Kg	1	09/4/2015 16:03
m,p-Xylene	**7.86**		1.13	7.77	ug/Kg	1	09/4/2015 16:03
o-Xylene	**3.68**	J	0.570	3.89	ug/Kg	1	09/4/2015 16:03
trans-1,2-Dichloroethene	ND	U	0.979	3.89	ug/Kg	1	09/4/2015 16:03
trans-1,4-Dichloro-2-butene	ND	U	1.97	19.4	ug/Kg	1	09/4/2015 16:03
Surrogates							
1,2-Dichloroethane-d4	115			55.0-173	%	1	09/4/2015 16:03
4-Bromofluorobenzene	94.0			23.0-141	%	1	09/4/2015 16:03
Toluene d8	106			57.0-134	%	1	09/4/2015 16:03

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **7.3 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-5 (6-8)**

Client Sample ID: **SB-5 (6-8)**
Client Project ID: **YSI**
Lab Sample ID: 31501597013-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 88.00

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.382	3.61	ug/Kg	1	09/4/2015 15:36
1,1,1-Trichloroethane	ND	U	0.795	3.61	ug/Kg	1	09/4/2015 15:36
1,1,2,2-Tetrachloroethane	ND	U	0.447	3.61	ug/Kg	1	09/4/2015 15:36
1,1,2-Trichloroethane	ND	U	0.552	3.61	ug/Kg	1	09/4/2015 15:36
1,1-Dichloroethane	**6.79**		0.686	3.61	ug/Kg	1	09/4/2015 15:36
1,1-Dichloroethene	ND	U	0.556	3.61	ug/Kg	1	09/4/2015 15:36
1,2,3-Trichloropropane	ND	U	0.431	3.61	ug/Kg	1	09/4/2015 15:36
1,2,4-Trimethylbenzene	ND	U	0.527	3.61	ug/Kg	1	09/4/2015 15:36
1,2-Dibromo-3-chloropropane	ND	U	3.70	21.7	ug/Kg	1	09/4/2015 15:36
1,2-Dibromoethane	ND	U	0.527	3.61	ug/Kg	1	09/4/2015 15:36
1,2-Dichloroethane	ND	U	0.397	3.61	ug/Kg	1	09/4/2015 15:36
1,2-Dichloropropane	ND	U	0.493	3.61	ug/Kg	1	09/4/2015 15:36
1,4 Dioxane	ND	U	49.2	361	ug/Kg	1	09/4/2015 15:36
2-Butanone	ND	U	1.23	18.1	ug/Kg	1	09/4/2015 15:36
2-Hexanone	ND	U	1.68	9.03	ug/Kg	1	09/4/2015 15:36
4-Methyl-2-pentanone	ND	U	1.12	9.03	ug/Kg	1	09/4/2015 15:36
Acetone	ND	U	0.896	36.1	ug/Kg	1	09/4/2015 15:36
Acetonitrile	ND	U	8.89	72.3	ug/Kg	1	09/4/2015 15:36
Acrolein	ND	U	4.62	36.1	ug/Kg	1	09/4/2015 15:36
Acrylonitrile	ND	U	6.19	36.1	ug/Kg	1	09/4/2015 15:36
Allyl chloride	ND	U	0.627	3.61	ug/Kg	1	09/4/2015 15:36
Benzene	**1.47**	J	0.536	3.61	ug/Kg	1	09/4/2015 15:36
Bromodichloromethane	ND	U	0.497	3.61	ug/Kg	1	09/4/2015 15:36
Bromoform	ND	U	0.324	3.61	ug/Kg	1	09/4/2015 15:36
Bromomethane	ND	U	0.672	3.61	ug/Kg	1	09/4/2015 15:36
Carbon disulfide	ND	U	1.79	3.61	ug/Kg	1	09/4/2015 15:36
Carbon tetrachloride	ND	U	0.667	3.61	ug/Kg	1	09/4/2015 15:36
Chlorobenzene	ND	U	0.486	3.61	ug/Kg	1	09/4/2015 15:36
Chloroethane	ND	U	0.412	3.61	ug/Kg	1	09/4/2015 15:36
Chloroform	ND	U	0.649	3.61	ug/Kg	1	09/4/2015 15:36
Chloromethane	ND	U	0.656	3.61	ug/Kg	1	09/4/2015 15:36
Chloroprene	ND	U	0.268	3.61	ug/Kg	1	09/4/2015 15:36
Dibromochloromethane	ND	U	0.449	3.61	ug/Kg	1	09/4/2015 15:36
Dibromomethane	ND	U	0.573	3.61	ug/Kg	1	09/4/2015 15:36
Dichlorodifluoromethane	ND	U	0.547	3.61	ug/Kg	1	09/4/2015 15:36
cis-1,3-Dichloropropene	ND	U	0.392	3.61	ug/Kg	1	09/4/2015 15:36
trans-1,3-Dichloropropene	ND	U	0.361	3.61	ug/Kg	1	09/4/2015 15:36
Ethyl Benzene	ND	U	0.616	3.61	ug/Kg	1	09/4/2015 15:36
Ethyl methacrylate	ND	U	0.306	3.61	ug/Kg	1	09/4/2015 15:36
Methyl iodide	ND	U	0.504	3.61	ug/Kg	1	09/4/2015 15:36
Methyl methacrylate	ND	U	0.369	3.61	ug/Kg	1	09/4/2015 15:36
Methylacrylonitrile	ND	U	3.43	36.1	ug/Kg	1	09/4/2015 15:36

Print Date: 09/14/2015

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Results of **SB-5 (6-8)**

Client Sample ID: **SB-5 (6-8)**
Client Project ID: **YSI**
Lab Sample ID: 31501597013-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 88.00

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.613	14.5	ug/Kg	1	09/4/2015 15:36
Pentachloroethane	ND	U	0.455	7.23	ug/Kg	1	09/4/2015 15:36
Propionitrile	ND	U	6.12	72.3	ug/Kg	1	09/4/2015 15:36
Styrene	ND	U	0.515	3.61	ug/Kg	1	09/4/2015 15:36
Tetrachloroethene	ND	U	0.918	3.61	ug/Kg	1	09/4/2015 15:36
Toluene	**3.92**		0.643	3.61	ug/Kg	1	09/4/2015 15:36
Trichloroethene	ND	U	0.788	3.61	ug/Kg	1	09/4/2015 15:36
Trichlorofluoromethane	ND	U	0.802	3.61	ug/Kg	1	09/4/2015 15:36
Trichlorotrifluoroethane	ND	U	3.61	3.61	ug/Kg	1	09/4/2015 15:36
Vinyl acetate	ND	U	1.45	9.03	ug/Kg	1	09/4/2015 15:36
Vinyl chloride	ND	U	0.508	3.61	ug/Kg	1	09/4/2015 15:36
cis-1,2-Dichloroethene	ND	U	0.689	3.61	ug/Kg	1	09/4/2015 15:36
m,p-Xylene	**1.67**	J	1.06	7.23	ug/Kg	1	09/4/2015 15:36
o-Xylene	ND	U	0.530	3.61	ug/Kg	1	09/4/2015 15:36
trans-1,2-Dichloroethene	ND	U	0.911	3.61	ug/Kg	1	09/4/2015 15:36
trans-1,4-Dichloro-2-butene	ND	U	1.83	18.1	ug/Kg	1	09/4/2015 15:36
Surrogates							
1,2-Dichloroethane-d4	115			55.0-173	%	1	09/4/2015 15:36
4-Bromofluorobenzene	93.0			23.0-141	%	1	09/4/2015 15:36
Toluene d8	101			57.0-134	%	1	09/4/2015 15:36

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **7.86 g**
Prep Extract Vol: **5 mL**

Results of **SB-6 (2-4)**

Client Sample ID: **SB-6 (2-4)**
Client Project ID: **YSI**
Lab Sample ID: 31501597014-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 84.50

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.428	4.04	ug/Kg	1	09/4/2015 15:09
1,1,1-Trichloroethane	ND	U	0.889	4.04	ug/Kg	1	09/4/2015 15:09
1,1,2,2-Tetrachloroethane	ND	U	0.501	4.04	ug/Kg	1	09/4/2015 15:09
1,1,2-Trichloroethane	ND	U	0.618	4.04	ug/Kg	1	09/4/2015 15:09
1,1-Dichloroethane	ND	U	0.767	4.04	ug/Kg	1	09/4/2015 15:09
1,1-Dichloroethene	ND	U	0.622	4.04	ug/Kg	1	09/4/2015 15:09
1,2,3-Trichloropropane	ND	U	0.482	4.04	ug/Kg	1	09/4/2015 15:09
1,2,4-Trimethylbenzene	**3.26**	J	0.589	4.04	ug/Kg	1	09/4/2015 15:09
1,2-Dibromo-3-chloropropane	ND	U	4.14	24.3	ug/Kg	1	09/4/2015 15:09
1,2-Dibromoethane	ND	U	0.589	4.04	ug/Kg	1	09/4/2015 15:09
1,2-Dichloroethane	ND	U	0.444	4.04	ug/Kg	1	09/4/2015 15:09
1,2-Dichloropropane	ND	U	0.551	4.04	ug/Kg	1	09/4/2015 15:09
1,4 Dioxane	ND	U	55.1	404	ug/Kg	1	09/4/2015 15:09
2-Butanone	ND	U	1.37	20.2	ug/Kg	1	09/4/2015 15:09
2-Hexanone	ND	U	1.88	10.1	ug/Kg	1	09/4/2015 15:09
4-Methyl-2-pentanone	ND	U	1.25	10.1	ug/Kg	1	09/4/2015 15:09
Acetone	**10.2**	J	1.00	40.4	ug/Kg	1	09/4/2015 15:09
Acetonitrile	ND	U	9.95	80.9	ug/Kg	1	09/4/2015 15:09
Acrolein	ND	U	5.17	40.4	ug/Kg	1	09/4/2015 15:09
Acrylonitrile	ND	U	6.92	40.4	ug/Kg	1	09/4/2015 15:09
Allyl chloride	ND	U	0.702	4.04	ug/Kg	1	09/4/2015 15:09
Benzene	**3.06**	J	0.600	4.04	ug/Kg	1	09/4/2015 15:09
Bromodichloromethane	ND	U	0.555	4.04	ug/Kg	1	09/4/2015 15:09
Bromoform	ND	U	0.362	4.04	ug/Kg	1	09/4/2015 15:09
Bromomethane	ND	U	0.752	4.04	ug/Kg	1	09/4/2015 15:09
Carbon disulfide	ND	U	2.00	4.04	ug/Kg	1	09/4/2015 15:09
Carbon tetrachloride	ND	U	0.746	4.04	ug/Kg	1	09/4/2015 15:09
Chlorobenzene	ND	U	0.544	4.04	ug/Kg	1	09/4/2015 15:09
Chloroethane	ND	U	0.461	4.04	ug/Kg	1	09/4/2015 15:09
Chloroform	ND	U	0.726	4.04	ug/Kg	1	09/4/2015 15:09
Chloromethane	ND	U	0.733	4.04	ug/Kg	1	09/4/2015 15:09
Chloroprene	ND	U	0.300	4.04	ug/Kg	1	09/4/2015 15:09
Dibromochloromethane	ND	U	0.502	4.04	ug/Kg	1	09/4/2015 15:09
Dibromomethane	ND	U	0.641	4.04	ug/Kg	1	09/4/2015 15:09
Dichlorodifluoromethane	ND	U	0.612	4.04	ug/Kg	1	09/4/2015 15:09
cis-1,3-Dichloropropene	ND	U	0.438	4.04	ug/Kg	1	09/4/2015 15:09
trans-1,3-Dichloropropene	ND	U	0.404	4.04	ug/Kg	1	09/4/2015 15:09
Ethyl Benzene	**3.78**	J	0.690	4.04	ug/Kg	1	09/4/2015 15:09
Ethyl methacrylate	ND	U	0.343	4.04	ug/Kg	1	09/4/2015 15:09
Methyl iodide	ND	U	0.564	4.04	ug/Kg	1	09/4/2015 15:09
Methyl methacrylate	ND	U	0.413	4.04	ug/Kg	1	09/4/2015 15:09
Methylacrylonitrile	ND	U	3.84	40.4	ug/Kg	1	09/4/2015 15:09

Print Date: 09/14/2015

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Results of **SB-6 (2-4)**

Client Sample ID: **SB-6 (2-4)**
Client Project ID: **YSI**
Lab Sample ID: 31501597014-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 84.50

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.686	16.2	ug/Kg	1	09/4/2015 15:09
Pentachloroethane	ND	U	0.509	8.09	ug/Kg	1	09/4/2015 15:09
Propionitrile	ND	U	6.85	80.9	ug/Kg	1	09/4/2015 15:09
Styrene	ND	U	0.577	4.04	ug/Kg	1	09/4/2015 15:09
Tetrachloroethene	ND	U	1.03	4.04	ug/Kg	1	09/4/2015 15:09
Toluene	**9.64**		0.720	4.04	ug/Kg	1	09/4/2015 15:09
Trichloroethene	ND	U	0.881	4.04	ug/Kg	1	09/4/2015 15:09
Trichlorofluoromethane	ND	U	0.898	4.04	ug/Kg	1	09/4/2015 15:09
Trichlorotrifluoroethane	ND	U	4.04	4.04	ug/Kg	1	09/4/2015 15:09
Vinyl acetate	ND	U	1.63	10.1	ug/Kg	1	09/4/2015 15:09
Vinyl chloride	ND	U	0.568	4.04	ug/Kg	1	09/4/2015 15:09
cis-1,2-Dichloroethene	ND	U	0.771	4.04	ug/Kg	1	09/4/2015 15:09
m,p-Xylene	**5.13**	J	1.18	8.09	ug/Kg	1	09/4/2015 15:09
o-Xylene	**2.41**	J	0.593	4.04	ug/Kg	1	09/4/2015 15:09
trans-1,2-Dichloroethene	ND	U	1.02	4.04	ug/Kg	1	09/4/2015 15:09
trans-1,4-Dichloro-2-butene	ND	U	2.05	20.2	ug/Kg	1	09/4/2015 15:09
Surrogates							
1,2-Dichloroethane-d4	114			55.0-173	%	1	09/4/2015 15:09
4-Bromofluorobenzene	94.0			23.0-141	%	1	09/4/2015 15:09
Toluene d8	103			57.0-134	%	1	09/4/2015 15:09

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **7.32 g**
Prep Extract Vol: **5 mL**

Results of **SB-6 (6-8))**

Client Sample ID: **SB-6 (6-8))**
Client Project ID: **YSI**
Lab Sample ID: 31501597015-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 88.50

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.390	3.69	ug/Kg	1	09/4/2015 14:42
1,1,1-Trichloroethane	ND	U	0.811	3.69	ug/Kg	1	09/4/2015 14:42
1,1,2,2-Tetrachloroethane	ND	U	0.456	3.69	ug/Kg	1	09/4/2015 14:42
1,1,2-Trichloroethane	ND	U	0.563	3.69	ug/Kg	1	09/4/2015 14:42
1,1-Dichloroethane	ND	U	0.700	3.69	ug/Kg	1	09/4/2015 14:42
1,1-Dichloroethene	ND	U	0.567	3.69	ug/Kg	1	09/4/2015 14:42
1,2,3-Trichloropropane	ND	U	0.440	3.69	ug/Kg	1	09/4/2015 14:42
1,2,4-Trimethylbenzene	**2.20**	J	0.538	3.69	ug/Kg	1	09/4/2015 14:42
1,2-Dibromo-3-chloropropane	ND	U	3.78	22.1	ug/Kg	1	09/4/2015 14:42
1,2-Dibromoethane	ND	U	0.538	3.69	ug/Kg	1	09/4/2015 14:42
1,2-Dichloroethane	ND	U	0.405	3.69	ug/Kg	1	09/4/2015 14:42
1,2-Dichloropropane	ND	U	0.503	3.69	ug/Kg	1	09/4/2015 14:42
1,4 Dioxane	ND	U	50.2	369	ug/Kg	1	09/4/2015 14:42
2-Butanone	ND	U	1.25	18.4	ug/Kg	1	09/4/2015 14:42
2-Hexanone	ND	U	1.71	9.22	ug/Kg	1	09/4/2015 14:42
4-Methyl-2-pentanone	ND	U	1.14	9.22	ug/Kg	1	09/4/2015 14:42
Acetone	**7.13**	J	0.914	36.9	ug/Kg	1	09/4/2015 14:42
Acetonitrile	ND	U	9.07	73.7	ug/Kg	1	09/4/2015 14:42
Acrolein	ND	U	4.71	36.9	ug/Kg	1	09/4/2015 14:42
Acrylonitrile	ND	U	6.31	36.9	ug/Kg	1	09/4/2015 14:42
Allyl chloride	ND	U	0.640	3.69	ug/Kg	1	09/4/2015 14:42
Benzene	**2.17**	J	0.547	3.69	ug/Kg	1	09/4/2015 14:42
Bromodichloromethane	ND	U	0.507	3.69	ug/Kg	1	09/4/2015 14:42
Bromoform	ND	U	0.330	3.69	ug/Kg	1	09/4/2015 14:42
Bromomethane	ND	U	0.686	3.69	ug/Kg	1	09/4/2015 14:42
Carbon disulfide	ND	U	1.82	3.69	ug/Kg	1	09/4/2015 14:42
Carbon tetrachloride	ND	U	0.681	3.69	ug/Kg	1	09/4/2015 14:42
Chlorobenzene	ND	U	0.496	3.69	ug/Kg	1	09/4/2015 14:42
Chloroethane	ND	U	0.420	3.69	ug/Kg	1	09/4/2015 14:42
Chloroform	ND	U	0.662	3.69	ug/Kg	1	09/4/2015 14:42
Chloromethane	ND	U	0.669	3.69	ug/Kg	1	09/4/2015 14:42
Chloroprene	ND	U	0.274	3.69	ug/Kg	1	09/4/2015 14:42
Dibromochloromethane	ND	U	0.458	3.69	ug/Kg	1	09/4/2015 14:42
Dibromomethane	ND	U	0.585	3.69	ug/Kg	1	09/4/2015 14:42
Dichlorodifluoromethane	ND	U	0.558	3.69	ug/Kg	1	09/4/2015 14:42
cis-1,3-Dichloropropene	ND	U	0.400	3.69	ug/Kg	1	09/4/2015 14:42
trans-1,3-Dichloropropene	ND	U	0.369	3.69	ug/Kg	1	09/4/2015 14:42
Ethyl Benzene	**2.13**	J	0.629	3.69	ug/Kg	1	09/4/2015 14:42
Ethyl methacrylate	ND	U	0.313	3.69	ug/Kg	1	09/4/2015 14:42
Methyl iodide	ND	U	0.514	3.69	ug/Kg	1	09/4/2015 14:42
Methyl methacrylate	ND	U	0.377	3.69	ug/Kg	1	09/4/2015 14:42
Methylacrylonitrile	ND	U	3.50	36.9	ug/Kg	1	09/4/2015 14:42

Print Date: 09/14/2015

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Results of **SB-6 (6-8))**

Client Sample ID: **SB-6 (6-8))**
Client Project ID: **YSI**
Lab Sample ID: 31501597015-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 88.50

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.625	14.7	ug/Kg	1	09/4/2015 14:42
Pentachloroethane	ND	U	0.465	7.37	ug/Kg	1	09/4/2015 14:42
Propionitrile	ND	U	6.25	73.7	ug/Kg	1	09/4/2015 14:42
Styrene	ND	U	0.526	3.69	ug/Kg	1	09/4/2015 14:42
Tetrachloroethene	ND	U	0.937	3.69	ug/Kg	1	09/4/2015 14:42
Toluene	**6.28**		0.656	3.69	ug/Kg	1	09/4/2015 14:42
Trichloroethene	ND	U	0.804	3.69	ug/Kg	1	09/4/2015 14:42
Trichlorofluoromethane	ND	U	0.819	3.69	ug/Kg	1	09/4/2015 14:42
Trichlorotrifluoroethane	ND	U	3.69	3.69	ug/Kg	1	09/4/2015 14:42
Vinyl acetate	ND	U	1.48	9.22	ug/Kg	1	09/4/2015 14:42
Vinyl chloride	ND	U	0.518	3.69	ug/Kg	1	09/4/2015 14:42
cis-1,2-Dichloroethene	ND	U	0.703	3.69	ug/Kg	1	09/4/2015 14:42
m,p-Xylene	**3.29**	J	1.08	7.37	ug/Kg	1	09/4/2015 14:42
o-Xylene	**1.50**	J	0.541	3.69	ug/Kg	1	09/4/2015 14:42
trans-1,2-Dichloroethene	ND	U	0.929	3.69	ug/Kg	1	09/4/2015 14:42
trans-1,4-Dichloro-2-butene	ND	U	1.87	18.4	ug/Kg	1	09/4/2015 14:42
Surrogates							
1,2-Dichloroethane-d4	115			55.0-173	%	1	09/4/2015 14:42
4-Bromofluorobenzene	95.0			23.0-141	%	1	09/4/2015 14:42
Toluene d8	105			57.0-134	%	1	09/4/2015 14:42

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **7.66 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

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Results of **SB-7 (2-4)**

Client Sample ID: **SB-7 (2-4)**
Client Project ID: **YSI**
Lab Sample ID: 31501597016-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 87.50

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.394	3.72	ug/Kg	1	09/4/2015 14:16
1,1,1-Trichloroethane	ND	U	0.819	3.72	ug/Kg	1	09/4/2015 14:16
1,1,2,2-Tetrachloroethane	ND	U	0.461	3.72	ug/Kg	1	09/4/2015 14:16
1,1,2-Trichloroethane	ND	U	0.569	3.72	ug/Kg	1	09/4/2015 14:16
1,1-Dichloroethane	ND	U	0.707	3.72	ug/Kg	1	09/4/2015 14:16
1,1-Dichloroethene	ND	U	0.573	3.72	ug/Kg	1	09/4/2015 14:16
1,2,3-Trichloropropane	ND	U	0.444	3.72	ug/Kg	1	09/4/2015 14:16
1,2,4-Trimethylbenzene	**2.84**	J	0.543	3.72	ug/Kg	1	09/4/2015 14:16
1,2-Dibromo-3-chloropropane	ND	U	3.81	22.3	ug/Kg	1	09/4/2015 14:16
1,2-Dibromoethane	ND	U	0.543	3.72	ug/Kg	1	09/4/2015 14:16
1,2-Dichloroethane	ND	U	0.409	3.72	ug/Kg	1	09/4/2015 14:16
1,2-Dichloropropane	ND	U	0.508	3.72	ug/Kg	1	09/4/2015 14:16
1,4 Dioxane	ND	U	50.7	372	ug/Kg	1	09/4/2015 14:16
2-Butanone	ND	U	1.27	18.6	ug/Kg	1	09/4/2015 14:16
2-Hexanone	ND	U	1.73	9.31	ug/Kg	1	09/4/2015 14:16
4-Methyl-2-pentanone	ND	U	1.15	9.31	ug/Kg	1	09/4/2015 14:16
Acetone	**5.80**	J	0.923	37.2	ug/Kg	1	09/4/2015 14:16
Acetonitrile	ND	U	9.16	74.5	ug/Kg	1	09/4/2015 14:16
Acrolein	ND	U	4.76	37.2	ug/Kg	1	09/4/2015 14:16
Acrylonitrile	ND	U	6.37	37.2	ug/Kg	1	09/4/2015 14:16
Allyl chloride	ND	U	0.646	3.72	ug/Kg	1	09/4/2015 14:16
Benzene	**3.78**		0.553	3.72	ug/Kg	1	09/4/2015 14:16
Bromodichloromethane	ND	U	0.512	3.72	ug/Kg	1	09/4/2015 14:16
Bromoform	ND	U	0.334	3.72	ug/Kg	1	09/4/2015 14:16
Bromomethane	ND	U	0.693	3.72	ug/Kg	1	09/4/2015 14:16
Carbon disulfide	ND	U	1.84	3.72	ug/Kg	1	09/4/2015 14:16
Carbon tetrachloride	ND	U	0.687	3.72	ug/Kg	1	09/4/2015 14:16
Chlorobenzene	ND	U	0.501	3.72	ug/Kg	1	09/4/2015 14:16
Chloroethane	ND	U	0.424	3.72	ug/Kg	1	09/4/2015 14:16
Chloroform	ND	U	0.669	3.72	ug/Kg	1	09/4/2015 14:16
Chloromethane	ND	U	0.675	3.72	ug/Kg	1	09/4/2015 14:16
Chloroprene	ND	U	0.276	3.72	ug/Kg	1	09/4/2015 14:16
Dibromochloromethane	ND	U	0.462	3.72	ug/Kg	1	09/4/2015 14:16
Dibromomethane	ND	U	0.591	3.72	ug/Kg	1	09/4/2015 14:16
Dichlorodifluoromethane	ND	U	0.564	3.72	ug/Kg	1	09/4/2015 14:16
cis-1,3-Dichloropropene	ND	U	0.404	3.72	ug/Kg	1	09/4/2015 14:16
trans-1,3-Dichloropropene	ND	U	0.372	3.72	ug/Kg	1	09/4/2015 14:16
Ethyl Benzene	**3.16**	J	0.635	3.72	ug/Kg	1	09/4/2015 14:16
Ethyl methacrylate	ND	U	0.316	3.72	ug/Kg	1	09/4/2015 14:16
Methyl iodide	ND	U	0.519	3.72	ug/Kg	1	09/4/2015 14:16
Methyl methacrylate	ND	U	0.381	3.72	ug/Kg	1	09/4/2015 14:16
Methylacrylonitrile	ND	U	3.54	37.2	ug/Kg	1	09/4/2015 14:16

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-7 (2-4)**

Client Sample ID: **SB-7 (2-4)**
Client Project ID: **YSI**
Lab Sample ID: 31501597016-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 87.50

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.631	14.9	ug/Kg	1	09/4/2015 14:16
Pentachloroethane	ND	U	0.469	7.45	ug/Kg	1	09/4/2015 14:16
Propionitrile	ND	U	6.31	74.5	ug/Kg	1	09/4/2015 14:16
Styrene	ND	U	0.531	3.72	ug/Kg	1	09/4/2015 14:16
Tetrachloroethene	ND	U	0.946	3.72	ug/Kg	1	09/4/2015 14:16
Toluene	**10.4**		0.663	3.72	ug/Kg	1	09/4/2015 14:16
Trichloroethene	ND	U	0.812	3.72	ug/Kg	1	09/4/2015 14:16
Trichlorofluoromethane	ND	U	0.827	3.72	ug/Kg	1	09/4/2015 14:16
Trichlorotrifluoroethane	ND	U	3.72	3.72	ug/Kg	1	09/4/2015 14:16
Vinyl acetate	ND	U	1.50	9.31	ug/Kg	1	09/4/2015 14:16
Vinyl chloride	ND	U	0.523	3.72	ug/Kg	1	09/4/2015 14:16
cis-1,2-Dichloroethene	ND	U	0.710	3.72	ug/Kg	1	09/4/2015 14:16
m,p-Xylene	**5.18**	J	1.09	7.45	ug/Kg	1	09/4/2015 14:16
o-Xylene	**2.09**	J	0.547	3.72	ug/Kg	1	09/4/2015 14:16
trans-1,2-Dichloroethene	ND	U	0.938	3.72	ug/Kg	1	09/4/2015 14:16
trans-1,4-Dichloro-2-butene	ND	U	1.88	18.6	ug/Kg	1	09/4/2015 14:16
Surrogates							
1,2-Dichloroethane-d4	113			55.0-173	%	1	09/4/2015 14:16
4-Bromofluorobenzene	95.0			23.0-141	%	1	09/4/2015 14:16
Toluene d8	102			57.0-134	%	1	09/4/2015 14:16

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **7.67 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-7 (4-6)**

Client Sample ID: **SB-7 (4-6)**
Client Project ID: **YSI**
Lab Sample ID: 31501597017-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 87.20

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.434	4.10	ug/Kg	1	09/4/2015 13:49
1,1,1-Trichloroethane	ND	U	0.903	4.10	ug/Kg	1	09/4/2015 13:49
1,1,2,2-Tetrachloroethane	ND	U	0.508	4.10	ug/Kg	1	09/4/2015 13:49
1,1,2-Trichloroethane	ND	U	0.627	4.10	ug/Kg	1	09/4/2015 13:49
1,1-Dichloroethane	ND	U	0.779	4.10	ug/Kg	1	09/4/2015 13:49
1,1-Dichloroethene	ND	U	0.631	4.10	ug/Kg	1	09/4/2015 13:49
1,2,3-Trichloropropane	ND	U	0.489	4.10	ug/Kg	1	09/4/2015 13:49
1,2,4-Trimethylbenzene	**3.25**	J	0.598	4.10	ug/Kg	1	09/4/2015 13:49
1,2-Dibromo-3-chloropropane	ND	U	4.20	24.6	ug/Kg	1	09/4/2015 13:49
1,2-Dibromoethane	ND	U	0.598	4.10	ug/Kg	1	09/4/2015 13:49
1,2-Dichloroethane	ND	U	0.451	4.10	ug/Kg	1	09/4/2015 13:49
1,2-Dichloropropane	ND	U	0.560	4.10	ug/Kg	1	09/4/2015 13:49
1,4 Dioxane	ND	U	55.9	410	ug/Kg	1	09/4/2015 13:49
2-Butanone	ND	U	1.40	20.5	ug/Kg	1	09/4/2015 13:49
2-Hexanone	ND	U	1.90	10.3	ug/Kg	1	09/4/2015 13:49
4-Methyl-2-pentanone	ND	U	1.27	10.3	ug/Kg	1	09/4/2015 13:49
Acetone	**8.45**	J	1.02	41.0	ug/Kg	1	09/4/2015 13:49
Acetonitrile	ND	U	10.1	82.1	ug/Kg	1	09/4/2015 13:49
Acrolein	ND	U	5.24	41.0	ug/Kg	1	09/4/2015 13:49
Acrylonitrile	ND	U	7.02	41.0	ug/Kg	1	09/4/2015 13:49
Allyl chloride	ND	U	0.712	4.10	ug/Kg	1	09/4/2015 13:49
Benzene	**3.76**	J	0.609	4.10	ug/Kg	1	09/4/2015 13:49
Bromodichloromethane	ND	U	0.564	4.10	ug/Kg	1	09/4/2015 13:49
Bromoform	ND	U	0.368	4.10	ug/Kg	1	09/4/2015 13:49
Bromomethane	ND	U	0.763	4.10	ug/Kg	1	09/4/2015 13:49
Carbon disulfide	ND	U	2.03	4.10	ug/Kg	1	09/4/2015 13:49
Carbon tetrachloride	ND	U	0.757	4.10	ug/Kg	1	09/4/2015 13:49
Chlorobenzene	ND	U	0.552	4.10	ug/Kg	1	09/4/2015 13:49
Chloroethane	ND	U	0.468	4.10	ug/Kg	1	09/4/2015 13:49
Chloroform	ND	U	0.737	4.10	ug/Kg	1	09/4/2015 13:49
Chloromethane	ND	U	0.744	4.10	ug/Kg	1	09/4/2015 13:49
Chloroprene	ND	U	0.304	4.10	ug/Kg	1	09/4/2015 13:49
Dibromochloromethane	ND	U	0.510	4.10	ug/Kg	1	09/4/2015 13:49
Dibromomethane	ND	U	0.651	4.10	ug/Kg	1	09/4/2015 13:49
Dichlorodifluoromethane	ND	U	0.621	4.10	ug/Kg	1	09/4/2015 13:49
cis-1,3-Dichloropropene	ND	U	0.445	4.10	ug/Kg	1	09/4/2015 13:49
trans-1,3-Dichloropropene	ND	U	0.410	4.10	ug/Kg	1	09/4/2015 13:49
Ethyl Benzene	**3.52**	J	0.700	4.10	ug/Kg	1	09/4/2015 13:49
Ethyl methacrylate	ND	U	0.348	4.10	ug/Kg	1	09/4/2015 13:49
Methyl iodide	ND	U	0.572	4.10	ug/Kg	1	09/4/2015 13:49
Methyl methacrylate	ND	U	0.419	4.10	ug/Kg	1	09/4/2015 13:49
Methylacrylonitrile	ND	U	3.90	41.0	ug/Kg	1	09/4/2015 13:49

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-7 (4-6)**

Client Sample ID: **SB-7 (4-6)**
Client Project ID: **YSI**
Lab Sample ID: 31501597017-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 87.20

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.696	16.4	ug/Kg	1	09/4/2015 13:49
Pentachloroethane	ND	U	0.517	8.21	ug/Kg	1	09/4/2015 13:49
Propionitrile	ND	U	6.95	82.1	ug/Kg	1	09/4/2015 13:49
Styrene	ND	U	0.585	4.10	ug/Kg	1	09/4/2015 13:49
Tetrachloroethene	ND	U	1.04	4.10	ug/Kg	1	09/4/2015 13:49
Toluene	**10.5**		0.730	4.10	ug/Kg	1	09/4/2015 13:49
Trichloroethene	ND	U	0.895	4.10	ug/Kg	1	09/4/2015 13:49
Trichlorofluoromethane	ND	U	0.911	4.10	ug/Kg	1	09/4/2015 13:49
Trichlorotrifluoroethane	ND	U	4.10	4.10	ug/Kg	1	09/4/2015 13:49
Vinyl acetate	ND	U	1.65	10.3	ug/Kg	1	09/4/2015 13:49
Vinyl chloride	ND	U	0.577	4.10	ug/Kg	1	09/4/2015 13:49
cis-1,2-Dichloroethene	ND	U	0.782	4.10	ug/Kg	1	09/4/2015 13:49
m,p-Xylene	**5.36**	J	1.20	8.21	ug/Kg	1	09/4/2015 13:49
o-Xylene	**2.31**	J	0.602	4.10	ug/Kg	1	09/4/2015 13:49
trans-1,2-Dichloroethene	ND	U	1.03	4.10	ug/Kg	1	09/4/2015 13:49
trans-1,4-Dichloro-2-butene	ND	U	2.08	20.5	ug/Kg	1	09/4/2015 13:49
Surrogates							
1,2-Dichloroethane-d4	115			55.0-173	%	1	09/4/2015 13:49
4-Bromofluorobenzene	96.0			23.0-141	%	1	09/4/2015 13:49
Toluene d8	105			57.0-134	%	1	09/4/2015 13:49

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **6.99 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-8 (3-6)**

Client Sample ID: **SB-8 (3-6)**
Client Project ID: **YSI**
Lab Sample ID: 31501597018-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 88.20

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.434	4.10	ug/Kg	1	09/4/2015 13:22
1,1,1-Trichloroethane	**3.07**	J	0.903	4.10	ug/Kg	1	09/4/2015 13:22
1,1,2,2-Tetrachloroethane	ND	U	0.508	4.10	ug/Kg	1	09/4/2015 13:22
1,1,2-Trichloroethane	ND	U	0.627	4.10	ug/Kg	1	09/4/2015 13:22
1,1-Dichloroethane	**4.55**		0.779	4.10	ug/Kg	1	09/4/2015 13:22
1,1-Dichloroethene	ND	U	0.631	4.10	ug/Kg	1	09/4/2015 13:22
1,2,3-Trichloropropane	ND	U	0.489	4.10	ug/Kg	1	09/4/2015 13:22
1,2,4-Trimethylbenzene	**2.53**	J	0.598	4.10	ug/Kg	1	09/4/2015 13:22
1,2-Dibromo-3-chloropropane	ND	U	4.20	24.6	ug/Kg	1	09/4/2015 13:22
1,2-Dibromoethane	ND	U	0.598	4.10	ug/Kg	1	09/4/2015 13:22
1,2-Dichloroethane	ND	U	0.450	4.10	ug/Kg	1	09/4/2015 13:22
1,2-Dichloropropane	ND	U	0.560	4.10	ug/Kg	1	09/4/2015 13:22
1,4 Dioxane	ND	U	55.9	410	ug/Kg	1	09/4/2015 13:22
2-Butanone	ND	U	1.39	20.5	ug/Kg	1	09/4/2015 13:22
2-Hexanone	ND	U	1.90	10.3	ug/Kg	1	09/4/2015 13:22
4-Methyl-2-pentanone	ND	U	1.27	10.3	ug/Kg	1	09/4/2015 13:22
Acetone	**13.3**	J	1.02	41.0	ug/Kg	1	09/4/2015 13:22
Acetonitrile	ND	U	10.1	82.1	ug/Kg	1	09/4/2015 13:22
Acrolein	ND	U	5.24	41.0	ug/Kg	1	09/4/2015 13:22
Acrylonitrile	ND	U	7.02	41.0	ug/Kg	1	09/4/2015 13:22
Allyl chloride	ND	U	0.712	4.10	ug/Kg	1	09/4/2015 13:22
Benzene	**3.68**	J	0.609	4.10	ug/Kg	1	09/4/2015 13:22
Bromodichloromethane	ND	U	0.564	4.10	ug/Kg	1	09/4/2015 13:22
Bromoform	ND	U	0.368	4.10	ug/Kg	1	09/4/2015 13:22
Bromomethane	ND	U	0.763	4.10	ug/Kg	1	09/4/2015 13:22
Carbon disulfide	ND	U	2.03	4.10	ug/Kg	1	09/4/2015 13:22
Carbon tetrachloride	ND	U	0.757	4.10	ug/Kg	1	09/4/2015 13:22
Chlorobenzene	ND	U	0.552	4.10	ug/Kg	1	09/4/2015 13:22
Chloroethane	**3.59**	J	0.468	4.10	ug/Kg	1	09/4/2015 13:22
Chloroform	ND	U	0.737	4.10	ug/Kg	1	09/4/2015 13:22
Chloromethane	ND	U	0.744	4.10	ug/Kg	1	09/4/2015 13:22
Chloroprene	ND	U	0.304	4.10	ug/Kg	1	09/4/2015 13:22
Dibromochloromethane	ND	U	0.510	4.10	ug/Kg	1	09/4/2015 13:22
Dibromomethane	ND	U	0.651	4.10	ug/Kg	1	09/4/2015 13:22
Dichlorodifluoromethane	ND	U	0.621	4.10	ug/Kg	1	09/4/2015 13:22
cis-1,3-Dichloropropene	ND	U	0.445	4.10	ug/Kg	1	09/4/2015 13:22
trans-1,3-Dichloropropene	ND	U	0.410	4.10	ug/Kg	1	09/4/2015 13:22
Ethyl Benzene	**3.45**	J	0.700	4.10	ug/Kg	1	09/4/2015 13:22
Ethyl methacrylate	ND	U	0.348	4.10	ug/Kg	1	09/4/2015 13:22
Methyl iodide	ND	U	0.572	4.10	ug/Kg	1	09/4/2015 13:22
Methyl methacrylate	ND	U	0.419	4.10	ug/Kg	1	09/4/2015 13:22
Methylacrylonitrile	ND	U	3.90	41.0	ug/Kg	1	09/4/2015 13:22

Results of **SB-8 (3-6)**

Client Sample ID: **SB-8 (3-6)**
Client Project ID: **YSI**
Lab Sample ID: 31501597018-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 88.20

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.696	16.4	ug/Kg	1	09/4/2015 13:22
Pentachloroethane	ND	U	0.517	8.21	ug/Kg	1	09/4/2015 13:22
Propionitrile	ND	U	6.95	82.1	ug/Kg	1	09/4/2015 13:22
Styrene	ND	U	0.585	4.10	ug/Kg	1	09/4/2015 13:22
Tetrachloroethene	ND	U	1.04	4.10	ug/Kg	1	09/4/2015 13:22
Toluene	**10.2**		0.730	4.10	ug/Kg	1	09/4/2015 13:22
Trichloroethene	ND	U	0.894	4.10	ug/Kg	1	09/4/2015 13:22
Trichlorofluoromethane	ND	U	0.911	4.10	ug/Kg	1	09/4/2015 13:22
Trichlorotrifluoroethane	ND	U	4.10	4.10	ug/Kg	1	09/4/2015 13:22
Vinyl acetate	ND	U	1.65	10.3	ug/Kg	1	09/4/2015 13:22
Vinyl chloride	ND	U	0.577	4.10	ug/Kg	1	09/4/2015 13:22
cis-1,2-Dichloroethene	ND	U	0.782	4.10	ug/Kg	1	09/4/2015 13:22
m,p-Xylene	**4.58**	J	1.20	8.21	ug/Kg	1	09/4/2015 13:22
o-Xylene	**2.19**	J	0.602	4.10	ug/Kg	1	09/4/2015 13:22
trans-1,2-Dichloroethene	ND	U	1.03	4.10	ug/Kg	1	09/4/2015 13:22
trans-1,4-Dichloro-2-butene	ND	U	2.08	20.5	ug/Kg	1	09/4/2015 13:22
Surrogates							
1,2-Dichloroethane-d4	114			55.0-173	%	1	09/4/2015 13:22
4-Bromofluorobenzene	95.0			23.0-141	%	1	09/4/2015 13:22
Toluene d8	102			57.0-134	%	1	09/4/2015 13:22

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **6.91 g**
Prep Extract Vol: **5 mL**

Results of **SB-9 (3-6)**

Client Sample ID: **SB-9 (3-6)**
Client Project ID: **YSI**
Lab Sample ID: 31501597019-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 75.40

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.598	5.65	ug/Kg	1	09/4/2015 12:55
1,1,1-Trichloroethane	**5.99**		1.24	5.65	ug/Kg	1	09/4/2015 12:55
1,1,2,2-Tetrachloroethane	ND	U	0.700	5.65	ug/Kg	1	09/4/2015 12:55
1,1,2-Trichloroethane	ND	U	0.863	5.65	ug/Kg	1	09/4/2015 12:55
1,1-Dichloroethane	**17.7**		1.07	5.65	ug/Kg	1	09/4/2015 12:55
1,1-Dichloroethene	ND	U	0.869	5.65	ug/Kg	1	09/4/2015 12:55
1,2,3-Trichloropropane	ND	U	0.674	5.65	ug/Kg	1	09/4/2015 12:55
1,2,4-Trimethylbenzene	ND	U	0.824	5.65	ug/Kg	1	09/4/2015 12:55
1,2-Dibromo-3-chloropropane	ND	U	5.79	33.9	ug/Kg	1	09/4/2015 12:55
1,2-Dibromoethane	ND	U	0.824	5.65	ug/Kg	1	09/4/2015 12:55
1,2-Dichloroethane	ND	U	0.620	5.65	ug/Kg	1	09/4/2015 12:55
1,2-Dichloropropane	ND	U	0.771	5.65	ug/Kg	1	09/4/2015 12:55
1,4 Dioxane	ND	U	77.0	565	ug/Kg	1	09/4/2015 12:55
2-Butanone	ND	U	1.92	28.3	ug/Kg	1	09/4/2015 12:55
2-Hexanone	ND	U	2.62	14.1	ug/Kg	1	09/4/2015 12:55
4-Methyl-2-pentanone	ND	U	1.75	14.1	ug/Kg	1	09/4/2015 12:55
Acetone	**23.8**	J	1.40	56.5	ug/Kg	1	09/4/2015 12:55
Acetonitrile	ND	U	13.9	113	ug/Kg	1	09/4/2015 12:55
Acrolein	ND	U	7.22	56.5	ug/Kg	1	09/4/2015 12:55
Acrylonitrile	ND	U	9.67	56.5	ug/Kg	1	09/4/2015 12:55
Allyl chloride	ND	U	0.981	5.65	ug/Kg	1	09/4/2015 12:55
Benzene	ND	U	0.839	5.65	ug/Kg	1	09/4/2015 12:55
Bromodichloromethane	ND	U	0.776	5.65	ug/Kg	1	09/4/2015 12:55
Bromoform	ND	U	0.506	5.65	ug/Kg	1	09/4/2015 12:55
Bromomethane	ND	U	1.05	5.65	ug/Kg	1	09/4/2015 12:55
Carbon disulfide	ND	U	2.79	5.65	ug/Kg	1	09/4/2015 12:55
Carbon tetrachloride	ND	U	1.04	5.65	ug/Kg	1	09/4/2015 12:55
Chlorobenzene	ND	U	0.761	5.65	ug/Kg	1	09/4/2015 12:55
Chloroethane	ND	U	0.644	5.65	ug/Kg	1	09/4/2015 12:55
Chloroform	ND	U	1.01	5.65	ug/Kg	1	09/4/2015 12:55
Chloromethane	ND	U	1.03	5.65	ug/Kg	1	09/4/2015 12:55
Chloroprene	ND	U	0.419	5.65	ug/Kg	1	09/4/2015 12:55
Dibromochloromethane	ND	U	0.702	5.65	ug/Kg	1	09/4/2015 12:55
Dibromomethane	ND	U	0.896	5.65	ug/Kg	1	09/4/2015 12:55
Dichlorodifluoromethane	ND	U	0.856	5.65	ug/Kg	1	09/4/2015 12:55
cis-1,3-Dichloropropene	ND	U	0.613	5.65	ug/Kg	1	09/4/2015 12:55
trans-1,3-Dichloropropene	ND	U	0.565	5.65	ug/Kg	1	09/4/2015 12:55
Ethyl Benzene	ND	U	0.964	5.65	ug/Kg	1	09/4/2015 12:55
Ethyl methacrylate	ND	U	0.479	5.65	ug/Kg	1	09/4/2015 12:55
Methyl iodide	ND	U	0.788	5.65	ug/Kg	1	09/4/2015 12:55
Methyl methacrylate	ND	U	0.577	5.65	ug/Kg	1	09/4/2015 12:55
Methylacrylonitrile	ND	U	5.37	56.5	ug/Kg	1	09/4/2015 12:55

Print Date: 09/14/2015

N.C. Certification # 481

Results of **SB-9 (3-6)**

Client Sample ID: **SB-9 (3-6)**
Client Project ID: **YSI**
Lab Sample ID: 31501597019-A
Lab Project ID: 31501597

Collection Date: 09/01/2015 00:00
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as dry weight
Solids (%): 75.40

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	ND	U	0.958	22.6	ug/Kg	1	09/4/2015 12:55
Pentachloroethane	ND	U	0.712	11.3	ug/Kg	1	09/4/2015 12:55
Propionitrile	ND	U	9.57	113	ug/Kg	1	09/4/2015 12:55
Styrene	ND	U	0.806	5.65	ug/Kg	1	09/4/2015 12:55
Tetrachloroethene	ND	U	1.44	5.65	ug/Kg	1	09/4/2015 12:55
Toluene	ND	U	1.01	5.65	ug/Kg	1	09/4/2015 12:55
Trichloroethene	ND	U	1.23	5.65	ug/Kg	1	09/4/2015 12:55
Trichlorofluoromethane	ND	U	1.25	5.65	ug/Kg	1	09/4/2015 12:55
Trichlorotrifluoroethane	ND	U	5.65	5.65	ug/Kg	1	09/4/2015 12:55
Vinyl acetate	ND	U	2.27	14.1	ug/Kg	1	09/4/2015 12:55
Vinyl chloride	ND	U	0.794	5.65	ug/Kg	1	09/4/2015 12:55
cis-1,2-Dichloroethene	ND	U	1.08	5.65	ug/Kg	1	09/4/2015 12:55
m,p-Xylene	ND	U	1.65	11.3	ug/Kg	1	09/4/2015 12:55
o-Xylene	ND	U	0.830	5.65	ug/Kg	1	09/4/2015 12:55
trans-1,2-Dichloroethene	ND	U	1.42	5.65	ug/Kg	1	09/4/2015 12:55
trans-1,4-Dichloro-2-butene	ND	U	2.86	28.3	ug/Kg	1	09/4/2015 12:55
Surrogates							
1,2-Dichloroethane-d4	112			55.0-173	%	1	09/4/2015 12:55
4-Bromofluorobenzene	93.0			23.0-141	%	1	09/4/2015 12:55
Toluene d8	99.0			57.0-134	%	1	09/4/2015 12:55

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **5.87 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

N.C. Certification # 481

Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **YSI**
Lab Sample ID: 31501597020-A
Lab Project ID: 31501597

Collection Date:
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as received
Solids (%):

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	U	0.529	5.00	ug/Kg	1	09/4/2015 12:28
1,1,1-Trichloroethane	ND	U	1.10	5.00	ug/Kg	1	09/4/2015 12:28
1,1,2,2-Tetrachloroethane	ND	U	0.619	5.00	ug/Kg	1	09/4/2015 12:28
1,1,2-Trichloroethane	ND	U	0.764	5.00	ug/Kg	1	09/4/2015 12:28
1,1-Dichloroethane	ND	U	0.949	5.00	ug/Kg	1	09/4/2015 12:28
1,1-Dichloroethene	ND	U	0.769	5.00	ug/Kg	1	09/4/2015 12:28
1,2,3-Trichloropropane	ND	U	0.596	5.00	ug/Kg	1	09/4/2015 12:28
1,2,4-Trimethylbenzene	ND	U	0.729	5.00	ug/Kg	1	09/4/2015 12:28
1,2-Dibromo-3-chloropropane	ND	U	5.12	30.0	ug/Kg	1	09/4/2015 12:28
1,2-Dibromoethane	ND	U	0.729	5.00	ug/Kg	1	09/4/2015 12:28
1,2-Dichloroethane	ND	U	0.549	5.00	ug/Kg	1	09/4/2015 12:28
1,2-Dichloropropane	ND	U	0.682	5.00	ug/Kg	1	09/4/2015 12:28
1,4 Dioxane	ND	U	68.1	500	ug/Kg	1	09/4/2015 12:28
2-Butanone	ND	U	1.70	25.0	ug/Kg	1	09/4/2015 12:28
2-Hexanone	ND	U	2.32	12.5	ug/Kg	1	09/4/2015 12:28
4-Methyl-2-pentanone	ND	U	1.55	12.5	ug/Kg	1	09/4/2015 12:28
Acetone	ND	U	1.24	50.0	ug/Kg	1	09/4/2015 12:28
Acetonitrile	ND	U	12.3	100	ug/Kg	1	09/4/2015 12:28
Acrolein	ND	U	6.39	50.0	ug/Kg	1	09/4/2015 12:28
Acrylonitrile	ND	U	8.56	50.0	ug/Kg	1	09/4/2015 12:28
Allyl chloride	ND	U	0.868	5.00	ug/Kg	1	09/4/2015 12:28
Benzene	ND	U	0.742	5.00	ug/Kg	1	09/4/2015 12:28
Bromodichloromethane	ND	U	0.687	5.00	ug/Kg	1	09/4/2015 12:28
Bromoform	ND	U	0.448	5.00	ug/Kg	1	09/4/2015 12:28
Bromomethane	ND	U	0.930	5.00	ug/Kg	1	09/4/2015 12:28
Carbon disulfide	ND	U	2.47	5.00	ug/Kg	1	09/4/2015 12:28
Carbon tetrachloride	ND	U	0.923	5.00	ug/Kg	1	09/4/2015 12:28
Chlorobenzene	ND	U	0.673	5.00	ug/Kg	1	09/4/2015 12:28
Chloroethane	ND	U	0.570	5.00	ug/Kg	1	09/4/2015 12:28
Chloroform	ND	U	0.898	5.00	ug/Kg	1	09/4/2015 12:28
Chloromethane	ND	U	0.907	5.00	ug/Kg	1	09/4/2015 12:28
Chloroprene	ND	U	0.371	5.00	ug/Kg	1	09/4/2015 12:28
Dibromochloromethane	ND	U	0.621	5.00	ug/Kg	1	09/4/2015 12:28
Dibromomethane	ND	U	0.793	5.00	ug/Kg	1	09/4/2015 12:28
Dichlorodifluoromethane	ND	U	0.757	5.00	ug/Kg	1	09/4/2015 12:28
cis-1,3-Dichloropropene	ND	U	0.542	5.00	ug/Kg	1	09/4/2015 12:28
trans-1,3-Dichloropropene	ND	U	0.500	5.00	ug/Kg	1	09/4/2015 12:28
Ethyl Benzene	ND	U	0.853	5.00	ug/Kg	1	09/4/2015 12:28
Ethyl methacrylate	ND	U	0.424	5.00	ug/Kg	1	09/4/2015 12:28
Methyl iodide	ND	U	0.697	5.00	ug/Kg	1	09/4/2015 12:28
Methyl methacrylate	ND	U	0.511	5.00	ug/Kg	1	09/4/2015 12:28
Methylacrylonitrile	ND	U	4.75	50.0	ug/Kg	1	09/4/2015 12:28

Print Date: 09/14/2015

N.C. Certification # 481

Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **YSI**
Lab Sample ID: 31501597020-A
Lab Project ID: 31501597

Collection Date:
Received Date: 09/03/2015 09:55
Matrix: Soil-Solid as received
Solids (%):

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF	Date Analyzed
Methylene chloride	**6.37**	J	0.848	20.0	ug/Kg	1	09/4/2015 12:28
Pentachloroethane	ND	U	0.630	10.0	ug/Kg	1	09/4/2015 12:28
Propionitrile	ND	U	8.47	100	ug/Kg	1	09/4/2015 12:28
Styrene	ND	U	0.713	5.00	ug/Kg	1	09/4/2015 12:28
Tetrachloroethene	ND	U	1.27	5.00	ug/Kg	1	09/4/2015 12:28
Toluene	ND	U	0.890	5.00	ug/Kg	1	09/4/2015 12:28
Trichloroethene	ND	U	1.09	5.00	ug/Kg	1	09/4/2015 12:28
Trichlorofluoromethane	ND	U	1.11	5.00	ug/Kg	1	09/4/2015 12:28
Trichlorotrifluoroethane	ND	U	5.00	5.00	ug/Kg	1	09/4/2015 12:28
Vinyl acetate	ND	U	2.01	12.5	ug/Kg	1	09/4/2015 12:28
Vinyl chloride	ND	U	0.703	5.00	ug/Kg	1	09/4/2015 12:28
cis-1,2-Dichloroethene	ND	U	0.953	5.00	ug/Kg	1	09/4/2015 12:28
m,p-Xylene	ND	U	1.46	10.0	ug/Kg	1	09/4/2015 12:28
o-Xylene	ND	U	0.734	5.00	ug/Kg	1	09/4/2015 12:28
trans-1,2-Dichloroethene	ND	U	1.26	5.00	ug/Kg	1	09/4/2015 12:28
trans-1,4-Dichloro-2-butene	ND	U	2.53	25.0	ug/Kg	1	09/4/2015 12:28
Surrogates							
1,2-Dichloroethane-d4	112			55.0-173	%	1	09/4/2015 12:28
4-Bromofluorobenzene	92.0			23.0-141	%	1	09/4/2015 12:28
Toluene d8	98.0			57.0-134	%	1	09/4/2015 12:28

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Prep Initial Wt./Vol.: **5 g**
Prep Extract Vol: **5 mL**

Print Date: 09/14/2015

N.C. Certification # 481

Batch Summary

Analytical Method: SW-846 8260B

Prep Method: SW-846 5035 SL
Prep Batch: VXX5937
Prep Date: 09/04/2015 12:03

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
LCS-S for HBN 89859 [VXX/5937]	179031	09/04/2015 11:08	VMS3732	MSD2	JHL
LCSD-S for HBN 89859 [VXX/5937	179032	09/04/2015 11:34	VMS3732	MSD2	JHL
MB-S for HBN 89859 [VXX/5937]	179033	09/04/2015 12:01	VMS3732	MSD2	JHL
SB-4 (6-8)(178789DUP)	179034	09/04/2015 17:23	VMS3732	MSD2	JHL
SB-4 (10-12)(178790MS)	179035	09/04/2015 21:25	VMS3732	MSD2	JHL
SB-1 (0-2)	31501597001	09/04/2015 20:58	VMS3732	MSD2	JHL
SB-1 (8-10)	31501597002	09/04/2015 20:31	VMS3732	MSD2	JHL
SB-1 (6-8)	31501597003	09/04/2015 20:05	VMS3732	MSD2	JHL
SB-2 (0-2)	31501597004	09/04/2015 19:38	VMS3732	MSD2	JHL
SB-2 (2-4)	31501597005	09/04/2015 19:11	VMS3732	MSD2	JHL
SB-3 (0-2)	31501597007	09/04/2015 18:45	VMS3732	MSD2	JHL
SB-3 (4-6)	31501597008	09/04/2015 18:18	VMS3732	MSD2	JHL
SB-3 (8-10)	31501597009	09/04/2015 17:51	VMS3732	MSD2	JHL
SB-4 (6-8)	31501597010	09/04/2015 16:56	VMS3732	MSD2	JHL
SB-4 (10-12)	31501597011	09/04/2015 16:30	VMS3732	MSD2	JHL
SB-5 (4-6)	31501597012	09/04/2015 16:03	VMS3732	MSD2	JHL
SB-5 (6-8)	31501597013	09/04/2015 15:36	VMS3732	MSD2	JHL
SB-6 (2-4)	31501597014	09/04/2015 15:09	VMS3732	MSD2	JHL
SB-6 (6-8))	31501597015	09/04/2015 14:42	VMS3732	MSD2	JHL
SB-7 (2-4)	31501597016	09/04/2015 14:16	VMS3732	MSD2	JHL
SB-7 (4-6)	31501597017	09/04/2015 13:49	VMS3732	MSD2	JHL
SB-8 (3-6)	31501597018	09/04/2015 13:22	VMS3732	MSD2	JHL
SB-9 (3-6)	31501597019	09/04/2015 12:55	VMS3732	MSD2	JHL
Trip Blank	31501597020	09/04/2015 12:28	VMS3732	MSD2	JHL

Method Blank

Blank ID: MB-S for HBN 89859 [VXX/5937]
Matrix: Soil-Solid as dry weight
Blank Lab ID: 179033
QC for Samples:
31501597001, 31501597002, 31501597003, 31501597004, 31501597005, 31501597007, 31501597008, 31501597009, 31501597010, 31501597011, 31501597012, 31501597013, 31501597014, 31501597015, 31501597016, 31501597017, 31501597018, 31501597019, 31501597020

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Dichlorodifluoromethane	ND	U	0.757	5.00	ug/Kg	1
Chloromethane	ND	U	0.907	5.00	ug/Kg	1
Vinyl chloride	ND	U	0.703	5.00	ug/Kg	1
Bromomethane	ND	U	0.930	5.00	ug/Kg	1
Chloroethane	ND	U	0.570	5.00	ug/Kg	1
Trichlorofluoromethane	ND	U	1.11	5.00	ug/Kg	1
Acrolein	ND	U	6.39	50.0	ug/Kg	1
1,1-Dichloroethene	ND	U	0.769	5.00	ug/Kg	1
Acetone	ND	U	1.24	50.0	ug/Kg	1
Acetonitrile	ND	U	12.3	100	ug/Kg	1
Allyl chloride	ND	U	0.868	5.00	ug/Kg	1
Methylene chloride	ND	U	0.848	20.0	ug/Kg	1
trans-1,2-Dichloroethene	ND	U	1.26	5.00	ug/Kg	1
Acrylonitrile	ND	U	8.56	50.0	ug/Kg	1
1,1-Dichloroethane	ND	U	0.949	5.00	ug/Kg	1
Chloroprene	ND	U	0.371	5.00	ug/Kg	1
cis-1,2-Dichloroethene	ND	U	0.953	5.00	ug/Kg	1
2-Butanone	ND	U	1.70	25.0	ug/Kg	1
Propionitrile	ND	U	8.47	100	ug/Kg	1
Methylacrylonitrile	ND	U	4.75	50.0	ug/Kg	1
Chloroform	ND	U	0.898	5.00	ug/Kg	1
1,1,1-Trichloroethane	ND	U	1.10	5.00	ug/Kg	1
Carbon tetrachloride	ND	U	0.923	5.00	ug/Kg	1
Benzene	ND	U	0.742	5.00	ug/Kg	1
1,2-Dichloroethane	ND	U	0.549	5.00	ug/Kg	1
Trichloroethene	ND	U	1.09	5.00	ug/Kg	1
1,2-Dichloropropane	ND	U	0.682	5.00	ug/Kg	1
Dibromomethane	ND	U	0.793	5.00	ug/Kg	1
Bromodichloromethane	ND	U	0.687	5.00	ug/Kg	1
Methyl methacrylate	ND	U	0.511	5.00	ug/Kg	1
1,4 Dioxane	ND	U	68.1	500	ug/Kg	1
cis-1,3-Dichloropropene	ND	U	0.542	5.00	ug/Kg	1
4-Methyl-2-pentanone	ND	U	1.55	12.5	ug/Kg	1
Toluene	ND	U	0.890	5.00	ug/Kg	1
Methyl iodide	ND	U	0.697	5.00	ug/Kg	1
trans-1,3-Dichloropropene	ND	U	0.500	5.00	ug/Kg	1
Ethyl methacrylate	ND	U	0.424	5.00	ug/Kg	1
Vinyl acetate	ND	U	2.01	12.5	ug/Kg	1
Carbon disulfide	ND	U	2.47	5.00	ug/Kg	1
1,1,2-Trichloroethane	ND	U	0.764	5.00	ug/Kg	1
Tetrachloroethene	ND	U	1.27	5.00	ug/Kg	1

Method Blank

Blank ID: MB-S for HBN 89859 [VXX/5937]
Matrix: Soil-Solid as dry weight
Blank Lab ID: 179033
QC for Samples:
31501597001, 31501597002, 31501597003, 31501597004, 31501597005, 31501597007, 31501597008, 31501597009, 31501597010, 31501597011, 31501597012, 31501597013, 31501597014, 31501597015, 31501597016, 31501597017, 31501597018, 31501597019, 31501597020

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
2-Hexanone	ND	U	2.32	12.5	ug/Kg	1
Dibromochloromethane	ND	U	0.621	5.00	ug/Kg	1
1,2-Dibromoethane	ND	U	0.729	5.00	ug/Kg	1
Chlorobenzene	ND	U	0.673	5.00	ug/Kg	1
1,1,1,2-Tetrachloroethane	ND	U	0.529	5.00	ug/Kg	1
Bromoform	ND	U	0.448	5.00	ug/Kg	1
1,1,2,2-Tetrachloroethane	ND	U	0.619	5.00	ug/Kg	1
1,2,3-Trichloropropane	ND	U	0.596	5.00	ug/Kg	1
Ethyl Benzene	ND	U	0.853	5.00	ug/Kg	1
m,p-Xylene	ND	U	1.46	10.0	ug/Kg	1
Styrene	ND	U	0.713	5.00	ug/Kg	1
o-Xylene	ND	U	0.734	5.00	ug/Kg	1
Pentachloroethane	ND	U	0.630	10.0	ug/Kg	1
1,2,4-Trimethylbenzene	ND	U	0.729	5.00	ug/Kg	1
1,2-Dibromo-3-chloropropane	ND	U	5.12	30.0	ug/Kg	1
trans-1,4-Dichloro-2-butene	ND	U	2.53	25.0	ug/Kg	1
Trichlorotrifluoroethane	ND	U	5.00	5.00	ug/Kg	1
Surrogates						
1,2-Dichloroethane-d4	105			55.0-173	%	1
Toluene d8	97.0			57.0-134	%	1
4-Bromofluorobenzene	91.0			23.0-141	%	1

Batch Information

Analytical Batch: VMS3732
Analytical Method: SW-846 8260B
Instrument: MSD2
Analyst: JHL

Prep Batch: VXX5937
Prep Method: SW-846 5035 SL
Prep Date/Time: 9/4/2015 12:03:38PM
Prep Initial Wt./Vol.: 5 g
Prep Extract Vol: 5 mL

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 89859 [VXX/5937]
Blank Spike Lab ID: 179031
Date Analyzed: 09/04/2015 11:08

Spike Duplicate ID: LCSD-S for HBN 89859 [VXX/5937
Spike Duplicate Lab ID: 179032
Date Analyzed: 09/04/2015 11:34
Matrix: Soil-Solid as dry weight

QC for Samples: 31501597001, 31501597002, 31501597003, 31501597004, 31501597005, 31501597007, 31501597008, 31501597009, 31501597010, 31501597011, 31501597012, 31501597013, 31501597014, 31501597015, 31501597016, 31501597017, 31501597018, 31501597019, 31501597020

Results by **SW-846 8260B**

	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Dichlorodifluoromethane	30.0	38.9	130	30.0	38.8	129	52.0-133	0.26	30.00
Chloromethane	30.0	32.7	109	30.0	32.5	108	64.0-126	0.61	30.00
Vinyl chloride	30.0	32.0	107	30.0	31.8	106	69.0-120	0.63	30.00
Bromomethane	30.0	26.3	88	30.0	27.2	91	41.0-160	3.4	30.00
Chloroethane	30.0	30.5	102	30.0	31.2	104	69.0-126	2.3	30.00
Trichlorofluoromethane	30.0	31.1	104	30.0	30.0	100	72.0-123	3.6	30.00
Acrolein	300	537	**179***	300	588	**196***	43.0-164	9.1	30.00
1,1-Dichloroethene	30.0	31.5	105	30.0	31.1	104	78.0-113	1.3	30.00
Acetone	75.0	78.7	105	75.0	79.0	105	0.00-243	0.38	30.00
Methylene chloride	30.0	31.8	106	30.0	31.9	106	40.0-156	0.31	30.00
trans-1,2-Dichloroethene	30.0	31.9	106	30.0	31.4	105	78.0-111	1.6	30.00
Acrylonitrile	300	341	114	300	331	110	62.0-150	3.0	30.00
1,1-Dichloroethane	30.0	31.0	103	30.0	31.3	104	71.0-121	0.96	30.00
cis-1,2-Dichloroethene	30.0	28.6	95	30.0	29.2	97	80.0-114	2.1	30.00
2-Butanone	75.0	79.3	106	75.0	79.9	107	31.0-189	0.75	30.00
Chloroform	30.0	30.9	103	30.0	30.9	103	76.0-114	0.0	30.00
1,1,1-Trichloroethane	30.0	28.8	96	30.0	29.0	97	79.0-117	0.69	30.00
Carbon tetrachloride	30.0	29.3	98	30.0	29.5	98	82.0-119	0.68	30.00
Benzene	30.0	31.0	103	30.0	31.3	104	82.0-113	0.96	30.00
1,2-Dichloroethane	30.0	29.1	97	30.0	29.5	98	72.0-126	1.4	30.00
Trichloroethene	30.0	29.2	97	30.0	29.9	100	82.0-108	2.4	30.00
1,2-Dichloropropane	30.0	30.8	103	30.0	31.6	105	78.0-116	2.6	30.00
Dibromomethane	30.0	31.2	104	30.0	31.7	106	79.0-125	1.6	30.00
Bromodichloromethane	30.0	30.2	101	30.0	30.8	103	79.0-122	2.0	30.00
cis-1,3-Dichloropropene	30.0	31.0	103	30.0	31.2	104	75.0-127	0.64	30.00
4-Methyl-2-pentanone	75.0	72.0	96	75.0	72.0	96	57.0-159	0.0	30.00
Toluene	30.0	29.6	99	30.0	29.9	100	83.0-111	1.0	30.00
Methyl iodide	30.0	33.7	112	30.0	33.8	113	63.0-137	0.30	30.00
trans-1,3-Dichloropropene	30.0	30.2	101	30.0	30.3	101	75.0-134	0.33	30.00
Vinyl acetate	75.0	80.5	107	75.0	77.7	104	0.00-524	3.5	30.00
Carbon disulfide	30.0	31.9	106	30.0	31.9	106	72.0-116	0.0	30.00
1,1,2-Trichloroethane	30.0	35.1	117	30.0	34.7	116	73.0-121	1.1	30.00

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 89859 [VXX/5937]
Blank Spike Lab ID: 179031
Date Analyzed: 09/04/2015 11:08

Spike Duplicate ID: LCSD-S for HBN 89859 [VXX/5937
Spike Duplicate Lab ID: 179032
Date Analyzed: 09/04/2015 11:34
Matrix: Soil-Solid as dry weight

QC for Samples: 31501597001, 31501597002, 31501597003, 31501597004, 31501597005, 31501597007, 31501597008, 31501597009, 31501597010, 31501597011, 31501597012, 31501597013, 31501597014, 31501597015, 31501597016, 31501597017, 31501597018, 31501597019, 31501597020

Results by **SW-846 8260B**

	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Tetrachloroethene	30.0	32.7	109	30.0	32.1	107	60.0-118	1.9	30.00
2-Hexanone	75.0	83.8	112	75.0	81.8	109	41.0-171	2.4	30.00
Dibromochloromethane	30.0	31.9	106	30.0	31.9	106	77.0-126	0.0	30.00
1,2-Dibromoethane	30.0	32.4	108	30.0	32.2	107	76.0-125	0.62	30.00
Chlorobenzene	30.0	32.6	109	30.0	32.4	108	78.0-109	0.62	30.00
1,1,1,2-Tetrachloroethane	30.0	32.5	108	30.0	31.9	106	81.0-117	1.9	30.00
Bromoform	30.0	32.1	107	30.0	32.0	107	72.0-134	0.31	30.00
1,1,2,2-Tetrachloroethane	30.0	37.0	123	30.0	35.3	118	76.0-129	4.7	30.00
1,2,3-Trichloropropane	30.0	33.7	112	30.0	31.9	106	70.0-145	5.5	30.00
Ethyl Benzene	30.0	30.0	100	30.0	30.0	100	72.0-115	0.0	30.00
m,p-Xylene	60.0	62.2	104	60.0	62.5	104	73.0-114	0.48	30.00
Styrene	30.0	29.6	99	30.0	29.4	98	74.0-114	0.68	30.00
o-Xylene	30.0	28.7	96	30.0	28.3	94	74.0-113	1.4	30.00
1,2,4-Trimethylbenzene	30.0	30.9	103	30.0	30.6	102	73.0-114	0.98	30.00
1,2-Dibromo-3-chloropropane	180	181	101	180	179	100	54.0-166	1.1	30.00
trans-1,4-Dichloro-2-butene	150	152	101	150	148	99	62.0-164	2.7	30.00
Surrogates									
1,2-Dichloroethane-d4			96			97	55.0-173		
Toluene d8			96			97	57.0-134		
4-Bromofluorobenzene			97			97	23.0-141		

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
Spike Init Wt./Vol.: **5 g** Extract Vol: **5 mL**
Dupe Init Wt./Vol.: **5 g** Extract Vol: **5 mL**

Print Date: 09/14/2015

N.C. Certification # 481

Matrix Spike Summary

Original Sample ID: 31501597011 (SB-4 (10-12))
MS Sample ID: 179035
MSD Sample ID:

Analysis Date: 09/04/2015 16:30
Analysis Date: 09/04/2015 21:25
Analysis Date:
Matrix: Soil-Solid as dry weight

QC for Samples: 31501597001, 31501597002, 31501597003, 31501597004, 31501597005, 31501597007, 31501597008, 31501597009, 31501597010, 31501597011, 31501597012, 31501597013, 31501597014, 31501597015, 31501597016, 31501597017, 31501597018, 31501597019, 31501597020

Results by **SW-846 8260B**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	ND	26.2	25.2	96				69.0-120		
1,1,1-Trichloroethane	24.6	26.2	25.3	2.5 *				78.0-121		
1,1,2,2-Tetrachloroethane	ND	26.2	35.8	136				76.0-136		
1,1,2-Trichloroethane	ND	26.2	33.0	125				65.0-128		
1,1-Dichloroethane	5.84	26.2	26.1	77				72.0-139		
1,1-Dichloroethene	ND	26.2	25.4	96				72.0-135		
1,2,3-Trichloropropane	ND	26.2	35.2	134				10.0-218		
1,2,4-Trimethylbenzene	3.52	26.2	19.9	76				31.0-172		
1,2-Dibromo-3-chloropropane	ND	158	194	123				43.0-229		
1,2-Dibromoethane	ND	26.2	30.1	115				78.0-148		
1,2-Dichloroethane	ND	26.2	25.5	97				73.0-146		
1,2-Dichloropropane	ND	26.2	24.9	95				76.0-136		
2-Butanone	ND	65.7	72.3	110				41.0-256		
2-Hexanone	ND	65.7	88.0	134 *				42.0-111		
4-Methyl-2-pentanone	ND	65.7	83.3	127				6.90-166		
Acetone	7.38	65.7	46.6	71				6.80-355		
Acrolein	ND	262	792	301				0.00-6510		
Acrylonitrile	ND	262	368	140				0.00-5670		
Benzene	5.54	26.2	25.9	77				75.0-133		
Bromodichloromethane	ND	26.2	24.5	93				77.0-140		
Bromoform	ND	26.2	30.1	114				75.0-151		
Bromomethane	ND	26.2	21.3	81				30.0-127		
Carbon disulfide	ND	26.2	26.2	100				64.0-145		
Carbon tetrachloride	3.49	26.2	22.7	86				64.0-142		
Chlorobenzene	ND	26.2	24.7	94				66.0-135		
Chloroethane	ND	26.2	25.2	96				21.0-182		
Chloroform	ND	26.2	24.9	95				71.0-143		
Chloromethane	1.76	26.2	27.6	105				69.0-138		
Dibromochloromethane	ND	26.2	27.5	105				78.0-141		
Dibromomethane	ND	26.2	27.9	106				80.0-150		
Dichlorodifluoromethane	ND	26.2	31.6	120				82.0-130		
cis-1,3-Dichloropropene	ND	26.2	24.8	94				72.0-146		
trans-1,3-Dichloropropene	ND	26.2	24.7	94				45.0-144		
Ethyl Benzene	4.54	26.2	21.9	66 *				74.0-126		
Methyl iodide	ND	26.2	27.1	103				41.0-126		
Methylene chloride	ND	26.2	29.1	111				49.0-155		

Print Date: 09/14/2015

N.C. Certification # 481

Matrix Spike Summary

Original Sample ID: 31501597011 (SB-4 (10-12))
MS Sample ID: 179035
MSD Sample ID:

Analysis Date: 09/04/2015 16:30
Analysis Date: 09/04/2015 21:25
Analysis Date:
Matrix: Soil-Solid as dry weight

QC for Samples: 31501597001, 31501597002, 31501597003, 31501597004, 31501597005, 31501597007, 31501597008, 31501597009, 31501597010, 31501597011, 31501597012, 31501597013, 31501597014, 31501597015, 31501597016, 31501597017, 31501597018, 31501597019, 31501597020

Results by **SW-846 8260B**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Styrene	ND	26.2	20.0	76				73.0-123		
Tetrachloroethene	ND	26.2	23.9	91				46.0-153		
Toluene	14.6	26.2	27.7	50 *				66.0-128		
Trichloroethene	ND	26.2	22.5	86				35.0-136		
Trichlorofluoromethane	ND	26.2	24.9	95				77.0-132		
Vinyl acetate	ND	65.7	81.5	124				0.00-355		
Vinyl chloride	ND	26.2	26.3	100				68.0-137		
cis-1,2-Dichloroethene	ND	26.2	22.6	86				77.0-134		
m,p-Xylene	7.08	52.6	44.5	85				80.0-118		
o-Xylene	3.03	26.2	20.4	78 *				80.0-121		
trans-1,2-Dichloroethene	ND	26.2	26.0	99				72.0-135		
trans-1,4-Dichloro-2-butene	ND	131	140	106				49.0-211		
Surrogates										
1,2-Dichloroethane-d4				107				55.0-173		
4-Bromofluorobenzene				102				23.0-141		
Toluene d8				98				57.0-134		

Batch Information

Analytical Batch: **VMS3732**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5937**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/04/2015 12:03**
MS Init Wt./Vol.: **6.93 g** Extract Vol.: **5 mL**
MSD Init Wt./Vol.: Extract Vol.:

Print Date: 09/14/2015

N.C. Certification # 481

Duplicate Sample Summary

Original Sample ID: 31501597010-A
Duplicate Sample ID: 179034

Analysis Date: 09/04/2015 16:56
Analysis Date: 09/04/2015 17:23
Matrix: Soil-Solid as dry weight

QC for Samples: 31501597001, 31501597002, 31501597003, 31501597004, 31501597005, 31501597007, 31501597008, 31501597009, 31501597010, 31501597011, 31501597012, 31501597013, 31501597014, 31501597015, 31501597016, 31501597017, 31501597018, 31501597019, 31501597020

Results by **SW-846 8260B**

PARAMETER	Original (ug/Kg)	Qual	Duplicate (ug/Kg)	Qual	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	ND	U	ND	U		30.00
1,1,1-Trichloroethane	13.0		7.16		**58***	30.00
1,1,2,2-Tetrachloroethane	ND	U	ND	U		30.00
1,1,2-Trichloroethane	ND	U	ND	U		30.00
1,1-Dichloroethane	ND	U	ND	U		30.00
1,1-Dichloroethene	ND	U	ND	U		30.00
1,2,3-Trichloropropane	ND	U	ND	U		30.00
1,2,4-Trimethylbenzene	3.07	J	4.79		**44***	30.00
1,2-Dibromo-3-chloropropane	ND	U	ND	U		30.00
1,2-Dibromoethane	ND	U	ND	U		30.00
1,2-Dichloroethane	ND	U	ND	U		30.00
1,2-Dichloropropane	ND	U	ND	U		30.00
1,4 Dioxane	ND	U	ND	U		30.00
2-Butanone	ND	U	ND	U		30.00
2-Hexanone	ND	U	ND	U		30.00
4-Methyl-2-pentanone	ND	U	ND	U		30.00
Acetone	ND	U	ND	U		30.00
Acetonitrile	ND	U	ND	U		30.00
Acrolein	ND	U	ND	U		30.00
Acrylonitrile	ND	U	ND	U		30.00
Allyl chloride	ND	U	ND	U		30.00
Benzene	3.04	J	5.00		**49***	30.00
Bromodichloromethane	ND	U	ND	U		30.00
Bromoform	ND	U	ND	U		30.00
Bromomethane	ND	U	ND	U		30.00
Carbon disulfide	ND	U	ND	U		30.00
Carbon tetrachloride	1.85	J	0.993	J	**60***	30.00

Duplicate Sample Summary

Original Sample ID: 31501597010-A
Duplicate Sample ID: 179034

Analysis Date: 09/04/2015 16:56
Analysis Date: 09/04/2015 17:23
Matrix: Soil-Solid as dry weight

QC for Samples: 31501597001, 31501597002, 31501597003, 31501597004, 31501597005, 31501597007, 31501597008, 31501597009, 31501597010, 31501597011, 31501597012, 31501597013, 31501597014, 31501597015, 31501597016, 31501597017, 31501597018, 31501597019, 31501597020

Results by **SW-846 8260B**

PARAMETER	Original (ug/Kg)	Qual	Duplicate (ug/Kg)	Qual	RPD (%)	RPD CL
Chlorobenzene	ND	U	ND	U		30.00
Chloroethane	ND	U	ND	U		30.00
Chloroform	ND	U	ND	U		30.00
Chloromethane	ND	U	1.95	J		30.00
Chloroprene	ND	U	ND	U		30.00
cis-1,2-Dichloroethene	ND	U	ND	U		30.00
cis-1,3-Dichloropropene	ND	U	ND	U		30.00
Dibromochloromethane	ND	U	ND	U		30.00
Dibromomethane	ND	U	ND	U		30.00
Dichlorodifluoromethane	ND	U	ND	U		30.00
Ethyl Benzene	3.25	J	6.01		**59***	30.00
Ethyl methacrylate	ND	U	ND	U		30.00
m,p-Xylene	4.94	J	8.46	J	**52***	30.00
Methyl iodide	ND	U	ND	U		30.00
Methyl methacrylate	ND	U	ND	U		30.00
Methylacrylonitrile	ND	U	ND	U		30.00
Methylene chloride	ND	U	ND	U		30.00
o-Xylene	2.15	J	3.80	J	**56***	30.00
Pentachloroethane	ND	U	ND	U		30.00
Propionitrile	ND	U	ND	U		30.00
Styrene	ND	U	ND	U		30.00
Tetrachloroethene	6.21		4.05	J	**42***	30.00
Toluene	9.34		15.3		**49***	30.00
trans-1,2-Dichloroethene	ND	U	ND	U		30.00
trans-1,3-Dichloropropene	ND	U	ND	U		30.00
trans-1,4-Dichloro-2-butene	ND	U	ND	U		30.00
Trichloroethene	ND	U	ND	U		30.00

Duplicate Sample Summary

Original Sample ID: 31501597010-A
Duplicate Sample ID: 179034

Analysis Date: 09/04/2015 16:56
Analysis Date: 09/04/2015 17:23
Matrix: Soil-Solid as dry weight

QC for Samples: 31501597001, 31501597002, 31501597003, 31501597004, 31501597005, 31501597007, 31501597008, 31501597009, 31501597010, 31501597011, 31501597012, 31501597013, 31501597014, 31501597015, 31501597016, 31501597017, 31501597018, 31501597019, 31501597020

Results by **SW-846 8260B**

PARAMETER	Original (ug/Kg)	Qual	Duplicate (ug/Kg)	Qual	RPD (%)	RPD CL
Trichlorofluoromethane	ND	U	ND	U		30.00
Trichlorotrifluoroethane	ND	U	ND	U		30.00
Vinyl acetate	ND	U	ND	U		30.00
Vinyl chloride	ND	U	ND	U		30.00
Surrogates						
1,2-Dichloroethane-d4	111		114		22	
4-Bromofluorobenzene	94.0		93.0		19	
Toluene d8	105		104		20	

Batch Information

Analytical Batch: VMS3732
Analytical Method: SW-846 8260B
Instrument: MSD2
Analyst: JHL

Prep Batch: VXX5937
Prep Method: SW-846 5035 SL
Prep Date/Time: 09/04/2015 12:03

Print Date: 09/14/2015

N.C. Certification # 481

Batch Summary

Analytical Method: SW-846 8260B

Prep Method: SW-846 5035 SL
Prep Batch: VXX5939
Prep Date: 09/08/2015 15:48

Client Sample ID	Lab Sample ID	Analysis Date	Analytical Batch	Instrument	Analyst
LCS-S for HBN 90060 [VXX/5939]	179205	09/08/2015 11:25	VMS3734	MSD2	JHL
LCSD-S for HBN 90060 [VXX/5939	179206	09/08/2015 11:52	VMS3734	MSD2	JHL
MB-S for HBN 90060 [VXX/5939]	179207	09/08/2015 12:19	VMS3734	MSD2	JHL
SB-2 (6-8)	31501597006	09/08/2015 14:07	VMS3734	MSD2	JHL
SB-205 (6) MS	31501611021	09/08/2015 21:16	VMS3734	MSD2	JHL
SB-205 (6) MSD	31501611022	09/08/2015 21:43	VMS3734	MSD2	JHL

Method Blank

Blank ID: MB-S for HBN 90060 [VXX/5939]
Blank Lab ID: 179207
QC for Samples:
31501597006

Matrix: Soil-Solid as dry weight

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
Dichlorodifluoromethane	ND	U	0.757	5.00	ug/Kg	1
Chloromethane	ND	U	0.907	5.00	ug/Kg	1
Vinyl chloride	ND	U	0.703	5.00	ug/Kg	1
Bromomethane	ND	U	0.930	5.00	ug/Kg	1
Chloroethane	ND	U	0.570	5.00	ug/Kg	1
Trichlorofluoromethane	ND	U	1.11	5.00	ug/Kg	1
Acrolein	ND	U	6.39	50.0	ug/Kg	1
1,1-Dichloroethene	ND	U	0.769	5.00	ug/Kg	1
Acetone	ND	U	1.24	50.0	ug/Kg	1
Acetonitrile	ND	U	12.3	100	ug/Kg	1
Allyl chloride	ND	U	0.868	5.00	ug/Kg	1
Methylene chloride	ND	U	0.848	20.0	ug/Kg	1
trans-1,2-Dichloroethene	ND	U	1.26	5.00	ug/Kg	1
Acrylonitrile	ND	U	8.56	50.0	ug/Kg	1
1,1-Dichloroethane	ND	U	0.949	5.00	ug/Kg	1
Chloroprene	ND	U	0.371	5.00	ug/Kg	1
cis-1,2-Dichloroethene	ND	U	0.953	5.00	ug/Kg	1
2-Butanone	ND	U	1.70	25.0	ug/Kg	1
Propionitrile	ND	U	8.47	100	ug/Kg	1
Methylacrylonitrile	ND	U	4.75	50.0	ug/Kg	1
Chloroform	ND	U	0.898	5.00	ug/Kg	1
1,1,1-Trichloroethane	ND	U	1.10	5.00	ug/Kg	1
Carbon tetrachloride	ND	U	0.923	5.00	ug/Kg	1
Benzene	ND	U	0.742	5.00	ug/Kg	1
1,2-Dichloroethane	ND	U	0.549	5.00	ug/Kg	1
Trichloroethene	ND	U	1.09	5.00	ug/Kg	1
1,2-Dichloropropane	ND	U	0.682	5.00	ug/Kg	1
Dibromomethane	ND	U	0.793	5.00	ug/Kg	1
Bromodichloromethane	ND	U	0.687	5.00	ug/Kg	1
Methyl methacrylate	ND	U	0.511	5.00	ug/Kg	1
1,4 Dioxane	ND	U	68.1	500	ug/Kg	1
cis-1,3-Dichloropropene	ND	U	0.542	5.00	ug/Kg	1
4-Methyl-2-pentanone	ND	U	1.55	12.5	ug/Kg	1
Toluene	ND	U	0.890	5.00	ug/Kg	1
Methyl iodide	ND	U	0.697	5.00	ug/Kg	1
trans-1,3-Dichloropropene	ND	U	0.500	5.00	ug/Kg	1
Ethyl methacrylate	ND	U	0.424	5.00	ug/Kg	1
Vinyl acetate	ND	U	2.01	12.5	ug/Kg	1
Carbon disulfide	ND	U	2.47	5.00	ug/Kg	1
1,1,2-Trichloroethane	ND	U	0.764	5.00	ug/Kg	1
Tetrachloroethene	ND	U	1.27	5.00	ug/Kg	1

Method Blank

Blank ID: MB-S for HBN 90060 [VXX/5939]
Blank Lab ID: 179207
QC for Samples:
31501597006

Matrix: Soil-Solid as dry weight

Results by **SW-846 8260B**

Parameter	Result	Qual	DL	LOQ/CL	Units	DF
2-Hexanone	ND	U	2.32	12.5	ug/Kg	1
Dibromochloromethane	ND	U	0.621	5.00	ug/Kg	1
1,2-Dibromoethane	ND	U	0.729	5.00	ug/Kg	1
Chlorobenzene	ND	U	0.673	5.00	ug/Kg	1
1,1,1,2-Tetrachloroethane	ND	U	0.529	5.00	ug/Kg	1
Bromoform	ND	U	0.448	5.00	ug/Kg	1
1,1,2,2-Tetrachloroethane	ND	U	0.619	5.00	ug/Kg	1
1,2,3-Trichloropropane	ND	U	0.596	5.00	ug/Kg	1
Ethyl Benzene	ND	U	0.853	5.00	ug/Kg	1
m,p-Xylene	ND	U	1.46	10.0	ug/Kg	1
Styrene	ND	U	0.713	5.00	ug/Kg	1
o-Xylene	ND	U	0.734	5.00	ug/Kg	1
Pentachloroethane	ND	U	0.630	10.0	ug/Kg	1
1,2,4-Trimethylbenzene	ND	U	0.729	5.00	ug/Kg	1
1,2-Dibromo-3-chloropropane	ND	U	5.12	30.0	ug/Kg	1
trans-1,4-Dichloro-2-butene	ND	U	2.53	25.0	ug/Kg	1
Trichlorotrifluoroethane	ND	U	5.00	5.00	ug/Kg	1
Surrogates						
1,2-Dichloroethane-d4	98.0			55.0-173	%	1
Toluene d8	97.0			57.0-134	%	1
4-Bromofluorobenzene	89.0			23.0-141	%	1

Batch Information

Analytical Batch: VMS3734
Analytical Method: SW-846 8260B
Instrument: MSD2
Analyst: JHL

Prep Batch: VXX5939
Prep Method: SW-846 5035 SL
Prep Date/Time: 9/8/2015 3:48:11PM
Prep Initial Wt./Vol.: 5 g
Prep Extract Vol: 5 mL

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 90060 [VXX/5939]
Blank Spike Lab ID: 179205
Date Analyzed: 09/08/2015 11:25

Spike Duplicate ID: LCSD-S for HBN 90060 [VXX/5939
Spike Duplicate Lab ID: 179206
Date Analyzed: 09/08/2015 11:52
Matrix: Soil-Solid as dry weight

QC for Samples: 31501597006

Results by **SW-846 8260B**

	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Dichlorodifluoromethane	30.0	36.8	123	30.0	35.7	119	52.0-133	3.0	30.00
Chloromethane	30.0	34.7	116	30.0	33.1	110	64.0-126	4.7	30.00
Vinyl chloride	30.0	32.1	107	30.0	31.0	103	69.0-120	3.5	30.00
Bromomethane	30.0	29.7	99	30.0	27.4	91	41.0-160	8.1	30.00
Chloroethane	30.0	31.2	104	30.0	30.0	100	69.0-126	3.9	30.00
Trichlorofluoromethane	30.0	29.6	99	30.0	28.1	94	72.0-123	5.2	30.00
Acrolein	300	565	**188***	300	548	**183***	43.0-164	3.1	30.00
1,1-Dichloroethene	30.0	30.9	103	30.0	29.9	100	78.0-113	3.3	30.00
Acetone	75.0	69.6	93	75.0	80.0	107	0.00-243	14	30.00
Methylene chloride	30.0	32.4	108	30.0	31.5	105	40.0-156	2.8	30.00
trans-1,2-Dichloroethene	30.0	31.1	104	30.0	30.2	101	78.0-111	2.9	30.00
Acrylonitrile	300	311	104	300	331	110	62.0-150	6.2	30.00
1,1-Dichloroethane	30.0	30.9	103	30.0	29.9	100	71.0-121	3.3	30.00
cis-1,2-Dichloroethene	30.0	29.6	99	30.0	29.3	98	80.0-114	1.0	30.00
2-Butanone	75.0	71.2	95	75.0	77.1	103	31.0-189	8.0	30.00
Chloroform	30.0	31.4	105	30.0	30.6	102	76.0-114	2.6	30.00
1,1,1-Trichloroethane	30.0	29.2	97	30.0	28.5	95	79.0-117	2.4	30.00
Carbon tetrachloride	30.0	29.0	97	30.0	28.9	96	82.0-119	0.35	30.00
Benzene	30.0	31.8	106	30.0	30.8	103	82.0-113	3.2	30.00
1,2-Dichloroethane	30.0	28.8	96	30.0	28.7	96	72.0-126	0.35	30.00
Trichloroethene	30.0	29.7	99	30.0	29.6	99	82.0-108	0.34	30.00
1,2-Dichloropropane	30.0	32.4	108	30.0	31.5	105	78.0-116	2.8	30.00
Dibromomethane	30.0	30.9	103	30.0	30.8	103	79.0-125	0.32	30.00
Bromodichloromethane	30.0	30.2	101	30.0	29.6	99	79.0-122	2.0	30.00
cis-1,3-Dichloropropene	30.0	31.6	105	30.0	31.3	104	75.0-127	0.95	30.00
4-Methyl-2-pentanone	75.0	68.0	91	75.0	72.8	97	57.0-159	6.8	30.00
Toluene	30.0	30.9	103	30.0	29.7	99	83.0-111	4.0	30.00
Methyl iodide	30.0	32.9	110	30.0	31.3	104	63.0-137	5.0	30.00
trans-1,3-Dichloropropene	30.0	30.4	101	30.0	30.0	100	75.0-134	1.3	30.00
Vinyl acetate	75.0	76.6	102	75.0	75.7	101	0.00-524	1.2	30.00
Carbon disulfide	30.0	31.2	104	30.0	30.3	101	72.0-116	2.9	30.00
1,1,2-Trichloroethane	30.0	35.0	117	30.0	35.5	118	73.0-121	1.4	30.00

Blank Spike Summary

Blank Spike ID: LCS-S for HBN 90060 [VXX/5939]
Blank Spike Lab ID: 179205
Date Analyzed: 09/08/2015 11:25

Spike Duplicate ID: LCSD-S for HBN 90060 [VXX/5939
Spike Duplicate Lab ID: 179206
Date Analyzed: 09/08/2015 11:52
Matrix: Soil-Solid as dry weight

QC for Samples: 31501597006

Results by **SW-846 8260B**

	Blank Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Tetrachloroethene	30.0	32.4	108	30.0	32.2	107	60.0-118	0.62	30.00
2-Hexanone	75.0	74.2	99	75.0	84.4	112	41.0-171	13	30.00
Dibromochloromethane	30.0	31.0	103	30.0	31.7	106	77.0-126	2.2	30.00
1,2-Dibromoethane	30.0	32.3	108	30.0	33.3	111	76.0-125	3.0	30.00
Chlorobenzene	30.0	32.6	109	30.0	32.4	108	78.0-109	0.62	30.00
1,1,1,2-Tetrachloroethane	30.0	32.1	107	30.0	32.6	109	81.0-117	1.5	30.00
Bromoform	30.0	30.8	103	30.0	31.7	106	72.0-134	2.9	30.00
1,1,2,2-Tetrachloroethane	30.0	35.4	118	30.0	36.2	121	76.0-129	2.2	30.00
1,2,3-Trichloropropane	30.0	31.5	105	30.0	32.6	109	70.0-145	3.4	30.00
Ethyl Benzene	30.0	30.3	101	30.0	29.6	99	72.0-115	2.3	30.00
m,p-Xylene	60.0	62.7	105	60.0	60.7	101	73.0-114	3.2	30.00
Styrene	30.0	30.0	100	30.0	28.9	96	74.0-114	3.7	30.00
o-Xylene	30.0	29.3	98	30.0	28.0	93	74.0-113	4.5	30.00
1,2,4-Trimethylbenzene	30.0	30.5	102	30.0	29.8	99	73.0-114	2.3	30.00
1,2-Dibromo-3-chloropropane	180	169	94	180	180	100	54.0-166	6.3	30.00
trans-1,4-Dichloro-2-butene	150	139	93	150	148	99	62.0-164	6.3	30.00
Surrogates									
1,2-Dichloroethane-d4			93			94	55.0-173		
Toluene d8			97			97	57.0-134		
4-Bromofluorobenzene			100			101	23.0-141		

Batch Information

Analytical Batch: **VMS3734**
Analytical Method: **SW-846 8260B**
Instrument: **MSD2**
Analyst: **JHL**

Prep Batch: **VXX5939**
Prep Method: **SW-846 5035 SL**
Prep Date/Time: **09/08/2015 15:48**
Spike Init Wt./Vol.: **5 g** Extract Vol: **5 mL**
Dupe Init Wt./Vol.: **5 g** Extract Vol: **5 mL**

Print Date: 09/14/2015

N.C. Certification # 481

SGS CHAIN OF CUSTODY | TRACE & SHALE

PROJECT INFO:
PROJECT: YSI
P.O. #:
QUOTE #:
SITE REF:
TURN AROUND TIME:
REPORT LEVEL: (see reverse) ☐ Level I ☒ Level II ☑ Level IV
SPECIAL DELIVERABLES: ☐ State of Origin: ☐ EDD: ☐ DoD: ☐ Other:

SEND DOCUMENTATION / RESULTS TO:
COMPANY: POWER Engineers
CONTACT: Eric Riekert
ADDRESS: 11733 Chesterdale Rd. Cincinnati, OH 45246
PHONE: 513-326-1525
EMAIL: eric.riekert@powereng.com

INVOICE TO: (☐ CHECK IF SAME)
COMPANY: CONTACT:
ADDRESS:
PHONE:
EMAIL:

SPECIAL INSTRUCTIONS / COMMENTS:
3150159

LAB ID	SAMPLE ID / DESCRIPTION	DATE	TIME	QC MS	QC MSD	QC DUP	TYPE (C, G)	MATRIX	CONT. QTY	PRESERVATIVE / ANALYSIS & METHOD: VOCs - 8260 List	REMARKS
	SB-1 (0-2')	9/1/15					G	Soil	4		
	SB-1 (8-10')	↓					↓	↓	4		
	SB-1 (6-8')								4		
	SB-2 (0-2')								4		
	SB-2 (2-4')								4		
	SB-2 (6-8')								4		
	SB-3 (0-2')								4		
	SB-3 (4-6')								4		
	SB-3 (8-10')								4		
	SB-4 (6-8')	↓					↓	↓	5		

COLLECTED/RELINQUISHED BY (1):	DATE:	TIME:	RECEIVED BY:
EA Riekert	9/2/15	13:00	
RELINQUISHED BY (2):	DATE:	TIME:	RECEIVED BY:

RECEIVED BY LABORATORY: DATE: 9/3/15 TIME: 0955
COC SEAL: ☐ INTACT ☐ BROKEN ☒ ABSENT
SAMPLE RECEIPT TEMP: °C 4.3
CARRIER: TRACKING #:
NOTES:

White - Retained by Lab
Yellow - Retained by Client

SGS CHAIN OF CUSTODY | TRACE & SHALE

PROJECT INFO:

PROJECT: YSI

P.O. #:

QUOTE #:

SITE REF:

TURN AROUND TIME:

REPORT LEVEL: (see reverse) ☐ Level I ☒ Level II ☐ Level IV

SPECIAL DELIVERABLES: ☐ State of Origin: ☐ EDD: ☐ DoD: ☐ Other:

SEND DOCUMENTATION / RESULTS TO:

COMPANY: see page 1

CONTACT:

ADDRESS:

PHONE:

EMAIL:

INVOICE TO: (☑ CHECK IF SAME)

COMPANY: CONTACT:

ADDRESS:

PHONE:

EMAIL:

SPECIAL INSTRUCTIONS / COMMENTS:

3150597

LAB ID	SAMPLE ID / DESCRIPTION	DATE	TIME	QC MS	QC MSD	QC DUP	TYPE (C, G)	MATRIX	CONT. QTY	PRESERVATIVE	ANALYSIS & METHOD	REMARKS
	SB-4 (10-12')	9/1/15					G	soil	5			
	SB-5 (4-6')	↓					↓	↓	5			
	SB-5 (6-8')								5			
	SB-6 (2-4')								5			
	SB-6 (6-8')								5			
	SB-7 (2-4')								5			
	SB-7 (4-6')								5			
	SB-8 (3-6')								5			
	SB-9 (3-6')							↓	5			
	Trip Blank	↓					↓	water	4			

COLLECTED/RELINQUISHED BY (1):	DATE:	TIME:	RECEIVED BY:
E.A. Richard	9/2/15	13:00	
RELINQUISHED BY (2):	DATE:	TIME:	RECEIVED BY:

RECEIVED BY LABORATORY: DATE: 9/3/15 TIME: 0955

COC SEAL: ☐ INTACT ☐ BROKEN ☑ ABSENT

SAMPLE RECEIPT TEMP: °C 4.3

CARRIER: TRACKING #:

NOTES:

White - Retained by Lab
Yellow - Retained by Client

SGS ENVIRONMENTAL SERVICES | TRACE LABORATORY 5500 Business Drive Wilmington, NC 28405 910 350 1903 | 910 794 1613 www.sgs.com
Member of the SGS Group (SGS SA)

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **Power Engineers** Work Order No.: **31501597**

1. [X] Shipped
   [ ] Hand Delivered

2. [X] COC Present on Receipt
   [ ] No COC
   [ ] Additional Transmittal Forms

3. [ ] Custody Tape on Container
   [X] No Custody Tape

4. [X] Samples Intact
   [ ] Samples Broken / Leaking

5. [X] Chilled on Receipt Actual Temp.(s) in °C: 4.3 Thermometer ID#: Login 2D
   [ ] Ambient on Receipt
   [ ] Walk-in on Ice; Coming down to temp.
   [ ] Temperature Blank Present

6. [X] Sufficient Sample Submitted
   [ ] Insufficient Sample Submitted

7. [ ] Chlorine absent
   [ ] HNO3 < 2
   [ ] HCL < 2
   [ ] Additional Preservatives verified (see notes)

8. [X] Received Within Holding Time
   [ ] Not Received Within Holding Time

9. [ ] No Discrepancies Noted
   [X] Discrepancies Noted
   [ ] NCDENR notified of Discrepancies*

10. [ ] No Headspace present in VOC vials
    [ ] Headspace present in VOC vials >6mm

Notes:

Comments: Informed by client that the first 9 samples were received in methanol preserved vials. Sample SB-2 (6-8) was received with no sample in 2oz jar, used SB-2 (2-4) for the dry weight. Samples SB-5 (4-6) and SB-5 (6-8) were not received with jars, used ~~SB-5 (10-12)~~ SB6 (6-8)* for the dry weights. Received a jar for SB-5 (10-12) but not listed on COC and no vials were received with it.

*per clients instruction - MW 9/3/15

Inspected and Logged in by: Amalie Walker
Date: 9/3/2015

*NCDENR must be notified when collection, holding time or preservation requirements are not met.

MI_11.9

APPENDIX C

Analytical Data Review Summary for YSI SCIA Soil Investigation

Laboratory: SGS Environmental Services, Wilmington, North Carolina
Analysis: VOC analysis of soil samples
Laboratory report number: 31501597

Sample Analyses and Analytical Methods

Requested analyses and analyses conducted for each sample are listed below.

Sample ID	Matrix	Requested Analyses	Analyses Reported	Discrepancies
SB-1(0-2)	Soil	VOCs	VOCs	None
SB-1(8-10)	Soil	VOCs	VOCs	None
SB-1(6-8)	Soil	VOCs	VOCs	None
SB-2(0-2)	Soil	VOCs	VOCs	None
SB-2(2-4)	Soil	VOCs	VOCs	None
SB-2(6-8)	Soil	VOCs	VOCs	None
SB-3(0-2)	Soil	VOCs	VOCs	None
SB-3(4-6)	Soil	VOCs	VOCs	None
SB-3(8-10)	Soil	VOCs	VOCs	None
SB-4(6-8)	Soil	VOCs	VOCs	None
SB-4(10-12)	Soil	VOCs	VOCs	None
SB-5(4-6)	Soil	VOCs	VOCs	None
SB-5(6-8)	Soil	VOCs	VOCs	None
SB-6(2-4)	Soil	VOCs	VOCs	None
SB-6(6-8)	Soil	VOCs	VOCs	None
SB-7(2-4)	Soil	VOCs	VOCs	None
SB-7(4-6)	Soil	VOCs	VOCs	None
SB-8(3-6)	Soil	VOCs	VOCs	None
SB-9(3-6)	Soil	VOCs	VOCs	None
Trip Blank	Water	VOCs	VOCs	None

Sample Holding Times

All samples were analyzed within 14 days of collection, as required by the analytical method (U.S. EPA SW846 Method 8260B) and the Work Plan.

Analytical Methods and Reporting Limits

All analyses were conducted using the analytical procedures specified in *Sampling and Analysis Plan for Source Control / Groundwater Interim Action Investigations at YSI Incorporated, Yellow Springs, Ohio* (BHE, 2002) and *SCIA Soil Monitoring Work Plan, YSI Incorporated* (POWER Engineers 2015). Reporting limits for all soil samples were below SCIA soil remediation goals. The laboratory's Limits of Quantitation and Method Detection Limits were low enough to assess the success of the SCIA interim action. A specific comparison to the laboratory reporting limits of the Sampling and Analysis Plan was not conducted.

Results for Blank Samples

Methylene chloride was identified in the trip blank sample at an estimated concentration of 6.37 ug/kg. Methylene chloride was identified in three samples from the YSI site at estimated concentrations ranging from 2.28 ug/kg to 2.67 ug/kg. These three soil samples from the YSI site were all collected in the Former Shipping Dock Area, and area where an interim action for carbon tetrachloride was required. It is possible that laboratory contamination or contamination in transit led to the identification of this compound in the samples from the site. However, methylene chloride is a reductive dechlorination breakdown product of carbon tetrachloride, the constituent for which an

interim action was required in the Former Shipping Dock Area. Therefore, the detection of this compound in these samples may be residual from the reductive dechlorination project.

No VOCs were detected in the method blanks associated with this batch of samples.

Surrogate Recoveries

QC acceptance criteria for surrogate spike recoveries for volatile organic compound analyses are listed in the table below. Surrogate recoveries were within acceptance criteria for all samples from the site.

Analysis	Surrogate compound	% Recovery – acceptance criteria	Samples with surrogate recoveries outside acceptance criteria
VOCs	d4-1,2-Dichloroethane 4-Bromofluorobenzene d8-Toluene	55-173 23-141 57-134	None.

Results for Laboratory Control Sample (LCS) / LCS Duplicate samples

<u>All Samples Except SB-2(6-8)</u>

Percent recovery QC acceptance criteria for VOCs in LCS samples are established by the laboratory and vary by compound. All LCS sample analyte recoveries were within QC acceptance criteria, with the exception of recoveries for acrolein in the LCS and LCS Duplicate associated with this sample batch. Acrolein percent recovery in the LCS and LCS Duplicate were above control limits.

Relative percent differences (RPD) for the LCS and LCS Duplicate associated with this sample batch were all within control limits, including the RPD for acrolein.

The laboratory prepared a matrix spike sample using one of the samples from this sample batch. Spike recoveries were within control limits with the exception of 1,1,1-trichloroethane, ethylbenzene, toluene, and o-xylene (results were below control limits for these compounds) and 2-hexanone (results were above control limits for this compound).

Matrix spike / matrix spike duplicate (MS/MSD) sample pairs were prepared by the laboratory to measure the precision, or reproducibility of analytical data. Precision is measured by calculating the relative percent difference (RPD) of duplicate analyses. QC acceptance criteria for RPD of MS/MSD sample pairs are established by the laboratory and vary by compound. The RPD for all compounds were within control limits.

<u>Sample SB-2(6-8)</u>

Sample SB-2(6-8) was associated with a different sample batch.

All LCS sample analyte recoveries were within QC acceptance criteria, with the exception of recoveries for acrolein in the LCS and LCS Duplicate associated with this sample batch. Acrolein percent recovery in the LCS and LCS Duplicate were above control limits. Relative percent differences (RPD) for the LCS and LCS Duplicate were all within control limits, including the RPD for acrolein.

Duplicate sample analyses

No duplicate sample pairs were included this sample batch.

Conclusions

The analytical results are valid for their intended use in assessing compliance with SCIA soil remediation goals.