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2010/2011 DATA SUMMARY REPORT AND PROPOSED MODIFICATIONS TO ENHANCE REMEDIATION OF FREON CONTAMINATED GROUNDWATER AT SITE 7 FORMER FUEL DEPOT

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2010/2011 DATA SUMMARY REPORT AND PROPOSED MODIFICATIONS TO ENHANCE REMEDIATION OF FREON-CONTAMINATED GROUNDWATER SITE 7 – FORMER FUEL DEPOT

NWIRP CALVERTON

Calverton, New York

Naval Facilities Engineering Command
Mid-Atlantic

Contract No. N62470-08-D-1001
Contract Task Order WE08

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2010/2011 DATA SUMMARY REPORT AND PROPOSED MODIFICATIONS TO ENHANCE REMEDIATION OF FREON-CONTAMINATED GROUNDWATER SITE 7 – FORMER FUEL DEPOT

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MID-ATLANTIC

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ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

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1 Soil Vapor Extraction/Monitoring Well SV11/MW40S Freon Concentrations

ACRONYMS

AS	Air Sparge
AS/SVE	Air Sparge/Soil Vapor Extraction
CLEAN	Comprehensive Long-Term Environmental Action Navy
CMS	Corrective Measures Study
CTO	Contract Task Order
DPT	Direct Push Technology
Freon 113	1,1,2-trichloro-1,2,2-trifluoroethane
HDPE	high-density polyethylene
ID	internal diameter
JP	Jet Propulsion
MCL	Maximum Contaminant Level
MW	Monitoring Well
NAVFAC	Naval Facilities Engineering Command
NGC	Northrop Grumman Corporation
No.	number
NWIRP	Naval Weapons Industrial Reserve Plant
NYSDOH	New York State Department of Health
PID	Photoionization Detector
PVC	polyvinyl chloride
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facilities Investigation
SVE	Soil Vapor Extraction
Tetra Tech	Tetra Tech NUS, Inc.
USTs	Underground Storage Tanks
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
VOCs	Volatile Organic Compounds

1.0 INTRODUCTION

This data summary report has been prepared by Tetra Tech NUS, Inc. (Tetra Tech) for Naval Facilities Engineering Command (NAVFAC) under the Comprehensive Long-Term Environmental Action Navy (CLEAN) IV Contract No. N62470-08-D-1001, Contract Task Order (CTO) WE08. This document presents the results and findings from the 2010 and 2011 Freon investigation at Site 7 – Former Fuel Depot, located at Naval Weapons Industrial Reserve Plant (NWIRP) Calverton, New York (Figures 1 and 2). This document also provides recommendations for the installation of new air sparging and soil vapor extraction wells.

1.2 SITE BACKGROUND

The Site 7 Former Fuel Depot was used for the storage and distribution of fuel products, such as Jet Propulsion (JP)-4 and JP-5 fuel. Seven underground storage tanks (USTs), ranging in size from 4,000 to 50,000 gallons, were used for storage of jet fuel and gasoline. Fuels were transferred from the USTs to trucks for use in the flight preparation areas of the facility. These activities have resulted in groundwater contamination by fuels, which may have occurred due to tank and/or pipe leakage, tank overfilling, and surface spills.

Freon-113 (1,1,2-trichloro-1,2,2-trifluoroethane) has been detected at varying concentrations in the shallow groundwater at the southwest corner of Site 7, specifically from soil vapor extraction (SVE)/monitoring well (MW) SV-11 (Figure 3). Throughout various investigations and activities conducted at the Site, SV-11 has been also identified as monitoring well A4MW5 or MW405S. There are no reports that Freon-113 was used at Site 7, but Freon-113 was used at the adjacent Site 10A – Jet Fuel Systems Laboratory. Historical information from Northrop Grumman has indicated that a former contaminated fuel leaching chamber associated with Site 10A may be the potential source of Freon detected in the groundwater collected from SV-11. The suspected location of the former contaminated fuel leaching chamber is approximately 45 feet west and hydraulically up-gradient of SV-11. Three sanitary cesspools were also reported to be present south of the leaching chamber.

In 1995 the Northrop Grumman Corporation (NGC) conducted a Phase I Environmental Site Assessment, which included the installation of monitoring well A4MW5 (SV-11) (NGC, 1995). The 1995 groundwater sample contained Freon-113 at 1,100 micrograms per liter (µg/L).

The 50,000 gallon fuel tanks were removed in August 1997 and the remaining tanks were removed in April 1998. In 1997 Tetra Tech conducted a Resource Conservation and Recovery Act (RCRA) Facilities Investigation (RFI) at Site 10A (west of Site 7). During this investigation, a groundwater sample was collected from monitoring well A4MW5 (SV-11). Freon-113 was detected at 101 µg/L. Groundwater samples were also collected via temporary well point sampling techniques during this investigation.

Groundwater samples from JF-TW-17 (located next to SV-11) detected Freon at 51 and 38 µg/L at 19 and 20 feet below ground surface (bgs), respectively (Tetra Tech NUS, 1998). In addition, subsurface soil and groundwater samples were collected upgradient of Site 7, Site 10A – Jet Fuel Systems Lab [1994/1995 RFI (HNUS, 1995) and 1997 RFI (C.F. Braun, 1997)]. The analytical results indicated that soil and groundwater west of the former contaminated fuel leaching chamber was not impacted by Freon-113.

In 2000, a Phase II RFI/ Corrective Measures Study (CMS) was conducted for Site 7. The data used to evaluate the area surrounding SV-11 was from the 1997 RFI for Site 10A (Tetra Tech, NUS 2000).

In 2002 a Pre-Design Investigation was performed by Tetra Tech EC. Freon-113 was not detected in monitoring well MW405S (SV-11) during the Pre-Design Investigation (FWEC, 2003). In 2005, groundwater samples were collected as part of a pilot study for the Air Sparging/Soil Vapor Extraction (AS/SVE) System. The sample collected from SV-11 contained Freon-113 at 212 µg/L (Tetra Tech EC, 2005). A full scale AS/SVE system was installed at the Site in 2006 and continues to operate.

Bi-annual groundwater sampling events have been conducted at the Site since the full scale AS/SVE system became operational. Concentrations of Freon-113 have been detected in SV-11 since regular groundwater monitoring events commenced in March 2006 to the most recent sampling event conducted in June 2011. During these monitoring events, concentrations of Freon-113 have ranged from 12 µg/L to 199 µg/L.

Freon-113 concentrations at soil vapor/monitoring well SV11-MW40S vary throughout the year (Graph 1). In general, while the AS/SVE system is in operation, concentrations of Freon-113 decrease and then Freon concentrations increase once the AS/SVE system is shut down for the winter season. This data suggests that an upgradient source of Freon-113 may be present.

2.0 2010 AND 2011 FIELD ACTIVITIES

To identify a potential source and the extent of Freon-113-contaminated groundwater west of Site 7, field activities were conducted in September 2010 and May/June 2011. In September 2010, 11 soil borings were installed to approximately 30 feet using direct push technology (DPT). Based on the presence of elevated PID readings and/or visual evidence of stained soils, soil samples were collected at depths of 16 to 32 feet bgs for analytical testing. The locations of these soil borings are presented in Figure 3.

Based on the September 2010 soil sample results, in May and June 2011, seven temporary well locations were selected to characterize groundwater quality. At each location, groundwater grab samples were collected at depths of 16 to 20 feet bgs (water table), 21 to 25 feet bgs, and 26 to 30 feet bgs. The temporary well locations are also presented in Figure 3.

Site photos depicting the area of the Freon investigation are presented in Appendix A. Field Forms and Chain of Custodies are presented in Appendices B and C, respectively. The laboratory analytical data and data validation letters are presented in Appendices D and E, respectively.

3.0 RESULTS

Soil samples and groundwater grab samples were collected at locations west of SV-11 to determine if a potential continuing source of Freon-113 contamination exists in groundwater (Figure 3). Analytical data for the soil samples are presented in Table 1 and Figure 4. Analytical data for the groundwater grab samples are presented in Table 2 and Figure 5.

3.1 SOIL INVESTIGATION RESULTS

Soil boring SB104, located at the northern end of the former contaminated fuel leaching chamber, had the highest concentration of Freon at 1,000 J micograms per kilogram (µg/kg) at a depth of 19 feet bgs. Analytical results for soils at this depth also contained concentrations of naphthalene at 3,600 J µg/kg, total xylenes at 1,600 J µg/kg, methyl cyclohexane at 360 J µg/kg, ethylbenzene at 83 J µg/kg, cyclohexane at 87 J µg/kg, and toluene at 63 J µg/kg. Soil boring SB103, located south southeast of SB104 and hydraulically downgradient of the former contaminated fuel leaching chamber, contained the next highest concentration of Freon-113 (73 J µg/kg) at a depth of 18 feet bgs. In addition the following VOCs were also detected at this depth: total xylenes at 24 J µg/kg, toluene at 23 J µg/kg, carbon disulfide at 2.1 J µg/kg, ethylbenzene at 1.1 J µg/kg, and methyl cyclohexane at 0.29 J µg/kg.

Freon-113 was found in two soil boring locations west and south west of SV-11. Analytical results for soil boring SB102 had a concentration of Freon-113 at 6.3 J µg/kg at a depth of 17.5 feet bgs. No other VOCs were detected in soils at this location. Freon-113 was detected at soil boring SB107 at concentrations of 6 J µg/kg at a depth of 18 feet bgs and 10 J µg/kg at 27.5 feet bgs. Other VOCS that were detected in soils at a depth of 18 feet bgs at soil boring SB107 were naphthalene at 100 J µg/kg, toluene at 28 J µg/kg, isopropylbenzene at 8.6 J µg/kg, methyl cyclohexane at 1.6 J µg/kg, and cyclohexane at 0.55 J µg/kg. At a depth of 27.5 feet bgs at soil boring SB107, naphthalene at 30 J µg/kg, isopropylbenzene at 20 J µg/kg, total xylenes at 8.3 J µg/kg, methyl cyclohexane at 2.3 J µg/kg, carbon disulfide at 0.99 J µg/kg and cyclohexane at 0.71 J µg/kg were detected.

Freon-113 was not detected in soil borings SB110, SB111, and SB108 that are located south and south east of the former contaminated fuel leaching chamber; however, other VOCs were detected in SB110 and SB111 including methyl cyclohexane at 340 J µg/kg, naphthalene at 480 J µg/kg, and 1,4-dichlorobenzene at 520 J µg/kg.

VOCs were not detected in soil boring SB101, located east of SV-11 or in soil boring SB109, SB105, and SB106 located hydraulically side-gradient of the former contaminated fuel leaching chamber.

3.2 GROUNDWATER INVESTIGATION RESULTS

Temporary wells TW112, TW113, TW114, and TW115 were installed near soil boring SB103. Analytical data for the groundwater grab samples are presented in Table 2 and Figure 5. Freon-113 was detected at a depth interval of 16 to 20 feet bgs at all four locations above the New York State Department of Health (NYSDOH) Maximum Contaminant Level (MCL) of 5 µg/L. Analytical results indicate Freon-113 concentrations were the highest at TW112 (4,000 µg/L) and TW115 (1,300 µg/L). Freon-113 was also detected at 26 to 30 feet bgs in TW112 at a concentration of 49 µg/L; 16 to 20 feet bgs at TW113 and TW114 at a concentration of 680 µg/L and 620 µg/L, respectively; and 21 to 25 feet bgs in TW114 at a concentration of 9.6 µg/L.

Additionally, other VOCs were detected in TW112, TW113, TW114, and TW115 at concentrations above NYSDOH MCLs include total xylenes at 224 µg/L, ethylbenzene at 18 µg/L, toluene at 25 µg/L and isopropylbenzene at 15 µg/L.

Three additional temporary wells (TW116, TW117 and TW118) were installed further south of the four original temporary well locations. At a depth of 16 to 20 feet bgs at temporary wells TW116 and TW117, Freon-113 was detected at concentrations of 36 µg/L and 9.6 µg/L, respectively. Other VOCs detected in TW116 and TW117 include total xylenes at 9.1 µg/L, isopropylbenzene at 13 µg/L, and 1,4-dichlorobenzene at 14 µg/L. Freon-113 was not detected at TW118 and isopropylbenzene was detected at a concentration of 1 µg/L.

Groundwater from soil vapor/monitoring well SV-11/MW40S was also collected and analyzed for VOCs. Freon-113 was the only VOC detected above NYSDOH's MCL at a concentration of 14 µg/L.

3.3 FREON CONTAMINATED GROUNDWATER BOUNDARY

The soil and groundwater investigation has sufficiently delineated the boundaries of Freon-113 groundwater at the Site 7 - Former Fuel Depot. Historical and current groundwater data for Freon-113 are presented in Table 3 and Figure 6. The estimated plume boundary is also presented on Figure 6. The highest concentration of Freon-113 in soil was detected in the 18 to 19 feet bgs sample interval, which also corresponds to the highest concentrations of Freon-113 in groundwater detected in the 16 to 20 feet bgs sample interval. Based on this data, there is evidence that soil in the area of the former fuel leaching chamber is acting as a continuing source of groundwater contamination detected in SV-11/MW40S.

4.0 ADDITION OF INJECTION AND EXTRACTION WELLS

Three additional injection wells and one additional extraction well will be installed west of the existing system and utilize excess capacity of the existing AS/SVE system to treat the western extension of the Freon-113 plume (Figure 6). Figure 7 and Figure 8 present the cross section of the Freon-113 contaminated area. Figure 8 also presents the locations of the injection and extraction wells. The construction details of the extraction and injection wells are located in Table 4. The proposed locations of the injection wells, extraction well, and associated piping are subject to change once utilities have been located at the site.

Injection Wells

Three additional injection wells will be installed. Two injection wells (AS45 and AS46) will be installed north and south of soil boring SB103 (Figure 6). The distance between these two wells will be approximately 17 feet. The third injection well (AS47) will be installed in the approximate location of the former contaminated fuel leaching chamber (SB104).

Hollow stem auger drilling techniques will be used to install injection wells AS45 and AS46 at the edge of an active road way. The diagram of these two wells is presented in Figure 9 and can also be seen in the cross section (Figure 8). Injection well AS47 will be installed vertically by a hollow stem auger to a depth of approximately 34 feet bgs. The diagram of this well is presented in Figure 10. A hollow stem auger will be used to install AS45 and AS46 at a 30 degree angle for approximately 17 feet to reach a depth of 34 feet bgs.

Each well will be constructed of 2-inch internal diameter (ID) Schedule 40 polyvinyl chloride (PVC) casing with two-foot long, 0.010-inch, slotted well screen. A sand pack of number (No.) 1 morie silica sand or equivalent will be installed from the bottom of the well screen to 2 foot above the well screen, followed by a 2-foot thick bentonite seal. The remainder of the borehole will be filled with a cement/bentonite grout. Each injection well will be completed with a removable cap. The well casing will initially extend approximately 6 inches above grade with a lockable cap. After the AS piping has been installed, the wells will be cut and completed with a protective flush mount casing.

Extraction Well

One extraction well will be installed to induce the flow of air through the unsaturated soils in order to volatilize VOCs. The extraction well (SV15) will be installed at the same location as SB111 (Figure 6).

Extraction well SV15 will be installed by a hollow stem auger to a depth of approximately 30 feet bgs. Continuous split-spoon samples will be collected to depth and the lithology will be recorded. Based on

previous work in this area, clays units are not anticipated, but if clay is detected within the screened interval, then the screen length or location will be modified. The extraction well will be constructed of 2-inch diameter Schedule 40 PVC casing of 0.010-inch screen from about 10 feet above the water table to the completion depth. A sand pack of No. 1 morie silica sand will be installed from the bottom of the well screen to 1 foot above the well screen, followed by a 2-foot thick bentonite seal. The remainder of the borehole will be filled with a cement/bentonite grout. The well casing will initially extend approximately 6 inches above grade with a lockable cap. After the SVE piping has been installed, the well will be cut and completed with a protective flush mount casing.

Associated Piping

The proposed injection and extraction wells will be piped below grade as shown in Figure 11. The existing injection well AS23 and extraction well SV11 piping will be modified from above ground to below ground. Piping for all wells in the area will convene at two underground vaults. A diagram of the vaults with the pipe layout is presented in Figure 12. Flow central valves will be located in the vaults.

The exterior vapor extraction and air injection piping will be schedule 40 PVC and high-density polyethylene (HDPE) respectively. The system will include allowance for physical expansion and contraction and will be sloped to facilitate condensate transport. Pipe insulation is not required because the system will be shut down during the winter months. PVC piping joints will be sealed with cement and HDPE piping will be butt fused.

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TABLES

Table 1
September 2010 Soil Sample Analytical Results
Site 7 - Former Fuel Depot
NWIRP Calverton, NY

Location	**FDSB101**	**FDSB102**		**FDSB103**		**FDSB104**		**FDSB105**	**FDSB106**	**FDSB107**		**FDSB108**	**FDSB109**			**FDSB110**		**FDSB111**	
Sample Depth (ft bgs)	**17.5 - 18**	**17.5 - 18**	**17.5 - 18 (Duplicate)**	**18 - 18.5**	**21.5 - 22**	**15 - 15.5**	**19 - 19.5**	**18 - 18.5**	**18 - 18.5**	**18 - 18.5**	**27.5 - 28**	**16.5 - 17**	**19 - 19.5**	**19 - 19.5 (Duplicate)**	**33 - 33.5**	**17.5 - 18**	**32 - 32.5**	**18.5 - 19**	**28 - 28.5**
Sample Date	**9/27/2010**	**9/27/2010**	**9/27/2010**	**9/27/2010**	**9/27/2010**	**9/29/2010**	**9/29/2010**	**9/29/2010**	**9/29/2010**	**9/29/2010**	**9/29/2010**	**9/29/2010**	**9/30/2010**	**9/30/2010**	**9/30/2010**	**9/30/2010**	**9/30/2010**	**9/30/2010**	**9/30/2010**
Volatiles (µg/kg)																			
Freon 113			6.3 J	73 J	1.4 J	7.5 J	1000 J			6 J	10 J								
1,4-Dichlorobenzene																		520 J	
2-Butanone					2.5 J														
Carbon Disulfide				2.1 J						0.55 J	0.99 J								
Cyclohexane							87 J				0.71 J			120 J	80 J				
Ethylbenzene				1.1 J			83 J												
Isopropylbenzene										8.6 J	20 J		8.1 J				0.96 J		
M+P-Xylenes							940 J				6.9 J								
Methyl Cyclohexane				0.29 J			360 J			1.6 J	2.3 J				110 J	260	0.45 J	340 J	
Naphthalene							3600 J			100 J	30 J					480 J			
O-Xylene							650 J				1.5 J								
Toluene				23 J			63 J			28 J			16 J	17 J					
Total Xylenes				24 J			1600 J				8.3 J								

Blank cell = The chemical was not detected.
J = The chemical was detected but the concentration reported is an estimated value.
ft bgs = Feet below ground surface.
µg/kg = Microgram per kilogram.

Table 2
Temporary Well Analytical Results (May and June 2011)
Site 7 - Former Fuel Depot
NWIRP Calverton, NY

Location	**NYSDOH MCLs[1]**	**FD-TW112**			**FD-TW113**			**FD-TW114**				**FD-TW115**		
Sample Depth (ft bgs)		**16 - 20**	**21 - 25**	**26 - 30**	**16 - 20**	**21 - 25**	**26 -30**	**16 - 20**	**16 - 20 (Duplicate 01)**	**21 - 25**	**26 - 30**	**16 - 20**	**21 - 25**	**26 -30**
Sample Date		**5/31/2011**	**5/31/2011**	**5/31/2011**	**5/31/2011**	**5/31/2011**	**5/31/2011**	**5/31/2011**	**5/31/2011**	**5/31/2011**	**5/31/2011**	**6/1/2011**	**6/1/2011**	**6/1/2011**
Volatiles (µg/L)														
Chloromethane	5									0.93 J				
Chloroethane	5			1.2 J						2.3 J				
Freon 113	5	**4000 J**		**49 J**	**680**		1.8	**620 J**	**620 J**	**9.6 J**		**1300**		0.59 J
1,1 Dichloroethene	5	3 J						1.2 J	1.2 J					
Acetone	50					4.9 J		8.2 J	7.8 J	8.3 J	4.3 J	8.3		6.5
Cyclohexane	50							2.9 J	2.3 J					
Methylcyclohexane	50	3 J			1.2			6.8 J	6.4 J					
Toluene	5	**17 J**			2.2			**22 J**	**25 J**			**11**		
Tetrachloroethene	5	0.54 J												
Ethylbenzene	5	**17 J**			1.9	0.86 J		**18 J**	**18 J**	0.51 J		4.6		
m and p Xylenes	5	**110 J**		1.8 J	**22**		1.1 J	**130 J**	**130 J**	1.4 J		**36**		
o Xylenes	5	**85 J**	1.3 J	1.5 J	**19**	3.4	0.63 J	**94 J**	**90 J**	0.94 J		**32**		
Isopropylbenzene	5	**15 J**		1.2 J	2.3	1		**25 J**	**26 J**	2 J		4.1	0.79 J	
1,4-Dichlorobenzene	5	2.4 J			1.7			2 J	2.2 J					

Blank = Not detected.
J = Estimated value.
ft bgs = Feet below ground surface.
MCL - Maximum Contaminant Limit.
µg/L = Microgram per liter.
Bold - Exceeds the NYS Department of Health (NYSDOH) MCL.
[1] - (NYSDEC, 2006) 6 NYCRR Part 375, Environmental Remediation Programs Subparts 375-1 to 375-4 & 375-6, December.

Table 2
Temporary Well Analytical Results (May and June 2011)
Site 7 - Former Fuel Depot
NWIRP Calverton, NY

Location	**NYSDOH MCLs[1]**	**FD-TW116**				**FD-TW117**				**FD-TW118**			**SV11-MW40S**
Sample Depth (ft bgs)		**16 - 20**	**21 - 25**	**26 -30**	**26 -30 (Duplicate 03)**	**16 - 20**	**16 - 20 (Duplicate 02)**	**21 - 25**	**26 -30**	**16 - 20**	**21 - 25**	**26 -30**	**NA**
Sample Date		**6/1/2011**	**6/1/2011**	**6/1/2011**	**6/1/2011**	**6/1/2011**	**6/1/2011**	**6/1/2011**	**6/1/2011**	**6/2/2011**	**6/2/2011**	**6/2/2011**	**6/1/2011**
Volatiles (µg/L)													
Chloromethane	5												
Chloroethane	5												
Freon 113	5	**36**				**9.6**	**9.5**						**14**
1,1 Dichloroethene	5												
Acetone	50	3.1 J	6.2		4 J								
Cyclohexane	50												
Methylcyclohexane	50	1.4				0.63 J	0.74 J						
Toluene	5												0.56 J
Tetrachloroethene	5												
Ethylbenzene	5	0.62 J	0.64 J										
m and p Xylenes	5	**7.4**				4.1	4.2						1.2 J
o Xylenes	5	1.7				1.1	1.1						1.7
Isopropylbenzene	5	**13**	2.2			**19**	**18**	2.6		0.51 J	1		
1,4-Dichlorobenzene	5	2				**13**	**14**						

Blank = Not detected.
J = Estimated value.
ft bgs = Feet below ground surface.
MCL - Maximum Contaminant Limit.
µg/L = Microgram per liter.
Bold - Exceeds the NYS Department of Health (NYSDOH) MCL.
[1] - (NYSDEC, 2006) 6 NYCRR Part 375, Environmental Remediation Programs Subparts 375-1 to 375-4 & 375-6, December.

Table 3
Freon-113 Data Used for Plume Delineation
Site 7 - Former Fuel Depot
NWIRP Calverton, NY

Location	Sample Date	Sample Depth (ft bgs)	Freon-113 (µg/L)
FD-MW03S	3/1/2000	16 - 26	ND
	7/19/2000		ND
JFTW02	11/9/1995	10 - 20	ND
JFTW03A	4/2/1997	21	ND
	4/2/1997	36	ND
JFTW04	11/9/1995	10 - 20	ND
JFTW14A	4/17/1997	20	ND
	4/17/1997	35	ND
	4/17/1997	55	ND
JFTW17A	5/22/1997	19	51
	5/22/1997	34	38
	5/22/1997	54	ND
FD-TW112	5/31/2011	16 - 20	4,000 J
	5/31/2011	21 - 25	ND
	5/31/2011	26 - 30	49 J
FD-TW113	5/31/2011	16 - 20	680
	5/31/2011	21 - 25	ND
	5/31/2011	26 -30	1.8
FD-TW114	5/31/2011	16 - 20	620 J
	5/31/2011	21 - 25	9.6 J
	5/31/2011	26 - 30	ND
FD-TW115	6/1/2011	16 - 20	1,300
	6/1/2011	21 - 25	ND
	6/1/2011	26 -30	0.59 J
FD-TW116	6/1/2011	16 - 20	36
	6/1/2011	21 - 25	ND
	6/1/2011	26 -30	ND
FD-TW117	6/1/2011	16 - 20	9.6
	6/1/2011	21 - 25	ND
	6/1/2011	26 -30	ND
FD-TW118	6/2/2011	16 - 20	ND
	6/2/2011	21 - 25	ND
	6/2/2011	26 -30	ND
SV11-MW40S	6/1/1995	15 - 25	1,100
	5/12/1997	15 - 25	101
	10/1/2002	15 - 25	ND
	7/1/2005	15 - 25	212
	3/30/2006	15 - 25	180

Table 3
Freon-113 Data Used for Plume Delineation
Site 7 - Former Fuel Depot
NWIRP Calverton, NY

Location	Sample Date	Sample Depth (ft bgs)	Freon-113 (µg/L)
SV11-MW40S	6/19/2006	15 - 25	ND
	8/29/2006	15 - 25	130
	10/31/2006	15 - 25	169
	3/5/2007	15 - 25	12
	6/19/2007	15 - 25	37.6
	9/18/2007	15 - 25	ND
	12/19/2007	15 - 25	21
	3/18/2008	15 - 25	156
	6/23/2008	15 - 25	112
	9/8/2008	15 - 25	92
	12/15/2008	15 - 25	86.7
	3/24/2009	15 - 25	54.1
	12/14/2009	15 - 25	151
	3/1/2010	15 - 25	199
	12/13/2010	15 - 25	103
	6/1/2011	15 - 25	14

Notes:
ND = Not detected.
ft bgs = Feet below ground surface.
µg/L = Microgram per liter.

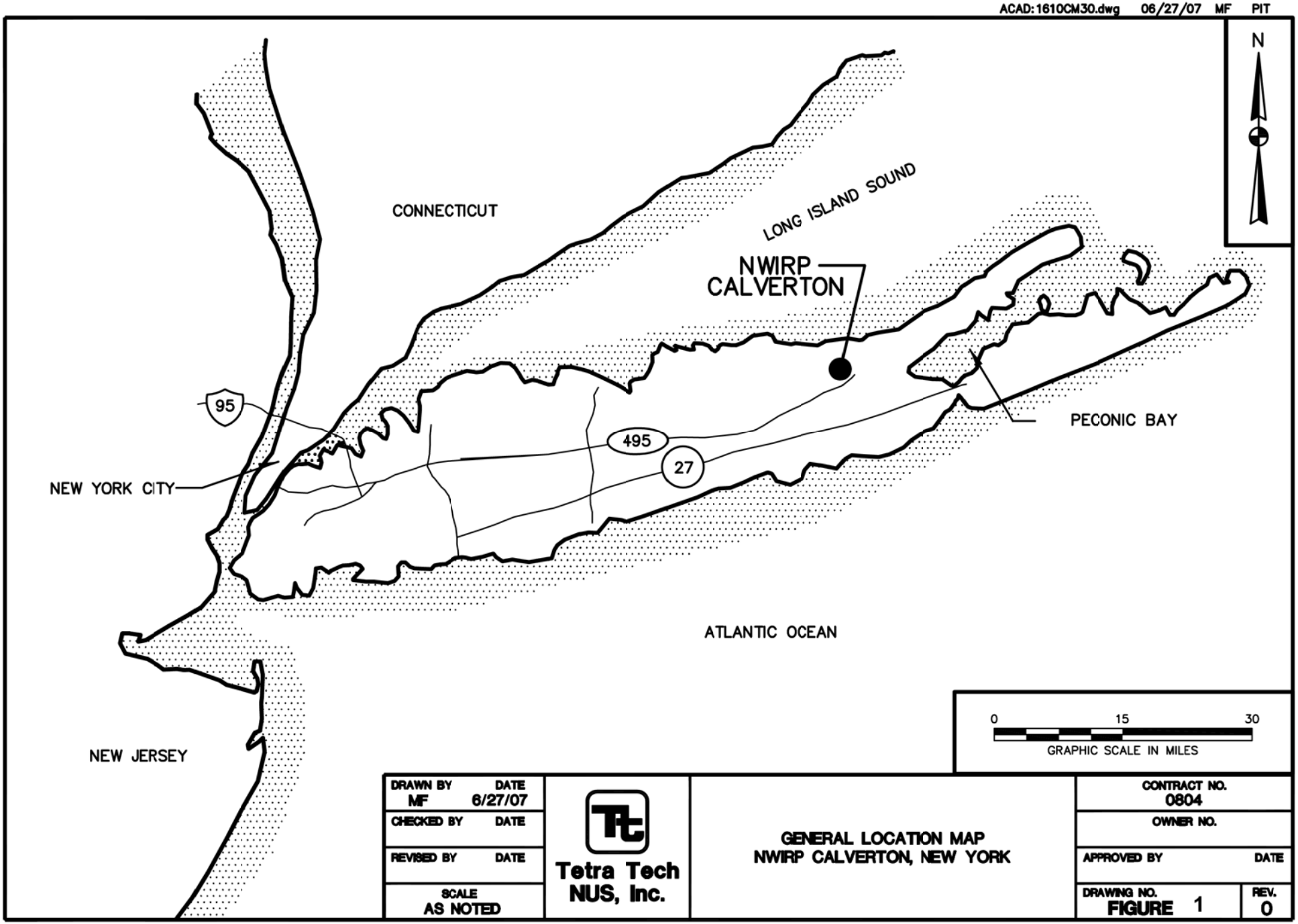
Table 4
Air Sparging/Soil Vapor Well - Construction Details
Site 7 - Former Fuel Depot
NWIRP Calverton, NY

Well ID	Vertical Depth (ft - bgs)	Total Depth (ft)	Top of Screen (ft - bgs)	Screen Length (ft)
New AS wells				
AS45	33 - 34[1]	34	31 - 32[1]	2
AS46		38		
AS47		38		
New SV wells				
SV15	30	30	10[2]	20

ft - feet.
bgs - below ground surface.
[1] Provided depths are estimated. Final depths will be determined in the field by the Tetra Tech field geologist based on maintaining a consistent water height of water above the water column relative to existing AS wells.
[2] Top of screen will be set approximately 10 feet above the water table.

FIGURES

ACAD:1610CM30.dwg 06/27/07 MF PIT



DRAWN BY MF	DATE 6/27/07	Tetra Tech NUS, Inc.	GENERAL LOCATION MAP NWIRP CALVERTON, NEW YORK
CHECKED BY	DATE		
REVISED BY	DATE		
SCALE AS NOTED			

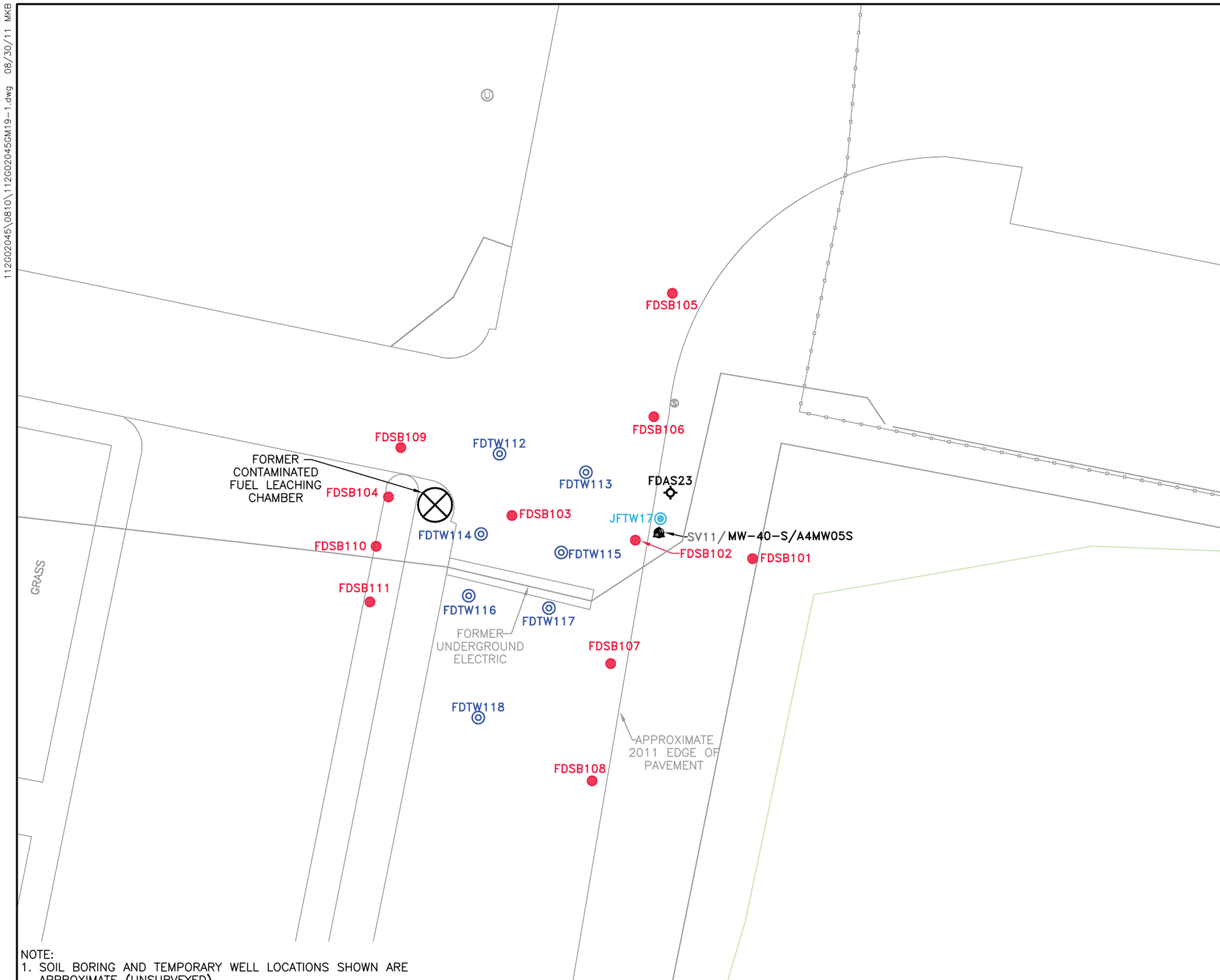
CONTRACT NO. 0804	
OWNER NO.	
APPROVED BY	DATE
DRAWING NO. FIGURE 1	REV. 0

FORM CADD NO. TTNUS-AH.DWG - REV 1 -9/10/98

P:\GIS_files\Calverton parcels.mxd mmc 02182010

DRAWN BY M. CUSHING	DATE 2/18/2010	TETRA TECH	CONTRACT NUMBER 112G01655
CHECKED BY	DATE	**SITE LOCATION MAP**	APPROVED BY / DATE
REVISED BY	DATE	**NWIRP Calverton, New York**	APPROVED BY / DATE
SCALE AS NOTED			FIGURE NO. 2 / REV 0

112G02045\0810\112G02045GM19-1.dwg 08/30/11 MKB



NOTE:
1. SOIL BORING AND TEMPORARY WELL LOCATIONS SHOWN ARE APPROXIMATE (UNSURVEYED).

LEGEND

- TREELINE
- MONITORING WELL
- AIR SPARGE WELL
- VAPOR EXTRACTION WELL
- SOIL BORING LOCATION (2010)
- TEMPORARY WELL POINT SAMPLE (1997)
- TEMPORARY WELL POINT SAMPLE (2011)

0 16 32
SCALE IN FEET

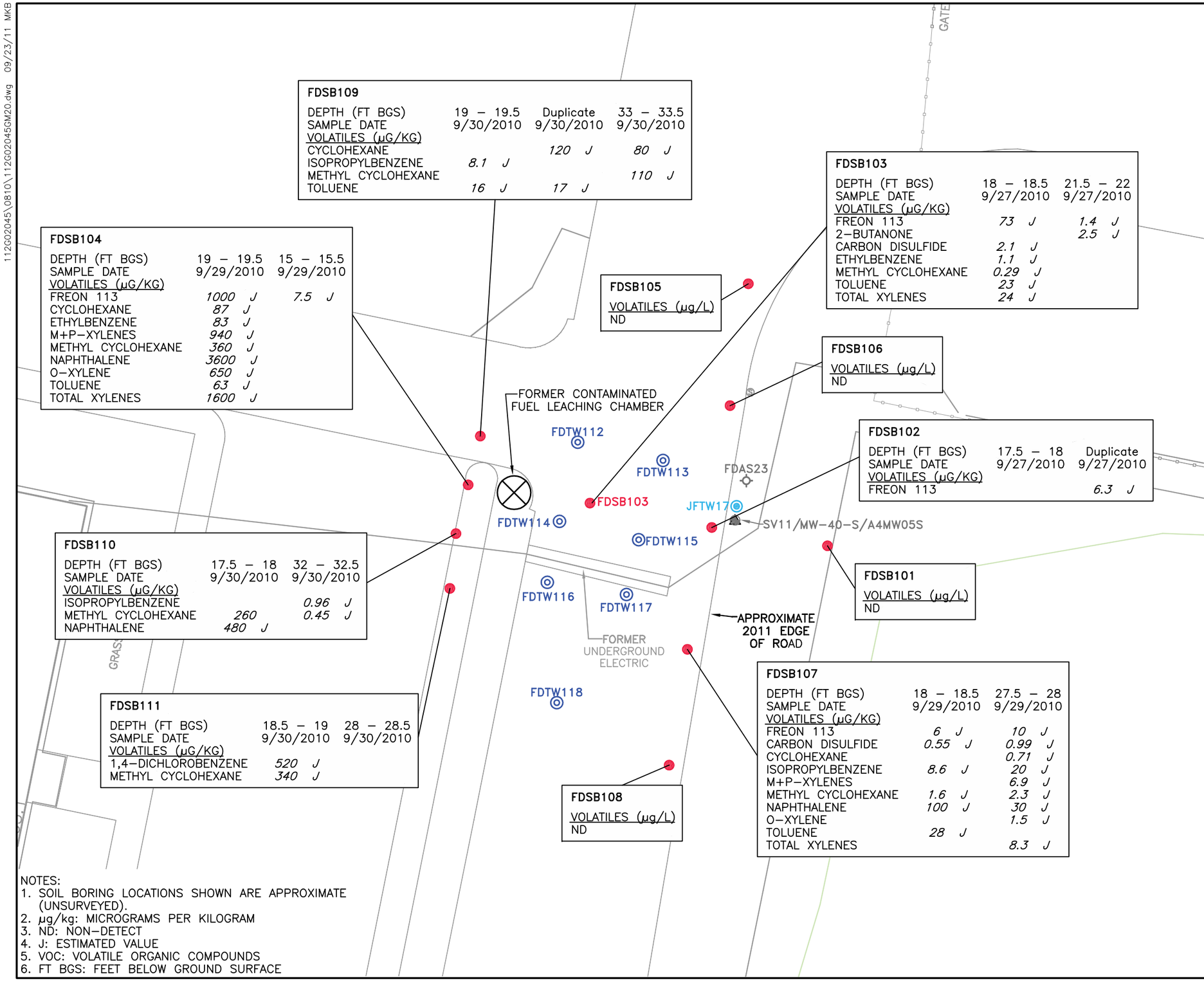
TETRA TECH NUS, INC.

2010 SOIL BORING AND
2011 TEMPORARY WELL LOCATIONS
SITE 7 – FORMER FUEL DEPOT
NWIRP CALVERTON
CALVERTON, NEW YORK

FILE	SCALE
112G02045GM19-1	AS NOTED

FIGURE NUMBER	REV	DATE
FIGURE 3	0	08/30/11

112G02045\0810\112G02045GM20.dwg 09/23/11 MKB



NOTES:
1. SOIL BORING LOCATIONS SHOWN ARE APPROXIMATE (UNSURVEYED).
2. µg/kg: MICROGRAMS PER KILOGRAM
3. ND: NON-DETECT
4. J: ESTIMATED VALUE
5. VOC: VOLATILE ORGANIC COMPOUNDS
6. FT BGS: FEET BELOW GROUND SURFACE

LEGEND

- TREELINE
- MONITORING WELL
- AIR SPARGE WELL
- VAPOR EXTRACTION WELL
- SOIL BORING LOCATION (2010)
- TEMPORARY WELL POINT SAMPLE (1997)
- TEMPORARY WELL POINT SAMPLE (2011)

0 16 32
SCALE IN FEET

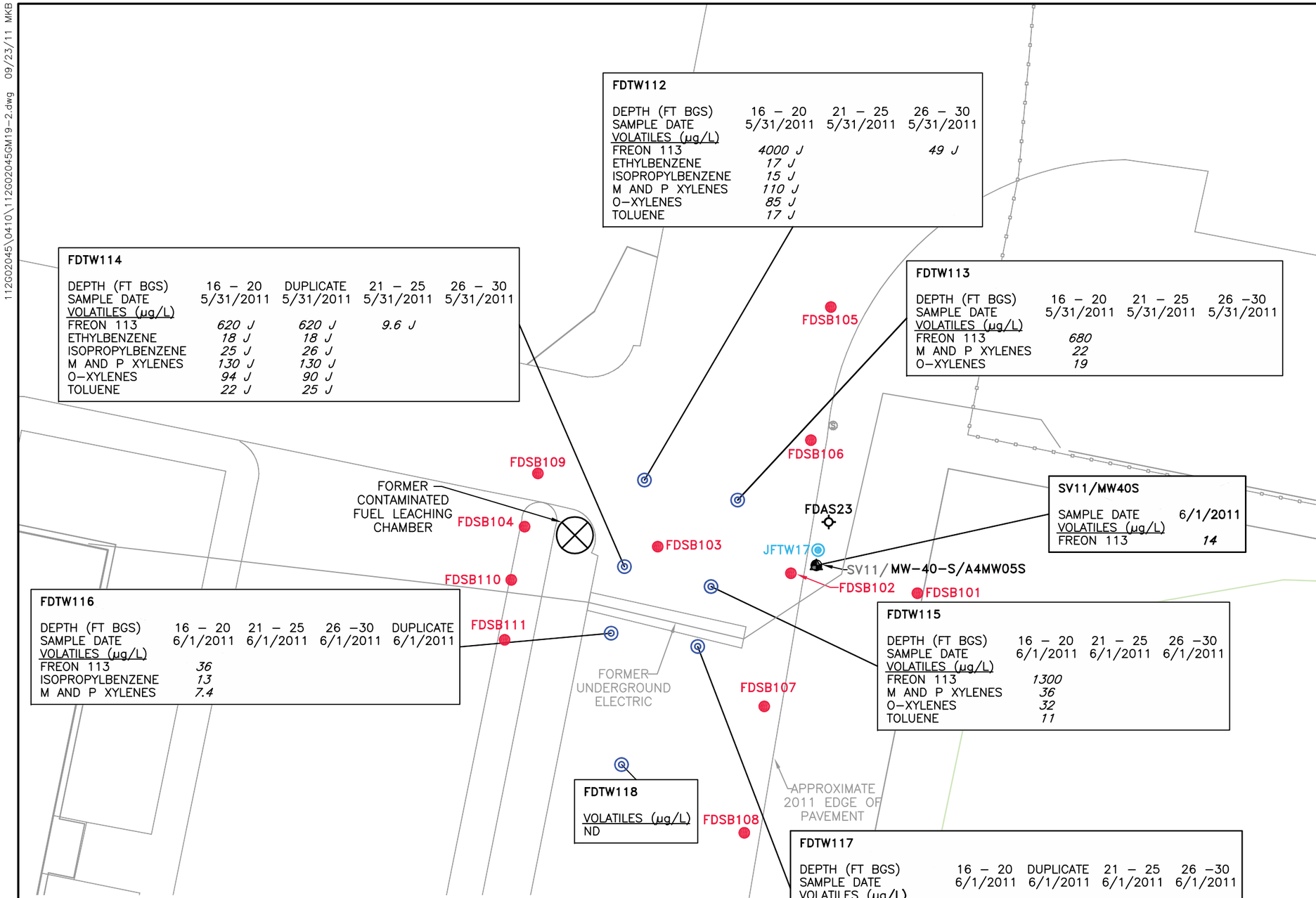
TETRA TECH NUS, INC.

SOIL BORING – ANALYTICAL RESULTS (SEPTEMBER 2010)
SITE 7 – FORMER FUEL DEPOT
NWIRP CALVERTON
CALVERTON, NEW YORK

FILE	SCALE
112G02045GM20	AS NOTED

FIGURE NUMBER	REV	DATE
FIGURE 4	0	09/23/11

112G02045\0410\112G02045GM19-2.dwg 09/23/11 MKB



FDTW112

DEPTH (FT BGS)	16 – 20	21 – 25	26 – 30
SAMPLE DATE	5/31/2011	5/31/2011	5/31/2011
VOLATILES (µg/L)			
FREON 113	*4000 J*		*49 J*
ETHYLBENZENE	*17 J*		
ISOPROPYLBENZENE	*15 J*		
M AND P XYLENES	*110 J*		
O-XYLENES	*85 J*		
TOLUENE	*17 J*		

FDTW114

DEPTH (FT BGS)	16 – 20	DUPLICATE	21 – 25	26 – 30
SAMPLE DATE	5/31/2011	5/31/2011	5/31/2011	5/31/2011
VOLATILES (µg/L)				
FREON 113	*620 J*	*620 J*	*9.6 J*	
ETHYLBENZENE	*18 J*	*18 J*		
ISOPROPYLBENZENE	*25 J*	*26 J*		
M AND P XYLENES	*130 J*	*130 J*		
O-XYLENES	*94 J*	*90 J*		
TOLUENE	*22 J*	*25 J*		

FDTW113

DEPTH (FT BGS)	16 – 20	21 – 25	26 –30
SAMPLE DATE	5/31/2011	5/31/2011	5/31/2011
VOLATILES (µg/L)			
FREON 113	*680*		
M AND P XYLENES	*22*		
O-XYLENES	*19*		

SV11/MW40S

SAMPLE DATE	6/1/2011
VOLATILES (µg/L)	
FREON 113	*14*

FDTW116

DEPTH (FT BGS)	16 – 20	21 – 25	26 –30	DUPLICATE
SAMPLE DATE	6/1/2011	6/1/2011	6/1/2011	6/1/2011
VOLATILES (µg/L)				
FREON 113	*36*			
ISOPROPYLBENZENE	*13*			
M AND P XYLENES	*7.4*			

FDTW115

DEPTH (FT BGS)	16 – 20	21 – 25	26 –30
SAMPLE DATE	6/1/2011	6/1/2011	6/1/2011
VOLATILES (µg/L)			
FREON 113	*1300*		
M AND P XYLENES	*36*		
O-XYLENES	*32*		
TOLUENE	*11*		

FDTW118

VOLATILES (µg/L)
ND

FDTW117

DEPTH (FT BGS)	16 – 20	DUPLICATE	21 – 25	26 –30
SAMPLE DATE	6/1/2011	6/1/2011	6/1/2011	6/1/2011
VOLATILES (µg/L)				
FREON 113	*9.6*	*9.5*		
1,4-DICHLOROBENZENE	*13*	*14*		
ISOPROPYLBENZENE	*19*	*18*		

NOTES:
1. SOIL BORING AND TEMPORARY WELL LOCATIONS SHOWN ARE APPROXIMATE (UNSURVEYED).
2. µg/L: MICROGRAMS PER LITER
3. ND: NON-DETECT
4. J: ESTIMATED VALUE
5. VOC: VOLATILE ORGANIC COMPOUNDS
6. FT BGS: FEET BELOW GROUND SURFACE
7. RESULTS SHOWN ARE ABOVE NEW YORK STATE DEPARTMENT OF HEALTH MAXIMUM CONTAMINANT LEVEL
8. NYSDOH: NEW YORK STATE DEPARTMENT OF HEALTH
9. MCL: MAXIMUM CONTAMINANT LEVEL

NYSDOH MCLs

FREON 113	5
ETHYLBENZENE	5
M AND P XYLENES	5
O XYLENES	5
ISOPROPYLBENZENE	5
TOLUENE	5
1,4-DICHLOROBENZENE	5

LEGEND

- TREELINE
- MONITORING WELL
- AIR SPARGE WELL
- VAPOR EXTRACTION WELL
- SOIL BORING LOCATION (2010)
- TEMPORARY WELL POINT SAMPLE (1997)
- TEMPORARY WELL POINT SAMPLE (2011)

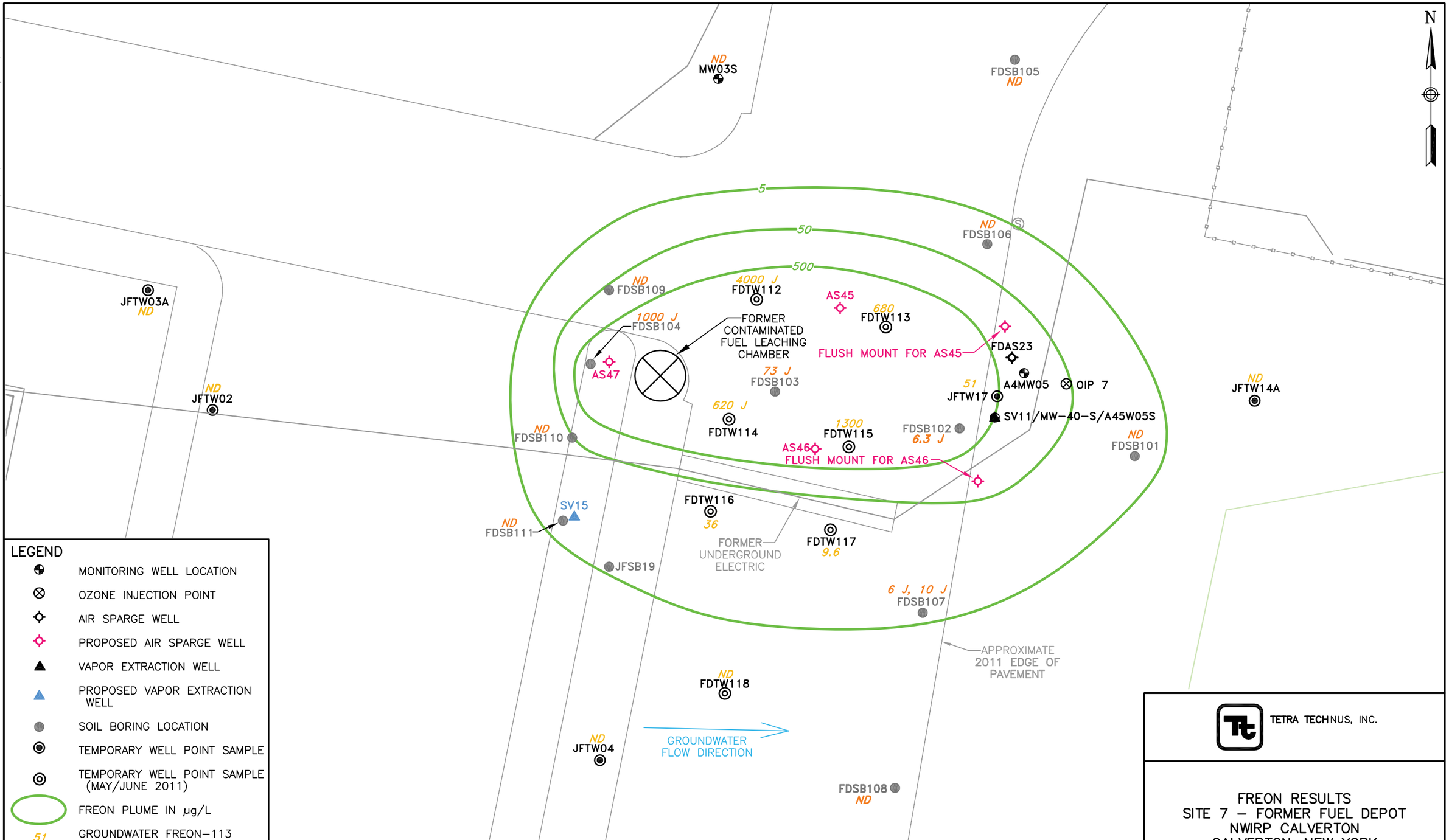
0 16 32
SCALE IN FEET

TETRA TECH NUS, INC.

MAY/JUNE 2011 TEMPORARY WELLS
ANALYTICAL RESULTS
SITE 7 – FORMER FUEL DEPOT
NWIRP CALVERTON
CALVERTON, NEW YORK

FILE	SCALE
112G02045GM19-2	AS NOTED
FIGURE NUMBER	REV / DATE
FIGURE 5	0 / 09/23/11

112G02045\0410\112G02045GM18.dwg 09/23/11 MKB



LEGEND

- MONITORING WELL LOCATION
- OZONE INJECTION POINT
- AIR SPARGE WELL
- PROPOSED AIR SPARGE WELL
- VAPOR EXTRACTION WELL
- PROPOSED VAPOR EXTRACTION WELL
- SOIL BORING LOCATION
- TEMPORARY WELL POINT SAMPLE
- TEMPORARY WELL POINT SAMPLE (MAY/JUNE 2011)
- FREON PLUME IN µg/L
- 51 GROUNDWATER FREON-113 CONCENTRATION IN µg/L
- 73 SOIL FREON-113 CONCENTRATION IN µg/kg

0 10 20
SCALE IN FEET

NOTES:
1. LOCATIONS OF TEMPORARY WELL POINTS AND SOIL BORING LOCATIONS SHOWN ARE APPROXIMATE (UNSURVEYED).
2. ND = NOT DETECTED
3. J = ESTIMATED VALUE.
4. FT BGS = FEET BELOW GROUND SURFACE
5. µg/kg = MICROGRAM PER KILOGRAM
6. µg/L = MICROGRAM PER LITER
7. MCL = MAXIMUM CONTAMINANT LIMIT
8. NYSDOH = NEW YORK STATE DEPARTMENT OF HEALTH
9. NYSDOH MCL = 5 µg/L

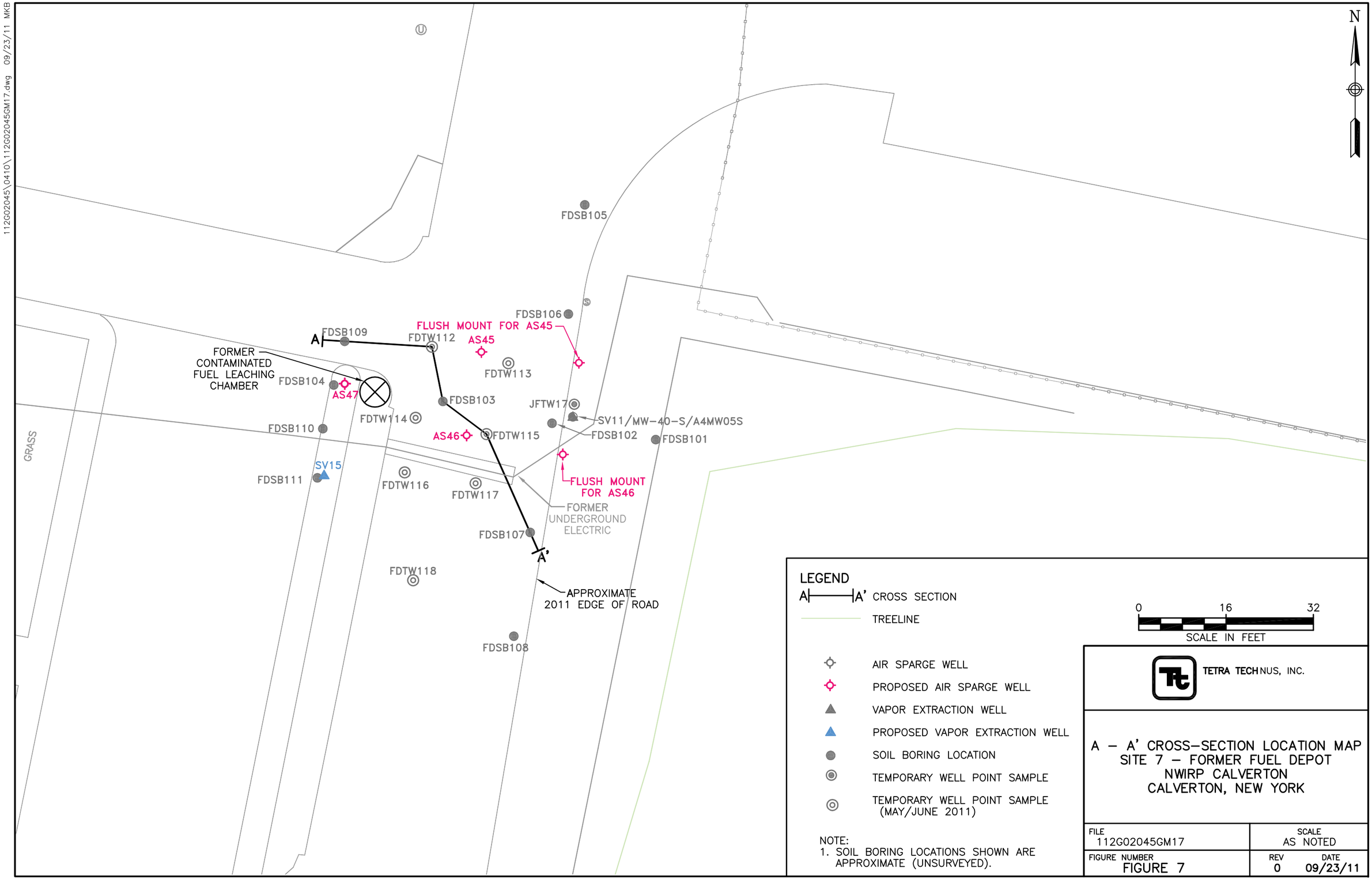
TETRA TECH NUS, INC.

FREON RESULTS
SITE 7 – FORMER FUEL DEPOT
NWIRP CALVERTON
CALVERTON, NEW YORK

FILE	SCALE
112G02045GM18	AS NOTED

FIGURE NUMBER	REV	DATE
FIGURE 6	0	09/23/11

112G02045\0410\112G02045GM17.dwg 09/23/11 MKB



LEGEND

A—A' CROSS SECTION

TREELINE

AIR SPARGE WELL

PROPOSED AIR SPARGE WELL

VAPOR EXTRACTION WELL

PROPOSED VAPOR EXTRACTION WELL

SOIL BORING LOCATION

TEMPORARY WELL POINT SAMPLE

TEMPORARY WELL POINT SAMPLE (MAY/JUNE 2011)

NOTE:
1. SOIL BORING LOCATIONS SHOWN ARE APPROXIMATE (UNSURVEYED).

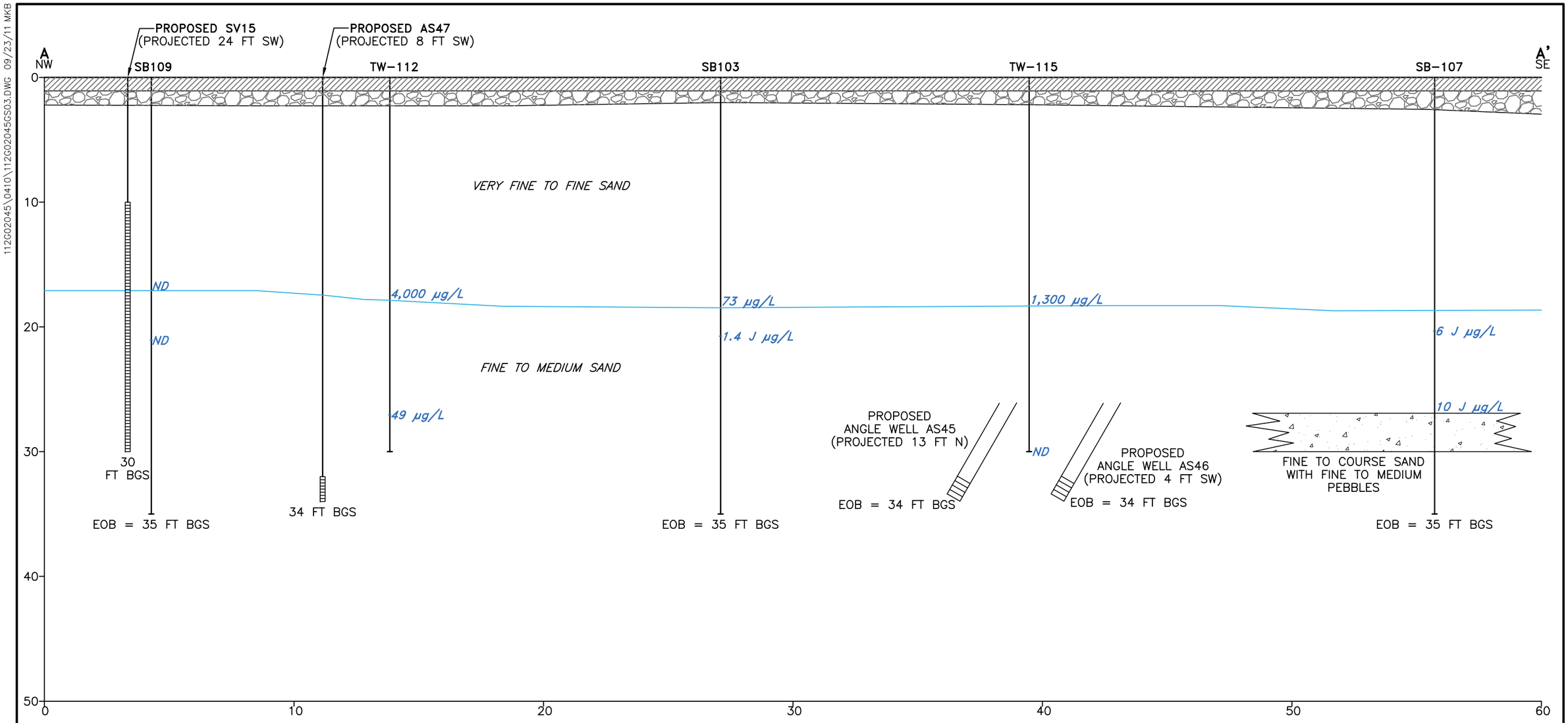
0 16 32
SCALE IN FEET

TETRA TECH NUS, INC.

A – A' CROSS-SECTION LOCATION MAP
SITE 7 – FORMER FUEL DEPOT
NWIRP CALVERTON
CALVERTON, NEW YORK

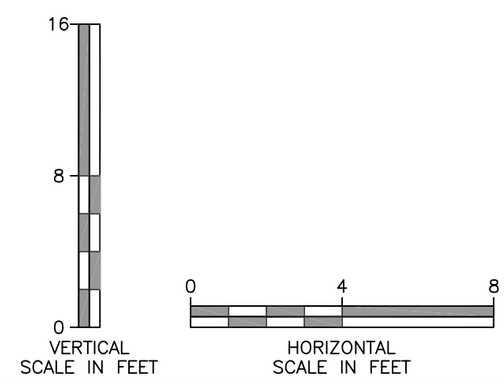
FILE	SCALE
112G02045GM17	AS NOTED
FIGURE NUMBER	REV / DATE
FIGURE 7	0 / 09/23/11

112G02045\0410\112G02045GS03.DWG 09/23/11 MKB



LEGEND

- CONCRETE
- SAND WITH GRAVEL
- FINE TO COURSE SAND WITH FINE TO MEDIUM PEBBLES
- WATER TABLE
- WELL SCREEN
- *51* FREON-113 CONCENTRATION
- *ND* NO DETECTIONS OF FREON-113

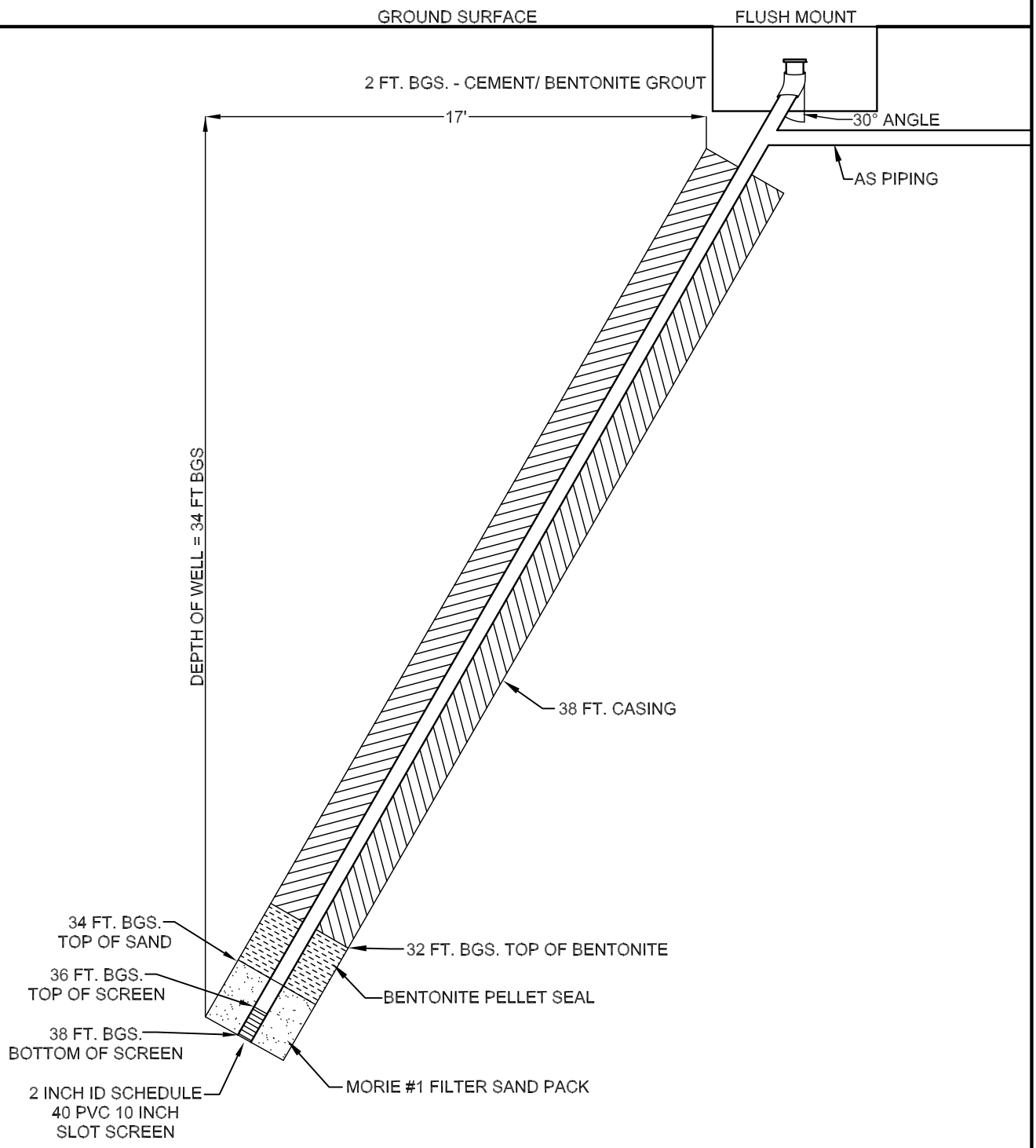


TETRA TECHNUS, INC.

A – A' CROSS SECTION
SITE 7 – FORMER FUEL DEPOT
NWIRP CALVERTON
CALVERTON, NEW YORK

FILE	SCALE
112G02045GS04	AS NOTED
FIGURE NUMBER: FIGURE 8	REV: 0 / DATE: 09/23/11

112G02045\0410\112G02045CF02-2.dwg 09/23/11 MKB



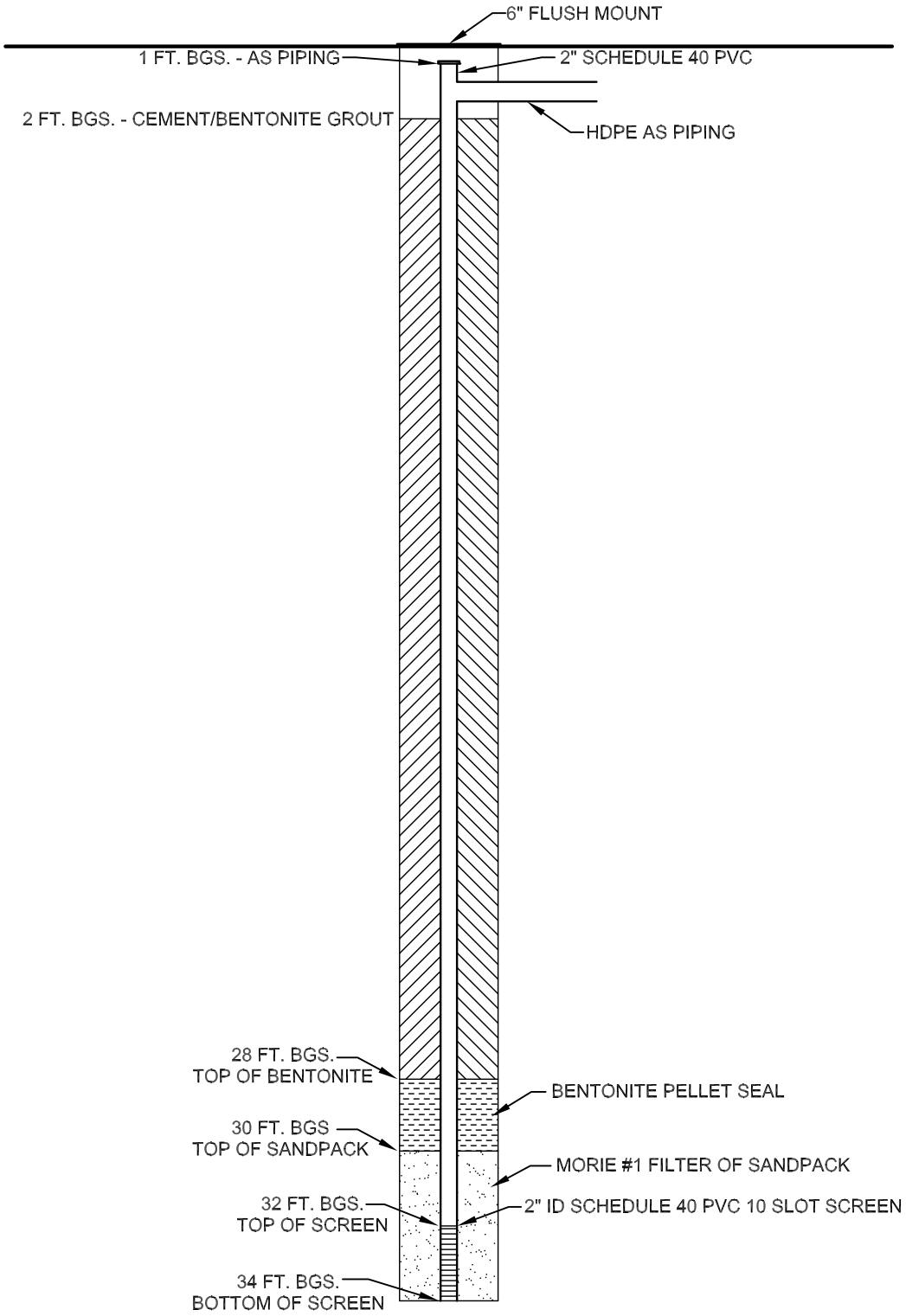
SCHEMATIC: NOT TO SCALE

TETRA TECH NUS, INC.

ANGLED AS WELL DIAGRAM
NWIRP CALVERTON
CALVERTON, NEW YORK

SCALE	AS NOTED
FILE	112G02045CF02-2
REV	0
DATE	09/23/11
FIGURE NUMBER	FIGURE 9

112G02045\0410\112G02045CF02-1.dwg 09/23/11 MKB



SCHEMATIC: NOT TO SCALE

TETRA TECH NUS, INC.

VERTRICAL AS WELL DIAGRAM
NWIRP CALVERTON
CALVERTON, NEW YORK

SCALE	AS NOTED
FILE	112G02045CF02-1
REV	0
DATE	09/23/11
FIGURE NUMBER	FIGURE 10

112G02045\0410\112G02045GM14.dwg 09/23/11 MKB

N

FDSB106

FDTW112

AS45

FLUSH MOUNT FOR AS45

FDTW113

FDAS23

FORMER CONTAMINATED FUEL LEACHING CHAMBER

FDSB104

AS47

FDSB103

JF-TW-17

SV11/ MW-40-S/A4MW05S

FDTW114

FDSB102

PROPOSED VAULTS

FDSB110

FDTW115

AS46

FLUSH MOUNT FOR AS46

FDSB101

FDTW116

SV15

FDSB111

FDTW117

FORMER UNDERGROUND ELECTRIC

APPROXIMATE 2011 EDGE OF ROAD

FDSB107

FDTW118

NOTES:
1. LOCATION OF TEMPORARY WELL POINTS AND SOIL BORING LOCATIONS SHOWN ARE APPROXIMATE (UNSURVEYED).

0 8 16
SCALE IN FEET

LEGEND

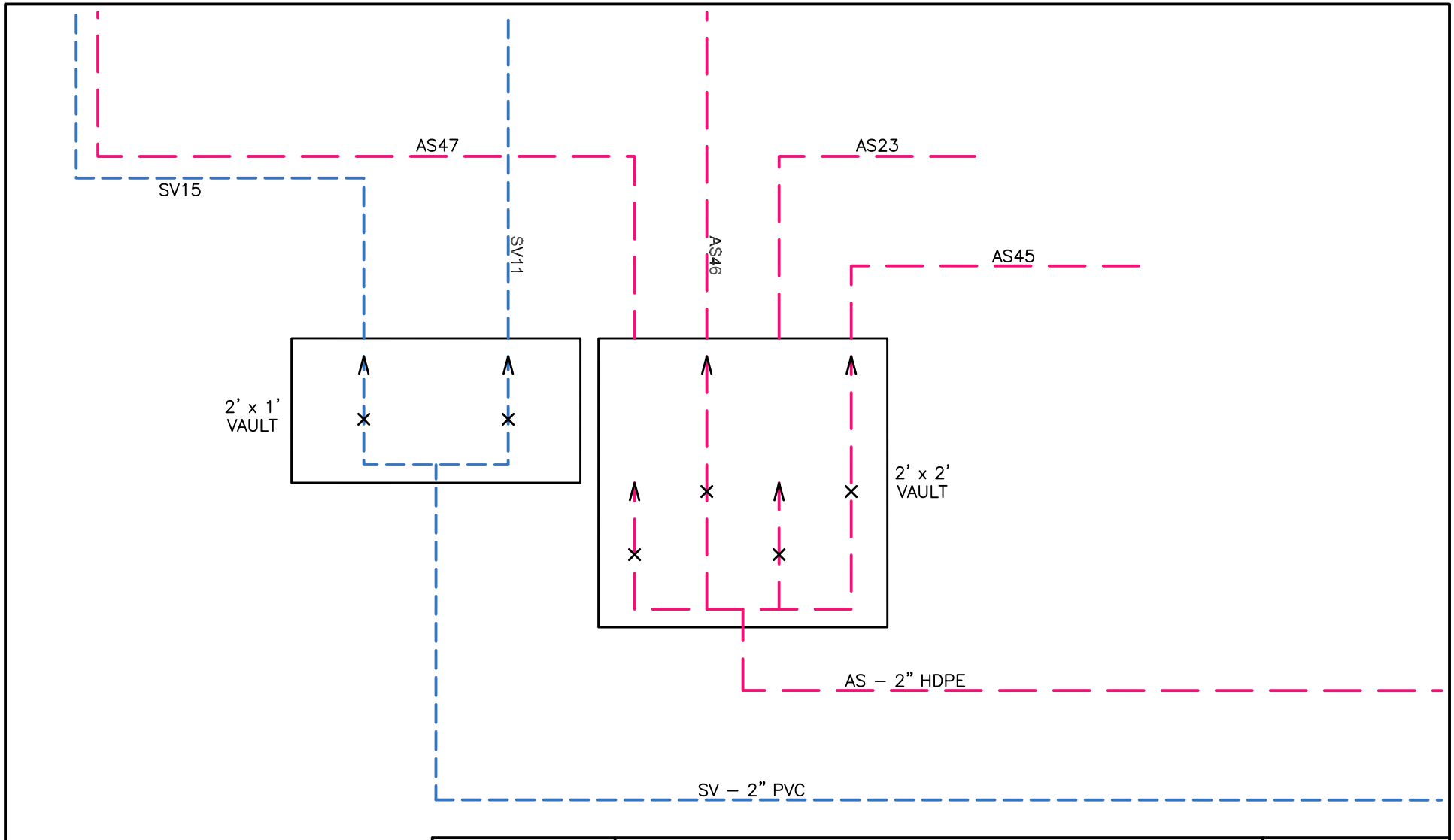
- AIR SPARGE WELL
- PROPOSED AIR SPARGE WELL
- VAPOR EXTRACTION WELL
- PROPOSED VAPOR EXTRACTION WELL
- SOIL BORING LOCATION
- TEMPORARY WELL POINT SAMPLE
- TEMPORARY WELL POINT SAMPLE (MAY/JUNE 2011)
- AS PIPING
- PROPOSED AS PIPING (BURIED)
- SVE PIPING
- PROPOSED SVE PIPING (BURIED)
- ANGLED WELL PIPING

TETRA TECHNUS, INC.

PROPOSED PIPING
SITE 7 – FORMER FUEL DEPOT
NWIRP CALVERTON
CALVERTON, NEW YORK

FILE	SCALE
112G02045GM14	AS NOTED
FIGURE NUMBER	REV / DATE
FIGURE 11	0 / 09/23/11

112G02045\0410\112G02045CF01.dwg 09/23/11 MKB



LEGEND

PROPOSED AS PIPING

PROPOSED SVE PIPING

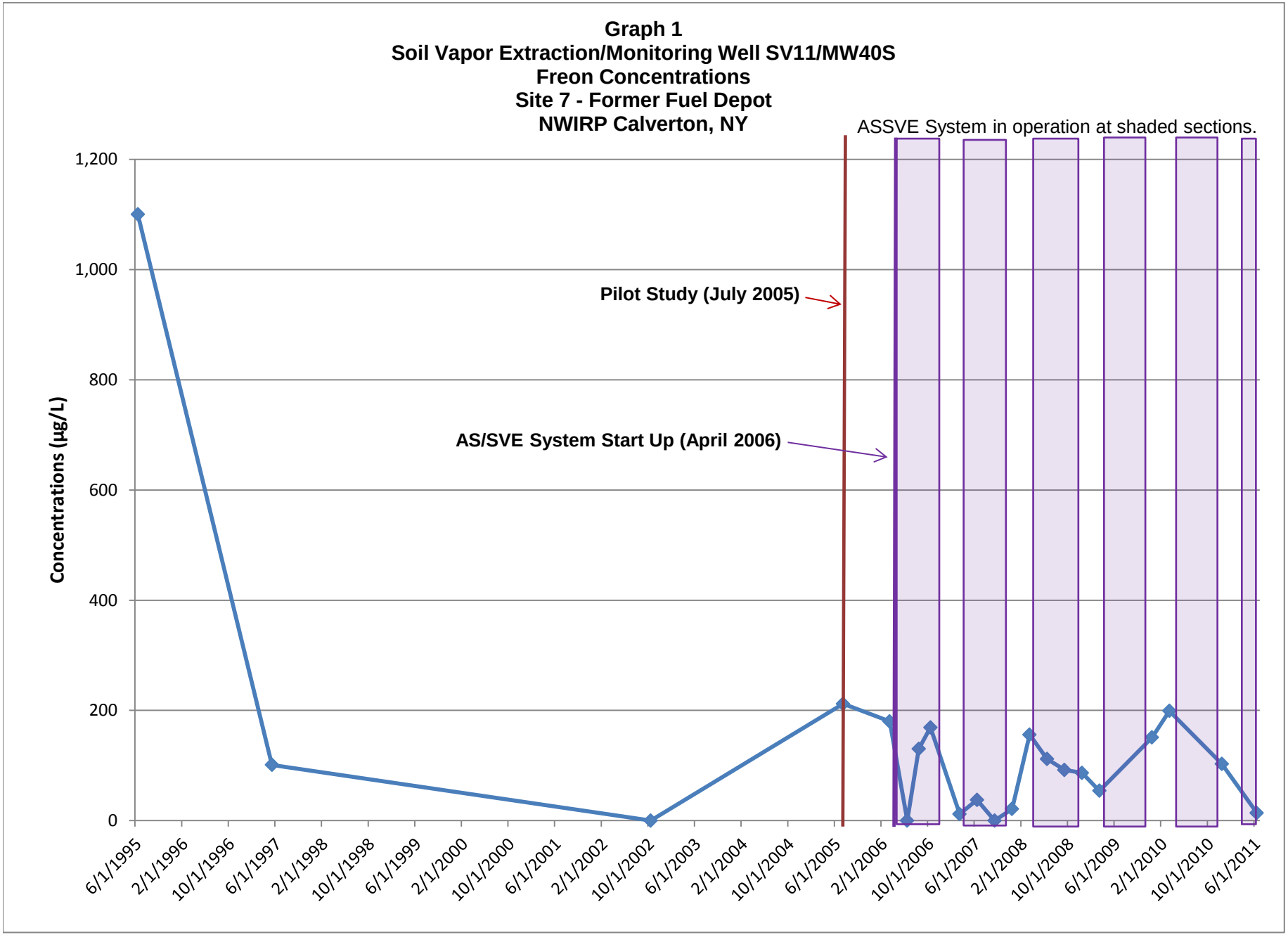
SCHEMATIC: NOT TO SCALE

TETRA TECH NUS, INC.

VAULT DIAGRAM
NWIRP CALVERTON
CALVERTON, NEW YORK

SCALE	AS NOTED
FILE	112G02045CF01
REV	0
DATE	09/23/01
FIGURE NUMBER	FIGURE 12

GRAPH


Graph 1
Soil Vapor Extraction/Monitoring Well SV11/MW40S
Freon Concentrations
Site 7 - Former Fuel Depot
NWIRP Calverton, NY
ASSVE System in operation at shaded sections.
Pilot Study (July 2005)
AS/SVE System Start Up (April 2006)
Concentrations (µg/L)
1,200
1,000
800
600
400
200
0
6/1/1995
2/1/1996
10/1/1996
6/1/1997
2/1/1998
10/1/1998
6/1/1999
2/1/2000
10/1/2000
6/1/2001
2/1/2002
10/1/2002
6/1/2003
2/1/2004
10/1/2004
6/1/2005
2/1/2006
10/1/2006
6/1/2007
2/1/2008
10/1/2008
6/1/2009
2/1/2010
10/1/2010
6/1/2011

APPENDICES

APPENDIX A

SITE PHOTOS

Photos
Site 7 – Former Fuel Depot
NWIRP Calverton, NY

Photo 1 – Site 7 prior to 2011 road widening activities

Photo 2 – Temporary curb installed after 2011 road widening activities.

Photos
Site 7 – Former Fuel Depot
NWIRP Calverton, NY

Photo 3 – Location of former contaminated fuel leaching chamber.

Photo 4 – Current Site 7 conditions.

APPENDIX B

FIELD FORMS

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB101
DATE: 9-27-10
GEOLOGIST: Vince Shickora
DRILLER: Evan Moraitis

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1152		1		Hand Auger			Brn	F/M Sand - some F/M Gravel (rounded)		moist	0	0	0	0
		2												
		3									0	0	0	0
		4					Brn Tan	VF/F Sand - Trace C Sand and F pebbles		moist				
		5									0	0	0	0
1205	S-1	6												
		7								moist	0	0	0	0
		8												
		9		54"							0	0	0	0
		10		60"			Brn Tan	Same as above		moist				
1214	S-2	11									0	0	0	0
		12												
		13									0	0	0	0
		14		49"										
		15		60"			Brn Tan	Same as above			0	0	0	0
1220	S-3	16												
		17									0	0	0	0
		18			▽ ⊛					wet at ~17.5'				
		19		51"						Slight Brown stain at 17.5'	0	0	0	0
		20		60"			Brn Tan	Same as above		⊛ Sample S7-SB101-17.5-18.0				
1228	S-4	21								wet	0	0	0	0
		22												
		23									0	0	0	0
		24		52"										
		25		60"			Brn Tan	Same as above		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 5" x 2" Macrocore Samples with Acetate Sleeves
No gas detection with Bacharach meter

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720DT

BORING No.: 57-SB101
DATE: 9-27-10
GEOLOGIST: Vince Shickora
DRILLER: Evan Moraitis

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1240	S-5	26			- - -		Brn Tan	VF/F Sand - Trace M Sand and pebbles		wet	0	0	0	0
		27						F/M Sand - Trace						
		28					Tan Brn	F pebbles + C Sand		wet	0	0	0	0
		29		52"										
		30		60"						wet	0	0	0	0
1254	S-6	31					Tan Brn							
		32									0	0	0	0
		33								wet				
		34		45"							0	0	0	0
1308		35		60"				Same as above		wet				
		36			EOB									
		37												
		38												
		39												
		40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 57-SB101-17.5 18.0
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-27-10 Time: 1225 Method: DPT Macrocore Monitor Reading (ppm): 0.0	17.5' to 18.0'	Brown-Tan	VF/F Sand - Trace C sand and F pebbles (wet)

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	NA			
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2 x DI H_2O 40 ml vials	yes	—
	1 X MEOH 40 ml vial	yes	—
% moisture	1 X 4 ounce Jar	yes	—

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- No stains, odors, or elevated PID readings observed.
- No gas detection with Bacharach meter

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720DT

BORING No.: S7-SB102
DATE: 9-27-10
GEOLOGIST: Vince Shickora
DRILLER: Evan Moraitis

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / .6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1315		1		Hand Auger				Asphalt / Concrete ~1.5' thick		Drill thru concrete with rig				
		2					Gry Brn	F/M Sand - some F/M pebbles		moist	0	0	0	0
		3												
		4					Tan	VF/F Sand - Trace M Sand + F pebbles		moist	0	0	0	0
		5												
1333	S-1	6					Tan				0	0	0	0
		7								moist				
		8									0	0	0	0
		9		50"			Brn							
		10		60"			Tan	Same as above		moist	0	0	0	0
1340	S-2	11												
		12									0	0	0	0
		13								moist				
		14		54"							0	0	0	0
		15		60"						very moist				
1346	S-3	16					Brn Tan				2.4	0	0	0
		17									19.2	0	0	0
		18			▽ ①		Brn Tan			wet ~ 17.5' BGS	27.5	0	0	0
		19		49"				Same as above		*Sample S7-SB102-17.5 18.0	25.3	0	0	0
		20		60"			Gry	F/M Sand - Trace F pebbles		Fuel-like odor	19.1	0	0	0
1402	S-4	21								No recovery	–	–	–	–
		22						No recovery			–	–	–	–
		23									–	–	–	–
		24		2"							–	–	–	–
		25		60"							–	–	–	–

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 5' x 2" stainless macrocore samples with acetate sleeves
- positive detection of refrigerants from 17' to 19' BGS with Bacharach meter

Converted to Well: Yes _____ No ✓ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720DT

BORING No.: S7-SB102
DATE: 9-27-10
GEOLOGIST: Vince Shickora
DRILLER: Even Moraitis

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1420	S-5	26					Brn Tan	F/M Sand - Some C Sand Trace F pebbles		wet	0	0	0	0
		27												
		28									0	0	0	0
		29		51"										
		30		60"				Same as above		wet	0	0	0	0
1435	S-6	31												
		32									0	0	0	0
		33												
		34		49"							0	0	0	0
1452		35		60"				Same as above		wet				
		36			EOB									
		37												
		38												
		39												
		40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (See page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: S7-SB102-17.5/18.0
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-27-10 Time: 1350 Method: DPT Macrocore Monitor Reading (ppm): 27.5	17.5' to 18.0'	Brown-Tan	VF/F Sand - Trace M Sand and F pebbles (wet)

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	NA			
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2x DI H_2O 40 ml vials	yes	—
	1 X MEOH 40 ml vial	yes	—
% moisture	1 X 4 ounce Jar	yes	—

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- Fuel like odor and elevated PID readings To 27.5 ppm on sample
- positive refridgerant gas detection with Bacharach meter

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	S7-DUP01-20100927 (200)

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G0 2045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: 57-SB103
DATE: 9-27-10
GEOLOGIST: Vince Shickora
DRILLER: Evan Moraitis

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		1						Asphalt/concrete ~1.0 feet thick						
1512		2		Hand Auger			DK Brn	F/M Sand - Some silt and F/M pebbles		moist	0	0	0	0
		3												
		4					Tan	VF/F Sand - Trace M sand and F pebbles		moist	0	0	0	0
		5												
1529	S-1	6												
		7								moist	0	0	0	0
		8					Tan							
		9		54"							0	0	0	0
		10		60"			Tan	Same as above		moist				
1536	S-2	11									0	0	0	0
		12												
		13					Tan			moist	0	0	0	0
		14		52"										
		15		60"			Tan	Same as above		very moist	0	0	0	0
1546	S-3	16									0.1	0	0	0
		17									0.5	0	0	0
		18			∇		Gry Tan			wet ~17.5' bgs	13.1	0	0	0
		19		50"	(*)					(*) Sample 57-SB103-18.0-18.5	16.2	0	0	0
		20		60"			Gry Tan	Same as above		Fuel-like odor	8.7	0	0	0
1556	S-4	21					Gry	F/M Sand - Some C Sand - Trace F pebbles		wet	3.1	0	0	0
		22			(*)					Slight fuel odor	7.9	0	0	0
		23					Gry Tan			(*) Sample 57-SB103-21.5-22.0	0.4	0	0	0
		24									0.1	0	0	0
		25					Tan	Same as above		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 5' x 2" stainless macrocore samples with Acetate liners
- positive detection of refrigerants from 17' to 22' with Bacharach meter

Converted to Well: Yes _____ No ✓ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB103
DATE: 9-27-10
GEOLOGIST: Vince Shickora
DRILLER: Evan Moraitis

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1610	S-5	26					Tan	F/M Sand - Some C Sand - Trace F pebbles		wet	0.1	0	0	0
		27									0	0	0	0
		28									0	0	0	0
		29		51"							0	0	0	0
		30		60"				Same as above		wet	0	0	0	0
1630	S-6	31									0	0	0	0
		32												
		33									0	0	0	0
		34		49"										
1650		35		60"				Same as above		wet	0	0	0	0
		36			FOB									
		37												
		38												
		39												
		40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 57-SB103-18.0-18.5
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-27-10 Time: 1555 Method: DPT Macrocore Monitor Reading (ppm): 16.2	18.0' to 18.5'	Gray-Tan	VF/F Sand - Trace M Sand and F pebbles (wet)

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:	NA			
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2x DI H_2O 40 ml vials	yes	—
	1 x MEOH 40 ml vial	yes	
% moisture	1 x 4 ounce Jar	yes	—

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- Fuel-like odor and elevated PID readings to 16.2 ppm observed
- positive refrigerant gas detection with bacharach meter

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: S7-SB103-21.5-22.0
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-27-10 Time: 1610 Method: DPT Macrocore Monitor Reading (ppm): 7.9	21.5' to 22.0'	Gray	F/M Sand - some C sand Trace F pebbles (wet)

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	NA			
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2x DI H_2O 40 ml vials	yes	—
	1 X MeOH 40 ml vial	yes	—
% moisture	1 X 4 ounce Jar	yes	—

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- Foul-like odor and elevated PID readings To 7.9 ppm observed.
- Positive refridgerant gas detection with bacharach meter.

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB104
DATE: 9-28-10
GEOLOGIST: Vince Shickora
DRILLER: Evan Moraitis

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
0858		1		Hand Auger			Tan Brn	F/C Sand with Gravel and asphalt frags		moist	0	0	0	0
		2					Blk Gry	Sand and F gravel		moist	0	0	0	0
		3					Tan	F/M Sand - Trace C sand and F pebbles		moist	0	0	0	0
		4												
		5					Tan	VF/F Sand - Trace M sand and F pebbles		moist	0	0	0	0
0916	S-1	6												
		7									0	0	0	0
		8					Tan			moist				
		9		52"							0	0	0	0
		10		60"			Tan	Same as above		moist				
0923	S-2	11												
		12									0	0	0	0
		13					Tan				1.4	0	0	0
		14		54"							3.7	0	0	0
		15		60"			Tan	Same as above		*Sample S7-SB104-15.0-15.5	24.1	0	0	0
0930	S-3	16			▽			F/M Sand - Trace F pebbles/C Sand		wet ~ 15.0' BGS	20.2	0	0	0
		17								Fuel odor	18.3	0	0	0
		18					Tan Gry			wet	57	0	0	0
		19		55"							79	0	0	0
		20		60"			Tan Gry	Same as above		*Sample S7-SB104-19.0-19.5	151	0	0	0
0936	S-4	21								Strong fuel odor	150	0	0	0
		22					Tan			wet	90	0	0	0
		23								Fuel odor	20	0	0	0
		24		48"							40.1	0	0	0
		25		60"			Tan	Same as above		wet	80	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 5'X2" stainless macrocore sampler with Acetate liners
positive refrigerant gas detected from 15' to 28' BGS with Bacharach meter

Converted to Well: Yes _____ No ✓ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB104
DATE: 9-28-10
GEOLOGIST: Vince Shickora
DRILLER: Evan Moraitis

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
0946	S-5	26					Gry Tan	F/M Sand - Trace C Sand and F pebbles		wet	44	0	0	0
		27									53	0	0	0
		28					Tan			Fuel odor	72	0	0	0
		29		49"				Same as above		wet	20	0	0	0
		30		60"			Tan	F/C Sand - Trace F pebbles		wet	10	0	0	0
1008	S-6	31									7.4	0	0	0
		32					Brn Tan	F/M Sand - Trace C Sand and F pebbles		wet	6.0	0	0	0
		33									2.1	0	0	0
		34		59"							1.5	0	0	0
1024		35		60"			Brn Tan	Same as above		wet	0.8	0	0	0
		36			EOB									
		37												
		38												
		39												
		40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 57-SB104-15.0 15.5
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-29-10 Time: 0930 Method: DPT Macrocore Monitor Reading (ppm): 25.0	15.0' to 15.5'	Tan-Gray	F/M Sand - Trace C sand and F pebbles (wet)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2 X DI H_2O 40 ml vials	yes	—
	1 X MeOH 40 ml vial	yes	—
% moisture	1 X 4 ounce Jar	yes	—

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- Strong fuel like odor observed
- PID readings to 25.0 ppm
- Positive refrigerant gas detection with Bacharach meter

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 57-SB104-19.0 19.5
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-29-10 Time: 0940 Method: DPT Macrocore Monitor Reading (ppm): 151	19.0' to 19.5'	Tan-Gray	F/M Sand - Trace C sand and F pebbles (wet)

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs			

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- Very strong fuel like odor observed
- PID readings to 151 ppm on sample
- positive refrigerant gas detection with Bacharach meter

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB105
DATE: 9-29-10
GEOLOGIST: Vince Shickora
DRILLER: Evan Moraitis

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1043		1					BlK Gry	Asphalt/concrete		~1' thick	—	—	—	—
		2		Hand Auge			DK Brn	Sand and Gravel			0	0	0	0
		3					Brn	F/M Sand - Some F/M pebbles		moist				
		4									0	0	0	0
		5					Tan Brn	Same as above		moist				
1058	S-1	6									0	0	0	0
		7					Tan	VF/F Sand - Trace C sand and F pebbles		moist				
		8									0	0	0	0
		9		50"										
1107		10		60"				Same as above		moist	0	0	0	0
	S-2	11												
		12						Same as above		moist	0	0	0	0
		13						F/C Sand - Some F/M pebbles		moist				
		14		52"				VF/F Sand - Trace C sand and F pebbles			0	0	0	0
		15		60"										
1114	S-3	16									0	0	0	0
		17						Same as above						
		18			▽ ⊛		Brn Tan	F/M Sand - Trace C sand and F pebbles		wet ~17.5' BGS	0	0	0	0
		19		51"						⊛ sample S7-SB105-18.0-18.5				
		20		60"							0	0	0	0
1122	S-4	21					Brn Tan			wet				
		22									0	0	0	0
		23					Tan Brn	Same as above						
		24		53"			Brn Tan	F/C Sand - Some F/M pebbles		wet	0	0	0	0
		25		60"			Brn Tan	F/M Sand - Trace C sand and F pebbles						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 5'x2" stainless macrocore sampler with Acetate liners
No gas detection with Rechsrach meter

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB105
DATE: 9-29-10
GEOLOGIST: Vince Shickora
DRILLER: Evan Moraitis

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1129	S-5	26					Brn Tan	F/M Sand - Trace C Sand and F Pebbles		wet	0	0	0	0
		27												
		28									0	0	0	0
		29		49"			Brn Tan			wet				
		30		60"				Same as above			0	0	0	0
1137	S-6	31												
		32					Brn Tan			wet	0	0	0	0
		33												
		34		56"							0	0	0	0
1145		35		60"			Brn Tan	Same as above		wet	0	0	0	0
		36			EOB									
		37												
		38												
		39												
		40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (See page 1.)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: S7-SB105-18.0 18.5
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-29-10 Time: 1120 Method: DPT Macrocore Monitor Reading (ppm): 0.0	18.0' to 18.5'	Brown-Tan	F/M Sand - Trace C sand and F pebbles (wet)

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2X DI H_2O 40 ml vials	yes	—
	1X MeOH 40 ml vial	yes	—
% moisture	1X 4 ounce Jar	yes	—

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

No stains, odors, or elevated PID readings observed.

No gas detection with Bacharach meter

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB106
DATE: 9-29-10
GEOLOGIST: Vince Shickora
DRILLER: John Diamond

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1240		1					Blk Gry	Asphalt / Concrete		~ 1.0' thick	–	–	–	–
		2		Hand Auger			Dk Brn	Sand and Gravel		moist	0	0	0	0
		3					Brn	F/M Sand - Some C sand and F pebbles		moist				
		4									0	0	0	0
		5					Tan	VF/F Sand - Trace C sand and F pebbles		moist				
1254	S-1	6									0	0	0	0
		7												
		8					Tan			moist	0	0	0	0
		9		49"										
		10		60"			Tan	Same as above		moist	0	0	0	0
1300	S-2	11												
		12									0	0	0	0
		13					Brn Tan			moist				
		14		54"							0	0	0	0
		15		60"			Brn Tan	Same as above		very moist				
1305	S-3	16									0	0	0	0
		17												
		18			▽		Brn Tan	Same as above		wet ~ 17.5' BGS	0	0	0	0
		19		51"	⊗			F/M Sand - Trace C sand and F pebbles		⊗ sample S7-SB106-18.0-18.5				
		20		60"			Brn Tan			wet	0	0	0	0
1311	S-4	21												
		22					Gry Tan				0	0	0	0
		23								wet				
		24		52"			Brn Tan				0	0	0	0
		25		60"				Same as above		wet				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 5'x2" stainless macrocore samples with Acetate liner
No gas detected with Becharach meter

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB106
DATE: 9-29-10
GEOLOGIST: Vince Shickora
DRILLER: John Diamond

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1320	S-5	26					Brn Tan	F/M Sand - Trace C sand and F pebbles		wet	0	0	0	0
		27												
		28					Brn Tan				0	0	0	0
		29		51"										
		30		60"			Brn Tan	Same as above		wet	0	0	0	0
1330	S-6	31												
		32									0	0	0	0
		33					Tan Brn							
		34		56"							0	0	0	0
		35		60"			Brn	Same as above		wet				
1338		36			EoB									
		37												
		38												
		39												
		40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: S7-SB106-18.0-18.5
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-29-10 Time: 1310 Method: DPT Macrocore Monitor Reading (ppm): 0.0	18.0 to 18.5'	Brown - Tan	VF/F Sand - Trace C sand and F pebbles (wet)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2X DI H_2O 40ml vials	yes	—
	1X MeOH 40ml vial	yes	—
% moisture	1X 4ounce Jar	yes	—

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- No odors, stains, elevated PID readings observed.
- No gas detection with Bacharach meter

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB107
DATE: 9-29-10
GEOLOGIST: Vince Shickora
DRILLER: John Diamond

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1354		1					Blk Gry	asphalt/concrete		~1.0' thick	–	–	–	–
		2		Hand Auger			Brn	F/C Sand and F/M pebbles		moist	0	0	0	0
		3												
		4					Tan	VF/F Sand - Trace C sand and F pebbles		moist	0	0	0	0
		5												
1406	S-1	6									0	0	0	0
		7					Tan			moist				
		8									0	0	0	0
		9		52"										
		10		60"			Tan	Same as above		moist	0	0	0	0
1411	S-2	11												
		12									0	0	0	0
		13					Tan			moist				
		14		50"							0	0	0	0
1416		15		60"			Tan	Same as above		very moist				
	S-3	16								wet ~16.8' BGS	1.5	0	0	0
		17			▽						7.0	0	0	0
		18			⊛		Brn	Same as above		*Sample S7-SB107-18.0-18.5	85	0	0	0
		19		51"						Fuel like odor	89	0	0	0
1422		20		60"			Tan Brn	F/M Sand - Trace C sand and F pebbles		wet	70	0	0	0
	S-4	21									10.1	0	0	0
		22					Brn Tan			Fuel odor	10.4	0	0	0
		23								wet	9.6	0	0	0
		24		47"			Gry Tan				8.2	0	0	0
		25		60"				Same as above		wet	6.5	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 5'x2" stainless macrocore sampler with Acetate liners
- positive detection from 17' to 23' with Bacharach meter and from 26' to 31' BGS

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB107
DATE: 9-29-10
GEOLOGIST: Vince Shickora
DRILLER: John Diamond

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
Time 1430	S-5	26					Gry Tan	F/M Sand - Trace C sand and F pebbles		wet	60	0	0	0
		27								fuel odor	75	0	0	0
		28			⊛		Brn Tan	F/C sand - little F/M pebbles		⊛ Sample S7-SB107-27.5 28.0	92	0	0	0
		29		51"						fuel like odor	24	0	0	0
1438		30		60"						wet	30	0	0	0
	S-6	31					Tan Brn	F/M Sand - little F pebbles - Trace C sand		fuel like odor	11.4	0	0	0
		32								wet	7.5	0	0	0
		33									4.5	0	0	0
		34									8.2	0	0	0
1446		35					Tan Brn	Same as above		wet	2.5	0	0	0
		36			EOB									
		37												
		38												
		39												
		40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: S7-SB107-18.0-18.5
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-29-10			
Time: 1421			
Method: DPT Macrocore			
Monitor Reading (ppm): 89.0			

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2X DI H_2O 40 ml vials	yes	—
	1X MeOH 40 ml vial	yes	—
% Moisture	1X 4 ounce Jar	yes	—

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- Fuel like odor observed
- Positive refrigerant gas detection with Bacharach meter
- PID range 70ppm to 89ppm on sample

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 57-SB107-27.5-28.0
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-29-10 Time: 1435 Method: DPT Macrocore Monitor Reading (ppm): 92.0	27.5' To 28.0'	Tan - Brown	F/C sand - little F/M pebbles (wet)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2 X DI H_2O 40 ml vials	yes	—
	1 X MeOH 40 ml vial	yes	—
% Moisture	1 X 4 ounce Jar	yes	—

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners
~~Strong~~
- Fuel like odor observed
- positive refridgerant gas detection with Bacharach meter
- PID range from 75 ppm to 92 ppm on sample

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB108
DATE: 9-29-10
GEOLOGIST: Vince Shickora
DRILLER: John Diamond

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1504		1					Blk Gry	asphalt / concrete		~1.0' thick	–	–	–	–
		2		Hand Auger			Brn Tan	F/C Sand and F/M Pebbles		moist	0	0	0	0
		3												
		4					Tan	VF/F Sand - Trace C sand and F pebbles		moist	0	0	0	0
		5												
1516	S-1	6												
		7					Tan			moist	0	0	0	0
		8												
		9		51"							0	0	0	0
		10		60"			Tan	Same as above		moist				
1521	S-2	11									0	0	0	0
		12												
		13					Tan			moist	0	0	0	0
		14		52"										
		15		60"			Tan	Same as above		wet ~ 14.8' BGS	0	0	0	0
1526	S-3	16					Tan	F/M Sand - Trace C sand and F pebbles		wet				
		17								Sample S7-SB108-16.5-17.0	0.3	0	0	0
		18									0.2	0	0	0
		19		55"			Brn Tan				0.2	0	0	0
		20		60"				Same as above		wet	0.3	0	0	0
1532	S-4	21									0	0	0	0
		22					Brn Tan							
		23								wet	0	0	0	0
		24		57"										
		25		60"			Brn Tan	Same as above		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 5' x 2" stainless macrocore sampler with Acetate liners
[redacted] detection with Bacharach meter positive at 17' to 20' BGS

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB108
DATE: 9-29-10
GEOLOGIST: Vince Shickora
DRILLER: John Diamond

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1539	S-5	26					Brn Tan	F/M Sand - Trace C sand and F pebbles		wet	0	0	0	0
		27												
		28					Tan Brn			wet	0	0	0	0
		29		56"										
		30		60"			Tan Brn	Same as above		wet	0	0	0	0
1548	S-6	31												
		32					Tan Brn				0	0	0	0
		33								wet				
		34		55"							0	0	0	0
		35		60"			Tan Brn	Same as above		wet				
		36			EOB									
		37												
		38												
		39												
		40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: S7-SB108-16.5/17.0
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-29-10	16.5' to 17.0'	Tan	F/M Sand - Trace C sand and F pebbles (wet)
Time: 1530			
Method: DPT Macrocore			
Monitor Reading (ppm): 0.3			

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2 X DI H_2O 40 ml vials	yes	—
	1 X MeOH 40 ml vial	yes	—
% moisture	1 X 4 ounce Jar	yes	—

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- No stains or odors observed
- positive refridgerant gas detection with Bacharach meter
- PID on sample 0.3 ppm

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: 57-SB109
DATE: 9-30-10
GEOLOGIST: Vince Shickora
DRILLER: John Diamond

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
0857		1					Gry	Concrete		~1.0' thick	–	–	–	–
		2		Hand Auger			Brn	Sand an Gravel		moist	0	0	0	0
		3					Brn Tan	VF/F Sand - Trace C sand and pebbles		moist	0	0	0	0
		4												
		5					Tan			moist	0	0	0	0
0918	S-1	6												
		7					Tan				0	0	0	0
		8								moist				
		9		52"							0	0	0	0
		10		60"			Tan	Same as above		moist				
0937	S-2	11									0	0	0	0
		12								moist				
		13					Tan				0	0	0	0
		14		54"										
		15		60"			Tan	Same as above		very moist	0	0	0	0
0947	S-3	16									11	0	0	0
		17								wet ~16.9' BGS	43	0	0	0
		18					Gry Tan	F/M Sand - Trace C sand and F pebbles		Fuel like odor	94	0	0	0
		19		57"						* sample 57-SB109-19.0-19.5	127	0	0	0
		20		60"						Strong fuel like odor	152	0	0	0
0956	S-4	21								wet	34	0	0	0
		22								Slight fuel like odor	20	0	0	0
		23									8.6	0	0	0
		24		57"							4.1	0	0	0
		25		60"				Same as above		wet	7.2	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 5'x2" stainless macrocore sampler with Acetate liners
positive refrigerant gas detection from 16' to 22' with Bacharach meter
and from 36' to 37.5' BGS

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB109
DATE: 9-30-10
GEOLOGIST: Vince Shickora
DRILLER: John Diamond

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1006	S-5	26					Gry Tan	F/M Sand - Trace C Sand and F pebbles		wet	14.1	0	0	0
		27								Slight fuel like odor	16.8	0	0	0
		28					Brn Tan				17.3	0	0	0
		29		55"						wet	15.2	0	0	0
1015		30		60"			Brn Tan	Same as above			13.8	0	0	0
	S-6	31								wet	29	0	0	0
		32									87	0	0	0
		33					Gry Tan			Strong fuel like odor	159	0	0	0
		34			(*)					(*) Sample S7-SB109-33.0-33.5	70	0	0	0
1024		35					Gry Tan	Same as above		wet	36	0	0	0
		36			EOB									
		37												
		38												
		39												
		40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: S7-SB109-19.0 19.5
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-30-10 Time: 0953 Method: DPT Macrocore Monitor Reading (ppm): 152	19.0' to 19.5'	Tan	F/M Sand - Trace C Sand and F pebbles (wet)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2X DI H_2O 40 ml vials	yes	—
	1X MeOH 40 ml vial	yes	—
% moisture	1X 4 ounce Jar	yes	—

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- Strong fuel-like odor and elevated PID readings to 152 ppm on sample
- positive refridgerant gas detection with Bacharach meter

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
	S7-DUP02-20100930

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: S7-SB109-33.0-33.5
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-30-10 Time: 1027 Method: DPT Macrocore Monitor Reading (ppm): 159	33.0' To 33.5'	Gry-Tan	F/M Sand - Trace C sand and f pebbles (wet)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2X DI H_2O 40 ml vials	yes	–
	1X MeOH 40 ml vial	yes	–
% moisture	1X 4 ounce Jar	yes	–

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- Strong fuel like odor and elevated PID readings to 159 ppm off sample
- Positive refridgerant gas detection with Bacharach meter

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB110
DATE: 9-30-10
GEOLOGIST: Vince Shickora
DRILLER: John Diamond

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1040	S-	1		Hand Auger			Blk Brn	Sandy Gravel with Asphalt Frags		wet (due to rain)	0	0	0	0
		2					Brn	Sand an Gravel		moist	0	0	0	0
		3					Tan	VF/F Sand - Trace Csand and F pebbles			0	0	0	0
		4												
		5								moist	0	0	0	0
1051	S-1	6					Tan							
		7									0	0	0	0
		8								moist				
		9		49"			Tan				0	0	0	0
		10		/60"				Same as above		moist				
1057	S-2	11									0	0	0	0
		12					Tan							
		13								Very moist	0	0	0	0
		14		50"										
		15		/60"			Tan	Same as above			10	0	0	0
1108	S-3	16			▽					wet ~15.3' BGS	25	0	0	0
		17					Gry Tan	F/M Sand - Trace Csand and F pebbles		Strong fuel like odor	136	0	0	0
		18			⊛					wet	162	0	0	0
		19		51"			Tan Gry			⊛. Sample S7-SB110-17.5 18.0	130	0	0	0
		20		/60"						Strong fuel like odor	112	0	0	0
1117	S-4	21								wet	132	0	0	0
		22					Tan Gry			Strong fuel like odor	120	0	0	0
		23									92	0	0	0
		24		50"			Brn			wet	80	0	0	0
		25		/60"			Tan	Same as above		Fuel like odor	74	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 5'x2" stainless macrocore sampler with Acetate liners
positive refridgerant gas detection with Bacharach meter from 15' to 24' BGS

Converted to Well: Yes _____ No ✓ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: 57-SB110
DATE: 9-30-10
GEOLOGIST: Vince Shickora
DRILLER: John Diamond

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1127	S-5	26					Tan	F/M Sand - Trace C sand and F pebbles		wet	12	0	0	0
		27								Slight fuel like odor	3.5	0	0	0
		28					Brn Tan				4.6	0	0	0
		29		52"						wet	2.7	0	0	0
		30		60"			Brn Tan	Same as above			3.1	0	0	0
1139	S-6	31									4.5	0	0	0
		32								*Sample 57-SB110-32.0-32.5	4.1	0	0	0
		33								wet	3.2	0	0	0
		34		58"							2.9	0	0	0
1157		35		60"			Brn Tan	Same as above		wet	3.0	0	0	0
		36			EOB									
		37												
		38												
		39												
		40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G0204.5

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: S7-SB110-17.5-18.0
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-30-10 Time: 1115 Method: DPT Macrocore Monitor Reading (ppm): 162	17.5' to 18.0'	Tan-Gray	F/M Sand - Trace C Sand and F gravel (wet)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2X DI H_2O 40ml vials	yes	—
	1X MeOH 40ml vial	yes	—
% moisture	1X 4 ounce Jar	yes	—

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- Strong fuel like odor and elevated PID readings to 162 ppm off sample
- Positive refrigerant gas detection with Becharach meter

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 57-SB110-32.0 32.5
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-30-10 Time: 1155 Method: DPT Macrocore Monitor Reading (ppm): 4.1	32.0' to 32.5'	Brown-Tan	F/M Sand - Trace C Sand and f pebbles (wet)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2X DI H_2O 40 ml vials	yes	–
	1X MeOH 40 ml vial	yes	–
% moisture	1X 4 ounce Jar	yes	–

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- Very slight fuel like odor and elevated PID readings to 4.1 ppm on sample
- Negative detection w/ the Bacharach meter

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB111
DATE: 9-30-10
GEOLOGIST: Vince Shickora
DRILLER: John Diamond

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1305		1		Hand Auger			Blk Brn	Sand and Gravel with Asphalt Frags		very moist	0	0	0	0
		2					Dk Brn	Sand and Gravel		moist	0	0	0	0
		3					Brn Tan	VF/F Sand - Trace C sand and F pebbles		moist	0	0	0	0
		4												
		5								moist	0	0	0	0
1317	S-1	6												
		7					Brn Tan				0	0	0	0
		8								moist				
		9		52"							0	0	0	0
		10		60"			Brn Tan	Same as above						
1322	S-2	11								moist	0	0	0	0
		12												
		13									0	0	0	0
		14		54"				Same as above		very moist				
		15		60"							0	0	0	0
1328	S-3	16			▽		Brn Tan	F/M Sand - Trace C sand and F pebbles		wet ~ 15.2' BGS	3.5	0	0	0
		17									70	0	0	0
		18					Brn Tan	Same as above		strong fuel odor	160	0	0	0
		19		52"	④		Blk	VF/F Sand - Trace C sand and F pebbles		④ sample S7-SB111-18.5-19.0	220	0	0	0
		20		60"						wet	179	0	0	0
1337	S-4	21						No recovery			–	0	0	0
		22									–	0	0	0
		23									–	0	0	0
		24		3"						wet liner	–	0	0	0
		25		60"							–	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 5'x2" stainless macrocore sampler with Acetate liners
positive refrigerant gas detection 15' to 20' BGS with Bacharach meter

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP CALVERTON
PROJECT NUMBER: 112G02045
DRILLING COMPANY: ZEBRA
DRILLING RIG: Geoprobe 7720 DT

BORING No.: S7-SB111
DATE: 9-30-10
GEOLOGIST: Vince Shickora
DRILLER: John Diamond

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1349	S-5	26					Tan Brn	F/M Sand - little C Sand - Trace f pebbles		wet	2.1	0	0	0
		27									1.8	0	0	0
		28			(*)					(*) Sample S7-SB111-28.0-28.5	1.7	0	0	0
		29		58"						wet	0.9	0	0	0
1405		30		60"			Tan Brn	Same as above			0.1	0	0	0
	S-6	31									0	0	0	0
		32								wet				
		33					Brn				0	0	0	0
		34		53"										
		35		60"			Brn	Same as above		wet	0	0	0	0
		36			EoB									
		37												
		38												
		39												
		40												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (See page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 57-SB111-18.5-19.0
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-30-10 Time: 1336 Method: DPT Macrocore Monitor Reading (ppm): 220	18.5' To 19.0	BIK	VF/F Sand - Trace C sand and fine pebbles (wet)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2 X DI H_2O 40 ml vials	yes	—
	1 X MeOH 40 ml vial	yes	—
% moisture	1 X 4 ounce Jar	yes	—

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- very strong fuel like odor and elevated PID readings to 220 ppm off sample
- Positive refridgerant gas detection with Bacharach meter

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: S7-SB111-28.0-28.5
Sample Location: Site 7
Sampled By: VINCE SHICKORA
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-30-10 Time: 1400 Method: DPT Macrocore Monitor Reading (ppm): 1.7	28.0' TO 28.5'	Tan-Brn	F/M Sand - little C Sand Trace F pebbles (wet)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	2X DI H_2O 40ml vials	yes	—
	1X MeOH 40ml vial	yes	—
% moisture	1X 4 ounce Jar		

OBSERVATIONS / NOTES:

Direct Push sampling using 2" X 5' Macrocore with acetate liners

- No stains or odors observed
- PID reading 1.7 ppm on sample
- Negative detection with Becherach meter

MAP:

See Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW112-1620
Sample Location: FD-TW112
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5-31-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 1020	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	clear	6.02	0.260	15.83	13.0	3.25	0.0	-150

PURGE DATA: *(Gallons)*

Date: 5-31-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.26	0.363	17.02	5.55	7.04	0.0	-157
Monitor Reading (ppm): 0.0	2	6.22	0.269	16.01	60.5	3.97	0.0	-155
Well Casing Diameter & Material	3.5	6.04	0.267	15.86	23.6	3.36	0.0	-148
Type: 1" Stainless	5	6.02	0.260	15.83	13.0	3.25	0.0	-150
Total Well Depth (TD): 20'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1000								
End Purge (hrs): 1020								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	3X 40ML vials	yes

OBSERVATIONS / NOTES:

- No odors, stains, elevated PID readings

Temporary well point screen zone 16 ft to 20 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW112-2125
Sample Location: TW-112
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5-31-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 1050	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	clear	6.48	0.187	15.65	4.2	3.33	0.0	-81

PURGE DATA: *(Gallons)*

Date: 5-31-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.52	0.238	16.33	932	3.97	0.0	-102
Monitor Reading (ppm): 0.0	2	6.54	0.195	15.51	120	3.60	0.0	-81
Well Casing Diameter & Material	3.5	6.51	0.188	15.60	6.6	3.42	0.0	-80
Type: 1" Stainless	5	6.48	0.187	15.65	4.2	3.33	0.0	-81
Total Well Depth (TD): 25'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1030								
End Purge (hrs): 1050								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	2X 40ML vials	yes

OBSERVATIONS / NOTES:

No odors, stains, elevated PID readings

Temporary well point screen zone 21 ft to 25 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FA-TW112-26.30
Sample Location: TW-112
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5-31-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 1125	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	Brn Tint	6.35	0.127	15.73	49.3	3.25	0.0	-26

PURGE DATA: *(Gallons)*

Date: 5-31-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.56	0.190	16.40	1238	3.27	0.0	-111
Monitor Reading (ppm): 0.0	2	6.57	0.144	15.71	142	3.40	0.0	-49
Well Casing Diameter & Material	3.5	6.44	0.132	15.75	80.2	3.32	0.0	-32
Type: 1" Stainless	5	6.35	0.127	15.73	49.3	3.25	0.0	-26
Total Well Depth (TD): 30'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1105								
End Purge (hrs): 1125								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	3X 40ML vials	yes

OBSERVATIONS / NOTES:

- No odors, stains, or elevated PID readings

Temporary well point screen zone 26 ft to 30 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW113-1620
Sample Location: TW-113
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5-31-11 Time: 1455	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP
Method: Peristaltic pump	clear	5.79	0.291	16.65	8.3	4.52	0.0	-30

PURGE DATA: *(Gallons)*

Date: 5-31-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.39	0.326	17.79	452	5.63	0.0	-91
Monitor Reading (ppm): 0.0	2	6.31	0.298	17.20	36.4	5.02	0.0	-64
Well Casing Diameter & Material	3.5	6.01	0.290	16.68	13.9	4.76	0.0	-45
Type: 1" Stainless	5	5.79	0.291	16.65	8.3	4.52	0.0	-30
Total Well Depth (TD): 20'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1435								
End Purge (hrs): 1455								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	3X 40ML vials	yes (6)

OBSERVATIONS / NOTES:

No stains - very slight fuel like odor - No elevated PID readings

Temporary well point screen zone 16 ft to 20 ft.

Circle if Applicable:

MS/MSD: Yes

Duplicate ID No.: —

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW113-2125
Sample Location: TW-113
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5-31-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 1525	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	clear	6.32	0.210	16.91	4.8	5.90	0.0	-22

PURGE DATA: *(Gallons)*

Date: 5-31-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.52	0.252	17.70	1238	5.54	0.0	-62
Monitor Reading (ppm): 0.0	2	6.42	0.227	17.25	22.0	5.80	0.0	-34
Well Casing Diameter & Material	3.5	6.33	0.212	16.97	6.9	5.95	0.0	-26
Type: 1" Stainless	5	6.32	0.210	16.91	4.8	5.90	0.0	-22
Total Well Depth (TD): 25'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1505								
End Purge (hrs): 1525								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	3 X 40ML vials	Yes

OBSERVATIONS / NOTES:

- No odors, stains, or elevated PID readings

Temporary well point screen zone 21 ft to 25 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW113-2630
Sample Location: TW-113
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5-31-11 Time: 1555	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP
Method: Peristaltic pump	clear	6.32	0.121	16.51	18.7	3.85	0.0	-48

PURGE DATA: *(Gallons)*

Date: 5-31-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.71	0.152	17.35	1541	4.19	0.0	-111
Monitor Reading (ppm): 0.0	2	6.52	0.132	16.89	90.5	4.04	0.0	-73
Well Casing Diameter & Material	3.5	6.38	0.125	16.67	24.5	3.93	0.0	-56
Type: 1" Stainless	5	6.32	0.121	16.51	18.7	3.85	0.0	-48
Total Well Depth (TD): 30'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1535								
End Purge (hrs): 1555								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	3 X 40ML vials	yes

OBSERVATIONS / NOTES:

- No odors, stains, or elevated PID readings

Temporary well point screen zone 26 ft to 30 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW114-1620
Sample Location: TW-114
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5-31-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 1235	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	Gry Tint	6.20	0.302	16.53	51.3	3.26	0.0	-173

PURGE DATA: (Gallons)

Date: 5-31-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.36	0.364	17.65	1584	3.59	0.0	-162
Monitor Reading (ppm): 32	2	6.34	0.311	16.93	108	3.20	0.0	-169
Well Casing Diameter & Material	3.5	6.25	0.304	16.56	62.4	3.34	0.0	-168
Type: 1" Stainless	5	6.20	0.302	16.53	51.3	3.26	0.0	-173
Total Well Depth (TD): 20'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1215								
End Purge (hrs): 1235								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	3X 40ML vials	Yes (4)

OBSERVATIONS / NOTES:

- oily sheen on purge water - Fuel like odor
- PID readings to 32 ppm

Temporary well point screen zone 16 ft to 20 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	FD-DUP01-20110531 1800 hrs	[signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW114-2125
Sample Location: TW-114
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5-31-11 / Time: 1305	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP
Method: Peristaltic pump	Brown	6.57	0.185	16.37	200	3.53	0.0	-97

PURGE DATA: *(Gallons)*

Date: 5-31-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.73	0.198	17.49	1874	3.86	0.0	-154
Monitor Reading (ppm): 0.0	2	6.74	0.188	16.66	1303	3.47	0.0	-116
Well Casing Diameter & Material	3.5	6.62	0.189	16.60	930	3.40	0.0	-104
Type: 1" Stainless	5	6.57	0.185	16.37	200	3.53	0.0	-97
Total Well Depth (TD): 25'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1245								
End Purge (hrs): 1305								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	2X 40ML vials	yes

OBSERVATIONS / NOTES:

- No odors, stains, or elevated PID readings

Temporary well point screen zone 21 ft to 25 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:	
—	—	VAS

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FA-TW114-2630
Sample Location: TW-114
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5-31-11 Time: 1335 Method: Peristaltic pump	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP
	Brn Tint	6.38	0.128	16.69	60.3	5.71	0.0	-32

PURGE DATA: *(Gallons)*

Date: 5-31-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.67	0.144	17.27	1195	5.31	0.0	-64
Monitor Reading (ppm): 0.0	2	6.52	0.133	16.66	102	5.42	0.0	-45
Well Casing Diameter & Material	3.5	6.41	0.127	16.62	81.4	5.67	0.0	-34
Type: 1" Stainless	5	6.38	0.128	16.69	60.3	5.71	0.0	-32
Total Well Depth (TD): 30'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1315								
End Purge (hrs): 1335								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	3X 40ML vials	Yes

OBSERVATIONS / NOTES:

- No odors, stains, or elevated PID readings

Temporary well point screen zone 26 ft to 30 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW115-1620
Sample Location: TW-115
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 0910	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	Brn Tint	6.29	0.357	16.15	50.1	3.97	0.0	-143

PURGE DATA: *(Gallons)*

Date: 6-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.41	0.377	17.05	1352	4.15	0.0	-137
Monitor Reading (ppm): 8.0	2	6.37	0.360	15.99	198	4.56	0.0	-143
Well Casing Diameter & Material	3.5	6.29	0.358	16.02	75.4	4.18	0.0	-141
Type: 1" Stainless	5	6.29	0.357	16.15	50.1	3.97	0.0	-143
Total Well Depth (TD): 20'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 0850								
End Purge (hrs): 0910								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	2X 40ML vials	Yes

OBSERVATIONS / NOTES:

- oily sheen on purge water - Fuel like odor - PID readings to 8.0 ppm

Temporary well point screen zone 16 ft to 20 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FO-TW115-2125
Sample Location: TW-115
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 0945	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	Clear	6.45	0.205	15.74	4.6	3.21	0.0	-98

PURGE DATA: *(Gallons)*

Date: 6-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.53	0.232	16.07	39.3	3.75	0.0	-129
Monitor Reading (ppm): 0.0	2	6.54	0.209	15.90	17.9	3.56	0.0	-108
Well Casing Diameter & Material	3.5	6.47	0.204	15.82	9.7	3.30	0.0	-102
Type: 1" Stainless	5	6.45	0.205	15.74	4.6	3.21	0.0	-98
Total Well Depth (TD): 25'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 0925								
End Purge (hrs): 0945								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	2X 40ML vials	Yes

OBSERVATIONS / NOTES:

- No odors, stains, or elevated PID readings

Temporary well point screen zone 21 ft to 25 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FI-TW115-26.30
Sample Location: TW-115
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 1020	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	Brown	6.60	0.157	17.12	303	4.15	0.0	-56

PURGE DATA: *(Gallons)*

Date: 6-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.65	0.162	17.38	1667	3.20	0.0	-57
Monitor Reading (ppm):	2	6.65	0.163	17.11	1540	3.65	0.0	-79
Well Casing Diameter & Material	3.5	6.63	0.156	17.06	285	4.02	0.0	-57
Type: 1" Stainless	5	6.60	0.157	17.12	303	4.15	0.0	-56
Total Well Depth (TD): 30'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1000								
End Purge (hrs): 1020								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 4.8								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	3X 40ML vials	yes

OBSERVATIONS / NOTES:

- No odors, stains or elevated PID readings

Temporary well point screen zone 26 ft to 30 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW116-1620
Sample Location: TW-116
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 1345	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	Clear	6.34	0.196	17.00	20.6	3.60	0.0	-180

PURGE DATA: *(Gallons)*

Date: 6-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.67	0.215	17.63	1964	3.74	0.0	-151
Monitor Reading (ppm): 23.5	2	6.72	0.200	17.22	78.7	3.62	0.0	-180
Well Casing Diameter & Material	3.5	6.37	0.198	17.02	40.7	3.54	0.0	-183
Type: 1" Stainless	5	6.34	0.196	17.00	20.6	3.60	0.0	-180
Total Well Depth (TD): 20'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1325								
End Purge (hrs): 1345								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	2X 40ML vials	Yes

OBSERVATIONS / NOTES:

- oily sheen on water - fuel like odor - PID readings to 23.5 ppm

Temporary well point screen zone 16 ft to 20 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW116-2125
Sample Location: TW-116
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-1-11	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP
Time: 1415								
Method: Peristaltic pump	Clear	6.36	0.173	17.28	19.2	4.65	0.0	-95

PURGE DATA: *(Gallons)*

Date: 6-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.74	0.215	17.46	1655	5.02	0.0	-134
Monitor Reading (ppm): 0.0	2	6.52	0.181	17.27	48.9	4.85	0.0	-107
Well Casing Diameter & Material	3.5	6.37	0.175	17.30	23.0	4.78	0.0	-99
Type: 1" Stainless	5	6.36	0.173	17.28	19.2	4.65	0.0	-95
Total Well Depth (TD): 25'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1355								
End Purge (hrs): 1415								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	2X 40ML vials	Yes (6)

OBSERVATIONS / NOTES:

- No odors, stains, or elevated PID readings

Temporary well point screen zone 21 ft to 25 ft.

Circle if Applicable:

MS/MSD (Yes)

Duplicate ID No.: —

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW116-2630
Sample Location: TW-116
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 1445	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	clear	6.09	0.129	17.50	24.1	3.71	0.0	12

PURGE DATA: *(Gallons)*

Date: 6-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.61	0.165	17.70	1481	3.58	0.0	-75
Monitor Reading (ppm):	2	6.29	0.135	17.49	24.4	3.70	0.0	-13
Well Casing Diameter & Material	3.5	6.14	0.131	17.45	25.0	3.82	0.0	9
Type: 1" Stainless	5	6.09	0.129	17.50	24.1	3.71	0.0	12
Total Well Depth (TD): 30'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1425								
End Purge (hrs): 1445								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	2X 40ML vials	yes (4)

OBSERVATIONS / NOTES:

Temporary well point screen zone 26 ft to 30 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	FD-DUP03-20110601 1830 hrs

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112602045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW117-1620
Sample Location: TW-117
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 1135	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	clear	6.27	0.204	16.42	14.2	3.19	0.0	-156

PURGE DATA: *(Gallons)*

Date: 6-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.72	0.235	17.27	340	4.39	0.0	-134
Monitor Reading (ppm): 7.5	2	6.56	0.206	16.91	36.0	3.68	0.0	-153
Well Casing Diameter & Material	3.5	6.30	0.203	16.59	20.7	3.40	0.0	-155
Type: 1" Stainless	5	6.27	0.204	16.42	14.2	3.19	0.0	-156
Total Well Depth (TD): 20'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1115								
End Purge (hrs): 1135								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	2X 40ML vials	yes (4)

OBSERVATIONS / NOTES:

- oily sheen on purge water - fuel like odor - PID readings to 7.5 ppm

Temporary well point screen zone 16 ft to 20 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	FD-DUP02-20110601 (1800hr)	[signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW117-2125
Sample Location: TW-117
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 1205	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	clear	6.30	0.206	17.43	12.0	3.90	0.0	-45

PURGE DATA: *(Gallons)*

Date: 6-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.80	0.289	17.55	310	4.04	0.0	-153
Monitor Reading (ppm): 0.0	2	6.59	0.221	17.30	105	4.19	0.0	-94
Well Casing Diameter & Material	3.5	6.38	0.212	17.38	30.2	3.97	0.0	-49
Type: 1" Stainless	5	6.30	0.206	17.43	12.0	3.90	0.0	-45
Total Well Depth (TD): 25'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1145								
End Purge (hrs): 1205								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	2X 40ML vials	yes

OBSERVATIONS / NOTES:

- No odors, stains, or elevated PID readings

Temporary well point screen zone 21 ft to 25 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 112G02045

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Temporary Well
[] QA Sample Type:

Sample ID No.: FD-TW117-2630
Sample Location: TW-117
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 12.35	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	Clear	5.98	0.132	17.51	14.2	3.94	0.0	47

PURGE DATA: *(Gallons)*

Date: 6-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5	6.52	0.167	17.60	1639	3.48	0.0	-52
Monitor Reading (ppm):	2	6.23	0.140	17.47	28.8	4.04	0.0	13
Well Casing Diameter & Material	3.5	6.05	0.133	17.49	16.6	3.97	0.0	40
Type: 1" Stainless	5	5.98	0.132	17.51	14.2	3.94	0.0	47
Total Well Depth (TD): 30'								
Static Water Level (WL): NA								
One Casing Volume(gal/L): ↓								
Start Purge (hrs): 1215								
End Purge (hrs): 1235								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	2X 40ML vials	Yes

OBSERVATIONS / NOTES:

- No odors, stains, or elevated PID readings

Temporary well point screen zone 26 ft to 30 ft.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NWIRP Calverton
Project No.: 112G0204.5

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: ~~Temporary Well~~ VAS SV well
[] QA Sample Type:

Sample ID No.: SV11-MW40S-20110601
Sample Location: SV11-MW40S
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Time: 0815	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic pump	clear	6.10	0.189	13.12	1.5	1.49	0.0	-95

PURGE DATA: *(Gallons)*

Date: 6-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Method: Peristaltic pump	0.5							
Monitor Reading (ppm): 0.0	2							
Well Casing Diameter & Material	3.5							
Type: 2"PVC ~~1" Stainless~~ VAS	5		(See	Low	Flow	Purge	logs)	
Total Well Depth (TD): 30.65								
Static Water Level (WL): 15.98								
One Casing Volume(gal/L):								
Start Purge (hrs): 0730								
End Purge (hrs): 0815								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL	3X 40ML vials	Yes

OBSERVATIONS / NOTES:

- No stains or elevated PID readings observed

~~Temporary well point screen zone ___ ft to ___ ft.~~ VAS

- Tubing set at ~ 29' BGS in well

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Calverton
PROJECT NUMBER: 112G02045

WELL ID.: SV11-MW40S-20110601
DATE: 6-1-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0725	15.88	—	—	—	—	—	—	—	—	Initial
0730	15.88	450	5.90	0.361	75.4	5.40	13.55	-65	0.0	~~-65~~ (VAS) Gry Tint
0735	15.88	450	5.81	0.256	81.3	3.95	13.23	-60	0.0	Gray Tint
0740	15.88	450	5.67	0.233	82.5	2.49	13.16	-58	0.0	" "
0745	15.88	450	5.68	0.206	30.2	1.83	13.10	-60	0.0	slight Tint
0750	15.88	450	5.73	0.196	9.6	1.67	13.11	-64	0.0	clear
0755	15.88	450	5.85	0.193	1.8	1.55	13.09	-75	0.0	clear
0800	15.88	450	5.97	0.194	1.9	1.53	13.11	-84	0.0	clear
0805	15.88	450	6.07	0.190	2.0	1.51	13.15	-90	0.0	clear
0810	15.88	450	6.09	0.189	1.7	1.50	13.10	-93	0.0	clear
0815	15.88	450	6.10	0.189	1.5	1.49	13.12	-95	0.0	clear - collect sample

SIGNATURE(S): [illegible]

APPENDIX C

CHAIN OF CUSTODY FORMS

22808

CHAIN OF CUSTODY

Page 1 of ___

CompuChem
a division of Liberty Analytical Corp.

501 Madison Ave.
Cary, NC 27513
Phone: 919-379-4100 Fax 919-379-4040

Courier: FED EX
Airbill No.: 8706 9629 3482
Sampling Complete? Y or N

Client/Reporting Information

Company Name: Tetra Tech NUS
Address: 5700 Lake Wright Dr. Suite 309
City: Norfolk State: VA Zip: 23502
Project Contact: Dave Brayack
Phone #: (757) 461-3824
Sampler's Name: Vince Shickosa

Project Information

Project Name: NWIRP Calverton Site 7
Sampling Location: Site 7
Turnaround time:
Batch QC or Project Specific? If Specific, which Sample ID?
Are aqueous samples field filtered for metals? Y or N
Are high concentrations expected? Y or N? If yes, which ID(s)? See column for elevated PID readings

Matrices: GW - Ground water; WW - Waste water; SW - Surface water; SO - Soil/Sediment; TB - Trip Blank; RI - Rinsate; WP - Wipe; O - Other

CompuChem No (Lab Use)	Field ID	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	MEOH	Other DI H_2O	VOCs	% moisture				Elevated PID readings detected on sample (ppm)					pH / Sample Info (Lab Use)
1010001-02	57-SB101-17.5 18.0	9/27/10	1225	SO	4					1	2	3	1				—					
-03	57-SB102-17.5 18.0	9/27/10	1350	SO	4					1	2	3	1				27					
-04	57-DUP01-20100927	9/27/10	1200	SO	4					1	2	3	1				25					
-05	57-SB103-18.0 18.5	9/27/10	1555	SO	4					1	2	3	1				8.9					
-06	57-SB103-21.5 22.0	9/27/10	1610	SO	4					1	2	3	1				7.9					
1010002-01	TB-20100927	9/27/10	1000	TB	3	3						3					—					
1010001-01	57-SB104-15.0 15.5	9/29/10	0930	SO	10					3	6	9	1				25					
-07	57-SB104-19.0 19.5	9/29/10	0940	SO	4					1	2	3	1				151					
-08	57-SB105-18.0 18.5	9/29/10	1120	SO	4					1	2	3	1				—					
-09	57-SB106-18.0 18.5	9/29/10	1310	SO	4					1	2	3	1				—					

Lab Use Only

Sample Unpacked By: Jennifer Doner
Sample Order Entry By: [signature]
Samples Received in Good Condition? Y or N
If no, explain:

Cyanide samples checked for sulfide & chlorine? Y or NA
625 & Phenol samples checked for chlorine? Y or NA
608 samples checked for pH between 5.0-9.0? Y or NA

Comments

Do MS/MSD on 57-SB104-15.0 15.5

Sample Custody

Relinquished by: [signature]	Date/Time: 9-30-10 1800	Received by: Jennifer Doner	Date/Time: 10-1-10 9:25
Relinquished by:	Date/Time:	Received by:	Date/Time:

Subcontact? Y or N If yes, where?
Custody Seal(s) intact? Y or N
On Ice? Y or N
Cooler Temp: 0.8 °C

Samples stored 60 days after date report mailed at no extra charge.

White & Yellow copy to lab • Pink copy for customer SN0015

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. C2506
QUOTE NO.
COC Number 085941

CLIENT INFORMATION (REPORT TO BE SENT TO)

COMPANY: Tetra Tech NUS
ADDRESS: 5700 Lake Wright Drive
CITY: Norfolk STATE: VA ZIP: 23502
ATTENTION: Dave Brayack
PHONE (757) 461-3824 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: NWIRP Calverton
PROJECT NO.: WE08 LOCATION:
PROJECT MANAGER: Dave Brayack
e-mail:
PHONE (757) 461-3824 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: _____ DAYS *
EDD: _____ DAYS *
PREAPPROVED TAT: ☐ YES ☐ NO
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other _____
☐ EDD FORMAT _____

ANALYSIS

VOCs

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	FD-TB02-20110602	QC		X	6/3/11	0700	2	2									Lab Supplied Trip blank
2.	FD-TW118-1620	Aq		X	6/2/11	0920	2	2									
3.	FD-TW118-2125	Aq		X	6/2/11	0950	2	2									
4.	FD-TW118-2630	Aq		X	6/2/11	1020	2	2									
5.	FC-MW-05I1-20110602	Aq		X	6/2/11	1140	2	2									
6.	SA-TW403-1115	Aq		X	6/2/11	1215	2	2									
7.	SA-TW403-2125	Aq		X	6/2/11	1240	2	2									
8.	SA-TW403-2630	Aq		X	6/2/11	1305	2	2									
9.	SA-TW403-3135	Aq		X	6/2/11	1330	2	2									
10.	SA-TW402-1115	Aq		X	6/2/11	1455	2	2									

Preservatives: A - HCl, B - HNO_3, C - H_2SO_4, D - NaOH, E - ICE, F - Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1. [signature]	6-3-11 1500	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3. Fed Ex	6/04/11 10:15	3. [signature]

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Cooler Temp. 4°C
Ice in Cooler?: yes

Page 1 of 3

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☒ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

Revision 8/2007

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CHEMTECH
CHAIN OF CUSTODY RECORD

B1104018

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www.chemtech.net

CHEMTECH PROJECT NO. C2506
QUOTE NO.
COC Number 086026

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: Tetra Tech NUS
ADDRESS: 5700 Lake Wright Drive
CITY: Norfolk STATE: VA ZIP: 23502
ATTENTION: Dave Brayack
PHONE (757) 461-3824 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: NWIRP Colverton
PROJECT NO. WE08 LOCATION:
PROJECT MANAGER: Dave Brayack
e-mail:
PHONE (757) 461-3824 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: _____ DAYS *
EDD: _____ DAYS *
PREAPPROVED TAT: ☐ YES ☐ NO
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other _____
☐ EDD FORMAT _____

ANALYSIS: VOCs

PRESERVATIVES: ← Specify Preservatives
A – HCl B – HNO_3 C – H_2SO_4 D – NaOH E – ICE F – Other

CHEMTECH SAMPLE ID (KR 6/04/11)	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
11.	SA-TW402-2125	Aq		X	6/2/11	1520	2	2									
12.	SA-TW402-2630	Aq		X	6/2/11	1545	2	2									
13., 14., 15.	SA-TW402-3135	Aq		X	6/2/11	1615	6	6									Do MS/MSD
16.	SA-DUP01-20110602	Aq		X	6/2/11	1800	2	2									
	~~SA-~~ VAS																
17.	FC-MW-05I-20110602	Aq		X	6/2/11	1720	2	2									
18.	SA-TW401-1115	Aq		X	6/3/11	0940	2	2									
19.	SA-TW401-2125	Aq		X	6/3/11	1005	2	2									
20.	SA-TW401-2630	Aq		X	6/3/11	1030	2	2									
21.	SA-TW401-3135	Aq		X	6/3/11	1055	2	2									

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1. [signature]	6-3-11 1500	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3. FedEx	~~6/03~~ 6/04/11 10:15	3. [signature]

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Cooler Temp. 4°C
Ice in Cooler?: Yes

Page 2 of 3

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☒ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

Revision 8/2007 KR 6/04/11 WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

CHEMTECH
CHAIN OF CUSTODY RECORD

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CHEMTECH PROJECT NO.
QUOTE NO.
COC Number 086028

CLIENT INFORMATION (REPORT TO BE SENT TO)

COMPANY: Tetra Tech NUS
ADDRESS: 5700 Lake Wright Drive
CITY: Norfolk STATE: VA ZIP: 23502
ATTENTION: Dave Brayack
PHONE (757) 461-3824 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: NWIRP Colverton
PROJECT NO. WE08 LOCATION:
PROJECT MANAGER: Dave Brayack
e-mail:
PHONE (757) 461-3824 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: _____ DAYS *
EDD: _____ DAYS *
PREAPPROVED TAT: ☐ YES ☐ NO
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other _____
☐ EDD FORMAT _____

ANALYSIS

VOCs

PRESERVATIVES

← Specify Preservatives
A – HCl B – HNO_3
C – H_2SO_4 D – NaOH
E – ICE F – Other

CHEMTECH SAMPLE ID (KR 6/06/11)	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
1. 22.	FC-MW-05$-20110603	Aq		X	6/3/11	0845	2	2									
2. 23.	SA-TW404-2125	Aq		X	6/3/11	1210	2	2									
3. 24.	SA-TW404-3135	Aq		X	6/3/11	1235	2	2									
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. [signature]	6-3-11 1500	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3. Fed Ex	DATE/TIME: 6/04/11 10:15	RECEIVED FOR LAB BY: 3. Jen Rivera

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Cooler Temp. 4°C
Ice in Cooler?: yes

Page 3 of 3

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☒ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

Revision 8/2007

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CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO.
QUOTE NO. C2462
COC Number 085938

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: Tetra Tech NUS
ADDRESS: 5700 Lake Wright Drive
CITY: Norfolk STATE: VA ZIP: 23502
ATTENTION: Dave Brayack
PHONE (757) 461-3824 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: NWIRP Cheverton
PROJECT NO.: WE08 LOCATION: Site 7
PROJECT MANAGER: Dave Brayack
e-mail:
PHONE: (757) 461-3824 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: DAYS *
EDD: DAYS *
PREAPPROVED TAT: ☐ YES ☐ NO
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other
☐ EDD FORMAT

ANALYSIS

VOCs

PRESERVATIVES

← Specify Preservatives
A – HCl B – HNO_3
C – H_2SO_4 D – NaOH
E – ICE F – Other

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
1.	FD-TB01-20110531	QC		X	5/31/11	0700	2	2									Lab Prepared Trip Blank
2.	FD-TW112-1620	Aq		X	5/31/11	1020	2	2									
3.	FD-TW112-2125	Aq		X	5/31/11	1050	2	2									
4.	FD-TW112-2630	Aq		X	5/31/11	1125	2	2									
5.	FD-TW114-1620	Aq		X	5/31/11	1235	2	2									
6.	FD-TW114-2125	Aq		X	5/31/11	1305	2	2									
7.	FD-TW114-2630	Aq		X	5/31/11	1335	2	2									
8.	FD-DUP01-20110531	Aq		X	5/31/11	1800	2	2									
9.	FD-TW113-1620	Aq		X	5/31/11	1455	6	6									Do MS/MSD
10.	FD-TW113-2125	Aq		X	5/31/11	1525	2	2									

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. [signature]	6-1-11 1745	1.
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3. FedEx	DATE/TIME: 6-2-11 9:00	RECEIVED FOR LAB BY: 3. [signature]

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Cooler Temp. 4°C
Ice in Cooler?: —

Page 1 of 3

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

Revision 8/2007

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CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. C2463
QUOTE NO.
COC Number 085939

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Tetra Tech NUS
ADDRESS: 5700 Lake Wright Drive
CITY: Norfolk STATE: VA ZIP: 23502
ATTENTION: Dave Brayack
PHONE (757) 461-3824 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: NWIRP Colverton
PROJECT NO.: WE08 LOCATION: Site 7
PROJECT MANAGER: Dave Brayack
e-mail:
PHONE (757) 461-3824 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: _____ DAYS *
EDD: _____ DAYS *
PREAPPROVED TAT: ☐ YES ☐ NO
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other _____
☐ EDD FORMAT _____

ANALYSIS

VOCs

PRESERVATIVES

← Specify Preservatives
A – HCl B – HNO_3
C – H_2SO_4 D – NaOH
E – ICE F – Other

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
1.	FD-TW113-2630	Aq		X	5/31/11	1555	2	2									
2.	SV11-MW40S-20110601	Aq		X	6/1/11	0815	2	2									
3.	FD-RB01-20110601	QC		X	6/1/11	0835	2	2									Rinsate
4.	FD-TW115-1620	Aq		X	6/1/11	0910	2	2									
5.	FD-TW115-2125	Aq		X	6/1/11	0945	2	2									
6.	FD-TW115-2630	Aq		X	6/1/11	1020	2	2									
7.	FD-TW117-1620	Aq		X	6/1/11	1135	2	2									
8.	FD-TW117-2125	Aq		X	6/1/11	1205	2	2									
9.	FD-TW117-2630	Aq		X	6/1/11	1235	2	2									
10.	FD-DUP02-20110601	Aq		X	6/1/11	1800	2	2									

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1. [signature]	6-1-11 1745	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3. FedEx	6-2-11 9:00	3. [signature]

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Cooler Temp. 4°C
Ice in Cooler?: ✓

Page 2 of 3

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☒ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

Revision 8/2007

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. C2463
QUOTE NO.
COC Number 085940

CLIENT INFORMATION (REPORT TO BE SENT TO)

COMPANY: Tetra Tech NUS
ADDRESS: 5700 Lake Wright Drive
CITY: Norfolk STATE: VA ZIP: 23502
ATTENTION: Dave Brayack
PHONE: (757) 461-3824 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: NWIRP Colverton
PROJECT NO.: WE08 LOCATION: Site 7
PROJECT MANAGER: Dave Brayack
e-mail:
PHONE: (757) 461-3824 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#.
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: _____ DAYS *
EDD: _____ DAYS *
PREAPPROVED TAT: ☐ YES ☐ NO
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other _____
☐ EDD FORMAT _____

ANALYSIS

VOCs

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS (← Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other)
1.	FD-SB01-20110601	Aq		X	6/1/11	1250	2	2									Source Blank
2.	FD-TW116-1620	Aq		X	6/1/11	1345	2	2									
3. 14,15-	FD-TW116-2125	Aq		X	6/1/11	1415	6	6									Do MS/MSD
4. 16-	FD-TW116-2630	Aq		X	6/1/11	1445	2	2									
5. 17.	FD-DUP03-20110601	Aq		X	6/1/11	1830	2	2									
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1. [signature]	6-1-11 1745	1.
RELINQUISHED BY 2.	DATE/TIME	RECEIVED BY 2.
RELINQUISHED BY 3. FedEx	DATE/TIME 6-2-11 9:00	RECEIVED FOR LAB BY 3. [signature]

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Cooler Temp. 4°C
Ice in Cooler?: ✓

Page 3 of 3

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☒ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

Revision 8/2007

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

APPENDIX D

ANALYTICAL DATA

ANALYSES DATA PACKAGE COVER PAGE

Client: TETRA TECH

Project: CTO-WE08/112G02045/N62467-04-D-0057

Laboratory: COMPUCHEM

SDG: 1010001

Client Sample Id:	Lab Sample Id:
SB104-15.015.5	1010001-01
SB101-17.518.0	1010001-02
SB102-17.518.0	1010001-03
DUP01-20100927	1010001-04
SB103-18.018.5	1010001-05
SB103-18.018.5	1010001-05RE1
SB103-21.522.0	1010001-06
SB104-19.019.5	1010001-07
SB105-18.018.5	1010001-08
SB106-18.018.5	1010001-09
SB107-18.018.5	1010001-10
SB107-18.018.5	1010001-10RE1
SB107-27.528.0	1010001-11
SB108-16.517.0	1010001-12
SB109-19.019.5	1010001-13
DUP02-20100930	1010001-14
DUP02-20100930	1010001-14RE1
SB109-33.033.5	1010001-15
SB110-17.518.0	1010001-16
SB110-32.032.5	1010001-17
SB111-18.519.0	1010001-18
SB111-28.028.5	1010001-19

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

Signature: _____ Name: _____

Date: _____ Title: _____

Environmental Testing Laboratories

CompuChem

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Liberty Analytical Corp.

ANALYSIS DATA SHEET

SW 8260B

DUP01-20100927

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0491.d | Sampled: 09/27/10 12:00

Initial/Final: 6.26g / 5mL | Lab ID: 1010001-04 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 15 | Analyzed: 10/02/10 03:47

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.41	0.94	4.7	U
74-87-3	Chloromethane		0.30	0.94	4.7	U
75-01-4	Vinyl chloride		0.40	0.94	4.7	U
74-83-9	Bromomethane		0.55	0.94	4.7	U
75-00-3	Chloroethane		0.67	2.4	4.7	U
75-69-4	Trichlorofluoromethane		0.28	0.94	4.7	U
75-35-4	1,1-Dichloroethene		1.0	2.4	4.7	U
67-64-1	Acetone	11	4.7	5.9	12	J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.48	0.94	4.7	U
75-15-0	Carbon disulfide		0.13	0.24	4.7	U
79-20-9	Methyl acetate		1.3	2.4	4.7	U
75-09-2	Methylene chloride		0.46	0.94	4.7	U
156-60-5	trans-1,2-Dichloroethene		0.94	2.4	4.7	U
1634-04-4	Methyl tert-butyl ether		0.37	0.94	4.7	U
75-34-3	1,1-Dichloroethane		0.44	0.94	4.7	U
156-59-2	cis-1,2-Dichloroethene		0.40	0.94	4.7	U
78-93-3	2-Butanone		1.2	2.4	12	U
67-66-3	Chloroform		0.29	0.94	4.7	U
71-55-6	1,1,1-Trichloroethane		0.47	0.94	4.7	U
110-82-7	Cyclohexane		0.29	0.94	4.7	U
563-58-6	1,1-Dichloropropene		0.30	0.94	4.7	U
56-23-5	Carbon tetrachloride		0.42	0.94	4.7	U
107-06-2	1,2-Dichloroethane		0.25	0.94	4.7	U
71-43-2	Benzene		0.29	0.94	4.7	U
79-01-6	Trichloroethene		0.30	0.94	4.7	U
108-87-2	Methylcyclohexane		0.26	0.94	4.7	U
78-87-5	1,2-Dichloropropane		0.59	2.4	4.7	U
75-27-4	Bromodichloromethane		0.36	0.94	4.7	U
10061-01-5	cis-1,3-Dichloropropene		0.37	0.94	4.7	U
108-10-1	4-Methyl-2-pentanone		1.2	2.4	12	U
108-88-3	Toluene	0.60	0.32	0.94	4.7	JB
10061-02-6	trans-1,3-Dichloropropene		0.39	0.94	4.7	U
79-00-5	1,1,2-Trichloroethane		0.68	2.4	4.7	U
127-18-4	Tetrachloroethene		1.5	2.4	4.7	U
591-78-6	2-Hexanone		0.94	2.4	12	U
124-48-1	Dibromochloromethane		0.53	0.94	4.7	U
106-93-4	1,2-Dibromoethane		0.21	0.24	4.7	U
108-90-7	Chlorobenzene		0.24	0.24	4.7	U
100-41-4	Ethylbenzene		0.55	2.4	4.7	U

ANALYSIS DATA SHEET

SW 8260B

DUP01-20100927

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0491.d | Sampled: 09/27/10 12:00

Initial/Final: 6.26g / 5mL | Lab ID: 1010001-04 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 15 | Analyzed: 10/02/10 03:47

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		0.13	0.47	9.4	U
95-47-6	o-Xylene		0.36	0.94	4.7	U
100-42-5	Styrene		0.075	0.24	4.7	U
75-25-2	Bromoform		1.0	2.4	4.7	U
98-82-8	Isopropylbenzene		0.21	0.24	4.7	U
79-34-5	1,1,2,2-Tetrachloroethane		0.35	0.94	4.7	U
541-73-1	1,3-Dichlorobenzene		0.25	0.94	4.7	U
106-46-7	1,4-Dichlorobenzene		0.20	0.24	4.7	U
95-50-1	1,2-Dichlorobenzene		0.34	0.94	4.7	U
96-12-8	1,2-Dibromo-3-chloropropane		0.61	2.4	4.7	U
120-82-1	1,2,4-Trichlorobenzene		0.33	0.94	4.7	U
91-20-3	Naphthalene		0.30	0.94	4.7	U
540-59-0	1,2-Dichloroethene (total)		0.40	0.94	4.7	U
1330-20-7	Xylenes (total)		0.13	0.47	4.7	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	47.14	46.16	98	71 - 141	
1,2-Dichloroethane-d4	47.14	45.68	97	70 - 139	
Toluene-d8	47.14	43.41	92	85 - 115	
Bromofluorobenzene	47.14	43.07	91	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
NA	Tentatively Identified Compounds	0.0				U
E966796	Total Alkane TICs	0.0				U

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ANALYSIS DATA SHEET

SW 8260B

DUP02-20100930

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1491.d | Sampled: 09/30/10 16:00

Initial/Final: 7.64g / 5mL | Lab ID: 1010001-14 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 13 | Analyzed: 10/02/10 09:11

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.33	0.75	3.8	U
74-87-3	Chloromethane		0.24	0.75	3.8	U
75-01-4	Vinyl chloride		0.32	0.75	3.8	U
74-83-9	Bromomethane		0.44	0.75	3.8	U
75-00-3	Chloroethane		0.54	1.9	3.8	U
75-69-4	Trichlorofluoromethane		0.23	0.75	3.8	U
75-35-4	1,1-Dichloroethene		0.83	1.9	3.8	U
67-64-1	Acetone	7.1	3.8	4.8	9.4	J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.38	0.75	3.8	U
75-15-0	Carbon disulfide		0.11	0.19	3.8	U
79-20-9	Methyl acetate		1.1	1.9	3.8	U
75-09-2	Methylene chloride		0.37	0.75	3.8	U
156-60-5	trans-1,2-Dichloroethene		0.75	1.9	3.8	U
1634-04-4	Methyl tert-butyl ether		0.29	0.75	3.8	U
75-34-3	1,1-Dichloroethane		0.35	0.75	3.8	U
156-59-2	cis-1,2-Dichloroethene		0.32	0.75	3.8	U
78-93-3	2-Butanone		0.98	1.9	9.4	U
67-66-3	Chloroform		0.23	0.75	3.8	U
71-55-6	1,1,1-Trichloroethane		0.38	0.75	3.8	U
110-82-7	Cyclohexane		0.23	0.75	3.8	U
563-58-6	1,1-Dichloropropene		0.24	0.75	3.8	U
56-23-5	Carbon tetrachloride		0.34	0.75	3.8	U
107-06-2	1,2-Dichloroethane		0.20	0.75	3.8	U
71-43-2	Benzene		0.23	0.75	3.8	U
79-01-6	Trichloroethene		0.24	0.75	3.8	U
108-87-2	Methylcyclohexane		0.21	0.75	3.8	U
78-87-5	1,2-Dichloropropane		0.48	1.9	3.8	U
75-27-4	Bromodichloromethane		0.29	0.75	3.8	U
10061-01-5	cis-1,3-Dichloropropene		0.29	0.75	3.8	U
108-10-1	4-Methyl-2-pentanone		0.98	1.9	9.4	U
108-88-3	Toluene	0.62	0.26	0.75	3.8	JB
10061-02-6	trans-1,3-Dichloropropene		0.31	0.75	3.8	U
79-00-5	1,1,2-Trichloroethane		0.54	1.9	3.8	U
127-18-4	Tetrachloroethene		1.2	1.9	3.8	U
591-78-6	2-Hexanone		0.75	1.9	9.4	U
124-48-1	Dibromochloromethane		0.42	0.75	3.8	U
106-93-4	1,2-Dibromoethane		0.17	0.19	3.8	U
108-90-7	Chlorobenzene		0.19	0.19	3.8	U
100-41-4	Ethylbenzene		0.44	1.9	3.8	U

ANALYSIS DATA SHEET

SW 8260B

DUP02-20100930

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1491.d | Sampled: 09/30/10 16:00

Initial/Final: 7.64g / 5mL | Lab ID: 1010001-14 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 13 | Analyzed: 10/02/10 09:11

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		0.11	0.38	7.5	U
95-47-6	o-Xylene		0.29	0.75	3.8	U
100-42-5	Styrene		0.060	0.19	3.8	U
75-25-2	Bromoform		0.83	1.9	3.8	U
98-82-8	Isopropylbenzene	8.1	0.17	0.19	3.8	
79-34-5	1,1,2,2-Tetrachloroethane		0.28	0.75	3.8	U
541-73-1	1,3-Dichlorobenzene		0.20	0.75	3.8	U
106-46-7	1,4-Dichlorobenzene		0.16	0.19	3.8	U
95-50-1	1,2-Dichlorobenzene		0.27	0.75	3.8	U
96-12-8	1,2-Dibromo-3-chloropropane		0.49	1.9	3.8	U
120-82-1	1,2,4-Trichlorobenzene		0.26	0.75	3.8	U
91-20-3	Naphthalene		0.24	0.75	3.8	U
540-59-0	1,2-Dichloroethene (total)		0.32	0.75	3.8	U
1330-20-7	Xylenes (total)		0.11	0.38	3.8	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	37.74	32.81	87	71 - 141	
1,2-Dichloroethane-d4	37.74	30.25	80	70 - 139	
Toluene-d8	37.74	48.44	128	85 - 115	*
Bromofluorobenzene	37.74	186.8	495	85 - 120	*

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
NA	Tentatively Identified Compounds	0.0				U
E966796	Total Alkane TICs	110000	26033730000	15.165		J

Environmental Testing Laboratories

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ANALYSIS DATA SHEET

SW 8260B

DUP02-20100930ME

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-14D91.d | Sampled: 09/30/10 16:00

Initial/Final: 7.64g / 5mL | Lab ID: 1010001-14RE1 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 13 | Analyzed: 10/04/10 20:04

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		17	38	190	U
74-87-3	Chloromethane		12	38	190	U
75-01-4	Vinyl chloride		16	38	190	U
74-83-9	Bromomethane		22	38	190	U
75-00-3	Chloroethane		27	94	190	U
75-69-4	Trichlorofluoromethane		11	38	190	U
75-35-4	1,1-Dichloroethene		42	94	190	U
67-64-1	Acetone		190	240	470	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		19	38	190	U
75-15-0	Carbon disulfide		5.3	9.4	190	U
79-20-9	Methyl acetate		53	94	190	U
75-09-2	Methylene chloride	120	18	38	190	JBD
156-60-5	trans-1,2-Dichloroethene		38	94	190	U
1634-04-4	Methyl tert-butyl ether		15	38	190	U
75-34-3	1,1-Dichloroethane		18	38	190	U
156-59-2	cis-1,2-Dichloroethene		16	38	190	U
78-93-3	2-Butanone		49	94	470	U
67-66-3	Chloroform		12	38	190	U
71-55-6	1,1,1-Trichloroethane		19	38	190	U
110-82-7	Cyclohexane		12	38	190	U
563-58-6	1,1-Dichloropropene		12	38	190	U
56-23-5	Carbon tetrachloride		17	38	190	U
107-06-2	1,2-Dichloroethane		10	38	190	U
71-43-2	Benzene		12	38	190	U
79-01-6	Trichloroethene		12	38	190	U
108-87-2	Methylcyclohexane		11	38	190	U
78-87-5	1,2-Dichloropropane		24	94	190	U
75-27-4	Bromodichloromethane		14	38	190	U
10061-01-5	cis-1,3-Dichloropropene		15	38	190	U
108-10-1	4-Methyl-2-pentanone		49	94	470	U
108-88-3	Toluene	16	13	38	190	JD
10061-02-6	trans-1,3-Dichloropropene		15	38	190	U
79-00-5	1,1,2-Trichloroethane		27	94	190	U
127-18-4	Tetrachloroethene		60	94	190	U
591-78-6	2-Hexanone		38	94	470	U
124-48-1	Dibromochloromethane		21	38	190	U
106-93-4	1,2-Dibromoethane		8.3	9.4	190	U
108-90-7	Chlorobenzene		9.4	9.4	190	U
100-41-4	Ethylbenzene		22	94	190	U

ANALYSIS DATA SHEET

SW 8260B

DUP02-20100930ME

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-14D91.d | Sampled: 09/30/10 16:00

Initial/Final: 7.64g / 5mL | Lab ID: 1010001-14RE1 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 13 | Analyzed: 10/04/10 20:04

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		5.3	19	380	U
95-47-6	o-Xylene		14	38	190	U
100-42-5	Styrene		3.0	9.4	190	U
75-25-2	Bromoform		42	94	190	U
98-82-8	Isopropylbenzene		8.3	9.4	190	U
79-34-5	1,1,2,2-Tetrachloroethane		14	38	190	U
541-73-1	1,3-Dichlorobenzene		10	38	190	U
106-46-7	1,4-Dichlorobenzene		7.9	9.4	190	U
95-50-1	1,2-Dichlorobenzene		14	38	190	U
96-12-8	1,2-Dibromo-3-chloropropane		25	94	190	U
120-82-1	1,2,4-Trichlorobenzene		13	38	190	U
91-20-3	Naphthalene		12	38	190	U
540-59-0	1,2-Dichloroethene (total)		16	38	190	U
1330-20-7	Xylenes (total)		5.3	19	190	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	37.74	30.95	82	71 - 141	
1,2-Dichloroethane-d4	37.74	30.56	81	70 - 139	
Toluene-d8	37.74	32.59	86	85 - 115	
Bromofluorobenzene	37.74	32.94	87	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
493-02-7	Naphthalene, decahydro-, trans- $$ trans	1400	5766045	14.44	90	JDN
E966796	Total Alkane TICs	10000	31702390	13.946		JD

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ANALYSIS DATA SHEET

SW 8260B

SB101-17.518.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0291.d | Sampled: 09/27/10 12:25

Initial/Final: 5.89g / 5mL | Lab ID: 1010001-02 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 19 | Analyzed: 10/02/10 02:53

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.46	1.0	5.2	U
74-87-3	Chloromethane		0.33	1.0	5.2	U
75-01-4	Vinyl chloride		0.44	1.0	5.2	U
74-83-9	Bromomethane		0.61	1.0	5.2	U
75-00-3	Chloroethane		0.74	2.6	5.2	U
75-69-4	Trichlorofluoromethane		0.31	1.0	5.2	U
75-35-4	1,1-Dichloroethene		1.2	2.6	5.2	U
67-64-1	Acetone		5.2	6.6	13	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.53	1.0	5.2	U
75-15-0	Carbon disulfide		0.15	0.26	5.2	U
79-20-9	Methyl acetate		1.5	2.6	5.2	U
75-09-2	Methylene chloride		0.51	1.0	5.2	U
156-60-5	trans-1,2-Dichloroethene		1.0	2.6	5.2	U
1634-04-4	Methyl tert-butyl ether		0.41	1.0	5.2	U
75-34-3	1,1-Dichloroethane		0.49	1.0	5.2	U
156-59-2	cis-1,2-Dichloroethene		0.44	1.0	5.2	U
78-93-3	2-Butanone		1.4	2.6	13	U
67-66-3	Chloroform		0.32	1.0	5.2	U
71-55-6	1,1,1-Trichloroethane		0.52	1.0	5.2	U
110-82-7	Cyclohexane		0.32	1.0	5.2	U
563-58-6	1,1-Dichloropropene		0.33	1.0	5.2	U
56-23-5	Carbon tetrachloride		0.47	1.0	5.2	U
107-06-2	1,2-Dichloroethane		0.28	1.0	5.2	U
71-43-2	Benzene		0.32	1.0	5.2	U
79-01-6	Trichloroethene		0.33	1.0	5.2	U
108-87-2	Methylcyclohexane		0.29	1.0	5.2	U
78-87-5	1,2-Dichloropropane		0.66	2.6	5.2	U
75-27-4	Bromodichloromethane		0.40	1.0	5.2	U
10061-01-5	cis-1,3-Dichloropropene		0.41	1.0	5.2	U
108-10-1	4-Methyl-2-pentanone		1.4	2.6	13	U
108-88-3	Toluene	0.60	0.36	1.0	5.2	JB
10061-02-6	trans-1,3-Dichloropropene		0.43	1.0	5.2	U
79-00-5	1,1,2-Trichloroethane		0.75	2.6	5.2	U
127-18-4	Tetrachloroethene		1.7	2.6	5.2	U
591-78-6	2-Hexanone		1.0	2.6	13	U
124-48-1	Dibromochloromethane		0.59	1.0	5.2	U
106-93-4	1,2-Dibromoethane		0.23	0.26	5.2	U
108-90-7	Chlorobenzene		0.26	0.26	5.2	U
100-41-4	Ethylbenzene		0.61	2.6	5.2	U

ANALYSIS DATA SHEET

SW 8260B

SB101-17.518.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0291.d | Sampled: 09/27/10 12:25

Initial/Final: 5.89g / 5mL | Lab ID: 1010001-02 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 19 | Analyzed: 10/02/10 02:53

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		0.15	0.52	10	U
95-47-6	o-Xylene		0.40	1.0	5.2	U
100-42-5	Styrene		0.084	0.26	5.2	U
75-25-2	Bromoform		1.2	2.6	5.2	U
98-82-8	Isopropylbenzene		0.23	0.26	5.2	U
79-34-5	1,1,2,2-Tetrachloroethane		0.39	1.0	5.2	U
541-73-1	1,3-Dichlorobenzene		0.28	1.0	5.2	U
106-46-7	1,4-Dichlorobenzene		0.22	0.26	5.2	U
95-50-1	1,2-Dichlorobenzene		0.38	1.0	5.2	U
96-12-8	1,2-Dibromo-3-chloropropane		0.68	2.6	5.2	U
120-82-1	1,2,4-Trichlorobenzene		0.37	1.0	5.2	U
91-20-3	Naphthalene		0.33	1.0	5.2	U
540-59-0	1,2-Dichloroethene (total)		0.44	1.0	5.2	U
1330-20-7	Xylenes (total)		0.15	0.52	5.2	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	52.31	50.39	96	71 - 141	
1,2-Dichloroethane-d4	52.31	49.06	94	70 - 139	
Toluene-d8	52.31	48.80	93	85 - 115	
Bromofluorobenzene	52.31	49.24	94	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
NA	Tentatively Identified Compounds	0.0				U
E966796	Total Alkane TICs	0.0				U

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ANALYSIS DATA SHEET

SW 8260B

SB102-17.518.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0391.d | Sampled: 09/27/10 13:50

Initial/Final: 7.26g / 5mL | Lab ID: 1010001-03 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 16 | Analyzed: 10/02/10 03:20

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.36	0.82	4.1	U
74-87-3	Chloromethane		0.26	0.82	4.1	U
75-01-4	Vinyl chloride		0.34	0.82	4.1	U
74-83-9	Bromomethane		0.47	0.82	4.1	U
75-00-3	Chloroethane		0.58	2.0	4.1	U
75-69-4	Trichlorofluoromethane		0.24	0.82	4.1	U
75-35-4	1,1-Dichloroethene		0.90	2.0	4.1	U
67-64-1	Acetone	11	4.1	5.1	10	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.3	0.42	0.82	4.1	
75-15-0	Carbon disulfide		0.11	0.20	4.1	U
79-20-9	Methyl acetate		1.1	2.0	4.1	U
75-09-2	Methylene chloride		0.40	0.82	4.1	U
156-60-5	trans-1,2-Dichloroethene		0.82	2.0	4.1	U
1634-04-4	Methyl tert-butyl ether		0.32	0.82	4.1	U
75-34-3	1,1-Dichloroethane		0.38	0.82	4.1	U
156-59-2	cis-1,2-Dichloroethene		0.34	0.82	4.1	U
78-93-3	2-Butanone		1.1	2.0	10	U
67-66-3	Chloroform		0.25	0.82	4.1	U
71-55-6	1,1,1-Trichloroethane		0.41	0.82	4.1	U
110-82-7	Cyclohexane		0.25	0.82	4.1	U
563-58-6	1,1-Dichloropropene		0.26	0.82	4.1	U
56-23-5	Carbon tetrachloride		0.37	0.82	4.1	U
107-06-2	1,2-Dichloroethane		0.22	0.82	4.1	U
71-43-2	Benzene		0.25	0.82	4.1	U
79-01-6	Trichloroethene		0.26	0.82	4.1	U
108-87-2	Methylcyclohexane		0.23	0.82	4.1	U
78-87-5	1,2-Dichloropropane		0.51	2.0	4.1	U
75-27-4	Bromodichloromethane		0.31	0.82	4.1	U
10061-01-5	cis-1,3-Dichloropropene		0.32	0.82	4.1	U
108-10-1	4-Methyl-2-pentanone		1.1	2.0	10	U
108-88-3	Toluene	0.65	0.28	0.82	4.1	JB
10061-02-6	trans-1,3-Dichloropropene		0.33	0.82	4.1	U
79-00-5	1,1,2-Trichloroethane		0.59	2.0	4.1	U
127-18-4	Tetrachloroethene		1.3	2.0	4.1	U
591-78-6	2-Hexanone		0.82	2.0	10	U
124-48-1	Dibromochloromethane		0.46	0.82	4.1	U
106-93-4	1,2-Dibromoethane		0.18	0.20	4.1	U
108-90-7	Chlorobenzene		0.20	0.20	4.1	U
100-41-4	Ethylbenzene		0.47	2.0	4.1	U

ANALYSIS DATA SHEET

SW 8260B

SB102-17.518.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0391.d | Sampled: 09/27/10 13:50

Initial/Final: 7.26g / 5mL | Lab ID: 1010001-03 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 16 | Analyzed: 10/02/10 03:20

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		0.11	0.41	8.2	U
95-47-6	o-Xylene		0.31	0.82	4.1	U
100-42-5	Styrene		0.065	0.20	4.1	U
75-25-2	Bromoform		0.90	2.0	4.1	U
98-82-8	Isopropylbenzene		0.18	0.20	4.1	U
79-34-5	1,1,2,2-Tetrachloroethane		0.30	0.82	4.1	U
541-73-1	1,3-Dichlorobenzene		0.22	0.82	4.1	U
106-46-7	1,4-Dichlorobenzene		0.17	0.20	4.1	U
95-50-1	1,2-Dichlorobenzene		0.29	0.82	4.1	U
96-12-8	1,2-Dibromo-3-chloropropane		0.53	2.0	4.1	U
120-82-1	1,2,4-Trichlorobenzene		0.29	0.82	4.1	U
91-20-3	Naphthalene		0.26	0.82	4.1	U
540-59-0	1,2-Dichloroethene (total)		0.34	0.82	4.1	U
1330-20-7	Xylenes (total)		0.11	0.41	4.1	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	40.77	40.15	98	71 - 141	
1,2-Dichloroethane-d4	40.77	39.77	98	70 - 139	
Toluene-d8	40.77	37.37	92	85 - 115	
Bromofluorobenzene	40.77	36.81	90	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
NA	Tentatively Identified Compounds	0.0				U
E966796	Total Alkane TICs	0.0				U

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ANALYSIS DATA SHEET

SW 8260B

SB103-18.018.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0591.d | Sampled: 09/27/10 15:55

Initial/Final: 5.93g / 5mL | Lab ID: 1010001-05 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 17 | Analyzed: 10/02/10 04:14

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.44	1.0	5.1	U
74-87-3	Chloromethane		0.32	1.0	5.1	U
75-01-4	Vinyl chloride		0.42	1.0	5.1	U
74-83-9	Bromomethane		0.59	1.0	5.1	U
75-00-3	Chloroethane		0.72	2.5	5.1	U
75-69-4	Trichlorofluoromethane		0.30	1.0	5.1	U
75-35-4	1,1-Dichloroethene		1.1	2.5	5.1	U
67-64-1	Acetone	16	5.1	6.4	13	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	73	0.52	1.0	5.1	
75-15-0	Carbon disulfide	2.1	0.14	0.25	5.1	J
79-20-9	Methyl acetate		1.4	2.5	5.1	U
75-09-2	Methylene chloride		0.50	1.0	5.1	U
156-60-5	trans-1,2-Dichloroethene		1.0	2.5	5.1	U
1634-04-4	Methyl tert-butyl ether		0.39	1.0	5.1	U
75-34-3	1,1-Dichloroethane		0.48	1.0	5.1	U
156-59-2	cis-1,2-Dichloroethene		0.42	1.0	5.1	U
78-93-3	2-Butanone		1.3	2.5	13	U
67-66-3	Chloroform		0.31	1.0	5.1	U
71-55-6	1,1,1-Trichloroethane		0.51	1.0	5.1	U
110-82-7	Cyclohexane		0.31	1.0	5.1	U
563-58-6	1,1-Dichloropropene		0.32	1.0	5.1	U
56-23-5	Carbon tetrachloride		0.45	1.0	5.1	U
107-06-2	1,2-Dichloroethane		0.27	1.0	5.1	U
71-43-2	Benzene		0.31	1.0	5.1	U
79-01-6	Trichloroethene		0.32	1.0	5.1	U
108-87-2	Methylcyclohexane	0.29	0.28	1.0	5.1	J
78-87-5	1,2-Dichloropropane		0.64	2.5	5.1	U
75-27-4	Bromodichloromethane		0.38	1.0	5.1	U
10061-01-5	cis-1,3-Dichloropropene		0.39	1.0	5.1	U
108-10-1	4-Methyl-2-pentanone		1.3	2.5	13	U
108-88-3	Toluene	6.8	0.34	1.0	5.1	B
10061-02-6	trans-1,3-Dichloropropene		0.41	1.0	5.1	U
79-00-5	1,1,2-Trichloroethane		0.73	2.5	5.1	U
127-18-4	Tetrachloroethene		1.6	2.5	5.1	U
591-78-6	2-Hexanone		1.0	2.5	13	U
124-48-1	Dibromochloromethane		0.57	1.0	5.1	U
106-93-4	1,2-Dibromoethane		0.22	0.25	5.1	U
108-90-7	Chlorobenzene		0.25	0.25	5.1	U
100-41-4	Ethylbenzene	1.1	0.59	2.5	5.1	J

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ANALYSIS DATA SHEET

SW 8260B

SB103-18.018.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0591.d | Sampled: 09/27/10 15:55

Initial/Final: 5.93g / 5mL | Lab ID: 1010001-05 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 17 | Analyzed: 10/02/10 04:14

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		0.14	0.51	10	U
95-47-6	o-Xylene		0.38	1.0	5.1	U
100-42-5	Styrene		0.081	0.25	5.1	U
75-25-2	Bromoform		1.1	2.5	5.1	U
98-82-8	Isopropylbenzene		0.22	0.25	5.1	U
79-34-5	1,1,2,2-Tetrachloroethane		0.37	1.0	5.1	U
541-73-1	1,3-Dichlorobenzene		0.27	1.0	5.1	U
106-46-7	1,4-Dichlorobenzene		0.21	0.25	5.1	U
95-50-1	1,2-Dichlorobenzene		0.36	1.0	5.1	U
96-12-8	1,2-Dibromo-3-chloropropane		0.66	2.5	5.1	U
120-82-1	1,2,4-Trichlorobenzene		0.35	1.0	5.1	U
91-20-3	Naphthalene		0.32	1.0	5.1	U
540-59-0	1,2-Dichloroethene (total)		0.42	1.0	5.1	U
1330-20-7	Xylenes (total)	24	0.14	0.51	5.1	

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.54	49.19	97	71 - 141	
1,2-Dichloroethane-d4	50.54	48.89	97	70 - 139	
Toluene-d8	50.54	42.26	84	85 - 115	*
Bromofluorobenzene	50.54	55.68	110	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
000108-67-8	Benzene, 1,3,5-trimethyl-	1500	92394530	13.494	94	JN
E966796	Total Alkane TICs	86000	5254903000	15.878		J

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ANALYSIS DATA SHEET

SW 8260B

SB103-18.018.5ME

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-05D91.d | Sampled: 09/27/10 15:55

Initial/Final: 5.86g / 5mL | Lab ID: 1010001-05RE1 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 17 | Analyzed: 10/04/10 17:49

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		23	51	260	U
74-87-3	Chloromethane		16	51	260	U
75-01-4	Vinyl chloride		21	51	260	U
74-83-9	Bromomethane		30	51	260	U
75-00-3	Chloroethane		36	130	260	U
75-69-4	Trichlorofluoromethane		15	51	260	U
75-35-4	1,1-Dichloroethene		56	130	260	U
67-64-1	Acetone		260	320	640	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		26	51	260	U
75-15-0	Carbon disulfide		7.2	13	260	U
79-20-9	Methyl acetate		72	130	260	U
75-09-2	Methylene chloride	240	25	51	260	JBD
156-60-5	trans-1,2-Dichloroethene		51	130	260	U
1634-04-4	Methyl tert-butyl ether		20	51	260	U
75-34-3	1,1-Dichloroethane		24	51	260	U
156-59-2	cis-1,2-Dichloroethene		21	51	260	U
78-93-3	2-Butanone		66	130	640	U
67-66-3	Chloroform		16	51	260	U
71-55-6	1,1,1-Trichloroethane		26	51	260	U
110-82-7	Cyclohexane		16	51	260	U
563-58-6	1,1-Dichloropropene		16	51	260	U
56-23-5	Carbon tetrachloride		23	51	260	U
107-06-2	1,2-Dichloroethane		14	51	260	U
71-43-2	Benzene		16	51	260	U
79-01-6	Trichloroethene		16	51	260	U
108-87-2	Methylcyclohexane		14	51	260	U
78-87-5	1,2-Dichloropropane		32	130	260	U
75-27-4	Bromodichloromethane		19	51	260	U
10061-01-5	cis-1,3-Dichloropropene		20	51	260	U
108-10-1	4-Methyl-2-pentanone		66	130	640	U
108-88-3	Toluene	23	17	51	260	JD
10061-02-6	trans-1,3-Dichloropropene		21	51	260	U
79-00-5	1,1,2-Trichloroethane		37	130	260	U
127-18-4	Tetrachloroethene		82	130	260	U
591-78-6	2-Hexanone		51	130	640	U
124-48-1	Dibromochloromethane		29	51	260	U
106-93-4	1,2-Dibromoethane		11	13	260	U
108-90-7	Chlorobenzene		13	13	260	U
100-41-4	Ethylbenzene		30	130	260	U

ANALYSIS DATA SHEET

SW 8260B

SB103-18.018.5ME

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-05D91.d | Sampled: 09/27/10 15:55

Initial/Final: 5.86g / 5mL | Lab ID: 1010001-05RE1 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 17 | Analyzed: 10/04/10 17:49

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		7.2	26	510	U
95-47-6	o-Xylene		19	51	260	U
100-42-5	Styrene		4.1	13	260	U
75-25-2	Bromoform		56	130	260	U
98-82-8	Isopropylbenzene		11	13	260	U
79-34-5	1,1,2,2-Tetrachloroethane		19	51	260	U
541-73-1	1,3-Dichlorobenzene		14	51	260	U
106-46-7	1,4-Dichlorobenzene		11	13	260	U
95-50-1	1,2-Dichlorobenzene		18	51	260	U
96-12-8	1,2-Dibromo-3-chloropropane		33	130	260	U
120-82-1	1,2,4-Trichlorobenzene		18	51	260	U
91-20-3	Naphthalene		16	51	260	U
540-59-0	1,2-Dichloroethene (total)		21	51	260	U
1330-20-7	Xylenes (total)		7.2	26	260	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	51.15	48.42	95	71 - 141	
1,2-Dichloroethane-d4	51.15	47.78	93	70 - 139	
Toluene-d8	51.15	43.96	86	85 - 115	
Bromofluorobenzene	51.15	39.86	78	85 - 120	*

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
2958-76-1	Naphthalene, decahydro-2-methyl-	1400	2637475	15.153	98	JDN
NA	Unknown 14.592	530	1020235	14.592	0	JD
NA	Unknown 14.885	420	808670	14.885	0	JD
NA	Unknown 15.354	690	1333262	15.354	0	JD
NA	Unknown 15.507	420	817829	15.507	0	JD
NA	Unknown 15.653	690	1339946	15.653	0	JD
NA	Unknown 15.756	420	818809	15.756	0	JD
E966796	Total Alkane TICs	2300	4492162	14.714		JD

ANALYSIS DATA SHEET

SW 8260B

SB103-21.522.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0691.d | Sampled: 09/27/10 16:10

Initial/Final: 6.24g / 5mL | Lab ID: 1010001-06 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 19 | Analyzed: 10/02/10 04:41

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.44	0.99	5.0	U
74-87-3	Chloromethane		0.32	0.99	5.0	U
75-01-4	Vinyl chloride		0.42	0.99	5.0	U
74-83-9	Bromomethane		0.58	0.99	5.0	U
75-00-3	Chloroethane		0.71	2.5	5.0	U
75-69-4	Trichlorofluoromethane		0.30	0.99	5.0	U
75-35-4	1,1-Dichloroethene		1.1	2.5	5.0	U
67-64-1	Acetone	10	5.0	6.3	12	J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.4	0.51	0.99	5.0	J
75-15-0	Carbon disulfide		0.14	0.25	5.0	U
79-20-9	Methyl acetate		1.4	2.5	5.0	U
75-09-2	Methylene chloride		0.49	0.99	5.0	U
156-60-5	trans-1,2-Dichloroethene		0.99	2.5	5.0	U
1634-04-4	Methyl tert-butyl ether		0.39	0.99	5.0	U
75-34-3	1,1-Dichloroethane		0.47	0.99	5.0	U
156-59-2	cis-1,2-Dichloroethene		0.42	0.99	5.0	U
78-93-3	2-Butanone	2.5	1.3	2.5	12	J
67-66-3	Chloroform		0.31	0.99	5.0	U
71-55-6	1,1,1-Trichloroethane		0.50	0.99	5.0	U
110-82-7	Cyclohexane		0.31	0.99	5.0	U
563-58-6	1,1-Dichloropropene		0.32	0.99	5.0	U
56-23-5	Carbon tetrachloride		0.45	0.99	5.0	U
107-06-2	1,2-Dichloroethane		0.27	0.99	5.0	U
71-43-2	Benzene		0.31	0.99	5.0	U
79-01-6	Trichloroethene		0.32	0.99	5.0	U
108-87-2	Methylcyclohexane		0.28	0.99	5.0	U
78-87-5	1,2-Dichloropropane		0.63	2.5	5.0	U
75-27-4	Bromodichloromethane		0.38	0.99	5.0	U
10061-01-5	cis-1,3-Dichloropropene		0.39	0.99	5.0	U
108-10-1	4-Methyl-2-pentanone		1.3	2.5	12	U
108-88-3	Toluene		0.34	0.99	5.0	U
10061-02-6	trans-1,3-Dichloropropene		0.41	0.99	5.0	U
79-00-5	1,1,2-Trichloroethane		0.72	2.5	5.0	U
127-18-4	Tetrachloroethene		1.6	2.5	5.0	U
591-78-6	2-Hexanone		0.99	2.5	12	U
124-48-1	Dibromochloromethane		0.56	0.99	5.0	U
106-93-4	1,2-Dibromoethane		0.22	0.25	5.0	U
108-90-7	Chlorobenzene		0.25	0.25	5.0	U
100-41-4	Ethylbenzene		0.58	2.5	5.0	U

ANALYSIS DATA SHEET

SW 8260B

SB103-21.522.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0691.d | Sampled: 09/27/10 16:10

Initial/Final: 6.24g / 5mL | Lab ID: 1010001-06 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 19 | Analyzed: 10/02/10 04:41

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		0.14	0.50	9.9	U
95-47-6	o-Xylene		0.38	0.99	5.0	U
100-42-5	Styrene		0.080	0.25	5.0	U
75-25-2	Bromoform		1.1	2.5	5.0	U
98-82-8	Isopropylbenzene		0.22	0.25	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane		0.37	0.99	5.0	U
541-73-1	1,3-Dichlorobenzene		0.27	0.99	5.0	U
106-46-7	1,4-Dichlorobenzene		0.21	0.25	5.0	U
95-50-1	1,2-Dichlorobenzene		0.36	0.99	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane		0.65	2.5	5.0	U
120-82-1	1,2,4-Trichlorobenzene		0.35	0.99	5.0	U
91-20-3	Naphthalene		0.32	0.99	5.0	U
540-59-0	1,2-Dichloroethene (total)		0.42	0.99	5.0	U
1330-20-7	Xylenes (total)		0.14	0.50	5.0	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	49.74	42.44	85	71 - 141	
1,2-Dichloroethane-d4	49.74	40.49	81	70 - 139	
Toluene-d8	49.74	47.49	95	85 - 115	
Bromofluorobenzene	49.74	54.40	109	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
NA	Tentatively Identified Compounds	0.0				U
E966796	Total Alkane TICs	700	144915700	13.952		J

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ANALYSIS DATA SHEET

SW 8260B

SB104-15.015.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0191.d | Sampled: 09/29/10 09:30

Initial/Final: 4.92g / 5mL | Lab ID: 1010001-01 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 10 | Analyzed: 10/02/10 07:51

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.50	1.1	5.7	U
74-87-3	Chloromethane		0.36	1.1	5.7	U
75-01-4	Vinyl chloride		0.48	1.1	5.7	U
74-83-9	Bromomethane		0.66	1.1	5.7	U
75-00-3	Chloroethane		0.81	2.8	5.7	U
75-69-4	Trichlorofluoromethane		0.34	1.1	5.7	U
75-35-4	1,1-Dichloroethene		1.2	2.8	5.7	U
67-64-1	Acetone		5.7	7.2	14	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.5	0.58	1.1	5.7	J
75-15-0	Carbon disulfide		0.16	0.28	5.7	U
79-20-9	Methyl acetate		1.6	2.8	5.7	U
75-09-2	Methylene chloride		0.56	1.1	5.7	U
156-60-5	trans-1,2-Dichloroethene		1.1	2.8	5.7	U
1634-04-4	Methyl tert-butyl ether		0.44	1.1	5.7	U
75-34-3	1,1-Dichloroethane		0.53	1.1	5.7	U
156-59-2	cis-1,2-Dichloroethene		0.48	1.1	5.7	U
78-93-3	2-Butanone		1.5	2.8	14	U
67-66-3	Chloroform		0.35	1.1	5.7	U
71-55-6	1,1,1-Trichloroethane		0.57	1.1	5.7	U
110-82-7	Cyclohexane		0.35	1.1	5.7	U
563-58-6	1,1-Dichloropropene		0.36	1.1	5.7	U
56-23-5	Carbon tetrachloride		0.51	1.1	5.7	U
107-06-2	1,2-Dichloroethane		0.31	1.1	5.7	U
71-43-2	Benzene		0.35	1.1	5.7	U
79-01-6	Trichloroethene		0.36	1.1	5.7	U
108-87-2	Methylcyclohexane		0.32	1.1	5.7	U
78-87-5	1,2-Dichloropropane		0.72	2.8	5.7	U
75-27-4	Bromodichloromethane		0.43	1.1	5.7	U
10061-01-5	cis-1,3-Dichloropropene		0.44	1.1	5.7	U
108-10-1	4-Methyl-2-pentanone		1.5	2.8	14	U
108-88-3	Toluene		0.39	1.1	5.7	U
10061-02-6	trans-1,3-Dichloropropene		0.47	1.1	5.7	U
79-00-5	1,1,2-Trichloroethane		0.82	2.8	5.7	U
127-18-4	Tetrachloroethene		1.8	2.8	5.7	U
591-78-6	2-Hexanone		1.1	2.8	14	U
124-48-1	Dibromochloromethane		0.64	1.1	5.7	U
106-93-4	1,2-Dibromoethane		0.25	0.28	5.7	U
108-90-7	Chlorobenzene		0.28	0.28	5.7	U
100-41-4	Ethylbenzene		0.66	2.8	5.7	U

ANALYSIS DATA SHEET

SW 8260B

SB104-15.015.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0191.d | Sampled: 09/29/10 09:30

Initial/Final: 4.92g / 5mL | Lab ID: 1010001-01 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 10 | Analyzed: 10/02/10 07:51

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		0.16	0.57	11	U
95-47-6	o-Xylene		0.43	1.1	5.7	U
100-42-5	Styrene		0.091	0.28	5.7	U
75-25-2	Bromoform		1.2	2.8	5.7	U
98-82-8	Isopropylbenzene		0.25	0.28	5.7	U
79-34-5	1,1,2,2-Tetrachloroethane		0.42	1.1	5.7	U
541-73-1	1,3-Dichlorobenzene		0.31	1.1	5.7	U J
106-46-7	1,4-Dichlorobenzene		0.24	0.28	5.7	U J
95-50-1	1,2-Dichlorobenzene		0.41	1.1	5.7	U J
96-12-8	1,2-Dibromo-3-chloropropane		0.74	2.8	5.7	U
120-82-1	1,2,4-Trichlorobenzene		0.40	1.1	5.7	U J
91-20-3	Naphthalene		0.36	1.1	5.7	U J
540-59-0	1,2-Dichloroethene (total)		0.48	1.1	5.7	U
1330-20-7	Xylenes (total)		0.16	0.57	5.7	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	56.76	54.75	96	71 - 141	
1,2-Dichloroethane-d4	56.76	53.89	95	70 - 139	
Toluene-d8	56.76	53.41	94	85 - 115	
Bromofluorobenzene	56.76	52.36	92	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
NA	Unknown 16.915	1400	74595310	16.915	0	J
NA	Unknown 17.067	1400	74076640	17.067	0	J
NA	Unknown 17.927	18000	953600000	17.927	0	J
E966796	Total Alkane TICs	11000	581968200	17.146		J

ANALYSIS DATA SHEET

SW 8260B

SB104-19.019.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0791.d | Sampled: 09/29/10 09:40

Initial/Final: 7.2g / 5mL | Lab ID: 1010001-07 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 19 | Analyzed: 10/04/10 18:16

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		19	43	210	U
74-87-3	Chloromethane		14	43	210	U
75-01-4	Vinyl chloride		18	43	210	U
74-83-9	Bromomethane		25	43	210	U
75-00-3	Chloroethane		30	110	210	U
75-69-4	Trichlorofluoromethane		13	43	210	U
75-35-4	1,1-Dichloroethene		47	110	210	U
67-64-1	Acetone		210	270	530	JD
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1000	22	43	210	D
75-15-0	Carbon disulfide		6.0	11	210	U
79-20-9	Methyl acetate		60	110	210	U
75-09-2	Methylene chloride	190	21	43	210	JBD
156-60-5	trans-1,2-Dichloroethene		43	110	210	U
1634-04-4	Methyl tert-butyl ether		17	43	210	U
75-34-3	1,1-Dichloroethane		20	43	210	U
156-59-2	cis-1,2-Dichloroethene		18	43	210	U
78-93-3	2-Butanone		55	110	530	U
67-66-3	Chloroform		13	43	210	U
71-55-6	1,1,1-Trichloroethane		21	43	210	U
110-82-7	Cyclohexane	87	13	43	210	JD
563-58-6	1,1-Dichloropropene		14	43	210	U
56-23-5	Carbon tetrachloride		19	43	210	U
107-06-2	1,2-Dichloroethane		12	43	210	U
71-43-2	Benzene		13	43	210	U
79-01-6	Trichloroethene		14	43	210	U
108-87-2	Methylcyclohexane	360	12	43	210	D
78-87-5	1,2-Dichloropropane		27	110	210	U
75-27-4	Bromodichloromethane		16	43	210	U
10061-01-5	cis-1,3-Dichloropropene		17	43	210	U
108-10-1	4-Methyl-2-pentanone		55	110	530	U
108-88-3	Toluene	63	15	43	210	JD
10061-02-6	trans-1,3-Dichloropropene		17	43	210	U
79-00-5	1,1,2-Trichloroethane		31	110	210	U
127-18-4	Tetrachloroethene		68	110	210	U
591-78-6	2-Hexanone		43	110	530	U
124-48-1	Dibromochloromethane		24	43	210	U
106-93-4	1,2-Dibromoethane		9.4	11	210	U
108-90-7	Chlorobenzene		11	11	210	U
100-41-4	Ethylbenzene	83	25	110	210	JD

ANALYSIS DATA SHEET

SW 8260B

SB104-19.019.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0791.d | Sampled: 09/29/10 09:40

Initial/Final: 7.2g / 5mL | Lab ID: 1010001-07 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 19 | Analyzed: 10/04/10 18:16

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene	940	6.0	21	430	D
95-47-6	o-Xylene	650	16	43	210	D
100-42-5	Styrene		3.4	11	210	U
75-25-2	Bromoform		47	110	210	U
98-82-8	Isopropylbenzene		9.4	11	210	U
79-34-5	1,1,2,2-Tetrachloroethane		16	43	210	U
541-73-1	1,3-Dichlorobenzene		12	43	210	U
106-46-7	1,4-Dichlorobenzene		9.0	11	210	U
95-50-1	1,2-Dichlorobenzene		15	43	210	U
96-12-8	1,2-Dibromo-3-chloropropane		28	110	210	U
120-82-1	1,2,4-Trichlorobenzene		15	43	210	U
91-20-3	Naphthalene	3600	14	43	210	D
540-59-0	1,2-Dichloroethene (total)		18	43	210	U
1330-20-7	Xylenes (total)	1600	6.0	21	210	D

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	42.65	36.75	86	71 - 141	
1,2-Dichloroethane-d4	42.65	37.37	88	70 - 139	
Toluene-d8	42.65	37.96	89	85 - 115	
Bromofluorobenzene	42.65	54.18	127	85 - 120	*

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
000933-98-2	Benzene, 1-ethyl-2,3-dimethyl-	4800	38928820	14.946	95	JDN
620-14-4	Benzene, 1-ethyl-3-methyl- $$ Toluene, m	2000	16373830	13.781	91	JDN
527-84-4	Benzene, 1-methyl-2-(1-methylethyl)- $$	3500	28910570	14.537	94	JDN
000934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	4500	37130690	15	96	JDN
25155-15-1	Benzene, methyl(1-methylethyl)- $$ Cymen	6100	49637220	13.946	86	JDN
E966796	Total Alkane TICs	1300	204745400	15.135		J

ANALYSIS DATA SHEET

SW 8260B

SB105-18.018.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0891.d | Sampled: 09/29/10 11:20

Initial/Final: 6.02g / 5mL | Lab ID: 1010001-08 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 20 | Analyzed: 10/02/10 05:08

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.46	1.0	5.2	U
74-87-3	Chloromethane		0.33	1.0	5.2	U
75-01-4	Vinyl chloride		0.43	1.0	5.2	U
74-83-9	Bromomethane		0.60	1.0	5.2	U
75-00-3	Chloroethane		0.73	2.6	5.2	U
75-69-4	Trichlorofluoromethane		0.31	1.0	5.2	U
75-35-4	1,1-Dichloroethene		1.1	2.6	5.2	U
67-64-1	Acetone		5.2	6.5	13	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.53	1.0	5.2	U
75-15-0	Carbon disulfide		0.14	0.26	5.2	U
79-20-9	Methyl acetate		1.4	2.6	5.2	U
75-09-2	Methylene chloride		0.51	1.0	5.2	U
156-60-5	trans-1,2-Dichloroethene		1.0	2.6	5.2	U
1634-04-4	Methyl tert-butyl ether		0.40	1.0	5.2	U
75-34-3	1,1-Dichloroethane		0.49	1.0	5.2	U
156-59-2	cis-1,2-Dichloroethene		0.43	1.0	5.2	U
78-93-3	2-Butanone		1.3	2.6	13	U
67-66-3	Chloroform		0.32	1.0	5.2	U
71-55-6	1,1,1-Trichloroethane		0.52	1.0	5.2	U
110-82-7	Cyclohexane		0.32	1.0	5.2	U
563-58-6	1,1-Dichloropropene		0.33	1.0	5.2	U
56-23-5	Carbon tetrachloride		0.47	1.0	5.2	U
107-06-2	1,2-Dichloroethane		0.28	1.0	5.2	U
71-43-2	Benzene		0.32	1.0	5.2	U
79-01-6	Trichloroethene		0.33	1.0	5.2	U
108-87-2	Methylcyclohexane		0.29	1.0	5.2	U
78-87-5	1,2-Dichloropropane		0.65	2.6	5.2	U
75-27-4	Bromodichloromethane		0.39	1.0	5.2	U
10061-01-5	cis-1,3-Dichloropropene		0.40	1.0	5.2	U
108-10-1	4-Methyl-2-pentanone		1.3	2.6	13	U
108-88-3	Toluene	0.67	0.35	1.0	5.2	JB
10061-02-6	trans-1,3-Dichloropropene		0.42	1.0	5.2	U
79-00-5	1,1,2-Trichloroethane		0.74	2.6	5.2	U
127-18-4	Tetrachloroethene		1.7	2.6	5.2	U
591-78-6	2-Hexanone		1.0	2.6	13	U
124-48-1	Dibromochloromethane		0.58	1.0	5.2	U
106-93-4	1,2-Dibromoethane		0.23	0.26	5.2	U
108-90-7	Chlorobenzene		0.26	0.26	5.2	U
100-41-4	Ethylbenzene		0.60	2.6	5.2	U

ANALYSIS DATA SHEET

SW 8260B

SB105-18.018.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0891.d | Sampled: 09/29/10 11:20

Initial/Final: 6.02g / 5mL | Lab ID: 1010001-08 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 20 | Analyzed: 10/02/10 05:08

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		0.14	0.52	10	U
95-47-6	o-Xylene		0.39	1.0	5.2	U
100-42-5	Styrene		0.083	0.26	5.2	U
75-25-2	Bromoform		1.1	2.6	5.2	U
98-82-8	Isopropylbenzene		0.23	0.26	5.2	U
79-34-5	1,1,2,2-Tetrachloroethane		0.38	1.0	5.2	U
541-73-1	1,3-Dichlorobenzene		0.28	1.0	5.2	U
106-46-7	1,4-Dichlorobenzene		0.22	0.26	5.2	U
95-50-1	1,2-Dichlorobenzene		0.37	1.0	5.2	U
96-12-8	1,2-Dibromo-3-chloropropane		0.67	2.6	5.2	U
120-82-1	1,2,4-Trichlorobenzene		0.36	1.0	5.2	U
91-20-3	Naphthalene		0.33	1.0	5.2	U
540-59-0	1,2-Dichloroethene (total)		0.43	1.0	5.2	U
1330-20-7	Xylenes (total)		0.14	0.52	5.2	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	51.72	45.94	89	71 - 141	
1,2-Dichloroethane-d4	51.72	45.10	87	70 - 139	
Toluene-d8	51.72	48.98	95	85 - 115	
Bromofluorobenzene	51.72	54.17	105	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
NA	Tentatively Identified Compounds	0.0				U
E966796	Total Alkane TICs	0.0				U

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ANALYSIS DATA SHEET

SW 8260B

SB106-18.018.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0991.d | Sampled: 09/29/10 13:10

Initial/Final: 5.85g / 5mL | Lab ID: 1010001-09 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 16 | Analyzed: 10/02/10 05:35

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.45	1.0	5.1	U
74-87-3	Chloromethane		0.33	1.0	5.1	U
75-01-4	Vinyl chloride		0.43	1.0	5.1	U
74-83-9	Bromomethane		0.59	1.0	5.1	U
75-00-3	Chloroethane		0.72	2.5	5.1	U
75-69-4	Trichlorofluoromethane		0.31	1.0	5.1	U
75-35-4	1,1-Dichloroethene		1.1	2.5	5.1	U
67-64-1	Acetone	7.1	5.1	6.4	13	J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.52	1.0	5.1	U
75-15-0	Carbon disulfide		0.14	0.25	5.1	U
79-20-9	Methyl acetate		1.4	2.5	5.1	U
75-09-2	Methylene chloride		0.50	1.0	5.1	U
156-60-5	trans-1,2-Dichloroethene		1.0	2.5	5.1	U
1634-04-4	Methyl tert-butyl ether		0.40	1.0	5.1	U
75-34-3	1,1-Dichloroethane		0.48	1.0	5.1	U
156-59-2	cis-1,2-Dichloroethene		0.43	1.0	5.1	U
78-93-3	2-Butanone		1.3	2.5	13	U
67-66-3	Chloroform		0.32	1.0	5.1	U
71-55-6	1,1,1-Trichloroethane		0.51	1.0	5.1	U
110-82-7	Cyclohexane		0.32	1.0	5.1	U
563-58-6	1,1-Dichloropropene		0.33	1.0	5.1	U
56-23-5	Carbon tetrachloride		0.46	1.0	5.1	U
107-06-2	1,2-Dichloroethane		0.27	1.0	5.1	U
71-43-2	Benzene		0.32	1.0	5.1	U
79-01-6	Trichloroethene		0.33	1.0	5.1	U
108-87-2	Methylcyclohexane		0.29	1.0	5.1	U
78-87-5	1,2-Dichloropropane		0.64	2.5	5.1	U
75-27-4	Bromodichloromethane		0.39	1.0	5.1	U
10061-01-5	cis-1,3-Dichloropropene		0.40	1.0	5.1	U
108-10-1	4-Methyl-2-pentanone		1.3	2.5	13	U
108-88-3	Toluene	0.50	0.35	1.0	5.1	JB
10061-02-6	trans-1,3-Dichloropropene		0.42	1.0	5.1	U
79-00-5	1,1,2-Trichloroethane		0.73	2.5	5.1	U
127-18-4	Tetrachloroethene		1.6	2.5	5.1	U
591-78-6	2-Hexanone		1.0	2.5	13	U
124-48-1	Dibromochloromethane		0.57	1.0	5.1	U
106-93-4	1,2-Dibromoethane		0.22	0.25	5.1	U
108-90-7	Chlorobenzene		0.25	0.25	5.1	U
100-41-4	Ethylbenzene		0.59	2.5	5.1	U

ANALYSIS DATA SHEET

SW 8260B

SB106-18.018.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-0991.d | Sampled: 09/29/10 13:10

Initial/Final: 5.85g / 5mL | Lab ID: 1010001-09 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 16 | Analyzed: 10/02/10 05:35

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		0.14	0.51	10	U
95-47-6	o-Xylene		0.39	1.0	5.1	U
100-42-5	Styrene		0.081	0.25	5.1	U
75-25-2	Bromoform		1.1	2.5	5.1	U
98-82-8	Isopropylbenzene		0.22	0.25	5.1	U
79-34-5	1,1,2,2-Tetrachloroethane		0.38	1.0	5.1	U
541-73-1	1,3-Dichlorobenzene		0.27	1.0	5.1	U
106-46-7	1,4-Dichlorobenzene		0.21	0.25	5.1	U
95-50-1	1,2-Dichlorobenzene		0.37	1.0	5.1	U
96-12-8	1,2-Dibromo-3-chloropropane		0.66	2.5	5.1	U
120-82-1	1,2,4-Trichlorobenzene		0.36	1.0	5.1	U
91-20-3	Naphthalene		0.33	1.0	5.1	U
540-59-0	1,2-Dichloroethene (total)		0.43	1.0	5.1	U
1330-20-7	Xylenes (total)		0.14	0.51	5.1	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	50.90	46.15	91	71 - 141	
1,2-Dichloroethane-d4	50.90	45.58	90	70 - 139	
Toluene-d8	50.90	48.13	95	85 - 115	
Bromofluorobenzene	50.90	48.25	95	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
NA	Tentatively Identified Compounds	0.0				U
E966796	Total Alkane TICs	0.0				U

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ANALYSIS DATA SHEET

SW 8260B

SB107-18.018.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-10R91.d | Sampled: 09/29/10 14:21

Initial/Final: 7.5g / 5mL | Lab ID: 1010001-10 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100502-BLK1 | Prepared: 10/05/10 11:59

% Moisture: 17 | Analyzed: 10/05/10 15:44

Batch: 0100502 | Sequence: 0J05005 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.35	0.80	4.0	U
74-87-3	Chloromethane		0.26	0.80	4.0	U
75-01-4	Vinyl chloride		0.34	0.80	4.0	U
74-83-9	Bromomethane		0.47	0.80	4.0	U
75-00-3	Chloroethane		0.57	2.0	4.0	U
75-69-4	Trichlorofluoromethane		0.24	0.80	4.0	U
75-35-4	1,1-Dichloroethene		0.88	2.0	4.0	U
67-64-1	Acetone	11	4.0	5.1	10	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.0	0.41	0.80	4.0	
75-15-0	Carbon disulfide	0.55	0.11	0.20	4.0	J
79-20-9	Methyl acetate		1.1	2.0	4.0	U
75-09-2	Methylene chloride	2.5	0.39	0.80	4.0	JB
156-60-5	trans-1,2-Dichloroethene		0.80	2.0	4.0	U
1634-04-4	Methyl tert-butyl ether		0.31	0.80	4.0	U
75-34-3	1,1-Dichloroethane		0.38	0.80	4.0	U
156-59-2	cis-1,2-Dichloroethene		0.34	0.80	4.0	U
78-93-3	2-Butanone		1.0	2.0	10	U
67-66-3	Chloroform		0.25	0.80	4.0	U
71-55-6	1,1,1-Trichloroethane		0.40	0.80	4.0	U
110-82-7	Cyclohexane		0.25	0.80	4.0	U
563-58-6	1,1-Dichloropropene		0.26	0.80	4.0	U
56-23-5	Carbon tetrachloride		0.36	0.80	4.0	U
107-06-2	1,2-Dichloroethane		0.22	0.80	4.0	U
71-43-2	Benzene		0.25	0.80	4.0	U
79-01-6	Trichloroethene		0.26	0.80	4.0	U
108-87-2	Methylcyclohexane	1.6	0.22	0.80	4.0	J
78-87-5	1,2-Dichloropropane		0.51	2.0	4.0	U
75-27-4	Bromodichloromethane		0.30	0.80	4.0	U
10061-01-5	cis-1,3-Dichloropropene		0.31	0.80	4.0	U
108-10-1	4-Methyl-2-pentanone		1.0	2.0	10	U
108-88-3	Toluene	0.64	0.27	0.80	4.0	JB
10061-02-6	trans-1,3-Dichloropropene		0.33	0.80	4.0	U
79-00-5	1,1,2-Trichloroethane		0.58	2.0	4.0	U
127-18-4	Tetrachloroethene		1.3	2.0	4.0	U
591-78-6	2-Hexanone		0.80	2.0	10	U
124-48-1	Dibromochloromethane		0.45	0.80	4.0	U
106-93-4	1,2-Dibromoethane		0.18	0.20	4.0	U
108-90-7	Chlorobenzene		0.20	0.20	4.0	U
100-41-4	Ethylbenzene		0.47	2.0	4.0	U

ANALYSIS DATA SHEET

SW 8260B

SB107-18.018.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-10R91.d | Sampled: 09/29/10 14:21

Initial/Final: 7.5g / 5mL | Lab ID: 1010001-10 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100502-BLK1 | Prepared: 10/05/10 11:59

% Moisture: 17 | Analyzed: 10/05/10 15:44

Batch: 0100502 | Sequence: 0J05005 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		0.11	0.40	8.0	U
95-47-6	o-Xylene		0.30	0.80	4.0	U
100-42-5	Styrene		0.064	0.20	4.0	U
75-25-2	Bromoform		0.88	2.0	4.0	U
98-82-8	Isopropylbenzene	8.6	0.18	0.20	4.0	
79-34-5	1,1,2,2-Tetrachloroethane		0.30	0.80	4.0	U
541-73-1	1,3-Dichlorobenzene		0.22	0.80	4.0	U
106-46-7	1,4-Dichlorobenzene		0.17	0.20	4.0	U
95-50-1	1,2-Dichlorobenzene		0.29	0.80	4.0	U
96-12-8	1,2-Dibromo-3-chloropropane		0.52	2.0	4.0	U
120-82-1	1,2,4-Trichlorobenzene		0.28	0.80	4.0	U
91-20-3	Naphthalene		0.26	0.80	4.0	U
540-59-0	1,2-Dichloroethene (total)		0.34	0.80	4.0	U
1330-20-7	Xylenes (total)		0.11	0.40	4.0	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	40.10	37.20	93	71 - 141	
1,2-Dichloroethane-d4	40.10	34.69	87	70 - 139	
Toluene-d8	40.10	35.91	90	85 - 115	
Bromofluorobenzene	40.10	54.44	136	85 - 120	*

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
1618-22-0	Naphthalene, decahydro-2,6-dimethyl- $$	4200	371200000	15.665	87	JN
NA	Unknown 14.385	8000	695600000	14.385	0	J
NA	Unknown 14.964	11000	999900000	14.964	0	J
E966796	Total Alkane TICs	58000	5083900000	16.366		J

Environmental Testing Laboratories

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ANALYSIS DATA SHEET

SW 8260B

SB107-18.018.5ME

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1091.d | Sampled: 09/29/10 14:21

Initial/Final: 5.02g / 5mL | Lab ID: 1010001-10RE1 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 17 | Analyzed: 10/04/10 18:43

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		26	60	300	U
74-87-3	Chloromethane		19	60	300	U
75-01-4	Vinyl chloride		25	60	300	U
74-83-9	Bromomethane		35	60	300	U
75-00-3	Chloroethane		43	150	300	U
75-69-4	Trichlorofluoromethane		18	60	300	U
75-35-4	1,1-Dichloroethene		66	150	300	U
67-64-1	Acetone		300	380	750	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		31	60	300	U
75-15-0	Carbon disulfide		8.4	15	300	U
79-20-9	Methyl acetate		84	150	300	U
75-09-2	Methylene chloride	230	29	60	300	JBD
156-60-5	trans-1,2-Dichloroethene		60	150	300	U
1634-04-4	Methyl tert-butyl ether		23	60	300	U
75-34-3	1,1-Dichloroethane		28	60	300	U
156-59-2	cis-1,2-Dichloroethene		25	60	300	U
78-93-3	2-Butanone		78	150	750	U
67-66-3	Chloroform		19	60	300	U
71-55-6	1,1,1-Trichloroethane		30	60	300	U
110-82-7	Cyclohexane		19	60	300	U
563-58-6	1,1-Dichloropropene		19	60	300	U
56-23-5	Carbon tetrachloride		27	60	300	U
107-06-2	1,2-Dichloroethane		16	60	300	U
71-43-2	Benzene		19	60	300	U
79-01-6	Trichloroethene		19	60	300	U
108-87-2	Methylcyclohexane		17	60	300	U
78-87-5	1,2-Dichloropropane		38	150	300	U
75-27-4	Bromodichloromethane		23	60	300	U
10061-01-5	cis-1,3-Dichloropropene		23	60	300	U
108-10-1	4-Methyl-2-pentanone		78	150	750	U
108-88-3	Toluene	28	20	60	300	JD
10061-02-6	trans-1,3-Dichloropropene		25	60	300	U
79-00-5	1,1,2-Trichloroethane		43	150	300	U
127-18-4	Tetrachloroethene		96	150	300	U
591-78-6	2-Hexanone		60	150	750	U
124-48-1	Dibromochloromethane		34	60	300	U
106-93-4	1,2-Dibromoethane		13	15	300	U
108-90-7	Chlorobenzene		15	15	300	U
100-41-4	Ethylbenzene		35	150	300	U

ANALYSIS DATA SHEET

SW 8260B

SB107-18.018.5ME

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1091.d | Sampled: 09/29/10 14:21

Initial/Final: 5.02g / 5mL | Lab ID: 1010001-10RE1 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 17 | Analyzed: 10/04/10 18:43

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		8.4	30	600	U
95-47-6	o-Xylene		23	60	300	U
100-42-5	Styrene		4.8	15	300	U
75-25-2	Bromoform		66	150	300	U
98-82-8	Isopropylbenzene		13	15	300	U
79-34-5	1,1,2,2-Tetrachloroethane		22	60	300	U
541-73-1	1,3-Dichlorobenzene		16	60	300	U
106-46-7	1,4-Dichlorobenzene		13	15	300	U
95-50-1	1,2-Dichlorobenzene		22	60	300	U
96-12-8	1,2-Dibromo-3-chloropropane		39	150	300	U
120-82-1	1,2,4-Trichlorobenzene		21	60	300	U
91-20-3	Naphthalene	100	19	60	300	JD
540-59-0	1,2-Dichloroethene (total)		25	60	300	U
1330-20-7	Xylenes (total)		8.4	30	300	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	59.91	49.05	82	71 - 141	
1,2-Dichloroethane-d4	59.91	49.37	82	70 - 139	
Toluene-d8	59.91	52.37	87	85 - 115	
Bromofluorobenzene	59.91	54.13	90	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
002958-75-0	1-Methyldecahydronaphthalene	1800	15940860	15.153	97	JDN
NA	Unknown 14.439	800	7117745	14.439	0	JD
NA	Unknown 14.714	790	7005873	14.714	0	JD
NA	Unknown 14.878	600	5355998	14.878	0	JD
NA	Unknown 14.945	910	8104354	14.945	0	JD
NA	Unknown 15.019	940	8378956	15.019	0	JD
E966796	Total Alkane TICs	3100	27543630	14.537		JD

ANALYSIS DATA SHEET

SW 8260B

SB107-27.528.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-11R91.d | Sampled: 09/29/10 14:35

Initial/Final: 6.6g / 5mL | Lab ID: 1010001-11 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100502-BLK1 | Prepared: 10/05/10 11:59

% Moisture: 16 | Analyzed: 10/05/10 16:11

Batch: 0100502 | Sequence: 0J05005 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.40	0.90	4.5	U
74-87-3	Chloromethane		0.29	0.90	4.5	U
75-01-4	Vinyl chloride		0.38	0.90	4.5	U
74-83-9	Bromomethane		0.52	0.90	4.5	U
75-00-3	Chloroethane		0.64	2.2	4.5	U
75-69-4	Trichlorofluoromethane		0.27	0.90	4.5	U
75-35-4	1,1-Dichloroethene		0.99	2.2	4.5	U
67-64-1	Acetone		4.5	5.7	11	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	0.46	0.90	4.5	
75-15-0	Carbon disulfide	0.99	0.13	0.22	4.5	J
79-20-9	Methyl acetate		1.3	2.2	4.5	U
75-09-2	Methylene chloride	1.8	0.44	0.90	4.5	JB
156-60-5	trans-1,2-Dichloroethene		0.90	2.2	4.5	U
1634-04-4	Methyl tert-butyl ether		0.35	0.90	4.5	U
75-34-3	1,1-Dichloroethane		0.42	0.90	4.5	U
156-59-2	cis-1,2-Dichloroethene		0.38	0.90	4.5	U
78-93-3	2-Butanone		1.2	2.2	11	U
67-66-3	Chloroform		0.28	0.90	4.5	U
71-55-6	1,1,1-Trichloroethane		0.45	0.90	4.5	U
110-82-7	Cyclohexane	0.71	0.28	0.90	4.5	J
563-58-6	1,1-Dichloropropene		0.29	0.90	4.5	U
56-23-5	Carbon tetrachloride		0.40	0.90	4.5	U
107-06-2	1,2-Dichloroethane		0.24	0.90	4.5	U
71-43-2	Benzene		0.28	0.90	4.5	U
79-01-6	Trichloroethene		0.29	0.90	4.5	U
108-87-2	Methylcyclohexane	2.3	0.25	0.90	4.5	J
78-87-5	1,2-Dichloropropane		0.57	2.2	4.5	U
75-27-4	Bromodichloromethane		0.34	0.90	4.5	U
10061-01-5	cis-1,3-Dichloropropene		0.35	0.90	4.5	U
108-10-1	4-Methyl-2-pentanone		1.2	2.2	11	U
108-88-3	Toluene		0.31	0.90	4.5	U
10061-02-6	trans-1,3-Dichloropropene		0.37	0.90	4.5	U
79-00-5	1,1,2-Trichloroethane		0.65	2.2	4.5	U
127-18-4	Tetrachloroethene		1.4	2.2	4.5	U
591-78-6	2-Hexanone		0.90	2.2	11	U
124-48-1	Dibromochloromethane		0.50	0.90	4.5	U
106-93-4	1,2-Dibromoethane		0.20	0.22	4.5	U
108-90-7	Chlorobenzene		0.22	0.22	4.5	U
100-41-4	Ethylbenzene		0.52	2.2	4.5	U

ANALYSIS DATA SHEET

SW 8260B

SB107-27.528.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-11R91.d | Sampled: 09/29/10 14:35

Initial/Final: 6.6g / 5mL | Lab ID: 1010001-11 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100502-BLK1 | Prepared: 10/05/10 11:59

% Moisture: 16 | Analyzed: 10/05/10 16:11

Batch: 0100502 | Sequence: 0J05005 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene	6.9	0.13	0.45	9.0	J
95-47-6	o-Xylene	1.5	0.34	0.90	4.5	J
100-42-5	Styrene		0.072	0.22	4.5	U
75-25-2	Bromoform		0.99	2.2	4.5	U
98-82-8	Isopropylbenzene	20	0.20	0.22	4.5	
79-34-5	1,1,2,2-Tetrachloroethane		0.33	0.90	4.5	U
541-73-1	1,3-Dichlorobenzene		0.24	0.90	4.5	U
106-46-7	1,4-Dichlorobenzene		0.19	0.22	4.5	U
95-50-1	1,2-Dichlorobenzene		0.32	0.90	4.5	U
96-12-8	1,2-Dibromo-3-chloropropane		0.58	2.2	4.5	U
120-82-1	1,2,4-Trichlorobenzene		0.31	0.90	4.5	U
91-20-3	Naphthalene	30	0.29	0.90	4.5	
540-59-0	1,2-Dichloroethene (total)		0.38	0.90	4.5	U
1330-20-7	Xylenes (total)	8.3	0.13	0.45	4.5	

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	44.90	36.70	82	71 - 141	
1,2-Dichloroethane-d4	44.90	34.65	77	70 - 139	
Toluene-d8	44.90	43.16	96	85 - 115	
Bromofluorobenzene	44.90	80.65	180	85 - 120	*

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
000095-63-6	Benzene, 1,2,4-trimethyl-	210	238700000	13.787	95	JN
E966796	Total Alkane TICs	3200	3679000000	16.153		J

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ANALYSIS DATA SHEET

SW 8260B

SB108-16.517.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1291.d | Sampled: 09/29/10 15:30

Initial/Final: 7.67g / 5mL | Lab ID: 1010001-12 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 16 | Analyzed: 10/02/10 06:02

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.34	0.78	3.9	U
74-87-3	Chloromethane		0.25	0.78	3.9	U
75-01-4	Vinyl chloride		0.33	0.78	3.9	U
74-83-9	Bromomethane		0.45	0.78	3.9	U
75-00-3	Chloroethane		0.55	1.9	3.9	U
75-69-4	Trichlorofluoromethane		0.23	0.78	3.9	U
75-35-4	1,1-Dichloroethene		0.86	1.9	3.9	U
67-64-1	Acetone		3.9	4.9	9.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.40	0.78	3.9	U
75-15-0	Carbon disulfide		0.11	0.19	3.9	U
79-20-9	Methyl acetate		1.1	1.9	3.9	U
75-09-2	Methylene chloride		0.38	0.78	3.9	U
156-60-5	trans-1,2-Dichloroethene		0.78	1.9	3.9	U
1634-04-4	Methyl tert-butyl ether		0.30	0.78	3.9	U
75-34-3	1,1-Dichloroethane		0.37	0.78	3.9	U
156-59-2	cis-1,2-Dichloroethene		0.33	0.78	3.9	U
78-93-3	2-Butanone		1.0	1.9	9.7	U
67-66-3	Chloroform		0.24	0.78	3.9	U
71-55-6	1,1,1-Trichloroethane		0.39	0.78	3.9	U
110-82-7	Cyclohexane		0.24	0.78	3.9	U
563-58-6	1,1-Dichloropropene		0.25	0.78	3.9	U
56-23-5	Carbon tetrachloride		0.35	0.78	3.9	U
107-06-2	1,2-Dichloroethane		0.21	0.78	3.9	U
71-43-2	Benzene		0.24	0.78	3.9	U
79-01-6	Trichloroethene		0.25	0.78	3.9	U
108-87-2	Methylcyclohexane		0.22	0.78	3.9	U
78-87-5	1,2-Dichloropropane		0.49	1.9	3.9	U
75-27-4	Bromodichloromethane		0.30	0.78	3.9	U
10061-01-5	cis-1,3-Dichloropropene		0.30	0.78	3.9	U
108-10-1	4-Methyl-2-pentanone		1.0	1.9	9.7	U
108-88-3	Toluene	0.53	0.26	0.78	3.9	JB
10061-02-6	trans-1,3-Dichloropropene		0.32	0.78	3.9	U
79-00-5	1,1,2-Trichloroethane		0.56	1.9	3.9	U
127-18-4	Tetrachloroethene		1.2	1.9	3.9	U
591-78-6	2-Hexanone		0.78	1.9	9.7	U
124-48-1	Dibromochloromethane		0.44	0.78	3.9	U
106-93-4	1,2-Dibromoethane		0.17	0.19	3.9	U
108-90-7	Chlorobenzene		0.19	0.19	3.9	U
100-41-4	Ethylbenzene		0.45	1.9	3.9	U

ANALYSIS DATA SHEET

SW 8260B

SB108-16.517.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1291.d | Sampled: 09/29/10 15:30

Initial/Final: 7.67g / 5mL | Lab ID: 1010001-12 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 16 | Analyzed: 10/02/10 06:02

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		0.11	0.39	7.8	U
95-47-6	o-Xylene		0.30	0.78	3.9	U
100-42-5	Styrene		0.062	0.19	3.9	U
75-25-2	Bromoform		0.86	1.9	3.9	U
98-82-8	Isopropylbenzene		0.17	0.19	3.9	U
79-34-5	1,1,2,2-Tetrachloroethane		0.29	0.78	3.9	U
541-73-1	1,3-Dichlorobenzene		0.21	0.78	3.9	U
106-46-7	1,4-Dichlorobenzene		0.16	0.19	3.9	U
95-50-1	1,2-Dichlorobenzene		0.28	0.78	3.9	U
96-12-8	1,2-Dibromo-3-chloropropane		0.51	1.9	3.9	U
120-82-1	1,2,4-Trichlorobenzene		0.27	0.78	3.9	U
91-20-3	Naphthalene		0.25	0.78	3.9	U
540-59-0	1,2-Dichloroethene (total)		0.33	0.78	3.9	U
1330-20-7	Xylenes (total)		0.11	0.39	3.9	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	38.96	35.16	90	71 - 141	
1,2-Dichloroethane-d4	38.96	34.86	89	70 - 139	
Toluene-d8	38.96	36.04	92	85 - 115	
Bromofluorobenzene	38.96	38.75	99	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
NA	Tentatively Identified Compounds	0.0				U
E966796	Total Alkane TICs	0.0				U

Environmental Testing Laboratories

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ANALYSIS DATA SHEET

SW 8260B

SB109-19.019.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1391.d | Sampled: 09/30/10 09:53

Initial/Final: 6.86g / 5mL | Lab ID: 1010001-13 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 20 | Analyzed: 10/04/10 19:37

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		20	46	230	U
74-87-3	Chloromethane		15	46	230	U
75-01-4	Vinyl chloride		19	46	230	U
74-83-9	Bromomethane		27	46	230	U
75-00-3	Chloroethane		33	110	230	U
75-69-4	Trichlorofluoromethane		14	46	230	U
75-35-4	1,1-Dichloroethene		50	110	230	U
67-64-1	Acetone		230	290	570	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		23	46	230	U
75-15-0	Carbon disulfide		6.4	11	230	U
79-20-9	Methyl acetate		64	110	230	U
75-09-2	Methylene chloride	150	22	46	230	JBD
156-60-5	trans-1,2-Dichloroethene		46	110	230	U
1634-04-4	Methyl tert-butyl ether		18	46	230	U
75-34-3	1,1-Dichloroethane		22	46	230	U
156-59-2	cis-1,2-Dichloroethene		19	46	230	U
78-93-3	2-Butanone		60	110	570	U
67-66-3	Chloroform		14	46	230	U
71-55-6	1,1,1-Trichloroethane		23	46	230	U
110-82-7	Cyclohexane	120	14	46	230	JD
563-58-6	1,1-Dichloropropene		15	46	230	U
56-23-5	Carbon tetrachloride		21	46	230	U
107-06-2	1,2-Dichloroethane		12	46	230	U
71-43-2	Benzene		14	46	230	U
79-01-6	Trichloroethene		15	46	230	U
108-87-2	Methylcyclohexane		13	46	230	U
78-87-5	1,2-Dichloropropane		29	110	230	U
75-27-4	Bromodichloromethane		17	46	230	U
10061-01-5	cis-1,3-Dichloropropene		18	46	230	U
108-10-1	4-Methyl-2-pentanone		60	110	570	U
108-88-3	Toluene	17	16	46	230	JD
10061-02-6	trans-1,3-Dichloropropene		19	46	230	U
79-00-5	1,1,2-Trichloroethane		33	110	230	U
127-18-4	Tetrachloroethene		73	110	230	U
591-78-6	2-Hexanone		46	110	570	U
124-48-1	Dibromochloromethane		26	46	230	U
106-93-4	1,2-Dibromoethane		10	11	230	U
108-90-7	Chlorobenzene		11	11	230	U
100-41-4	Ethylbenzene		27	110	230	U

ANALYSIS DATA SHEET

SW 8260B

SB109-19.019.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1391.d | Sampled: 09/30/10 09:53

Initial/Final: 6.86g / 5mL | Lab ID: 1010001-13 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 20 | Analyzed: 10/04/10 19:37

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		6.4	23	460	U
95-47-6	o-Xylene		17	46	230	U
100-42-5	Styrene		3.7	11	230	U
75-25-2	Bromoform		50	110	230	U
98-82-8	Isopropylbenzene		10	11	230	U
79-34-5	1,1,2,2-Tetrachloroethane		17	46	230	U
541-73-1	1,3-Dichlorobenzene		12	46	230	U
106-46-7	1,4-Dichlorobenzene		9.6	11	230	U
95-50-1	1,2-Dichlorobenzene		16	46	230	U
96-12-8	1,2-Dibromo-3-chloropropane		30	110	230	U
120-82-1	1,2,4-Trichlorobenzene		16	46	230	U
91-20-3	Naphthalene		15	46	230	U
540-59-0	1,2-Dichloroethene (total)		19	46	230	U
1330-20-7	Xylenes (total)		6.4	23	230	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	45.78	37.38	82	71 - 141	
1,2-Dichloroethane-d4	45.78	38.36	84	70 - 139	
Toluene-d8	45.78	42.20	92	85 - 115	
Bromofluorobenzene	45.78	55.49	121	85 - 120	*

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
001074-43-7	Benzene, 1-methyl-3-propyl-	70000	100100000	14.232	96	JDN
493-02-7	Naphthalene, decahydro-, trans- $$ trans	54000	76884880	14.44	98	JDN
E966796	Total Alkane TICs	430000	610768200	13.946		JD

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ANALYSIS DATA SHEET

SW 8260B

SB109-33.033.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1591.d | Sampled: 09/30/10 10:27

Initial/Final: 6.64g / 5mL | Lab ID: 1010001-15 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 14 | Analyzed: 10/04/10 20:31

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		19	44	220	U
74-87-3	Chloromethane		14	44	220	U
75-01-4	Vinyl chloride		18	44	220	U
74-83-9	Bromomethane		25	44	220	U
75-00-3	Chloroethane		31	110	220	U
75-69-4	Trichlorofluoromethane		13	44	220	U
75-35-4	1,1-Dichloroethene		48	110	220	U
67-64-1	Acetone		220	280	550	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		22	44	220	U
75-15-0	Carbon disulfide		6.1	11	220	U
79-20-9	Methyl acetate		61	110	220	U
75-09-2	Methylene chloride	140	21	44	220	JBD
156-60-5	trans-1,2-Dichloroethene		44	110	220	U
1634-04-4	Methyl tert-butyl ether		17	44	220	U
75-34-3	1,1-Dichloroethane		21	44	220	U
156-59-2	cis-1,2-Dichloroethene		18	44	220	U
78-93-3	2-Butanone		57	110	550	U
67-66-3	Chloroform		14	44	220	U
71-55-6	1,1,1-Trichloroethane		22	44	220	U
110-82-7	Cyclohexane	80	14	44	220	JD
563-58-6	1,1-Dichloropropene		14	44	220	U
56-23-5	Carbon tetrachloride		20	44	220	U
107-06-2	1,2-Dichloroethane		12	44	220	U
71-43-2	Benzene		14	44	220	U
79-01-6	Trichloroethene		14	44	220	U
108-87-2	Methylcyclohexane	110	12	44	220	JD
78-87-5	1,2-Dichloropropane		28	110	220	U
75-27-4	Bromodichloromethane		17	44	220	U
10061-01-5	cis-1,3-Dichloropropene		17	44	220	U
108-10-1	4-Methyl-2-pentanone		57	110	550	U
108-88-3	Toluene		15	44	220	U
10061-02-6	trans-1,3-Dichloropropene		18	44	220	U
79-00-5	1,1,2-Trichloroethane		32	110	220	U
127-18-4	Tetrachloroethene		70	110	220	U
591-78-6	2-Hexanone		44	110	550	U
124-48-1	Dibromochloromethane		25	44	220	U
106-93-4	1,2-Dibromoethane		9.7	11	220	U
108-90-7	Chlorobenzene		11	11	220	U
100-41-4	Ethylbenzene		25	110	220	U

ANALYSIS DATA SHEET

SW 8260B

SB109-33.033.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1591.d | Sampled: 09/30/10 10:27

Initial/Final: 6.64g / 5mL | Lab ID: 1010001-15 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 14 | Analyzed: 10/04/10 20:31

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		6.1	22	440	U
95-47-6	o-Xylene		17	44	220	U
100-42-5	Styrene		3.5	11	220	U
75-25-2	Bromoform		48	110	220	U
98-82-8	Isopropylbenzene		9.7	11	220	U
79-34-5	1,1,2,2-Tetrachloroethane		16	44	220	U
541-73-1	1,3-Dichlorobenzene		12	44	220	U
106-46-7	1,4-Dichlorobenzene		9.2	11	220	U
95-50-1	1,2-Dichlorobenzene		16	44	220	U
96-12-8	1,2-Dibromo-3-chloropropane		29	110	220	U
120-82-1	1,2,4-Trichlorobenzene		15	44	220	U
91-20-3	Naphthalene		14	44	220	U
540-59-0	1,2-Dichloroethene (total)		18	44	220	U
1330-20-7	Xylenes (total)		6.1	22	220	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	43.87	34.89	80	71 - 141	
1,2-Dichloroethane-d4	43.87	35.62	81	70 - 139	
Toluene-d8	43.87	39.55	90	85 - 115	
Bromofluorobenzene	43.87	49.35	112	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
99-87-6	Benzene, 1-methyl-4-(1-methylethyl)- $$	5800	13612670	14.531	95	JDN
99-87-6	Benzene, 1-methyl-4-(1-methylethyl)-(1)	7700	18002720	15	95	JDN
493-02-7	Naphthalene, decahydro-, trans-	6500	15200360	14.44	97	JDN
E966796	Total Alkane TICs	90000	186346600	14.238		JD

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ANALYSIS DATA SHEET

SW 8260B

SB110-17.518.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1691.d | Sampled: 09/30/10 11:15

Initial/Final: 6.83g / 5mL | Lab ID: 1010001-16 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 15 | Analyzed: 10/04/10 20:58

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		19	43	220	U
74-87-3	Chloromethane		14	43	220	U
75-01-4	Vinyl chloride		18	43	220	U
74-83-9	Bromomethane		25	43	220	U
75-00-3	Chloroethane		31	110	220	U
75-69-4	Trichlorofluoromethane		13	43	220	U
75-35-4	1,1-Dichloroethene		47	110	220	U
67-64-1	Acetone		220	270	540	JD
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		22	43	220	U
75-15-0	Carbon disulfide		6.0	11	220	U
79-20-9	Methyl acetate		60	110	220	U
75-09-2	Methylene chloride	150	21	43	220	JBD
156-60-5	trans-1,2-Dichloroethene		43	110	220	U
1634-04-4	Methyl tert-butyl ether		17	43	220	U
75-34-3	1,1-Dichloroethane		20	43	220	U
156-59-2	cis-1,2-Dichloroethene		18	43	220	U
78-93-3	2-Butanone		56	110	540	U
67-66-3	Chloroform		13	43	220	U
71-55-6	1,1,1-Trichloroethane		22	43	220	U
110-82-7	Cyclohexane		13	43	220	U
563-58-6	1,1-Dichloropropene		14	43	220	U
56-23-5	Carbon tetrachloride		19	43	220	U
107-06-2	1,2-Dichloroethane		12	43	220	U
71-43-2	Benzene		13	43	220	U
79-01-6	Trichloroethene		14	43	220	U
108-87-2	Methylcyclohexane	260	12	43	220	D
78-87-5	1,2-Dichloropropane		27	110	220	U
75-27-4	Bromodichloromethane		16	43	220	U
10061-01-5	cis-1,3-Dichloropropene		17	43	220	U
108-10-1	4-Methyl-2-pentanone		56	110	540	U
108-88-3	Toluene		15	43	220	U
10061-02-6	trans-1,3-Dichloropropene		18	43	220	U
79-00-5	1,1,2-Trichloroethane		31	110	220	U
127-18-4	Tetrachloroethene		69	110	220	U
591-78-6	2-Hexanone		43	110	540	U
124-48-1	Dibromochloromethane		24	43	220	U
106-93-4	1,2-Dibromoethane		9.5	11	220	U
108-90-7	Chlorobenzene		11	11	220	U
100-41-4	Ethylbenzene		25	110	220	U

ANALYSIS DATA SHEET

SW 8260B

SB110-17.518.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1691.d | Sampled: 09/30/10 11:15

Initial/Final: 6.83g / 5mL | Lab ID: 1010001-16 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 15 | Analyzed: 10/04/10 20:58

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		6.0	22	430	U
95-47-6	o-Xylene		16	43	220	U
100-42-5	Styrene		3.4	11	220	U
75-25-2	Bromoform		47	110	220	U
98-82-8	Isopropylbenzene		9.5	11	220	U
79-34-5	1,1,2,2-Tetrachloroethane		16	43	220	U
541-73-1	1,3-Dichlorobenzene		12	43	220	U
106-46-7	1,4-Dichlorobenzene		9.0	11	220	U
95-50-1	1,2-Dichlorobenzene		15	43	220	U
96-12-8	1,2-Dibromo-3-chloropropane		28	110	220	U
120-82-1	1,2,4-Trichlorobenzene		15	43	220	U
91-20-3	Naphthalene	480	14	43	220	D
540-59-0	1,2-Dichloroethene (total)		18	43	220	U
1330-20-7	Xylenes (total)		6.0	22	220	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	43.05	34.03	79	71 - 141	
1,2-Dichloroethane-d4	43.05	34.25	80	70 - 139	
Toluene-d8	43.05	39.77	92	85 - 115	
Bromofluorobenzene	43.05	49.69	115	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
000108-67-8	Benzene, 1,3,5-trimethyl-	5000	61067740	13.489	95	JDN
000933-98-2	Benzene, 1-ethyl-2,3-dimethyl-	3700	45490420	14.946	94	JDN
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl)-	7300	88723320	14.263	95	JDN
99-87-6	Benzene, 1-methyl-4-(1-methylethyl)- $$	2900	35504580	14.531	95	JDN
99-87-6	Benzene, 1-methyl-4-(1-methylethyl)-(1)	6300	77530000	15.421	95	JDN
5161-04-6	Benzene, 1-methyl-4-(2-methylpropyl)- $$	4400	53490380	14.684	58	JD
000934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	3300	40417260	15.001	95	JDN
25155-15-1	Benzene, methyl(1-methylethyl)- $$ Cymen	4100	49499020	13.946	83	JD
91-17-8	Naphthalene, decahydro-	2700	32763070	14.446	95	JDN
E966796	Total Alkane TICs	18000	30065100	13.086		JD

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ANALYSIS DATA SHEET

SW 8260B

SB110-32.032.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1791.d | Sampled: 09/30/10 11:55

Initial/Final: 6.25g / 5mL | Lab ID: 1010001-17 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 17 | Analyzed: 10/02/10 06:29

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.42	0.96	4.8	U
74-87-3	Chloromethane		0.31	0.96	4.8	U
75-01-4	Vinyl chloride		0.40	0.96	4.8	U
74-83-9	Bromomethane		0.56	0.96	4.8	U
75-00-3	Chloroethane		0.68	2.4	4.8	U
75-69-4	Trichlorofluoromethane		0.29	0.96	4.8	U
75-35-4	1,1-Dichloroethene		1.1	2.4	4.8	U
67-64-1	Acetone		4.8	6.0	12	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.49	0.96	4.8	U
75-15-0	Carbon disulfide		0.13	0.24	4.8	U
79-20-9	Methyl acetate		1.3	2.4	4.8	U
75-09-2	Methylene chloride		0.47	0.96	4.8	U
156-60-5	trans-1,2-Dichloroethene		0.96	2.4	4.8	U
1634-04-4	Methyl tert-butyl ether		0.37	0.96	4.8	U
75-34-3	1,1-Dichloroethane		0.45	0.96	4.8	U
156-59-2	cis-1,2-Dichloroethene		0.40	0.96	4.8	U
78-93-3	2-Butanone		1.2	2.4	12	U
67-66-3	Chloroform		0.30	0.96	4.8	U
71-55-6	1,1,1-Trichloroethane		0.48	0.96	4.8	U
110-82-7	Cyclohexane		0.30	0.96	4.8	U
563-58-6	1,1-Dichloropropene		0.31	0.96	4.8	U
56-23-5	Carbon tetrachloride		0.43	0.96	4.8	U
107-06-2	1,2-Dichloroethane		0.26	0.96	4.8	U
71-43-2	Benzene		0.30	0.96	4.8	U
79-01-6	Trichloroethene		0.31	0.96	4.8	U
108-87-2	Methylcyclohexane	0.45	0.27	0.96	4.8	J
78-87-5	1,2-Dichloropropane		0.60	2.4	4.8	U
75-27-4	Bromodichloromethane		0.36	0.96	4.8	U
10061-01-5	cis-1,3-Dichloropropene		0.37	0.96	4.8	U
108-10-1	4-Methyl-2-pentanone		1.2	2.4	12	U
108-88-3	Toluene	0.57	0.33	0.96	4.8	JB
10061-02-6	trans-1,3-Dichloropropene		0.39	0.96	4.8	U
79-00-5	1,1,2-Trichloroethane		0.69	2.4	4.8	U
127-18-4	Tetrachloroethene		1.5	2.4	4.8	U
591-78-6	2-Hexanone		0.96	2.4	12	U
124-48-1	Dibromochloromethane		0.54	0.96	4.8	U
106-93-4	1,2-Dibromoethane		0.21	0.24	4.8	U
108-90-7	Chlorobenzene		0.24	0.24	4.8	U
100-41-4	Ethylbenzene		0.56	2.4	4.8	U

ANALYSIS DATA SHEET

SW 8260B

SB110-32.032.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1791.d | Sampled: 09/30/10 11:55

Initial/Final: 6.25g / 5mL | Lab ID: 1010001-17 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 17 | Analyzed: 10/02/10 06:29

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		0.13	0.48	9.6	U
95-47-6	o-Xylene		0.36	0.96	4.8	U
100-42-5	Styrene		0.077	0.24	4.8	U
75-25-2	Bromoform		1.1	2.4	4.8	U
98-82-8	Isopropylbenzene	0.96	0.21	0.24	4.8	J
79-34-5	1,1,2,2-Tetrachloroethane		0.36	0.96	4.8	U
541-73-1	1,3-Dichlorobenzene		0.26	0.96	4.8	U
106-46-7	1,4-Dichlorobenzene		0.20	0.24	4.8	U
95-50-1	1,2-Dichlorobenzene		0.35	0.96	4.8	U
96-12-8	1,2-Dibromo-3-chloropropane		0.62	2.4	4.8	U
120-82-1	1,2,4-Trichlorobenzene		0.34	0.96	4.8	U
91-20-3	Naphthalene	1.1	0.31	0.96	4.8	JB
540-59-0	1,2-Dichloroethene (total)		0.40	0.96	4.8	U
1330-20-7	Xylenes (total)		0.13	0.48	4.8	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	48.02	43.99	92	71 - 141	
1,2-Dichloroethane-d4	48.02	43.75	91	70 - 139	
Toluene-d8	48.02	44.86	93	85 - 115	
Bromofluorobenzene	48.02	49.60	103	85 - 120	

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
000526-73-8	Benzene, 1,2,3-trimethyl-	60	11225320	13.781	91	JN
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl)-	32	6013220	14.531	95	JN
000934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	45	8539429	14.592	96	JN
2958-76-1	Naphthalene, decahydro-2-methyl-	41	7664092	15.153	96	JN
NA	Unknown 14.446	29	5418764	14.446	0	J
E966796	Total Alkane TICs	450	67913070	15.421		J

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ANALYSIS DATA SHEET

SW 8260B

SB111-18.519.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1891.d | Sampled: 09/30/10 13:36

Initial/Final: 6.11g / 5mL | Lab ID: 1010001-18 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 14 | Analyzed: 10/04/10 21:25

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		21	48	240	U
74-87-3	Chloromethane		15	48	240	U
75-01-4	Vinyl chloride		20	48	240	U
74-83-9	Bromomethane		28	48	240	U
75-00-3	Chloroethane		34	120	240	U
75-69-4	Trichlorofluoromethane		14	48	240	U
75-35-4	1,1-Dichloroethene		52	120	240	U
67-64-1	Acetone		240	300	590	JD
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		24	48	240	U
75-15-0	Carbon disulfide		6.7	12	240	U
79-20-9	Methyl acetate		67	120	240	U
75-09-2	Methylene chloride	180	23	48	240	JBD
156-60-5	trans-1,2-Dichloroethene		48	120	240	U
1634-04-4	Methyl tert-butyl ether		19	48	240	U
75-34-3	1,1-Dichloroethane		22	48	240	U
156-59-2	cis-1,2-Dichloroethene		20	48	240	U
78-93-3	2-Butanone		62	120	590	U
67-66-3	Chloroform		15	48	240	U
71-55-6	1,1,1-Trichloroethane		24	48	240	U
110-82-7	Cyclohexane		15	48	240	U
563-58-6	1,1-Dichloropropene		15	48	240	U
56-23-5	Carbon tetrachloride		21	48	240	U
107-06-2	1,2-Dichloroethane		13	48	240	U
71-43-2	Benzene		15	48	240	U
79-01-6	Trichloroethene		15	48	240	U
108-87-2	Methylcyclohexane	340	13	48	240	D
78-87-5	1,2-Dichloropropane		30	120	240	U
75-27-4	Bromodichloromethane		18	48	240	U
10061-01-5	cis-1,3-Dichloropropene		19	48	240	U
108-10-1	4-Methyl-2-pentanone		62	120	590	U
108-88-3	Toluene		16	48	240	U
10061-02-6	trans-1,3-Dichloropropene		20	48	240	U
79-00-5	1,1,2-Trichloroethane		34	120	240	U
127-18-4	Tetrachloroethene		76	120	240	U
591-78-6	2-Hexanone		48	120	590	U
124-48-1	Dibromochloromethane		27	48	240	U
106-93-4	1,2-Dibromoethane		10	12	240	U
108-90-7	Chlorobenzene		12	12	240	U
100-41-4	Ethylbenzene		28	120	240	U

ANALYSIS DATA SHEET

SW 8260B

SB111-18.519.0

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1891.d | Sampled: 09/30/10 13:36

Initial/Final: 6.11g / 5mL | Lab ID: 1010001-18 | Received: 10/01/10 09:25

Dilution: 50 | pH: | Assoc Blank: 0100406-BLK1 | Prepared: 10/04/10 08:50

% Moisture: 14 | Analyzed: 10/04/10 21:25

Batch: 0100406 | Sequence: 0J04001 | Calibration: 0100708 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
179601-23-1	m,p-Xylene		6.7	24	480	U
95-47-6	o-Xylene		18	48	240	U
100-42-5	Styrene		3.8	12	240	U
75-25-2	Bromoform		52	120	240	U
98-82-8	Isopropylbenzene		10	12	240	U
79-34-5	1,1,2,2-Tetrachloroethane		18	48	240	U
541-73-1	1,3-Dichlorobenzene		13	48	240	U
106-46-7	1,4-Dichlorobenzene	520	10	12	240	D
95-50-1	1,2-Dichlorobenzene		17	48	240	U
96-12-8	1,2-Dibromo-3-chloropropane		31	120	240	U
120-82-1	1,2,4-Trichlorobenzene		17	48	240	U
91-20-3	Naphthalene		15	48	240	U
540-59-0	1,2-Dichloroethene (total)		20	48	240	U
1330-20-7	Xylenes (total)		6.7	24	240	U

SURROGATE RECOVERY RESULTS	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Dibromofluoromethane	47.57	37.59	79	71 - 141	
1,2-Dichloroethane-d4	47.57	37.63	79	70 - 139	
Toluene-d8	47.57	45.84	96	85 - 115	
Bromofluorobenzene	47.57	75.00	158	85 - 120	*

CAS NO.	TICS	CONC. (ug/kg dry)	Response	R.T.	% Match	Q
527-84-4	Benzene, 1-methyl-2-(1-methylethyl)- $$	82000	85511700	15	95	JDN
99-87-6	Benzene, 1-methyl-4-(1-methylethyl)- $$	300000	313400000	14.244	95	JDN
000934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	59000	61908620	14.592	96	JDN
NA	Unknown 14.452	91000	95120970	14.452	0	JD
NA	Unknown 15.159	69000	72546800	15.159	0	JD
E966796	Total Alkane TICs	930000	977461600	13.946		JD

Environmental Testing Laboratories

CompuChem

A Division Of

Liberty Analytical Corp.

ANALYSIS DATA SHEET

SW 8260B

SB111-28.028.5

Client: TETRA TECH | SDG 1010001 | Project: CTO-WE08/112G02045/N62467-04-D-0057

Matrix: Soil | Preparation: SW 5035/5035A | File ID: 1010001-1991.d | Sampled: 09/30/10 14:00

Initial/Final: 5.86g / 5mL | Lab ID: 1010001-19 | Received: 10/01/10 09:25

Dilution: 1 | pH: | Assoc Blank: 0100202-BLK1 | Prepared: 10/02/10 01:51

% Moisture: 14 | Analyzed: 10/02/10 06:56

Batch: 0100202 | Sequence: 0J02002 | Calibration: 0101208 | Instrument: 5975hpms91

CAS NO.	COMPOUND	CONC. (ug/kg dry)	DL	LOD	LOQ	Q
75-71-8	Dichlorodifluoromethane		0.44	1.0	5.0	U
74-87-3	Chloromethane		0.32	1.0	5.0	U
75-01-4	Vinyl chloride		0.42	1.0	5.0	U
74-83-9	Bromomethane		0.58	1.0	5.0	U
75-00-3	Chloroethane		0.71	2.5	5.0	U
75-69-4	Trichlorofluoromethane		0.30	1.0	5.0	U
75-35-4	1,1-Dichloroethene		1.1	2.5	5.0	U
67-64-1	Acetone	9.2	5.0	6.3	12	J
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		0.51	1.0	5.0	U
75-15-0	Carbon disulfide		0.14	0.25	5.0	U
79-20-9	Methyl acetate		1.4	2.5	5.0	U
75-09-2	Methylene chloride		0.49	1.0	5.0	U
156-60-5	trans-1,2-Dichloroethene		1.0	2.5	5.0	U
1634-04-4	Methyl tert-butyl ether		0.39	1.0	5.0	U
75-34-3	1,1-Dichloroethane		0.47	1.0	5.0	U
156-59-2	cis-1,2-Dichloroethene		0.42	1.0	5.0	U
78-93-3	2-Butanone		1.3	2.5	12	U
67-66-3	Chloroform		0.31	1.0	5.0	U
71-55-6	1,1,1-Trichloroethane		0.50	1.0	5.0	U
110-82-7	Cyclohexane		0.31	1.0	5.0	U
563-58-6	1,1-Dichloropropene		0.32	1.0	5.0	U
56-23-5	Carbon tetrachloride		0.45	1.0	5.0	U
107-06-2	1,2-Dichloroethane		0.27	1.0	5.0	U
71-43-2	Benzene		0.31	1.0	5.0	U
79-01-6	Trichloroethene		0.32	1.0	5.0	U
108-87-2	Methylcyclohexane		0.28	1.0	5.0	U
78-87-5	1,2-Dichloropropane		0.63	2.5	5.0	U
75-27-4	Bromodichloromethane		0.38	1.0	5.0	U
10061-01-5	cis-1,3-Dichloropropene		0.39	1.0	5.0	U
108-10-1	4-Methyl-2-pentanone		1.3	2.5	12	U
108-88-3	Toluene	0.58	0.34	1.0	5.0	JB
10061-02-6	trans-1,3-Dichloropropene		0.41	1.0	5.0	U
79-00-5	1,1,2-Trichloroethane		0.72	2.5	5.0	U
127-18-4	Tetrachloroethene		1.6	2.5	5.0	U
591-78-6	2-Hexanone		1.0	2.5	12	U
124-48-1	Dibromochloromethane		0.56	1.0	5.0	U
106-93-4	1,2-Dibromoethane		0.22	0.25	5.0	U
108-90-7	Chlorobenzene		0.25	0.25	5.0	U
100-41-4	Ethylbenzene		0.58	2.5	5.0	U

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ANALYTICAL RESULTS SUMMARY

PROJECT NAME : CTO WE08

TETRA TECH NUS, INC.
661 Anderson Drive

Pittsburgh , Pennsylvania - 15220-2745
Phone No: 4129218361

ORDER ID : C2462
ATTENTION : David Brayack

ACCREDITED IN ACCORDANCE WITH nelac

DoD ELAP

CHEMTECH 284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

Cover Page

Order ID : C2462

Project ID : CTO WE08

Client : Tetra Tech NUS, Inc.

Lab Sample Number	Client Sample Number
C2462-01	FD-TB01-20110531
C2462-02	FD-TW112-1620
C2462-03	FD-TW112-2125
C2462-04	FD-TW112-2630
C2462-05	FD-TW114-1620
C2462-06	FD-TW114-2125
C2462-07	FD-TW114-2630
C2462-08	FD-DUP01-20110531
C2462-09	FD-TW113-1620
C2462-10	C2462-09MS
C2462-11	C2462-09MSD
C2462-12	FD-TW113-2125

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

Signature : _____

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

Tetra Tech NUS, Inc.
Project Name: CTO WE08
Project # N/A
Chemtech Project # C2462
Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:
12 Water samples were received on 06/02/2011.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: VOCMS Group1. This data package contains results for VOCMS Group1.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_G were done using GC column RTX-VMS which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator.The analysis of VOCMS Group1 was based on method 8260B.

D. QA/ QC Samples:
The Holding Times were met for all analysis except for Fd-w112-2125RE, FD-TW112-2630RE, FD-TW114-1620DL, FD-TW114-2125RE, FD-TW114-2630RE, FD-DUP01-20110531DL
The Surrogate recoveries met the acceptable criteria except for FD-TW112-2125 [Toluene-d8 - 80%], FD-TW112-2630 [Toluene-d8 - 76%], FD-TW114-1620 [Toluene-d8 - 84%], FD-TW114-2125 [Toluene-d8 - 79%], FD-TW114-2630 [Toluene-d8 - 75%] and FD-DUP01-20110531 [4-Bromofluorobenzene - 126%]. Samples failing for surrogate were reanalyzed.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS {C2462-10MS} with File ID: VG035440.D recoveries met the requirements for all compounds except for 1,1,2-Trichlorotrifluoroethane[260%] and Bromoform[68%] .
The MSD recoveries met the acceptable requirements .
The RPD for {C2462-11MSD} with File ID: VG035441.D recoveries met criteria except for 1,1,2-Trichlorotrifluoroethane[106%], Bromochloromethane[22%], Chloroethane[21%] and Methyl Acetate[25%] .
The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

Samples FD-TW112-1620, FD-TW114-1620, FD-DUP01-20110531 and FD-TW113-1620 were diluted due to high concentrations.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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

Signature_____

I Mildred V Reyes, as the designated Quality Assurance Officer, hereby attest that all electronic deliverables have been thoroughly reviewed and are in agreement with the associated hardcopy data. The enclosed electronic files have been reviewed for accuracy (including significant figures), completeness and format. The laboratory will be responsible for any labor time necessary to correct enclosed electronic deliverables that have been found to be in error. I can be reached at (905) 789-8900 if there are any questions or problems with the enclosed electronic deliverables.

Signature: Mildred V Reyes Title: QA/QC Supervisor Date: 6/23/11

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TB01-20110531	SDG No.:	C2462
Lab Sample ID:	C2462-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035435.D	1		06/12/11	VG061211

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TB01-20110531	SDG No.:	C2462
Lab Sample ID:	C2462-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035435.D	1		06/12/11	VG061211

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.4		70 - 120	105%	SPK: 50
1868-53-7	Dibromofluoromethane	52.8		85 - 115	106%	SPK: 50
2037-26-5	Toluene-d8	48.8		85 - 120	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.5		75 - 120	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	887073	3.92			
540-36-3	1,4-Difluorobenzene	1451050	4.74			
3114-55-4	Chlorobenzene-d5	1004770	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	404287	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-1620	SDG No.:	C2462
Lab Sample ID:	C2462-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035444.D	1		06/13/11	VG061211

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1600	E	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	3		0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	3		0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	17		0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-1620	SDG No.:	C2462
Lab Sample ID:	C2462-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035444.D	1		06/13/11	VG061211

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.54	J	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	17		0.2	1	ug/L
179601-23-1	m/p-Xylenes	110		0.95	2	ug/L
95-47-6	o-Xylene	85		0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	15		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	2.4		0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	44.5		70 - 120	89%	SPK: 50
1868-53-7	Dibromofluoromethane	49.6		85 - 115	99%	SPK: 50
2037-26-5	Toluene-d8	55.8		85 - 120	112%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.4		75 - 120	109%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	955041	3.93			
540-36-3	1,4-Difluorobenzene	1538590	4.74			
3114-55-4	Chlorobenzene-d5	1232760	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	604364	13.41			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-1620	SDG No.:	C2462
Lab Sample ID:	C2462-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035444.D	1		06/13/11	VG061211

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
103-65-1	n-propylbenzene	34	J		11.93	ug/L
000620-14-4	Benzene, 1-ethyl-3-methyl-	320	J		12.12	ug/L
108-67-8	1,3,5-Trimethylbenzene	120	J		12.29	ug/L
000611-14-3	Benzene, 1-ethyl-2-methyl-	150	J		12.58	ug/L
98-06-6	tert-Butylbenzene	10	J		12.75	ug/L
95-63-6	1,2,4-Trimethylbenzene	250	J		12.88	ug/L
135-98-8	sec-Butylbenzene	15	J		13.03	ug/L
99-87-6	p-Isopropyltoluene	12	J		13.29	ug/L
000526-73-8	Benzene, 1,2,3-trimethyl-	180	J		13.53	ug/L
000496-11-7	Indane	32	J		13.69	ug/L
001074-43-7	Benzene, 1-methyl-3-propyl-	49	J		13.84	ug/L
000535-77-3	Benzene, 1-methyl-3-(1-methylethyl	100	J		13.95	ug/L
001074-17-5	Benzene, 1-methyl-2-propyl-	35	J		14.23	ug/L
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl	75	J		14.4	ug/L
002870-04-4	Benzene, 2-ethyl-1,3-dimethyl-	55	J		14.52	ug/L
000488-23-3	Benzene, 1,2,3,4-tetramethyl-	31	J		15.86	ug/L
91-20-3	Naphthalene	94	J		16.95	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-1620DL	SDG No.:	C2462
Lab Sample ID:	C2462-02DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035466.D	50		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	25	U	10	50	ug/L
74-87-3	Chloromethane	25	U	10	50	ug/L
75-01-4	Vinyl Chloride	25	U	17	50	ug/L
74-83-9	Bromomethane	25	U	10	50	ug/L
75-00-3	Chloroethane	25	U	10	50	ug/L
75-69-4	Trichlorofluoromethane	25	U	18	50	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	4000	D	22	50	ug/L
75-35-4	1,1-Dichloroethene	25	U	24	50	ug/L
67-64-1	Acetone	125	U	25	250	ug/L
75-15-0	Carbon Disulfide	25	U	10	50	ug/L
1634-04-4	Methyl tert-butyl Ether	25	U	18	50	ug/L
79-20-9	Methyl Acetate	25	U	10	50	ug/L
75-09-2	Methylene Chloride	25	U	20	50	ug/L
156-60-5	trans-1,2-Dichloroethene	25	U	20	50	ug/L
75-34-3	1,1-Dichloroethane	25	U	18	50	ug/L
110-82-7	Cyclohexane	25	U	10	50	ug/L
78-93-3	2-Butanone	125	U	66	250	ug/L
56-23-5	Carbon Tetrachloride	25	U	10	50	ug/L
156-59-2	cis-1,2-Dichloroethene	25	U	18	50	ug/L
74-97-5	Bromochloromethane	25	U	10	50	ug/L
67-66-3	Chloroform	25	U	17	50	ug/L
71-55-6	1,1,1-Trichloroethane	25	U	20	50	ug/L
108-87-2	Methylcyclohexane	25	U	10	50	ug/L
71-43-2	Benzene	25	U	16	50	ug/L
107-06-2	1,2-Dichloroethane	25	U	24	50	ug/L
79-01-6	Trichloroethene	25	U	14	50	ug/L
78-87-5	1,2-Dichloropropane	25	U	23	50	ug/L
75-27-4	Bromodichloromethane	25	U	18	50	ug/L
108-10-1	4-Methyl-2-Pentanone	125	U	100	250	ug/L
108-88-3	Toluene	25	U	18	50	ug/L
10061-02-6	t-1,3-Dichloropropene	25	U	14	50	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-1620DL	SDG No.:	C2462
Lab Sample ID:	C2462-02DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035466.D	50		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	25	U	16	50	ug/L
79-00-5	1,1,2-Trichloroethane	25	U	19	50	ug/L
591-78-6	2-Hexanone	125	U	97	250	ug/L
124-48-1	Dibromochloromethane	25	U	10	50	ug/L
106-93-4	1,2-Dibromoethane	25	U	20	50	ug/L
127-18-4	Tetrachloroethene	25	U	14	50	ug/L
108-90-7	Chlorobenzene	25	U	24	50	ug/L
100-41-4	Ethyl Benzene	25	U	10	50	ug/L
179601-23-1	m/p-Xylenes	130	D	48	100	ug/L
95-47-6	o-Xylene	90	D	22	50	ug/L
100-42-5	Styrene	25	U	18	50	ug/L
75-25-2	Bromoform	25	U	24	50	ug/L
98-82-8	Isopropylbenzene	25	U	22	50	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	25	U	16	50	ug/L
541-73-1	1,3-Dichlorobenzene	25	U	22	50	ug/L
106-46-7	1,4-Dichlorobenzene	25	U	16	50	ug/L
95-50-1	1,2-Dichlorobenzene	25	U	22	50	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	25	U	23	50	ug/L
120-82-1	1,2,4-Trichlorobenzene	25	U	10	50	ug/L
87-61-6	1,2,3-Trichlorobenzene	25	U	10	50	ug/L
123-91-1	1,4-Dioxane	500	U	1000	1000	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.5		70 - 120	109%	SPK: 50
1868-53-7	Dibromofluoromethane	50.3		85 - 115	101%	SPK: 50
2037-26-5	Toluene-d8	44.9		85 - 120	90%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.5		75 - 120	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	885538	3.92			
540-36-3	1,4-Difluorobenzene	1450470	4.73			
3114-55-4	Chlorobenzene-d5	1156090	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	486901	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-2125	SDG No.:	C2462
Lab Sample ID:	C2462-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035467.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-2125	SDG No.:	C2462
Lab Sample ID:	C2462-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035467.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	1.3		0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.9		70 - 120	112%	SPK: 50
1868-53-7	Dibromofluoromethane	49.6		85 - 115	99%	SPK: 50
2037-26-5	Toluene-d8	39.8	*	85 - 120	80%	SPK: 50
460-00-4	4-Bromofluorobenzene	45		75 - 120	90%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	872497	3.92			
540-36-3	1,4-Difluorobenzene	1408590	4.74			
3114-55-4	Chlorobenzene-d5	1098360	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	485756	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-2125	SDG No.:	C2462
Lab Sample ID:	C2462-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035467.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
108-67-8	1,3,5-Trimethylbenzene	0.68	J		12.29	ug/L
95-63-6	1,2,4-Trimethylbenzene	8.6	J		12.86	ug/L
91-20-3	Naphthalene	2.7	J		16.95	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-2125RE	SDG No.:	C2462
Lab Sample ID:	C2462-03RE	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035485.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-2125RE	SDG No.:	C2462
Lab Sample ID:	C2462-03RE	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035485.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.95	J	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48		70 - 120	96%	SPK: 50
1868-53-7	Dibromofluoromethane	48.2		85 - 115	96%	SPK: 50
2037-26-5	Toluene-d8	47.8		85 - 120	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.7		75 - 120	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1048020	3.92			
540-36-3	1,4-Difluorobenzene	1658410	4.74			
3114-55-4	Chlorobenzene-d5	1455740	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	648445	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-2125RE	SDG No.:	C2462
Lab Sample ID:	C2462-03RE	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035485.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-2630	SDG No.:	C2462
Lab Sample ID:	C2462-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035472.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	1.2		0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	49		0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-2630	SDG No.:	C2462
Lab Sample ID:	C2462-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035472.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1.8	J	0.95	2	ug/L
95-47-6	o-Xylene	1.5		0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1.2		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	58.3		70 - 120	117%	SPK: 50
1868-53-7	Dibromofluoromethane	50.2		85 - 115	100%	SPK: 50
2037-26-5	Toluene-d8	37.8	*	85 - 120	76%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.4		75 - 120	85%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	839129	3.92			
540-36-3	1,4-Difluorobenzene	1412760	4.73			
3114-55-4	Chlorobenzene-d5	1029580	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	445700	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-2630	SDG No.:	C2462
Lab Sample ID:	C2462-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035472.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
74-88-4	Methyl Iodide	0.52	J		1.5	ug/L
103-65-1	n-propylbenzene	3.4	J		11.92	ug/L
000611-14-3	Benzene, 1-ethyl-2-methyl-	19	J		12.1	ug/L
108-67-8	1,3,5-Trimethylbenzene	3.0	J		12.28	ug/L
000526-73-8	Benzene, 1,2,3-trimethyl-	7.6	J		12.57	ug/L
98-06-6	tert-Butylbenzene	1.6	J		12.74	ug/L
95-63-6	1,2,4-Trimethylbenzene	8.2	J		12.87	ug/L
135-98-8	sec-Butylbenzene	2.8	J		13.02	ug/L
99-87-6	p-Isopropyltoluene	1.8	J		13.29	ug/L
000622-96-8	Benzene, 1-ethyl-4-methyl-	5.2	J		13.52	ug/L
104-51-8	n-Butylbenzene	2.2	J		13.94	ug/L
91-20-3	Naphthalene	4.6	J		16.94	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-2630RE	SDG No.:	C2462
Lab Sample ID:	C2462-04RE	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035486.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.75	J	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	40		0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-2630RE	SDG No.:	C2462
Lab Sample ID:	C2462-04RE	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035486.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1.8	J	0.95	2	ug/L
95-47-6	o-Xylene	1.4		0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1.2		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.1		70 - 120	96%	SPK: 50
1868-53-7	Dibromofluoromethane	50		85 - 115	100%	SPK: 50
2037-26-5	Toluene-d8	44.1		85 - 120	88%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.7		75 - 120	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1070410	3.92			
540-36-3	1,4-Difluorobenzene	1634500	4.74			
3114-55-4	Chlorobenzene-d5	1445290	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	637002	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW112-2630RE	SDG No.:	C2462
Lab Sample ID:	C2462-04RE	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035486.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW113-1620	SDG No.:	C2462
Lab Sample ID:	C2462-09	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035443.D	1		06/13/11	VG061211

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	370	E	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1.2		0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	2.2		0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW113-1620	SDG No.:	C2462
Lab Sample ID:	C2462-09	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035443.D	1		06/13/11	VG061211

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1.9		0.2	1	ug/L
179601-23-1	m/p-Xylenes	22		0.95	2	ug/L
95-47-6	o-Xylene	19		0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	2.3		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1.7		0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	42.6		70 - 120	85%	SPK: 50
1868-53-7	Dibromofluoromethane	50.5		85 - 115	101%	SPK: 50
2037-26-5	Toluene-d8	53.6		85 - 120	107%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.5		75 - 120	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1116580	3.92			
540-36-3	1,4-Difluorobenzene	1700740	4.74			
3114-55-4	Chlorobenzene-d5	1364160	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	611228	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW113-1620	SDG No.:	C2462
Lab Sample ID:	C2462-09	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035443.D	1		06/13/11	VG061211

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
103-65-1	n-propylbenzene	7.6	J		11.94	ug/L
000611-14-3	Benzene, 1-ethyl-2-methyl-	120	J		12.12	ug/L
108-67-8	1,3,5-Trimethylbenzene	45	J		12.29	ug/L
000622-96-8	Benzene, 1-ethyl-4-methyl-	62	J		12.57	ug/L
98-06-6	tert-Butylbenzene	4.0	J		12.75	ug/L
95-63-6	1,2,4-Trimethylbenzene	84	J		12.87	ug/L
135-98-8	sec-Butylbenzene	6.7	J		13.03	ug/L
99-87-6	p-Isopropyltoluene	5.9	J		13.3	ug/L
000526-73-8	Benzene, 1,2,3-trimethyl-	71	J		13.53	ug/L
001074-17-5	Benzene, 1-methyl-2-propyl-	19	J		13.83	ug/L
000099-87-6	Benzene, 1-methyl-4-(1-methylethyl	51	J		13.96	ug/L
001074-43-7	Benzene, 1-methyl-3-propyl-	15	J		14.23	ug/L
000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	32	J		14.4	ug/L
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl	25	J		14.51	ug/L
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	15	J		15.22	ug/L
000488-23-3	Benzene, 1,2,3,4-tetramethyl-	16	J		15.86	ug/L
91-20-3	Naphthalene	16	J		16.94	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW113-1620DL	SDG No.:	C2462
Lab Sample ID:	C2462-09DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035465.D	10		06/14/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	5	U	2	10	ug/L
74-87-3	Chloromethane	5	U	2	10	ug/L
75-01-4	Vinyl Chloride	5	U	3.4	10	ug/L
74-83-9	Bromomethane	5	U	2	10	ug/L
75-00-3	Chloroethane	5	U	2	10	ug/L
75-69-4	Trichlorofluoromethane	5	U	3.5	10	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	680	D	4.5	10	ug/L
75-35-4	1,1-Dichloroethene	5	U	4.7	10	ug/L
67-64-1	Acetone	25	U	5	50	ug/L
75-15-0	Carbon Disulfide	5	U	2	10	ug/L
1634-04-4	Methyl tert-butyl Ether	5	U	3.5	10	ug/L
79-20-9	Methyl Acetate	5	U	2	10	ug/L
75-09-2	Methylene Chloride	5	U	4.1	10	ug/L
156-60-5	trans-1,2-Dichloroethene	5	U	4.1	10	ug/L
75-34-3	1,1-Dichloroethane	5	U	3.6	10	ug/L
110-82-7	Cyclohexane	5	U	2	10	ug/L
78-93-3	2-Butanone	25	U	13	50	ug/L
56-23-5	Carbon Tetrachloride	5	U	2	10	ug/L
156-59-2	cis-1,2-Dichloroethene	5	U	3.5	10	ug/L
74-97-5	Bromochloromethane	5	U	2	10	ug/L
67-66-3	Chloroform	5	U	3.4	10	ug/L
71-55-6	1,1,1-Trichloroethane	5	U	4	10	ug/L
108-87-2	Methylcyclohexane	5	U	2	10	ug/L
71-43-2	Benzene	5	U	3.2	10	ug/L
107-06-2	1,2-Dichloroethane	5	U	4.8	10	ug/L
79-01-6	Trichloroethene	5	U	2.8	10	ug/L
78-87-5	1,2-Dichloropropane	5	U	4.6	10	ug/L
75-27-4	Bromodichloromethane	5	U	3.6	10	ug/L
108-10-1	4-Methyl-2-Pentanone	25	U	21	50	ug/L
108-88-3	Toluene	5	U	3.7	10	ug/L
10061-02-6	t-1,3-Dichloropropene	5	U	2.9	10	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW113-1620DL	SDG No.:	C2462
Lab Sample ID:	C2462-09DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035465.D	10		06/14/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	5	U	3.1	10	ug/L
79-00-5	1,1,2-Trichloroethane	5	U	3.8	10	ug/L
591-78-6	2-Hexanone	25	U	19	50	ug/L
124-48-1	Dibromochloromethane	5	U	2	10	ug/L
106-93-4	1,2-Dibromoethane	5	U	4.1	10	ug/L
127-18-4	Tetrachloroethene	5	U	2.7	10	ug/L
108-90-7	Chlorobenzene	5	U	4.9	10	ug/L
100-41-4	Ethyl Benzene	5	U	2	10	ug/L
179601-23-1	m/p-Xylenes	29	D	9.5	20	ug/L
95-47-6	o-Xylene	26	D	4.3	10	ug/L
100-42-5	Styrene	5	U	3.6	10	ug/L
75-25-2	Bromoform	5	U	4.7	10	ug/L
98-82-8	Isopropylbenzene	5	U	4.5	10	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	5	U	3.1	10	ug/L
541-73-1	1,3-Dichlorobenzene	5	U	4.3	10	ug/L
106-46-7	1,4-Dichlorobenzene	5	U	3.2	10	ug/L
95-50-1	1,2-Dichlorobenzene	5	U	4.5	10	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	5	U	4.6	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	5	U	2	10	ug/L
87-61-6	1,2,3-Trichlorobenzene	5	U	2	10	ug/L
123-91-1	1,4-Dioxane	100	U	200	200	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.1		70 - 120	106%	SPK: 50
1868-53-7	Dibromofluoromethane	50.9		85 - 115	102%	SPK: 50
2037-26-5	Toluene-d8	46		85 - 120	92%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.6		75 - 120	93%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	903405	3.92			
540-36-3	1,4-Difluorobenzene	1446980	4.74			
3114-55-4	Chlorobenzene-d5	1152750	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	503642	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW113-1620DL	SDG No.:	C2462
Lab Sample ID:	C2462-09DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035465.D	10		06/14/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW113-2125	SDG No.:	C2462
Lab Sample ID:	C2462-12	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035470.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	4.9	J	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW113-2125	SDG No.:	C2462
Lab Sample ID:	C2462-12	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035470.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.86	J	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	3.4		0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.2		70 - 120	115%	SPK: 50
1868-53-7	Dibromofluoromethane	51.2		85 - 115	102%	SPK: 50
2037-26-5	Toluene-d8	42.3		85 - 120	85%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.6		75 - 120	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	839685	3.92			
540-36-3	1,4-Difluorobenzene	1357090	4.74			
3114-55-4	Chlorobenzene-d5	1061310	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	458951	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW113-2125	SDG No.:	C2462
Lab Sample ID:	C2462-12	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035470.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
103-65-1	n-propylbenzene	1.1	J		11.93	ug/L
000620-14-4	Benzene, 1-ethyl-3-methyl-	5.0	J		12.11	ug/L
108-67-8	1,3,5-Trimethylbenzene	1.2	J		12.29	ug/L
000611-14-3	Benzene, 1-ethyl-2-methyl-	11	J		12.57	ug/L
98-06-6	tert-Butylbenzene	0.96	J		12.75	ug/L
95-63-6	1,2,4-Trimethylbenzene	18	J		12.87	ug/L
135-98-8	sec-Butylbenzene	1.1	J		13.03	ug/L
000526-73-8	Benzene, 1,2,3-trimethyl-	7.8	J		13.53	ug/L
000496-11-7	Indane	5.2	J		13.69	ug/L
91-20-3	Naphthalene	5.0	J		16.95	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-1620	SDG No.:	C2462
Lab Sample ID:	C2462-05	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035474.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	660	E	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1.2		0.47	1	ug/L
67-64-1	Acetone	8.2		0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	2.9		0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	6.8		0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	22		0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-1620	SDG No.:	C2462
Lab Sample ID:	C2462-05	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035474.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	18		0.2	1	ug/L
179601-23-1	m/p-Xylenes	130		0.95	2	ug/L
95-47-6	o-Xylene	94		0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	25		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	2		0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59		70 - 120	118%	SPK: 50
1868-53-7	Dibromofluoromethane	51.6		85 - 115	103%	SPK: 50
2037-26-5	Toluene-d8	42.2	*	85 - 120	84%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.6		75 - 120	105%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	782259	3.92			
540-36-3	1,4-Difluorobenzene	1325440	4.73			
3114-55-4	Chlorobenzene-d5	972424	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	505442	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-1620	SDG No.:	C2462
Lab Sample ID:	C2462-05	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035474.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
005911-04-6	Nonane, 3-methyl-	69	J		11.51	ug/L
103-65-1	n-propylbenzene	55	J		11.93	ug/L
000124-18-5	Decane	800	J		12.09	ug/L
108-67-8	1,3,5-Trimethylbenzene	240	J		12.29	ug/L
000611-14-3	Benzene, 1-ethyl-2-methyl-	280	J		12.58	ug/L
98-06-6	tert-Butylbenzene	21	J		12.75	ug/L
95-63-6	1,2,4-Trimethylbenzene	470	J		12.88	ug/L
135-98-8	sec-Butylbenzene	27	J		13.03	ug/L
99-87-6	p-Isopropyltoluene	23	J		13.29	ug/L
000526-73-8	Benzene, 1,2,3-trimethyl-	270	J		13.53	ug/L
001074-43-7	Benzene, 1-methyl-3-propyl-	110	J		13.83	ug/L
001120-21-4	Undecane	370	J		13.96	ug/L
000535-77-3	Benzene, 1-methyl-3-(1-methylethyl	79	J		14.4	ug/L
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl	100	J		14.51	ug/L
000112-40-3	Dodecane	94	J		15.66	ug/L
91-20-3	Naphthalene	200	J		16.94	ug/L
000090-12-0	Naphthalene, 1-methyl-	68	J		18.59	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-1620DL	SDG No.:	C2462
Lab Sample ID:	C2462-05DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035482.D	20		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	10	U	4	20	ug/L
74-87-3	Chloromethane	10	U	4	20	ug/L
75-01-4	Vinyl Chloride	10	U	6.8	20	ug/L
74-83-9	Bromomethane	10	U	4	20	ug/L
75-00-3	Chloroethane	10	U	4	20	ug/L
75-69-4	Trichlorofluoromethane	10	U	7	20	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	620	D	9	20	ug/L
75-35-4	1,1-Dichloroethene	10	U	9.4	20	ug/L
67-64-1	Acetone	50	U	10	100	ug/L
75-15-0	Carbon Disulfide	10	U	4	20	ug/L
1634-04-4	Methyl tert-butyl Ether	10	U	7	20	ug/L
79-20-9	Methyl Acetate	10	U	4	20	ug/L
75-09-2	Methylene Chloride	10	U	8.2	20	ug/L
156-60-5	trans-1,2-Dichloroethene	10	U	8.2	20	ug/L
75-34-3	1,1-Dichloroethane	10	U	7.2	20	ug/L
110-82-7	Cyclohexane	10	U	4	20	ug/L
78-93-3	2-Butanone	50	U	26	100	ug/L
56-23-5	Carbon Tetrachloride	10	U	4	20	ug/L
156-59-2	cis-1,2-Dichloroethene	10	U	7	20	ug/L
74-97-5	Bromochloromethane	10	U	4	20	ug/L
67-66-3	Chloroform	10	U	6.8	20	ug/L
71-55-6	1,1,1-Trichloroethane	10	U	8	20	ug/L
108-87-2	Methylcyclohexane	10	U	4	20	ug/L
71-43-2	Benzene	10	U	6.4	20	ug/L
107-06-2	1,2-Dichloroethane	10	U	9.6	20	ug/L
79-01-6	Trichloroethene	10	U	5.6	20	ug/L
78-87-5	1,2-Dichloropropane	10	U	9.2	20	ug/L
75-27-4	Bromodichloromethane	10	U	7.2	20	ug/L
108-10-1	4-Methyl-2-Pentanone	50	U	42	100	ug/L
108-88-3	Toluene	28	D	7.4	20	ug/L
10061-02-6	t-1,3-Dichloropropene	10	U	5.8	20	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-1620DL	SDG No.:	C2462
Lab Sample ID:	C2462-05DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035482.D	20		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	10	U	6.2	20	ug/L
79-00-5	1,1,2-Trichloroethane	10	U	7.6	20	ug/L
591-78-6	2-Hexanone	50	U	39	100	ug/L
124-48-1	Dibromochloromethane	10	U	4	20	ug/L
106-93-4	1,2-Dibromoethane	10	U	8.2	20	ug/L
127-18-4	Tetrachloroethene	10	U	5.4	20	ug/L
108-90-7	Chlorobenzene	10	U	9.8	20	ug/L
100-41-4	Ethyl Benzene	26	D	4	20	ug/L
179601-23-1	m/p-Xylenes	140	D	19	40	ug/L
95-47-6	o-Xylene	100	D	8.6	20	ug/L
100-42-5	Styrene	10	U	7.2	20	ug/L
75-25-2	Bromoform	10	U	9.4	20	ug/L
98-82-8	Isopropylbenzene	35	D	9	20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	10	U	6.2	20	ug/L
541-73-1	1,3-Dichlorobenzene	10	U	8.6	20	ug/L
106-46-7	1,4-Dichlorobenzene	10	U	6.4	20	ug/L
95-50-1	1,2-Dichlorobenzene	10	U	9	20	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	9.2	20	ug/L
120-82-1	1,2,4-Trichlorobenzene	10	U	4	20	ug/L
87-61-6	1,2,3-Trichlorobenzene	10	U	4	20	ug/L
123-91-1	1,4-Dioxane	200	U	400	400	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.9		70 - 120	96%	SPK: 50
1868-53-7	Dibromofluoromethane	48.5		85 - 115	97%	SPK: 50
2037-26-5	Toluene-d8	49.2		85 - 120	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.8		75 - 120	104%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1078330	3.92			
540-36-3	1,4-Difluorobenzene	1691400	4.74			
3114-55-4	Chlorobenzene-d5	1462560	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	670767	13.41			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-1620DL	SDG No.:	C2462
Lab Sample ID:	C2462-05DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035482.D	20		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-DUP01-20110531	SDG No.:	C2462
Lab Sample ID:	C2462-08	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035475.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	600	E	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1.2		0.47	1	ug/L
67-64-1	Acetone	7.8		0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	2.3		0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	6.4		0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	25		0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-DUP01-20110531	SDG No.:	C2462
Lab Sample ID:	C2462-08	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035475.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	18		0.2	1	ug/L
179601-23-1	m/p-Xylenes	130		0.95	2	ug/L
95-47-6	o-Xylene	90		0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	26		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	2.2		0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.6		70 - 120	101%	SPK: 50
1868-53-7	Dibromofluoromethane	49.2		85 - 115	98%	SPK: 50
2037-26-5	Toluene-d8	48.1		85 - 120	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	62.8	*	75 - 120	126%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	984096	3.92			
540-36-3	1,4-Difluorobenzene	1587060	4.73			
3114-55-4	Chlorobenzene-d5	1342260	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	603489	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-DUP01-20110531	SDG No.:	C2462
Lab Sample ID:	C2462-08	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035475.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
005911-04-6	Nonane, 3-methyl-	75	J		11.52	ug/L
103-65-1	n-propylbenzene	57	J		11.94	ug/L
000124-18-5	Decane	760	J		12.09	ug/L
108-67-8	1,3,5-Trimethylbenzene	250	J		12.29	ug/L
000611-14-3	Benzene, 1-ethyl-2-methyl-	270	J		12.58	ug/L
98-06-6	tert-Butylbenzene	21	J		12.75	ug/L
95-63-6	1,2,4-Trimethylbenzene	440	J		12.87	ug/L
135-98-8	sec-Butylbenzene	27	J		13.02	ug/L
99-87-6	p-Isopropyltoluene	29	J		13.3	ug/L
000526-73-8	Benzene, 1,2,3-trimethyl-	250	J		13.53	ug/L
001074-17-5	Benzene, 1-methyl-2-propyl-	100	J		13.83	ug/L
001120-21-4	Undecane	350	J		13.97	ug/L
000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	120	J		14.4	ug/L
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl	97	J		14.51	ug/L
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	74	J		15.23	ug/L
000112-40-3	Dodecane	100	J		15.66	ug/L
91-20-3	Naphthalene	190	J		16.95	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-DUP01-20110531DL	SDG No.:	C2462
Lab Sample ID:	C2462-08DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035484.D	20		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	10	U	4	20	ug/L
74-87-3	Chloromethane	10	U	4	20	ug/L
75-01-4	Vinyl Chloride	10	U	6.8	20	ug/L
74-83-9	Bromomethane	10	U	4	20	ug/L
75-00-3	Chloroethane	10	U	4	20	ug/L
75-69-4	Trichlorofluoromethane	10	U	7	20	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	620	D	9	20	ug/L
75-35-4	1,1-Dichloroethene	10	U	9.4	20	ug/L
67-64-1	Acetone	50	U	10	100	ug/L
75-15-0	Carbon Disulfide	10	U	4	20	ug/L
1634-04-4	Methyl tert-butyl Ether	10	U	7	20	ug/L
79-20-9	Methyl Acetate	10	U	4	20	ug/L
75-09-2	Methylene Chloride	10	U	8.2	20	ug/L
156-60-5	trans-1,2-Dichloroethene	10	U	8.2	20	ug/L
75-34-3	1,1-Dichloroethane	10	U	7.2	20	ug/L
110-82-7	Cyclohexane	10	U	4	20	ug/L
78-93-3	2-Butanone	50	U	26	100	ug/L
56-23-5	Carbon Tetrachloride	10	U	4	20	ug/L
156-59-2	cis-1,2-Dichloroethene	10	U	7	20	ug/L
74-97-5	Bromochloromethane	10	U	4	20	ug/L
67-66-3	Chloroform	10	U	6.8	20	ug/L
71-55-6	1,1,1-Trichloroethane	10	U	8	20	ug/L
108-87-2	Methylcyclohexane	10	U	4	20	ug/L
71-43-2	Benzene	10	U	6.4	20	ug/L
107-06-2	1,2-Dichloroethane	10	U	9.6	20	ug/L
79-01-6	Trichloroethene	10	U	5.6	20	ug/L
78-87-5	1,2-Dichloropropane	10	U	9.2	20	ug/L
75-27-4	Bromodichloromethane	10	U	7.2	20	ug/L
108-10-1	4-Methyl-2-Pentanone	50	U	42	100	ug/L
108-88-3	Toluene	27	D	7.4	20	ug/L
10061-02-6	t-1,3-Dichloropropene	10	U	5.8	20	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-DUP01-20110531DL	SDG No.:	C2462
Lab Sample ID:	C2462-08DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035484.D	20		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	10	U	6.2	20	ug/L
79-00-5	1,1,2-Trichloroethane	10	U	7.6	20	ug/L
591-78-6	2-Hexanone	50	U	39	100	ug/L
124-48-1	Dibromochloromethane	10	U	4	20	ug/L
106-93-4	1,2-Dibromoethane	10	U	8.2	20	ug/L
127-18-4	Tetrachloroethene	10	U	5.4	20	ug/L
108-90-7	Chlorobenzene	10	U	9.8	20	ug/L
100-41-4	Ethyl Benzene	19	JD	4	20	ug/L
179601-23-1	m/p-Xylenes	130	D	19	40	ug/L
95-47-6	o-Xylene	99	D	8.6	20	ug/L
100-42-5	Styrene	10	U	7.2	20	ug/L
75-25-2	Bromoform	10	U	9.4	20	ug/L
98-82-8	Isopropylbenzene	29	D	9	20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	10	U	6.2	20	ug/L
541-73-1	1,3-Dichlorobenzene	10	U	8.6	20	ug/L
106-46-7	1,4-Dichlorobenzene	10	U	6.4	20	ug/L
95-50-1	1,2-Dichlorobenzene	10	U	9	20	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	9.2	20	ug/L
120-82-1	1,2,4-Trichlorobenzene	10	U	4	20	ug/L
87-61-6	1,2,3-Trichlorobenzene	10	U	4	20	ug/L
123-91-1	1,4-Dioxane	200	U	400	400	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.6		70 - 120	97%	SPK: 50
1868-53-7	Dibromofluoromethane	48.8		85 - 115	98%	SPK: 50
2037-26-5	Toluene-d8	49.7		85 - 120	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	52		75 - 120	104%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1102120	3.93			
540-36-3	1,4-Difluorobenzene	1664080	4.73			
3114-55-4	Chlorobenzene-d5	1442180	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	651075	13.41			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-DUP01-20110531DL	SDG No.:	C2462
Lab Sample ID:	C2462-08DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035484.D	20		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-2125	SDG No.:	C2462
Lab Sample ID:	C2462-06	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035473.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.93	J	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	2.3		0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	9.6		0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	8.3		0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-2125	SDG No.:	C2462
Lab Sample ID:	C2462-06	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035473.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.51	J	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1.4	J	0.95	2	ug/L
95-47-6	o-Xylene	0.94	J	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	2		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.8		70 - 120	114%	SPK: 50
1868-53-7	Dibromofluoromethane	51.9		85 - 115	104%	SPK: 50
2037-26-5	Toluene-d8	39.5	*	85 - 120	79%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.8		75 - 120	88%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	806710	3.92			
540-36-3	1,4-Difluorobenzene	1326910	4.74			
3114-55-4	Chlorobenzene-d5	1001700	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	451559	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-2125	SDG No.:	C2462
Lab Sample ID:	C2462-06	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035473.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
74-88-4	Methyl Iodide	0.64	J		1.5	ug/L
103-65-1	n-propylbenzene	6.7	J		11.94	ug/L
000611-14-3	Benzene, 1-ethyl-2-methyl-	27	J		12.1	ug/L
108-67-8	1,3,5-Trimethylbenzene	5.4	J		12.28	ug/L
000620-14-4	Benzene, 1-ethyl-3-methyl-	10	J		12.57	ug/L
98-06-6	tert-Butylbenzene	5.0	J		12.74	ug/L
95-63-6	1,2,4-Trimethylbenzene	17	J		12.87	ug/L
135-98-8	sec-Butylbenzene	8.1	J		13.03	ug/L
99-87-6	p-Isopropyltoluene	3.8	J		13.29	ug/L
000526-73-8	Benzene, 1,2,3-trimethyl-	8.1	J		13.52	ug/L
000141-93-5	Benzene, 1,3-diethyl-	9.8	J		13.77	ug/L
001074-43-7	Benzene, 1-methyl-3-propyl-	18	J		13.83	ug/L
104-51-8	n-Butylbenzene	5.9	J		13.94	ug/L
000135-01-3	Benzene, 1,2-diethyl-	7.7	J		14.09	ug/L
001074-17-5	Benzene, 1-methyl-2-propyl-	11	J		14.22	ug/L
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl	13	J		14.37	ug/L
000099-87-6	Benzene, 1-methyl-4-(1-methylethyl	11	J		14.5	ug/L
001595-16-0	Benzene, 1-methyl-4-(1-methylpropy	10	J		14.7	ug/L
91-20-3	Naphthalene	5.6	J		16.95	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-2125RE	SDG No.:	C2462
Lab Sample ID:	C2462-06RE	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035487.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.96	J	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	2.3		0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	8.9		0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	6.8		0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-2125RE	SDG No.:	C2462
Lab Sample ID:	C2462-06RE	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035487.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.55	J	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1.2	J	0.95	2	ug/L
95-47-6	o-Xylene	0.8	J	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	2		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.4		70 - 120	97%	SPK: 50
1868-53-7	Dibromofluoromethane	51.7		85 - 115	103%	SPK: 50
2037-26-5	Toluene-d8	44		85 - 120	88%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.4		75 - 120	105%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1046310	3.93			
540-36-3	1,4-Difluorobenzene	1585470	4.74			
3114-55-4	Chlorobenzene-d5	1376450	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	645027	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-2125RE	SDG No.:	C2462
Lab Sample ID:	C2462-06RE	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035487.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-2630	SDG No.:	C2462
Lab Sample ID:	C2462-07	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035471.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	4.3	J	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-2630	SDG No.:	C2462
Lab Sample ID:	C2462-07	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035471.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.1		70 - 120	110%	SPK: 50
1868-53-7	Dibromofluoromethane	50.2		85 - 115	100%	SPK: 50
2037-26-5	Toluene-d8	37.3	*	85 - 120	75%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.6		75 - 120	85%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	867276	3.93			
540-36-3	1,4-Difluorobenzene	1363160	4.74			
3114-55-4	Chlorobenzene-d5	1037440	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	444648	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-2630	SDG No.:	C2462
Lab Sample ID:	C2462-07	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035471.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
95-63-6	1,2,4-Trimethylbenzene	0.77	J		12.87	ug/L
135-98-8	sec-Butylbenzene	0.63	J		13.03	ug/L
104-51-8	n-Butylbenzene	0.51	J		13.94	ug/L
91-20-3	Naphthalene	0.98	J		16.94	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-2630RE	SDG No.:	C2462
Lab Sample ID:	C2462-07RE	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035488.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	5.4		0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-2630RE	SDG No.:	C2462
Lab Sample ID:	C2462-07RE	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035488.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.8		70 - 120	96%	SPK: 50
1868-53-7	Dibromofluoromethane	49		85 - 115	98%	SPK: 50
2037-26-5	Toluene-d8	42.3		85 - 120	85%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.6		75 - 120	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1073840	3.93			
540-36-3	1,4-Difluorobenzene	1625000	4.75			
3114-55-4	Chlorobenzene-d5	1455110	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	641133	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW114-2630RE	SDG No.:	C2462
Lab Sample ID:	C2462-07RE	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035488.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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ANALYTICAL RESULTS SUMMARY

PROJECT NAME : CTO WE08

TETRA TECH NUS, INC.
661 Anderson Drive

Pittsburgh , Pennsylvania - 15220-2745
Phone No: 4129218361

ORDER ID : C2463
ATTENTION : David Brayack

ACCREDITED IN ACCORDANCE WITH nelac

DoD ELAP

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Cover Page

Order ID : C2463

Project ID : CTO WE08

Client : Tetra Tech NUS, Inc.

Lab Sample Number	Client Sample Number
C2463-01	FD-TW113-2630
C2463-02	SV11-MW40-20110601
C2463-03	FD-RB01-20110601
C2463-04	FD-TW115-1620
C2463-05	FD-TW115-2125
C2463-06	FD-TW115-2630
C2463-07	FD-TW117-1620
C2463-08	FD-TW117-2125
C2463-09	FD-TW117-2630
C2463-10	FD-DUP02-20110601
C2463-11	FD-SB01-20110601
C2463-12	FD-TW116-1620
C2463-13	FD-TW116-2125
C2463-14	C2463-13MS
C2463-15	C2463-13MSD
C2463-16	FD-TW116-2630
C2463-17	FD-DUP03-20110601

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

Signature : _____

I Mildred V Reyes, as the designated Quality Assurance Officer, hereby attest that all electronic deliverables have been thoroughly reviewed and are in agreement with the associated hardcopy data. The enclosed electronic files have been reviewed for accuracy (including significant figures), completeness and format. The laboratory will be responsible for any labor time necessary to correct enclosed electronic deliverables that have been found to be in error. I can be reached at (905) 789-8900 if there are any questions or problems with the enclosed electronic deliverables.

Signature: Mildred V Reyes Title: QA/QC Supervisor Date: 6/23/11

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-RB01-20110601	SDG No.:	C2463
Lab Sample ID:	C2463-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035490.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	9.1		0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.73	J	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-RB01-20110601	SDG No.:	C2463
Lab Sample ID:	C2463-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035490.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.5		70 - 120	95%	SPK: 50
1868-53-7	Dibromofluoromethane	50.5		85 - 115	101%	SPK: 50
2037-26-5	Toluene-d8	49.9		85 - 120	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.4		75 - 120	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1029090	3.93			
540-36-3	1,4-Difluorobenzene	1612070	4.75			
3114-55-4	Chlorobenzene-d5	1408810	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	632828	13.41			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-RB01-20110601	SDG No.:	C2463
Lab Sample ID:	C2463-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035490.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	SV11-MW40-20110601	SDG No.:	C2463
Lab Sample ID:	C2463-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035489.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	14		0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.56	J	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	SV11-MW40-20110601	SDG No.:	C2463
Lab Sample ID:	C2463-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035489.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1.2	J	0.95	2	ug/L
95-47-6	o-Xylene	1.7		0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.2		70 - 120	97%	SPK: 50
1868-53-7	Dibromofluoromethane	51.2		85 - 115	102%	SPK: 50
2037-26-5	Toluene-d8	49.3		85 - 120	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.1		75 - 120	110%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1043030	3.93			
540-36-3	1,4-Difluorobenzene	1615140	4.74			
3114-55-4	Chlorobenzene-d5	1484920	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	619607	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	SV11-MW40-20110601	SDG No.:	C2463
Lab Sample ID:	C2463-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035489.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
103-65-1	n-propylbenzene	0.64	J		11.94	ug/L
108-67-8	1,3,5-Trimethylbenzene	1.8	J		12.29	ug/L
95-63-6	1,2,4-Trimethylbenzene	8.1	J		12.87	ug/L
000620-14-4	Benzene, 1-ethyl-3-methyl-	6.2	J		13.53	ug/L
91-20-3	Naphthalene	3.5	J		16.95	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW113-2630	SDG No.:	C2463
Lab Sample ID:	C2463-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035468.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.8		0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW113-2630	SDG No.:	C2463
Lab Sample ID:	C2463-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035468.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1.1	J	0.95	2	ug/L
95-47-6	o-Xylene	0.63	J	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.7		70 - 120	109%	SPK: 50
1868-53-7	Dibromofluoromethane	50.7		85 - 115	101%	SPK: 50
2037-26-5	Toluene-d8	43.2		85 - 120	86%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.9		75 - 120	90%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	862952	3.92			
540-36-3	1,4-Difluorobenzene	1429110	4.74			
3114-55-4	Chlorobenzene-d5	1123940	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	488413	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/31/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW113-2630	SDG No.:	C2463
Lab Sample ID:	C2463-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035468.D	1		06/14/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
103-65-1	n-propylbenzene	0.95	J		11.93	ug/L
000611-14-3	Benzene, 1-ethyl-2-methyl-	11	J		12.11	ug/L
108-67-8	1,3,5-Trimethylbenzene	5.0	J		12.29	ug/L
98-06-6	tert-Butylbenzene	0.74	J		12.75	ug/L
95-63-6	1,2,4-Trimethylbenzene	10	J		12.86	ug/L
135-98-8	sec-Butylbenzene	1.6	J		13.02	ug/L
99-87-6	p-Isopropyltoluene	1.2	J		13.29	ug/L
104-51-8	n-Butylbenzene	1.4	J		13.95	ug/L
91-20-3	Naphthalene	1.3	J		16.95	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW115-1620	SDG No.:	C2463
Lab Sample ID:	C2463-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035496.D	1		06/15/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	240	E	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	8.3		0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	11		0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW115-1620	SDG No.:	C2463
Lab Sample ID:	C2463-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035496.D	1		06/15/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	4.6		0.2	1	ug/L
179601-23-1	m/p-Xylenes	36		0.95	2	ug/L
95-47-6	o-Xylene	32		0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	4.1		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.9		70 - 120	100%	SPK: 50
1868-53-7	Dibromofluoromethane	51.4		85 - 115	103%	SPK: 50
2037-26-5	Toluene-d8	49.3		85 - 120	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.5		75 - 120	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	988463	3.92			
540-36-3	1,4-Difluorobenzene	1584580	4.74			
3114-55-4	Chlorobenzene-d5	1368320	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	641865	13.41			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW115-1620	SDG No.:	C2463
Lab Sample ID:	C2463-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035496.D	1		06/15/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
014676-29-0	Heptane, 3-ethyl-2-methyl-	27	J		10.93	ug/L
006783-92-2	Cyclohexane, 1,1,2,3-tetramethyl-	32	J		11.44	ug/L
103-65-1	n-propylbenzene	7.6	J		11.93	ug/L
000124-18-5	Decane	220	J		12.08	ug/L
108-67-8	1,3,5-Trimethylbenzene	47	J		12.29	ug/L
017302-28-2	Nonane, 2,6-dimethyl-	92	J		12.58	ug/L
98-06-6	tert-Butylbenzene	2.4	J		12.75	ug/L
95-63-6	1,2,4-Trimethylbenzene	100	J		12.88	ug/L
135-98-8	sec-Butylbenzene	4.0	J		13.02	ug/L
99-87-6	p-Isopropyltoluene	4.0	J		13.29	ug/L
013151-34-3	Decane, 3-methyl-	34	J		13.47	ug/L
000526-73-8	Benzene, 1,2,3-trimethyl-	73	J		13.52	ug/L
001074-43-7	Benzene, 1-methyl-3-propyl-	34	J		13.84	ug/L
001120-21-4	Undecane	130	J		13.97	ug/L
000934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	30	J		14.51	ug/L
000112-40-3	Dodecane	30	J		15.66	ug/L
91-20-3	Naphthalene	66	J		16.94	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW115-1620DL	SDG No.:	C2463
Lab Sample ID:	C2463-04DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035503.D	10		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	5	U	2	10	ug/L
74-87-3	Chloromethane	5	U	2	10	ug/L
75-01-4	Vinyl Chloride	5	U	3.4	10	ug/L
74-83-9	Bromomethane	5	U	2	10	ug/L
75-00-3	Chloroethane	5	U	2	10	ug/L
75-69-4	Trichlorofluoromethane	5	U	3.5	10	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1300	D	4.5	10	ug/L
75-35-4	1,1-Dichloroethene	5	U	4.7	10	ug/L
67-64-1	Acetone	25	U	5	50	ug/L
75-15-0	Carbon Disulfide	5	U	2	10	ug/L
1634-04-4	Methyl tert-butyl Ether	5	U	3.5	10	ug/L
79-20-9	Methyl Acetate	5	U	2	10	ug/L
75-09-2	Methylene Chloride	5	U	4.1	10	ug/L
156-60-5	trans-1,2-Dichloroethene	5	U	4.1	10	ug/L
75-34-3	1,1-Dichloroethane	5	U	3.6	10	ug/L
110-82-7	Cyclohexane	5	U	2	10	ug/L
78-93-3	2-Butanone	25	U	13	50	ug/L
56-23-5	Carbon Tetrachloride	5	U	2	10	ug/L
156-59-2	cis-1,2-Dichloroethene	5	U	3.5	10	ug/L
74-97-5	Bromochloromethane	5	U	2	10	ug/L
67-66-3	Chloroform	5	U	3.4	10	ug/L
71-55-6	1,1,1-Trichloroethane	5	U	4	10	ug/L
108-87-2	Methylcyclohexane	5	U	2	10	ug/L
71-43-2	Benzene	5	U	3.2	10	ug/L
107-06-2	1,2-Dichloroethane	5	U	4.8	10	ug/L
79-01-6	Trichloroethene	5	U	2.8	10	ug/L
78-87-5	1,2-Dichloropropane	5	U	4.6	10	ug/L
75-27-4	Bromodichloromethane	5	U	3.6	10	ug/L
108-10-1	4-Methyl-2-Pentanone	25	U	21	50	ug/L
108-88-3	Toluene	30	D	3.7	10	ug/L
10061-02-6	t-1,3-Dichloropropene	5	U	2.9	10	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW115-1620DL	SDG No.:	C2463
Lab Sample ID:	C2463-04DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035503.D	10		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	5	U	3.1	10	ug/L
79-00-5	1,1,2-Trichloroethane	5	U	3.8	10	ug/L
591-78-6	2-Hexanone	25	U	19	50	ug/L
124-48-1	Dibromochloromethane	5	U	2	10	ug/L
106-93-4	1,2-Dibromoethane	5	U	4.1	10	ug/L
127-18-4	Tetrachloroethene	5	U	2.7	10	ug/L
108-90-7	Chlorobenzene	5	U	4.9	10	ug/L
100-41-4	Ethyl Benzene	17	D	2	10	ug/L
179601-23-1	m/p-Xylenes	130	D	9.5	20	ug/L
95-47-6	o-Xylene	95	D	4.3	10	ug/L
100-42-5	Styrene	5	U	3.6	10	ug/L
75-25-2	Bromoform	5	U	4.7	10	ug/L
98-82-8	Isopropylbenzene	18	D	4.5	10	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	5	U	3.1	10	ug/L
541-73-1	1,3-Dichlorobenzene	5	U	4.3	10	ug/L
106-46-7	1,4-Dichlorobenzene	5	U	3.2	10	ug/L
95-50-1	1,2-Dichlorobenzene	5	U	4.5	10	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	5	U	4.6	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	5	U	2	10	ug/L
87-61-6	1,2,3-Trichlorobenzene	5	U	2	10	ug/L
123-91-1	1,4-Dioxane	100	U	200	200	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.1		70 - 120	96%	SPK: 50
1868-53-7	Dibromofluoromethane	49.8		85 - 115	100%	SPK: 50
2037-26-5	Toluene-d8	47.7		85 - 120	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.7		75 - 120	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1069330	3.92			
540-36-3	1,4-Difluorobenzene	1652260	4.74			
3114-55-4	Chlorobenzene-d5	1377480	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	613171	13.41			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW115-1620DL	SDG No.:	C2463
Lab Sample ID:	C2463-04DL	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035503.D	10		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW115-2125	SDG No.:	C2463
Lab Sample ID:	C2463-05	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035491.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW115-2125	SDG No.:	C2463
Lab Sample ID:	C2463-05	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035491.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.79	J	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.6		70 - 120	97%	SPK: 50
1868-53-7	Dibromofluoromethane	50.2		85 - 115	100%	SPK: 50
2037-26-5	Toluene-d8	47.3		85 - 120	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.2		75 - 120	102%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1085470	3.93			
540-36-3	1,4-Difluorobenzene	1655620	4.74			
3114-55-4	Chlorobenzene-d5	1452760	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	621741	13.41			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW115-2125	SDG No.:	C2463
Lab Sample ID:	C2463-05	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035491.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
103-65-1	n-propylbenzene	2.9	J		11.94	ug/L
108-67-8	1,3,5-Trimethylbenzene	1.3	J		12.28	ug/L
98-06-6	tert-Butylbenzene	1.5	J		12.75	ug/L
95-63-6	1,2,4-Trimethylbenzene	6.0	J		12.87	ug/L
135-98-8	sec-Butylbenzene	2.6	J		13.03	ug/L
104-51-8	n-Butylbenzene	0.89	J		13.95	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW115-2630	SDG No.:	C2463
Lab Sample ID:	C2463-06	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035504.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.59	J	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	6.5		0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW115-2630	SDG No.:	C2463
Lab Sample ID:	C2463-06	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035504.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.5		70 - 120	97%	SPK: 50
1868-53-7	Dibromofluoromethane	47.2		85 - 115	94%	SPK: 50
2037-26-5	Toluene-d8	44.2		85 - 120	88%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.8		75 - 120	98%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1044620	3.92			
540-36-3	1,4-Difluorobenzene	1664570	4.73			
3114-55-4	Chlorobenzene-d5	1405830	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	610803	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW115-2630	SDG No.:	C2463
Lab Sample ID:	C2463-06	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035504.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
91-20-3	Naphthalene	0.90	J		16.95	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW116-1620	SDG No.:	C2463
Lab Sample ID:	C2463-12	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035507.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	36		0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	3.1	J	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1.4		0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW116-1620	SDG No.:	C2463
Lab Sample ID:	C2463-12	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035507.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.62	J	0.2	1	ug/L
179601-23-1	m/p-Xylenes	7.4		0.95	2	ug/L
95-47-6	o-Xylene	1.7		0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	13		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	2		0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51		70 - 120	102%	SPK: 50
1868-53-7	Dibromofluoromethane	49.7		85 - 115	99%	SPK: 50
2037-26-5	Toluene-d8	47.7		85 - 120	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.5		75 - 120	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	992507	3.92			
540-36-3	1,4-Difluorobenzene	1568630	4.73			
3114-55-4	Chlorobenzene-d5	1315580	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	606985	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW116-1620	SDG No.:	C2463
Lab Sample ID:	C2463-12	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035507.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
103-65-1	n-propylbenzene	42	J		11.93	ug/L
000620-14-4	Benzene, 1-ethyl-3-methyl-	360	J		12.11	ug/L
108-67-8	1,3,5-Trimethylbenzene	180	J		12.29	ug/L
000611-14-3	Benzene, 1-ethyl-2-methyl-	130	J		12.57	ug/L
98-06-6	tert-Butylbenzene	16	J		12.75	ug/L
95-63-6	1,2,4-Trimethylbenzene	280	J		12.87	ug/L
135-98-8	sec-Butylbenzene	24	J		13.03	ug/L
99-87-6	p-Isopropyltoluene	22	J		13.29	ug/L
000526-73-8	Benzene, 1,2,3-trimethyl-	150	J		13.53	ug/L
000141-93-5	Benzene, 1,3-diethyl-	44	J		13.77	ug/L
001074-43-7	Benzene, 1-methyl-3-propyl-	91	J		13.83	ug/L
104-51-8	n-Butylbenzene	28	J		13.95	ug/L
001074-17-5	Benzene, 1-methyl-2-propyl-	52	J		14.23	ug/L
000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	120	J		14.4	ug/L
000934-74-7	Benzene, 1-ethyl-3,5-dimethyl-	82	J		14.51	ug/L
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	57	J		15.23	ug/L
000527-53-7	Benzene, 1,2,3,5-tetramethyl-	47	J		15.86	ug/L
91-20-3	Naphthalene	22	J		16.95	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW116-2125	SDG No.:	C2463
Lab Sample ID:	C2463-13	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035483.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	6.2		0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW116-2125	SDG No.:	C2463
Lab Sample ID:	C2463-13	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035483.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.64	J	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	2.2		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.4		70 - 120	97%	SPK: 50
1868-53-7	Dibromofluoromethane	48.8		85 - 115	98%	SPK: 50
2037-26-5	Toluene-d8	47.2		85 - 120	94%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.4		75 - 120	105%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1096330	3.92			
540-36-3	1,4-Difluorobenzene	1653450	4.74			
3114-55-4	Chlorobenzene-d5	1496300	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	638734	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW116-2125	SDG No.:	C2463
Lab Sample ID:	C2463-13	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035483.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
74-88-4	Methyl Iodide	1.1	J		1.5	ug/L
103-65-1	n-propylbenzene	3.1	J		11.93	ug/L
000611-14-3	Benzene, 1-ethyl-2-methyl-	14	J		12.11	ug/L
108-67-8	1,3,5-Trimethylbenzene	3.4	J		12.28	ug/L
000620-14-4	Benzene, 1-ethyl-3-methyl-	5.1	J		12.57	ug/L
98-06-6	tert-Butylbenzene	3.6	J		12.74	ug/L
95-63-6	1,2,4-Trimethylbenzene	8.4	J		12.87	ug/L
135-98-8	sec-Butylbenzene	6.2	J		13.03	ug/L
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl	9.5	J		13.24	ug/L
99-87-6	p-Isopropyltoluene	2.9	J		13.3	ug/L
000496-11-7	Indane	7.4	J		13.69	ug/L
000141-93-5	Benzene, 1,3-diethyl-	6.8	J		13.77	ug/L
001074-17-5	Benzene, 1-methyl-2-propyl-	8.8	J		13.83	ug/L
104-51-8	n-Butylbenzene	3.4	J		13.95	ug/L
001074-55-1	Benzene, 1-methyl-4-propyl-	8.1	J		14.23	ug/L
000934-74-7	Benzene, 1-ethyl-3,5-dimethyl-	5.6	J		14.37	ug/L
002870-04-4	Benzene, 2-ethyl-1,3-dimethyl-	7.2	J		14.51	ug/L
91-20-3	Naphthalene	1.0	J		16.95	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW116-2630	SDG No.:	C2463
Lab Sample ID:	C2463-16	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035508.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW116-2630	SDG No.:	C2463
Lab Sample ID:	C2463-16	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035508.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.4		70 - 120	97%	SPK: 50
1868-53-7	Dibromofluoromethane	50.2		85 - 115	100%	SPK: 50
2037-26-5	Toluene-d8	44.7		85 - 120	89%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.1		75 - 120	98%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1035830	3.92			
540-36-3	1,4-Difluorobenzene	1620930	4.74			
3114-55-4	Chlorobenzene-d5	1388570	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	605318	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW116-2630	SDG No.:	C2463
Lab Sample ID:	C2463-16	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035508.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
95-63-6	1,2,4-Trimethylbenzene	0.71	J		12.86	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-DUP03-20110601	SDG No.:	C2463
Lab Sample ID:	C2463-17	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035509.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	4	J	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-DUP03-20110601	SDG No.:	C2463
Lab Sample ID:	C2463-17	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035509.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.9		70 - 120	98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.8		85 - 115	100%	SPK: 50
2037-26-5	Toluene-d8	44.8		85 - 120	90%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.4		75 - 120	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1057440	3.91			
540-36-3	1,4-Difluorobenzene	1589930	4.74			
3114-55-4	Chlorobenzene-d5	1359270	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	592992	13.41			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW117-1620	SDG No.:	C2463
Lab Sample ID:	C2463-07	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035492.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	9.6		0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.63	J	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW117-1620	SDG No.:	C2463
Lab Sample ID:	C2463-07	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035492.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	4.1		0.95	2	ug/L
95-47-6	o-Xylene	1.1		0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	19		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	13		0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.6		70 - 120	101%	SPK: 50
1868-53-7	Dibromofluoromethane	48.2		85 - 115	96%	SPK: 50
2037-26-5	Toluene-d8	46.1		85 - 120	92%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.5		75 - 120	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1005880	3.93			
540-36-3	1,4-Difluorobenzene	1657880	4.74			
3114-55-4	Chlorobenzene-d5	1392830	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	616094	13.41			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW117-1620	SDG No.:	C2463
Lab Sample ID:	C2463-07	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035492.D	1		06/15/11	VG061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
103-65-1	n-propylbenzene	53	J		11.94	ug/L
000611-14-3	Benzene, 1-ethyl-2-methyl-	280	J		12.12	ug/L
108-67-8	1,3,5-Trimethylbenzene	150	J		12.29	ug/L
000622-96-8	Benzene, 1-ethyl-4-methyl-	120	J		12.58	ug/L
98-06-6	tert-Butylbenzene	12	J		12.75	ug/L
95-63-6	1,2,4-Trimethylbenzene	310	J		12.88	ug/L
135-98-8	sec-Butylbenzene	25	J		13.03	ug/L
99-87-6	p-Isopropyltoluene	17	J		13.29	ug/L
000526-73-8	Benzene, 1,2,3-trimethyl-	150	J		13.53	ug/L
000141-93-5	Benzene, 1,3-diethyl-	30	J		13.77	ug/L
001074-43-7	Benzene, 1-methyl-3-propyl-	49	J		13.83	ug/L
104-51-8	n-Butylbenzene	22	J		13.95	ug/L
001074-17-5	Benzene, 1-methyl-2-propyl-	36	J		14.23	ug/L
000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	79	J		14.4	ug/L
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl	58	J		14.51	ug/L
000527-53-7	Benzene, 1,2,3,5-tetramethyl-	36	J		15.23	ug/L
000488-23-3	Benzene, 1,2,3,4-tetramethyl-	37	J		15.86	ug/L
91-20-3	Naphthalene	14	J		16.95	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-DUP02-20110601	SDG No.:	C2463
Lab Sample ID:	C2463-10	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035495.D	1		06/15/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	9.5		0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.74	J	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-DUP02-20110601	SDG No.:	C2463
Lab Sample ID:	C2463-10	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035495.D	1		06/15/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	4.2		0.95	2	ug/L
95-47-6	o-Xylene	1.1		0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	18		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	14		0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.6		70 - 120	101%	SPK: 50
1868-53-7	Dibromofluoromethane	50.4		85 - 115	101%	SPK: 50
2037-26-5	Toluene-d8	48.7		85 - 120	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	50		75 - 120	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	989380	3.92			
540-36-3	1,4-Difluorobenzene	1579670	4.75			
3114-55-4	Chlorobenzene-d5	1368550	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	620024	13.41			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-DUP02-20110601	SDG No.:	C2463
Lab Sample ID:	C2463-10	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035495.D	1		06/15/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
103-65-1	n-propylbenzene	53	J		11.93	ug/L
000620-14-4	Benzene, 1-ethyl-3-methyl-	280	J		12.11	ug/L
108-67-8	1,3,5-Trimethylbenzene	140	J		12.29	ug/L
000611-14-3	Benzene, 1-ethyl-2-methyl-	120	J		12.57	ug/L
98-06-6	tert-Butylbenzene	12	J		12.74	ug/L
95-63-6	1,2,4-Trimethylbenzene	310	J		12.88	ug/L
135-98-8	sec-Butylbenzene	25	J		13.03	ug/L
99-87-6	p-Isopropyltoluene	17	J		13.29	ug/L
000526-73-8	Benzene, 1,2,3-trimethyl-	150	J		13.53	ug/L
000141-93-5	Benzene, 1,3-diethyl-	31	J		13.77	ug/L
001074-43-7	Benzene, 1-methyl-3-propyl-	58	J		13.84	ug/L
104-51-8	n-Butylbenzene	22	J		13.95	ug/L
001074-17-5	Benzene, 1-methyl-2-propyl-	37	J		14.23	ug/L
000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	80	J		14.4	ug/L
002870-04-4	Benzene, 2-ethyl-1,3-dimethyl-	59	J		14.51	ug/L
000527-53-7	Benzene, 1,2,3,5-tetramethyl-	36	J		15.23	ug/L
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	36	J		15.87	ug/L
91-20-3	Naphthalene	14	J		16.94	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW117-2125	SDG No.:	C2463
Lab Sample ID:	C2463-08	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035493.D	1		06/15/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW117-2125	SDG No.:	C2463
Lab Sample ID:	C2463-08	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035493.D	1		06/15/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	2.6		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.2		70 - 120	98%	SPK: 50
1868-53-7	Dibromofluoromethane	50.3		85 - 115	101%	SPK: 50
2037-26-5	Toluene-d8	46.9		85 - 120	94%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.2		75 - 120	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1041990	3.92			
540-36-3	1,4-Difluorobenzene	1630670	4.75			
3114-55-4	Chlorobenzene-d5	1410200	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	645385	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW117-2125	SDG No.:	C2463
Lab Sample ID:	C2463-08	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035493.D	1		06/15/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
103-65-1	n-propylbenzene	7.1	J		11.93	ug/L
000611-14-3	Benzene, 1-ethyl-2-methyl-	31	J		12.11	ug/L
108-67-8	1,3,5-Trimethylbenzene	3.2	J		12.29	ug/L
000620-14-4	Benzene, 1-ethyl-3-methyl-	13	J		12.57	ug/L
98-06-6	tert-Butylbenzene	2.5	J		12.74	ug/L
95-63-6	1,2,4-Trimethylbenzene	21	J		12.87	ug/L
135-98-8	sec-Butylbenzene	5.9	J		13.02	ug/L
99-87-6	p-Isopropyltoluene	1.9	J		13.29	ug/L
000526-73-8	Benzene, 1,2,3-trimethyl-	10	J		13.52	ug/L
000141-93-5	Benzene, 1,3-diethyl-	5.0	J		13.77	ug/L
001074-43-7	Benzene, 1-methyl-3-propyl-	6.4	J		13.83	ug/L
104-51-8	n-Butylbenzene	2.2	J		13.95	ug/L
001758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	7.7	J		14.4	ug/L
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl	5.7	J		14.51	ug/L
91-20-3	Naphthalene	1.1	J		16.95	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW117-2630	SDG No.:	C2463
Lab Sample ID:	C2463-09	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035494.D	1		06/15/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW117-2630	SDG No.:	C2463
Lab Sample ID:	C2463-09	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035494.D	1		06/15/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.8		70 - 120	100%	SPK: 50
1868-53-7	Dibromofluoromethane	48.2		85 - 115	96%	SPK: 50
2037-26-5	Toluene-d8	46.4		85 - 120	93%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.5		75 - 120	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1084730	3.92			
540-36-3	1,4-Difluorobenzene	1652840	4.73			
3114-55-4	Chlorobenzene-d5	1445100	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	623676	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/01/11
Project:	CTO WE08	Date Received:	06/02/11
Client Sample ID:	FD-TW117-2630	SDG No.:	C2463
Lab Sample ID:	C2463-09	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035494.D	1		06/15/11	vg061411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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ANALYTICAL RESULTS SUMMARY

PROJECT NAME : CTO WE08

TETRA TECH NUS, INC.
661 Anderson Drive

Pittsburgh , Pennsylvania - 15220-2745
Phone No: 4129218361

ORDER ID : C2506
ATTENTION : David Brayack

ACCREDITED IN ACCORDANCE WITH nelac

DoD ELAP

CHEMTECH 284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

Cover Page

Order ID : C2506

Project ID : CTO WE08

Client : Tetra Tech NUS, Inc.

Lab Sample Number	Client Sample Number
C2506-01	FD-TB02-20110602
C2506-02	FD-TW118-1620
C2506-03	FD-TW118-2125
C2506-04	FD-TW118-2630
C2506-05	FC-MW-05I1-20110602
C2506-06	SA-TW403-1115
C2506-07	SA-TW403-2125
C2506-08	SA-TW403-2630
C2506-09	SA-TW403-3135
C2506-10	SA-TW402-1115
C2506-11	SA-TW402-2125
C2506-12	SA-TW402-2630
C2506-13	SA-TW402-3135
C2506-14	C2506-13MS
C2506-15	C2506-13MSD
C2506-16	SA-DUP01-20110602
C2506-17	FC-MW-05I-20110602
C2506-18	SA-TW401-1115
C2506-19	SA-TW401-2125
C2506-20	SA-TW401-2630
C2506-21	SA-TW401-3135
C2506-22	FC-MW-05S-20110603
C2506-23	SA-TW404-2125
C2506-24	SA-TW404-3135

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

Signature : _____

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CHEMTECH

CASE NARRATIVE

Tetra Tech NUS, Inc.
Project Name: CTO WE08
Project # N/A
Chemtech Project # C2506
Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:
24 Water samples were received on 06/04/2011.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: VOCMS Group1. This data package contains results for VOCMS Group1.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_G were done using GC column RTX-VMS which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator.The analysis performed on instrument MSVOA_H were done using GC column RTX-VMS which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied BY OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator.The analysis of VOCMS Group1 was based on method 8260B.

D. QA/ QC Samples:
The Holding Times were met for all analysis except for SA-DUP01-20110602, SA-TW402-2125DL and SA-TW402-3135DL by one day.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS {C2506-14MS} with File ID: VG035520.D recoveries met the requirements for all compounds except for 1,1,1-Trichloroethane[60%] and 1,1-Dichloroethane[20%] .
The MSD {C2506-15MSD} with File ID: VG035521.D recoveries met the acceptable requirements except for 1,1-Dichloroethane[40%] and Bromoform[68%] .
The RPD for {C2506-15MSD} with File ID: VG035521.D recoveries met criteria except for 1,1,1-Trichloroethane[29%], 1,1-Dichloroethane[67%] .
The Blank Spike for {BSG0616W3} with File ID: VG035540.D met requirements for all samples except for Bromochloromethane[135%] .
The Blank Spike Duplicate met requirements for all samples .The Blank Spike for {BSH0617W1} with File ID: VH041536.D met requirements for all samples except for Acetone[160%], Chloromethane[130%] .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration File ID VG035499.D met the requirements except for Bromomethane [29%] .The Continuous Calibration File ID VG035516.D met the

requirements except for 1,2-Dibromo-3-Chloropropane [20.6%] and Bromomethane [22.8%] .The Continuous Calibration File ID VG035537.D met the requirements except for Methyl Acetate [26.5%], Bromochloromethane [23.5%], Tetrachloroethene [30.7] and 1,2-Dibromo-3-Chloropropane [20.6%], Bromomethane [23.9] .The Continuous Calibration File ID VH041533.D met the requirements except for Dichlorodifluoromethane [21.95%], 4-Methyl-2-Pentanone [21.03%] , Acetone [28.0%] and 1,4-Dioxane[24.3%] .
The Tuning criteria met requirements.

Samples FC-MW-05I1-20110602, SA-TW402-2125 and SA-TW402-3135 were diluted due to high concentrations.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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

Signature_____

I Hildred V Reys, as the designated Quality Assurance Officer, hereby attest that all electronic deliverables have been thoroughly reviewed and are in agreement with the associated hardcopy data. The enclosed electronic files have been reviewed for accuracy (including significant figures), completeness and format. The laboratory will be responsible for any labor time necessary to correct enclosed electronic deliverables that have been found to be in error. I can be reached at (908) 789-8900 if there are any questions or problems with the enclosed electronic deliverables.

Signature: Hildred V Reys Title: QA/QC Supervisor Date: 6/28/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/02/11
Project:	CTO WE08	Date Received:	06/04/11
Client Sample ID:	FD-TB02-20110602	SDG No.:	C2506
Lab Sample ID:	C2506-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035510.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1.4		0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/02/11
Project:	CTO WE08	Date Received:	06/04/11
Client Sample ID:	FD-TB02-20110602	SDG No.:	C2506
Lab Sample ID:	C2506-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035510.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.7		70 - 120	97%	SPK: 50
1868-53-7	Dibromofluoromethane	48.1		85 - 115	96%	SPK: 50
2037-26-5	Toluene-d8	47.2		85 - 120	94%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.1		75 - 120	96%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1025350	3.93			
540-36-3	1,4-Difluorobenzene	1666600	4.73			
3114-55-4	Chlorobenzene-d5	1391130	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	593034	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/02/11
Project:	CTO WE08	Date Received:	06/04/11
Client Sample ID:	FD-TB02-20110602	SDG No.:	C2506
Lab Sample ID:	C2506-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035510.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/02/11
Project:	CTO WE08	Date Received:	06/04/11
Client Sample ID:	FD-TW118-1620	SDG No.:	C2506
Lab Sample ID:	C2506-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035511.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/02/11
Project:	CTO WE08	Date Received:	06/04/11
Client Sample ID:	FD-TW118-1620	SDG No.:	C2506
Lab Sample ID:	C2506-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035511.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.51	J	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.8		70 - 120	98%	SPK: 50
1868-53-7	Dibromofluoromethane	50.3		85 - 115	101%	SPK: 50
2037-26-5	Toluene-d8	45.7		85 - 120	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.1		75 - 120	96%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1046610	3.92			
540-36-3	1,4-Difluorobenzene	1623080	4.74			
3114-55-4	Chlorobenzene-d5	1375580	9.69			
3855-82-1	1,4-Dichlorobenzene-d4	615668	13.41			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/02/11
Project:	CTO WE08	Date Received:	06/04/11
Client Sample ID:	FD-TW118-1620	SDG No.:	C2506
Lab Sample ID:	C2506-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035511.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
1000210-90-2	7-Methylbicyclo[4.2.0]octane	6.9	J		10.51	ug/L
103-65-1	n-propylbenzene	3.1	J		11.94	ug/L
108-67-8	1,3,5-Trimethylbenzene	1.6	J		12.29	ug/L
000622-96-8	Benzene, 1-ethyl-4-methyl-	7.3	J		12.57	ug/L
98-06-6	tert-Butylbenzene	1.3	J		12.75	ug/L
95-63-6	1,2,4-Trimethylbenzene	2.7	J		12.87	ug/L
135-98-8	sec-Butylbenzene	5.3	J		13.03	ug/L
000141-93-5	Benzene, 1,3-diethyl-	8.0	J		13.77	ug/L
104-51-8	n-Butylbenzene	3.1	J		13.94	ug/L
000135-01-3	Benzene, 1,2-diethyl-	7.9	J		14.09	ug/L
001074-17-5	Benzene, 1-methyl-2-propyl-	11	J		14.23	ug/L
002870-04-4	Benzene, 2-ethyl-1,3-dimethyl-	12	J		14.4	ug/L
001758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	15	J		14.51	ug/L
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	7.5	J		15.15	ug/L
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl	10	J		15.87	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/02/11
Project:	CTO WE08	Date Received:	06/04/11
Client Sample ID:	FD-TW118-2125	SDG No.:	C2506
Lab Sample ID:	C2506-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035512.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/02/11
Project:	CTO WE08	Date Received:	06/04/11
Client Sample ID:	FD-TW118-2125	SDG No.:	C2506
Lab Sample ID:	C2506-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035512.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1		0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.6		70 - 120	99%	SPK: 50
1868-53-7	Dibromofluoromethane	48.1		85 - 115	96%	SPK: 50
2037-26-5	Toluene-d8	46.8		85 - 120	94%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.4		75 - 120	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	990050	3.92			
540-36-3	1,4-Difluorobenzene	1570870	4.74			
3114-55-4	Chlorobenzene-d5	1332100	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	587756	13.4			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/02/11
Project:	CTO WE08	Date Received:	06/04/11
Client Sample ID:	FD-TW118-2125	SDG No.:	C2506
Lab Sample ID:	C2506-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035512.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TENTATIVE IDENTIFIED COMPOUNDS						
108-67-8	1,3,5-Trimethylbenzene	1.1	J		12.28	ug/L
98-06-6	tert-Butylbenzene	1.9	J		12.75	ug/L
95-63-6	1,2,4-Trimethylbenzene	2.5	J		12.87	ug/L
135-98-8	sec-Butylbenzene	1.6	J		13.02	ug/L
99-87-6	p-Isopropyltoluene	0.51	J		13.29	ug/L
104-51-8	n-Butylbenzene	0.80	J		13.95	ug/L
91-20-3	Naphthalene	0.59	J		16.94	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/02/11
Project:	CTO WE08	Date Received:	06/04/11
Client Sample ID:	FD-TW118-2630	SDG No.:	C2506
Lab Sample ID:	C2506-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035513.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	1	ug/L
67-64-1	Acetone	2.5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	1	ug/L
71-43-2	Benzene	0.5	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	5	ug/L
108-88-3	Toluene	0.5	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/02/11
Project:	CTO WE08	Date Received:	06/04/11
Client Sample ID:	FD-TW118-2630	SDG No.:	C2506
Lab Sample ID:	C2506-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035513.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	1	ug/L
100-42-5	Styrene	0.5	U	0.36	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	1	ug/L
123-91-1	1,4-Dioxane	10	U	20	20	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.1		70 - 120	98%	SPK: 50
1868-53-7	Dibromofluoromethane	50.6		85 - 115	101%	SPK: 50
2037-26-5	Toluene-d8	45.6		85 - 120	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.7		75 - 120	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	1014250	3.92			
540-36-3	1,4-Difluorobenzene	1565660	4.74			
3114-55-4	Chlorobenzene-d5	1352190	9.7			
3855-82-1	1,4-Dichlorobenzene-d4	563961	13.41			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	06/02/11
Project:	CTO WE08	Date Received:	06/04/11
Client Sample ID:	FD-TW118-2630	SDG No.:	C2506
Lab Sample ID:	C2506-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035513.D	1		06/15/11	VG061511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

APPENDIX E

VALIDATION LETTERS

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYACK**	**DATE:**	**DECEMBER 1, 2010**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP), CALVERTON
CTO WE08
SAMPLE DELIVERY GROUPS (SDGs) 1010001 & 1010002

SAMPLES: 19 /Soil/VOC

S7-DUP01-20100927	S7-DUP02-20100930	S7-SB101-17.518.0
S7-SB102-17.518.0	S7-SB103-18.018.5	S7-SB103-21.522.0
S7-SB104-15.015.5	S7-SB104-19.019.5	S7-SB105-18.018.5
S7-SB106-18.018.5	S7-SB107-18.018.5	S7-SB107-27.528.0
S7-SB108-16.517.0	S7-SB109-19.019.5	S7-SB109-33.033.5
S7-SB110-17.518.0	S7-SB110-32.032.5	S7-SB111-18.519.0
S7-SB111-28.028.5		

1/Aqueous/VOC

TB-20100927

Overview

The sample sets for NWIRP Calverton, SDGs 1010001 & 1010002 consisted of nineteen (19) soil environmental samples and one (1) aqueous trip blank. The soil samples were analyzed for volatile organic compounds (VOC). Two field duplicate sample pairs were associated with this sample data group (SDG); S7-DUP01-20100927/S7-SB102-17.518.0 and S7-DUP02-20100930/S7-SB109-19.019.5.

The samples were collected by Tetra Tech on September 27, 29 and 30, 2010 and analyzed by CompuChem, a division of Liberty Analytical Corporation. All analyses were conducted in accordance with EPA Method SW-846 8260B analytical and reporting protocols. The data contained in this SDG was validated with regard to the following parameters:

- * Data completeness
- * Hold times
- * GC/MS System Tuning and Performance
- Initial/continuing calibrations
- Laboratory Method Blank Results
- Surrogate Spike Recoveries
- * Internal Standard Recoveries
- * Laboratory Control Sample/Laboratory Control Sample Duplicate Recoveries
- Matrix Spike/Matrix Spike Duplicate Results
- Field Duplicate Precision Results
- * Compound Identification
- * Compound Quantitation
- * Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical

results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

Volatile

The initial calibration performed on instrument 5975hp91 on 10/01/10 had Percent Relative Standard Deviations (%RSDs) above the 15% quality control limit for bromomethane, methylene chloride, and 2-hexanone. The non-detected results reported for these compounds in the affected samples, S7-DUP01-20100927, S7-SB101-17.518.0, S7-SB102-17.518.0, S7-SB103-21.522.0, S7-SB104-15.015.5, S7-SB105-18.018.5, S7-SB106-18.018.5, S7-SB108-16.517.0, S7-SB110-32.032.5, and S7-SB111-28.028.5, were qualified as estimated, (UJ). No action was taken for samples S7-DUP02-20100930 and S&-SB103-18.018.5 since the low level soil analyses was not used in the data validation.

The %RSDs for 1,2,4-trichlorobenzene and naphthalene were greater than the 15% quality control limit for the initial calibration performed on instrument 5975hp91 on 10/04/10. The non-detected results reported for 1,2,4-trichlorobenzene were qualified as estimated, (UJ) in the associated samples. The positive and non-detected results reported for naphthalene in the affected samples were qualified as estimated, (J) and (UJ), respectively. Samples S7-DUP02-20100930ME, S7-SB103-18.018.5ME, S7-SB104-19.019.5, S7-SB107-18.018.5ME, S7-SB107-27.528.0, S7-SB109-19.019.5, S7-SB109-33.033.5, S7-SB110-17.518.0, and S7-SB111-18.519.0. The results from the low level soil analysis of S7-SB107-18.018.5 were not affected since this analysis was not used in the data validation.

The following analytes were detected in the associated method blanks and the trip blank at the maximum concentrations as indicated below:

Compound	Maximum Conc. (µg/Kg)	Action Level (µg/Kg)
Toluene [1]	0.66	3.30
1,2,4-Trichlorobenzene [1]	0.50	2.50
Naphthalene[1]	0.71	3.55
Methylene Chloride[2]	1.80	18.0
Methylene Chloride[3]	3.20	32.0
Toluene [3]	0.40	2.00
Acetone[4]	3.0 µg/L	30.0 µg/L
Methylene Chloride[5]	1.8 µg/L	18.0 µg/L
Toluene[5]	0.31 µg/L	1.55 µg/L

1 Affecting samples S7-DUP01-20100927, S7-DUP02-20100930, S7-SB101-17.518.0, S7-SB102-17.518.0, S7-SB103-18.018.5, S7-SB103-21.522.0, S7-SB104-15.015., S7-SB105-18.018.5, S7-SB106-18.018.5, S7-SB108-16.517.0, S7-SB110-32.032.5, and S7-SB111-28.028.5.

2 Affecting samples S7-DUP02-20100930ME, S7-SB103-18.018.5ME, S7-SB104-19.019.5, S7-SB107-18.018.5ME, S7-SB109-19.019.5, S7-SB109-33.033.5, S7-SB110-17.518.0, and S7-SB111-18.519.0.

3 Affecting samples S7-SB107-18.018.5 and S7-SB107-27.528.0.

4 Detected in the trip blank, TB-2010027, affecting all samples in SDG 1010001.

5 Affecting sample TB-20100927.

An action level of 10X the maximum contaminant concentration for the common laboratory contaminant compounds acetone and methylene chloride, and 5X for other contaminant compounds was established to evaluate laboratory contamination for the above compounds. Dilution factors, percent moisture and sample aliquots were taken into consideration during

the application of all action levels. Positive results less than the action level were qualified as non-detected, (U), as a result of laboratory blank contamination and the results were reported to the Level of Quantitation (LOQ). Field quality control samples are not qualified due to laboratory blank contamination; therefore no qualification action was taken on TB-20100927.

The surrogate spike Percent Recoveries (%Rs) for Bromofluorobenzene (BFB) were above the quality control limit in samples S7-SB103-18.018.5ME, S7-SB104-19.019.5, S7-SB109-19.019.5, S7-SB111-18.519.0, and S7-SB107-27.528.0. The positive results were qualified as estimated, (J) in the above samples for surrogate noncompliance. No action was taken on the non-detected results in this sample.

The surrogate spike compound, Toluene-d8, had a %R below the quality control limit in the low level soil analysis of sample S7-SB103-18.018.5. The positive and non-detected results were qualified as estimated, (J) and (UJ), respectively.

The %Rs for surrogates, Toluene-d8 and BFB were high in the low level soil analysis of sample S7-DUP02-20100930. In addition, BFB was high in sample in the low level soil analysis S7-SB107-18.018.5. Positive results used from the low level soil analyses were qualified as estimated, (J).

The %R for the surrogate spike compound, Toluene-d8, was below the quality control limit in the trip blank sample, TB-20100927 and associated Laboratory Control Spike (LCS) sample, VICLCS. The positive and non-detected results were qualified as estimated, (J) and (UJ), respectively, in the trip blank. No further action was taken for the noncompliant LCS sample.

The Laboratory Control Method Blank, VBLKIC, and LCS sample, VICLCS, had surrogate %Rs outside the quality control limits. No action was taken since similar %Rs were not reported in the associated environmental samples.

The Matrix Spike/Matrix Spike Duplicate (MS/MSD) %Rs were below the quality control limits for 1,1,2-trichloro-1,2,2-trifluoroethane, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene,1,2,4 trichlorobenzene, naphthalene in the MSD sample. The Relative Percent Differences (RPDs) for the aforementioned compounds minus 1,1,2-trichloro-1,2,2-trifluoroethane were greater than the 30% quality control limit. In addition, the %R for 1,2,4-trichlorobenzene was below the quality control limit and the RPD for 1,2-dibromo-3-chloropropane was greater than 30%. The positive and non-detected results reported for these compounds were qualified as estimated, (J) and (UJ), respectively, in the MS/MSD sample, S7-SB104-15.015.5.

Field duplicate imprecision was noted in the field duplicate pair S7-DUP01-20100927/S7-SB102-17.518.0 for 1,1,2-trichloro-1,2,2-trifluoroethane. The compound detected in sample S7-SB102-17.518.5 but not in the duplicate pair sample, S7-DUP01-20100927. The difference between the positive result and the non-detected result exceeded 2X the Level of Detection (LOD), hence, the positive and non-detected results were qualified as estimated, (J) and (UJ).

Cyclohexane was detected in sample S7-SB109-19.019.5 but not in the duplicate pair sample, S7-DUP02-20100930. Since the difference between the positive result and the non-detected result was greater than 2X the LOD, the results were qualified as estimated, (J) and (UJ) in the field duplicate pair.

Isopropylbenzene was detected above the LOQ in the low level soil analysis of sample, SDUP02-20100930, but not in the medium level soil analysis of the field duplicate pair sample, S7-SB109-19.019.5. Since the difference between the positive result and the non-detected result was greater than 2X the LOD, the results were qualified as estimated, (J) and (UJ) in the field duplicate pair.

The compound, isopropylbenzene, was detected above the LOQ in the low level soil analysis of sample, SDUP02-20100930, but not in the medium level soil analysis. This result was used in the data validation.

Naphthalene was detected below the LOQ but above the LOD in the medium level soil analysis of sample S7SB107-18.018.5. This compound was not detected in the low level soil analysis. This positive result was used in the data validation and qualified as estimated, (J).

1,1,2-trichloro-1,2,2-tricfluoroethane and isopropylbenzene were detected above the LOQ in the low level soil sample analysis in sample, S7-SB107-18.018.5. Carbon disulfide and methylcyclohexane were also detected below the LOQ but above the LOD. These compounds were not detected in the medium level soil analysis of this sample. These positive results were used in the data validation.

1,1,2-trichloro-1,2,2-trifluorobenzene and xylenes (total) were detected above the LOQ in the low level soil sample analysis in sample, S7-SB103-18.018.5. Carbon disulfide, methylcyclohexane, and ethylbenzene were also detected below the LOQ but above the LOD. These compounds were not detected in the medium level soil analysis of this sample. These positive results were used in the data validation.

Positive results reported below the LOQ but above the method detection limit were qualified as estimated, (J). Non-detected results are reported to the LOD.

Additional Comments

Samples S7-SB103-18.018.5, S7-SB107-18.018.5, and S7-DUP02-20100930 were analyzed as low and medium level soils. These samples are designated by the laboratory with the suffix ME. The medium level soil analyses results with the exceptions noted above were used in the validation of the data.

Samples S7-SB104-19.019.5, S7-SB109-19.019.5, S7-SB109-33.033.5, S7-SB110-17.518.0, and S7-SB111-18.519.0 were analyzed as medium level soils due to the matrix. Low level soil analysis was not performed on these samples.

Some Laboratory Form Is were not properly flagged for non-detected acetone results. The environmental sample Form Is were manually corrected by the data validator.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Some compounds were estimated due to Initial calibration %RSDs greater than the quality control limit. Method blank contamination resulted in qualification of sample analyte data. Some laboratory quality control samples had surrogate noncompliances. Acetone results on some sample Form Is were incorrect.

Other Factors Affecting Data Quality: The trip blank contained the common laboratory contaminant acetone. The MS/MSD sample was qualified for several compounds due to %Rs and RPDs outside the quality control limits. Noncompliant surrogate %Rs resulted in the qualification of several sample results. Positive results reported below the LOQ but above the method detection limit were qualified as estimated, (J). Non-detected results are reported to the LOD. Field duplicate imprecision was noted. Several samples were analyzed as medium level soils due to the matrix.

The data for these analyses were reviewed with reference to the SOP #HW-24 Revision #2, October 2006, USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B (October 2006) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006).

TetraTech NUS
Michelle L. Allen
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02045	NSAMPLE	S7-DUP01-20100927			S7-DUP02-20100930			S7-DUP02-20100930ME			S7-SB101-17.5 18.0		
SDG: 1010001	LAB_ID	1010001-04			1010001-14			1010001-14RE1			1010001-02		
FRACTION: OV	SAMP_DATE	9/27/2010			9/30/2010			9/30/2010			9/27/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.0			87.0			87.0			81.0		
	DUP_OF	S7-SB102-17.518.0			S7-SB109-19.019.5			S7-SB109-19.019.5					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.94	U					38	U		1	U	
1,1,2,2-TETRACHLOROETHANE		0.94	U					38	U		1	U	
1,1,2-TRICHLOROETHANE		2.4	U					94	U		2.6	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.94	UJ	G				38	U		1	U	
1,1-DICHLOROETHANE		0.94	U					38	U		1	U	
1,1-DICHLOROETHENE		2.4	U					94	U		2.6	U	
1,1-DICHLOROPROPENE		0.94	U					38	U		1	U	
1,2,4-TRICHLOROBENZENE		0.94	U					38	UJ	C	1	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.4	U					94	U		2.6	U	
1,2-DIBROMOETHANE		0.24	U					9.4	U		0.26	U	
1,2-DICHLOROBENZENE		0.94	U					38	U		1	U	
1,2-DICHLOROETHANE		0.94	U					38	U		1	U	
1,2-DICHLOROPROPANE		2.4	U					94	U		2.6	U	
1,3-DICHLOROBENZENE		0.94	U					38	U		1	U	
1,4-DICHLOROBENZENE		0.24	U					9.4	U		0.26	U	
2-BUTANONE		2.4	U					94	U		2.6	U	
2-HEXANONE		2.4	UJ	C				94	U		2.6	UJ	C
4-METHYL-2-PENTANONE		2.4	U					94	U		2.6	U	
ACETONE		12	U	A				240	U		6.6	U	
BENZENE		0.94	U					38	U		1	U	
BROMODICHLOROMETHANE		0.94	U					38	U		1	U	
BROMOFORM		2.4	U					94	U		2.6	U	
BROMOMETHANE		0.94	UJ	C				38	U		1	UJ	C
CARBON DISULFIDE		0.24	U					9.4	U		0.26	U	
CARBON TETRACHLORIDE		0.94	U					38	U		1	U	
CHLOROBENZENE		0.24	U					9.4	U		0.26	U	
CHLORODIBROMOMETHANE		0.94	U					38	U		1	U	
CHLOROETHANE		2.4	U					94	U		2.6	U	
CHLOROFORM		0.94	U					38	U		1	U	
CHLOROMETHANE		0.94	U					38	U		1	U	
CIS-1,2-DICHLOROETHENE		0.94	U					38	U		1	U	
CIS-1,3-DICHLOROPROPENE		0.94	U					38	U		1	U	
CYCLOHEXANE		0.94	U					38	UJ	G	1	U	
DICHLORODIFLUOROMETHANE		0.94	U					38	U		1	U	
ETHYLBENZENE		2.4	U					94	U		2.6	U	
ISOPROPYLBENZENE		0.24	U		8.1	J	GR				0.26	U	

PROJ_NO: 02045	NSAMPLE	S7-SB102-17.5 18.0			S7-SB103-18.0 18.5			S7-SB103-18.018.5ME			S7-SB103-21.5 22.0		
SDG: 1010001	LAB_ID	1010001-03			1010001-05			1010001-05RE1			1010001-06		
FRACTION: OV	SAMP_DATE	9/27/2010			9/27/2010			9/27/2010			9/27/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.0			83.0			83.0			81.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.82	U					51	U		0.99	U	
1,1,2,2-TETRACHLOROETHANE		0.82	U					51	U		0.99	U	
1,1,2-TRICHLOROETHANE		2	U					130	U		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		6.3	J	G	73	J	R				1.4	J	P
1,1-DICHLOROETHANE		0.82	U					51	U		0.99	U	
1,1-DICHLOROETHENE		2	U					130	U		2.5	U	
1,1-DICHLOROPROPENE		0.82	U					51	U		0.99	U	
1,2,4-TRICHLOROBENZENE		0.82	U					51	UJ	C	0.99	U	
1,2-DIBROMO-3-CHLOROPROPANE		2	U					130	U		2.5	U	
1,2-DIBROMOETHANE		0.2	U					13	U		0.25	U	
1,2-DICHLOROBENZENE		0.82	U					51	U		0.99	U	
1,2-DICHLOROETHANE		0.82	U					51	U		0.99	U	
1,2-DICHLOROPROPANE		2	U					130	U		2.5	U	
1,3-DICHLOROBENZENE		0.82	U					51	U		0.99	U	
1,4-DICHLOROBENZENE		0.2	U					13	U		0.25	U	
2-BUTANONE		2	U					130	U		2.5	J	P
2-HEXANONE		2	UJ	C				130	U		2.5	UJ	C
4-METHYL-2-PENTANONE		2	U					130	U		2.5	U	
ACETONE		11	U	A				320	U		12	U	A
BENZENE		0.82	U					51	U		0.99	U	
BROMODICHLOROMETHANE		0.82	U					51	U		0.99	U	
BROMOFORM		2	U					130	U		2.5	U	
BROMOMETHANE		0.82	UJ	C				51	U		0.99	UJ	C
CARBON DISULFIDE		0.2	U		2.1	J	PR				0.25	U	
CARBON TETRACHLORIDE		0.82	U					51	U		0.99	U	
CHLOROBENZENE		0.2	U					13	U		0.25	U	
CHLORODIBROMOMETHANE		0.82	U					51	U		0.99	U	
CHLOROETHANE		2	U					130	U		2.5	U	
CHLOROFORM		0.82	U					51	U		0.99	U	
CHLOROMETHANE		0.82	U					51	U		0.99	U	
CIS-1,2-DICHLOROETHENE		0.82	U					51	U		0.99	U	
CIS-1,3-DICHLOROPROPENE		0.82	U					51	U		0.99	U	
CYCLOHEXANE		0.82	U					51	U		0.99	U	
DICHLORODIFLUOROMETHANE		0.82	U					51	U		0.99	U	
ETHYLBENZENE		2	U		1.1	J	PR				2.5	U	
ISOPROPYLBENZENE		0.2	U					13	U		0.25	U	

PROJ_NO: 02045	NSAMPLE	S7-SB104-15.0 15.5			S7-SB104-19.0 19.5			S7-SB105-18.0 18.5			S7-SB106-18.0 18.5		
SDG: 1010001	LAB_ID	1010001-01			1010001-07			1010001-08			1010001-09		
FRACTION: OV	SAMP_DATE	9/29/2010			9/29/2010			9/29/2010			9/29/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.0			81.0			80.0			84.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1.1	U		43	U		1	U		1	U	
1,1,2,2-TETRACHLOROETHANE		1.1	U		43	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		2.8	U		110	U		2.6	U		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		7.5	J	D	1000	J	R	1	U		1	U	
1,1-DICHLOROETHANE		1.1	U		43	U		1	U		1	U	
1,1-DICHLOROETHENE		2.8	U		110	U		2.6	U		2.5	U	
1,1-DICHLOROPROPENE		1.1	U		43	U		1	U		1	U	
1,2,4-TRICHLOROBENZENE		1.1	UJ	D	43	UJ	C	1	U		1	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.8	UJ	D	110	U		2.6	U		2.5	U	
1,2-DIBROMOETHANE		0.28	U		11	U		0.26	U		0.25	U	
1,2-DICHLOROBENZENE		1.1	UJ	D	43	U		1	U		1	U	
1,2-DICHLOROETHANE		1.1	U		43	U		1	U		1	U	
1,2-DICHLOROPROPANE		2.8	U		110	U		2.6	U		2.5	U	
1,3-DICHLOROBENZENE		1.1	UJ	D	43	U		1	U		1	U	
1,4-DICHLOROBENZENE		0.28	UJ	D	11	U		0.26	U		0.25	U	
2-BUTANONE		2.8	U		110	U		2.6	U		2.5	U	
2-HEXANONE		2.8	UJ	C	110	U		2.6	UJ	C	2.5	UJ	C
4-METHYL-2-PENTANONE		2.8	U		110	U		2.6	U		2.5	U	
ACETONE		7.2	U		270	U		6.5	U		13	U	A
BENZENE		1.1	U		43	U		1	U		1	U	
BROMODICHLOROMETHANE		1.1	U		43	U		1	U		1	U	
BROMOFORM		2.8	U		110	U		2.6	U		2.5	U	
BROMOMETHANE		1.1	UJ	C	43	U		1	UJ	C	1	UJ	C
CARBON DISULFIDE		0.28	U		11	U		0.26	U		0.25	U	
CARBON TETRACHLORIDE		1.1	U		43	U		1	U		1	U	
CHLOROBENZENE		0.28	U		11	U		0.26	U		0.25	U	
CHLORODIBROMOMETHANE		1.1	U		43	U		1	U		1	U	
CHLOROETHANE		2.8	U		110	U		2.6	U		2.5	U	
CHLOROFORM		1.1	U		43	U		1	U		1	U	
CHLOROMETHANE		1.1	U		43	U		1	U		1	U	
CIS-1,2-DICHLOROETHENE		1.1	U		43	U		1	U		1	U	
CIS-1,3-DICHLOROPROPENE		1.1	U		43	U		1	U		1	U	
CYCLOHEXANE		1.1	U		87	J	PR	1	U		1	U	
DICHLORODIFLUOROMETHANE		1.1	U		43	U		1	U		1	U	
ETHYLBENZENE		2.8	U		83	J	PR	2.6	U		2.5	U	
ISOPROPYLBENZENE		0.28	U		11	U		0.26	U		0.25	U	

PROJ_NO: 02045	NSAMPLE	S7-SB107-18.0 18.5			S7-SB107-18.018.5ME			S7-SB107-27.5 28.0			S7-SB108-16.5 17.0		
SDG: 1010001	LAB_ID	1010001-10			1010001-10RE1			1010001-11			1010001-12		
FRACTION: OV	SAMP_DATE	9/29/2010			9/29/2010			9/29/2010			9/29/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	83.0			83.0			84.0			84.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE					60	U		0.9	U		0.78	U	
1,1,2,2-TETRACHLOROETHANE					60	U		0.9	U		0.78	U	
1,1,2-TRICHLOROETHANE					150	U		2.2	U		1.9	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		6	J	R				10	J	R	0.78	U	
1,1-DICHLOROETHANE					60	U		0.9	U		0.78	U	
1,1-DICHLOROETHENE					150	U		2.2	U		1.9	U	
1,1-DICHLOROPROPENE					60	U		0.9	U		0.78	U	
1,2,4-TRICHLOROBENZENE					60	UJ	C	0.9	UJ	C	0.78	U	
1,2-DIBROMO-3-CHLOROPROPANE					150	U		2.2	U		1.9	U	
1,2-DIBROMOETHANE					15	U		0.22	U		0.19	U	
1,2-DICHLOROBENZENE					60	U		0.9	U		0.78	U	
1,2-DICHLOROETHANE					60	U		0.9	U		0.78	U	
1,2-DICHLOROPROPANE					150	U		2.2	U		1.9	U	
1,3-DICHLOROBENZENE					60	U		0.9	U		0.78	U	
1,4-DICHLOROBENZENE					15	U		0.22	U		0.19	U	
2-BUTANONE					150	U		2.2	U		1.9	U	
2-HEXANONE					150	U		2.2	U		1.9	UJ	C
4-METHYL-2-PENTANONE					150	U		2.2	U		1.9	U	
ACETONE					380	U		5.7	U		4.9	U	
BENZENE					60	U		0.9	U		0.78	U	
BROMODICHLOROMETHANE					60	U		0.9	U		0.78	U	
BROMOFORM					150	U		2.2	U		1.9	U	
BROMOMETHANE					60	U		0.9	U		0.78	UJ	C
CARBON DISULFIDE		0.55	J	PR				0.99	J	PR	0.19	U	
CARBON TETRACHLORIDE					60	U		0.9	U		0.78	U	
CHLOROBENZENE					15	U		0.22	U		0.19	U	
CHLORODIBROMOMETHANE					60	U		0.9	U		0.78	U	
CHLOROETHANE					150	U		2.2	U		1.9	U	
CHLOROFORM					60	U		0.9	U		0.78	U	
CHLOROMETHANE					60	U		0.9	U		0.78	U	
CIS-1,2-DICHLOROETHENE					60	U		0.9	U		0.78	U	
CIS-1,3-DICHLOROPROPENE					60	U		0.9	U		0.78	U	
CYCLOHEXANE					60	U		0.71	J	PR	0.78	U	
DICHLORODIFLUOROMETHANE					60	U		0.9	U		0.78	U	
ETHYLBENZENE					150	U		2.2	U		1.9	U	
ISOPROPYLBENZENE		8.6	J	R				20	J	R	0.19	U	

PROJ_NO: 02045	NSAMPLE	S7-SB109-19.0 19.5			S7-SB109-33.0 33.5			S7-SB110-17.5 18.0			S7-SB110-32.0 32.5		
SDG: 1010001	LAB_ID	1010001-13			1010001-15			1010001-16			1010001-17		
FRACTION: OV	SAMP_DATE	9/30/2010			9/30/2010			9/30/2010			9/30/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	80.0			86.0			85.0			83.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		46	U		44	U		43	U		0.96	U	
1,1,2,2-TETRACHLOROETHANE		46	U		44	U		43	U		0.96	U	
1,1,2-TRICHLOROETHANE		110	U		110	U		110	U		2.4	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		46	U		44	U		43	U		0.96	U	
1,1-DICHLOROETHANE		46	U		44	U		43	U		0.96	U	
1,1-DICHLOROETHENE		110	U		110	U		110	U		2.4	U	
1,1-DICHLOROPROPENE		46	U		44	U		43	U		0.96	U	
1,2,4-TRICHLOROBENZENE		46	UJ	C	44	UJ	C	43	UJ	C	0.96	U	
1,2-DIBROMO-3-CHLOROPROPANE		110	U		110	U		110	U		2.4	U	
1,2-DIBROMOETHANE		11	U		11	U		11	U		0.24	U	
1,2-DICHLOROBENZENE		46	U		44	U		43	U		0.96	U	
1,2-DICHLOROETHANE		46	U		44	U		43	U		0.96	U	
1,2-DICHLOROPROPANE		110	U		110	U		110	U		2.4	U	
1,3-DICHLOROBENZENE		46	U		44	U		43	U		0.96	U	
1,4-DICHLOROBENZENE		11	U		11	U		11	U		0.24	U	
2-BUTANONE		110	U		110	U		110	U		2.4	U	
2-HEXANONE		110	U		110	U		110	U		2.4	UJ	C
4-METHYL-2-PENTANONE		110	U		110	U		110	U		2.4	U	
ACETONE		290	U		280	U		270	U		6	U	
BENZENE		46	U		44	U		43	U		0.96	U	
BROMODICHLOROMETHANE		46	U		44	U		43	U		0.96	U	
BROMOFORM		110	U		110	U		110	U		2.4	U	
BROMOMETHANE		46	U		44	U		43	U		0.96	UJ	C
CARBON DISULFIDE		11	U		11	U		11	U		0.24	U	
CARBON TETRACHLORIDE		46	U		44	U		43	U		0.96	U	
CHLOROBENZENE		11	U		11	U		11	U		0.24	U	
CHLORODIBROMOMETHANE		46	U		44	U		43	U		0.96	U	
CHLOROETHANE		110	U		110	U		110	U		2.4	U	
CHLOROFORM		46	U		44	U		43	U		0.96	U	
CHLOROMETHANE		46	U		44	U		43	U		0.96	U	
CIS-1,2-DICHLOROETHENE		46	U		44	U		43	U		0.96	U	
CIS-1,3-DICHLOROPROPENE		46	U		44	U		43	U		0.96	U	
CYCLOHEXANE		120	J	GPR	80	J	P	43	U		0.96	U	
DICHLORODIFLUOROMETHANE		46	U		44	U		43	U		0.96	U	
ETHYLBENZENE		110	U		110	U		110	U		2.4	U	
ISOPROPYLBENZENE		11	UJ	G	11	U		11	U		0.96	J	P

PROJ_NO: 02045	NSAMPLE	S7-SB111-18.5 19.0			S7-SB111-28.0 28.5		
SDG: 1010001	LAB_ID	1010001-18			1010001-19		
FRACTION: OV	SAMP_DATE	9/30/2010			9/30/2010		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	86.0			86.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		48	U		1	U	
1,1,2,2-TETRACHLOROETHANE		48	U		1	U	
1,1,2-TRICHLOROETHANE		120	U		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		48	U		1	U	
1,1-DICHLOROETHANE		48	U		1	U	
1,1-DICHLOROETHENE		120	U		2.5	U	
1,1-DICHLOROPROPENE		48	U		1	U	
1,2,4-TRICHLOROBENZENE		48	UJ	C	1	U	
1,2-DIBROMO-3-CHLOROPROPANE		120	U		2.5	U	
1,2-DIBROMOETHANE		12	U		0.25	U	
1,2-DICHLOROBENZENE		48	U		1	U	
1,2-DICHLOROETHANE		48	U		1	U	
1,2-DICHLOROPROPANE		120	U		2.5	U	
1,3-DICHLOROBENZENE		48	U		1	U	
1,4-DICHLOROBENZENE		520	J	R	0.25	U	
2-BUTANONE		120	U		2.5	U	
2-HEXANONE		120	U		2.5	UJ	C
4-METHYL-2-PENTANONE		120	U		2.5	U	
ACETONE		300	U		12	U	A
BENZENE		48	U		1	U	
BROMODICHLOROMETHANE		48	U		1	U	
BROMOFORM		120	U		2.5	U	
BROMOMETHANE		48	U		1	UJ	C
CARBON DISULFIDE		12	U		0.25	U	
CARBON TETRACHLORIDE		48	U		1	U	
CHLOROBENZENE		12	U		0.25	U	
CHLORODIBROMOMETHANE		48	U		1	U	
CHLOROETHANE		120	U		2.5	U	
CHLOROFORM		48	U		1	U	
CHLOROMETHANE		48	U		1	U	
CIS-1,2-DICHLOROETHENE		48	U		1	U	
CIS-1,3-DICHLOROPROPENE		48	U		1	U	
CYCLOHEXANE		48	U		1	U	
DICHLORODIFLUOROMETHANE		48	U		1	U	
ETHYLBENZENE		120	U		2.5	U	
ISOPROPYLBENZENE		12	U		0.25	U	

PROJ_NO: 02045	NSAMPLE	S7-DUP01-20100927			S7-DUP02-20100930			S7-DUP02-20100930ME			S7-SB101-17.5 18.0		
SDG: 1010001	LAB_ID	1010001-04			1010001-14			1010001-14RE1			1010001-02		
FRACTION: OV	SAMP_DATE	9/27/2010			9/30/2010			9/30/2010			9/27/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.0			87.0			87.0			81.0		
	DUP_OF	S7-SB102-17.518.0			S7-SB109-19.019.5			S7-SB109-19.019.5					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
M+P-XYLENES		0.47	U					19	U		0.52	U	
METHYL ACETATE		2.4	U					94	U		2.6	U	
METHYL CYCLOHEXANE		0.94	U					38	U		1	U	
METHYL TERT-BUTYL ETHER		0.94	U					38	U		1	U	
METHYLENE CHLORIDE		0.94	UJ	C				190	U	A	1	UJ	C
NAPHTHALENE		0.94	U					38	UJ	C	1	U	
O-XYLENE		0.94	U					38	U		1	U	
STYRENE		0.24	U					9.4	U		0.26	U	
TETRACHLOROETHENE		2.4	U					94	U		2.6	U	
TOLUENE		4.7	U	A				16	J	P	5.2	U	A
TOTAL 1,2-DICHLOROETHENE		0.94	U					38	U		1	U	
TOTAL XYLENES		0.47	U					19	U		0.52	U	
TRANS-1,2-DICHLOROETHENE		2.4	U					94	U		2.6	U	
TRANS-1,3-DICHLOROPROPENE		0.94	U					38	U		1	U	
TRICHLOROETHENE		0.94	U					38	U		1	U	
TRICHLOROFLUOROMETHANE		0.94	U					38	U		1	U	
VINYL CHLORIDE		0.94	U					38	U		1	U	

PROJ_NO: 02045	NSAMPLE	S7-SB102-17.5 18.0			S7-SB103-18.0 18.5			S7-SB103-18.018.5ME			S7-SB103-21.5 22.0		
SDG: 1010001	LAB_ID	1010001-03			1010001-05			1010001-05RE1			1010001-06		
FRACTION: OV	SAMP_DATE	9/27/2010			9/27/2010			9/27/2010			9/27/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.0			83.0			83.0			81.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
M+P-XYLENES		0.41	U					26	U		0.5	U	
METHYL ACETATE		2	U					130	U		2.5	U	
METHYL CYCLOHEXANE		0.82	U		0.29	J	PR				0.99	U	
METHYL TERT-BUTYL ETHER		0.82	U					51	U		0.99	U	
METHYLENE CHLORIDE		0.82	UJ	C				260	U	A	0.99	UJ	C
NAPHTHALENE		0.82	U					51	UJ	C	0.99	U	
O-XYLENE		0.82	U					51	U		0.99	U	
STYRENE		0.2	U					13	U		0.25	U	
TETRACHLOROETHENE		2	U					130	U		2.5	U	
TOLUENE		4.1	U	A				23	J	PR	0.99	U	
TOTAL 1,2-DICHLOROETHENE		0.82	U					51	U		0.99	U	
TOTAL XYLENES		0.41	U		24	J	R				0.5	U	
TRANS-1,2-DICHLOROETHENE		2	U					130	U		2.5	U	
TRANS-1,3-DICHLOROPROPENE		0.82	U					51	U		0.99	U	
TRICHLOROETHENE		0.82	U					51	U		0.99	U	
TRICHLOROFLUOROMETHANE		0.82	U					51	U		0.99	U	
VINYL CHLORIDE		0.82	U					51	U		0.99	U	

PROJ_NO: 02045	NSAMPLE	S7-SB104-15.0 15.5			S7-SB104-19.0 19.5			S7-SB105-18.0 18.5			S7-SB106-18.0 18.5		
SDG: 1010001	LAB_ID	1010001-01			1010001-07			1010001-08			1010001-09		
FRACTION: OV	SAMP_DATE	9/29/2010			9/29/2010			9/29/2010			9/29/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.0			81.0			80.0			84.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
M+P-XYLENES		0.57	U		940	J	R	0.52	U		0.51	U	
METHYL ACETATE		2.8	U		110	U		2.6	U		2.5	U	
METHYL CYCLOHEXANE		1.1	U		360	J	R	1	U		1	U	
METHYL TERT-BUTYL ETHER		1.1	U		43	U		1	U		1	U	
METHYLENE CHLORIDE		1.1	UJ	C	210	U	A	1	UJ	C	1	UJ	C
NAPHTHALENE		1.1	UJ	D	3600	J	CR	1	U		1	U	
O-XYLENE		1.1	U		650	J	R	1	U		1	U	
STYRENE		0.28	U		11	U		0.26	U		0.25	U	
TETRACHLOROETHENE		2.8	U		110	U		2.6	U		2.5	U	
TOLUENE		1.1	U		63	J	PR	5.2	U	A	5.1	U	A
TOTAL 1,2-DICHLOROETHENE		1.1	U		43	U		1	U		1	U	
TOTAL XYLENES		0.57	U		1600	J	R	0.52	U		0.51	U	
TRANS-1,2-DICHLOROETHENE		2.8	U		110	U		2.6	U		2.5	U	
TRANS-1,3-DICHLOROPROPENE		1.1	U		43	U		1	U		1	U	
TRICHLOROETHENE		1.1	U		43	U		1	U		1	U	
TRICHLOROFLUOROMETHANE		1.1	U		43	U		1	U		1	U	
VINYL CHLORIDE		1.1	U		43	U		1	U		1	U	

PROJ_NO: 02045 SDG: 1010001 FRACTION: OV MEDIA: SOIL	NSAMPLE	S7-SB107-18.0 18.5			S7-SB107-18.018.5ME			S7-SB107-27.5 28.0			S7-SB108-16.5 17.0		
	LAB_ID	1010001-10			1010001-10RE1			1010001-11			1010001-12		
	SAMP_DATE	9/29/2010			9/29/2010			9/29/2010			9/29/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	83.0			83.0			84.0			84.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
M+P-XYLENES					30	U		6.9	J	PR	0.39	U	
METHYL ACETATE					150	U		2.2	U		1.9	U	
METHYL CYCLOHEXANE		1.6	J	PR				2.3	J	PR	0.78	U	
METHYL TERT-BUTYL ETHER					60	U		0.9	U		0.78	U	
METHYLENE CHLORIDE					300	U	A	4.5	U	A	0.78	UJ	C
NAPHTHALENE					100	J	CP	30	J	CR	0.78	U	
O-XYLENE					60	U		1.5	J	PR	0.78	U	
STYRENE					15	U		0.22	U		0.19	U	
TETRACHLOROETHENE					150	U		2.2	U		1.9	U	
TOLUENE					28	J	P	0.9	U		3.9	U	A
TOTAL 1,2-DICHLOROETHENE					60	U		0.9	U		0.78	U	
TOTAL XYLENES					30	U		8.3	J	R	0.39	U	
TRANS-1,2-DICHLOROETHENE					150	U		2.2	U		1.9	U	
TRANS-1,3-DICHLOROPROPENE					60	U		0.9	U		0.78	U	
TRICHLOROETHENE					60	U		0.9	U		0.78	U	
TRICHLOROFLUOROMETHANE					60	U		0.9	U		0.78	U	
VINYL CHLORIDE					60	U		0.9	U		0.78	U	

PROJ_NO: 02045 SDG: 1010001 FRACTION: OV MEDIA: SOIL	NSAMPLE	S7-SB109-19.0 19.5			S7-SB109-33.0 33.5			S7-SB110-17.5 18.0			S7-SB110-32.0 32.5		
	LAB_ID	1010001-13			1010001-15			1010001-16			1010001-17		
	SAMP_DATE	9/30/2010			9/30/2010			9/30/2010			9/30/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	80.0			86.0			85.0			83.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
M+P-XYLENES		23	U		22	U		22	U		0.48	U	
METHYL ACETATE		110	U		110	U		110	U		2.4	U	
METHYL CYCLOHEXANE		46	U		110	J	P	260			0.45	J	P
METHYL TERT-BUTYL ETHER		46	U		44	U		43	U		0.96	U	
METHYLENE CHLORIDE		230	U	A	220	U	A	220	U	A	0.96	UJ	C
NAPHTHALENE		46	UJ	C	44	UJ	C	480	J	C	4.8	U	A
O-XYLENE		46	U		44	U		43	U		0.96	U	
STYRENE		11	U		11	U		11	U		0.24	U	
TETRACHLOROETHENE		110	U		110	U		110	U		2.4	U	
TOLUENE		17	J	PR	44	U		43	U		4.8	U	A
TOTAL 1,2-DICHLOROETHENE		46	U		44	U		43	U		0.96	U	
TOTAL XYLENES		23	U		22	U		22	U		0.48	U	
TRANS-1,2-DICHLOROETHENE		110	U		110	U		110	U		2.4	U	
TRANS-1,3-DICHLOROPROPENE		46	U		44	U		43	U		0.96	U	
TRICHLOROETHENE		46	U		44	U		43	U		0.96	U	
TRICHLOROFLUOROMETHANE		46	U		44	U		43	U		0.96	U	
VINYL CHLORIDE		46	U		44	U		43	U		0.96	U	

PROJ_NO: 02045	NSAMPLE	S7-SB111-18.5 19.0			S7-SB111-28.0 28.5		
SDG: 1010001	LAB_ID	1010001-18			1010001-19		
FRACTION: OV	SAMP_DATE	9/30/2010			9/30/2010		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	86.0			86.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
M+P-XYLENES		24	U		0.5	U	
METHYL ACETATE		120	U		2.5	U	
METHYL CYCLOHEXANE		340	J	R	1	U	
METHYL TERT-BUTYL ETHER		48	U		1	U	
METHYLENE CHLORIDE		240	U	A	1	UJ	C
NAPHTHALENE		48	UJ	C	1	U	
O-XYLENE		48	U		1	U	
STYRENE		12	U		0.25	U	
TETRACHLOROETHENE		120	U		2.5	U	
TOLUENE		48	U		5	U	A
TOTAL 1,2-DICHLOROETHENE		48	U		1	U	
TOTAL XYLENES		24	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		120	U		2.5	U	
TRANS-1,3-DICHLOROPROPENE		48	U		1	U	
TRICHLOROETHENE		48	U		1	U	
TRICHLOROFLUOROMETHANE		48	U		1	U	
VINYL CHLORIDE		48	U		1	U	

PROJ_NO: 02045	NSAMPLE	TB-20100927
SDG: 1010002	LAB_ID	1010002-01
FRACTION: OV	SAMP_DATE	9/27/2010
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE	0.5	UJ	R
1,1,2,2-TETRACHLOROETHANE	2	UJ	R
1,1,2-TRICHLOROETHANE	2	UJ	R
1,1,2-TRICHLOROTRIFLUOROETHANE	2	UJ	R
1,1-DICHLOROETHANE	0.5	UJ	R
1,1-DICHLOROETHENE	2	UJ	R
1,1-DICHLOROPROPENE	0.5	UJ	R
1,2,4-TRICHLOROBENZENE	0.5	UJ	R
1,2-DIBROMO-3-CHLOROPROPANE	2	UJ	R
1,2-DIBROMOETHANE	0.5	UJ	R
1,2-DICHLOROBENZENE	0.5	UJ	R
1,2-DICHLOROETHANE	0.5	UJ	R
1,2-DICHLOROPROPANE	2	UJ	R
1,3-DICHLOROBENZENE	0.5	UJ	R
1,4-DICHLOROBENZENE	0.5	UJ	R
2-BUTANONE	5	UJ	R
2-HEXANONE	1.3	UJ	R
4-METHYL-2-PENTANONE	1.3	UJ	R
ACETONE	3	J	PR
BENZENE	0.5	UJ	R
BROMODICHLOROMETHANE	0.5	UJ	R
BROMOFORM	2	UJ	R
BROMOMETHANE	2	UJ	R
CARBON DISULFIDE	0.5	UJ	R
CARBON TETRACHLORIDE	0.5	UJ	R
CHLOROBENZENE	0.5	UJ	R
CHLORODIBROMOMETHANE	0.5	UJ	R
CHLOROETHANE	2	UJ	R
CHLOROFORM	0.5	UJ	R
CHLOROMETHANE	0.5	UJ	R
CIS-1,2-DICHLOROETHENE	2	UJ	R
CIS-1,3-DICHLOROPROPENE	2	UJ	R
CYCLOHEXANE	0.5	UJ	R
DICHLORODIFLUOROMETHANE	0.5	UJ	R
ETHYLBENZENE	0.5	UJ	R
ISOPROPYLBENZENE	0.5	UJ	R

PROJ_NO: 02045	NSAMPLE	TB-20100927
SDG: 1010002	LAB_ID	1010002-01
FRACTION: OV	SAMP_DATE	9/27/2010
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
M+P-XYLENES	1	UJ	R
METHYL ACETATE	2	UJ	R
METHYL CYCLOHEXANE	0.5	UJ	R
METHYL TERT-BUTYL ETHER	0.5	UJ	R
METHYLENE CHLORIDE	3.3	J	PR
NAPHTHALENE	2	UJ	R
O-XYLENE	0.5	UJ	R
STYRENE	0.5	UJ	R
TETRACHLOROETHENE	0.5	UJ	R
TOLUENE	0.36	J	PR
TOTAL 1,2-DICHLOROETHENE	0.5	UJ	R
TOTAL XYLENES	0.5	UJ	R
TRANS-1,2-DICHLOROETHENE	0.5	UJ	R
TRANS-1,3-DICHLOROPROPENE	0.5	UJ	R
TRICHLOROETHENE	0.5	UJ	R
TRICHLOROFLUOROMETHANE	0.5	UJ	R
VINYL CHLORIDE	0.5	UJ	R

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYACK**	**DATE:**	**AUGUST 16, 2011**
FROM:	**A. COGNETTI**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
NWIRP CALVERTON CTO WE08
SAMPLE DELIVERY GROUP (SDG) C2462

SAMPLES: 10/Aqueous/VOC

FD-DUP01-20110531	FD-TB01-20110531	FD-TW112-1620
FD-TW112-2125	FD-TW112-2630	FD-TW113-1620
FD-TW113-2125	FD-TW114-1620	FD-TW114-2125
FD-TW114-2630		

Overview

The sample set for NWIRP Calverton, CTO WE08, SDG C2462 consists of nine (9) environmental aqueous samples and a trip blank. The samples were analyzed for volatile organic compounds (VOC). The field duplicate pair within this SDG is FD-TW114-1620/FD-DUP01-20110531.

The samples were collected by Tetra Tech on May 31, 2011 and analyzed by Chemtech. VOC analyses were conducted in accordance with EPA Method SW-846 8260B. The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
• Holding times
• Initial/continuing calibrations
* • Laboratory Method Blank Results
• Surrogate Recoveries
* • Matrix Spike / Matrix Spike Duplicate Recoveries
* • Laboratory Control Sample Recoveries
* • Internal Standard Recoveries
* • Compound Quantitation
* • Compound Identification
* • Field Duplicate Precision
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

Volatile Organic Compounds

The relative response factor (RRF) for 1,4-dioxane was less than the 0.05 quality control limit in the initial calibrations of instrument MSVOAG on June 12 and June 13, 2011 and the continuing calibrations on June 12, 2011 @ 15:42, June 14, 2011 @11:46 and June 15, 2011 @00:06. The nondetected 1,4-dioxane results were qualified as rejected (UR) in the affected samples. All samples are affected by this noncompliance.

The percent relative standard deviations (%RSDs) for several compounds were greater than the 15% quality control limit on June 12 and June 13, 2011. The linear regression r^2 value was less than 0.995 for 1,1-dichloroethane, 2-butanone, acetone and cyclohexane in the initial calibration on June 12, 2011. The nondetected 1,1-dichloroethane, 2-butanone, acetone and cyclohexane results were qualified as estimated (UJ) in the affected samples FD-TB01-20110531, FD-TW113-1620 and FD-TW112-1620.

The continuing calibration percent differences (%Ds) for 1,4-dioxane were greater than 20% on June 12, 2011@ 15:42 and June 14, 2011 @ 11:46. The nondetected 1,4-dioxane results in the affected samples were rejected due to a more serious calibration noncompliance. No further validation action was warranted.

The following table summarizes the noncompliant surrogate spike recoveries performances and holding time exceedances:

Samples	Surrogate Recoveries	Within Holding Time	Validated	Qualifications
FD-TW112-2125	X (1)	Yes	Yes	J, UJ
FD-TW112-2125RE	Ok	No	No	
FD-TW114-2630	X (1)	Yes	Yes	J, UJ
FD-TW114-2630RE	Ok	No	No	
FD-TW112-2630	X (1)	Yes	Yes	J, UJ
FD-TW112-2630RE	Ok	No	No	
FD-TW114-2125	X (1)	Yes	Yes	J, UJ
FD-TW114-2125RE	Ok	No	No	
FD-TW114-1620	X (1)	Yes	Yes	J, UJ
FD-TW114-1620DL	Ok	No	Yes	J
FD-DUP01-20110531	+ (1)	Yes	Yes	J
FD-DUP01-20110531DL	Ok	No	Yes	J

Surrogate Recoveries: + Recovery greater than upper limit
X Recovery less than lower limit

Number of noncompliant surrogate recoveries noted in ( ).

Additional Comments

The matrix spike/matrix spike duplicate (MS/MSD) %R of 1,1,2-trichlorofluoromethane in spiked sample FD-TW113-1620 was greater than the upper quality control limit. No action was taken on the positive 1,1,2-trichlorofluormethane result in sample FD-TW113-1620 because the sample concentration is greater than 5X the spiked amount.

The MS %R of bromoform was less than the lower quality control limit in spiked sample FD-TW113-1620. The %R of bromoform was within quality control limits in the MSD and the relative percent difference (RPD). No action was taken on the nondetected bromoform result in sample FD-TW113-1620.

The RPDs for methyl acetate and bromochloromethane exceeded quality control limits in the MS/MSD of spiked sample FD-TW113-1620. The %Rs of methyl acetate and bromochloromethane were within quality control limits in the MS/MSD. No action was taken on the nondetected methyl acetate and bromochloromethane results in sample FD-TW113-1620.

Samples FD-DUP01-20110531 and FD-TW112-1620 were diluted in order to obtain a concentration of 1,1,2-trichlorofluoromethane within quality control limits.

Nondetected results were reported to the limit of detection (LOD).

LOD in the database is equal to the method detection limit. No action was taken.

Positive results below the Reporting Limit (RL) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

EXECUTIVE SUMMARY

Laboratory Performance Issues: RRFs for 1,4-dioxane were less than the 0.05 quality control limit resulting in the rejected of nondetected results. The %RSDs and r^2 values were outside quality control limits for 1,1-dichloroethane, 2-butanone, acetone and cyclohexane resulting in the qualification of data. The continuing calibration %D for 1,4-dioxane exceeded quality control limits The %R of surrogates toluene-d8 and 4-bromofluorobenzene were outside quality control limits resulting in the qualification of data. Holding time exceedances were noted in several diluted and reanalyzed samples.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference USEPA Region II Standard Operating Procedures for Validating Volatile Organic Compounds by SW-846 Method 8260B HW-24 Revision #2 (August 2008) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

The text of this report has been formulated to address only those problem areas affecting data quality.

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Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02045	NSAMPLE	FD-DUP01-20110531			FD-DUP01-20110531DL			FD-TB01-20110531			FD-TW112-1620		
SDG: C2462	LAB_ID	C2462-08			C2462-08DL			C2462-01			C2462-02		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	FD-TW114-1620			FD-TW114-1620								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U					0.5	U		0.5	UJ	R
1,1,2,2-TETRACHLOROETHANE		0.5	U					0.5	U		0.5	UJ	R
1,1,2-TRICHLOROETHANE		0.5	U					0.5	U		0.5	UJ	R
1,1,2-TRICHLOROTRIFLUOROETHANE					620	J	H	0.5	U				
1,1-DICHLOROETHANE		0.5	U					0.5	UJ	C	0.5	UJ	CR
1,1-DICHLOROETHENE		1.2	J	R				0.5	U		3	J	R
1,2,3-TRICHLOROBENZENE		0.5	U					0.5	U		0.5	UJ	R
1,2,4-TRICHLOROBENZENE		0.5	U					0.5	U		0.5	UJ	R
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U					0.5	U		0.5	UJ	R
1,2-DIBROMOETHANE		0.5	U					0.5	U		0.5	UJ	R
1,2-DICHLOROBENZENE		0.5	U					0.5	U		0.5	UJ	R
1,2-DICHLOROETHANE		0.5	U					0.5	U		0.5	UJ	R
1,2-DICHLOROPROPANE		0.5	U					0.5	U		0.5	UJ	R
1,3-DICHLOROBENZENE		0.5	U					0.5	U		0.5	UJ	R
1,4-DICHLOROBENZENE		2.2	J	R				0.5	U		2.4	J	R
1,4-DIOXANE		10	UR	C				10	UR	C	10	UR	C
2-BUTANONE		2.5	U					2.5	UJ	C	2.5	UJ	CR
2-HEXANONE		2.5	U					2.5	U		2.5	UJ	R
4-METHYL-2-PENTANONE		2.5	U					2.5	U		2.5	UJ	R
ACETONE		7.8	J	R				2.5	UJ	C	2.5	UJ	C
BENZENE		0.5	U					0.5	U		0.5	UJ	R
BROMOCHLOROMETHANE		0.5	U					0.5	U		0.5	UJ	R
BROMODICHLOROMETHANE		0.5	U					0.5	U		0.5	UJ	R
BROMOFORM		0.5	U					0.5	U		0.5	UJ	R
BROMOMETHANE		0.5	U					0.5	U		0.5	UJ	R
CARBON DISULFIDE		0.5	U					0.5	U		0.5	UJ	R
CARBON TETRACHLORIDE		0.5	U					0.5	U		0.5	UJ	R
CHLOROBENZENE		0.5	U					0.5	U		0.5	UJ	R
CHLORODIBROMOMETHANE		0.5	U					0.5	U		0.5	UJ	R
CHLOROETHANE		0.5	U					0.5	U		0.5	UJ	R
CHLOROFORM		0.5	U					0.5	U		0.5	UJ	R
CHLOROMETHANE		0.5	U					0.5	U		0.5	UJ	R
CIS-1,2-DICHLOROETHENE		0.5	U					0.5	U		0.5	UJ	R
CIS-1,3-DICHLOROPROPENE		0.5	U					0.5	U		0.5	UJ	R
CYCLOHEXANE		2.3	J	R				0.5	UJ	C	0.5	UJ	C

PROJ_NO: 02045	NSAMPLE	FD-DUP01-20110531			FD-DUP01-20110531DL			FD-TB01-20110531			FD-TW112-1620		
SDG: C2462	LAB_ID	C2462-08			C2462-08DL			C2462-01			C2462-02		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	FD-TW114-1620			FD-TW114-1620								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U					0.5	U		0.5	UJ	R
ETHYLBENZENE		18	J	R				0.5	U		17	J	R
ISOPROPYLBENZENE		26	J	R				0.5	U		15	J	R
M+P-XYLENES		130	J	R				1	U		110	J	R
METHYL ACETATE		0.5	U					0.5	U		0.5	UJ	R
METHYL CYCLOHEXANE		6.4	J	R				0.5	U		3	J	R
METHYL TERT-BUTYL ETHER		0.5	U					0.5	U		0.5	UJ	R
METHYLENE CHLORIDE		0.5	U					0.5	U		0.5	UJ	R
O-XYLENE		90	J	R				0.5	U		85	J	R
STYRENE		0.5	U					0.5	U		0.5	UJ	R
TETRACHLOROETHENE		0.5	U					0.5	U		0.54	J	PR
TOLUENE		25	J	R				0.5	U		17	J	R
TRANS-1,2-DICHLOROETHENE		0.5	U					0.5	U		0.5	UJ	R
TRANS-1,3-DICHLOROPROPENE		0.5	U					0.5	U		0.5	UJ	R
TRICHLOROETHENE		0.5	U					0.5	U		0.5	UJ	R
TRICHLOROFLUOROMETHANE		0.5	U					0.5	U		0.5	UJ	R
VINYL CHLORIDE		0.5	U					0.5	U		0.5	UJ	R

PROJ_NO: 02045 SDG: C2462 FRACTION: OV MEDIA: WATER	NSAMPLE	FD-TW112-1620DL			FD-TW112-2125			FD-TW112-2630			FD-TW113-1620		
	LAB_ID	C2462-02DL			C2462-03			C2462-04			C2462-09		
	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
1,1,2,2-TETRACHLOROETHANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
1,1,2-TRICHLOROETHANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		4000	J	H	0.5	UJ	R	49	J	R			
1,1-DICHLOROETHANE					0.5	UJ	R	0.5	UJ	R	0.5	UJ	C
1,1-DICHLOROETHENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
1,2,3-TRICHLOROBENZENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
1,2,4-TRICHLOROBENZENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
1,2-DIBROMOETHANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
1,2-DICHLOROBENZENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
1,2-DICHLOROETHANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
1,2-DICHLOROPROPANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
1,3-DICHLOROBENZENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
1,4-DICHLOROBENZENE					0.5	UJ	R	0.5	UJ	R	1.7		
1,4-DIOXANE					10	UR	C	10	UR	C	10	UR	C
2-BUTANONE					2.5	UJ	R	2.5	UJ	R	2.5	UJ	C
2-HEXANONE					2.5	UJ	R	2.5	UJ	R	2.5	U	
4-METHYL-2-PENTANONE					2.5	UJ	R	2.5	UJ	R	2.5	U	
ACETONE					2.5	UJ	R	2.5	UJ	R	2.5	UJ	C
BENZENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
BROMOCHLOROMETHANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
BROMODICHLOROMETHANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
BROMOFORM					0.5	UJ	R	0.5	UJ	R	0.5	U	
BROMOMETHANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
CARBON DISULFIDE					0.5	UJ	R	0.5	UJ	R	0.5	U	
CARBON TETRACHLORIDE					0.5	UJ	R	0.5	UJ	R	0.5	U	
CHLOROBENZENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
CHLORODIBROMOMETHANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
CHLOROETHANE					0.5	UJ	R	1.2	J	R	0.5	U	
CHLOROFORM					0.5	UJ	R	0.5	UJ	R	0.5	U	
CHLOROMETHANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
CIS-1,2-DICHLOROETHENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
CIS-1,3-DICHLOROPROPENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
CYCLOHEXANE					0.5	UJ	R	0.5	UJ	R	0.5	UJ	C

PROJ_NO: 02045	NSAMPLE	FD-TW112-1620DL			FD-TW112-2125			FD-TW112-2630			FD-TW113-1620		
SDG: C2462	LAB_ID	C2462-02DL			C2462-03			C2462-04			C2462-09		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
ETHYLBENZENE					0.5	UJ	R	0.5	UJ	R	1.9		
ISOPROPYLBENZENE					0.5	UJ	R	1.2	J	R	2.3		
M+P-XYLENES					1	UJ	R	1.8	J	PR	22		
METHYL ACETATE					0.5	UJ	R	0.5	UJ	R	0.5	U	
METHYL CYCLOHEXANE					0.5	UJ	R	0.5	UJ	R	1.2		
METHYL TERT-BUTYL ETHER					0.5	UJ	R	0.5	UJ	R	0.5	U	
METHYLENE CHLORIDE					0.5	UJ	R	0.5	UJ	R	0.5	U	
O-XYLENE					1.3	J	R	1.5	J	R	19		
STYRENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
TETRACHLOROETHENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
TOLUENE					0.5	UJ	R	0.5	UJ	R	2.2		
TRANS-1,2-DICHLOROETHENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
TRANS-1,3-DICHLOROPROPENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
TRICHLOROETHENE					0.5	UJ	R	0.5	UJ	R	0.5	U	
TRICHLOROFLUOROMETHANE					0.5	UJ	R	0.5	UJ	R	0.5	U	
VINYL CHLORIDE					0.5	UJ	R	0.5	UJ	R	0.5	U	

PROJ_NO: 02045	NSAMPLE	FD-TW113-1620DL			FD-TW113-2125			FD-TW114-1620			FD-TW114-1620DL		
SDG: C2462	LAB_ID	C2462-09DL			C2462-12			C2462-05			C2462-05DL		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE					0.5	U		0.5	UJ	R			
1,1,2,2-TETRACHLOROETHANE					0.5	U		0.5	UJ	R			
1,1,2-TRICHLOROETHANE					0.5	U		0.5	UJ	R			
1,1,2-TRICHLOROTRIFLUOROETHANE		680			0.5	U					620	J	H
1,1-DICHLOROETHANE					0.5	U		0.5	UJ	R			
1,1-DICHLOROETHENE					0.5	U		1.2	J	R			
1,2,3-TRICHLOROBENZENE					0.5	U		0.5	UJ	R			
1,2,4-TRICHLOROBENZENE					0.5	U		0.5	UJ	R			
1,2-DIBROMO-3-CHLOROPROPANE					0.5	U		0.5	UJ	R			
1,2-DIBROMOETHANE					0.5	U		0.5	UJ	R			
1,2-DICHLOROBENZENE					0.5	U		0.5	UJ	R			
1,2-DICHLOROETHANE					0.5	U		0.5	UJ	R			
1,2-DICHLOROPROPANE					0.5	U		0.5	UJ	R			
1,3-DICHLOROBENZENE					0.5	U		0.5	UJ	R			
1,4-DICHLOROBENZENE					0.5	U		2	J	R			
1,4-DIOXANE					10	UR	C	10	UR	C			
2-BUTANONE					2.5	U		2.5	UJ	R			
2-HEXANONE					2.5	U		2.5	UJ	R			
4-METHYL-2-PENTANONE					2.5	U		2.5	UJ	R			
ACETONE					4.9	J	P	8.2	J	R			
BENZENE					0.5	U		0.5	UJ	R			
BROMOCHLOROMETHANE					0.5	U		0.5	UJ	R			
BROMODICHLOROMETHANE					0.5	U		0.5	UJ	R			
BROMOFORM					0.5	U		0.5	UJ	R			
BROMOMETHANE					0.5	U		0.5	UJ	R			
CARBON DISULFIDE					0.5	U		0.5	UJ	R			
CARBON TETRACHLORIDE					0.5	U		0.5	UJ	R			
CHLOROBENZENE					0.5	U		0.5	UJ	R			
CHLORODIBROMOMETHANE					0.5	U		0.5	UJ	R			
CHLOROETHANE					0.5	U		0.5	UJ	R			
CHLOROFORM					0.5	U		0.5	UJ	R			
CHLOROMETHANE					0.5	U		0.5	UJ	R			
CIS-1,2-DICHLOROETHENE					0.5	U		0.5	UJ	R			
CIS-1,3-DICHLOROPROPENE					0.5	U		0.5	UJ	R			
CYCLOHEXANE					0.5	U		2.9	J	R			

PROJ_NO: 02045	NSAMPLE	FD-TW113-1620DL			FD-TW113-2125			FD-TW114-1620			FD-TW114-1620DL		
SDG: C2462	LAB_ID	C2462-09DL			C2462-12			C2462-05			C2462-05DL		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE					0.5	U		0.5	UJ	R			
ETHYLBENZENE					0.86	J	P	18	J	R			
ISOPROPYLBENZENE					1			25	J	R			
M+P-XYLENES					1	U		130	J	R			
METHYL ACETATE					0.5	U		0.5	UJ	R			
METHYL CYCLOHEXANE					0.5	U		6.8	J	R			
METHYL TERT-BUTYL ETHER					0.5	U		0.5	UJ	R			
METHYLENE CHLORIDE					0.5	U		0.5	UJ	R			
O-XYLENE					3.4			94	J	R			
STYRENE					0.5	U		0.5	UJ	R			
TETRACHLOROETHENE					0.5	U		0.5	UJ	R			
TOLUENE					0.5	U		22	J	R			
TRANS-1,2-DICHLOROETHENE					0.5	U		0.5	UJ	R			
TRANS-1,3-DICHLOROPROPENE					0.5	U		0.5	UJ	R			
TRICHLOROETHENE					0.5	U		0.5	UJ	R			
TRICHLOROFLUOROMETHANE					0.5	U		0.5	UJ	R			
VINYL CHLORIDE					0.5	U		0.5	UJ	R			

PROJ_NO: 02045	NSAMPLE	FD-TW114-2125			FD-TW114-2630		
SDG: C2462	LAB_ID	C2462-06			C2462-07		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	UJ	R	0.5	UJ	R
1,1,2,2-TETRACHLOROETHANE		0.5	UJ	R	0.5	UJ	R
1,1,2-TRICHLOROETHANE		0.5	UJ	R	0.5	UJ	R
1,1,2-TRICHLOROTRIFLUOROETHANE		9.6	J	R	0.5	UJ	R
1,1-DICHLOROETHANE		0.5	UJ	R	0.5	UJ	R
1,1-DICHLOROETHENE		0.5	UJ	R	0.5	UJ	R
1,2,3-TRICHLOROBENZENE		0.5	UJ	R	0.5	UJ	R
1,2,4-TRICHLOROBENZENE		0.5	UJ	R	0.5	UJ	R
1,2-DIBROMO-3-CHLOROPROPANE		0.5	UJ	R	0.5	UJ	R
1,2-DIBROMOETHANE		0.5	UJ	R	0.5	UJ	R
1,2-DICHLOROBENZENE		0.5	UJ	R	0.5	UJ	R
1,2-DICHLOROETHANE		0.5	UJ	R	0.5	UJ	R
1,2-DICHLOROPROPANE		0.5	UJ	R	0.5	UJ	R
1,3-DICHLOROBENZENE		0.5	UJ	R	0.5	UJ	R
1,4-DICHLOROBENZENE		0.5	UJ	R	0.5	UJ	R
1,4-DIOXANE		10	UR	C	10	UR	C
2-BUTANONE		2.5	UJ	R	2.5	UJ	R
2-HEXANONE		2.5	UJ	R	2.5	UJ	R
4-METHYL-2-PENTANONE		2.5	UJ	R	2.5	UJ	R
ACETONE		8.3	J	R	4.3	J	PR
BENZENE		0.5	UJ	R	0.5	UJ	R
BROMOCHLOROMETHANE		0.5	UJ	R	0.5	UJ	R
BROMODICHLOROMETHANE		0.5	UJ	R	0.5	UJ	R
BROMOFORM		0.5	UJ	R	0.5	UJ	R
BROMOMETHANE		0.5	UJ	R	0.5	UJ	R
CARBON DISULFIDE		0.5	UJ	R	0.5	UJ	R
CARBON TETRACHLORIDE		0.5	UJ	R	0.5	UJ	R
CHLOROBENZENE		0.5	UJ	R	0.5	UJ	R
CHLORODIBROMOMETHANE		0.5	UJ	R	0.5	UJ	R
CHLOROETHANE		2.3	J	R	0.5	UJ	R
CHLOROFORM		0.5	UJ	R	0.5	UJ	R
CHLOROMETHANE		0.93	J	PR	0.5	UJ	R
CIS-1,2-DICHLOROETHENE		0.5	UJ	R	0.5	UJ	R
CIS-1,3-DICHLOROPROPENE		0.5	UJ	R	0.5	UJ	R
CYCLOHEXANE		0.5	UJ	R	0.5	UJ	R

PROJ_NO: 02045	NSAMPLE	FD-TW114-2125			FD-TW114-2630		
SDG: C2462	LAB_ID	C2462-06			C2462-07		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	UJ	R	0.5	UJ	R
ETHYLBENZENE		0.51	J	PR	0.5	UJ	R
ISOPROPYLBENZENE		2	J	R	0.5	UJ	R
M+P-XYLENES		1.4	J	PR	1	UJ	R
METHYL ACETATE		0.5	UJ	R	0.5	UJ	R
METHYL CYCLOHEXANE		0.5	UJ	R	0.5	UJ	R
METHYL TERT-BUTYL ETHER		0.5	UJ	R	0.5	UJ	R
METHYLENE CHLORIDE		0.5	UJ	R	0.5	UJ	R
O-XYLENE		0.94	J	PR	0.5	UJ	R
STYRENE		0.5	UJ	R	0.5	UJ	R
TETRACHLOROETHENE		0.5	UJ	R	0.5	UJ	R
TOLUENE		0.5	UJ	R	0.5	UJ	R
TRANS-1,2-DICHLOROETHENE		0.5	UJ	R	0.5	UJ	R
TRANS-1,3-DICHLOROPROPENE		0.5	UJ	R	0.5	UJ	R
TRICHLOROETHENE		0.5	UJ	R	0.5	UJ	R
TRICHLOROFLUOROMETHANE		0.5	UJ	R	0.5	UJ	R
VINYL CHLORIDE		0.5	UJ	R	0.5	UJ	R

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYACK**	**DATE:**	**AUGUST 16, 2011**
FROM:	**A. COGNETTI**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
NWIRP CALVERTON CTO WE08
SAMPLE DELIVERY GROUP (SDG) C2463

SAMPLES: 15/Aqueous/VOC

FD-DUP02-20110601	FD-DUP03-20110601	FD-RB01-20110601
FD-SB01-20110601	FD-TW113-2630	FD-TW115-1620
FD-TW115-2125	FD-TW115-2630	FD-TW116-1620
FD-TW116-2125	FD-TW116-2630	FD-TW117-1620
FD-TW117-2125	FD-TW117-2630	SV11-MW40-20110601

Overview

The sample set for NWIRP Calverton, CTO WE08, SDG C2463 consists of thirteen (13) environmental aqueous samples, a source blank and a rinsate blank. The samples were analyzed for volatile organic compounds (VOC). There are two field duplicate pairs associated this SDG: FD-TW117-1620/FD-DUP02-20110601 and FD-TW116-2630/FD-DUP03-20110601.

The samples were collected by Tetra Tech on May 31, 2011 and June 1, 2011 and analyzed by Chemtech. VOC analyses were conducted in accordance with EPA Method SW-846 8260B. The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Holding times
• Initial/continuing calibrations
* • Laboratory Method Blank Results
* • Surrogate Recoveries
* • Matrix Spike / Matrix Spike Duplicate Recoveries
* • Laboratory Control Sample Recoveries
* • Internal Standard Recoveries
* • Compound Quantitation
* • Compound Identification
* • Field Duplicate Precision
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

Volatile Organic Compounds

The relative response factor (RRF) for 1,4-dioxane was less than the 0.05 quality control limit in the initial calibration of instrument MSVOAG on June 13, 2011 and the continuing calibrations on June 14, 2011 @11:46, June 15, 2011 @00:06 and June 15, 2011 @ 14:18. The nondetected 1,4-dioxane results were qualified as rejected (UR) in the affected samples. All samples are affected by this noncompliance.

The continuing calibration percent difference (%D) for 1,4-dioxane was greater than 20% on June 14, 2011 @ 11:46. The nondetected 1,4-dioxane results in the affected samples were rejected due to a more serious calibration noncompliance. No further validation action was warranted.

Additional Comments

Several contaminants were detected in the rinse blank and source blank at the following maximum concentrations.

Contaminant	Maximum Concentration (ug/L)
acetone (1)	9.1
toluene (1)	0.73
chlorodibromomethane (2)	1

(1) Maximum concentration in the rinse blank, FD-RB01-20110601.
(2) Maximum concentration in the source blank, FD-SB01-20110601.

No action was taken on the positive acetone, toluene and chlorodibromomethane results in the samples due to field blank contamination.

The MS %R of bromoform was less than the lower quality control limit in spiked sample FD-TW116-2125. The %R of bromoform was within quality control limits in the MSD and the relative percent difference (RPD). No action was taken on the nondetected bromoform result in sample FD-TW116-2125.

Sample FD-TW115-1620 was diluted 10X in order to obtain a concentration of 1,1,2-trichlorofluoromethane within quality control limits.

Nondetected results were reported to the limit of detection (LOD).

LOD in the database is equal to the method detection limit. No action was taken.

Positive results below the Reporting Limit (RL) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

EXECUTIVE SUMMARY

Laboratory Performance Issues: RRFs for 1,4-dioxane were less than the 0.05 quality control limit resulting in the rejected of nondetected results. The continuing calibration %D for 1,4-dioxane exceeded quality control limits.

Other Factors Affecting Data Quality: None.

TO: D. Brayack
FROM: A. Cognetti
DATE: August 16, 2011
SDG: C2463
PAGE: 3

The data for these analyses were reviewed with reference USEPA Region II Standard Operating Procedures for Validating Volatile Organic Compounds by SW-846 Method 8260B HW-24 Revision #2 (August 2008) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

The text of this report has been formulated to address only those problem areas affecting data quality.

Ann Cognetti
Tetra Tech NUS
Ann Cognetti
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02045	NSAMPLE	FD-DUP02-20110601			FD-DUP03-20110601			FD-RB01-20110601			FD-SB01-20110601		
SDG: C2463	LAB_ID	C2463-10			C2463-17			C2463-03			C2463-11		
FRACTION: OV	SAMP_DATE	6/1/2011			6/1/2011			6/1/2011			6/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	FD-TW117-1620			FD-TW116-2630								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		9.5			0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		14			0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C	10	UR	C	10	UR	C
2-BUTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
2-HEXANONE		2.5	U		2.5	U		2.5	U		2.5	U	
4-METHYL-2-PENTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
ACETONE		2.5	U		4	J	P	9.1			2.5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		1		
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02045 SDG: C2463 FRACTION: OV MEDIA: WATER	NSAMPLE	FD-DUP02-20110601			FD-DUP03-20110601			FD-RB01-20110601			FD-SB01-20110601		
	LAB_ID	C2463-10			C2463-17			C2463-03			C2463-11		
	SAMP_DATE	6/1/2011			6/1/2011			6/1/2011			6/1/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	FD-TW117-1620			FD-TW116-2630								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		18			0.5	U		0.5	U		0.5	U	
M+P-XYLENES		4.2			1	U		1	U		1	U	
METHYL ACETATE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL CYCLOHEXANE		0.74	J	P	0.5	U		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		1.1			0.5	U		0.5	U		0.5	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.73	J	P	0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02045 SDG: C2463 FRACTION: OV MEDIA: WATER	NSAMPLE	FD-TW113-2630			FD-TW115-1620			FD-TW115-1620DL			FD-TW115-2125		
	LAB_ID	C2463-01			C2463-04			C2463-04DL			C2463-05		
	SAMP_DATE	5/31/2011			6/1/2011			6/1/2011			6/1/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.8						1300			0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U					0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U					0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U					0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U					0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C				10	UR	C
2-BUTANONE		2.5	U		2.5	U					2.5	U	
2-HEXANONE		2.5	U		2.5	U					2.5	U	
4-METHYL-2-PENTANONE		2.5	U		2.5	U					2.5	U	
ACETONE		2.5	U		8.3						2.5	U	
BENZENE		0.5	U		0.5	U					0.5	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U					0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U					0.5	U	
BROMOFORM		0.5	U		0.5	U					0.5	U	
BROMOMETHANE		0.5	U		0.5	U					0.5	U	
CARBON DISULFIDE		0.5	U		0.5	U					0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U					0.5	U	
CHLOROBENZENE		0.5	U		0.5	U					0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U					0.5	U	
CHLOROETHANE		0.5	U		0.5	U					0.5	U	
CHLOROFORM		0.5	U		0.5	U					0.5	U	
CHLOROMETHANE		0.5	U		0.5	U					0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U					0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U					0.5	U	
CYCLOHEXANE		0.5	U		0.5	U					0.5	U	

PROJ_NO: 02045	NSAMPLE	FD-TW113-2630			FD-TW115-1620			FD-TW115-1620DL			FD-TW115-2125		
SDG: C2463	LAB_ID	C2463-01			C2463-04			C2463-04DL			C2463-05		
FRACTION: OV	SAMP_DATE	5/31/2011			6/1/2011			6/1/2011			6/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U					0.5	U	
ETHYLBENZENE		0.5	U		4.6						0.5	U	
ISOPROPYLBENZENE		0.5	U		4.1						0.79	J	P
M+P-XYLENES		1.1	J	P	36						1	U	
METHYL ACETATE		0.5	U		0.5	U					0.5	U	
METHYL CYCLOHEXANE		0.5	U		0.5	U					0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U					0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U					0.5	U	
O-XYLENE		0.63	J	P	32						0.5	U	
STYRENE		0.5	U		0.5	U					0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U					0.5	U	
TOLUENE		0.5	U		11						0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U					0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U					0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U					0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U					0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U					0.5	U	

PROJ_NO: 02045	NSAMPLE	FD-TW115-2630			FD-TW116-1620			FD-TW116-2125			FD-TW116-2630		
SDG: C2463	LAB_ID	C2463-06			C2463-12			C2463-13			C2463-16		
FRACTION: OV	SAMP_DATE	6/1/2011			6/1/2011			6/1/2011			6/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.59	J	P	36			0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		2			0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C	10	UR	C	10	UR	C
2-BUTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
2-HEXANONE		2.5	U		2.5	U		2.5	U		2.5	U	
4-METHYL-2-PENTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
ACETONE		6.5			3.1	J	P	6.2			2.5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02045 SDG: C2463 FRACTION: OV MEDIA: WATER	NSAMPLE	FD-TW115-2630			FD-TW116-1620			FD-TW116-2125			FD-TW116-2630		
	LAB_ID	C2463-06			C2463-12			C2463-13			C2463-16		
	SAMP_DATE	6/1/2011			6/1/2011			6/1/2011			6/1/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.62	J	P	0.64	J	P	0.5	U	
ISOPROPYLBENZENE		0.5	U		13			2.2			0.5	U	
M+P-XYLENES		1	U		7.4			1	U		1	U	
METHYL ACETATE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL CYCLOHEXANE		0.5	U		1.4			0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		1.7			0.5	U		0.5	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02045	NSAMPLE	FD-TW117-1620			FD-TW117-2125			FD-TW117-2630			SV11-MW40-20110601		
SDG: C2463	LAB_ID	C2463-07			C2463-08			C2463-09			C2463-02		
FRACTION: OV	SAMP_DATE	6/1/2011			6/1/2011			6/1/2011			6/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		9.6			0.5	U		0.5	U		14		
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		13			0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C	10	UR	C	10	UR	C
2-BUTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
2-HEXANONE		2.5	U		2.5	U		2.5	U		2.5	U	
4-METHYL-2-PENTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
ACETONE		2.5	U		2.5	U		2.5	U		2.5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02045 SDG: C2463 FRACTION: OV MEDIA: WATER	NSAMPLE	FD-TW117-1620			FD-TW117-2125			FD-TW117-2630			SV11-MW40-20110601		
	LAB_ID	C2463-07			C2463-08			C2463-09			C2463-02		
	SAMP_DATE	6/1/2011			6/1/2011			6/1/2011			6/1/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		19			2.6			0.5	U		0.5	U	
M+P-XYLENES		4.1			1	U		1	U		1.2	J	P
METHYL ACETATE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL CYCLOHEXANE		0.63	J	P	0.5	U		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		1.1			0.5	U		0.5	U		1.7		
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.56	J	P
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYACK**	**DATE:**	**AUGUST 16, 2011**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP), CALVERTON
CTO WE08
SAMPLE DELIVERY GROUP (SDG) C2506

SAMPLES: 22/Aqueous/VOC

FC-MW-05I-20110602	FC-MW-05I1-20110602	FC-MW-05S-20110603
FD-TB02-20110602	FD-TW118-1620	FD-TW118-2125
FD-TW118-2630	SA-DUP01-20110602	SA-TW401-1115
SA-TW401-2125	SA-TW401-2630	SA-TW401-3135
SA-TW402-1115	SA-TW402-2125	SA-TW402-2630
SA-TW402-3135	SA-TW403-1115	SA-TW403-2125
SA-TW403-2630	SA-TW403-3135	SA-TW404-2125
SA-TW404-3135		

Overview

The sample set for NWIRP Calverton SDG C2506 consisted of twenty-one (21) aqueous environmental samples and one (1) trip blank. All twenty-two (22) aqueous samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOC). One field duplicate sample pair was associated with this sample data group (SDG); SA-DUP01-20110602/SA-TW402-2630.

The samples were collected by Tetra Tech on June 2 and 3, 2011 and analyzed by Chemtech. All analyses were conducted in accordance with EPA Methods SW-846 8260B analytical and reporting protocols. The data contained in this SDG was validated with regard to the following parameters:

- * Data completeness
- * Hold times
- * GC/MS System Tuning and Performance
- Initial/continuing calibrations
- Laboratory Method and Field Blank Results
- Surrogate Spike Recoveries
- * Internal Standard Results
- Matrix Spike/Matrix Spike Duplicate Results
- Laboratory Control Sample Results
- * Field Duplicate Precision
- * Compound Identification
- * Compound Quantitation
- * Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

Volatiles (VOC)

The 14 day holding time was exceeded in the diluted analyses of samples, SA-TW402-2125 and SA-TW402 -3135, and the reanalysis of sample SA-DUP01-20110602. The results from the reanalysis of sample SA-DUP01-20110602 were not used in the data validation; therefore, no actions were necessary. The results used from the diluted analyses of samples, SA-TW402-2125 and SA-TW402-3135, were qualified as estimated, (J).

The initial and continuing calibrations performed on instruments MSVOAG and MSVOAH had Relative Response Factors (RRFs) less than the 0.05 quality control criteria for 1,4-dioxane. All samples were affected. Only non-detected results were reported for 1,4-dioxane in the affected samples and these non-detects were qualified as rejected, (UR).

The continuing calibration performed on instrument MSVOAG on 06/15/11 @ 14:18 had a Percent Drift (%Drift) for bromomethane was above the 20% quality control limit. The non-detected results reported for this compound in the affected samples, FC-MW-05I1-20110602, FD-TB02-20110602, FD-TW118-1620, FD-TW118-2125, and FD-TW118-2630, were qualified as estimated, (UJ).

The %Drift from the continuing calibration performed on instrument MSVOAG on 06/16/11 @ 11:23 for bromomethane was above the 20% quality control limit. Samples FC-MW-05I-20110602, SA-DUP01-20110602, SA-TW401-2125, SA-TW402-1115, SA-TW402-2125, SA-TW402-2630, SA-TW402-3135, SA-TW403-1115, SA-TW403-2125, SA-TW403-2630, and SA-TW403-3135 were affected. Only non-detected results were reported for this compound in the affected samples, and these non-detects were qualified as estimated, (UJ).

The continuing calibration performed on instrument MSVOAG on 06/17/11 @ 01:50 had Percent Differences (%Ds) for methyl acetate, bromochloromethane, and tetrachloroethene exceeded the 20% quality control criteria. In addition, the %Drift for bromomethane was greater than the 20% quality control limit. Samples FC-MW-05S-20110603 and SA-TW401-2630 were affected. The non-detected results reported for these compounds in the affected samples were qualified as estimated, (UJ).

The continuing calibration performed on instrument MSVOAH on 6/17/11 @ 16:00 had %Ds or %Drifts greater than the 20% quality control limit for dichlorofluoromethane, 4-methyl-2-pentanone, 1,4-dioxane, and acetone. Samples SA-TW401-1115, SA-TW401-3135, SA-TW404-2125, and SA-TW404-3135 were affected. The non-detected results reported for these compounds, with the exception of 1,4-dioxane, were qualified as estimated, (UJ). No action was necessary for the 1,4-dioxane results because they were rejected for a more severe calibration noncompliance.

The Percent Recovery (%R) for the surrogate spike compound, toluene-d8, was below the lower quality control limit in sample, SA-DUP01-20110602. The sample was reanalyzed with acceptable surrogate %Rs; however, the sample was outside of reanalyzed outside the 14 day holding time. The results from the initial analysis were used in the data validation. The positive and non-detected results reported from the initial analysis of this sample were qualified as estimated, (J) and (UJ), respectively.

The LCS, BSH0617W1, had a %R for acetone above the upper quality control limit. The positive result reported for acetone in associated sample, SA-TW402-3135, was qualified as estimated, (J). No action was taken for the non-detected results reported in the remaining associated samples

Additional Comments

The following analyte was detected in the associated trip blank at the maximum concentration as indicated

below:

Analyte	Maximum Conc. (µg/L)	Action Level (µg/L)
Methylene Chloride [1]	1.4	14

[1] Maximum concentration detected in the trip blank, FD-TB02-20110602, affecting all samples in this SDG.

An action level of 10X the maximum concentration was established to evaluate laboratory contamination for the common laboratory contaminant, methylene chloride. Dilution factors and sample aliquots were taken into consideration during the application of all action levels. No action was taken because no positive results were reported for methylene chloride in the affected samples.

The Matrix Spike/Matrix Spike Duplicate (MS/MSD) had %Rs for 1,1,1-trichloroethane and 1,1,-dichloroethane below the lower quality control limit. The Relative Percent Differences (RPDs) were also above the 30% quality control limit for these compounds. No action was taken because the concentrations of these compounds were 2X greater in the parent sample, SA-TW402-3135, and the associated Laboratory Control Sample (LCS) had acceptable %Rs and RPDs for 1,1,1-trichloroethane and 1,1,-dichloroethane.

1,2-Dichlorobenzene was detected in the field duplicate sample, SA-DUP01-20110602, but not in the environmental sample, SA-TW402-2630. No action was taken for field duplicate imprecision because the difference between the positive and non-detected results was less than 2X the Limit of Quantitation (LOQ).

The following samples were diluted due to target compounds exceeding the instrument's linear calibration range:

Sample	Compound	Dilution
FC-MW-05I1-20110602	1,1,1-Trichloroethane	10X
	1,1-Dichloroethane	10X
	Chloroethane	10X
SA-TW402-2125	1,1,1-Trichloroethane	20X
	1,1-Dichloroethane	20X
	Chloroethane	20X
	Ethylbenzene	20X
SA-TW402-3135	1,1-Dichloroethane	10X

The diluted results for these compounds were used in the data validation.

Positive results reported below the LOQ but above the Method Detection Limit (MDL) were qualified as estimated, (J). Non-detected results are reported to the Limit of Detection (LOD).

EXECUTIVE SUMMARY

Laboratory Performance Issues: Holding times were exceeded for the reanalysis of three samples. The 1,4-dioxane results were rejected due to initial and continuing calibration RRFs below 0.05. Several continuing calibration %Ds and %Drifts exceeded the 20% quality control limit. An LCS %R for acetone was above the upper quality control limit.

Other Factors Affecting Data Quality: Methylene chloride was detected in the trip blank. One sample had a low surrogate %R. The MS/MSD had noncompliant %Rs and RPDs for 1,1,1-trichloroethane and 1,1-

dichloroethane. Positive results reported below the LOQ but above the MDL were qualified as estimated. Some samples were analyzed at a dilution due to linear calibration range exceedences.

The data for these analyses were reviewed with reference to the SOP #HW-24 Revision #2, USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B (August 2008), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

TetraTech NUS
Michelle L. Allen
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02045 SDG: C2506 FRACTION: OV MEDIA: WATER	NSAMPLE	FC-MW-05I1-20110602			FC-MW-05I1-20110602DL			FC-MW-05I-20110602			FC-MW-05S-20110603		
	LAB_ID	C2506-05			C2506-05DL			C2506-17			C2506-22		
	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/3/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE					530			0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U					0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U					0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U					0.5	U		0.5	U	
1,1-DICHLOROETHANE					1000			0.55	J	P	0.5	U	
1,1-DICHLOROETHENE		75						0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U					0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U					0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U					0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U					0.5	U		0.5	U	
1,2-DICHLOROBENZENE		2						0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U					0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U					0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U					0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U					0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C				10	UR	C	10	UR	C
2-BUTANONE		2.5	U					2.5	U		2.5	U	
2-HEXANONE		2.5	U					2.5	U		2.5	U	
4-METHYL-2-PENTANONE		2.5	U					2.5	U		2.5	U	
ACETONE		2.5	U					2.5	U		2.5	U	
BENZENE		18						0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	U					0.5	U		0.5	UJ	C
BROMODICHLOROMETHANE		0.5	U					0.5	U		0.5	U	
BROMOFORM		0.5	U					0.5	U		0.5	U	
BROMOMETHANE		0.5	UJ	C				0.5	UJ	C	0.5	UJ	C
CARBON DISULFIDE		0.5	U					0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U					0.5	U		0.5	U	
CHLOROBENZENE		0.5	U					0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U					0.5	U		0.5	U	
CHLOROETHANE					220			0.5	U		0.5	U	
CHLOROFORM		0.5	U					0.5	U		0.5	U	
CHLOROMETHANE		2.2						0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U					0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U					0.5	U		0.5	U	
CYCLOHEXANE		2.3						0.5	U		0.5	U	

PROJ_NO: 02045	NSAMPLE	FC-MW-05I1-20110602			FC-MW-05I1-20110602DL			FC-MW-05I-20110602			FC-MW-05S-20110603		
SDG: C2506	LAB_ID	C2506-05			C2506-05DL			C2506-17			C2506-22		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/3/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U					0.5	U		0.5	U	
ETHYLBENZENE		78						0.5	U		0.5	U	
ISOPROPYLBENZENE		38						0.5	U		2.9		
M+P-XYLENES		21						1	U		1	U	
METHYL ACETATE		0.5	U					0.5	U		0.5	UJ	C
METHYL CYCLOHEXANE		0.5	U					0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U					0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U					0.5	U		0.5	U	
O-XYLENE		0.5	U					0.5	U		0.5	U	
STYRENE		0.5	U					0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U					0.5	U		0.5	UJ	C
TOLUENE		0.7	J	P				0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U					0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U					0.5	U		0.5	U	
TRICHLOROETHENE		0.92	J	P				0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U					0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U					0.5	U		0.5	U	

PROJ_NO: 02045	NSAMPLE	FD-TB02-20110602			FD-TW118-1620			FD-TW118-2125			FD-TW118-2630		
SDG: C2506	LAB_ID	C2506-01			C2506-02			C2506-03			C2506-04		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C	10	UR	C	10	UR	C
2-BUTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
2-HEXANONE		2.5	U		2.5	U		2.5	U		2.5	U	
4-METHYL-2-PENTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
ACETONE		2.5	U		2.5	U		2.5	U		2.5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
CARBON DISULFIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02045	NSAMPLE	FD-TB02-20110602			FD-TW118-1620			FD-TW118-2125			FD-TW118-2630		
SDG: C2506	LAB_ID	C2506-01			C2506-02			C2506-03			C2506-04		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.51	J	P	1			0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		1.4			0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02045	NSAMPLE	SA-DUP01-20110602			SA-TW401-1115			SA-TW401-2125			SA-TW401-2630		
SDG: C2506	LAB_ID	C2506-16			C2506-18			C2506-19			C2506-20		
FRACTION: OV	SAMP_DATE	6/2/2011			6/3/2011			6/3/2011			6/3/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	SA-TW402-2630											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		43	J	R	0.5	U		0.5	U		5		
1,1,2,2-TETRACHLOROETHANE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		100	J	R	0.5	U		0.5	U		2.2		
1,1-DICHLOROETHENE		6.9	J	R	0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		4.6	J	R	0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		1.1	J	R	0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		10	UR	CR	10	UR	C	10	UR	C	10	UR	C
2-BUTANONE		2.5	UJ	R	2.5	U		2.5	U		2.5	U	
2-HEXANONE		2.5	UJ	R	2.5	U		2.5	U		2.5	U	
4-METHYL-2-PENTANONE		2.5	UJ	R	2.5	UJ	C	2.5	U		2.5	U	
ACETONE		2.5	UJ	R	2.5	UJ	C	6.6			26		
BENZENE		5.9	J	R	0.5	U		0.5	U		0.87	J	P
BROMOCHLOROMETHANE		0.5	UJ	R	0.5	U		0.5	U		0.5	UJ	C
BROMODICHLOROMETHANE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
BROMOFORM		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
BROMOMETHANE		0.5	UJ	CR	0.5	U		0.5	UJ	C	0.5	UJ	C
CARBON DISULFIDE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
CHLOROETHANE		54	J	R	0.5	U		0.9	J	P	1.4		
CHLOROFORM		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
CHLOROMETHANE		0.5	UJ	R	0.5	U		0.72	J	P	0.58	J	P
CIS-1,2-DICHLOROETHENE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	UJ	R	0.5	U		0.5	U		2.8		

PROJ_NO: 02045	NSAMPLE	SA-DUP01-20110602			SA-TW401-1115			SA-TW401-2125			SA-TW401-2630		
SDG: C2506	LAB_ID	C2506-16			C2506-18			C2506-19			C2506-20		
FRACTION: OV	SAMP_DATE	6/2/2011			6/3/2011			6/3/2011			6/3/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	SA-TW402-2630											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	UJ	R	0.5	UJ	C	0.5	U		0.5	U	
ETHYLBENZENE		0.5	UJ	R	0.5	U		3.7			69		
ISOPROPYLBENZENE		23	J	R	0.5	U		12			53		
M+P-XYLENES		1	UJ	R	1	U		1	U		1	U	
METHYL ACETATE		0.5	UJ	R	0.5	U		0.5	U		0.5	UJ	C
METHYL CYCLOHEXANE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	UJ	R	0.5	U		0.5	U		4.9		
STYRENE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	UJ	R	0.5	U		0.5	U		0.5	UJ	C
TOLUENE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	UJ	R	0.5	U		0.5	U		0.5	U	

PROJ_NO: 02045	NSAMPLE	SA-TW401-3135			SA-TW402-1115			SA-TW402-2125			SA-TW402-2125DL		
SDG: C2506	LAB_ID	C2506-21			C2506-10			C2506-11			C2506-11DL		
FRACTION: OV	SAMP_DATE	6/3/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		23			0.5	U					270	J	H
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U				
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U				
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U				
1,1-DICHLOROETHANE		24			0.86	J	P				660	J	H
1,1-DICHLOROETHENE		2.6			0.5	U		49					
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U				
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U				
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U				
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U				
1,2-DICHLOROBENZENE		0.5	U		0.5	U		1.2					
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U				
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U				
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U				
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U				
1,4-DIOXANE		10	UR	C	10	UR	C	10	UR	C			
2-BUTANONE		2.5	U		2.5	U		2.5	U				
2-HEXANONE		2.5	U		2.5	U		2.5	U				
4-METHYL-2-PENTANONE		2.5	UJ	C	2.5	U		2.5	U				
ACETONE		2.5	UJ	C	2.5	U		2.5	U				
BENZENE		5.3			0.5	U		20					
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U				
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U				
BROMOFORM		0.5	U		0.5	U		0.5	U				
BROMOMETHANE		0.5	U		0.5	UJ	C	0.5	UJ	C			
CARBON DISULFIDE		0.5	U		0.5	U		0.5	U				
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U				
CHLOROBENZENE		0.5	U		0.5	U		0.5	U				
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U				
CHLOROETHANE		10			2.1						160	J	H
CHLOROFORM		0.5	U		0.5	U		0.5	U				
CHLOROMETHANE		0.5	U		0.5	U		2					
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U				
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U				
CYCLOHEXANE		0.5	U		0.5	U		2.2					

PROJ_NO: 02045	NSAMPLE	SA-TW401-3135			SA-TW402-1115			SA-TW402-2125			SA-TW402-2125DL		
SDG: C2506	LAB_ID	C2506-21			C2506-10			C2506-11			C2506-11DL		
FRACTION: OV	SAMP_DATE	6/3/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	U		0.5	U				
ETHYLBENZENE		23			0.5	U					140	J	H
ISOPROPYLBENZENE		23			0.5	U		42					
M+P-XYLENES		9.4			1	U		70					
METHYL ACETATE		0.5	U		0.5	U		0.5	U				
METHYL CYCLOHEXANE		0.5	U		0.5	U		0.5	U				
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U				
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U				
O-XYLENE		7.7			0.5	U		9.1					
STYRENE		0.5	U		0.5	U		0.5	U				
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U				
TOLUENE		0.5	U		0.5	U		1.3					
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U				
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U				
TRICHLOROETHENE		0.5	U		0.5	U		0.85	J	P			
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U				
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U				

PROJ_NO: 02045	NSAMPLE	SA-TW402-2630			SA-TW402-3135			SA-TW402-3135DL			SA-TW403-1115		
SDG: C2506	LAB_ID	C2506-12			C2506-13			C2506-13DL			C2506-06		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		46			110						0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U					0.5	U	
1,1-DICHLOROETHANE		100						280	J	H	1.6		
1,1-DICHLOROETHENE		7.2			17						0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		7.2						0.5	U	
1,2,4-TRICHLOROBENZENE		4.8			24						0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U					0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U					0.5	U	
1,2-DICHLOROBENZENE		0.5	U		6.1						0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U					0.5	U	
1,3-DICHLOROBENZENE		0.5	U		3.2						0.5	U	
1,4-DICHLOROBENZENE		0.5	U		13						0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C				10	UR	C
2-BUTANONE		2.5	U		2.5	U					2.5	U	
2-HEXANONE		2.5	U		2.5	U					2.5	U	
4-METHYL-2-PENTANONE		2.5	U		2.5	U					2.5	U	
ACETONE		2.5	U		12	J	E				2.5	U	
BENZENE		6.2			4.7						0.5	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U					0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U					0.5	U	
BROMOFORM		0.5	U		0.5	U					0.5	U	
BROMOMETHANE		0.5	UJ	C	0.5	UJ	C				0.5	UJ	C
CARBON DISULFIDE		0.5	U		0.5	U					0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U					0.5	U	
CHLOROBENZENE		0.5	U		0.5	U					0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U					0.5	U	
CHLOROETHANE		58			79						1.9		
CHLOROFORM		0.5	U		0.5	U					0.5	U	
CHLOROMETHANE		0.5	U		0.68	J	P				0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U					0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U					0.5	U	
CYCLOHEXANE		0.5	U		1.2						0.5	U	

PROJ_NO: 02045	NSAMPLE	SA-TW402-2630			SA-TW402-3135			SA-TW402-3135DL			SA-TW403-1115		
SDG: C2506	LAB_ID	C2506-12			C2506-13			C2506-13DL			C2506-06		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U					0.5	U	
ETHYLBENZENE		0.5	U		23						0.5	U	
ISOPROPYLBENZENE		24			21						1.8		
M+P-XYLENES		1	U		2.1						1	U	
METHYL ACETATE		0.5	U		0.5	U					0.5	U	
METHYL CYCLOHEXANE		0.5	U		0.5	U					0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U					0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U					0.5	U	
O-XYLENE		0.5	U		0.5	U					0.5	U	
STYRENE		0.5	U		0.5	U					0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U					0.5	U	
TOLUENE		0.5	U		0.5	U					0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U					0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U					0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U					0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U					0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U					0.5	U	

PROJ_NO: 02045	NSAMPLE	SA-TW403-2125			SA-TW403-2630			SA-TW403-3135			SA-TW404-2125		
SDG: C2506	LAB_ID	C2506-07			C2506-08			C2506-09			C2506-23		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/3/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		8.6			15			0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		1.7			26			56			0.5	U	
1,1-DICHLOROETHENE		0.5	U		1.4			3.3			0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.59	J	P	0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C	10	UR	C	10	UR	C
2-BUTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
2-HEXANONE		2.5	U		2.5	U		2.5	U		2.5	U	
4-METHYL-2-PENTANONE		2.5	U		2.5	U		2.5	U		2.5	UJ	C
ACETONE		2.5	U		4.5	J	P	7.6			2.5	UJ	C
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	U	
CARBON DISULFIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		3.9			0.5	U		1.2			0.5	U	
CHLOROFORM		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02045	NSAMPLE	SA-TW403-2125			SA-TW403-2630			SA-TW403-3135			SA-TW404-2125		
SDG: C2506	LAB_ID	C2506-07			C2506-08			C2506-09			C2506-23		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/3/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	UJ	C
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		3.8		
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02045	NSAMPLE	SA-TW404-3135
SDG: C2506	LAB_ID	C2506-24
FRACTION: OV	SAMP_DATE	6/3/2011
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.5	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2,3-TRICHLOROBENZENE	0.5	U	
1,2,4-TRICHLOROBENZENE	0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE	0.5	U	
1,2-DIBROMOETHANE	0.5	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
1,4-DIOXANE	10	UR	C
2-BUTANONE	2.5	U	
2-HEXANONE	2.5	U	
4-METHYL-2-PENTANONE	2.5	UJ	C
ACETONE	2.5	UJ	C
BENZENE	0.5	U	
BROMOCHLOROMETHANE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	0.5	U	
CARBON DISULFIDE	0.5	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.5	U	
CHLOROETHANE	0.5	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	0.5	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.5	U	
CYCLOHEXANE	0.5	U	

PROJ_NO: 02045	NSAMPLE	SA-TW404-3135
SDG: C2506	LAB_ID	C2506-24
FRACTION: OV	SAMP_DATE	6/3/2011
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE	0.5	UJ	C
ETHYLBENZENE	0.5	U	
ISOPROPYLBENZENE	0.5	U	
M+P-XYLENES	1	U	
METHYL ACETATE	0.5	U	
METHYL CYCLOHEXANE	0.5	U	
METHYL TERT-BUTYL ETHER	0.5	U	
METHYLENE CHLORIDE	0.5	U	
O-XYLENE	0.5	U	
STYRENE	0.5	U	
TETRACHLOROETHENE	8.9		
TOLUENE	0.5	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.5	U	
TRICHLOROETHENE	0.5	U	
TRICHLOROFLUOROMETHANE	0.5	U	
VINYL CHLORIDE	0.5	U	