SITE 1

PHASE II SOIL VAPOR REPORT

NWIRP BETHPAGE

Bethpage, New York

Naval Facilities Engineering Command
Mid-Atlantic

Contract No. N62472-03-D-0057
Contract Task Order 147

JUNE 2009

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PHASE II SOIL VAPOR REPORT

NAVAL FACILITIES ENGINEERING COMMAND
MID-ATLANTIC

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

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ACRONYMS

1, 1-DCA	1, 1-dichloroethane
1, 1-DCE	1, 1-dichloroethene
AS/SVE	air sparging/soil vapor extraction
bgs	below ground surface
CLEAN	Comprehensive Long-Term Environmental Action Navy
COC	chain of custody
CTO	contract task order
DPT	direct-push technology
ELAP	Environmental Laboratory Approval Program
NWIRP	Naval Weapons Industrial Reserve Plant
NYSDOH	New York State Department of Health
PCE	tetrachloroethene
PID	photoionization detector
RBC	Risk Based Concentration
SVPM	Soil Vapor Pressure Monitor
TCA	1, 1, 1-trichloroethene
TCE	trichloroethene
VOC	volatile organic compound
USEPA	United States Environmental Protection Agency
$\mu g/m^3$	micrograms per cubic meter

1.0 INTRODUCTION

This Data Summary Report was prepared by Tetra Tech NUS (TtNUS) under Contract Task Order (CTO) 147 for the Naval Facilities Engineering Command Mid-Atlantic under the Comprehensive Long-Term Environmental Action Navy (CLEAN) contract number N62472-03-D-0057. This Data Summary Report presents the soil vapor investigation activities that took place from October 2008 through January 2009 along the Town of Oyster Bay right-of-ways to the east of Site 1 - Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage, Long Island, New York (Figures 1 and 2). Site 1 was impacted by historic releases of chlorinated solvents and was remediated via an air sparging/soil vapor extraction (AS/SVE) system between 1998 and 2002. The treatment was focused on groundwater protection.

Soil vapor testing was conducted along the eastern boundary of Site 1 in January 2008. Based on the soil gas analytical results from this sampling event, the maximum TCE, PCE, and TCA concentrations observed at Site 1 were 180,000 micrograms per cubic meter of air ($\mu g/m^3$), 5,300 $\mu g/m^3$, and 90,000 $\mu g/m^3$, respectively. These maximum concentrations were located in the south portion of Site 1 along the eastern boundary. Details regarding the sampling conducted in January 2008 can be found in the Site 1 Soil Vapor Investigation Report (TtNUSa, 2008). Based on this sampling data from January 2008, further investigation was needed to delineate the potential migration of contaminated soil vapor into the adjacent residential neighborhood.

This work was conducted in accordance with the letter work plan (TtNUSb, 2008) and New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH, 2006).

2.0 FIELD AND SAMPLING ACTIVITIES

From October 2008 through January 2009, 11 soil borings and 33 temporary soil gas points were installed. Soil gas samples were collected from each of the temporary soil gas points (Figure 3).

In October 2008, nine soil gas borings and 27 temporary soil gas points were installed and soil gas samples were collected along the Town of Oyster Bay right-of-ways in the neighborhood adjacent to Site 1. At each of the nine locations, a continuous soil boring/core was advanced to approximately 50 feet below ground surface (bgs) to evaluate the subsurface lithology. Three soil gas sampling points were then installed at each location using direct-push technology (DPT). The depths of the actual sampling points were modified in the field as necessary to avoid any silt or clay units encountered in the subsurface (see Table 1 for actual sample depths). Site photos are presented in Appendix A.

Based on the soil gas sampling results from October 2008, two additional soil gas sampling locations were selected to further delineate the extent of contaminated soil gas in the residential neighborhood. These additional locations are depicted on Figure 3 (BPS1-SG2010 and BPS1-SG2011) and the same procedures described in the previous paragraph were followed for these two locations.

Soils from the ground surface to the bottom of the borings were generally characterized as fine to coarse sands, with varying amounts of silt and gravel. Soil boring log sheets are presented in Appendix B. Thin clay lenses were encountered in only three borings along 11th Street (BPS1-SG2002, BPS1-SG2003, and BPS1-SG2010). These lenses were observed at approximately 40 to 46 feet bgs and ranged from 0.5 inches to 2 feet thick. Soil gas points were installed at depths to avoid these lenses. Soil cuttings from the borings were containerized in a 55 gallon drum for characterization and disposal.

Soil gas points were installed in separate borings, approximately 2 to 3 feet away from the soil boring and other soil gas points. The soil gas points were installed using DPT to approximate depths of 8 ft, 20 ft and 49 feet. Boring numbers, sample identification numbers, and actual sample depths are presented in Table 1.

During sampling, several steps were taken to ensure the representativeness of the soil gas sample. For each soil gas point, the sampling point was pushed to the target sample depth and the sample screen below the rods was exposed. A tube with a threaded o-ring seal connection was lowered from the surface and screwed into a paired sample screen port. The ground surface was covered with plastic and a 5-gallon container was placed over the equipment. Rods

and tubing penetrating through the bucket were sealed with bentonite and the container was filled with helium.

Sample collection consisted of first purging the well screen and sample tubing with a positive displacement pump. Purge and sample rates varied from 0.12 to 0.25 liters per minute. During purging, helium detector and photoionization detector (PID) readings of the purged air were obtained and recorded. The helium readings were used to determine potential leakage of air from the surface to the sample point. PID readings were collected to support data evaluation. During the purge process, helium concentrations ranged from 0 to 2350 ppm; which were well below the 10% criteria of 100,000 ppm and indicating that outdoor air infiltration or leakage was negligible during the soil gas sampling. PID readings ranged from 0 to 9.2 parts per million. Details for each soil gas sample can be found on the Sample Log Sheets presented in Appendix C.

Following purging, SUMMA® canisters were utilized for collecting all soil gas samples. Each of the SUMMA® canisters were setup with regulators calibrated for a 30 minute sample collection under ambient conditions. Actual sample collection times ranged from approximately 40 to 60 minutes due to resistance encountered from subsurface conditions. After sample collection, SUMMA® canisters were shipped to a fixed-based laboratory via overnight carrier (e.g., Federal Express) for analysis and the temporary soil gas monitoring points were abandoned by removing the drive rods, and filling the resulting hole with clean No. 1 sand.

Ambient air samples were collected during soil gas sample collection to evaluate potential chemicals in the local ambient air. The SUMMA® canisters were positioned approximately 30 to 50 feet upwind of each soil gas sample location and at a height to 2 to 3 feet above grade. The ambient air sample was obtained over an eight-hour period that corresponded to the soil vapor collection activities. During the eight-hour collection period, SUMMA® canisters were moved during sampling activities as necessary, to remain upwind of each sample location. Sample log sheets for the ambient air samples collected during the investigation are presented in Appendix C and the analytical results are presented on Table 2.

The soil gas samples were analyzed according to United States Environmental Protection Agency (USEPA) Method TO-15 volatile organic compounds (VOCs) by Air Toxics Ltd. Folsom, California, an Environmental Laboratory Approval Program (ELAP) certified laboratory (USEPA, 1999).

3.0 SOIL GAS ANALYTICAL RESULTS

A total of 33 soil gas samples were collected from October 20, 2008 through January 6, 2009. Soil gas samples were collected from three discrete depths at eleven locations along the right-of-ways in the residential neighborhood (see Figure 3). Soil gas samples were collected via SUMMA® canisters calibrated to a collection time of 30 minutes. Details for each soil gas sample collected are presented on sample log sheets presented in Appendix C. Chain of custody forms and the laboratory analytical reports can be found in Appendices D and E, respectively. Data validation summaries are presented in Appendix F.

A summary of analytical results for compounds detected during soil gas sampling is presented in Table 3. For comparison, the USEPA Regional Screening Levels for Residential Air [RSL-RA (USEPA, 2008)], the NYSDOH Air Guideline Values, and the soil gas screening levels/ranges from the work plan (TTNUSa, 2008) were provided in Table 3. The NYSDOH also developed decision matrices for the evaluation of indoor air sampling results, and based on these matrices, sub-slab sampling results above 250 µg/m^3 for TCE and above 1,000 µg/m^3 for PCE or 1,1,1-trichloroethene (TCA) would require some type of mitigation. The decision matrices provided by the NYSDOH are normally used to specifically evaluate sampling results from sub-slab soil vapor and indoor air sampling. However, these values and the indoor air values were considered when evaluating and delineating contaminated soil vapor.

Based on a comparison of the soil gas results and USEPA RSL-RA and NYSDOH SVI guidance, TCE, PCE, and TCA represent the primary site contaminants of concern (COCs) and will be the primary focus of this evaluation. However, it should be noted that other compounds, including 1,1-dichloroethane, 1,1-dichloroethene, benzene, carbon tetrachloride, chloroform, and cis-1,2-dichloroethene were detected at levels exceeding EPA screening levels. These other compounds were detected at lower concentrations then the primary COCs and were also located within the footprint of the elevated TCE, PCE, and TCA results.

The soil gas results for TCE, PCE, and TCA are presented on Figure 3. Sample results from BPS1-SG2002 showed the highest offsite concentrations of TCE and TCA at 20 ft bgs, 89,000 µg/m^3 and 52,000 µg/m^3, respectively. This sample location was less then 100 feet from the highest onsite soil gas results for TCE and TCA. Sample results from BPS1-SG2001 showed the highest offsite concentrations of PCE at 20 ft bgs, 5,000 µg/m^3 and this sample was located approximately 70 feet from the highest onsite concentration of PCE at 5,300 µg/m^3. In general, the higher detections onsite and offsite are focused around the southeastern corner of Site 1.

The analytical results from the offsite soil vapor testing show a substantial decrease in soil vapor concentrations from onsite samples (Site 1) compared to the offsite soil gas samples collected in the neighborhood. Continual decreases in soil vapor concentrations were observed over distance away from Site 1. TCE, PCE, and TCA concentrations observed on 10th Street showed a large decrease from maximum onsite concentrations (See Figure 3). Values observed along 10th Street, at approximately 20 ft bgs (BPS1-SG2007), showed TCE at 87 µg/m^3, PCE at 29 µg/m^3 and TCA at 260 µg/m^3. These decreases in soil gas concentrations were over an approximate distance of 250 feet from Site 1 and showed a substantial decreasing trend with distance from the Site.

Based on the sample results from the initial nine sample locations, it was determine that two additional soil gas locations were needed to further delineate soil vapor contamination and verify the observed decreasing trend away from Site 1. One location was placed further east on 9th Street (BPS1-SG2011) and the second was placed further south on 11th Street (BPS1-SG2010). These additional soil gas samples showed a continued decrease in soil vapor concentrations with levels of TCE ranging from 0.14 µg/m^3 to 19 µg/m^3, PCE ranging from 0.57 µg/m^3 to 4.9 µg/m^3, and TCA concentrations ranging from 0.5 µg/m^3 to 2.2 µg/m^3. These soil vapor results confirmed the decreasing trend of soil vapor concentrations with distance and combined with the results from the initial nine locations; provide good delineation of the contaminated soil vapor.

Further evaluation of the analytical results indicated the extent of elevated TCE, PCE, and TCA concentrations in shallow soil vapor seem to be limited to the residential block roughly bounded by Sycamore Avenue to the north, 10th Street to the east, and by Maple Avenue to the south. Soil gas results suggest that this area could potentially exhibit sub-slab soil vapor concentrations above the NYSDOH values of 250 µg/m^3 for TCE and 1,000 µg/m^3 for PCE and TCA.

4.0 CONCLUSIONS AND RECOMMENDATIONS

1. TCE, PCE, and TCA represent the primary site contaminants of concern. Soil gas samples collected along the eastern border of Site 1 (January 2008) indicated maximum TCE, PCE, and TCA concentrations of 180,000 µg/m^3, 5,300 µg/m^3 and 90,000 µg/m^3 respectively. Offsite soil gas sampling showed maximum concentrations of TCE at 89,000 µg/m^3, PCE at 5,000 µg/m^3, and TCA at 52,000 µg/m^3.

2. The analytical results from the offsite soil vapor testing show a substantial decrease in soil vapor concentrations from onsite samples (Site 1) compared to the offsite soil gas samples collected in the neighborhood. Continual decreases in soil vapor concentrations were observed over distance away from Site 1.

3. Observed concentrations of TCE, PCE, and TCA above the NYSDOH sub-slab guideline values in shallow soil vapor seem to be limited to the adjacent residential block, roughly bounded by Sycamore Avenue to the north, 10th Street to the east, and by Maple Avenue to the south.

4. Based on the data collected during this offsite soil gas investigation in the residential neighborhood, indoor air and sub-slab soil vapor testing is recommended to determine if soil vapor intrusion is a concern in residential homes.

REFERENCES

New York State Department of Health (NYSDOH), 2006. Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York. October.

Tetra Tech NUS, Inc. (TtNUSa), 2008. Site 1-Soil Vapor Investigation. Naval Weapons Industrial Reserve Plant, Bethpage, New York. April.

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United States Environmental Protection Agency (USEPA), 1999. Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air Second Edition Compendium Method TO-15 Determination Of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters And Analyzed By Gas Chromatography/ Mass Spectrometry (GC/MS). January.

United States Environmental Protection Agency (USEPA), 2008. EPA Regional Screening Levels for Residential Air, Oak Ridge National Laboratory (ORNL), updated September 2008, retrieved from the EPA website, http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm

TABLES

TABLE 1
FIELD INVESTIGATION SUMMARY
SOIL GAS BORINGS
PHASE II SOIL GAS TESTING
NWIRP BETHPAGE, NEW YORK

Boring Number	Drilling Method	Total Boring Depth (feet)[1]	Sample Depth (feet)	Continuous Soil Core	Air Sample ID [2]
			8	NO	BPS1-SG2001-08
			20	NO	BPS1-SG2001-20
BPS1-SG2001	DPT	50	49	YES	BPS1-SG2001-49
			8	NO	BPS1-SG2002-08
			20	NO	BPS1-SG2002-20
BPS1-SG2002	DPT	47.5	44	YES	BPS1-SG2002-44
			8	NO	BPS1-SG2003-08
			8	NO	BPS1-SG2003-08-DUP
			20	NO	BPS1-SG2003-20
BPS1-SG2003	DPT	50	49	YES	BPS1-SG2003-49
			8	NO	BPS1-SG2004-08
			20	NO	BPS1-SG2004-20
			49	YES	BPS1-SG2004-49
BPS1-SG2004	DPT	50	49	YES	BPS1-SG2004-49-DUP
			8	NO	BPS1-SG2005-08
			20	NO	BPS1-SG2005-20
BPS1-SG2005	DPT	40	49	YES	BPS1-SG2005-49
			8	NO	BPS1-SG2006-08
			20	NO	BPS1-SG2006-20
BPS1-SG2006	DPT	50	49	YES	BPS1-SG2006-49
			8	NO	BPS1-SG2007-08
			20	NO	BPS1-SG2007-20
			20	NO	BPS1-SG2007-20-DUP
BPS1-SG2007	DPT	50	49	YES	BPS1-SG2007-49
			8	NO	BPS1-SG2008-08
			20	NO	BPS1-SG2008-20
BPS1-SG2008	DPT	50	49	YES	BPS1-SG2008-49
			8	NO	BPS1-SG2009-08
			25	NO	BPS1-SG2009-25
BPS1-SG2009	DPT	55	48	YES	BPS1-SG2009-48
			8	NO	BPS1-SG2010-08
			24	NO	BPS1-SG2010-24
BPS1-SG2010	DPT	50	49	YES	BPS1-SG2010-49
			8	NO	BPS1-SG2011-08
			24	NO	BPS1-SG2011-24
BPS1-SG2011	DPT	49	48	YES	BPS1-SG2011-48

1 - Depth below ground surface

2 - Summa canister collection (sample time of 35-120 minutes).

DPT - Direct push technology

DUP - Duplicate

TABLE 2
ANALYTICAL SUMMARY OF DETECTIONS
AMBIENT AIR SAMPLING - OCTOBER 2008 THROUGH JANUARY 2009
NWIRP BETHPAGE, NEW YORK

	BPS1-FB2001-00	BPS1-FB2002-00	BPS1-FB2003-00	BPS1-FB2004-00	BPS1-FB2005-00	BPS1-FB2006-00	BPS1-FB2007-01
Date	10/21/2008	10/23/2008	10/24/2008	10/28/2008	10/30/2008	10/31/2008	1/6/2009
Compound	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**
Trichloroethene	0.062 J	0.019 J	0.083 J	0.081 J	0.052 J	0.22	0.38
Tetrachloroethene	0.77 J		0.51 J	0.60 J		1.1 J	
1,2,4-Trichlorobenzene				0.76 J			
1,4-Dichlorobenzene				0.31 J		0.90 J	
2-Butanone (Methyl Ethyl Ketone)	2	0.47	2.2	2	1.5	1.4	1
4-Methyl-2-pentanone	0.13 J		0.17 J			0.45 J	
Acetone	12	5.9	56 J	7.6	8.4	9.1	1.9 J
Benzene	0.82	0.33 J	0.94	0.96	0.46 J	2.5	0.91
Bromomethane	0.63	0.73	1.7				
Carbon Disulfide				1.8 J	0.36 J		
Carbon Tetrachloride	0.65 J	0.53 J	0.48 J	0.63 J	0.49 J	0.53 J	0.40 J
Chloromethane	0.69	0.56	0.66	1.2	1.2	1.1	1.2
Ethyl Benzene	0.35 J		0.39 J	0.47 J		1.2	
Freon 11	1.4	1.2	1.2	1.6	1.7	1.6	1.2 J
Freon 113	0.64 J	0.47 J	0.75 J	0.73 J	0.66 J	0.74 J	0.66 J
Freon 12	2.6	2.4	2.2	2.6	3	2.6	2.5
m,p-Xylene	0.74	0.21	1.1	1.1	0.37 J	3.4	0.48 J
Methylene Chloride	0.66 J		0.20 J	0.63 J	0.41 J	1.2 J	
o-Xylene	0.24 J		0.41 J	0.40 J		1.3	0.18 J
Styrene	0.085 J		0.089 J			0.27 J	
Toluene	27	0.63	2.5	6.6	1.1	6.9	1.4

µg/m^3 = micrograms per cubic meter of air
J = estimeated value
Blank cells indicate a non-detect value.

TABLE 3
ANALYTICAL SUMMARY OF DETECTIONS
SOIL GAS SAMPLING - JANUARY 2008 THROUGH JANUARY 2009
NWIRP BETHPAGE, NEW YORK

	EPA Regional Screening Levels Residential Air[1]	NYSDOH Air Guideline Values[2]	Proposed WP Levels	BPS1-SG1001-07	BPS1-SG1001-20	BPS1-SG1001-40	BPS1-SG1002-08	BPS1-SG1002-08 DUP	BPS1-SG1002-20	BPS1-SG1002-45	BPS1-SG1003-05.5	BPS1-SG1003-20	BPS1-SG1003-45	BPS1-SG1004-05.5	BPS1-SG1004-22	BPS1-SG1004-46	BPS1-SG1005-08	BPS1-SG1005-20	BPS1-SG1005-45	BPS1-SG1006-07	BPS1-SG1006-20	BPS1-SG1006-45	SVPM11S-24	SVPM11-49	SVPM12S-25	SVPM12-50
Date				Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008	Jan. 2008
Compound	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**
Trichloroethene	1.20	5/250	5	**19,000**	**180,000**	**1,400**	**3300 J**	**4,600**	**4,400**	**320**	**110**	**590**	**750**	**5.2**		**820**	1.5	**16**	**71**	1.2	2.0	2.1	**7,200**	0.29	**73,000**	**150,000**
Tetrachloroethene	0.41	100/1000	100	**170**	**1,200**	5.9	**1,700**	**2,100**	**960**	20	**540J**	**1,300**	**250**	22		78	15	59	60	19	28	44	**5,300**			
1,1,1-Trichloroethane	5200.00	NA/1000	5200.00	**16,000**	**90,000**	890	740	970	1,900	550	440J	790	780	3.9		430	3.4	11	27			0.95	2,400		**36,000**	**75,000**
1,1-Dichloroethane	1.50		5 - 150	**130**	**1,700**	**14**	**15**		**62**	**16**	1.2	**19**	**95**			**460**							**63**		**710**	**1,400**
1,1-Dichloroethene	210.00		210.00	**490**	**2,400**	15			20	6.6J	0.94	5.8	8.8			4.1									**1,700**	**4,700**
Benzene	0.31		5 - 31			1.1J	**5.1J**		**33**	**56**	3.3	**6.2**	**9.4**	**7.6**	1.4	**5.2**	**7.1**	**22**	**8.4**	**5.1**	**7.2**	**23**		1		
Chloroform	0.11		5 - 11			0.52 J	**5.6J**		**7.3J**		1.2	4.9	**5.7**			2.6J		1.7	1.2	2.4	**53**	**28**				
cis-1,2-Dichloroethene	NA		36.50	24 J	**560J**		**160**	**200**	**800**	**92J**		3.7	8.1			**79**							**860**		**200J**	**780**
Carbon Tetrachloride	0.16	5/250												0.67	0.47J		0.30J		0.28J	41	130	99		0.75J		
Methylene Chloride	5.20	60/NA				150																				
1,2,4-Trichlorobenzene	NA																									
1,2-Dichlorobenzene	210.00																									
1,2-Dichloroethane	0.09																									
1,2-Dichloropropane	0.24																									
1,3-Dichlorobenzene	NA																									
1,4-Dichlorobenzene	0.22																									
2-Butanone	NA			35					50	230	10	12	22	16	0.87	15	11J	53J	37	26J	21J	50		0.75		
4-Methyl-2-pentanone	NA													2.1	0.11J			1.8		0.66						
Acetone	32000.00			370		14	64	72	1500	2000	95	120	340	330J	230J	470	230J	490 J	740J	110	160J	570J	49J	9.3	320J	500J
Bromomethane	5.20																0.27J									
Carbon Disulfide	730.00						3.5J		3.9J	6.0J	1.1J	2.8J	1.3J	3.6	0.15J	1.6J	2.5	4.6	2.3	3.2	4.7	2.4				
Chlorobenzene	52.00													0.061J												
Chloroethane	NA																									
Chloromethane	1.40									5.2J				0.83	1.1		0.79	0.34	0.18J	0.25J		0.5		1.1		
Ethyl Benzene	0.97								5.9J	8.4J	7.8	12	4.4	9.1	0.53J	2.7J	1.8	6.4	4.7	1.8	3.2	5.2		0.49J		
Freon 11	NA					2.3J	4.4J				1.8	1.4J	2.0J	1.3	1.5	1.7J	1.3	1.6	2.3	1.1	1.7	1.4		1.2		
Freon 113	NA			19 J		2.1J	2200J	2900J	5100J	2400J	790J	1400J	2200J	4J	0.69J	600J	2.4	3	15	0.73J	0.64J	0.70J	4900J	0.79J		
Freon 12	NA					4.1					0.86		2.8J	1.6	1.9		1.8	1.6	1.4	1.6	1.4	1.2		1.8		
m,p-Xylene	730.00								9.1J	20	27	34	14	32	1.9	7.4	5.1	12	13	5	8.4	14	26	1.2		
Methyl tert-butyl ether	9.40												8.2													
o-Xylene	730.00									7.6J	8.3	11	2.4J	11	0.63	1.6J	1.2	3.2	2.6	1.6	2.2	2.7	12J	0.47J		
Styrene	1000.00										0.92	1.0J		0.76	0.084J		0.26J	0.89	0.46J		0.74	0.54J		0.085J		
Toluene	5300.00			13 J		2.1J			31	66	25	41	24	32	3.6	15	10	37	30	8.8	18	40	23	2.2		
trans-1,2-Dichloroethene	63.00						22	25	58	92J	0.22J	3.0J	5.6			22							64			

[1]Residential air criteria from Regional Screening Tables (September 2008), http://www.epa.gov/reg3hwmd/risk/human/rb-
[2] Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006), Air Guideline Values read as Indoor air/sub-slab
µg/m³ = micrograms per cubic meter of air
NA : Not Available
Bolded values are exceedances of Proposed Work Plan (WP) Levels (TTNUS, 2008)
Shaded values are exceedances of NYSDOH Air guideline values for Indoor air/Sub-Slab concentrations
J = estimated value
Blank cells indicate a non-detect value.
Note: Initial onsite sampling took place January 2008 and initial offsite sampling took place October 2008 through January 2009

TABLE 3
ANALYTICAL SUMMARY OF DETECTIONS
SOIL GAS SAMPLING - JANUARY 2008 THROUGH JANUARY 2009
NWIRP BETHPAGE, NEW YORK

	EPA Regional Screening Levels Residential Air[1]	NYSDOH Air Guideline Values[2]	Proposed WP Levels	BPS1-SG2001-08	BPS1-SG2001-20	BPS1-SG2001-49	BPS1-SG2002-08	BPS1-SG2002-20	BPS1-SG2002-44	BPS1-SG2003-08	BPS1-SG2003-20	BPS1-SG2003-49	BPS1-SG2004-08	BPS1-SG2004-20	BPS1-SG2004-49	BPS1-SG2005-08	BPS1-SG2005-20	BPS1-SG2005-49	BPS1-SG2006-08	BPS1-SG2006-20	BPS1-SG2006-49
Date				Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008
Compound	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**	**µg/m^3**
Trichloroethene	1.20	5/250	5	**1,700**	**2,700**	**1,500**	**34,000**	**89,000**	**26,000**	**20**	**82**	**710**	1.0	**550**	**600**	0.52	0.8	1.0	**32**	**71**	**61**
Tetrachloroethene	0.41	100/1000	100	**4,000**	**5,000**	**720**	**420**	**740**	48 J	19	14	8.9	1.8	**1,000**	**580**	16	9.7	3.8	14	29	11
1,1,1-Trichloroethane	5200.00	NA/1000	5200.00	1,300	1,700	1,400	**21,000**	**52,000**	**27,000**	66	170J	720J	1.4	460	480	3.2	3.2	3.2	12	22	35
1,1-Dichloroethane	1.50		5 - 150	**11**	**29**	**26**	**170**	**680**	**490**		0.49 J	**8.6**		**44**	**74**						
1,1-Dichloroethene	210.00		210.00	9.2 J	16	27	**220**	**890**	**480**		2	23		7.1						0.62	1.2
Benzene	0.31		5 - 31	**7.8 J**	4.7 J	**9.1**	**28 J**		**11 J**	3.5	**6.4**	**8.5**	1.1	3.5	**15.0**	4.5	3.9	**5.8**	2.5	**7**	**5.4**
Chloroform	0.11		5 - 11	**110**	**24**	**8.2**	**41 J**	**32 J**	**19 J**	4.6	3	**9.4**	0.25 J	**25**	**24.0**	**5.0**	**8.7**	**16**	3.0	3.7	**6.1**
cis-1,2-Dichloroethene	NA		36.50	20	**94**	**73**	**49 J**	**170**	**130**			1.6		4.6					4.1	**45**	**89**
Carbon Tetrachloride	0.16	5/250				0.13 J							0.55J			110	140	130	0.94J	2.10	2.50
Methylene Chloride	5.20	60/NA																			
1,2,4-Trichlorobenzene	NA																				
1,2-Dichlorobenzene	210.00																				
1,2-Dichloroethane	0.09												0.25J								
1,2-Dichloropropane	0.24												0.59J								
1,3-Dichlorobenzene	NA									0.25J	0.26J										
1,4-Dichlorobenzene	0.22									0.33J	0.31J		0.36J			0.32J	0.27J	0.28J			0.35J
2-Butanone	NA			50	56	65	78		78	19	31	47	4	30	100	60	60	44	68	59	140
4-Methyl-2-pentanone	NA			2.3J						2			0.47J		1.2J	1.10	0.60	0.93	0.47J	1.10	0.80
Acetone	32000.00			470	440	500	300	250	1,200	120	170J	410J	29	240	640	630J	790J	700J	1200J	860J	1100J
Bromomethane	5.20															0.81		1.10	2.30	0.73	
Carbon Disulfide	730.00			3.0J	3.3J					2	3.0	2.5J	1.1	2.2J	3.4J	6.6J	2.7J	1.9J	2.1J	1.5J	2.2
Chlorobenzene	52.00																	0.12J		0.15J	
Chloroethane	NA																	0.25J		0.15J	
Chloromethane	1.40									0.23J	0.13J	0.46J	1			0.22J		0.53		0.27J	0.25J
Ethyl Benzene	0.97			4.7J	4.4J	7.9	170		12J	6	8	7.8	1.0	3.6	7.3	3.1	4.1	4.0	8.8	6.2	6.5
Freon 11	NA			6.5J	6.1J	6.5J				13.0	13.0	40.0	1.5	4.7	3.4J	7.7J	4.7J	2.5J	2.3J	2.3J	2.8J
Freon 113	NA			2,200	2,800	2,500			34J	1	2	4	.79J	1,200	1,300	10J	10J	14J	170J	280J	300J
Freon 12	NA			2.9J	2.8J	2.6J				1.3	1.2	3.9	2.5	3.6	2.9J	1.4	1.3	1.1	2.3	1.2	1.5
m,p-Xylene	730.00			12	14	26	290.0	32J	40J	20.0	25.0	25.0	3.1	12.0	21.0	9.6	13.0	13.0	33.0	20.0	19.0
Methyl tert-butyl ether	9.40													1.7J	11						
o-Xylene	730.00			3.5J	3.4J	9.2	80J		16J	8.4	9.8	10.0	1.2	3.3	5.8	2.2	3.4	2.8	12.0	7.2	5.3
Styrene	1000.00			2.0J	1.8J	17				21.0	26.0	24.0	1.4	2.0J		1.8	1.6	1.90	37.00	21.00	2.10
Toluene	5300.00			33	32	65	500	46J	65J	20	35	63	6.7	24	52	26	38.0	55.0	35	34	60
trans-1,2-Dichloroethene	63.00			7.9J	16.0	11								3.9						1.4J	2.7

[1]Residential air criteria from Regional Screening Tables (September 2008), http://www.epa.gov/reg3hwmd/risk/human/rb-
[2] Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006), Air Guideline Values read as Indoor air/sub-slab
µg/m^3 = micrograms per cubic meter of air
NA : Not Available
Bolded values are exceedances of Proposed Work Plan (WP) Levels (TTNUS, 2008)
Shaded values are exceedances of NYSDOH Air guideline values for Indoor air/Sub-Slab concentrations
J = estimated value
Blank cells indicate a non-detect value.
Note: Initial onsite sampling took place January 2008 and initial offsite sampling took place October 2008 through January 2009

TABLE 3
ANALYTICAL SUMMARY OF DETECTIONS
SOIL GAS SAMPLING - JANUARY 2008 THROUGH JANUARY 2009
NWIRP BETHPAGE, NEW YORK

	EPA Regional Screening Levels Residential Air[1]	NYSDOH Air Guideline Values[2]	Proposed WP Levels	BPS1-SG2007-08	BPS1-SG2007-20	BPS1-SG2007-49	BPS1-SG2008-08	BPS1-SG2008-20	BPS1-SG2008-49	BPS1-SG2009-08	BPS1-SG2009-25	BPS1-SG2009-48	BPS1-SG2010-08	BPS1-SG2010-24	BPS1-SG2010-49	BPS1-SG2011-08	BPS1-SG2011-24	BPS1-SG2011-48
Date				Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Oct. 2008	Jan. 2009	Jan. 2009	Jan. 2009	Jan. 2009	Jan. 2009	Jan. 2009
Compound	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**
Trichloroethene	1.20	5/250	5	**29**	**87**	**400**	4.7	**6.8**	**26.0**	0.2	0.23	0.4	2.8	**19.0**	**5.5**	0.9	0.14 J	0.34
Tetrachloroethene	0.41	100/1000	100	13	25	5.3 J	12	2.1	7.4	4.8	3.2	2.0	3.7	4.9	2.3	1.6	0.57 J	2.9
1,1,1-Trichloroethane	5200.00	NA/1000	5200.00	150	260	870	52	80	130	1.1	1.6	1.1	1.4	2.2	1.0	1.5	0.50 J	1.0
1,1-Dichloroethane	1.50		5 - 150			3.0 J												
1,1-Dichloroethene	210.00		210.00	0.26 J	0.69 J	13			1									
Benzene	0.31		5 - 31	**5.7**	**5.8**	**11**	**5.4**	**13**	**9.3**	2.9	3.4	**19.0**	3.5	3.7	**7.8**	2.8	3.3	**19.0**
Chloroform	0.11		5 - 11	1	0.72 J	4.1 J	1.2	3.4	**9.1**	0.92	**5.8**	**6.1**	**16.0**	2.2	0.9	0.29 J	0.46 J	2.7
cis-1,2-Dichloroethene	NA		36.50															
Carbon Tetrachloride	0.16	5/250		0.33J			0.40J	0.52J	0.85					0.32 J	0.56 J		0.45 J	
Methylene Chloride	5.20	60/NA		0.66J									0.58 J				0.56 J	
1,2,4-Trichlorobenzene	NA				0.37J													
1,2-Dichlorobenzene	210.00			0.19J														
1,2-Dichloroethane	0.09												6.9					0.73
1,2-Dichloropropane	0.24												8.3					
1,3-Dichlorobenzene	NA																	0.17 J
1,4-Dichlorobenzene	0.22			0.26J								0.23J		0.38 J				
2-Butanone	NA			58	41	200	44	160	100	20	25	26	25	66	110	50	72	290 E
4-Methyl-2-pentanone	NA			0.62	0.67J	2.0J	1.60	1.60	4.10	1.00	0.82					5.9	3.3	
Acetone	32000.00			850J	630J	3400J	460J	1200J	860J	230J	400J	230J	44	55	130	34	56	240 J
Bromomethane	5.20			0.93	0.78J		0.43J	1.60	1.20	0.51J	0.68	1.10	0.21 J	0.20 J				0.40 J
Carbon Disulfide	730.00			2.7J	2.5J	4.9J	2.8J	3.7J	1.2J	2.1J	2.2J	0.90J	0.96 J	2.10	0.95 J	2.30	1.1 J	2.50
Chlorobenzene	52.00								0.17J									
Chloroethane	NA											0.39						
Chloromethane	1.40			0.11J			0.14J	0.24J	0.46	0.29	0.32	0.83	0.26 J	0.27	1.00	0.26 J	1.00	0.91
Ethyl Benzene	0.97			1.5	2.9	7.3	3.5	2.8	4.4	3.2	4.2	5.6	4.8	5.8	2.5	4.0	2.6	5.0
Freon 11	NA			2.5J	2.7	2.6J	3.9J	4.1J	3.3J	16J	12J	7.3J	14	28	11	5.1	3.6	5.5
Freon 113	NA			11J	16J	41.0	0.94J	1.4J	1.3J	0.65J	0.57J	0.46J	0.69 J	0.81 J	0.66 J	0.39 J	0.81 J	0.72 J
Freon 12	NA			1.1	2.8		1.2	2.1	2.2	3.7	5.6	5.8	1.8	1.4	2.0	1.6	2.2	2.3
m,p-Xylene	730.00			3.6	10.0	27.0	12.0	7.2	13.0	11.0		17.0	13.0	14.0	7.1	11	5.8	15.0
Methyl tert-butyl ether	9.40																	
o-Xylene	730.00			0.60J	2.3	8.4	2.7	1.7	2.8	3.0		4.1	6.1	5.2	2.6	49.0	2.2	5.9
Styrene	1000.00			0.12J	0.84J	2.10	0.91	0.53J	0.95	0.66		0.91	9.60	8.40	2.80	8.20	2.70	0.57
Toluene	5300.00			20	20	65	27	49	57.0	24.0	38	71.0	170.0	170	48.0	100	97.0	52.0
trans-1,2-Dichloroethene	63.00																	

[1]Residential air criteria from Regional Screening Tables (September 2008), http://www.epa.gov/reg3hwmd/risk/human/rb-

[2] Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006), Air Guideline Values read as Indoor air/sub-slab

µg/m³ = micrograms per cubic meter of air

NA : Not Available

Bolded values are exceedances of Proposed Work Plan (WP) Levels (TTNUS, 2008)

Shaded values are exceedances of NYSDOH Air guideline values for Indoor air/Sub-Slab concentrations

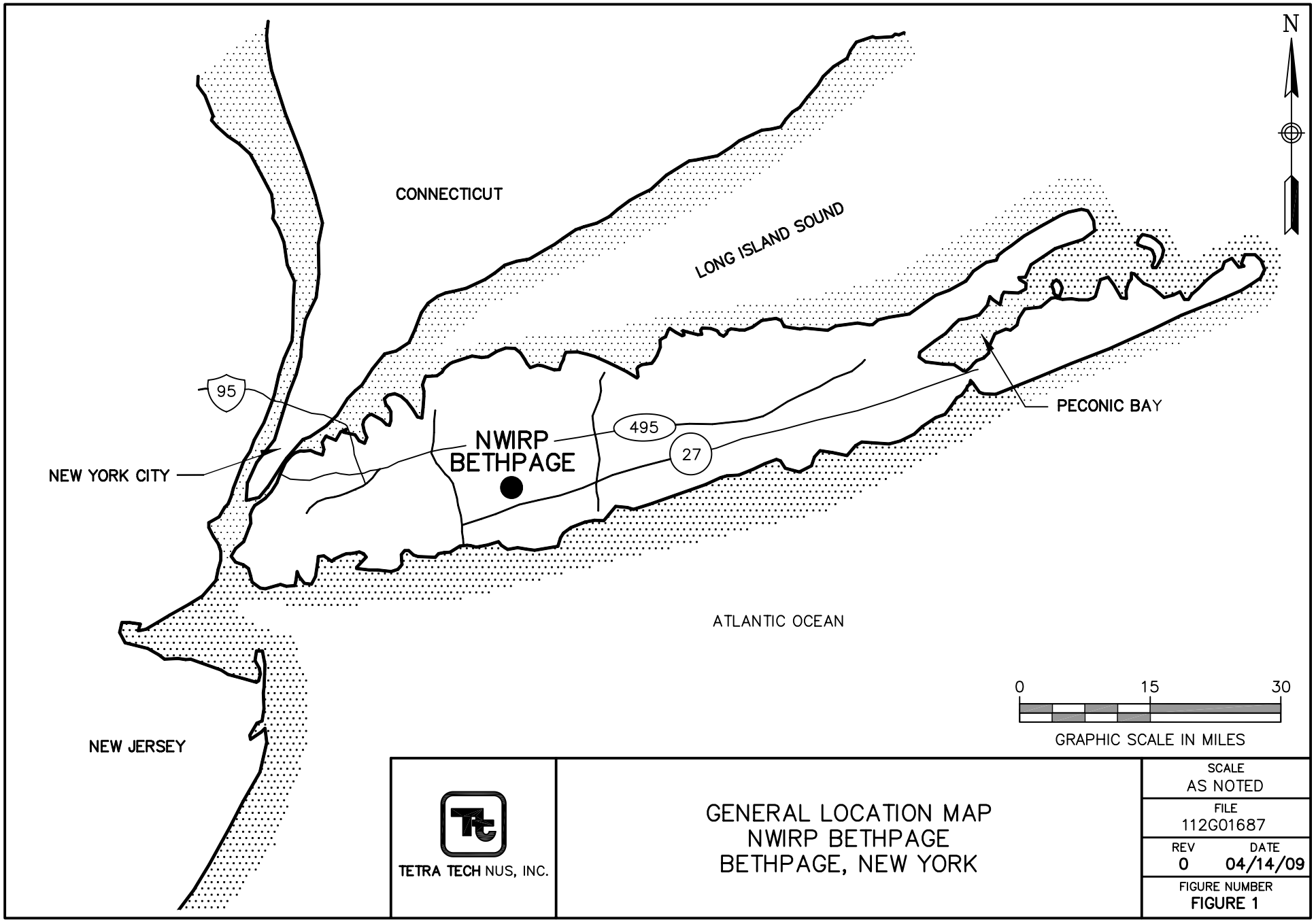
J = estimated value

Blank cells indicate a non-detect value.

Note: Initial onsite sampling took place January 2008 and initial offsite sampling took place October 2008 through January 2009

FIGURES

112G01687/0510/112G01687CM01.DWG 04/14/09 MKB

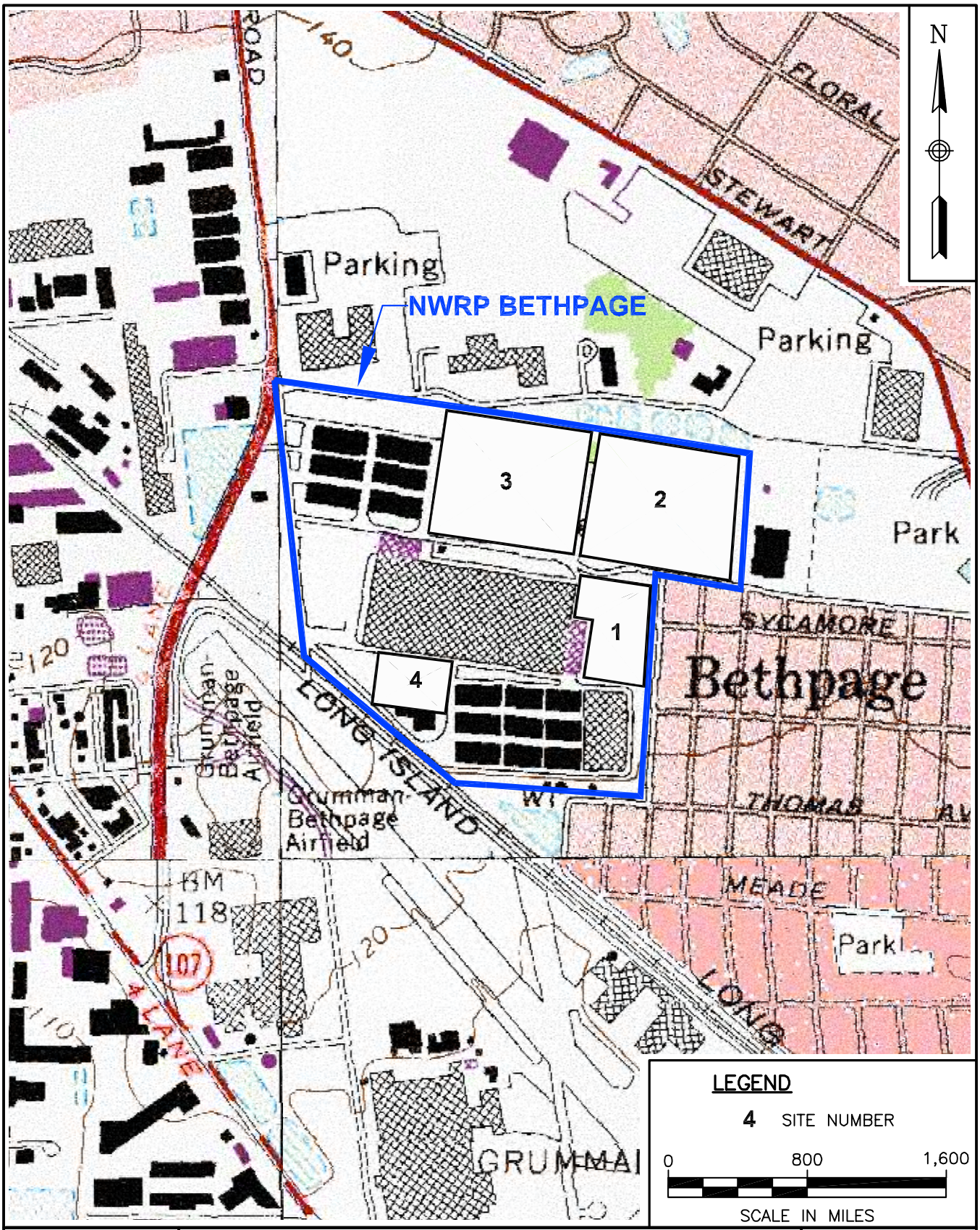


TETRA TECH NUS, INC.

GENERAL LOCATION MAP
NWIRP BETHPAGE
BETHPAGE, NEW YORK

SCALE	AS NOTED
FILE	112G01687
REV	0
DATE	04/14/09
FIGURE NUMBER	FIGURE 1

112G01687/0510/112G01687CM02.DWG 04/14/09 MKB



TETRA TECH NUS, INC.

SITE LOCATION MAP
SITE 1
NWIRP
BETHPAGE, NEW YORK

SCALE	AS NOTED
FILE	112G01687CM02
REV	0
DATE	04/14/09
FIGURE NUMBER	FIGURE 2

112G01687/0510/112G01687GM02.DWG 04/24/09 MKB

AOC 30
AOC 35
AOC 23
SETTLING TANK
SITE 1
PLANT NO. 3
METAL STORAGE BUILDINGS
PAD
PLANT 17 SOUTH
11TH STREET
10TH STREET
9TH STREET
SYCAMORE AVENUE
MAPLE AVENUE

BPSI-SG1005 Compound	8 ft bgs ug/m3	20 ft bgs ug/m3	45 ft bgs ug/m3
PCE	15	59	60
TCE	1.5	16	71
TCA	3.4	11	27

BPSI-SG1004 Compound	5.5 ft bgs ug/m3	20 ft bgs ug/m3	45 ft bgs ug/m3
PCE	22	ND	78
TCE	5.2	ND	820
TCA	3.9	ND	430

BPSI-SG2004 Compound	8 ft bgs ug/m3	20 ft bgs ug/m3	49 ft bgs ug/m3
PCE	1.8	1,000	580
TCE	1.0	550	600
TCA	1.4	460	480

BPSI-SG1003 Compound	5.5 ft bgs ug/m3	20 ft bgs ug/m3	45 ft bgs ug/m3
PCE	540 E	1,300	250
TCE	110	590	750
TCA	440 E	790	780

SVPM11 Compound	49 ft bgs ug/m3
PCE	ND
TCE	0.29
TCA	ND

SVPM11S Compound	24 ft bgs ug/m3
PCE	5,300
TCE	7,200
TCA	ND

BPSI-SG1001 Compound	7 ft bgs ug/m3	20 ft bgs ug/m3	45 ft bgs ug/m3
PCE	170	1,200	5.9
TCE	19,000	180,000	1,400
TCA	16,000	90,000	890

SVPM12 Compound	50 ft bgs ug/m3
PCE	ND
TCE	150,000
TCA	75,000

SVPM12S Compound	25 ft bgs ug/m3
PCE	ND
TCE	73,000
TCA	36,000

BPSI-SG1002 Compound	8 ft bgs ug/m3	20 ft bgs ug/m3	45 ft bgs ug/m3
PCE	1,700	960	20
TCE	3,300	4,400	320
TCA	740	1,900	550

BPSI-SG2001 Compound	8 ft bgs ug/m3	20 ft bgs ug/m3	49 ft bgs ug/m3
PCE	4,000	5,000	720
TCE	1,700	2,700	1,500
TCA	1,300	1,700	1,400

BPSI-SG2002 Compound	8 ft bgs ug/m3	20 ft bgs ug/m3	44 ft bgs ug/m3
PCE	420	740	48 J
TCE	34,000	89,000	26,000
TCA	21,000	52,000	27,000

BPSI-SG2003 Compound	8 ft bgs ug/m3	20 ft bgs ug/m3	49 ft bgs ug/m3
PCE	19	14	8.9
TCE	20	82	710
TCA	66	170	720

BPSI-SG2010 Compound	8 ft bgs ug/m3	24 ft bgs ug/m3	49 ft bgs ug/m3
PCE	3.7	4.9	2.3
TCE	2.8	19	5.5
TCA	1.4	2.2	1.0

BPSI-SG2008 Compound	8 ft bgs ug/m3	20 ft bgs ug/m3	48 ft bgs ug/m3
PCE	12.0	2.1	7.4
TCE	4.7	6.8	26.0
TCA	52	80	130

BPSI-SG1006 Compound	7 ft bgs ug/m3	20 ft bgs ug/m3	45 ft bgs ug/m3
PCE	19	28	44
TCE	1.2	2	2.1
TCA	ND	ND	0.95

BPSI-SG2005 Compound	8 ft bgs ug/m3	20 ft bgs ug/m3	49 ft bgs ug/m3
PCE	16.0	9.7	3.8
TCE	0.52	0.8	1.0
TCA	3.2	3.2	3.2

BPSI-SG2006 Compound	8 ft bgs ug/m3	20 ft bgs ug/m3	49 ft bgs ug/m3
PCE	14	29	11
TCE	32	71	61
TCA	12	22	35

BPSI-SG2011 Compound	8 ft bgs ug/m3	24 ft bgs ug/m3	48 ft bgs ug/m3
PCE	1.6	0.57	2.9
TCE	0.9	0.14	0.34
TCA	1.5	0.50	1.0

BPSI-SG2007 Compound	8 ft bgs ug/m3	20 ft bgs ug/m3	49 ft bgs ug/m3
PCE	13	25	5.3 J
TCE	29	87	400
TCA	150	260	870

BPSI-SG2009 Compound	8 ft bgs ug/m3	20 ft bgs ug/m3	49 ft bgs ug/m3
PCE	4.8	3.2	2.0
TCE	0.2	0.23	0.4
TCA	1.1	1.6	1.1

N

LEGEND

- OFFSITE SOIL GAS SAMPLE LOCATION
- ONSITE SOIL GAS SAMPLE LOCATION
- SOIL VAPOR PRESSURE MONITORING POINT (SVPM)
- 420 SOIL GAS VALUE in ug/m 3
- J ESTIMATED VALUE
- bgs BELOW GROUND SURFACE
- PCE TETRACHLOROETHENE
- TCE TRICHLOROETHENE
- TCA 1,1,1 - TRICHLOROETHANE
- PROPERTY LINE
- FENCE LINE
- SITE BOUNDARY

PARAMETER	NYSDOH SUBSLAB VALUE	NYSDOH INDOOR AIR VALUE
Compound	ug/m3	ug/m3
PCE	1,000	100
TCE	250	5
TCA	1,000	NE

NOTE:
NYSDOH HAS NOT ESTABLISHED (NE) AN INDOOR AIR SCREENING VALUE FOR TCA.

0 100 200

SCALE IN FEET

TETRA TECH NUS, INC.

SOIL GAS SAMPLING RESULTS JANUARY 2008 TO JANUARY 2009 SITE 1 NWIRP BETHPAGE BETHPAGE, NEW YORK

FILE	SCALE
112G01687GM02	AS NOTED
FIGURE NUMBER: FIGURE 3	REV: 0 DATE: 04/24/09

APPENDIX A

SITE PHOTOS

PHASE II SOIL GAS INVESTIGATION
Photo Log
October 2008/January 2009

Photo 1: DPT rig, East of Site 1 positioned at BPSI-SG2008.

Photo 2: BPSI-SG2008 showing typical soil gas sampling setup.

PHASE II SOIL GAS INVESTIGATION
Photo Log
October 2008/January 2009

Photo 3: Close up view of DPT rig at BPS1-SG2005.

Photo 4: Looking – at DPT rig positioned at BPS1-SG2005

PHASE II SOIL GAS INVESTIGATION
Photo Log
October 2008/January 2009

Photo 5: Close up of BPSI-SG2001 showing soil gas points post-sampling.

Photo 6: BPSI-SG2001 showing location near homes on 11th Street.

PHASE II SOIL GAS INVESTIGATION
Photo Log
October 2008/January 2009

Photo 7: Looking SE at DPT rig positioned at BPSI-SG2002.

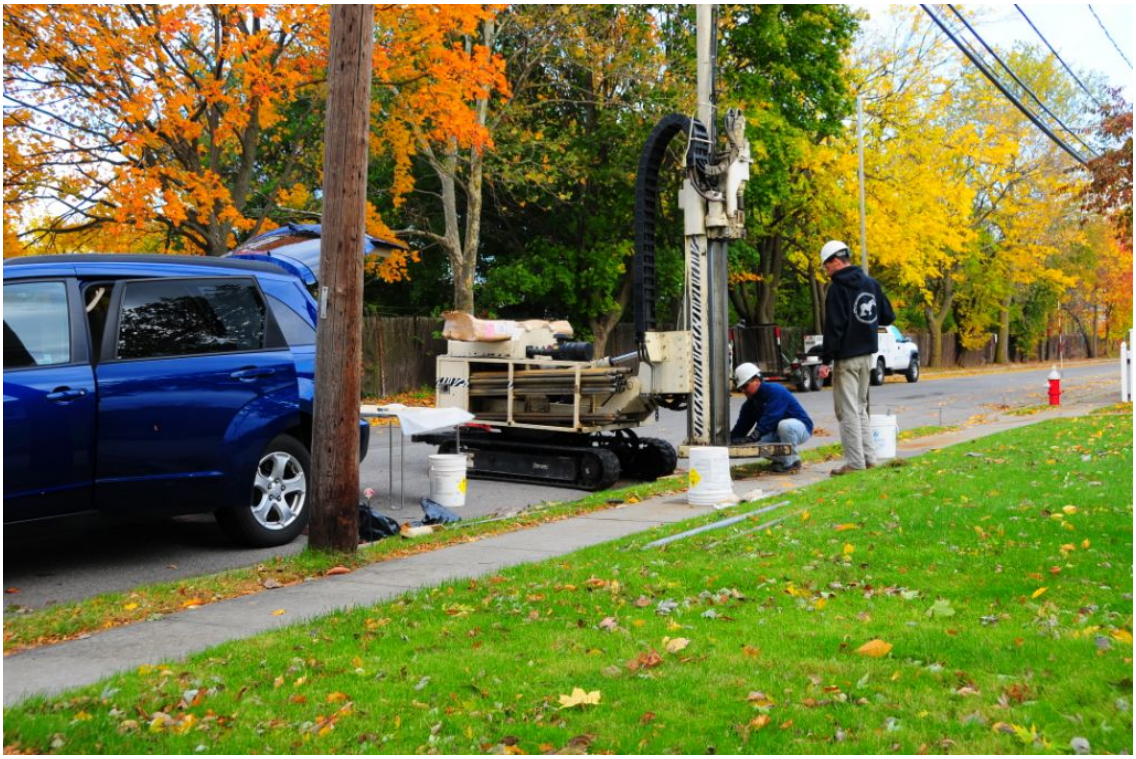


Photo 8: Looking NW at DPT rig positioned at BPSI-SG2002.

APPENDIX B

SOIL BORING LOGS

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2001
DATE: 10/28/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	0				M DENSE	YELLOW BRN	4" TOPSOIL SILTY SAND-SOME GRAVEL - TR ROOTS.	SW	DAMP	0			
S-1									1"Φ GRAVEL				
@ 0930			NA							0			
	5									0			
					DENSE	BRN TO	F/C SAND - SOME	SW	DAMP				
S-2							GRAVEL		1 1/2" Φ GRAVEL SUB ROUND	0			
@ 1100			3.8/5	◎		ORANG			TO SUB ANG.				
						BRN				0			
	10												
						YELLOW	SAME	SW	DAMP	0			
S-3						BRN			3/4" Φ GRAVEL				
@ 1127			3/5						SUB ROUND SUB ANG.	0			
	15									0			
							SAME	SW	DAMP				
S-4 @ 1132			3.1/5						1 PC 1 3/4" Φ GRAVEL	0			
									SUB ROUND SUB ANG.				
										0			
	20			◎									
							SAME	SW	DAMP	0			
S-5 @ 1138			2.8/5										
										0			
	25									0			

* When rocking coring, enter rock brokeness.

◎ SG SAMPLE

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

Drilling Area Background (ppm): 0

Remarks: DPT RIG TRACK MTD - DUAL TUBE SYSTEM TO ADVANCE BORING.

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2001
DATE: 10/28/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	25				DENSE	YELLOW BRN	F/C SAND - TR GR.	SW	DAMP	0			
S-6							TO						
@ 1145			3.2/5	± 28'					(GRADATIONAL)	0			
					DENSE		F/M SAND TR.	SW	DAMP				
	30						GRAVEL (LESS GRAVEL @ 28')		3/4" Φ	0			
									SUB ROUND SUB ANG				
S-7							SAME	SW	DAMP	0			
@ 1152			3.5/5						SAME				
										0			
	35												
					DENSE	TAN BRN	F/C SAND-TR	SW	DAMP	0			
S-8						TO	TO SOME GRAVEL		MORE C.SAND				
@ 1205			3.2/5			RED BRN			MORE GRAVEL THAN	0			
						TO			S-7. 3/4" Φ SUB				
	40					TAN BRN			ROUND SUB ANG.	0			
							F/C SAND-TR	SW	DAMP				
S-9 @ 1215			3/5			TO RED BRN	FINE GRAVEL			0			
										0			
	45												
					DENSE	YELLOW BRN	F/C SAND-TR	SW	DAMP	0			
S-10 @ 1222			2.5/5				F. GRAVEL			0			
				⊙									
	50									0			

* When rock coring, enter rock brokeness.

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

⊙ SG SAMPLE DEPTHS

Drilling Area Background (ppm): 0

Remarks: _____

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2002
DATE: 10-29-08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	0				DENSE	BRN	6" TOPSOIL	SW	DAMP	0			
S-1						TO YELLOW	F/C SAND-SOME		1½" Φ GRAVEL				
@ 0950			NA			BRN	GRAVEL		SUB ROUND SUB ANG.	0			
	5									0			
					DENSE	YELLOW BRN	SAME	SW	DAMP				
S-2			3.1/5						SAME.	0			
@ 0940				◎									
										0			
	10												
					DENSE		SAME	SW	DAMP	0			
S-3			4/5						1" Φ GRAVEL				
@ 1015									SUB ROUND SUB ANG.	0			
	15									0			
							SAME	SW	DAMP				
S-4			2.5/5						SAME.	0			
@ 1023													
										0			
	20			◎		YELLOW							
					DENSE	BRN	SAME	SW	DAMP	0			
S-5									SAME.				
@ 1030			3/5							0			
	25									0			

* When rock coring, enter rock brokeness.

◎ SOIL GAS SAMPLE DEPTHS

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

Drilling Area Background (ppm): 0

Remarks:

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2002
DATE: 10/29/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	25					TAN							
					DENSE	TO	F/C SAND - TR		DAMP	0			
S-6						YELLOW BRN	TO SOME GRAVEL		3/4" Ø GRAVEL				
@ 1040			3.5/5						SUB ANG TO SUB ROUND	0			
	30									0			
					DENSE		SAME	SW	DAMP				
S-7									SAME	0			
@ 1047			2.8/5										
										0			
	35												
					VERY DENSE		SAME	SW	DAMP	0			
S-8					(Based on	TO			SAME				
@ 1059			3/5		Drilling)				SL COLOR CHG	0			
						REDDISH BRN			@ 38' - VERY DENSE DRILLING				
	40								(36-40)	0			
							SAME	SW	DAMP				
S-9			4/5						SAME.	0			
@ 1117													
			44 → 0							0			
	45			45									
				46 ±	STIFF	RED GRAY	CLAYEY SAND	SC	DAMP	0			
			3.5/5		DENSE	RED BRN		SW					
S-10				47.5									
@ 1145				TD						0			
	50						TD @ 47.5						

* 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: _____

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2003
DATE: 10/29/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	0				DENSE	BRN	6" TOPSOIL F/C SAND- SOME	SW	DAMP	0			
S-1						TO	GRAVEL						
@ 1310			NA			ORANG BRN				0			
	5									0			
					DENSE		SAME	SW	DAMP				
S-2									1 1/2 Φ SUB ANG	0			
@ 1325			3/5	0					SUB ROUND GRAVEL				
										0			
	10					ORANG							
					DENSE	BRN	SAME	SW	DAMP	0			
S-3									1 1/4" Φ SAME.				
@ 1345			3/5			TO				0			
						YELLOW BRN							
	15									0			
					DENSE		SAME	SW	DAMP				
S-4			2.8/5						1 1/4"	0			
@ 1351									SAME				
										0			
	20			0									
					DENSE		SAME.	SW	DAMP	0			
S-5			2.5/5										
@ 1400										0			
	25									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: _____

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2003
DATE: 10/29/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	25				DENSE	YELLOW BRN	F/C SAND - SOME GRAVEL	SW	DAMP	0			
S-6 @ 1405			3.5/5						1 1/2" Φ SUB ANG TO SUB ROUND	0			
	30									0			
					DENSE		F/C SAND — TR. TO SOME GRAVEL	SW	DAMP				
S-7 @ 1413			3.1/5						1" Φ SUB ANG SUB ROUND NOT AS MUCH GRAVEL AS S-6.	0			
	35					GRAY							
					DENSE	ORANG BRN	F/C SAND — TR F. GRAVEL	SW	DAMP	0			
S-8 @ 1423			4/5						1/4" GRAVEL	0			
	40			39-8		ORANG	TR CLAY @ 39.8'			0			
					STIFF	BRN GRAY	SANDY CLAY CLAYEY SAND	SC	DAMP				
S-9 @ 1445			4/5	41-5	DENSE	BRN GRAY	SAND (F/C)	SM	VERY DENSE DRIVING 41-45	0			
	45							SW	DAMP NO GRAVEL	0			
					DENSE	RED BRN	SAND (F/C)	SM	DAMP	0			
S-10 @ 1500			4/5			GRAY		SW		0			
	50									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:

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2004
DATE: 10/27/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	0				DENSE	BRN	6" TOPSOIL F/C SAND - SOME	SW	DAMP	0			
S-1						TO	GRAVEL-TR ROOTS						
@			NA			YELLOWISH			1 1/2" GRAVEL SUB ROUND	0			
1110						BRN			SUB ANG.				
	5									0			
					DENSE		F/C SAND - SOME GRAVEL	SW	DAMP				
S-2									1" MAX SUB ROUND	0			
@ 1125			3.1/5	⑥					TO SUB ANG GRAVEL.				
										0			
	10												
					DENSE		SAME	SW	DAMP	0			
S-3									1" Φ				
@ 1145			3/5							0			
									LESS GRAVEL				
	15								LAST 1' OF SAMPLE.	0			
					DENSE		SAME	SW	DAMP				
S-4			3.6/5						1 1/4" MAX SUB ROUND	0			
@ 1200									SUB ANG GRAVEL				
										0			
	20			⑥									
					DENSE		SAME	SW	DAMP	0			
S-5									3/4" MAX				
@ 1202			2/5							0			
	25									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: _____

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2004
DATE: 10/27/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	25				VERY DENSE	YELLOW BRN	F/M SAND-SOME GRAVEL	SW	DAMP	0			
S-6 @ 1215			3.5/5						3/4" MAX SUB ROUND/ ANG GRAVEL	0			
									NOT AS MUCH C. SAND AS				
	30								PREVIOUS	0			
					DENSE		SAME	SW	SAME				
S-7 @ 1230			3.8/5							0			
										0			
	35												
					DENSE		F/C SAND-SOME GRAVEL	SW	DAMP	0			
S-8 @ 1238			3.5/5						3/4" MAX ROUND TO SUB ANG GRAVEL	0			
	40									0			
					DENSE		SAME	SW	DAMP				
S-9 @ 1250			3/5						SUB ROUND TO SUB ANG 1" MAX GRAVEL	0			
	45												
					DENSE		SAME	SW	DAMP→MOIST	0			
S-10 @ 1300			3.2/5						SAME.	0			
				◎									
	50			TD			TD @ 50'			0			

* When rock coring, enter rock brokeness.

◎ SOIL GAS SAMPLE

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

Drilling Area Background (ppm): 0

Remarks: _____

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2005
DATE: 10/24/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	0				DENSE	BRN	4" TOPSOIL SILTY SAND - SOME GRAVEL		HAND AUGER TO 5' DAMP	0			
S-1													
@1030			NA							0			
	5									0			
					DENSE	BRN	F/C SAND - TR TO SOME GRAVEL	SW	DAMP 3/4" MAX SUB ROUND SUB ANG				
S-2										0			
@1100			3/5	0									
										0			
	10					YELLOW							
					DENSE	BRN	F/C SAND - SOME GRAVEL	SW	DAMP 1" @ MAX	0			
S-3 @1110			2.8/5							0			
	15									0			
					DENSE		SAME	SW	DAMP				
S-4 @1115			3.2/5						SAME	0			
										0			
	20			0		TAN BRN							
					DENSE		SAME	SW	DAMP	0			
S-5 @1122			3/5						SAME				
	25												

* 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:

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2005
DATE: 10/24/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	25				DENSE	TAN BRN	F/C SAND - SOME	SW	DAMP	0			
S-6 @ 1129			4/5				GRAVEL		1" Ø MAX SUB ROUND				
									SUB ANG	0			
	30					TAN				0			
					DENSE		F/M SAND - TRACE	SM	DAMP				
S-7 @ 1135			3.2/5				GRAVEL	SW	1/2" MAX	0			
										0			
	35												
					DENSE		SAME.			0			
S-8 @ 1200			2.5/5										
										0			
	40			TD						0			
				@40'					STOP AT 40'				
									HAD TO PULL ALL RODS				
									DUE TO LINER STUCK IN BOTTM ROD.				
				⑤									

* When rock coring, enter rock brokeness.

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

⑤ SOIL GAS SAMPLE.

Drilling Area Background (ppm): 0

Remarks:

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2006
DATE: 10/23/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	0				DENSE	BRN	6" TOPSOIL		HAND AUGER	0			
S-1						TO YELLOW	SAND - SOME	SW	TO 5'				
@ 1340			NA			BRN	GRAVEL			0			
	5					YELLOW				0			
					DENSE	BRN	F/C SAND - SOME	SW	DAMP → MOIST				
S-2 @							GRAVEL		1¼" Φ MAX SUB ROUND TO	0			
1400			4/5						SUB ANG				
				①						0			
	10												
					DENSE		SAME	SW	SAME	0			
S-3 @			3/5						DAMP				
1410										0			
	15									0			
					DENSE		SAME	SW	DAMP				
S-4 @			3.2/5						1½" Φ MAX	0			
1422									SUB ROUND TO SUB ANG				
									GRAVEL	0			
	20			①									
					DENSE		SAME	SW	DAMP	0			
S-5 @			2.8/5						1¼" MAX				
1427									SAME AS ABV.	0			
	25									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: TRACK MTD DPT (GEOPROBE RIG) DUAL TUBE TO ADVANCE BORING

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2006
DATE: 10/23/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	25				DENSE	YELLOW BRN	F/M SAND - SOME GRAVEL	SW	DAMP	0			
S-6 @ 1430			3.5/5						1/4" MAX Φ SUB ANG TR SUB ROUND	0			
	30									0			
					DENSE		SAME	SW	DAMP				
S-7 @ 1438			2.8/5							0			
	35									0			
					DENSE		F/C SAND - TR TO SOME GRAVEL		DAMP	0			
S-8 @ 1445			2.5/5						3/4" MAX Φ SUB ROUND - SUB ANG.	0			
	40									0			
					DENSE		F/M SAND TR TO SOME GRAVEL		SAME				
S-9 @ 1450			3/5							0			
	45									0			
					DENSE	BRN TO RED BRN	SAME		DAMP	0			
S-10 @ 1510			2.5/5						SAME	0			
	50									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:

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2007
DATE: 10/23/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	0				LOOSE	BRN	6" TOPSOIL SAND-SOME GRAVEL	SW	HAND AUGER TO 5'	0			
						TO							
S-1 @ 0910			NA		M DENSE	ORANG BRN	TR CLAY FROM 2 TO 3'			0			
	5												
					DENSE	ORANGE BRN TO YELLOW BRN	SILTY F/C SAND SOME GRAVEL	SW	DAMP 1 1/2" MAX SUB ANG TO SUB ROUND	0			
S-2 @ 0925			4/5	①						0			
	10												
					DENSE		SAME	SW	DAMP	0			
S-3 @ 0955			3.2/5						1" MAX SUB ROUND TO SUB ANG	0			
	15									0			
					DENSE		F/C SAND - SOME GRAVEL	SW	BOULDER PC STUCK IN DRIVE SHOE OF DUALTUBE HAD TO POU RODS TO CLEAR.				
S-4 @ 1050			3/5							0			
									DAMP - 3/4" MAX GRAVEL	0			
	20			②		ORANG			SUB ROUND TO SUB ANG				
					DENSE	BRN	SAME	SW	DAMP	0			
S-5 @ 1057			2.5/5							0			
						TAN BRN			LESS GRAVEL BOTM 1 FT				
	25									0			

* When rock coring, enter rock brokeness.

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

① SOIL GAS SAMPLE DEPTHS

Drilling Area Background (ppm): 0

Remarks: TRACK MTD DPT RIG (GEOPROBE) DUAL TUBE TO ADVANCE BORING.

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2007
DATE: 10/23/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	25				DENSE	YELLOW BRN	F/C SAND - TR TO	SW	DAMP	0			
S-6							SOME GRAVEL		3/4" MAX SIZE				
@ 1105			3.5/5						SUB ROUND SUB ANG.	0			
	30									0			
					DENSE	TAN BRN	F/C SAND - SOME	SW	DAMP				
S-7 @							GRAVEL		1" MAX Φ	0			
1115			4/5						SUB ROUND SUB ANG.				
										0			
	35					TAN							
					DENSE	YELLOW BRN	F/C SAND - TR	SW	DAMP	0			
S-8							TO SOME GRAVEL		3/4" MAX SIZE				
@ 1128			3/5						SUB ROUND SUB ANG.	0			
	40									0			
					DENSE	TAN BRN	SAME	SW	SAME	0			
S-9 @													
1135			3.3/5							0			
	45					YELLOW				0			
					DENSE	BRN	SAME	SW	SAME				
S-10 @			3.8/5							0			
1145													
				@			V.SL TR CLAY @			0			
	50			TD			≈ 50' BOTTOM OF SAMPLE						

* When rock coring, enter rock brokeness. 50

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

Drilling Area Background (ppm): 0

Remarks: SET SG @ 8, 20, 49

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2008
DATE: 10/21/08
GEOLOGIST: Conti
DRILLER: EICHLER

	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**
		0												
10/20						TAN BRN		6" TOPSOIL SILTY SAND-SOME GRAVEL		HAND AUGER TO 5'	0			
	S-1 @ 1545			—		TR ORANG BRN		SOME CLAY 2 TO 3'		DAMP.	0			
								SAND - SOME GRAVEL						
		5									0			
10/21						DENSE	YELLOW BRN	SILTY F/C SAND SOME GRAVEL	SW	DAMP				
	S-2 @ 1315			1/5						1" ϕ MAX SUB ROUND SUB ANG GRAVEL	0			
		10									0			
							ORANG BRN	SAME	SW	DAMP	0			
	S-3 @ 1330			3/5						SAME AS S-2.	0			
		15									0			
							YELLOW BRN	SAME	SW	DAMP				
	S-4 @ 1335			3.5/5						1/4" GRAVEL SAME AS S-3	0			
		20									0			
								SAME	SW	DAMP	0			
	S-5 @ 1340			2.8/5							0			
		25									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: TRACK MTD DPT (GEOPROBE) DUAL TUBE SYSTEM FOR ADVANCING BORING.

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2008
DATE: 10/21/08
GEOLOGIST: Conti
DRILLER: EICHLER

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**
	25				DENSE	BRN YELLOW	F/M SAND - TR TO SOME GRAVEL	SW	DAMP	0			
S-6 @ 1350			3/5						1" GRAVEL SUB ANG TO SUB ROUND	0			
	30									0			
							SAME	SW	DAMP				
S-7									SAME AS S-6	0			
@ 1400			3.3/5										
	35									0			
					DENSE		F/C SAND SOME GRAVEL	SW	DAMP	0			
S-8									1" Φ GRAVEL				
@ 1405			4/5						SUB ROUND SUB ANG.	0			
	40									0			
							SAME	SW	DAMP				
S-9									3/4" Φ GRAVEL	0			
@ 1412			3/5										
	45					YELLOW				0			
					DENSE	BRN	F/M SAND - TRACE GRAVEL	SW	DAMP	0			
S-10													
@ 1420			3/5							0			
									NO SIGN H2O				
	50			TD			TR CLAY ~ 49-50		END @ 50'	0			

* When rock coring, enter rock brokeness. @ 50'

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

Drilling Area Background (ppm): 0

Remarks: _____

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2009
DATE: 10/20/08
GEOLOGIST: Conti
DRILLER:

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**
	0				LOOSE	TAN BRN	SILTY SAND - SOME GRAVEL	SM	HAND AUGER TO 5'.	0			
S-1 @ 1230			N/A						DRY → DAMP	0			
	5				LOOSE / M DENSE	YELLOW BRN TO BRN	SILTY SAND - SOME GRAVEL	SW	DAMP	0			
S-2 @ 1250			3/5										
	10				M DENSE	YELLOW BRN	F/C SAND - SOME GRAVEL	SW	DAMP SUB ROUND GRAVEL 1" MAX Φ TO SUB ANG	0			
S-3 @ 1300			3/5							0			
	15				M DENSE		SAME	SW	DAMP	0			
S-4 @ 1315			3.2/5						1 1/8" - MAX Φ SUB ROUND GRAVEL TO SUB ANG	0			
	20				M DENSE		SAME	SW	DAMP	0			
S-5 @ 1320			3.1/5						SAME AS ABV.	0			
	25									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: TRACK MTD DPT (GEOPROBE) DUAL TUBE SYSTEM FOR ADVANCING BORING.

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG200 9
DATE: 10/20/08
GEOLOGIST: Conti
DRILLER: PETE FICHLER

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**
	25				M DENSE	TAN BRN	F/M SAND - TR	SM	DAMP	0			
S-6 @ 1324			2.8/5				GRAVEL		3/4" MAX SIZE				
									SUB ROUND / SUB ANG GRAVEL.	0			
	30									0			
S-7				32±									
@ 1330			3/5		M DENSE	ORANG BRN	F/C SAND - SOME GRAVEL	SW	DAMP	0			
									1" GRAVEL SUB RND SUB ANG.				
	35									0			
						YELLOW BRN	SAME	SW	DAMP				
S-8 @ 1336			3.1/5							0			
									LESS GRAVEL LAST 2 FT.	0			
	40												
					M DENSE	TAN BRN	SILTY SAND F/M TR GRAVEL	SM	DAMP	0			
S-9 @ 1345			3.5/5						3/4" GRAVEL				
									SUB ROUND SUB ANG	0			
									MORE GRAVE AT BOTM				
	45									0			
					M	ORANGE BRN	SILTY F/M SAND	SM					
S-10 @ 1356			4.5/5		DENSE		TR TO SOME GRAVEL		DAMP → MOIST	0			
								↓					
	50							SW		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): ____

Remarks: ____

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG2009
DATE: 10/20/08
GEOLOGIST: Conti
DRILLER: P. EICHLER

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	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	50				M DENSE	ORANG BRN	SILTY F/M SAND	SM	MOIST	0			
S-11							TR GRAVEL		↓				
@ 1430			3.5/5							0			
	55			▼		PINK BRN			WET IN	0			
				TD					DRIVE SHOE				
							BOTM @ 55'						
									SLIGHT CHANGE				
									TO "PINK AT 55' ± BUT				
									WAS WET.				

* 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: _____

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: ~~SG200~~ 2010
DATE: 1/6/09
GEOLOGIST: Conti
DRILLER: EVAN MORAITIS

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**
1/5	0												
					M DENSE	ORANG BRN	CLAYEY SAND	SC	HAND AUGER	0			
S-1							TR TO SOME GRAVEL		TO 5' (1-5-09)				
@ 1530			—					TO		0			
1/6	5							SW		0			
					DENSE	YELLOW BRN	F/C SAND - SOME	SW	DAMP				
S-2						TO	GRAVEL		1¼" GRAVEL	0			
@ 0940			4/5						SUB RND " ANG				
						ORANG BRN				0			
	10												
						YELLOW BRN	SAME	SW	SAME	0			
S-3 @ 0945			4.5/5							0			
	15									0			
							SAME	SW	SAME.				
S-4 @ 0950			3.5/5							0			
	20									0			
					DENSE		SAME	SW	SAME	0			
S-5 @ 0952			3.8/5							0			
	25									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: DPT RIG.

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG~~200~~ 2010
DATE: 1/6/09
GEOLOGIST: Conti
DRILLER: EVAN MORAITIS

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**
	25				DENSE	YELLOW BRN	F/C SAND - SOME GRAVEL	SW	DAMP	0			
S-6 @ 0955			2.5/5						3/4" GRAVEL				
									SUB RND TO 1" ANG	0			
	30			30±						0			
				LESS GRAVEL			F/M SAND - TRACE GRAVEL	SW	DAMP				
S-7 @ 0957			3.8/5						3/4" GRAVEL	0			
										0			
	35												
					DENSE		SAME	SW	SAME	0			
S-8 @ 1000			4.2/5							0			
	40					GRAY	SL TR OF CLAY LENS		GRAY SAND @ 39.5 WITHIN GRAY SAND	0			
S-9 @ 1005			4/5			TO	F/M SAND - TRACE GRAVEL W/ 2 V. THIN 1/2" CLAY SEAMS ~ 42 AND 43 - BUT V. THIN		DAMP → MOIST	0			
	45					ORANG BRN				0			
				46±	V	TO							
S-10 @ 1010			4/5		DENSE	GRAY	F/M SAND	SM	MOIST	0			
	50								NO CLAY OBSERVED - NO GRAVEL.	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:

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: ~~SG200~~ SG201
DATE: 1/5/09
GEOLOGIST: Conti
DRILLER:

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**
	0						SAND AND CLAY		HAND AUGER	0			
							TO		TO 5'				
S-1 e 1315			HA				5'			0			
	5									0			
					M. STIFF	ORANG BRN	SANDY CLAY- CLAYEY SAND TR GRAVEL	SC	MOIST				
S-2 e 1340			4/5		M DENSE	YELLOW BRN	SILTY SAND SOME GRAVEL	SW	MOIST	0			
	10									0			
					M DENSE	YELLOW ORANG BRN	F/M SAND SOME GRAVEL	SW	DAMP SUB ROUND-SUB ANG GRAVEL MAX 1" Φ	0			
S-3 e 1350			4/5										
	15									0			
S-4 e 1400			5/5		DENSE	YELLOW BRN	SAME	SW	SAME	0			
	20									0			
S-5 e 1405			4/5		DENSE		SAME	SW	SAME.	0			
	25									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: DPT RIG

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage II
PROJECT NUMBER: 112G01687
DRILLING COMPANY: Zebra
DRILLING RIG: DPT-Soil Gas

BORING No.: SG~~200~~ 2011
DATE: 1/5/09
GEOLOGIST: Conti
DRILLER:

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**
	25			25									
					DENSE	TAN	F/M SAND-TR	SM	DAMP	0			
S-6 @ 1410			4.1/5			BRN	GRAVEL	SW	3/4" GRAVEL				
										0			
	30			30						0			
					DENSE	YELLOW BRN	F/C SAND - SOME GRAVEL	SW	DAMP				
S-7 @ 1415			4.3/5						3/4" GRAVEL SUB ROUND SUB ANG.	0			
										0			
	35												
					DENSE		SAME	SW	SAME	0			
S-8 @ 1420			3.8/5							0			
	40									0			
					DENSE		F/C SAND-TR GRAVEL	SW	DAMP - NOT AS MUCH GRAVEL				
S-9 @ 1425									3/4" MAX	0			
									SUB (R) SUB (A)	0			
	45												
					DENSE	YELLOW BRN	SAME	SW	DAMP	0			
S-10 @ 1430													
						TO				0			
				49'	V DENSE	BRN			CHANGE IN COLOR ≈ 48'±				
	50				REF @	49'							

* 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:

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

APPENDIX C

SOIL GAS SAMPLING LOG SHEETS

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name:	NWIRP Bethpage Site 1	**Sample ID No.:**	BPS1-SG2003-08
Project No.:	112G01687	**Sample Location:**	Site 1
C.O.C. No.:		**Sampled By:**	[signature]

SAMPLING DATA:

	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^0C)	Barometric Pressure (^0C)	Relative Humidity (%)	Other
Date: 10/29/08						
Time: 1335						
Method: Summa Canister	windy 10-15	SSE	45°F	29.48	47	

Summa Canister #	33678
Filter Type	2 μM 0.5 hour

Start Time Vacuum	1335	in Hg -30 PSI
End Time Vacuum	1450	in Hg -4.0 PSI

Regulator only went to -2.5 not 0 the reason for -4.0 PSI

He check	Start	Stop	Reading
Background 75 ppm	1325	1334	0.0 ppm
Purge Data	**Start**	**Stop**	
	1325	1334	

Readings:
Liters/minute
154.8 @ 1325
154.2 @ 1327
153.8 @ 1329

Notes: 154.3 1332

sunny windy with high clouds cool mid 40°F
showers occur 1415-1445

Soil Gas PID:
1.5 ppm at 1325 Initial
1.5 ppm at 1327 Vol 1
1.5 ppm at 1329 Vol 2
1.4 ppm at 1332 Vol 3
1.2 ppm at 1453 Final reading after sample collection

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name:	NWIRP Bethpage Site 1	**Sample ID No.:**	BPS1-SG200~~3~~1-20 (1 – M 10/29/08)
Project No.:	112G01687	**Sample Location:**	Site 1
C.O.C. No.:		**Sampled By:**	[illegible]

SAMPLING DATA:

	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (°C)	Barometric Pressure (°C)	Relative Humidity (%)	Other
Date: 10/29/08						
Time: 1210						
Method: Summa Canister	Breezy 5-10	SSE	45° F	29.76	73	

Summa Canister #	5585
Filter Type	2 UM 0.5 hour

Start Time Vacuum	1210	in Hg -30	PSI
End Time Vacuum	1305	in Hg -2.5	PSI

He check	Start	Stop	Reading
Background 375 ppm	1155	1210	0.0 ppm
Purge Data	**Start**	**Stop**	
	1155	1210	

Readings:
Liters/minute
154.3 @ 1155
152.2 @ 1159
152.7 @ 1203

Notes: 153.6 at 1207

Rain showers occurred during purging
cleared for sample activities

Soil Gas PID:
0.8 ppm at 1155 Initial
0.9 ppm at 1159 vol 1
1.0 ppm at 1203 vol 2
1.0 ppm at 1207 vol 3
1.1 ppm at 1307 After sample collection

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-SG2001-49
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/30/08	Wind speed	Wind Direction	Ambient temperature	Barometric Pressure	Relative Humidity	Other
Time: 0954	(Visual)	(S.U.)	(^{0}C)	(^{0}C)	(%)	
Method: Summa Canister	Lt Breeze 0-5	SSE	42°F	30.10	53	

Summa Canister #	5736
Filter Type	2 µM 0.5 hour

Start Time Vacuum	0954	in Hg -30
End Time Vacuum	1036	in Hg -3.5

PSI Regulator stopped at -2 PSI rather than at 0 will stop sample at ~~-3.5~~ PSI rather than -2.5 PSI

He check	Start	Stop	Reading
Background 75 ppm	0933	0953	0.0 ppm
Purge Data	**Start**	**Stop**	
	0933	0953	

Readings:
Liters/minute
155.3 @ 0933
151.6 @ 0938
157.1 @ 0943
Notes: 157.2 at 0948

Soil Gas PID: 3.5 ppm at 0933 Initial
2.6 ppm at 0938 Vol 1
1.8 ppm at 0943 Vol 2
1.5 ppm at 0948 Vol 3
1.5 ppm at 1040 After sampling was completed

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSI-SG002-08
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/30/05	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1253						
Method: Summa Canister	Breezy 5-10	SSE	45°F	30.25	53	

Summa Canister #	35154
Filter Type	2 um 0.5 hour

Start Time Vacuum	1253	in Hg -30	PSI
End Time Vacuum	1355	in Hg -4.0	PSI

Regulator stuck at -3 PSI will stop early

He check	Start	Stop	Reading
Background 50 ppm	1242	1252	0.0 ppm
Purge Data	**Start**	**Stop**	
	1242	1252	

Readings:
Liters/minute
~~1242~~ 1241.2 @ 1242
147.4 @ 1244
148.8 @ 1246
Notes: 148.6 1250

Soil Gas PID:
4.8 ppm at 1242 Initial
5.4 ppm at 1244
5.7 ppm at 1246
5.2 ppm at 1250
4.4 ppm at 1357 After sampling complete

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSI-SG-2002-20
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** [redacted]

SAMPLING DATA:						
Date: 10/30/05	Wind speed	Wind Direction	Ambient temperature	Barometric Pressure	Relative Humidity	Other
Time: 1126	(Visual)	(S.U.)	(^{0}C)	(^{0}C)	(%)	
Method: Summa Canister	Breezy 5-10	SSE	45°F	30.21	53	

Summa Canister #	34021
Filter Type	2uM 0.5 hour

Start Time Vacuum	1126	in Hg -30	PSI
End Time Vacuum	1225	in Hg - 2.5	PSI

Regulator went to 0.5 PSI not 0 will cut OFF at 2.5 PSI

He check	Start	Stop	Reading	
Background 75ppm	1113	1125	0.0	ppm
Purge Data	**Start**	**Stop**		
	1113	1125		

Readings:
Liters/minute
153.4 @ 1113
153.0 @ 1116
153.0 @ 1119
Notes: 152.9 at 1124

Soil Gas PID: 1.4 ppm at 1113 Initial
2.6 ppm at 1116 Voi 1
4.7 ppm at 1119 Voi 2
6.8 ppm at 1124 Voi 3
6.2 ppm at 1229 completion of sampling

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSI-SG-002-44
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/30/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1347						
Method: Summa Canister	Breezy	SSE	47°F	30.25	53	

5-10

Summa Canister #	33584
Filter Type	2um 0.5 hour

Start Time Vacuum	1347	in Hg -30	PSI
End Time Vacuum	1600	in Hg -10	PSI

He check	Start	Stop	Reading	
Background 15 ppm	1328	1346	0.0	PPM
Purge Data	**Start**	**Stop**		
	1328	1346		

Readings:
Liters/minute
150.9 @ 1328
152.6 @ 1333
153.4 @ 1338
Notes: 154.2 at 1345

Soil Gas PID: 2.8 ppm at 1328
2.8 ppm at 1333
3.9 ppm at 1338
6.4 ppm at 1345

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-SG-2003-03
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/31/03	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (°C)	Barometric Pressure (°C)	Relative Humidity (%)	Other
Time: 1122						
Method: Summa Canister	Breeze 5-10	SSE	50 °F	30.35	55	

Summa Canister #	33904
Filter Type	2 µM 0.5 hour

Start Time Vacuum	1122	in Hg -30	PSI
End Time Vacuum	1216	in Hg -2.5	PSI

He check	Start	Stop	Reading	
Background 200ppm	1110	1119	0.0	ppm
Purge Data	Start	Stop		
	1150	1119		

Readings:
Liters/minute
147.9 @ 1110
149.9 @ 1113
149.7 @ 1116
Notes: 150.2 at 1119

Duplicate Sample BPS1-Dup-03 assigned time 0000

Soil Gas PID: 1.4 ppm at 1110 Initial
1.3 ppm at 1113 vol 1
1.3 ppm at 1116 vol 2
1.3 ppm at 1119 VOL 3
0.9 ppm at 1219 After sampling complete

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-Dup-03
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/31/06	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (°C)	Barometric Pressure (°C)	Relative Humidity (%)	Other
Time: 0000						
Method: Summa Canister	Breezy 5-10	SSE	30.8F	30.35	55	

Summa Canister #	10776
Filter Type	2 UM 0.5 hour

Start Time Vacuum	0000	in Hg -30
End Time Vacuum	0000	in Hg -3.5

He check	Start	Stop	Reading
Background 200ppm	1110	1119	0.0 ppm
Purge Data	Start	Stop	
	1110	1119	

Readings:
Liters/minute
147.9 @ 1110
148.9 @ 1113
149.7 @ 1116
Notes: 150.2 at 1119 Duplicate Sample BPS1-SB-2003-08

Soil Gas PID: 1.4 ppm at 1110 Initial Time 1122
1.3 ppm at 1113 Vol 1
1.3 ppm at 1116 Vol 2
1.3 ppm at 1119 Vol 3
0.9 ppm at 1119 After Sampling Complete

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSI-SG003-20
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** [illegible]

SAMPLING DATA:

Date: 10/31/05	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1023						
Method: Summa Canister	Breezy 5-10	SSE	47°F	30.55"	53	

Summa Canister #	SG33
Filter Type	24M 0.5 hour

Start Time Vacuum	1023	in Hg -30	PSI
End Time Vacuum	1122	in Hg -30	PSI

He check	Start	Stop	Reading	
Background 75 ppm	1007	1020	0.0	ppm
Purge Data	Start	Stop		
	1007	1020		

Readings:
Liters/minute
149.1 @ 1007
149.7 @ 1010
149.7 @ 1013
Notes: 1020

Soil Gas PID: 1.3 ppm at 1007 Initial
1.1 ppm at 1010 Vol 1
1.0 ppm at 1013 Vol 2
1.0 ppm at 1020 Vol 3
0.9 ppm at 1125 After sampling on 10/31/05 ~~purging~~ complete

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G01687
C.O.C. No.:

Sample ID No.: BPS1-SG003-49
Sample Location: Site 1
Sampled By: [redacted]

SAMPLING DATA:

Date: 10/31/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (°C)	Barometric Pressure (°C)	Relative Humidity (%)	Other
Time: 0940						
Method: Summa Canister	calm 0-5	SE	45°F	30.35	53	

Summa Canister #	35263
Filter Type	24M 0.5 hour

Start Time Vacuum	0940	in Hg -30	PSI
End Time Vacuum	1040	in Hg -2.5	PSI

Regulator stuck at 1 PSI will stop at 2.5 PSI

He check	Start	Stop	Reading
Background 75 ppm	0921	0939	0.0 PPM
Purge Data	Start	Stop	
	0921	0939	

Readings:
Liters/minute
150.2 @ 0921 150.4 at 0937
151.1 @ 0926
150.6 @ 0931

Notes: Very tight from 40-45 feet went to 49 feet to see if looser better for sample collection slightly easier

Soil Gas PID:
1.7 ppm at 0921 Initial
1.5 ppm at 0926 Vol 1
1.3 ppm at 0931 Vol 2
1.5 ppm at 0936 Vol 3
1.2 ppm at 1043 After sampling complete

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-SG-2004-08
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

	Wind speed	Wind Direction	Ambient temperature	Barometric Pressure	Relative Humidity	Other
Date: 10/28/05						
Time: 1308	(Visual)	(S.U.)	(^{0}C)	(^{0}C)	(%)	
Method: Summa Canister	Breezy 5-10 mph	NNE	42° F	29.45"	93	

Summa Canister #	34280
Filter Type	24m 0.5 hour

Start Time Vacuum	1308	in Hg -30	PSI
End Time Vacuum	1410	in Hg -21.5	PSI

He check	Start	Stop	Reading	
Background 75 ppm	1255	1307	0.0	ppm
Purge Data	**Start**	**Stop**		
	1255	1307		

Readings:
Liters/minute
100.7 @ 1255
101.3 @ 1258
101.5 @ 1301
Notes: 102.1 at 1305 slight rain showers coming back

Soil Gas PID: 0.4 ppm at 1258 Initial
0.3 ppm at 1258 Vol 1
0.4 ppm at 1301 Vol 2
0.3 ppm at 1305 Vol 3

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-SG2004-20
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** [redacted]

SAMPLING DATA:

	Wind speed	Wind Direction	Ambient temperature	Barometric Pressure	Relative Humidity	Other
Date: 10/28/08						
Time: 1150	(Visual)	(S.U.)	(^{0}C)	(^{0}C)	(%)	
Method: summa canis for 10-20	windy	NNE	45°F	29.51	90	

Summa Canister #	5572
Filter Type	24M 0.5 hour

Start Time Vacuum	1150	in Hg -30	PSI
End Time Vacuum	1247	in Hg -2.5	PSI

He check	Start	Stop	Reading	
Background 100 ppm	1136	1148	0.0	ppm
Purge Data	**Start**	**Stop**		
	1136	1148		

Readings:
Liters/minute
149.4 @ 1136
151.4 @ 1139
152.6 @ 1142
Notes: 152.7 at 1146

Weather appears to be clearing rain has stopped for the time being. cloudy and windy

Soil Gas PID: 0.5 ppm at 1136 Initial
0.6 ppm at 1139 1 Vol
0.6 ppm at 1142 2 Vol
0.6 ppm at 1146 3 Vol
0.5 ppm at 1248 After sampling Complete

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSI-SG-2004-49
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/29/04	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 0955						
Method: Summa Canister	Breezy 5-10	W	42°F	29.85	55	

Summa Canister #	33675
Filter Type	2 uM 0.5 hour

Start Time Vacuum	0955	in Hg -30	PSI
End Time Vacuum	1053	in Hg -3.5	PSI

He check	Start	Stop	Reading	
Background 150 ppm	0935	0954	0.0	ppm
Purge Data	**Start**	**Stop**		
	0930	0954		

Readings:
Liters/minute
152.4 @ 0935
152.2 @ 0940
152.4 @ 0945
Notes: 151.7 at 0950

Duplicate Sample BPSI-Dup02 was collected 0000

Soil Gas PID:
8.4 ppm at 0935 Initial
2.5 ppm at 0940 Vol 1
2.0 ppm at 0945 Vol 2
1.8 ppm at 0950 Vol 3
1.3 ppm at 1055 Final after sampling complete

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSI-DUP-02
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** [redacted]

SAMPLING DATA:

Date: 10/29/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 0000						
Method: Summa Canister	Breezy 5-10	W	42°F	29.95	55	

Summa Canister #	14871
Filter Type	2um 0.5 hour

Start Time Vacuum	0955	in Hg -30	PSI
End Time Vacuum	1053	in Hg -2.0	PSI

He check	Start	Stop	Reading	
Background 150 ppm	0935	0954	0.0	ppm
Purge Data	**Start**	**Stop**		
	0935	0954		

Readings:
Liters/minute
152.4 @ 0935
152.2 @ 0940
152.4 @ 0945
Notes: 151.7 at 0950 Duplicate of BPSI-SG2004-44 at 0955

Soil Gas PID:
8.4 ppm at 0935 Initial
2.5 ppm at 0940 Vol 1
2.0 ppm at 0945 Vol 2
1.8 ppm at 0950 Vol 3
1.3 ppm at 1055 Final after sampling complete

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-SG-2005-08
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** [redacted]

SAMPLING DATA:

	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Date: 10/27/08						
Time: 1240						
Method: Summa Canister	calm 0-5	SSE	62°F	31.10		

Summa Canister #	33921
Filter Type	2UM 0.5 hour

Start Time Vacuum	1240	in Hg -30	PSI
End Time Vacuum	1337	in Hg -2.0	PSI

He check	**Start**	**Stop**	**Reading**
Background 150 ppm	1232	1239	010 ppm
Purge Data	**Start**	**Stop**	
	1232	1239	

Readings:
Liters/minute
155.8 @ 1232
156.4 @ 1234
156.4 @ 1236
Notes: 156.6 at 1238

Soil Gas PID:
1.4 ppm at 1232 Initial
1.2 ppm at 1234
1.2 ppm at 1236
1.1 ppm at 1238
1.1 ppm at 1240 Final after sample collection

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-SG2005-20
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

	Wind speed	Wind Direction	Ambient temperature	Barometric Pressure	Relative Humidity	Other
Date: 10/27/08						
Time: 1117	(Visual)	(S.U.)	(^{0}C)	(^{0}C)	(%)	
Method: Summa Canister	calm 0-5	SSE	56 °F	31.10		

Summa Canister #	13999
Filter Type	2 UM 0.5 hour

Start Time Vacuum	1117	in Hg -29.5	PSI
End Time Vacuum	1214	in Hg -2.0	PSI

He check	**Start**	**Stop**	**Reading**
Background 100 ppm	1104	1116	0.0 ppm
Purge Data	**Start**	**Stop**	
	1104	1116	

Readings:
Liters/minute
154.3 @ 1104
155.6 @ 1107
156.9 @ 1110
Notes: 157.5 at 1114

Soil Gas PID:
1.5 ppm at 1104 Initial
1.0 ppm at 1107 1 vol
0.9 ppm at 1110 2 vol
0.7 ppm at 1114 3 vol
0.7 ppm at 1214 Final after sample collection

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSG-SG2005-49
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/27/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1039						
Method: Summa Canister	Calm 0-5	SSE	56°F	31.10		

Summa Canister #	9944
Filter Type	2uM 0.5 hour

Start Time Vacuum	1039	in Hg -28	PSI
End Time Vacuum	1134	in Hg -2	PSI

He check	Start	Stop	Reading
Background 100 ppm	1020	1037	0.0 ppm
Purge Data	**Start**	**Stop**	
	1020	1037	

Readings:
Liters/minute
161.9 @ 1020
155.7 @ 1025
155.9 @ 1030
Notes: 156.2 at 1035

Soil Gas PID:
0.0 ppm at 1020 Initial
0.0 ppm at 1025 1 vol
0.0 ppm at 1030 2 vol
0.0 ppm at 1035 3 vol
0.8 ppm at 1134 Final after sample

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSI-SG2006-08
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

	Wind speed	Wind Direction	Ambient temperature	Barometric Pressure	Relative Humidity	Other
Date: 10/24/08						
Time: 1244	(Visual)	(S.U.)	(^{0}C)	(^{0}C)	(%)	
Method: Summa Canister	Breezy 5-10	SSE SS	55°F	31.70		

Summa Canister #	10912
Filter Type	2 um 0.5 hour

Start Time Vacuum	1244	in Hg -30	PSI
End Time Vacuum	1220	in Hg -3.5	PSI

He check	**Start**	**Stop**	**Reading**
Background 150 ppm	1236	1243	0.0
Purge Data	**Start**	**Stop**	
	1236	1243	

Readings:
Liters/minute
150.3 @ 1236 Initial
150.6 @ 1238
152.5 @ 1240
Notes: 1242 152.8

Soil Gas PID: 0.4 ppm Initial
0.8 ppm at 1238
0.9 ppm at 1240
1.0 ppm at 1242
0.9 ppm Final reading

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSI-SG2006-20
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/24/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1127						
Method: Summa Canister	Calm 0-5	SSE	55°F	31.70		

Summa Canister #	4236
Filter Type	2 um 015 hour

Start Time Vacuum	1127	in Hg -30	PSI
End Time Vacuum	1217	in Hg -2.5	PSI

He check	Start	Stop	Reading
Background = 50ppm	1115	1125	0.0 ppm
Purge Data	**Start**	**Stop**	
	1115	1125	

Readings:
Liters/minute
156.7 @ 1115
156.1 @ 1120
155.4 @ 1125

Notes:

Soil Gas PID: 2.2 ppm 1115 : Initial
2.3 ppm 1120
2.3 ppm 1125
1.0 ppm 1227 : Final

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSI-SG2006-49
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/28/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1003						
Method: Summa Canister	windy 10-20	NNE	45°F	29.59	93	

Summa Canister #	5555
Filter Type	2um 0.5 hour

Start Time Vacuum	1003	in Hg 29.5	PSI
End Time Vacuum	1100	in Hg 2.0	PSI

He check	Start	Stop	Reading
Background 0.0	0945	1002	0.0 ppm
Purge Data	**Start**	**Stop**	
	0945	1002	

Raing and windy all day started raining last night at 2330 rained through the night this morings weather had 1 to 1.5" already

Readings:
Liters/minute
151.6 @ 0945
150.8 @ 0950
150.2 @ 0955
Notes: 149.9 at 1000

Soil Gas PID:
2.2 ppm at 0945
1.2 ppm at 0950
1.0 ppm at 0955
0.9 ppm at 1000
0.8 ppm at 1104

During sampling raining windy cold all day windy with rain

after sampling completed

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-SG2007-08
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/23/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1507						
Method: Summa Canister	Breezy 5-10	NNE	57 F	31.75		

Summa Canister #	03788
Filter Type	2 um 14/min 0.5 hour

Start Time Vacuum	1507	in Hg -30	PSI
End Time Vacuum	1615	in Hg -4.0	PSI

He check	Start	Stop	Reading
Background 2425	1458	1506	2350
Purge Data	**Start**	**Stop**	
	1458	1506	

Readings:
Liters/minute
125.0 @ 1458
125.7 @ 1500
125.9 @ 1506

Notes:

Soil Gas PID: 0.0 ppm at 1458
0.0 ppm at 1500
0.0 ppm at 1506
0.8 ppm at 1617

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSI-SG2007-20
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/23/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1400						
Method: Summa Canister	Breezy 5-10	NNE	57 °F	31.75		

Summa Canister #	34730
Filter Type	2 L/min 0.5 hour

Start Time Vacuum	1400	in Hg -30	PSI
End Time Vacuum	1453	in Hg -2.5	PSI

He check	Start	Stop	Reading
Background 300	1348	1400	275
Purge Data	**Start**	**Stop**	
	1348	1400	

Readings:
Liters/minute
156.3 @ 1348
154.6 @ 1353
154.7 @ 1358

Notes:

Soil Gas PID: 1.4 ppm at 1348
0.8 ppm at 1354
0.8 ppm at 1358
1.6 ppm at 1454

Duplicate Sample
BPSI-Dup-01
Time = 0000

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-Dup 01
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** [redacted]

SAMPLING DATA:

Date: 10/23/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 0000						
Method: Summa Canister	Breezy 5-10	NNE	57	31.75		

Summa Canister #	33789
Filter Type	2 ml/min 0.5 hour

Start Time Vacuum	0000	in Hg -30	PSI
End Time Vacuum	0000	in Hg -26	PSI

He check	Start	Stop	Reading	
Background 300 ppm	1348	1400	275	PPM
Purge Data	**Start**	**Stop**		
	1348	1400		

Readings:
Liters/minute
156.3 @ 1348
154.6 @ 1353
154.7 @ 1358

Notes:

Soil Gas PID: 1.4 ppm at 1348
0.18 ppm at 1353
0.18 ppm at 1358

Duplicate Sample
BPS1-SG2007-20
Time 1400

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BP51-SG-2007-49
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** [redacted]

SAMPLING DATA:

	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Date: 10/24/08						
Time: 0945						
Method: Summa Canister	LE Breeze 0-5	NNE	55°F	31.70		

Summa Canister #	04589
Filter Type	2 um 0.5 hour

Start Time Vacuum	0945	in Hg -30	PSI
End Time Vacuum	1040	in Hg -2.5	PSI

He check	Start	Stop	Reading
Background 125 ppm	0929	0944	0.0
Purge Data	**Start**	**Stop**	
	0928	0944	

Readings:
Liters/minute
151.9 @ 0928
154.7 @ 0933
155.3 @ 0938
Notes: 156.4 at 0943

Soil Gas PID: 4.2 ppm at 0928 Initial reading
2.4 ppm at 0933
1.9 ppm at 0938
1.9 ppm at 0943
1.7 ppm at 1043 Final

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-SG-2008-05
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

	Wind speed	Wind Direction	Ambient temperature	Barometric Pressure	Relative Humidity	Other
Date: 10/22/08						
Time: 1415	(Visual)	(S.U.)	(°C)(°F)	(°C)	(%)	
Method: Summa Canister	Breez-y 10-15 mph	N	58	31.40		

Summa Canister #	252684
Filter Type	2 um 01/min

Start Time Vacuum	1415	in Hg - 30	PSI
End Time Vacuum	1455	in Hg - 2,5	PSI

He check	Start	Stop	Reading
Background 1325 ppm	1405	1415	950
Purge Data	**Start**	**Stop**	
	1405	1415	

Readings:
Liters/minute
151.6 @ 1405
147.2 @ 1410
144.9 @ 1415

Notes:
Soil Gas PID: 2.7 ppm at 1405
1.6 ppm at 1415
1.7 ppm at 1455

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** 13PS1-SG2008-20
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

	Wind speed	Wind Direction	Ambient temperature	Barometric Pressure	Relative Humidity	Other
Date: 10/22/08						
Time: 1530	(Visual)	(S.U.)	(^{0}C)	(^{0}C)	(%)	
Method: Summa Canister	Breezy 5-10 MPH	NNE	45°F	30.21		

Summa Canister #	25263
Filter Type	2 µM 0.5 hours

Start Time Vacuum	1530	in Hg -30	PSI
End Time Vacuum	1730	in Hg -10	PSI

He check	Start	Stop	Reading	
Background 1.25 ppm	1513	1525	0.10	ppm
Purge Data	**Start**	**Stop**		
	1513	1525		

Readings:
Liters/minute
160.3 @ 1513
147.5 @ 1520
144.7 @ 1525
Notes:

Soil Gas PID: 2.2 ppm at 1513
1.6 ppm at 1520
1.7 ppm at 1525
1.2 ppm at 1532

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSI-SG-20081023-0949
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/23/08 Time: 0943 Method: Summa Canister	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
	Breezy 5-10	NNE	45°F	30.15		

Summa Canister #	33560
Filter Type	2 um/min 0.5 hour

Start Time Vacuum	0943	in Hg - 30	PSI
End Time Vacuum	1038	in Hg - 2.5	PSI

He check 500 ppm	Start	Stop	Reading	
Bkgd 0 ppm	0925	0941	240 ppm	0940
Purge Data	**Start**	**Stop**		
	0925	0941		

Readings:
Liters/minute
1446 @ 0925
1511 @ 0930
1524 @ 0940

Notes:

Soil Gas PID: 1.4 ppm at 0925
0.5 ppm at 0930
1.0 ppm at 0940
5.4 ppm at 1038

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSi-SG2009-08
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** [redacted]

SAMPLING DATA:

Date: 10/21/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1107						
Method: Summa Canister	Breezy 5-10	NNE	60 °F	31.10		

Summa Canister #	24485
Filter Type	2ug 0.5 hour

Start Time Vacuum	1107	in Hg -30	PSI
End Time Vacuum	1155	in Hg -2.5	PSI

He check	Start	Stop	Reading	
Background 1,750 ppm	1055	1105	1450	ppm
Purge Data	**Start**	**Stop**		
	1055	1105		

Readings:
Liters/minute
149.5 @ 1055
151.1 @ 1100
149.3 @ 1105

Notes:

Soil Gas PID: 1.1 ppm Time 1105

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPST-SG-2009-25

Project No.: 112G01687 **Sample Location:** Site 1

C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/21/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1228						
Method: Summa Canister	Breezy 5-10	NNE	60°F	31.10		

Summa Canister #	12943
Filter Type	0.5 hour 2 um

Start Time Vacuum	1228	in Hg -30
End Time Vacuum	1345	in Hg

He check	Start	Stop	Reading
Background 75 ppm	1215	1227	0 ppm
Purge Data	**Start**	**Stop**	
	1215	1227	

Readings:

Liters/minute

125.7 @ 1215

130.3 @ 1219

132.5 @ 1225

35.28 in^3 ÷ 61.025 in^3 = 0.578

15 min = 600ml

10 min = 300ml

5 min = 150ml

$\pi (0.125^2) = 0.049 \times 60' = 720$ in

35.28 in^3

1 mm = 0.061 in^3

1 in^3 = 16.387 cubic centimeters

1 gal = 231 in^3 = 3.785 liters

1 liter = 61.025 in^3

Notes:

Soil Gas PID: 1.2 ppm = 1226

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-SG-2009-48
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/21/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1025						
Method: Summa Canister	Calm 0-5	NNE	12	31.10		

Summa Canister #	34717
Filter Type	2 U/q 0.5 hours

Start Time Vacuum	1025	in Hg -30	PSI
End Time Vacuum	1125	in Hg - 2.5	PSI

He check	Start	Stop	Reading
Background 1057 ppm	1007	1025	600 ppm
Purge Data	**Start**	**Stop**	
	1007	1025	

Readings:
Liters/minute
195.7 @ 1007
186.1 @ 1015
177.9 @ 1025

Notes:
Soil Gas PID: 0.8 ppm Time = 1025

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BP52 - SG 2010 - 08
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** Robert Sok

SAMPLING DATA:						
Date: 1/6/09	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1505						
Method: Summa						

Summa Canister #	10801
Filter Type	2 M / 0.5 hr

Start Time Vacuum	1510 / -28	in Hg
End Time Vacuum	1557 / -2.5	in Hg

He check	Start	Stop	Reading
BKG = 0.0	1505	1509	0.0
Purge Data	**Start**	**Stop**	
	1505	1509	

Readings:
Liters/minute
~0.5 @ 1506
~0.5 @ 1507
~0.5 @ 1508

flow meter issue purging @ about 0.5 L/min

Notes:

Soil Gas PID:
0.2 ppm @ 1506
0.1 ppm @ 1507
0.0 ppm @ 1508

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-SG2010-24
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** Robert Sok

SAMPLING DATA:

	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Date: 1/6/09						
Time: 1448						
Method: Summa						

Summa Canister #	20946
Filter Type	2um / 0.5hr

Start Time Vacuum	1455/-30	in Hg
End Time Vacuum	1545/-2.5	in Hg

He check	Start	Stop	Reading
BKG 0.0	1450	1454	0.0
Purge Data	**Start**	**Stop**	
	1450	1454	

Readings:
Liters/minute
~0.5 @ 1451
~0.5 @ 1452
~0.5 @ 1453

Flowmeter Issue Set @ ~0.5L/min

Notes:

Soil Gas PID:
1.4 ppm @ 1451
1.3 ppm @ 1452
1.1 ppm @ 1453

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-SG2010-49
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** Robert Sok

SAMPLING DATA:

Date: 1/6/09	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1359						
Method: Summa	Slight breeze	NNE	~34°F			

Summa Canister #	36098
Filter Type	2um 0.5hr

Start Time Vacuum	1438/-30	in Hg
End Time Vacuum	1525/-2.5	in Hg

He check	Start	Stop	Reading
BKG- 0.0	1430	1438	0.0
Purge Data	**Start**	**Stop**	
	1430	1438	

Readings:
Liters/minute
~0.5 @ 1434
~0.5 @ 1436
~0.5 @ 1438

Flow meter problems Set @ ~0.5 L/min

Summa # 13865

Start time VAC 1438/-30
End time VAC 1540/-2.5

Duplicate BPS2-DUP-04

Notes:

Soil Gas PID:
8.4 @ 1434
5.1 @ 1436
4.3 @ 1438

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1 - SG 2011 - 08
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** Robert Sak

SAMPLING DATA:

	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Date: 1/6/09						
Time: 1052						
Method: Summa						

Summa Canister #	4167
Filter Type	2.4 M

Start Time Vacuum	1057	in Hg > -30	PSI
End Time Vacuum	1145	in Hg - 2.5	PSI

He check	Start	Stop	Reading	
BKG 0.0 ppm	1053	1057	0.0	ppm
Purge Data	**Start**	**Stop**		
	1053	1057		

Readings:
Liters/minute

0.50 @ 1054
0.49 @ 1055
0.51 @ 1056 0.52 @ 1057

Notes:

Soil Gas PID:
3.0 ppm @ 1054
2.6 " 1055
2.4 " 1056
2.1 " 1057

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-SG2011-24
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** Robert Sok

SAMPLING DATA:

Date: 1/6/09	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 1000						
Method: Summa	breezy	NNE	37°F			

Summa Canister #	34007
Filter Type	2u M ½ hr

Start Time Vacuum	1015	in Hg -30	PSI
End Time Vacuum	1040	in Hg 2.5	

He check	Start	Stop	Reading	
BKG-(0-266ppm)	1007	1010	0.0	ppm
Purge Data	**Start**	**Stop**		
	1007	1016		

Readings:
Liters/minute

0.52 @ 1007 0.53 @1011
0.51 @ 1008
0.52 @ 1016

? Sample time shorter than 30min

Notes:

Soil Gas PID:
2.3 ppm @ 1007
3.0 ppm @ 1008
2.6 ppm @ 1010
2.4 ppm @ 1011

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS 1 - SG 2011 - 48
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** Robert Sok

SAMPLING DATA:

Date: 1/6/08	Wind speed	Wind Direction	Ambient temperature	Barometric Pressure	Relative Humidity	Other
Time: 0915	(Visual)	(S.U.)	(^{0}C)	(^{0}C)	(%)	
Method: Summa	H breezy	NNE				

Summa Canister #	34318
Filter Type	2u M ½ hour

Start Time Vacuum	0935/-30psi	in Hg
End Time Vacuum	1032/-25	in Hg

He check	Start	Stop	Reading
Background 0-200ppm			
Purge Data	**Start**	**Stop**	
	0920	0935	

Readings:
Liters/minute
0.55 @ 0920
0.57 @ 0925
0.57 @ 0930

0.56 @ 0935

Notes:

Soil Gas PID: 2.5 @ 0935

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Page__1_ of __1_

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-FB001-00
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/21/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 0935						
Method: Summa Canister	Breezy 5-10	NNE	65	31.10	67	

Summa Canister #	34493
Filter Type	24H 8 hour

Start Time Vacuum	0935	in Hg -30	PSI	10/21/08
End Time Vacuum	1735	in Hg -6.5	PSI	10/22/05

He check	Start	Stop	Reading
Purge Data	**Start**	**Stop**	

1135 = -24.5 NO PID above 0.0 ppm
1335 = -20.5 NO PID above 0.0 ppm
1445 = -14.5 NO PID above 0.0 ppm
10/22/05
1330 = -14.5 NO PID above 0.0 ppm
1530 = -9.5 NO PID above 0.0 ppm
1730 = -6.5 NO PID above 0.0 ppm

Readings:
Liters/minute
_____ @ _____
_____ @ _____
_____ @ _____

Notes:

Soil Gas PID:

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSI-FB2002-00
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

	Wind speed	Wind Direction	Ambient temperature	Barometric Pressure	Relative Humidity	Other
Date: 10/23/05						
Time: 0900	(Visual)	(S.U.)	(^{0}C)	(^{0}C)	(%)	
Method: Summa Canister	BREEZY 5-10 MPH	NNE	45°F			

Summa Canister #	
Filter Type	Um1/min 8 hour

Start Time Vacuum	0900	in Hg -30	PSI
End Time Vacuum	1730	in Hg -6.5	PSI

1100 = -25 PSI No PID above 0.0
1300 = -16.5 PSI No PID above 0.0
1500 = -10.0 PSI No PID above 0.0
1730 - 6.5 PSI No PID above 0.0

He check	**Start**	**Stop**	**Reading**

Purge Data	**Start**	**Stop**

Readings:
Liters/minute
_____ @ _____
_____ @ _____
_____ @ _____

Notes:

Soil Gas PID:

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPSI-FB2003-00
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

	Wind speed	Wind Direction	Ambient temperature	Barometric Pressure	Relative Humidity	Other
Date: 10/24/08						
Time: 0900	(Visual)	(S.U.)	(^{0}C)	(^{0}C)	(%)	
Method: Summa Canister	Lt Breeze 0-5 mph	SSW	50°F	31.70		

Summa Canister #	34434
Filter Type	24HR 8 hour

Start Time Vacuum	0900	in Hg -30	PSI
End Time Vacuum	1300	in Hg -17.5	PSI

-23 PSI- 1100 No PID above 0.0
-17.5 PSI 1300 No PID above 0.0

10/27/08

	PSIHG	
1000	- 17.5	No PID
1200	- 11.5	No PID
1400	- 6.5	No PID

He check	Start	Stop	Reading
Purge Data	**Start**	**Stop**	

Readings:
Liters/minute
_____ @ _____
_____ @ _____
_____ @ _____

Notes:

Soil Gas PID:

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1 - FB2004 - 00
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** [redacted]

SAMPLING DATA:

	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Date: 10/28/08						
Time: 0930						
Method: Summa Canister	Windy	NNE	42° F	29.59	93	
10/29/08	breezy	W	42° F	29.85	55	

Summa Canister #	25254
Filter Type	2uM 0.5 hour

Start Time Vacuum	0930	in Hg -30	PSI
End Time Vacuum	1510	in Hg -4.0	PSI

He check	Start	Stop	Reading
Purge Data	**Start**	**Stop**	

-22 PSI at 1130 NO PID above 0.0 ppm
-16.5 PSI at 1330 NO PID above 0.0 ppm

10/29/08

-16.5 PSI at 0930 NO PID above 0.0 ppm
- 8.5 PSI at 1130 NO PID above 0.0 ppm
- 5.5 PSI at 1330 NO PID above 0.0 ppm

Readings:
Liters/minute
_____ @ _____
_____ @ _____
_____ @ _____

Notes:

Soil Gas PID:

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-FB005-00
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/30/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (°C)	Barometric Pressure (°C)	Relative Humidity (%)	Other
Time: 0845						
Method: Summa Canister	Lt Breeze 0-5	SSE	42-50	30.10	53	

Summa Canister #	33896
Filter Type 3	24Mi 0.5 hour

1145 = -20 PSI No PID readings above 0.0 ppm
1345 = -14 PSI No PID readings above 0.0 ppm
1545 = -9.5 PSI No PID readings above 0.0 ppm

Start Time Vacuum	0845	in Hg -30	PSI
End Time Vacuum	1645	in Hg -8	PSI

He check	Start	Stop	Reading
Purge Data	**Start**	**Stop**	

Readings:
Liters/minute
_____ @ _____
_____ @ _____
_____ @ _____

Notes:

Soil Gas PID:

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BP31-FB2006-00
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:**

SAMPLING DATA:

Date: 10/3/08	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 0900						
Method: Summa Canister	calm 0-5 mph	SSE	38-55	30.35	53	

Summa Canister #	11026
Filter Type	24M 0.5 hour

22.5 psi at 1000 No PID above 0.0 ppm
17.0 psi at 1200 No PID above 0.0 ppm

Start Time Vacuum	0800	in Hg -30	psi
End Time Vacuum	1345	in Hg -12.5	psi

He check	Start	Stop	Reading
Purge Data	**Start**	**Stop**	

Readings:
Liters/minute
_____ @ _____
_____ @ _____
_____ @ _____

Notes:

Soil Gas PID:

Tetra Tech NUS, Inc. **SOIL GAS SAMPLE LOG SHEET**

Project Site Name: NWIRP Bethpage Site 1 **Sample ID No.:** BPS1-SF02007-00
Project No.: 112G01687 **Sample Location:** Site 1
C.O.C. No.: **Sampled By:** Robert Sok

SAMPLING DATA:

Date: 1/6/09	Wind speed (Visual)	Wind Direction (S.U.)	Ambient temperature (^{0}C)	Barometric Pressure (^{0}C)	Relative Humidity (%)	Other
Time: 0905						
Method: Summa Canister	breezy	NNE	~ 38°F			

Summa Canister #	10978
Filter Type	2a M filter

Reg. 10978 (8hr)

Start Time Vacuum	0945 -30+	in Hg
End Time Vacuum	1620 -14.5	in Hg

He check	Start	Stop	Reading
Purge Data	**Start**	**Stop**	

0945 @ -30
1643 @ -26.5
Shutdown @ 5G2011
Start up @ 5G2010

1148 @ -22.0
1357 @ -22.0
1520 @ -17.5
1620 @ -14.5

Readings:
Liters/minute
_____ @ _____
_____ @ _____
_____ @ _____

Notes:

Soil Gas PID:

APPENDIX D

CHAIN OF CUSTODY RECORDS

Project Manager Rob Sok 757 461 4148 Sampler Chuck Meyer 610 909 2925

Tetra Tech NUS
Twin Oaks I Suite 309
5700 Lake Wright Drive
Norfolk VA 23502

CHAIN OF CUSTODY RECORD

0810745

PROJECT NO.:	SITE NAME:
112G01687	NWIRP Bethpage Site 1

SAMPLERS (SIGNATURE): [signature]

	STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Summa canister VOCs	Received Vacuum	REMARKS: Can #	Canister Pressure Initial	Canister Pressure Final
01AB	SG	10/30/08	0954	X		BPS1-SG2001-49	1	1	0.0"Hg	5736	-30	-3.5
02AB	SG	10/30/08	1126	X		BPS1-SG2002-20	1	1	0.0"Hg	34021	-30	-2.5
03AB	SG	10/30/08	1253	X		BPS1-SG2002-08	1	1	0.0"Hg	35154	-30	-4.0
04AB	SG	10/30/08	1347	X		BPS1 SG-2002-44	1	1	8.5"Hg	33884	-30	-10

CUSTODY SEAL INTACT? Y N NONE TEMP N/A

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
[signature]	10/30/08 1730	Monica Gresser ATL 10/31/08 920			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: Shipped via Federal Express Airbill No 8646 0967 0330	

(0498)

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Robert Sok

Collected by: (Print and Sign) Charles Meyer Charles Meyer

Company Tetra Tech NUS Email

Address Twin Oaks 1 Suite 309 Lake Wright Drive City Norfolk State VA Zip 23502

Phone 757 466 4904 Fax 757 461 4148

Project Info:
P.O. #
Project # 112G01687
Project Name NWIRP Bethpage Site 1

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Inital	Final	Receipt	Final (psi)
01A6	BPSI-FB2005-00	33896	10/30/08	0845		-30	-8.0		
02A6	BPSI-SG2003-49	35263	10/31/08	0940		+30	-2.5		
03A6	BPSI-SG2003-20	5633	10/31/08	1023		+30	-2.0		
04A6	BPSI-SG2003-08	33904	10/31/08	1122		-30	-2.5		
05A6	BPSI-FB2006-00	11026	10/31/08	0800		-30	-12.5		
06A6	BPSI-Dup-03	10776	10/31/08	0000		-30	-3.5		

Relinquished by: (signature) Date/Time
Charles Meyer 10/31/08 1900

Received by: (signature) Date/Time
Monica Gleason ATL 11/3/08 930

Relinquished by: (signature) Date/Time

Received by: (signature) Date/Time

Relinquished by: (signature) Date/Time

Received by: (signature) Date/Time

Notes: Shipped via Federal Express Airbill No 8646 0967 0320

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	(Yes) No None	0811019

Project Manager Rob Sok Sampler Chuck Meyer

Tetra Tech NUS
Twin Oaks I Suite 309
5700 Lake Wright Drive
Norfolk VA 23502

Telephone 757 461 4148

CHAIN OF CUSTODY RECORD

0810701

PROJECT NO.:	SITE NAME:	NO. OF CONTAINERS
112G01687	Site 1 NWIRP Bethpage	

SAMPLERS (SIGNATURE): Chuck Meyer

	STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	6 Liter Summa Canister for 15 VOCs						Can #	REMARKS Canister Pressure Initial	Final
01AB	FB	10/24/08	0930	X		BPSI-FB2004-00	1	1						25254	-30	-4.0
02AB	SG	10/24/08	1003	X		BPSI-SG2006-49	1	1						5555	-29.5	-2.0
03AB	SG	10/24/08	1150	X		BPSI-SG2004-20	1	1						5570	-30	-2.5
04AB	SG	10/24/08	1309	X		BPSI-SG2004-08	1	1						34280	-30	-2.5
05AB	SG	10/24/08	0955	X		BPSI-SG2004-49	1	1						33675	-30	-3.5
06AB	SG	10/24/08	1210	X		BPSI-SG2003-20 (1 cm 10/24/08)	1	1						5585	-30	-2.5
07AB	SG	10/24/08	1335	X		BPSI-SG2003-08 (1 cm 10/24/08)	1	1						33678	-30	-4.0
08AB	SG	10/24/08	0000	X		BPSI-DUP-02	1	1						14871	-30	-2.0
						CUSTODY SEAL INTACT? (Y) N NONE PRESENT										
						FedEx										

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
Chuck Meyer	10/24/08 1700	Monica Grigsby	AIL 10/30/08 915		
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: Shipped Via Fedex Express Airbill No 8646 0466 9782	

(0498)

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Rob Sok

Collected by: (Print and Sign) Charles Meyer Charles Meyer

Company Tetra Tech NUS Email

Address 5700 Lake Wright Dr, Twin Oaks I Suite 309 City Norfolk State VA Zip 23502

Phone 757 466 4904 Fax 757 461 4145

Project Info:
P.O. #
Project # 112G-01687 Site I
Project Name NWIRP Bethpage

Turn Around Time:
☐ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01AB	BPSI-FB2003-00	34434	10/24/08	0900	TO-15 VOC's	-30	-6.5		
02AB	BPSI-SG2007-49	04589	10/24/08	0945	TO-15 VOC's	-30	-2.5		
03AB	BPSI-SG2006-20	4236	10/24/08	1127	TO-15 VOC's	-30	-2.5		
04AB	BPSI-SG2006-08	10912	10/24/08	1244	TO-15 VOC's	-30	-3.5		
	~~BPSI-SG2006-49~~		~~10/27/08~~		~~TO-15 VOC's~~	~~-30~~	CM	10/27/08	
05AB	BPSI-SG2005-49	9944	10/27/08	1039	TO-15 VOC's	-28	-2.0		
06AB	BPSI-SG2005-20	13499	10/27/08	1117	TO-15 VOC's	-29.5	-2.0		
07AB	BPSI-SG2005-08	33921	10/27/08	1240	TO-15 VOC's	-30	-2.0		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Charles Meyer	10/27/08 1700	Monica Gregson AIL	10/28/08 855
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes: Shipped via Federal Express Airbill NO 8646 0967 0341

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		MA	Good	(Yes) No None	0810643

Form 1268 rev.11

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Robert Sok

Collected by: (Print and Sign) Charles Mayer

Company Tetra Tech NUS Email

Address 5700 Lake Wright Drive, Twin Oaks I Suite 309 City Norfolk State VA Zip 23502

Phone 757 466 4904 Fax 757 461 4148

Project Info:
P.O. #
Project # NWIRP Bethpage
Project Name NWIRP Bethpage Site 1

Turn Around Time:
☒ Normal
☐ Rush
(specify)

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	BPSI-SG2009-48	34717	10/21/08	1025	TO-15 VOC's	>-30	-2.5		
02A	BPSI-SG2009-08	24485	10/21/08	1107	TO-15 VOC's	>-30	-2.5		
03A	BPSI-SG2009-25	12934	10/21/08	1228	TO-15 VOC's	-30	-2.5		
04A	BPSI-FB2001-00	34493	10/21/08	1000	TO-15 VOC's	-30	-2.5		
05A	BPSI-SG2008-09	25264	10/22/08	1415	TO-15 VOC's	-30	-2.5		
06A	BPSI-SG2008-20	25263	10/22/08	1730	TO-15 VOC's	>-30	-9.5		
07A	BPSI-SG2008-49	33560	10/23/08	0943	TO-15 VOC's	-30	-2.5		
08A	BPSI-SG2007-20	34730	10/23/08	1400	TO-15 VOC's	-30	-2.5		
09A	BPSI-SG2007-08	03788	10/23/08	1507	TO-15 VOC's	-30	-4.0		
10A	BPSI-DUP-01	33789	10/23/08	0000	TO-15 VOC's	-30	-2.5		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
	10/23/08 1800	Monica Coleman ATL	10/24/08 915
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes: Shipped via Federal Express Airbill NO 9631 3888 0182

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		MA	Good	Yes / No / None	0810584

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Robert Sok
Collected by: (Print and Sign) Robert Sok
Company Tetra Tech NUS Email rob.sok@tetratech.com
Address 5700 Lake Wright Blvd City Norfolk State VA Zip 23502
Phone (757) 466-4904 Fax (757) 461-4148

Project Info:
P.O. #
Project # 112G01687
Project Name Phase II SVT

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	BPS1-SG2011-48	34318	1/6/09	1032	TO-15 (Same list)	-30	-2.5		
02A	BPS1-SG2011-24	34007	1/6/09	1040	TO-15	-30	-2.5		
03A	BPS2-SG2011-08	4167	1/6/09	1145	TO-15	-30	-2.5		
04A	BPS2-SG2010-49	36048	1/6/09	1525	TO-15	-30	-2.5		
05A	BPS2-SG2010-24	20946	1/6/09	1545	TO-15	-30	-2.5		
06A	BPS1-SG2010-08	10801	1/6/09	1557	TO-15	-28	-2.5		
07A	BPS1-DUP-04	13865	1/6/09	1540	TO-15	-30	-2.5		
08A	BPS1-FB2007-00	10978	1/6/09	1620	TO-15	-30	-14.5		

Relinquished by: (signature) Date/Time 1/7/09
Received by: (signature) Date/Time Monica Green ATL 1/8/09 910

Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time

Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time

Notes: Please contact Bryanna Langley regarding the correct compound list to use for these samples

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx		NA	Good	(Yes) No None	0901113

Form 1295 rev.11

CHAIN OF CUSTODY RECORD

0810584

PROJECT NO.: 112G01687	SITE NAME: NWIRP Bethpage site 1	NO. OF CONTAINERS	6 Liter SUMMA TO-15 VOCs						REMARKS
SAMPLERS (SIGNATURE): [signature]									

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	6 Liter SUMMA TO-15 VOCs						REMARKS: Can # / Can pres In / Can Pres Final
FB2002	10/24/08	0900		X	BPS1-FB2002-00	1	1						31433 -30 psi -6.5 psi

FedEx

CUSTODY SEAL INTACT? Y N/A

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
[signature]	10/23/08 1500	Monica Greggen ATL 10/24/08 915			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: Shipped Via Federal Express Air bill No 8631 3898 0182	

(0498)

APPENDIX E

DATA ANALYTICAL REPORT

WORK ORDER #: 0810584AR3

Work Order Summary

CLIENT: Mr. Robert Sok
Tetra Tech
Twin Oaks I, Suite 309
5700 Lake Wright Drive
Norfolk, VA 23502

PHONE: 757-466-4904

FAX:

DATE RECEIVED: 10/24/2008

DATE COMPLETED: 01/26/2009

DATE REISSUED: 01/30/2009

BILL TO: Accounts Payable/Pittsburg
Tetra Tech EC, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

P.O. #

PROJECT # 112G01687 NWIRP Bethpage Site 1

CONTACT: Bryanna Langley

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BPSI-SG2009-48	Modified TO-15	1.0 "Hg	5 psi
01B	BPSI-SG2009-48	Modified TO-15	1.0 "Hg	5 psi
02A	BPSI-SG2009-08	Modified TO-15	1.5 "Hg	5 psi
02B	BPSI-SG2009-08	Modified TO-15	1.5 "Hg	5 psi
03A	BPSI-SG2009-25	Modified TO-15	0.0 "Hg	5 psi
03B	BPSI-SG2009-25	Modified TO-15	0.0 "Hg	5 psi
04A	BPSI-FB2001-00	Modified TO-15	4.5 "Hg	5 psi
04AA	BPSI-FB2001-00 Lab Duplicate	Modified TO-15	4.5 "Hg	5 psi
04B	BPSI-FB2001-00	Modified TO-15	4.5 "Hg	5 psi
04BB	BPSI-FB2001-00 Lab Duplicate	Modified TO-15	4.5 "Hg	5 psi
05A	BPSI-SG2008-08	Modified TO-15	0.0 "Hg	5 psi
05B	BPSI-SG2008-08	Modified TO-15	0.0 "Hg	5 psi
06A	BPSI-SG2008-20	Modified TO-15	6.5 "Hg	5 psi
06B	BPSI-SG2008-20	Modified TO-15	6.5 "Hg	5 psi
07A	BPSI-SG2008-49	Modified TO-15	0.0 "Hg	5 psi
07B	BPSI-SG2008-49	Modified TO-15	0.0 "Hg	5 psi
08A	BPSI-SG2007-20	Modified TO-15	1.5 "Hg	5 psi

Continued on next page

WORK ORDER #: 0810584AR3

Work Order Summary

CLIENT: Mr. Robert Sok
Tetra Tech
Twin Oaks I, Suite 309
5700 Lake Wright Drive
Norfolk, VA 23502

PHONE: 757-466-4904

FAX:

DATE RECEIVED: 10/24/2008

DATE COMPLETED: 01/26/2009

DATE REISSUED: 01/30/2009

BILL TO: Accounts Payable/Pittsburg
Tetra Tech EC, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

P.O. #

PROJECT # 112G01687 NWIRP Bethpage Site 1

CONTACT: Bryanna Langley

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
08B	BPSI-SG2007-20	Modified TO-15	1.5 "Hg	5 psi
09A	BPSI-SG2007-08	Modified TO-15	2.5 "Hg	5 psi
09B	BPSI-SG2007-08	Modified TO-15	2.5 "Hg	5 psi
10A	BPSI-DUP-01	Modified TO-15	1.0 "Hg	5 psi
10B	BPSI-DUP-01	Modified TO-15	1.0 "Hg	5 psi
11A	Lab Blank	Modified TO-15	NA	NA
11B	Lab Blank	Modified TO-15	NA	NA
11C	Lab Blank	Modified TO-15	NA	NA
11D	Lab Blank	Modified TO-15	NA	NA
12A	CCV	Modified TO-15	NA	NA
12B	CCV	Modified TO-15	NA	NA
12C	CCV	Modified TO-15	NA	NA
12D	CCV	Modified TO-15	NA	NA
13A	LCS	Modified TO-15	NA	NA
13B	LCS	Modified TO-15	NA	NA
13C	LCS	Modified TO-15	NA	NA
13D	LCS	Modified TO-15	NA	NA

CERTIFIED BY: Linda D. Frumarn DATE: 01/30/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Tetra Tech
Workorder# 0810584AR3

Ten 6 Liter Summa Canister (100% Certified) samples were received on October 24, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) information for sample BPSI-SG2009-25 did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

Samples BPSI-SG2009-25, BPSI-SG2008-08 and BPSI-SG2007-49 arrived at ambient pressure yet flow

controllers were used for sample collection.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (at the Reporting Limit) may be false positives.

THE WORK ORDER WAS REISSUED ON NOVEMBER 12, 2008 TO CORRECT IDENTIFICATION OF THE FOLLOWING SAMPLES BPSI-FB2001-00.

THE WORK ORDER WAS REISSUED PER CLIENT REQUEST ON DECEMBER 31, 2008 TO REPORT THE TOP TEN TENTATIVELY IDENTIFIED COMPOUNDS (TICS) FOR EACH SAMPLE.

DUE TO MATRIX INTERFERENCE IN THE TOTAL ION CHROMATOGRAM INTERNAL STANDARDS BROMOCHLOROMETHANE AND CHLOROBENZENE-D5 WERE NOT USED TO CALCULATE THE CONCENTRATION OF TICS IN SAMPLES BPSI-SG2009-48. CHLOROBENZENE-D5 WAS NOT USED TO CALCULATE THE CONCENTRATION OF TICS IN SAMPLES BPSI-SG2009-08, BPSI-SG2009-25, BPSI-SG2008-49 AND BPSI-SG2008-08. 1,4-DIFLUOROBENZENE AND CHLOROBENZENE-D5 WERE NOT USED TO CALCULATE THE CONCENTRATION OF TICS IN SAMPLE BPSI-SG2008-20.

THE WORKORDER WAS REISSUED ON JANUARY 30, 2009 TO CORRECT THE METHOD LIMITS FOR THE SURROGATES IN ALL B FRACTION SAMPLES (i.e. 01B, 02B...) AND THE QC.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0810584B

Work Order Summary

CLIENT: Mr. David Brayack
Tetra Tech
Twin Oaks I, Suite 309
5700 Lake Wright Drive
Norfolk, VA 23502

PHONE: (757) 461-3824

FAX: (757) 461-4148

DATE RECEIVED: 10/24/2008

DATE COMPLETED: 11/06/2008

BILL TO: Accounts Payable/Pittsburg
Tetra Tech EC, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

P.O. #

PROJECT # 112G01687 NWIRP Bethpage Site 1

CONTACT: Bryanna Langley

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
11A	BPSI-FB2002-00	Modified TO-15	4.0 "Hg	5 psi
11B	BPSI-FB2002-00	Modified TO-15	4.0 "Hg	5 psi
12A	Lab Blank	Modified TO-15	NA	NA
12B	Lab Blank	Modified TO-15	NA	NA
13A	CCV	Modified TO-15	NA	NA
13B	CCV	Modified TO-15	NA	NA
14A	LCS	Modified TO-15	NA	NA
14B	LCS	Modified TO-15	NA	NA

CERTIFIED BY: Linda D. Fruman DATE: 11/06/08

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Tetra Tech
Workorder# 0810584B

One 6 Liter Summa Canister (100% Certified) samples were received on October 24, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (at the Reporting Limit) may be false positives.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

WORK ORDER #: 0810643R2

Work Order Summary

CLIENT: Mr. Robert Sok
Tetra Tech
Twin Oaks I, Suite 309
5700 Lake Wright Drive
Norfolk, VA 23502

PHONE: 757-466-4904

FAX:

DATE RECEIVED: 10/28/2008

DATE COMPLETED: 01/26/2009

DATE REISSUED: 01/30/2009

BILL TO: Accounts Payable/Pittsburg
Tetra Tech EC, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

P.O. #

PROJECT # 112G01687 NWIRP Bethpage Site 1

CONTACT: Bryanna Langley

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BPS1-FB2003-00	Modified TO-15 /TICs	4.5 "Hg	5 psi
01AA	BPS1-FB2003-00 Lab Duplicate	Modified TO-15 /TICs	4.5 "Hg	5 psi
01B	BPS1-FB2003-00	Modified TO-15 /TICs	4.5 "Hg	5 psi
01BB	BPS1-FB2003-00 Lab Duplicate	Modified TO-15 /TICs	4.5 "Hg	5 psi
02A	BPS1-SG2007-49	Modified TO-15 /TICs	1.5 "Hg	5 psi
02B	BPS1-SG2007-49	Modified TO-15 /TICs	1.5 "Hg	5 psi
03A	BPS1-SG2006-20	Modified TO-15 /TICs	1.5 "Hg	5 psi
03B	BPS1-SG2006-20	Modified TO-15 /TICs	1.5 "Hg	5 psi
04A	BPS1-SG2006-08	Modified TO-15 /TICs	1.5 "Hg	5 psi
04B	BPS1-SG2006-08	Modified TO-15 /TICs	1.5 "Hg	5 psi
05A	BPS1-SG2005-49	Modified TO-15 /TICs	2.5 "Hg	5 psi
05B	BPS1-SG2005-49	Modified TO-15 /TICs	2.5 "Hg	5 psi
06A	BPS1-SG2005-20	Modified TO-15 /TICs	1.5 "Hg	5 psi
06B	BPS1-SG2005-20	Modified TO-15 /TICs	1.5 "Hg	5 psi
07A	BPS1-SG2005-08	Modified TO-15 /TICs	2.0 "Hg	5 psi
07B	BPS1-SG2005-08	Modified TO-15 /TICs	2.0 "Hg	5 psi
08A	Lab Blank	Modified TO-15 /TICs	NA	NA

Continued on next page

WORK ORDER #: 0810643R2

Work Order Summary

CLIENT: Mr. Robert Sok
Tetra Tech
Twin Oaks I, Suite 309
5700 Lake Wright Drive
Norfolk, VA 23502

PHONE: 757-466-4904

FAX:

DATE RECEIVED: 10/28/2008

DATE COMPLETED: 01/26/2009

DATE REISSUED: 01/30/2009

BILL TO: Accounts Payable/Pittsburg
Tetra Tech EC, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

P.O. #

PROJECT # 112G01687 NWIRP Bethpage Site 1

CONTACT: Bryanna Langley

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
08B	Lab Blank	Modified TO-15 /TICs	NA	NA
09A	CCV	Modified TO-15 /TICs	NA	NA
09B	CCV	Modified TO-15 /TICs	NA	NA
10A	LCS	Modified TO-15 /TICs	NA	NA
10B	LCS	Modified TO-15 /TICs	NA	NA

CERTIFIED BY: Linda D. Truman DATE: 01/30/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Tetra Tech
Workorder# 0810643R2

Seven 6 Liter Summa Canister (100% Certified) samples were received on October 28, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (at the Reporting Limit) may be false positives.

THE WORKORDER WAS REISSUED ON DECEMBER 31, 2008 TO REPORT TOP TEN TICS PER CLIENT'S REQUEST.

DUE TO MATRIX INTERFERENCE IN THE TOTAL ION CHROMATOGRAM INTERNAL STANDARD CHLOROBENZENE-D5 WAS NOT USED TO CALCULATE CONCENTRATION OF TICS IN SAMPLES BPS1-SG2006-20, BPS1-SG2006-08, BPS1-SG2005-49, BPS1-SG2005-20 AND BPS1-SG2005-08 .

THE WORKORDER WAS REISSUED ON JANUARY 30, 2009 TO CORRECT THE METHOD LIMITS FOR THE SURROGATES IN ALL B FRACTION SAMPLES (i.e. 01B, 02B...) AND THE QC.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

WORK ORDER #: 0810701R2

Work Order Summary

CLIENT: Mr. Robert Sok
Tetra Tech
Twin Oaks I, Suite 309
5700 Lake Wright Drive
Norfolk, VA 23502

PHONE: 757-466-4904

FAX:

DATE RECEIVED: 10/30/2008
DATE COMPLETED: 01/26/2009
DATE REISSUED: 01/30/2009

BILL TO: Accounts Payable/Pittsburg
Tetra Tech EC, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

P.O. #
PROJECT # 112G01687 NWIRP Bethpage Site 1
CONTACT: Bryanna Langley

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BPS1-FB2004-00	Modified TO-15 /TICs	2.0 "Hg	5 psi
01B	BPS1-FB2004-00	Modified TO-15 /TICs	2.0 "Hg	5 psi
02A	BPS1-SG2006-49	Modified TO-15 /TICs	1.0 "Hg	5 psi
02B	BPS1-SG2006-49	Modified TO-15 /TICs	1.0 "Hg	5 psi
03A	BPS1-SG2004-20	Modified TO-15 /TICs	1.0 "Hg	5 psi
03AA	BPS1-SG2004-20 Lab Duplicate	Modified TO-15 /TICs	1.0 "Hg	5 psi
03B	BPS1-SG2004-20	Modified TO-15 /TICs	1.0 "Hg	5 psi
03BB	BPS1-SG2004-20 Lab Duplicate	Modified TO-15 /TICs	1.0 "Hg	5 psi
04A	BPS1-SG2004-08	Modified TO-15 /TICs	1.0 "Hg	5 psi
04B	BPS1-SG2004-08	Modified TO-15 /TICs	1.0 "Hg	5 psi
05A	BPS1-SG2004-49	Modified TO-15 /TICs	0.5 "Hg	5 psi
05B	BPS1-SG2004-49	Modified TO-15 /TICs	0.5 "Hg	5 psi
06A	BPS1-SG2001-20	Modified TO-15 /TICs	0.0 "Hg	5 psi
07A	BPS1-SG2001-08	Modified TO-15 /TICs	0.0 "Hg	5 psi
08A	BPS1-DUP-02	Modified TO-15 /TICs	1.0 "Hg	5 psi
08B	BPS1-DUP-02	Modified TO-15 /TICs	1.0 "Hg	5 psi
09A	Lab Blank	Modified TO-15 /TICs	NA	NA

Continued on next page

WORK ORDER #: 0810701R2

Work Order Summary

CLIENT: Mr. Robert Sok
Tetra Tech
Twin Oaks I, Suite 309
5700 Lake Wright Drive
Norfolk, VA 23502

PHONE: 757-466-4904

FAX:

DATE RECEIVED: 10/30/2008

DATE COMPLETED: 01/26/2009

DATE REISSUED: 01/30/2009

BILL TO: Accounts Payable/Pittsburg
Tetra Tech EC, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

P.O. #

PROJECT # 112G01687 NWIRP Bethpage Site 1

CONTACT: Bryanna Langley

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
09B	Lab Blank	Modified TO-15 /TICs	NA	NA
09C	Lab Blank	Modified TO-15 /TICs	NA	NA
10A	CCV	Modified TO-15 /TICs	NA	NA
10B	CCV	Modified TO-15 /TICs	NA	NA
10C	CCV	Modified TO-15 /TICs	NA	NA
11A	LCS	Modified TO-15 /TICs	NA	NA
11B	LCS	Modified TO-15 /TICs	NA	NA
11C	LCS	Modified TO-15 /TICs	NA	NA

CERTIFIED BY: Linda D. Fruman DATE: 01/30/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Tetra Tech
Workorder# 0810701R2

Eight 6 Liter Summa Canister (100% Certified) samples were received on October 30, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) information for sample BPS1-SG2004-20 did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

Samples BPS1-SG2001-20 and BPS1-SG2001-08 arrived at ambient pressure yet flow controllers were

used for sample collection.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (at the Reporting Limit) may be false positives.

THE WORKORDER WAS REISSUED ON 01-06-2009 TO REPORT TOP TEN TICS PER CLIENT'S REQUEST.

DUE TO MATRIX INTERFERENCE IN THE TOTAL ION CHROMATOGRAM INTERNAL STANDARD CHLOROBENZENE-D5 WAS NOT USED TO CALCULATE CONCENTRATION OF TICS IN SAMPLES BPS1-SG2006-49, BPS1-SG2004-49 AND BPS1-DUP-02 .

THE MDL VALUES USED TO REPORT THE SAMPLES WERE CORRECTED FOR THE A FRACTIONS (01A, 02A...) FOR ALL SAMPLES. AS A RESULT OF THIS CHANGE SOME VALUES PREVIOUSLY REPORTED BELOW THE REPORTING LIMIT MAY BE NOT DETECTED AND VALUES WHICH WERE PREVIOUSLY REPORTED AS NOT DETECTED MAY NOW SHOW A POSITIVE RESULT. RESULTS ABOVE THE REPORTING LIMIT DID NOT CHANGE.

ALSO AS PART OF THIS REISSUE, 1,1-DICHLOROETHENE AND CIS-1,2-DICHLOROETHENE IN SAMPLES BPS1-SG2004-49 AND BPS1-DUP-02 WERE REPORTED AS POSITIVE RESULTS. IN THE ORIGINAL REPORT THEY HAD BEEN INCORRECTLY REPORTED AS NOT DETECTED. BOTH COMPOUNDS CO-ELUTED WITH OTHER TARGET COMPOUNDS BUT THEIR PRESENCE WAS CONFIRMED USING RETENTION TIME AND ION RATIO MATCHES WITH THE DAILY CCV.

THE WORKORDER WAS REISSUED ON JANUARY 30, 2009 TO ADD THE CORRECT TIC RESULTS IN SAMPLE BPS1-SG2006-49 .

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0810745

Work Order Summary

CLIENT:	Mr. Robert Sok Tetra Tech Twin Oaks I, Suite 309 5700 Lake Wright Drive Norfolk, VA 23502	**BILL TO:**	Accounts Payable/Pittsburg Tetra Tech EC, Inc. Foster Plaza 7 661 Anderson Drive Pittsburgh, PA 15220-2745
PHONE:	757-466-4904	**P.O. #**	
FAX:		**PROJECT #**	112G01687 NWIRP Bethpage Site 1
DATE RECEIVED:	10/31/2008	**CONTACT:**	Bryanna Langley
DATE COMPLETED:	11/14/2008		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BPSI-SG2001-49	Modified TO-15	0.0 "Hg	5 psi
01AA	BPSI-SG2001-49 Lab Duplicate	Modified TO-15	0.0 "Hg	5 psi
02A	BPSI-SG2002-20	Modified TO-15	0.0 "Hg	5 psi
03A	BPSI-SG2002-08	Modified TO-15	0.0 "Hg	5 psi
04A	BPSI-SG2002-44	Modified TO-15	8.5 "Hg	5 psi
05A	Lab Blank	Modified TO-15	NA	NA
05B	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
06B	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07B	LCS	Modified TO-15	NA	NA

CERTIFIED BY: Linda D. Fruman DATE: 11/14/08

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 Std & Soil Gas
Tetra Tech
Workorder# 0810745

Four 6 Liter Summa Canister (100% Certified) samples were received on October 31, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
Daily CCV	+- 30% Difference	</= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

Samples BPSI-SG2001-49, BPSI-SG2002-20 and BPSI-SG2002-08 arrived at ambient pressure yet flow controllers were used for sample collection.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (0.2 ppbv for compounds reported at 0.5 ppbv and 0.8 ppbv for compounds reported at 2.0 ppbv) may be false positives.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

WORK ORDER #: 0811019R3

Work Order Summary

CLIENT: Mr. Robert Sok
Tetra Tech
Twin Oaks I, Suite 309
5700 Lake Wright Drive
Norfolk, VA 23502

PHONE: 757-466-4904

FAX:

DATE RECEIVED: 11/03/2008

DATE COMPLETED: 11/13/2008

DATE REISSUED: 01/23/2009

BILL TO: Accounts Payable/Pittsburg
Tetra Tech EC, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

P.O. #

PROJECT # 112G01687 NWIRP Beth Page Site 1

CONTACT: Bryanna Langley

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BPS1-FB2005-00	Modified TO-15 /TICs	6.0 "Hg	5 psi
01B	BPS1-FB2005-00	Modified TO-15 /TICs	6.0 "Hg	5 psi
02A	BPS1-SG2003-49	Modified TO-15 /TICs	0.0 "Hg	5 psi
03A	BPS1-SG2003-20	Modified TO-15 /TICs	0.0 "Hg	5 psi
03AA	BPS1-SG2003-20 Lab Duplicate	Modified TO-15 /TICs	0.0 "Hg	5 psi
03B	BPS1-SG2003-20	Modified TO-15 /TICs	0.0 "Hg	5 psi
03BB	BPS1-SG2003-20 Lab Duplicate	Modified TO-15 /TICs	0.0 "Hg	5 psi
04A	BPS1-SG2003-08	Modified TO-15 /TICs	1.0 "Hg	5 psi
04B	BPS1-SG2003-08	Modified TO-15 /TICs	1.0 "Hg	5 psi
05A	BPS1-FB2006-00	Modified TO-15 /TICs	10.0 "Hg	5 psi
05B	BPS1-FB2006-00	Modified TO-15 /TICs	10.0 "Hg	5 psi
06A	BPS1-DUP-03	Modified TO-15 /TICs	1.0 "Hg	5 psi
06B	BPS1-DUP-03	Modified TO-15 /TICs	1.0 "Hg	5 psi
07A	Lab Blank	Modified TO-15 /TICs	NA	NA
07B	Lab Blank	Modified TO-15 /TICs	NA	NA
08A	CCV	Modified TO-15 /TICs	NA	NA
08B	CCV	Modified TO-15 /TICs	NA	NA

Continued on next page

WORK ORDER #: 0811019R3

Work Order Summary

CLIENT:	Mr. Robert Sok Tetra Tech Twin Oaks I, Suite 309 5700 Lake Wright Drive Norfolk, VA 23502	**BILL TO:**	Accounts Payable/Pittsburg Tetra Tech EC, Inc. Foster Plaza 7 661 Anderson Drive Pittsburgh, PA 15220-2745
PHONE:	757-466-4904	**P.O. #**	
FAX:		**PROJECT #**	112G01687 NWIRP Beth Page Site 1
DATE RECEIVED:	11/03/2008	**CONTACT:**	Bryanna Langley
DATE COMPLETED:	11/13/2008		
DATE REISSUED:	01/23/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
09A	LCS	Modified TO-15 /TICs	NA	NA
09B	LCS	Modified TO-15 /TICs	NA	NA

CERTIFIED BY: Linda D. Fruman DATE: 01/23/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Tetra Tech
Workorder# 0811019R3

Six 6 Liter Summa Canister (100% Certified) samples were received on November 03, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody was missing method information. ATL proceeded with the analysis as per the original contract or verbal agreement.

The Chain of Custody (COC) information for sample BPS1-DUP-03 did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information

on the canister was used to process and report the sample.

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Samples BPS1-SG2003-49 and BPS1-SG2003-20 arrived at ambient pressure yet flow controllers were used for sample collection.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (at the Reporting Limit) may be false positives.

THE WORKORDER WAS REISSUED ON 01-02-2009 TO REPORT TOP TEN TICS PER CLIENT'S REQUEST.

DUE TO MATRIX INTERFERENCE IN THE TOTAL ION CHROMATOGRAM INTERNAL STANDARD CHLOROBENZENE-D5 WAS NOT USED TO CALCULATE CONCENTRATION OF TICS IN SAMPLES BPS1-SG2003-49, BPS1-SG2003-20, BPS1-SG2003-20 LAB DUPLICATE, BPS1-SG2003-08 AND BPS1-DUP-03.

ALSO, AS PART OF THIS REISSUE, THE MDL VALUES USED TO REPORT THE SAMPLES WERE CORRECTED FOR THE A FRACTIONS (01A, 02A...) FOR ALL SAMPLES. AS A RESULT OF THIS CHANGE SOME VALUES PREVIOUSLY REPORTED BELOW THE REPORTING LIMIT MAY BE NOT DETECTED AND VALUES WHICH WERE PREVIOUSLY REPORTED AS NOT DETECTED MAY NOW SHOW A POSITIVE RESULT. RESULTS ABOVE THE REPORTING LIMIT DID NOT CHANGE.

THE REPORTED RESULTS FOR TIC HETPANE, 3-METHYLENE- MAY BE BIASED HIGH DUE TO CO-ELUTION WITH THE SURROGATE TOLUENE D8 IN SAMPLES BPS1-SG2003-49, BPS1-SG2003-20, BPS1-SG2003-20 DUPLICATE AND BPS1-DUP-03

THE WORKORDER WAS REISSUED ON JANUARY 16, 2009 TO CORRECT THE SURROGATE RECOVERY LIMITS FOR "B" SAMPLES 01B THROUGH 06B AND THE QC.

THE WORK ORDER WAS REISSUED ON JANUARY 23, 2009 TO CORRECTLY INCLUDE THE TRICHLOROETHENE RESULT FOR SAMPLE BPS1-SG2003-49. THE RESULT WAS CORRECTLY REPORTED IN THE ORIGINAL VERSION OF THE REPORT. IN THE SUBSEQUENT REISSUES, THIS RESULT WAS INCORRECTLY OMITTED.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

WORK ORDER #: 0901113

Work Order Summary

CLIENT:	Mr. Robert Sok Tetra Tech Twin Oaks I, Suite 309 5700 Lake Wright Drive Norfolk, VA 23502	**BILL TO:**	Accounts Payable/Pittsburg Tetra Tech EC, Inc. Foster Plaza 7 661 Anderson Drive Pittsburgh, PA 15220-2745
PHONE:	757-466-4904	**P.O. #**	
FAX:		**PROJECT #**	112G01687 Phase II SVI
DATE RECEIVED:	01/08/2009	**CONTACT:**	Bryanna Langley
DATE COMPLETED:	01/21/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	BPS1-SG2011-48	Modified TO-15/TICs	0.0 "Hg	5 psi
01B	BPS1-SG2011-48	Modified TO-15/TICs	0.0 "Hg	5 psi
02A	BPS1-SG2011-24	Modified TO-15/TICs	0.0 "Hg	5 psi
02B	BPS1-SG2011-24	Modified TO-15/TICs	0.0 "Hg	5 psi
03A	BPS1-SG2011-08	Modified TO-15/TICs	1.5 "Hg	5 psi
03B	BPS1-SG2011-08	Modified TO-15/TICs	1.5 "Hg	5 psi
04A	BPS1-SG2010-49	Modified TO-15/TICs	1.0 "Hg	5 psi
04B	BPS1-SG2010-49	Modified TO-15/TICs	1.0 "Hg	5 psi
05A	BPS1-SG2010-24	Modified TO-15/TICs	0.0 "Hg	5 psi
05AA	BPS1-SG2010-24 Lab Duplicate	Modified TO-15/TICs	0.0 "Hg	5 psi
05B	BPS1-SG2010-24	Modified TO-15/TICs	0.0 "Hg	5 psi
05BB	BPS1-SG2010-24 Lab Duplicate	Modified TO-15/TICs	0.0 "Hg	5 psi
06A	BPS1-SG2010-08	Modified TO-15/TICs	1.5 "Hg	5 psi
06B	BPS1-SG2010-08	Modified TO-15/TICs	1.5 "Hg	5 psi
07A	BPS1-DUP-04	Modified TO-15/TICs	0.2 psi	5 psi
07B	BPS1-DUP-04	Modified TO-15/TICs	0.2 psi	5 psi
08A	BPS1-FB2007-00	Modified TO-15/TICs	12.0 "Hg	5 psi

Continued on next page

WORK ORDER #: 0901113

Work Order Summary

CLIENT: Mr. Robert Sok
Tetra Tech
Twin Oaks I, Suite 309
5700 Lake Wright Drive
Norfolk, VA 23502

PHONE: 757-466-4904

FAX:

DATE RECEIVED: 01/08/2009

DATE COMPLETED: 01/21/2009

BILL TO: Accounts Payable/Pittsburg
Tetra Tech EC, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

P.O. #

PROJECT # 112G01687 Phase II SVI

CONTACT: Bryanna Langley

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
08B	BPS1-FB2007-00	Modified TO-15/TICs	12.0 "Hg	5 psi
09A	Lab Blank	Modified TO-15/TICs	NA	NA
09B	Lab Blank	Modified TO-15/TICs	NA	NA
10A	CCV	Modified TO-15/TICs	NA	NA
10B	CCV	Modified TO-15/TICs	NA	NA
11A	LCS	Modified TO-15/TICs	NA	NA
11B	LCS	Modified TO-15/TICs	NA	NA

CERTIFIED BY: Linda D. Frumarn DATE: 01/21/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Tetra Tech
Workorder# 0901113

Eight 6 Liter Summa Canister (100% Certified) samples were received on January 08, 2009. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

Samples BPS1-SG2011-48, BPS1-SG2011-24, BPS1-SG2010-24 and BPS1-DUP-04 arrived at ambient pressure yet flow controllers were used for sample collection.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified (at the Reporting Limit) may be false positives.

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Due to matrix interference in the Total Ion Chromatogram internal standard Chlorobenzene-d5 was not used to calculate concentration of TICs in sample BPS1-SG2011-48, BPS1-SG2010-49, BPS1-SG2010-24 and BPS1-DUP-04 .

Due to matrix interference in the Total Ion Chromatogram internal standard 1,4-Difluorobenzene was not used to calculate concentration of TICs in sample BPS1-DUP-04 .
Acetone and 2-Butanone (Methyl Ethyl Ketone) were detected at concentrations less than 5 times the reporting limit in sample BPS1-FB2007-00. Because the preceding sample contained concentrations of Acetone and 2-Butanone (Methyl Ethyl Ketone) exceeding the calibration range, the results for these compounds in samples BPS1-FB2007-00 may be biased high.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2001-08

Lab ID#: 0810701-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7111109**	**Date of Collection: 10/29/08**	
Dil. Factor:	**5.36**	**Date of Analysis: 11/11/08 04:24 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	2.7	0.59 J	13	2.9 J
Chloromethane	11	Not Detected	22	Not Detected
Vinyl Chloride	2.7	Not Detected	6.8	Not Detected
Bromomethane	2.7	Not Detected	10	Not Detected
Chloroethane	2.7	Not Detected	7.1	Not Detected
Freon 11	2.7	1.2 J	15	6.5 J
Freon 113	2.7	280	20	2200
1,1-Dichloroethene	2.7	2.3 J	11	9.2 J
Acetone	11	200	25	470
Carbon Disulfide	2.7	0.97 J	8.3	3.0 J
Methylene Chloride	2.7	Not Detected	9.3	Not Detected
Methyl tert-butyl ether	2.7	Not Detected	9.7	Not Detected
trans-1,2-Dichloroethene	2.7	2.0 J	11	7.9 J
1,1-Dichloroethane	2.7	2.7	11	11
2-Butanone (Methyl Ethyl Ketone)	2.7	17	7.9	50
cis-1,2-Dichloroethene	2.7	5.2	11	20
Chloroform	2.7	23	13	110
1,1,1-Trichloroethane	2.7	230	15	1300
Carbon Tetrachloride	2.7	Not Detected	17	Not Detected
Benzene	2.7	2.5 J	8.6	7.8 J
1,2-Dichloroethane	2.7	Not Detected	11	Not Detected
Trichloroethene	2.7	310	14	1700
1,2-Dichloropropane	2.7	Not Detected	12	Not Detected
Bromodichloromethane	2.7	Not Detected	18	Not Detected
cis-1,3-Dichloropropene	2.7	Not Detected	12	Not Detected
4-Methyl-2-pentanone	2.7	0.57 J	11	2.3 J
Toluene	2.7	8.8	10	33
trans-1,3-Dichloropropene	2.7	Not Detected	12	Not Detected
1,1,2-Trichloroethane	2.7	Not Detected	15	Not Detected
Tetrachloroethene	2.7	580	18	4000
Dibromochloromethane	2.7	Not Detected	23	Not Detected
1,2-Dibromoethane (EDB)	2.7	Not Detected	20	Not Detected
Chlorobenzene	2.7	Not Detected	12	Not Detected
Ethyl Benzene	2.7	1.1 J	12	4.7 J
m,p-Xylene	2.7	2.7	12	12
o-Xylene	2.7	0.80 J	12	3.5 J
Styrene	2.7	0.48 J	11	2.0 J
Bromoform	2.7	Not Detected	28	Not Detected
1,1,2,2-Tetrachloroethane	2.7	Not Detected	18	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2001-08

Lab ID#: 0810701-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7111109**	**Date of Collection: 10/29/08**	
Dil. Factor:	**5.36**	**Date of Analysis: 11/11/08 04:24 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Dichlorobenzene	2.7	Not Detected	16	Not Detected
1,4-Dichlorobenzene	2.7	Not Detected	16	Not Detected
1,2-Dichlorobenzene	2.7	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	11	Not Detected	80	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	101	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2001-20

Lab ID#: 0810701-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7111108**	**Date of Collection: 10/29/08**	
Dil. Factor:	**5.36**	**Date of Analysis: 11/11/08 03:44 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	2.7	0.57 J	13	2.8 J
Chloromethane	11	Not Detected	22	Not Detected
Vinyl Chloride	2.7	Not Detected	6.8	Not Detected
Bromomethane	2.7	Not Detected	10	Not Detected
Chloroethane	2.7	Not Detected	7.1	Not Detected
Freon 11	2.7	1.1 J	15	6.1 J
Freon 113	2.7	360	20	2800
1,1-Dichloroethene	2.7	4.2	11	16
Acetone	11	180	25	440
Carbon Disulfide	2.7	1.0 J	8.3	3.3 J
Methylene Chloride	2.7	Not Detected	9.3	Not Detected
Methyl tert-butyl ether	2.7	Not Detected	9.7	Not Detected
trans-1,2-Dichloroethene	2.7	4.0	11	16
1,1-Dichloroethane	2.7	7.1	11	29
2-Butanone (Methyl Ethyl Ketone)	2.7	19	7.9	56
cis-1,2-Dichloroethene	2.7	24	11	94
Chloroform	2.7	5.0	13	24
1,1,1-Trichloroethane	2.7	320	15	1700
Carbon Tetrachloride	2.7	Not Detected	17	Not Detected
Benzene	2.7	1.5 J	8.6	4.7 J
1,2-Dichloroethane	2.7	Not Detected	11	Not Detected
Trichloroethene	2.7	500	14	2700
1,2-Dichloropropane	2.7	Not Detected	12	Not Detected
Bromodichloromethane	2.7	Not Detected	18	Not Detected
cis-1,3-Dichloropropene	2.7	Not Detected	12	Not Detected
4-Methyl-2-pentanone	2.7	Not Detected	11	Not Detected
Toluene	2.7	8.4	10	32
trans-1,3-Dichloropropene	2.7	Not Detected	12	Not Detected
1,1,2-Trichloroethane	2.7	Not Detected	15	Not Detected
Tetrachloroethene	2.7	740	18	5000
Dibromochloromethane	2.7	Not Detected	23	Not Detected
1,2-Dibromoethane (EDB)	2.7	Not Detected	20	Not Detected
Chlorobenzene	2.7	Not Detected	12	Not Detected
Ethyl Benzene	2.7	1.0 J	12	4.4 J
m,p-Xylene	2.7	3.2	12	14
o-Xylene	2.7	0.79 J	12	3.4 J
Styrene	2.7	0.41 J	11	1.8 J
Bromoform	2.7	Not Detected	28	Not Detected
1,1,2,2-Tetrachloroethane	2.7	Not Detected	18	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2001-20

Lab ID#: 0810701-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7111108**	**Date of Collection: 10/29/08**	
Dil. Factor:	**5.36**	**Date of Analysis: 11/11/08 03:44 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Dichlorobenzene	2.7	Not Detected	16	Not Detected
1,4-Dichlorobenzene	2.7	Not Detected	16	Not Detected
1,2-Dichlorobenzene	2.7	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	11	Not Detected	80	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	102	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2001-49

Lab ID#: 0810745-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**5111122**	**Date of Collection: 10/30/08**	
Dil. Factor:	**2.68**	**Date of Analysis: 11/12/08 02:23 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	1.3	0.53 J	6.6	2.6 J
Chloromethane	5.4	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.4	Not Detected
Bromomethane	1.3	Not Detected	5.2	Not Detected
Chloroethane	1.3	Not Detected	3.5	Not Detected
Freon 11	1.3	1.2 J	7.5	6.5 J
Freon 113	1.3	320	10	2500
1,1-Dichloroethene	1.3	6.7	5.3	27
Acetone	5.4	210	13	500
Carbon Disulfide	1.3	0.44 J	4.2	1.4 J
Methylene Chloride	1.3	0.24 J	4.6	0.82 J
Methyl tert-butyl ether	1.3	Not Detected	4.8	Not Detected
trans-1,2-Dichloroethene	1.3	2.9	5.3	11
1,1-Dichloroethane	1.3	6.5	5.4	26
2-Butanone (Methyl Ethyl Ketone)	1.3	22	4.0	65
cis-1,2-Dichloroethene	1.3	18	5.3	73
Chloroform	1.3	1.7	6.5	8.2
1,1,1-Trichloroethane	1.3	260	7.3	1400
Carbon Tetrachloride	1.3	0.13 J	8.4	0.84 J
Benzene	1.3	2.8	4.3	9.1
1,2-Dichloroethane	1.3	Not Detected	5.4	Not Detected
Trichloroethene	1.3	270	7.2	1500
1,2-Dichloropropane	1.3	Not Detected	6.2	Not Detected
Bromodichloromethane	1.3	Not Detected	9.0	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	6.1	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.5	Not Detected
Toluene	1.3	17	5.0	65
trans-1,3-Dichloropropene	1.3	Not Detected	6.1	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.3	Not Detected
Tetrachloroethene	1.3	100	9.1	720
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	10	Not Detected
Chlorobenzene	1.3	Not Detected	6.2	Not Detected
Ethyl Benzene	1.3	1.8	5.8	7.9
m,p-Xylene	1.3	6.0	5.8	26
o-Xylene	1.3	2.1	5.8	9.2
Styrene	1.3	4.1	5.7	17
Bromoform	1.3	Not Detected	14	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	9.2	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2001-49

Lab ID#: 0810745-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**5111122**	**Date of Collection: 10/30/08**	
Dil. Factor:	**2.68**	**Date of Analysis: 11/12/08 02:23 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Dichlorobenzene	1.3	Not Detected	8.0	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	8.0	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	8.0	Not Detected
1,2,4-Trichlorobenzene	5.4	Not Detected	40	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	94	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2002-08

Lab ID#: 0810745-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**5111124**	**Date of Collection:**	**10/30/08**
Dil. Factor:	**53.6**	**Date of Analysis:**	**11/12/08 03:39 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	27	Not Detected	130	Not Detected
Chloromethane	110	Not Detected	220	Not Detected
Vinyl Chloride	27	Not Detected	68	Not Detected
Bromomethane	27	Not Detected	100	Not Detected
Chloroethane	27	Not Detected	71	Not Detected
Freon 11	27	Not Detected	150	Not Detected
Freon 113	27	Not Detected	200	Not Detected
1,1-Dichloroethene	27	54	110	220
Acetone	110	120	250	300
Carbon Disulfide	27	5.8 J	83	18 J
Methylene Chloride	27	3.8 J	93	13 J
Methyl tert-butyl ether	27	Not Detected	97	Not Detected
trans-1,2-Dichloroethene	27	Not Detected	110	Not Detected
1,1-Dichloroethane	27	42	110	170
2-Butanone (Methyl Ethyl Ketone)	27	27	79	78
cis-1,2-Dichloroethene	27	12 J	110	49 J
Chloroform	27	8.4 J	130	41 J
1,1,1-Trichloroethane	27	3900	150	21000
Carbon Tetrachloride	27	Not Detected	170	Not Detected
Benzene	27	8.8 J	86	28 J
1,2-Dichloroethane	27	Not Detected	110	Not Detected
Trichloroethene	27	6300	140	34000
1,2-Dichloropropane	27	Not Detected	120	Not Detected
Bromodichloromethane	27	Not Detected	180	Not Detected
cis-1,3-Dichloropropene	27	Not Detected	120	Not Detected
4-Methyl-2-pentanone	27	Not Detected	110	Not Detected
Toluene	27	130	100	500
trans-1,3-Dichloropropene	27	Not Detected	120	Not Detected
1,1,2-Trichloroethane	27	Not Detected	150	Not Detected
Tetrachloroethene	27	63	180	420
Dibromochloromethane	27	Not Detected	230	Not Detected
1,2-Dibromoethane (EDB)	27	Not Detected	200	Not Detected
Chlorobenzene	27	Not Detected	120	Not Detected
Ethyl Benzene	27	39	120	170
m,p-Xylene	27	66	120	290
o-Xylene	27	18 J	120	80 J
Styrene	27	7.8 J	110	33 J
Bromoform	27	Not Detected	280	Not Detected
1,1,2,2-Tetrachloroethane	27	Not Detected	180	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2002-08

Lab ID#: 0810745-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**5111124**	**Date of Collection: 10/30/08**	
Dil. Factor:	**53.6**	**Date of Analysis: 11/12/08 03:39 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Dichlorobenzene	27	Not Detected	160	Not Detected
1,4-Dichlorobenzene	27	Not Detected	160	Not Detected
1,2-Dichlorobenzene	27	Not Detected	160	Not Detected
1,2,4-Trichlorobenzene	110	Not Detected	800	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	94	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2002-20

Lab ID#: 0810745-02A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	**w111026**	**Date of Collection: 10/30/08**	
Dil. Factor:	**4.47**	**Date of Analysis: 11/10/08 10:23 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	22	Not Detected	110	Not Detected
Chloromethane	89	Not Detected	180	Not Detected
Vinyl Chloride	22	Not Detected	57	Not Detected
Bromomethane	22	Not Detected	87	Not Detected
Chloroethane	22	Not Detected	59	Not Detected
Freon 11	22	Not Detected	120	Not Detected
Freon 113	22	Not Detected	170	Not Detected
1,1-Dichloroethene	22	220	89	890
Acetone	89	100	210	250
Carbon Disulfide	22	Not Detected	70	Not Detected
Methylene Chloride	22	Not Detected	78	Not Detected
Methyl tert-butyl ether	22	Not Detected	80	Not Detected
trans-1,2-Dichloroethene	22	Not Detected	89	Not Detected
1,1-Dichloroethane	22	170	90	680
2-Butanone (Methyl Ethyl Ketone)	22	Not Detected	66	Not Detected
cis-1,2-Dichloroethene	22	44	89	170
Chloroform	22	6.5 J	110	32 J
1,1,1-Trichloroethane	22	9600	120	52000
Carbon Tetrachloride	22	Not Detected	140	Not Detected
Benzene	22	Not Detected	71	Not Detected
1,2-Dichloroethane	22	Not Detected	90	Not Detected
Trichloroethene	22	17000	120	89000
1,2-Dichloropropane	22	Not Detected	100	Not Detected
Bromodichloromethane	22	Not Detected	150	Not Detected
cis-1,3-Dichloropropene	22	Not Detected	100	Not Detected
4-Methyl-2-pentanone	22	Not Detected	92	Not Detected
Toluene	22	12 J	84	46 J
trans-1,3-Dichloropropene	22	Not Detected	100	Not Detected
1,1,2-Trichloroethane	22	Not Detected	120	Not Detected
Tetrachloroethene	22	110	150	740
Dibromochloromethane	22	Not Detected	190	Not Detected
1,2-Dibromoethane (EDB)	22	Not Detected	170	Not Detected
Chlorobenzene	22	Not Detected	100	Not Detected
Ethyl Benzene	22	Not Detected	97	Not Detected
m,p-Xylene	22	7.5 J	97	32 J
o-Xylene	22	Not Detected	97	Not Detected
Styrene	22	Not Detected	95	Not Detected
Bromoform	22	Not Detected	230	Not Detected
1,1,2,2-Tetrachloroethane	22	Not Detected	150	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2002-20

Lab ID#: 0810745-02A

MODIFIED EPA METHOD TO-15 GC/MS

File Name:	**w111026**	**Date of Collection: 10/30/08**	
Dil. Factor:	**4.47**	**Date of Analysis: 11/10/08 10:23 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Dichlorobenzene	22	Not Detected	130	Not Detected
1,4-Dichlorobenzene	22	Not Detected	130	Not Detected
1,2-Dichlorobenzene	22	Not Detected	130	Not Detected
1,2,4-Trichlorobenzene	89	Not Detected	660	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	97	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2002-44

Lab ID#: 0810745-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**5111125**	**Date of Collection: 10/30/08**	
Dil. Factor:	**46.8**	**Date of Analysis: 11/12/08 04:19 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	23	Not Detected	120	Not Detected
Chloromethane	94	Not Detected	190	Not Detected
Vinyl Chloride	23	Not Detected	60	Not Detected
Bromomethane	23	Not Detected	91	Not Detected
Chloroethane	23	Not Detected	62	Not Detected
Freon 11	23	Not Detected	130	Not Detected
Freon 113	23	4.5 J	180	34 J
1,1-Dichloroethene	23	120	93	480
Acetone	94	500	220	1200
Carbon Disulfide	23	Not Detected	73	Not Detected
Methylene Chloride	23	3.1 J	81	11 J
Methyl tert-butyl ether	23	Not Detected	84	Not Detected
trans-1,2-Dichloroethene	23	Not Detected	93	Not Detected
1,1-Dichloroethane	23	120	95	490
2-Butanone (Methyl Ethyl Ketone)	23	27	69	78
cis-1,2-Dichloroethene	23	33	93	130
Chloroform	23	3.9 J	110	19 J
1,1,1-Trichloroethane	23	5000	130	27000
Carbon Tetrachloride	23	Not Detected	150	Not Detected
Benzene	23	3.6 J	75	11 J
1,2-Dichloroethane	23	Not Detected	95	Not Detected
Trichloroethene	23	4800	120	26000
1,2-Dichloropropane	23	Not Detected	110	Not Detected
Bromodichloromethane	23	Not Detected	160	Not Detected
cis-1,3-Dichloropropene	23	Not Detected	110	Not Detected
4-Methyl-2-pentanone	23	Not Detected	96	Not Detected
Toluene	23	17 J	88	65 J
trans-1,3-Dichloropropene	23	Not Detected	110	Not Detected
1,1,2-Trichloroethane	23	Not Detected	130	Not Detected
Tetrachloroethene	23	7.0 J	160	48 J
Dibromochloromethane	23	Not Detected	200	Not Detected
1,2-Dibromoethane (EDB)	23	Not Detected	180	Not Detected
Chlorobenzene	23	Not Detected	110	Not Detected
Ethyl Benzene	23	2.8 J	100	12 J
m,p-Xylene	23	9.3 J	100	40 J
o-Xylene	23	3.8 J	100	16 J
Styrene	23	10 J	100	43 J
Bromoform	23	Not Detected	240	Not Detected
1,1,2,2-Tetrachloroethane	23	Not Detected	160	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2002-44

Lab ID#: 0810745-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**5111125**	**Date of Collection: 10/30/08**	
Dil. Factor:	**46.8**	**Date of Analysis: 11/12/08 04:19 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Dichlorobenzene	23	Not Detected	140	Not Detected
1,4-Dichlorobenzene	23	Not Detected	140	Not Detected
1,2-Dichlorobenzene	23	Not Detected	140	Not Detected
1,2,4-Trichlorobenzene	94	Not Detected	690	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	95	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2003-08

Lab ID#: 0811019-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111124**	**Date of Collection: 10/31/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/12/08 04:14 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.26	0.69	1.3
Chloromethane	0.14	0.11 J	0.29	0.23 J
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
Bromomethane	0.14	Not Detected	0.54	Not Detected
Chloroethane	0.14	Not Detected	0.37	Not Detected
Freon 11	0.14	2.3	0.78	13
Freon 113	0.14	0.16	1.1	1.2
1,1-Dichloroethene	0.14	Not Detected	0.55	Not Detected
Acetone	0.70	50	1.6	120
Carbon Disulfide	0.70	0.75	2.2	2.3
Methylene Chloride	0.28	Not Detected	0.96	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.50	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.55	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.56	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	6.4	0.41	19
cis-1,2-Dichloroethene	0.14	Not Detected	0.55	Not Detected
Chloroform	0.14	0.93	0.68	4.6
1,1,1-Trichloroethane	0.14	12	0.76	66
Carbon Tetrachloride	0.14	Not Detected	0.87	Not Detected
Benzene	0.14	1.1	0.44	3.5
1,2-Dichloroethane	0.14	Not Detected	0.56	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.64	Not Detected
Bromodichloromethane	0.14	Not Detected	0.93	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
4-Methyl-2-pentanone	0.14	0.37	0.57	1.5
Toluene	0.14	5.4	0.52	20
trans-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.76	Not Detected
Tetrachloroethene	0.14	2.8	0.94	19
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.64	Not Detected
Ethyl Benzene	0.14	1.4	0.60	5.9
m,p-Xylene	0.14	4.7	0.60	20
o-Xylene	0.14	1.9	0.60	8.4
Styrene	0.14	4.9	0.59	21
Bromoform	0.14	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.95	Not Detected
1,3-Dichlorobenzene	0.14	0.041 J	0.84	0.25 J

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2003-08

Lab ID#: 0811019-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111124**	**Date of Collection: 10/31/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/12/08 04:14 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.14	0.054 J	0.84	0.33 J
1,2-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2003-08

Lab ID#: 0811019-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111124sim**	**Date of Collection: 10/31/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/12/08 04:14 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.028	3.7	0.15	20

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	96	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-DUP-03

Lab ID#: 0811019-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111127**	**Date of Collection: 10/31/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/12/08 06:33 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.24	0.69	1.2
Chloromethane	0.14	0.096 J	0.29	0.20 J
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
Bromomethane	0.14	Not Detected	0.54	Not Detected
Chloroethane	0.14	Not Detected	0.37	Not Detected
Freon 11	0.14	2.1	0.78	12
Freon 113	0.14	0.14	1.1	1.1
1,1-Dichloroethene	0.14	Not Detected	0.55	Not Detected
Acetone	0.70	50	1.6	120
Carbon Disulfide	0.70	0.78	2.2	2.4
Methylene Chloride	0.28	Not Detected	0.96	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.50	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.55	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.56	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	6.2	0.41	18
cis-1,2-Dichloroethene	0.14	Not Detected	0.55	Not Detected
Chloroform	0.14	0.91	0.68	4.4
1,1,1-Trichloroethane	0.14	11	0.76	62
Carbon Tetrachloride	0.14	Not Detected	0.87	Not Detected
Benzene	0.14	1.1	0.44	3.4
1,2-Dichloroethane	0.14	Not Detected	0.56	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.64	Not Detected
Bromodichloromethane	0.14	Not Detected	0.93	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.57	Not Detected
Toluene	0.14	5.5	0.52	21
trans-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.76	Not Detected
Tetrachloroethene	0.14	2.9	0.94	20
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.64	Not Detected
Ethyl Benzene	0.14	1.4	0.60	6.0
m,p-Xylene	0.14	4.8	0.60	21
o-Xylene	0.14	2.0	0.60	8.5
Styrene	0.14	4.8	0.59	21
Bromoform	0.14	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.95	Not Detected
1,3-Dichlorobenzene	0.14	0.045 J	0.84	0.27 J

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-DUP-03

Lab ID#: 0811019-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111127**	**Date of Collection: 10/31/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/12/08 06:33 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.14	0.059 J	0.84	0.36 J
1,2-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-DUP-03

Lab ID#: 0811019-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111127sim**	**Date of Collection: 10/31/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/12/08 06:33 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (uG/m3)**	**Amount (uG/m3)**
Trichloroethene	0.028	3.8	0.15	20

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2003-20

Lab ID#: 0811019-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111126**	**Date of Collection:**	**10/31/08**
Dil. Factor:	**1.34**	**Date of Analysis:**	**11/12/08 05:46 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.13	0.24	0.66	1.2
Chloromethane	0.13	0.064 J	0.28	0.13 J
Vinyl Chloride	0.13	Not Detected	0.34	Not Detected
Bromomethane	0.13	Not Detected	0.52	Not Detected
Chloroethane	0.13	Not Detected	0.35	Not Detected
Freon 11	0.13	2.3	0.75	13
Freon 113	0.13	0.21	1.0	1.6
1,1-Dichloroethene	0.13	0.51	0.53	2.0
Acetone	0.67	73 E	1.6	170 E
Carbon Disulfide	0.67	0.96	2.1	3.0
Methylene Chloride	0.27	Not Detected	0.93	Not Detected
Methyl tert-butyl ether	0.13	Not Detected	0.48	Not Detected
trans-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected
1,1-Dichloroethane	0.13	0.12 J	0.54	0.49 J
2-Butanone (Methyl Ethyl Ketone)	0.13	7.1	0.40	21
cis-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected
Chloroform	0.13	0.61	0.65	3.0
1,1,1-Trichloroethane	0.13	30	0.73	170
Carbon Tetrachloride	0.13	Not Detected	0.84	Not Detected
Benzene	0.13	2.0	0.43	6.4
1,2-Dichloroethane	0.13	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.13	Not Detected	0.62	Not Detected
Bromodichloromethane	0.13	Not Detected	0.90	Not Detected
cis-1,3-Dichloropropene	0.13	Not Detected	0.61	Not Detected
4-Methyl-2-pentanone	0.13	Not Detected	0.55	Not Detected
Toluene	0.13	9.3	0.50	35
trans-1,3-Dichloropropene	0.13	Not Detected	0.61	Not Detected
1,1,2-Trichloroethane	0.13	Not Detected	0.73	Not Detected
Tetrachloroethene	0.13	2.0	0.91	14
Dibromochloromethane	0.13	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Chlorobenzene	0.13	Not Detected	0.62	Not Detected
Ethyl Benzene	0.13	1.8	0.58	7.7
m,p-Xylene	0.13	5.7	0.58	25
o-Xylene	0.13	2.2	0.58	9.8
Styrene	0.13	6.1	0.57	26
Bromoform	0.13	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.92	Not Detected
1,3-Dichlorobenzene	0.13	0.042 J	0.80	0.26 J

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2003-20

Lab ID#: 0811019-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111126**	**Date of Collection: 10/31/08**	
Dil. Factor:	**1.34**	**Date of Analysis: 11/12/08 05:46 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.13	0.051 J	0.80	0.31 J
1,2-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected
1,2,4-Trichlorobenzene	0.67	Not Detected	5.0	Not Detected

J = Estimated value.
E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	99	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2003-20

Lab ID#: 0811019-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111126sim**	**Date of Collection: 10/31/08**	
Dil. Factor:	**1.34**	**Date of Analysis: 11/12/08 05:46 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.027	15	0.14	82

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	95	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2003-49

Lab ID#: 0811019-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111121**	**Date of Collection: 10/31/08**	
Dil. Factor:	**3.83**	**Date of Analysis: 11/12/08 01:08 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.38	0.78	1.9	3.9
Chloromethane	0.38	0.22 J	0.79	0.46 J
Vinyl Chloride	0.38	Not Detected	0.98	Not Detected
Bromomethane	0.38	Not Detected	1.5	Not Detected
Chloroethane	0.38	Not Detected	1.0	Not Detected
Freon 11	0.38	7.2	2.2	40
Freon 113	0.38	0.47	2.9	3.6
1,1-Dichloroethene	0.38	5.8	1.5	23
Acetone	1.9	170 E	4.5	410 E
Carbon Disulfide	1.9	0.79 J	6.0	2.5 J
Methylene Chloride	0.77	Not Detected	2.7	Not Detected
Methyl tert-butyl ether	0.38	Not Detected	1.4	Not Detected
trans-1,2-Dichloroethene	0.38	Not Detected	1.5	Not Detected
1,1-Dichloroethane	0.38	2.1	1.6	8.6
2-Butanone (Methyl Ethyl Ketone)	0.38	16	1.1	47
cis-1,2-Dichloroethene	0.38	0.42	1.5	1.6
Chloroform	0.38	1.9	1.9	9.4
1,1,1-Trichloroethane	0.38	130	2.1	720
Carbon Tetrachloride	0.38	Not Detected	2.4	Not Detected
Benzene	0.38	2.6	1.2	8.5
1,2-Dichloroethane	0.38	Not Detected	1.6	Not Detected
1,2-Dichloropropane	0.38	Not Detected	1.8	Not Detected
Bromodichloromethane	0.38	Not Detected	2.6	Not Detected
cis-1,3-Dichloropropene	0.38	Not Detected	1.7	Not Detected
4-Methyl-2-pentanone	0.38	Not Detected	1.6	Not Detected
Toluene	0.38	17	1.4	63
trans-1,3-Dichloropropene	0.38	Not Detected	1.7	Not Detected
1,1,2-Trichloroethane	0.38	Not Detected	2.1	Not Detected
Tetrachloroethene	0.38	1.3	2.6	8.9
Dibromochloromethane	0.38	Not Detected	3.3	Not Detected
1,2-Dibromoethane (EDB)	0.38	Not Detected	2.9	Not Detected
Chlorobenzene	0.38	Not Detected	1.8	Not Detected
Ethyl Benzene	0.38	1.8	1.7	7.8
m,p-Xylene	0.38	5.7	1.7	25
o-Xylene	0.38	2.4	1.7	10
Styrene	0.38	5.6	1.6	24
Bromoform	0.38	Not Detected	4.0	Not Detected
1,1,2,2-Tetrachloroethane	0.38	Not Detected	2.6	Not Detected
1,3-Dichlorobenzene	0.38	Not Detected	2.3	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2003-49

Lab ID#: 0811019-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111121**	**Date of Collection: 10/31/08**	
Dil. Factor:	**3.83**	**Date of Analysis: 11/12/08 01:08 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.38	Not Detected	2.3	Not Detected
1,2-Dichlorobenzene	0.38	Not Detected	2.3	Not Detected
1,2,4-Trichlorobenzene	1.9	Not Detected	14	Not Detected
Trichloroethene	0.38	130	2.0	710

J = Estimated value.
E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	104	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2004-08

Lab ID#: 0810701-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111010**	**Date of Collection: 10/28/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/10/08 05:56 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.51	0.69	2.5
Chloromethane	0.14	0.54	0.29	1.1
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
Bromomethane	0.14	Not Detected	0.54	Not Detected
Chloroethane	0.14	Not Detected	0.37	Not Detected
Freon 11	0.14	0.27	0.78	1.5
Freon 113	0.14	0.10 J	1.1	0.79 J
1,1-Dichloroethene	0.14	Not Detected	0.55	Not Detected
Acetone	0.70	12	1.6	29
Carbon Disulfide	0.70	Not Detected	2.2	Not Detected
Methylene Chloride	0.28	0.32	0.96	1.1
Methyl tert-butyl ether	0.14	Not Detected	0.50	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.55	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.56	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	1.2	0.41	3.6
cis-1,2-Dichloroethene	0.14	Not Detected	0.55	Not Detected
Chloroform	0.14	0.051 J	0.68	0.25 J
1,1,1-Trichloroethane	0.14	0.26	0.76	1.4
Carbon Tetrachloride	0.14	0.087 J	0.87	0.55 J
Benzene	0.14	0.34	0.44	1.1
1,2-Dichloroethane	0.14	0.061 J	0.56	0.25 J
1,2-Dichloropropane	0.14	0.13 J	0.64	0.59 J
Bromodichloromethane	0.14	Not Detected	0.93	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
4-Methyl-2-pentanone	0.14	0.11 J	0.57	0.47 J
Toluene	0.14	1.8	0.52	6.7
trans-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.76	Not Detected
Tetrachloroethene	0.14	0.26	0.94	1.8
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.64	Not Detected
Ethyl Benzene	0.14	0.24	0.60	1.0
m,p-Xylene	0.14	0.71	0.60	3.1
o-Xylene	0.14	0.27	0.60	1.2
Styrene	0.14	0.32	0.59	1.4
Bromoform	0.14	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.95	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2004-08

Lab ID#: 0810701-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111010**	**Date of Collection: 10/28/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/10/08 05:56 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.14	0.059 J	0.84	0.36 J
1,2-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2004-08

Lab ID#: 0810701-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111010sim**	**Date of Collection: 10/28/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/10/08 05:56 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.028	0.19	0.15	1.0

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	96	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2004-20

Lab ID#: 0810701-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111009**	**Date of Collection: 10/28/08**	
Dil. Factor:	**6.95**	**Date of Analysis: 11/10/08 04:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.70	0.73	3.4	3.6
Chloromethane	0.70	Not Detected	1.4	Not Detected
Vinyl Chloride	0.70	Not Detected	1.8	Not Detected
Bromomethane	0.70	Not Detected	2.7	Not Detected
Chloroethane	0.70	Not Detected	1.8	Not Detected
Freon 11	0.70	0.84	3.9	4.7
Freon 113	0.70	160	5.3	1200
1,1-Dichloroethene	0.70	1.8	2.8	7.1
Acetone	3.5	99	8.2	240
Carbon Disulfide	3.5	0.72 J	11	2.2 J
Methylene Chloride	1.4	Not Detected	4.8	Not Detected
Methyl tert-butyl ether	0.70	0.46 J	2.5	1.7 J
trans-1,2-Dichloroethene	0.70	0.98	2.8	3.9
1,1-Dichloroethane	0.70	11	2.8	44
2-Butanone (Methyl Ethyl Ketone)	0.70	10	2.0	30
cis-1,2-Dichloroethene	0.70	1.2	2.8	4.6
Chloroform	0.70	5.1	3.4	25
1,1,1-Trichloroethane	0.70	84	3.8	460
Carbon Tetrachloride	0.70	Not Detected	4.4	Not Detected
Benzene	0.70	1.1	2.2	3.5
1,2-Dichloroethane	0.70	Not Detected	2.8	Not Detected
1,2-Dichloropropane	0.70	Not Detected	3.2	Not Detected
Bromodichloromethane	0.70	Not Detected	4.6	Not Detected
cis-1,3-Dichloropropene	0.70	Not Detected	3.2	Not Detected
4-Methyl-2-pentanone	0.70	Not Detected	2.8	Not Detected
Toluene	0.70	6.3	2.6	24
trans-1,3-Dichloropropene	0.70	Not Detected	3.2	Not Detected
1,1,2-Trichloroethane	0.70	Not Detected	3.8	Not Detected
Tetrachloroethene	0.70	150	4.7	1000
Dibromochloromethane	0.70	Not Detected	5.9	Not Detected
1,2-Dibromoethane (EDB)	0.70	Not Detected	5.3	Not Detected
Chlorobenzene	0.70	Not Detected	3.2	Not Detected
Ethyl Benzene	0.70	0.82	3.0	3.6
m,p-Xylene	0.70	2.7	3.0	12
o-Xylene	0.70	0.77	3.0	3.3
Styrene	0.70	0.47 J	3.0	2.0 J
Bromoform	0.70	Not Detected	7.2	Not Detected
1,1,2,2-Tetrachloroethane	0.70	Not Detected	4.8	Not Detected
1,3-Dichlorobenzene	0.70	Not Detected	4.2	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2004-20

Lab ID#: 0810701-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111009**	**Date of Collection: 10/28/08**	
Dil. Factor:	**6.95**	**Date of Analysis: 11/10/08 04:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.70	Not Detected	4.2	Not Detected
1,2-Dichlorobenzene	0.70	Not Detected	4.2	Not Detected
1,2,4-Trichlorobenzene	3.5	Not Detected	26	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2004-20

Lab ID#: 0810701-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111009sim**	**Date of Collection: 10/28/08**	
Dil. Factor:	**6.95**	**Date of Analysis: 11/10/08 04:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.14	100	0.75	550

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2004-49

Lab ID#: 0810701-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111016**	**Date of Collection: 10/29/08**	
Dil. Factor:	**6.80**	**Date of Analysis: 11/11/08 12:33 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.68	0.58 J	3.4	2.9 J
Chloromethane	0.68	Not Detected	1.4	Not Detected
Vinyl Chloride	0.68	Not Detected	1.7	Not Detected
Bromomethane	0.68	Not Detected	2.6	Not Detected
Chloroethane	0.68	Not Detected	1.8	Not Detected
Freon 11	0.68	0.60 J	3.8	3.4 J
Freon 113	0.68	170	5.2	1300
1,1-Dichloroethene	0.68	Not Detected	2.7	Not Detected
Acetone	3.4	270	8.1	640
Carbon Disulfide	3.4	1.1 J	10	3.4 J
Methylene Chloride	1.4	Not Detected	4.7	Not Detected
Methyl tert-butyl ether	0.68	3.1	2.4	11
trans-1,2-Dichloroethene	0.68	1.4	2.7	5.7
1,1-Dichloroethane	0.68	18	2.8	74
2-Butanone (Methyl Ethyl Ketone)	0.68	34	2.0	100
cis-1,2-Dichloroethene	0.68	Not Detected	2.7	Not Detected
Chloroform	0.68	4.9	3.3	24
1,1,1-Trichloroethane	0.68	88	3.7	480
Carbon Tetrachloride	0.68	Not Detected	4.3	Not Detected
Benzene	0.68	4.8	2.2	15
1,2-Dichloroethane	0.68	Not Detected	2.8	Not Detected
1,2-Dichloropropane	0.68	Not Detected	3.1	Not Detected
Bromodichloromethane	0.68	Not Detected	4.6	Not Detected
cis-1,3-Dichloropropene	0.68	Not Detected	3.1	Not Detected
4-Methyl-2-pentanone	0.68	0.29 J	2.8	1.2 J
Toluene	0.68	14	2.6	52
trans-1,3-Dichloropropene	0.68	Not Detected	3.1	Not Detected
1,1,2-Trichloroethane	0.68	Not Detected	3.7	Not Detected
Tetrachloroethene	0.68	85	4.6	580
Dibromochloromethane	0.68	Not Detected	5.8	Not Detected
1,2-Dibromoethane (EDB)	0.68	Not Detected	5.2	Not Detected
Chlorobenzene	0.68	Not Detected	3.1	Not Detected
Ethyl Benzene	0.68	1.7	3.0	7.3
m,p-Xylene	0.68	4.8	3.0	21
o-Xylene	0.68	1.3	3.0	5.8
Styrene	0.68	Not Detected	2.9	Not Detected
Bromoform	0.68	Not Detected	7.0	Not Detected
1,1,2,2-Tetrachloroethane	0.68	Not Detected	4.7	Not Detected
1,3-Dichlorobenzene	0.68	Not Detected	4.1	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2004-49

Lab ID#: 0810701-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111016**	**Date of Collection: 10/29/08**	
Dil. Factor:	**6.80**	**Date of Analysis: 11/11/08 12:33 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.68	Not Detected	4.1	Not Detected
1,2-Dichlorobenzene	0.68	Not Detected	4.1	Not Detected
1,2,4-Trichlorobenzene	3.4	Not Detected	25	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2004-49

Lab ID#: 0810701-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111016sim**	**Date of Collection:**	**10/29/08**
Dil. Factor:	**6.80**	**Date of Analysis:**	**11/11/08 12:33 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.14	110	0.73	600

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	100	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-DUP-02

Lab ID#: 0810701-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111019**	**Date of Collection: 10/29/08**	
Dil. Factor:	**5.56**	**Date of Analysis: 11/11/08 02:39 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.56	0.62	2.7	3.1
Chloromethane	0.56	Not Detected	1.1	Not Detected
Vinyl Chloride	0.56	Not Detected	1.4	Not Detected
Bromomethane	0.56	Not Detected	2.2	Not Detected
Chloroethane	0.56	Not Detected	1.5	Not Detected
Freon 11	0.56	0.50 J	3.1	2.8 J
Freon 113	0.56	160	4.3	1200
1,1-Dichloroethene	0.56	Not Detected	2.2	Not Detected
Acetone	2.8	260 E	6.6	610 E
Carbon Disulfide	2.8	0.98 J	8.6	3.0 J
Methylene Chloride	1.1	Not Detected	3.9	Not Detected
Methyl tert-butyl ether	0.56	2.8	2.0	10
trans-1,2-Dichloroethene	0.56	1.3	2.2	5.3
1,1-Dichloroethane	0.56	17	2.2	69
2-Butanone (Methyl Ethyl Ketone)	0.56	32	1.6	95
cis-1,2-Dichloroethene	0.56	Not Detected	2.2	Not Detected
Chloroform	0.56	4.9	2.7	24
1,1,1-Trichloroethane	0.56	82	3.0	450
Carbon Tetrachloride	0.56	Not Detected	3.5	Not Detected
Benzene	0.56	4.4	1.8	14
1,2-Dichloroethane	0.56	Not Detected	2.2	Not Detected
1,2-Dichloropropane	0.56	Not Detected	2.6	Not Detected
Bromodichloromethane	0.56	Not Detected	3.7	Not Detected
cis-1,3-Dichloropropene	0.56	Not Detected	2.5	Not Detected
4-Methyl-2-pentanone	0.56	Not Detected	2.3	Not Detected
Toluene	0.56	13	2.1	48
trans-1,3-Dichloropropene	0.56	Not Detected	2.5	Not Detected
1,1,2-Trichloroethane	0.56	Not Detected	3.0	Not Detected
Tetrachloroethene	0.56	86	3.8	580
Dibromochloromethane	0.56	Not Detected	4.7	Not Detected
1,2-Dibromoethane (EDB)	0.56	Not Detected	4.3	Not Detected
Chlorobenzene	0.56	Not Detected	2.6	Not Detected
Ethyl Benzene	0.56	1.7	2.4	7.3
m,p-Xylene	0.56	4.8	2.4	21
o-Xylene	0.56	1.4	2.4	5.9
Styrene	0.56	Not Detected	2.4	Not Detected
Bromoform	0.56	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	0.56	Not Detected	3.8	Not Detected
1,3-Dichlorobenzene	0.56	Not Detected	3.3	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-DUP-02

Lab ID#: 0810701-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111019**	**Date of Collection: 10/29/08**	
Dil. Factor:	**5.56**	**Date of Analysis: 11/11/08 02:39 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.56	Not Detected	3.3	Not Detected
1,2-Dichlorobenzene	0.56	Not Detected	3.3	Not Detected
1,2,4-Trichlorobenzene	2.8	Not Detected	21	Not Detected

J = Estimated value.
E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-DUP-02

Lab ID#: 0810701-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111019sim**	**Date of Collection: 10/29/08**	
Dil. Factor:	**5.56**	**Date of Analysis: 11/11/08 02:39 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.11	110	0.60	590

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2005-08

Lab ID#: 0810643-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110419**	**Date of Collection: 10/27/08**	
Dil. Factor:	**1.44**	**Date of Analysis: 11/5/08 12:57 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.28	0.71	1.4
Chloromethane	0.14	0.11 J	0.30	0.22 J
Vinyl Chloride	0.14	Not Detected	0.37	Not Detected
Bromomethane	0.14	0.21	0.56	0.81
Chloroethane	0.14	Not Detected	0.38	Not Detected
Freon 11	0.14	1.4	0.81	7.7
Freon 113	0.14	1.4	1.1	10
1,1-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Acetone	0.72	260 J E	1.7	630 J E
Carbon Disulfide	0.72	2.1	2.2	6.6
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.52	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.58	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	20	0.42	60
cis-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Chloroform	0.14	1.0	0.70	5.0
1,1,1-Trichloroethane	0.14	0.59	0.78	3.2
Carbon Tetrachloride	0.14	18	0.91	110
Benzene	0.14	1.4	0.46	4.5
1,2-Dichloroethane	0.14	Not Detected	0.58	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.66	Not Detected
Bromodichloromethane	0.14	Not Detected	0.96	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
4-Methyl-2-pentanone	0.14	0.27	0.59	1.1
Toluene	0.14	6.8	0.54	26
trans-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Tetrachloroethene	0.14	2.4	0.98	16
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.66	Not Detected
Ethyl Benzene	0.14	0.72	0.62	3.1
m,p-Xylene	0.14	2.2	0.62	9.6
o-Xylene	0.14	0.50	0.62	2.2
Styrene	0.14	0.41	0.61	1.8
Bromoform	0.14	Not Detected	1.5	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.99	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2005-08

Lab ID#: 0810643-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110419**	**Date of Collection: 10/27/08**	
Dil. Factor:	**1.44**	**Date of Analysis: 11/5/08 12:57 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.14	0.053 J	0.86	0.32 J
1,2-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,2,4-Trichlorobenzene	0.72	Not Detected	5.3	Not Detected

J = Estimated value.
J = Estimated value due to bias in the CCV.
E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2005-08

Lab ID#: 0810643-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110419sim**	**Date of Collection: 10/27/08**	
Dil. Factor:	**1.44**	**Date of Analysis: 11/5/08 12:57 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.029	0.097	0.15	0.52

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	95	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2005-20

Lab ID#: 0810643-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110418**	**Date of Collection: 10/27/08**	
Dil. Factor:	**1.41**	**Date of Analysis: 11/5/08 12:24 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.26	0.70	1.3
Chloromethane	0.14	Not Detected	0.29	Not Detected
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
Bromomethane	0.14	Not Detected	0.55	Not Detected
Chloroethane	0.14	Not Detected	0.37	Not Detected
Freon 11	0.14	0.84	0.79	4.7
Freon 113	0.14	1.4	1.1	10
1,1-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Acetone	0.70	330 J E	1.7	790 J E
Carbon Disulfide	0.70	0.87	2.2	2.7
Methylene Chloride	0.28	Not Detected	0.98	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.51	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.57	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	20	0.42	60
cis-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Chloroform	0.14	1.8	0.69	8.7
1,1,1-Trichloroethane	0.14	0.59	0.77	3.2
Carbon Tetrachloride	0.14	22	0.89	140
Benzene	0.14	1.2	0.45	3.9
1,2-Dichloroethane	0.14	Not Detected	0.57	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.65	Not Detected
Bromodichloromethane	0.14	Not Detected	0.94	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
4-Methyl-2-pentanone	0.14	0.15	0.58	0.60
Toluene	0.14	10	0.53	38
trans-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Tetrachloroethene	0.14	1.4	0.96	9.7
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.65	Not Detected
Ethyl Benzene	0.14	0.95	0.61	4.1
m,p-Xylene	0.14	3.1	0.61	13
o-Xylene	0.14	0.79	0.61	3.4
Styrene	0.14	0.38	0.60	1.6
Bromoform	0.14	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.97	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2005-20

Lab ID#: 0810643-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110418**	**Date of Collection: 10/27/08**	
Dil. Factor:	**1.41**	**Date of Analysis: 11/5/08 12:24 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.14	0.045 J	0.85	0.27 J
1,2-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected

J = Estimated value due to bias in the CCV.
E = Exceeds instrument calibration range.
J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2005-20

Lab ID#: 0810643-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110418sim**	**Date of Collection: 10/27/08**	
Dil. Factor:	**1.41**	**Date of Analysis: 11/5/08 12:24 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.028	0.14	0.15	0.75

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	95	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2005-49

Lab ID#: 0810643-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110417**	**Date of Collection: 10/27/08**	
Dil. Factor:	**1.46**	**Date of Analysis: 11/4/08 11:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.22	0.72	1.1
Chloromethane	0.15	0.26	0.30	0.53
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
Bromomethane	0.15	0.28	0.57	1.1
Chloroethane	0.15	0.096 J	0.38	0.25 J
Freon 11	0.15	0.45	0.82	2.5
Freon 113	0.15	1.8	1.1	14
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Acetone	0.73	290 J E	1.7	700 J E
Carbon Disulfide	0.73	0.61 J	2.3	1.9 J
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.53	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.59	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.15	15	0.43	44
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Chloroform	0.15	3.3	0.71	16
1,1,1-Trichloroethane	0.15	0.59	0.80	3.2
Carbon Tetrachloride	0.15	21	0.92	130
Benzene	0.15	1.8	0.47	5.8
1,2-Dichloroethane	0.15	Not Detected	0.59	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
Bromodichloromethane	0.15	Not Detected	0.98	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.15	0.23	0.60	0.93
Toluene	0.15	15	0.55	55
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Tetrachloroethene	0.15	0.57	0.99	3.8
Dibromochloromethane	0.15	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	0.025 J	0.67	0.12 J
Ethyl Benzene	0.15	0.92	0.63	4.0
m,p-Xylene	0.15	2.9	0.63	13
o-Xylene	0.15	0.64	0.63	2.8
Styrene	0.15	0.44	0.62	1.9
Bromoform	0.15	Not Detected	1.5	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2005-49

Lab ID#: 0810643-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110417**	**Date of Collection: 10/27/08**	
Dil. Factor:	**1.46**	**Date of Analysis: 11/4/08 11:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.15	0.047 J	0.88	0.28 J
1,2-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2,4-Trichlorobenzene	0.73	Not Detected	5.4	Not Detected

J = Estimated value.
J = Estimated value due to bias in the CCV.
E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2005-49

Lab ID#: 0810643-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110417sim**	**Date of Collection: 10/27/08**	
Dil. Factor:	**1.46**	**Date of Analysis: 11/4/08 11:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.029	0.19	0.16	1.0

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	99	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2006-08

Lab ID#: 0810643-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110416**	**Date of Collection: 10/24/08**	
Dil. Factor:	**2.82**	**Date of Analysis: 11/4/08 11:05 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.28	0.47	1.4	2.3
Chloromethane	0.28	Not Detected	0.58	Not Detected
Vinyl Chloride	0.28	Not Detected	0.72	Not Detected
Bromomethane	0.28	0.32	1.1	1.3
Chloroethane	0.28	Not Detected	0.74	Not Detected
Freon 11	0.28	0.41	1.6	2.3
Freon 113	0.28	22	2.2	170
1,1-Dichloroethene	0.28	Not Detected	1.1	Not Detected
Acetone	1.4	520 J E	3.3	1200 J E
Carbon Disulfide	1.4	0.66 J	4.4	2.1 J
Methylene Chloride	0.56	Not Detected	2.0	Not Detected
Methyl tert-butyl ether	0.28	Not Detected	1.0	Not Detected
trans-1,2-Dichloroethene	0.28	Not Detected	1.1	Not Detected
1,1-Dichloroethane	0.28	Not Detected	1.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.28	23	0.83	68
cis-1,2-Dichloroethene	0.28	1.0	1.1	4.1
Chloroform	0.28	0.62	1.4	3.0
1,1,1-Trichloroethane	0.28	2.3	1.5	12
Carbon Tetrachloride	0.28	0.15 J	1.8	0.94 J
Benzene	0.28	0.80	0.90	2.5
1,2-Dichloroethane	0.28	Not Detected	1.1	Not Detected
1,2-Dichloropropane	0.28	Not Detected	1.3	Not Detected
Bromodichloromethane	0.28	Not Detected	1.9	Not Detected
cis-1,3-Dichloropropene	0.28	Not Detected	1.3	Not Detected
4-Methyl-2-pentanone	0.28	0.12 J	1.2	0.47 J
Toluene	0.28	9.4	1.1	35
trans-1,3-Dichloropropene	0.28	Not Detected	1.3	Not Detected
1,1,2-Trichloroethane	0.28	Not Detected	1.5	Not Detected
Tetrachloroethene	0.28	2.1	1.9	14
Dibromochloromethane	0.28	Not Detected	2.4	Not Detected
1,2-Dibromoethane (EDB)	0.28	Not Detected	2.2	Not Detected
Chlorobenzene	0.28	Not Detected	1.3	Not Detected
Ethyl Benzene	0.28	2.0	1.2	8.8
m,p-Xylene	0.28	7.6	1.2	33
o-Xylene	0.28	2.8	1.2	12
Styrene	0.28	8.8	1.2	37
Bromoform	0.28	Not Detected	2.9	Not Detected
1,1,2,2-Tetrachloroethane	0.28	Not Detected	1.9	Not Detected
1,3-Dichlorobenzene	0.28	Not Detected	1.7	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2006-08

Lab ID#: 0810643-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110416**	**Date of Collection: 10/24/08**	
Dil. Factor:	**2.82**	**Date of Analysis: 11/4/08 11:05 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.28	Not Detected	1.7	Not Detected
1,2-Dichlorobenzene	0.28	Not Detected	1.7	Not Detected
1,2,4-Trichlorobenzene	1.4	Not Detected	10	Not Detected

J = Estimated value due to bias in the CCV.
E = Exceeds instrument calibration range.
J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2006-08

Lab ID#: 0810643-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110416sim**	**Date of Collection: 10/24/08**	
Dil. Factor:	**2.82**	**Date of Analysis: 11/4/08 11:05 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.056	6.0	0.30	32

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	96	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2006-20

Lab ID#: 0810643-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110415**	**Date of Collection: 10/24/08**	
Dil. Factor:	**1.41**	**Date of Analysis: 11/4/08 10:08 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.25	0.70	1.2
Chloromethane	0.14	0.13 J	0.29	0.27 J
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
Bromomethane	0.14	0.19	0.55	0.73
Chloroethane	0.14	0.057 J	0.37	0.15 J
Freon 11	0.14	0.40	0.79	2.3
Freon 113	0.14	37	1.1	280
1,1-Dichloroethene	0.14	0.16	0.56	0.62
Acetone	0.70	360 J E	1.7	860 J E
Carbon Disulfide	0.70	0.48 J	2.2	1.5 J
Methylene Chloride	0.28	Not Detected	0.98	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.51	Not Detected
trans-1,2-Dichloroethene	0.14	0.36	0.56	1.4
1,1-Dichloroethane	0.14	Not Detected	0.57	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	20	0.42	59
cis-1,2-Dichloroethene	0.14	11	0.56	45
Chloroform	0.14	0.75	0.69	3.7
1,1,1-Trichloroethane	0.14	4.1	0.77	22
Carbon Tetrachloride	0.14	0.34	0.89	2.1
Benzene	0.14	2.2	0.45	7.0
1,2-Dichloroethane	0.14	Not Detected	0.57	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.65	Not Detected
Bromodichloromethane	0.14	Not Detected	0.94	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
4-Methyl-2-pentanone	0.14	0.27	0.58	1.1
Toluene	0.14	9.1	0.53	34
trans-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Tetrachloroethene	0.14	4.2	0.96	29
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	0.032 J	0.65	0.15 J
Ethyl Benzene	0.14	1.4	0.61	6.2
m,p-Xylene	0.14	4.6	0.61	20
o-Xylene	0.14	1.6	0.61	7.2
Styrene	0.14	4.9	0.60	21
Bromoform	0.14	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.97	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2006-20

Lab ID#: 0810643-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110415**	**Date of Collection: 10/24/08**	
Dil. Factor:	**1.41**	**Date of Analysis: 11/4/08 10:08 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected

J = Estimated value.
J = Estimated value due to bias in the CCV.
E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2006-20

Lab ID#: 0810643-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110415sim**	**Date of Collection: 10/24/08**	
Dil. Factor:	**1.41**	**Date of Analysis: 11/4/08 10:08 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.028	13	0.15	71

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	97	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2006-49

Lab ID#: 0810701-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111007**	**Date of Collection: 10/28/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/10/08 03:19 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.30	0.69	1.5
Chloromethane	0.14	0.12 J	0.29	0.25 J
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
Bromomethane	0.14	Not Detected	0.54	Not Detected
Chloroethane	0.14	Not Detected	0.37	Not Detected
Freon 11	0.14	0.49	0.78	2.8
Freon 113	0.14	39	1.1	300
1,1-Dichloroethene	0.14	0.31	0.55	1.2
Acetone	0.70	450 E	1.6	1100 E
Carbon Disulfide	0.70	0.72	2.2	2.2
Methylene Chloride	0.28	Not Detected	0.96	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.50	Not Detected
trans-1,2-Dichloroethene	0.14	0.69	0.55	2.7
1,1-Dichloroethane	0.14	Not Detected	0.56	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	48	0.41	140
cis-1,2-Dichloroethene	0.14	22	0.55	89
Chloroform	0.14	1.2	0.68	6.1
1,1,1-Trichloroethane	0.14	6.4	0.76	35
Carbon Tetrachloride	0.14	0.39	0.87	2.5
Benzene	0.14	1.7	0.44	5.4
1,2-Dichloroethane	0.14	Not Detected	0.56	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.64	Not Detected
Bromodichloromethane	0.14	Not Detected	0.93	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
4-Methyl-2-pentanone	0.14	0.20	0.57	0.80
Toluene	0.14	16	0.52	60
trans-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.76	Not Detected
Tetrachloroethene	0.14	1.6	0.94	11
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.64	Not Detected
Ethyl Benzene	0.14	1.5	0.60	6.5
m,p-Xylene	0.14	4.4	0.60	19
o-Xylene	0.14	1.2	0.60	5.3
Styrene	0.14	0.49	0.59	2.1
Bromoform	0.14	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.95	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2006-49

Lab ID#: 0810701-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111007**	**Date of Collection: 10/28/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/10/08 03:19 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.14	0.059 J	0.84	0.35 J
1,2-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected

J = Estimated value.
E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2006-49

Lab ID#: 0810701-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111007sim**	**Date of Collection: 10/28/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/10/08 03:19 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.028	11	0.15	61

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	99	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2007-08

Lab ID#: 0810584A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110326**	**Date of Collection:**	**10/23/08**
Dil. Factor:	**1.46**	**Date of Analysis:**	**11/4/08 07:41 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.23	0.72	1.1
Chloromethane	0.15	0.052 J	0.30	0.11 J
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
Bromomethane	0.15	0.24	0.57	0.93
Chloroethane	0.15	Not Detected	0.38	Not Detected
Freon 11	0.15	0.45	0.82	2.5
Freon 113	0.15	1.4	1.1	11
1,1-Dichloroethene	0.15	0.066 J	0.58	0.26 J
Acetone	0.73	360 E	1.7	850 E
Carbon Disulfide	0.73	0.88	2.3	2.7
Methylene Chloride	0.29	Not Detected U J	1.0	Not Detected U J
Methyl tert-butyl ether	0.15	Not Detected	0.53	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.59	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.15	20	0.43	58
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Chloroform	0.15	0.21	0.71	1.0
1,1,1-Trichloroethane	0.15	28	0.80	150
Carbon Tetrachloride	0.15	0.052 J	0.92	0.33 J
Benzene	0.15	1.8	0.47	5.7
1,2-Dichloroethane	0.15	Not Detected	0.59	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
Bromodichloromethane	0.15	Not Detected	0.98	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.15	0.15	0.60	0.62
Toluene	0.15	5.2	0.55	20
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Tetrachloroethene	0.15	1.9	0.99	13
Dibromochloromethane	0.15	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.67	Not Detected
Ethyl Benzene	0.15	0.34	0.63	1.5
m,p-Xylene	0.15	0.83	0.63	3.6
o-Xylene	0.15	0.14 J	0.63	0.60 J
Styrene	0.15	0.028 J	0.62	0.12 J
Bromoform	0.15	Not Detected	1.5	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2007-08

Lab ID#: 0810584A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110326**	**Date of Collection: 10/23/08**	
Dil. Factor:	**1.46**	**Date of Analysis: 11/4/08 07:41 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.15	0.044 J	0.88	0.26 J
1,2-Dichlorobenzene	0.15	0.031 J	0.88	0.19 J
1,2,4-Trichlorobenzene	0.73	Not Detected	5.4	Not Detected

J = Estimated value.
E = Exceeds instrument calibration range.
UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2007-08

Lab ID#: 0810584A-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110326sim**	**Date of Collection: 10/23/08**	
Dil. Factor:	**1.46**	**Date of Analysis: 11/4/08 07:41 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.029	5.4	0.16	29

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	96	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2007-20

Lab ID#: 0810584A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110412**	**Date of Collection: 10/23/08**	
Dil. Factor:	**2.82**	**Date of Analysis: 11/4/08 07:07 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.28	0.57	1.4	2.8
Chloromethane	0.28	Not Detected	0.58	Not Detected
Vinyl Chloride	0.28	Not Detected	0.72	Not Detected
Bromomethane	0.28	0.20 J	1.1	0.78 J
Chloroethane	0.28	Not Detected	0.74	Not Detected
Freon 11	0.28	0.48	1.6	2.7
Freon 113	0.28	2.2	2.2	16
1,1-Dichloroethene	0.28	0.17 J	1.1	0.69 J
Acetone	1.4	260 E	3.3	630 E
Carbon Disulfide	1.4	0.80 J	4.4	2.5 J
Methylene Chloride	0.56	Not Detected	2.0	Not Detected
Methyl tert-butyl ether	0.28	Not Detected	1.0	Not Detected
trans-1,2-Dichloroethene	0.28	Not Detected	1.1	Not Detected
1,1-Dichloroethane	0.28	Not Detected	1.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.28	14	0.83	41
cis-1,2-Dichloroethene	0.28	Not Detected	1.1	Not Detected
Chloroform	0.28	0.15 J	1.4	0.72 J
1,1,1-Trichloroethane	0.28	48	1.5	260
Carbon Tetrachloride	0.28	Not Detected	1.8	Not Detected
Benzene	0.28	1.8	0.90	5.8
1,2-Dichloroethane	0.28	Not Detected	1.1	Not Detected
1,2-Dichloropropane	0.28	Not Detected	1.3	Not Detected
Bromodichloromethane	0.28	Not Detected	1.9	Not Detected
cis-1,3-Dichloropropene	0.28	Not Detected	1.3	Not Detected
4-Methyl-2-pentanone	0.28	0.16 J	1.2	0.67 J
Toluene	0.28	5.3	1.1	20
trans-1,3-Dichloropropene	0.28	Not Detected	1.3	Not Detected
1,1,2-Trichloroethane	0.28	Not Detected	1.5	Not Detected
Tetrachloroethene	0.28	3.7	1.9	25
Dibromochloromethane	0.28	Not Detected	2.4	Not Detected
1,2-Dibromoethane (EDB)	0.28	Not Detected	2.2	Not Detected
Chlorobenzene	0.28	Not Detected	1.3	Not Detected
Ethyl Benzene	0.28	0.66	1.2	2.9
m,p-Xylene	0.28	2.4	1.2	10
o-Xylene	0.28	0.53	1.2	2.3
Styrene	0.28	0.20 J	1.2	0.84 J
Bromoform	0.28	Not Detected	2.9	Not Detected
1,1,2,2-Tetrachloroethane	0.28	Not Detected	1.9	Not Detected
1,3-Dichlorobenzene	0.28	Not Detected	1.7	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2007-20

Lab ID#: 0810584A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110412**	**Date of Collection: 10/23/08**	
Dil. Factor:	**2.82**	**Date of Analysis: 11/4/08 07:07 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.28	Not Detected	1.7	Not Detected
1,2-Dichlorobenzene	0.28	Not Detected	1.7	Not Detected
1,2,4-Trichlorobenzene	1.4	0.050 J	10	0.37 J

J = Estimated value.
E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	102	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2007-20

Lab ID#: 0810584A-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110412sim**	**Date of Collection: 10/23/08**	
Dil. Factor:	**2.82**	**Date of Analysis: 11/4/08 07:07 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.056	16	0.30	87

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	96	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-DUP-01

Lab ID#: 0810584A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110327**	**Date of Collection: 10/23/08**	
Dil. Factor:	**2.78**	**Date of Analysis: 11/4/08 08:37 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.28	0.49	1.4	2.4
Chloromethane	0.28	0.16 J	0.57	0.33 J
Vinyl Chloride	0.28	Not Detected	0.71	Not Detected
Bromomethane	0.28	Not Detected	1.1	Not Detected
Chloroethane	0.28	Not Detected	0.73	Not Detected
Freon 11	0.28	0.42	1.6	2.4
Freon 113	0.28	2.0	2.1	16
1,1-Dichloroethene	0.28	0.13 J	1.1	0.50 J
Acetone	1.4	250 E	3.3	590 E
Carbon Disulfide	1.4	0.72 J	4.3	2.2 J
Methylene Chloride	0.56	Not Detected U J	1.9	Not Detected U J
Methyl tert-butyl ether	0.28	Not Detected	1.0	Not Detected
trans-1,2-Dichloroethene	0.28	Not Detected	1.1	Not Detected
1,1-Dichloroethane	0.28	Not Detected	1.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.28	13	0.82	39
cis-1,2-Dichloroethene	0.28	Not Detected	1.1	Not Detected
Chloroform	0.28	0.18 J	1.4	0.91 J
1,1,1-Trichloroethane	0.28	44	1.5	240
Carbon Tetrachloride	0.28	Not Detected	1.7	Not Detected
Benzene	0.28	1.9	0.89	6.0
1,2-Dichloroethane	0.28	Not Detected	1.1	Not Detected
1,2-Dichloropropane	0.28	Not Detected	1.3	Not Detected
Bromodichloromethane	0.28	Not Detected	1.9	Not Detected
cis-1,3-Dichloropropene	0.28	Not Detected	1.3	Not Detected
4-Methyl-2-pentanone	0.28	0.13 J	1.1	0.54 J
Toluene	0.28	5.4	1.0	20
trans-1,3-Dichloropropene	0.28	Not Detected	1.3	Not Detected
1,1,2-Trichloroethane	0.28	Not Detected	1.5	Not Detected
Tetrachloroethene	0.28	3.8	1.9	26
Dibromochloromethane	0.28	Not Detected	2.4	Not Detected
1,2-Dibromoethane (EDB)	0.28	Not Detected	2.1	Not Detected
Chlorobenzene	0.28	Not Detected	1.3	Not Detected
Ethyl Benzene	0.28	0.66	1.2	2.9
m,p-Xylene	0.28	2.6	1.2	11
o-Xylene	0.28	0.59	1.2	2.6
Styrene	0.28	0.23 J	1.2	0.97 J
Bromoform	0.28	Not Detected	2.9	Not Detected
1,1,2,2-Tetrachloroethane	0.28	Not Detected	1.9	Not Detected
1,3-Dichlorobenzene	0.28	Not Detected	1.7	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-DUP-01

Lab ID#: 0810584A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110327**	**Date of Collection: 10/23/08**	
Dil. Factor:	**2.78**	**Date of Analysis: 11/4/08 08:37 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.28	Not Detected	1.7	Not Detected
1,2-Dichlorobenzene	0.28	Not Detected	1.7	Not Detected
1,2,4-Trichlorobenzene	1.4	Not Detected	10	Not Detected

J = Estimated value.
E = Exceeds instrument calibration range.
UJ = Non-detected compound associated with low bias in the CCV
Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	104	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-DUP-01

Lab ID#: 0810584A-10B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110327sim**	**Date of Collection: 10/23/08**	
Dil. Factor:	**2.78**	**Date of Analysis: 11/4/08 08:37 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (uG/m3)**	**Amount (uG/m3)**
Trichloroethene	0.056	16	0.30	85

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	95	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2007-49

Lab ID#: 0810643-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110414**	**Date of Collection: 10/24/08**	
Dil. Factor:	**14.1**	**Date of Analysis: 11/4/08 08:52 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	1.4	Not Detected	7.0	Not Detected
Chloromethane	1.4	Not Detected	2.9	Not Detected
Vinyl Chloride	1.4	Not Detected	3.6	Not Detected
Bromomethane	1.4	Not Detected	5.5	Not Detected
Chloroethane	1.4	Not Detected	3.7	Not Detected
Freon 11	1.4	0.46 J	7.9	2.6 J
Freon 113	1.4	5.3	11	41
1,1-Dichloroethene	1.4	3.4	5.6	13
Acetone	7.0	1400 J E	17	3400 J E
Carbon Disulfide	7.0	1.6 J	22	4.9 J
Methylene Chloride	2.8	Not Detected	9.8	Not Detected
Methyl tert-butyl ether	1.4	Not Detected	5.1	Not Detected
trans-1,2-Dichloroethene	1.4	Not Detected	5.6	Not Detected
1,1-Dichloroethane	1.4	0.75 J	5.7	3.0 J
2-Butanone (Methyl Ethyl Ketone)	1.4	67	4.2	200
cis-1,2-Dichloroethene	1.4	Not Detected	5.6	Not Detected
Chloroform	1.4	0.83 J	6.9	4.1 J
1,1,1-Trichloroethane	1.4	160	7.7	870
Carbon Tetrachloride	1.4	Not Detected	8.9	Not Detected
Benzene	1.4	3.5	4.5	11
1,2-Dichloroethane	1.4	Not Detected	5.7	Not Detected
1,2-Dichloropropane	1.4	Not Detected	6.5	Not Detected
Bromodichloromethane	1.4	Not Detected	9.4	Not Detected
cis-1,3-Dichloropropene	1.4	Not Detected	6.4	Not Detected
4-Methyl-2-pentanone	1.4	0.48 J	5.8	2.0 J
Toluene	1.4	17	5.3	65
trans-1,3-Dichloropropene	1.4	Not Detected	6.4	Not Detected
1,1,2-Trichloroethane	1.4	Not Detected	7.7	Not Detected
Tetrachloroethene	1.4	0.78 J	9.6	5.3 J
Dibromochloromethane	1.4	Not Detected	12	Not Detected
1,2-Dibromoethane (EDB)	1.4	Not Detected	11	Not Detected
Chlorobenzene	1.4	Not Detected	6.5	Not Detected
Ethyl Benzene	1.4	1.7	6.1	7.3
m,p-Xylene	1.4	6.2	6.1	27
o-Xylene	1.4	1.9	6.1	8.4
Styrene	1.4	5.0	6.0	21
Bromoform	1.4	Not Detected	14	Not Detected
1,1,2,2-Tetrachloroethane	1.4	Not Detected	9.7	Not Detected
1,3-Dichlorobenzene	1.4	Not Detected	8.5	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2007-49

Lab ID#: 0810643-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110414**	**Date of Collection: 10/24/08**	
Dil. Factor:	**14.1**	**Date of Analysis: 11/4/08 08:52 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	1.4	Not Detected	8.5	Not Detected
1,2-Dichlorobenzene	1.4	Not Detected	8.5	Not Detected
1,2,4-Trichlorobenzene	7.0	Not Detected	52	Not Detected

J = Estimated value.
J = Estimated value due to bias in the CCV.
E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2007-49

Lab ID#: 0810643-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110414sim**	**Date of Collection: 10/24/08**	
Dil. Factor:	**14.1**	**Date of Analysis: 11/4/08 08:52 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.28	74	1.5	400

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	100	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2008-08

Lab ID#: 0810584A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110321**	**Date of Collection: 10/22/08**	
Dil. Factor:	**1.34**	**Date of Analysis: 11/4/08 04:33 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.13	0.24	0.66	1.2
Chloromethane	0.13	0.070 J	0.28	0.14 J
Vinyl Chloride	0.13	Not Detected	0.34	Not Detected
Bromomethane	0.13	0.11 J	0.52	0.43 J
Chloroethane	0.13	Not Detected	0.35	Not Detected
Freon 11	0.13	0.70	0.75	3.9
Freon 113	0.13	0.12 J	1.0	0.94 J
1,1-Dichloroethene	0.13	Not Detected	0.53	Not Detected
Acetone	0.67	190 E	1.6	460 E
Carbon Disulfide	0.67	0.90	2.1	2.8
Methylene Chloride	0.27	Not Detected U J	0.93	Not Detected U J
Methyl tert-butyl ether	0.13	Not Detected	0.48	Not Detected
trans-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected
1,1-Dichloroethane	0.13	Not Detected	0.54	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.13	15	0.40	44
cis-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected
Chloroform	0.13	0.25	0.65	1.2
1,1,1-Trichloroethane	0.13	9.6	0.73	52
Carbon Tetrachloride	0.13	0.064 J	0.84	0.40 J
Benzene	0.13	1.7	0.43	5.4
1,2-Dichloroethane	0.13	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.13	Not Detected	0.62	Not Detected
Bromodichloromethane	0.13	Not Detected	0.90	Not Detected
cis-1,3-Dichloropropene	0.13	Not Detected	0.61	Not Detected
4-Methyl-2-pentanone	0.13	0.40	0.55	1.6
Toluene	0.13	7.2	0.50	27
trans-1,3-Dichloropropene	0.13	Not Detected	0.61	Not Detected
1,1,2-Trichloroethane	0.13	Not Detected	0.73	Not Detected
Tetrachloroethene	0.13	1.7	0.91	12
Dibromochloromethane	0.13	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Chlorobenzene	0.13	Not Detected	0.62	Not Detected
Ethyl Benzene	0.13	0.81	0.58	3.5
m,p-Xylene	0.13	2.8	0.58	12
o-Xylene	0.13	0.62	0.58	2.7
Styrene	0.13	0.21	0.57	0.91
Bromoform	0.13	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.92	Not Detected
1,3-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2008-08

Lab ID#: 0810584A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110321**	**Date of Collection: 10/22/08**	
Dil. Factor:	**1.34**	**Date of Analysis: 11/4/08 04:33 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected
1,2-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected
1,2,4-Trichlorobenzene	0.67	Not Detected	5.0	Not Detected

J = Estimated value.
E = Exceeds instrument calibration range.
UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2008-08

Lab ID#: 0810584A-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110321sim**	**Date of Collection: 10/22/08**	
Dil. Factor:	**1.34**	**Date of Analysis: 11/4/08 04:33 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (uG/m3)**	**Amount (uG/m3)**
Trichloroethene	0.027	0.87	0.14	4.7

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	119	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	94	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2008-20

Lab ID#: 0810584A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110322**	**Date of Collection: 10/22/08**	
Dil. Factor:	**1.71**	**Date of Analysis: 11/4/08 05:12 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.42	0.84	2.1
Chloromethane	0.17	0.12 J	0.35	0.24 J
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
Bromomethane	0.17	0.40	0.66	1.6
Chloroethane	0.17	Not Detected	0.45	Not Detected
Freon 11	0.17	0.73	0.96	4.1
Freon 113	0.17	0.18	1.3	1.4
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	520 E	2.0	1200 E
Carbon Disulfide	0.86	1.2	2.7	3.7
Methylene Chloride	0.34	Not Detected U J	1.2	Not Detected U J
Methyl tert-butyl ether	0.17	Not Detected	0.62	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.69	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.17	55	0.50	160
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Chloroform	0.17	0.70	0.83	3.4
1,1,1-Trichloroethane	0.17	15	0.93	80
Carbon Tetrachloride	0.17	0.083 J	1.1	0.52 J
Benzene	0.17	4.2	0.55	13
1,2-Dichloroethane	0.17	Not Detected	0.69	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.79	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
4-Methyl-2-pentanone	0.17	0.39	0.70	1.6
Toluene	0.17	13	0.64	49
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	0.30	1.2	2.1
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	0.65	0.74	2.8
m,p-Xylene	0.17	1.6	0.74	7.2
o-Xylene	0.17	0.38	0.74	1.7
Styrene	0.17	0.12 J	0.73	0.53 J
Bromoform	0.17	Not Detected	1.8	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2008-20

Lab ID#: 0810584A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110322**	**Date of Collection: 10/22/08**	
Dil. Factor:	**1.71**	**Date of Analysis: 11/4/08 05:12 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected

J = Estimated value.
E = Exceeds instrument calibration range.
UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	98	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2008-20

Lab ID#: 0810584A-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110322sim**	**Date of Collection: 10/22/08**	
Dil. Factor:	**1.71**	**Date of Analysis: 11/4/08 05:12 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (uG/m3)**	**Amount (uG/m3)**
Trichloroethene	0.034	1.3	0.18	6.8

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	95	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2008-49

Lab ID#: 0810584AR3-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110324R1**	**Date of Collection: 10/23/08**	
Dil. Factor:	**1.34**	**Date of Analysis: 11/4/08 06:21 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.13	0.45	0.66	2.2
Chloromethane	0.13	0.22	0.28	0.46
Vinyl Chloride	0.13	Not Detected	0.34	Not Detected
Bromomethane	0.13	0.32	0.52	1.2
Chloroethane	0.13	Not Detected	0.35	Not Detected
Freon 11	0.13	0.59	0.75	3.3
Freon 113	0.13	0.17	1.0	1.3
1,1-Dichloroethene	0.13	0.26	0.53	1.0
Acetone	0.67	360 E	1.6	860 E
Carbon Disulfide	0.67	0.40 J	2.1	1.2 J
Methylene Chloride	0.27	Not Detected U J	0.93	Not Detected U J
Methyl tert-butyl ether	0.13	Not Detected	0.48	Not Detected
trans-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected
1,1-Dichloroethane	0.13	Not Detected	0.54	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.13	35	0.40	100
cis-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected
Chloroform	0.13	1.9	0.65	9.1
1,1,1-Trichloroethane	0.13	24	0.73	130
Carbon Tetrachloride	0.13	0.13	0.84	0.85
Benzene	0.13	2.9	0.43	9.3
1,2-Dichloroethane	0.13	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.13	Not Detected	0.62	Not Detected
Bromodichloromethane	0.13	Not Detected	0.90	Not Detected
cis-1,3-Dichloropropene	0.13	Not Detected	0.61	Not Detected
4-Methyl-2-pentanone	0.13	0.99	0.55	4.1
Toluene	0.13	15	0.50	57
trans-1,3-Dichloropropene	0.13	Not Detected	0.61	Not Detected
1,1,2-Trichloroethane	0.13	Not Detected	0.73	Not Detected
Tetrachloroethene	0.13	1.1	0.91	7.4
Dibromochloromethane	0.13	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Chlorobenzene	0.13	0.038 J	0.62	0.17 J
Ethyl Benzene	0.13	1.0	0.58	4.4
m,p-Xylene	0.13	3.0	0.58	13
o-Xylene	0.13	0.65	0.58	2.8
Styrene	0.13	0.22	0.57	0.95
Bromoform	0.13	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.92	Not Detected
1,3-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2008-49

Lab ID#: 0810584AR3-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110324R1**	**Date of Collection: 10/23/08**	
Dil. Factor:	**1.34**	**Date of Analysis: 11/4/08 06:21 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected
1,2-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected
1,2,4-Trichlorobenzene	0.67	Not Detected	5.0	Not Detected

E = Exceeds instrument calibration range.
J = Estimated value.
UJ = Non-detected compound associated with low bias in the CCV

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
2-Butene, (E)-	624-64-6	80%	53 N J
1-Pentene, 3-ethyl-2-methyl-	19780-66-6	50%	38 N J
Cyclopropane, 1,1-dimethyl-	1630-94-0	90%	120 N J
6-Oxabicyclo[3.1.0]hexane	285-67-6	50%	51 N J
2-Pentene, 5-butoxy-, (E)-	54004-23-8	64%	65 N J
Heptane, 3-methylene-	1632-16-2	78%	42 N J
1-Octene, 3-ethyl-	74630-08-3	91%	120 N J
Unknown	NA	NA	45 J
Decane, 2,3,5-trimethyl-	62238-11-3	59%	36 N J
Tetradecane	629-59-4	64%	41 N J

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2008-49

Lab ID#: 0810584AR3-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110324sim**	**Date of Collection: 10/23/08**	
Dil. Factor:	**1.34**	**Date of Analysis: 11/4/08 06:21 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (uG/m3)**	**Amount (uG/m3)**
Trichloroethene	0.027	4.9	0.14	26

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	119	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	95	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2009-08

Lab ID#: 0810584A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110318**	**Date of Collection: 10/21/08**	
Dil. Factor:	**1.41**	**Date of Analysis: 11/4/08 12:51 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.75	0.70	3.7
Chloromethane	0.14	0.14	0.29	0.29
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
Bromomethane	0.14	0.13 J	0.55	0.51 J
Chloroethane	0.14	Not Detected	0.37	Not Detected
Freon 11	0.14	2.9	0.79	16
Freon 113	0.14	0.084 J	1.1	0.65 J
1,1-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Acetone	0.70	99 E	1.7	230 E
Carbon Disulfide	0.70	0.68 J	2.2	2.1 J
Methylene Chloride	0.28	Not Detected U J	0.98	Not Detected U J
Methyl tert-butyl ether	0.14	Not Detected	0.51	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.57	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	6.6	0.42	20
cis-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Chloroform	0.14	0.19	0.69	0.92
1,1,1-Trichloroethane	0.14	0.20	0.77	1.1
Carbon Tetrachloride	0.14	Not Detected	0.89	Not Detected
Benzene	0.14	0.92	0.45	2.9
1,2-Dichloroethane	0.14	Not Detected	0.57	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.65	Not Detected
Bromodichloromethane	0.14	Not Detected	0.94	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
4-Methyl-2-pentanone	0.14	0.25	0.58	1.0
Toluene	0.14	6.2	0.53	24
trans-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Tetrachloroethene	0.14	0.71	0.96	4.8
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.65	Not Detected
Ethyl Benzene	0.14	0.74	0.61	3.2
m,p-Xylene	0.14	2.6	0.61	11
o-Xylene	0.14	0.68	0.61	3.0
Styrene	0.14	0.15	0.60	0.66
Bromoform	0.14	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.97	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2009-08

Lab ID#: 0810584A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110318**	**Date of Collection: 10/21/08**	
Dil. Factor:	**1.41**	**Date of Analysis: 11/4/08 12:51 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected

J = Estimated value.
E = Exceeds instrument calibration range.
UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	104	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2009-08

Lab ID#: 0810584A-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110318sim**	**Date of Collection: 10/21/08**	
Dil. Factor:	**1.41**	**Date of Analysis: 11/4/08 12:51 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.028	0.038	0.15	0.20

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	95	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2009-25

Lab ID#: 0810584A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110319**	**Date of Collection: 10/21/08**	
Dil. Factor:	**1.34**	**Date of Analysis: 11/4/08 02:05 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.13	1.1	0.66	5.6
Chloromethane	0.13	0.15	0.28	0.32
Vinyl Chloride	0.13	Not Detected	0.34	Not Detected
Bromomethane	0.13	0.18	0.52	0.68
Chloroethane	0.13	Not Detected	0.35	Not Detected
Freon 11	0.13	2.2	0.75	12
Freon 113	0.13	0.074 J	1.0	0.57 J
1,1-Dichloroethene	0.13	Not Detected	0.53	Not Detected
Acetone	0.67	170 E	1.6	400 E
Carbon Disulfide	0.67	0.70	2.1	2.2
Methylene Chloride	0.27	Not Detected U J	0.93	Not Detected U J
Methyl tert-butyl ether	0.13	Not Detected	0.48	Not Detected
trans-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected
1,1-Dichloroethane	0.13	Not Detected	0.54	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.13	8.4	0.40	25
cis-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected
Chloroform	0.13	1.2	0.65	5.8
1,1,1-Trichloroethane	0.13	0.30	0.73	1.6
Carbon Tetrachloride	0.13	Not Detected	0.84	Not Detected
Benzene	0.13	1.1	0.43	3.4
1,2-Dichloroethane	0.13	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.13	Not Detected	0.62	Not Detected
Bromodichloromethane	0.13	Not Detected	0.90	Not Detected
cis-1,3-Dichloropropene	0.13	Not Detected	0.61	Not Detected
4-Methyl-2-pentanone	0.13	0.20	0.55	0.82
Toluene	0.13	10	0.50	38
trans-1,3-Dichloropropene	0.13	Not Detected	0.61	Not Detected
1,1,2-Trichloroethane	0.13	Not Detected	0.73	Not Detected
Tetrachloroethene	0.13	0.47	0.91	3.2
Dibromochloromethane	0.13	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Chlorobenzene	0.13	Not Detected	0.62	Not Detected
Ethyl Benzene	0.13	0.98	0.58	4.2
m,p-Xylene	0.13	3.6	0.58	16
o-Xylene	0.13	0.88	0.58	3.8
Styrene	0.13	0.23	0.57	0.96
Bromoform	0.13	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.92	Not Detected
1,3-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2009-25

Lab ID#: 0810584A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110319**	**Date of Collection: 10/21/08**	
Dil. Factor:	**1.34**	**Date of Analysis: 11/4/08 02:05 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected
1,2-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected
1,2,4-Trichlorobenzene	0.67	Not Detected	5.0	Not Detected

J = Estimated value.
E = Exceeds instrument calibration range.
UJ = Non-detected compound associated with low bias in the CCV
Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2009-25

Lab ID#: 0810584A-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110319sim**	**Date of Collection: 10/21/08**	
Dil. Factor:	**1.34**	**Date of Analysis: 11/4/08 02:05 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (uG/m3)**	**Amount (uG/m3)**
Trichloroethene	0.027	0.043	0.14	0.23

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	95	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2009-48

Lab ID#: 0810584A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110317**	**Date of Collection: 10/21/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/4/08 12:12 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	1.2	0.69	5.8
Chloromethane	0.14	0.40	0.29	0.83
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
Bromomethane	0.14	0.29	0.54	1.1
Chloroethane	0.14	0.15	0.37	0.39
Freon 11	0.14	1.3	0.78	7.3
Freon 113	0.14	0.060 J	1.1	0.46 J
1,1-Dichloroethene	0.14	Not Detected	0.55	Not Detected
Acetone	0.70	96 E	1.6	230 E
Carbon Disulfide	0.70	0.29 J	2.2	0.90 J
Methylene Chloride	0.28	Not Detected U J	0.96	Not Detected U J
Methyl tert-butyl ether	0.14	Not Detected	0.50	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.55	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.56	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	8.9	0.41	26
cis-1,2-Dichloroethene	0.14	Not Detected	0.55	Not Detected
Chloroform	0.14	1.2	0.68	6.1
1,1,1-Trichloroethane	0.14	0.21	0.76	1.1
Carbon Tetrachloride	0.14	Not Detected	0.87	Not Detected
Benzene	0.14	6.0	0.44	19
1,2-Dichloroethane	0.14	Not Detected	0.56	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.64	Not Detected
Bromodichloromethane	0.14	Not Detected	0.93	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.57	Not Detected
Toluene	0.14	19	0.52	71
trans-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.76	Not Detected
Tetrachloroethene	0.14	0.29	0.94	2.0
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.64	Not Detected
Ethyl Benzene	0.14	1.3	0.60	5.6
m,p-Xylene	0.14	3.9	0.60	17
o-Xylene	0.14	0.94	0.60	4.1
Styrene	0.14	0.21	0.59	0.91
Bromoform	0.14	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.95	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2009-48

Lab ID#: 0810584A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110317**	**Date of Collection: 10/21/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/4/08 12:12 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.14	0.038 J	0.84	0.23 J
1,2-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected

J = Estimated value.
E = Exceeds instrument calibration range.
UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-SG2009-48

Lab ID#: 0810584A-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110317sim**	**Date of Collection: 10/21/08**	
Dil. Factor:	**1.39**	**Date of Analysis: 11/4/08 12:12 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.028	0.067	0.15	0.36

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	121	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	97	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2010-08

Lab ID#: 0901113-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011420**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.41**	**Date of Analysis: 1/15/09 09:32 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.36	0.70	1.8
Chloromethane	0.14	0.13 J	0.29	0.26 J
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
Bromomethane	0.14	0.055 J	0.55	0.21 J
Chloroethane	0.14	Not Detected	0.37	Not Detected
Freon 11	0.14	2.6	0.79	14
Freon 113	0.14	0.090 J	1.1	0.69 J
1,1-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Acetone	0.70	19	1.7	44
Carbon Disulfide	0.70	0.31 J	2.2	0.96 J
Methylene Chloride	0.28	0.16 J	0.98	0.58 J
Methyl tert-butyl ether	0.14	Not Detected	0.51	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.57	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	8.6	0.42	25
cis-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Chloroform	0.14	3.4	0.69	16
1,1,1-Trichloroethane	0.14	0.25	0.77	1.4
Carbon Tetrachloride	0.14	Not Detected	0.89	Not Detected
Benzene	0.14	1.1	0.45	3.5
1,2-Dichloroethane	0.14	1.7	0.57	6.9
1,2-Dichloropropane	0.14	1.8	0.65	8.3
Bromodichloromethane	0.14	Not Detected	0.94	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.58	Not Detected
Toluene	0.14	45	0.53	170
trans-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Tetrachloroethene	0.14	0.55	0.96	3.7
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.65	Not Detected
Ethyl Benzene	0.14	1.1	0.61	4.8
m,p-Xylene	0.14	3.1	0.61	13
o-Xylene	0.14	1.4	0.61	6.1
Styrene	0.14	2.2	0.60	9.6
Bromoform	0.14	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.97	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2010-08

Lab ID#: 0901113-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011420**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.41**	**Date of Analysis: 1/15/09 09:32 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected U J	5.2	Not Detected U J

J = Estimated value.
UJ = Non-detected compound associated with low bias in the CCV

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
1-Propene	115-07-1	72%	26 N J
Propane, 2-methyl-	75-28-5	72%	14 N J
1-Propene, 2-methyl-	115-11-7	80%	27 N J
Acetaldehyde	75-07-0	9.0%	22 N J
3-Buten-1-ol	627-27-0	38%	27 N J
Pentane	109-66-0	86%	48 N J
2-Pentene, 4,4-dimethyl-	26232-98-4	53%	20 N J
Cyclopropane, 1,1-dimethyl-	1630-94-0	90%	15 N J
Heptane, 2,4-dimethyl-	2213-23-2	90%	24 N J
Undecane, 4,7-dimethyl-	17301-32-5	86%	16 N J

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2010-08

Lab ID#: 0901113-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011420sim**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.41**	**Date of Analysis: 1/15/09 09:32 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.028	0.52	0.15	2.8

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	99	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2010-24

Lab ID#: 0901113-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011418**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.34**	**Date of Analysis: 1/15/09 07:49 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.13	0.29	0.66	1.4
Chloromethane	0.13	0.13	0.28	0.27
Vinyl Chloride	0.13	Not Detected	0.34	Not Detected
Bromomethane	0.13	0.051 J	0.52	0.20 J
Chloroethane	0.13	Not Detected	0.35	Not Detected
Freon 11	0.13	5.0	0.75	28
Freon 113	0.13	0.10 J	1.0	0.81 J
1,1-Dichloroethene	0.13	Not Detected	0.53	Not Detected
Acetone	0.67	23	1.6	55
Carbon Disulfide	0.67	0.67	2.1	2.1
Methylene Chloride	0.27	Not Detected	0.93	Not Detected
Methyl tert-butyl ether	0.13	Not Detected	0.48	Not Detected
trans-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected
1,1-Dichloroethane	0.13	Not Detected	0.54	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.13	22	0.40	66
cis-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected
Chloroform	0.13	0.46	0.65	2.2
1,1,1-Trichloroethane	0.13	0.40	0.73	2.2
Carbon Tetrachloride	0.13	0.052 J	0.84	0.32 J
Benzene	0.13	1.1	0.43	3.7
1,2-Dichloroethane	0.13	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.13	Not Detected	0.62	Not Detected
Bromodichloromethane	0.13	Not Detected	0.90	Not Detected
cis-1,3-Dichloropropene	0.13	Not Detected	0.61	Not Detected
4-Methyl-2-pentanone	0.13	Not Detected	0.55	Not Detected
Toluene	0.13	46	0.50	170
trans-1,3-Dichloropropene	0.13	Not Detected	0.61	Not Detected
1,1,2-Trichloroethane	0.13	Not Detected	0.73	Not Detected
Tetrachloroethene	0.13	0.72	0.91	4.9
Dibromochloromethane	0.13	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Chlorobenzene	0.13	Not Detected	0.62	Not Detected
Ethyl Benzene	0.13	1.3	0.58	5.8
m,p-Xylene	0.13	3.2	0.58	14
o-Xylene	0.13	1.2	0.58	5.2
Styrene	0.13	2.0	0.57	8.4
Bromoform	0.13	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.92	Not Detected
1,3-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2010-24

Lab ID#: 0901113-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011418**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.34**	**Date of Analysis: 1/15/09 07:49 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.13	0.063 J	0.80	0.38 J
1,2-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected
1,2,4-Trichlorobenzene	0.67	Not Detected U J	5.0	Not Detected U J

J = Estimated value.
UJ = Non-detected compound associated with low bias in the CCV

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
1-Propene	115-07-1	80%	75 N J
1-Propene, 2-methyl-	115-11-7	80%	92 N J
Acetaldehyde	75-07-0	9.0%	57 N J
1-Pentene, 3-ethyl-2-methyl-	19780-66-6	52%	34 N J
Cyclopropane, 1,1-dimethyl-	1630-94-0	91%	87 N J
Heptane, 2,4-dimethyl-	2213-23-2	90%	38 N J
4-Nonene, 3-methyl-, (Z)-	63830-69-3	50%	30 N J
Undecane, 6-methyl-	17302-33-9	83%	29 N J
1-Octene, 3-ethyl-	74630-08-3	91%	38 N J
Undecane, 4,7-dimethyl-	17301-32-5	86%	29 N J

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	100	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2010-24

Lab ID#: 0901113-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011418sim**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.34**	**Date of Analysis: 1/15/09 07:49 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.027	3.6	0.14	19

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	102	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2010-49

Lab ID#: 0901113-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011417**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.39**	**Date of Analysis: 1/15/09 06:16 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.40	0.69	2.0
Chloromethane	0.14	0.50	0.29	1.0
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
Bromomethane	0.14	Not Detected	0.54	Not Detected
Chloroethane	0.14	Not Detected	0.37	Not Detected
Freon 11	0.14	2.0	0.78	11
Freon 113	0.14	0.086 J	1.1	0.66 J
1,1-Dichloroethene	0.14	Not Detected	0.55	Not Detected
Acetone	0.70	56	1.6	130
Carbon Disulfide	0.70	0.31 J	2.2	0.95 J
Methylene Chloride	0.28	Not Detected	0.96	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.50	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.55	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.56	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	38	0.41	110
cis-1,2-Dichloroethene	0.14	Not Detected	0.55	Not Detected
Chloroform	0.14	0.18	0.68	0.87
1,1,1-Trichloroethane	0.14	0.18	0.76	0.98
Carbon Tetrachloride	0.14	0.090 J	0.87	0.56 J
Benzene	0.14	2.4	0.44	7.8
1,2-Dichloroethane	0.14	Not Detected	0.56	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.64	Not Detected
Bromodichloromethane	0.14	Not Detected	0.93	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.57	Not Detected
Toluene	0.14	13	0.52	48
trans-1,3-Dichloropropene	0.14	Not Detected	0.63	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.76	Not Detected
Tetrachloroethene	0.14	0.34	0.94	2.3
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.64	Not Detected
Ethyl Benzene	0.14	0.58	0.60	2.5
m,p-Xylene	0.14	1.6	0.60	7.1
o-Xylene	0.14	0.60	0.60	2.6
Styrene	0.14	0.66	0.59	2.8
Bromoform	0.14	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.95	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2010-49

Lab ID#: 0901113-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011417**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.39**	**Date of Analysis: 1/15/09 06:16 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected U J	5.2	Not Detected U J

J = Estimated value.
UJ = Non-detected compound associated with low bias in the CCV

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
1-Propene	115-07-1	53%	180 N J
1-Propyne	74-99-7	90%	28 N J
1-Propene, 2-methyl-	115-11-7	80%	170 N J
Acetaldehyde	75-07-0	9.0%	96 N J
1-Pentene	109-67-1	86%	38 N J
Unknown	NA	NA	30 J
3-Penten-1-yne	2206-23-7	87%	31 N J
1-Pentene, 3-ethyl-2-methyl-	19780-66-6	52%	26 N J
Cyclopropane, 1,1-dimethyl-	1630-94-0	90%	52 N J
Unknown	NA	NA	61 J

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	102	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2010-49

Lab ID#: 0901113-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011417sim**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.39**	**Date of Analysis: 1/15/09 06:16 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.028	1.0	0.15	5.5

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-DUP-04

Lab ID#: 0901113-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011421**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.32**	**Date of Analysis: 1/15/09 10:25 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.13	0.39	0.65	1.9
Chloromethane	0.13	0.42	0.27	0.86
Vinyl Chloride	0.13	0.042 J	0.34	0.11 J
Bromomethane	0.13	0.11 J	0.51	0.43 J
Chloroethane	0.13	Not Detected	0.35	Not Detected
Freon 11	0.13	5.0	0.74	28
Freon 113	0.13	0.12 J	1.0	0.90 J
1,1-Dichloroethene	0.13	Not Detected	0.52	Not Detected
Acetone	0.66	160 E	1.6	380 E
Carbon Disulfide	0.66	0.88	2.0	2.8
Methylene Chloride	0.26	Not Detected	0.92	Not Detected
Methyl tert-butyl ether	0.13	Not Detected	0.48	Not Detected
trans-1,2-Dichloroethene	0.13	Not Detected	0.52	Not Detected
1,1-Dichloroethane	0.13	Not Detected	0.53	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.13	110 E	0.39	320 E
cis-1,2-Dichloroethene	0.13	Not Detected	0.52	Not Detected
Chloroform	0.13	0.51	0.64	2.5
1,1,1-Trichloroethane	0.13	0.48	0.72	2.6
Carbon Tetrachloride	0.13	0.064 J	0.83	0.40 J
Benzene	0.13	6.1	0.42	19
1,2-Dichloroethane	0.13	0.27	0.53	1.1
1,2-Dichloropropane	0.13	Not Detected	0.61	Not Detected
Bromodichloromethane	0.13	Not Detected	0.88	Not Detected
cis-1,3-Dichloropropene	0.13	Not Detected	0.60	Not Detected
4-Methyl-2-pentanone	0.13	Not Detected	0.54	Not Detected
Toluene	0.13	37	0.50	140
trans-1,3-Dichloropropene	0.13	Not Detected	0.60	Not Detected
1,1,2-Trichloroethane	0.13	Not Detected	0.72	Not Detected
Tetrachloroethene	0.13	0.79	0.90	5.4
Dibromochloromethane	0.13	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Chlorobenzene	0.13	Not Detected	0.61	Not Detected
Ethyl Benzene	0.13	1.7	0.57	7.2
m,p-Xylene	0.13	4.6	0.57	20
o-Xylene	0.13	1.5	0.57	6.5
Styrene	0.13	2.0	0.56	8.7
Bromoform	0.13	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.91	Not Detected
1,3-Dichlorobenzene	0.13	Not Detected	0.79	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-DUP-04

Lab ID#: 0901113-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011421**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.32**	**Date of Analysis: 1/15/09 10:25 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.13	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.13	Not Detected	0.79	Not Detected
1,2,4-Trichlorobenzene	0.66	Not Detected U J	4.9	Not Detected U J

J = Estimated value.
E = Exceeds instrument calibration range.
UJ = Non-detected compound associated with low bias in the CCV

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
1-Propene	115-07-1	53%	480 N J
2-Butene, (Z)-	590-18-1	80%	490 N J
Acetaldehyde	75-07-0	9.0%	280 N J
1-Pentene, 3-ethyl-2-methyl-	19780-66-6	52%	210 N J
Cyclopropane, 1,1-dimethyl-	1630-94-0	91%	420 N J
2-Butenal, 3-methyl-	107-86-8	43%	470 N J
4-Nonene, 3-methyl-, (Z)-	63830-69-3	47%	150 N J
3-Heptene, 4-ethyl-	33933-74-3	53%	160 N J
Heptane, 1,1'-oxybis-	629-64-1	42%	170 N J
1-Octene, 3-ethyl-	74630-08-3	91%	200 N J

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	90	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-DUP-04

Lab ID#: 0901113-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011421sim**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.32**	**Date of Analysis: 1/15/09 10:25 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.026	2.8	0.14	15

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	91	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2011-08

Lab ID#: 0901113-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011416**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.41**	**Date of Analysis: 1/15/09 05:43 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.32	0.70	1.6
Chloromethane	0.14	0.13 J	0.29	0.26 J
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
Bromomethane	0.14	Not Detected	0.55	Not Detected
Chloroethane	0.14	Not Detected	0.37	Not Detected
Freon 11	0.14	0.91	0.79	5.1
Freon 113	0.14	0.051 J	1.1	0.39 J
1,1-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Acetone	0.70	14	1.7	34
Carbon Disulfide	0.70	0.74	2.2	2.3
Methylene Chloride	0.28	Not Detected	0.98	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.51	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.57	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	17	0.42	50
cis-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Chloroform	0.14	0.059 J	0.69	0.29 J
1,1,1-Trichloroethane	0.14	0.28	0.77	1.5
Carbon Tetrachloride	0.14	Not Detected	0.89	Not Detected
Benzene	0.14	0.89	0.45	2.8
1,2-Dichloroethane	0.14	Not Detected	0.57	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.65	Not Detected
Bromodichloromethane	0.14	Not Detected	0.94	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
4-Methyl-2-pentanone	0.14	1.4	0.58	5.9
Toluene	0.14	28	0.53	100
trans-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Tetrachloroethene	0.14	0.24	0.96	1.6
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.65	Not Detected
Ethyl Benzene	0.14	0.93	0.61	4.0
m,p-Xylene	0.14	2.5	0.61	11
o-Xylene	0.14	1.1	0.61	4.9
Styrene	0.14	1.9	0.60	8.2
Bromoform	0.14	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.97	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2011-08

Lab ID#: 0901113-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011416**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.41**	**Date of Analysis: 1/15/09 05:43 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected U J	5.2	Not Detected U J

J = Estimated value.
UJ = Non-detected compound associated with low bias in the CCV

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
1-Propene	115-07-1	49%	32 N J
2-Butene, (Z)-	590-18-1	80%	39 N J
Acetaldehyde	75-07-0	9.0%	23 N J
1-Pentene	109-67-1	91%	12 N J
1-Pentene, 3-ethyl-2-methyl-	19780-66-6	59%	20 N J
Cyclopropane, 1,1-dimethyl-	1630-94-0	90%	18 N J
Octane	111-65-9	78%	28 N J
Acetic acid, 2-ethylhexyl ester	103-09-3	64%	14 N J
Octane, 4-methyl-	2216-34-4	72%	16 N J
Undecane, 5-methyl-	1632-70-8	81%	17 N J

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2011-08

Lab ID#: 0901113-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011416sim**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.41**	**Date of Analysis: 1/15/09 05:43 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.028	0.17	0.15	0.90

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2011-24

Lab ID#: 0901113-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011415**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.34**	**Date of Analysis: 1/15/09 05:11 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.13	0.45	0.66	2.2
Chloromethane	0.13	0.50	0.28	1.0
Vinyl Chloride	0.13	Not Detected	0.34	Not Detected
Bromomethane	0.13	Not Detected	0.52	Not Detected
Chloroethane	0.13	Not Detected	0.35	Not Detected
Freon 11	0.13	0.63	0.75	3.6
Freon 113	0.13	0.10 J	1.0	0.81 J
1,1-Dichloroethene	0.13	Not Detected	0.53	Not Detected
Acetone	0.67	23	1.6	56
Carbon Disulfide	0.67	0.36 J	2.1	1.1 J
Methylene Chloride	0.27	0.16 J	0.93	0.56 J
Methyl tert-butyl ether	0.13	Not Detected	0.48	Not Detected
trans-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected
1,1-Dichloroethane	0.13	Not Detected	0.54	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.13	24	0.40	72
cis-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected
Chloroform	0.13	0.094 J	0.65	0.46 J
1,1,1-Trichloroethane	0.13	0.091 J	0.73	0.50 J
Carbon Tetrachloride	0.13	0.071 J	0.84	0.45 J
Benzene	0.13	1.0	0.43	3.3
1,2-Dichloroethane	0.13	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.13	Not Detected	0.62	Not Detected
Bromodichloromethane	0.13	Not Detected	0.90	Not Detected
cis-1,3-Dichloropropene	0.13	Not Detected	0.61	Not Detected
4-Methyl-2-pentanone	0.13	0.81	0.55	3.3
Toluene	0.13	26	0.50	97
trans-1,3-Dichloropropene	0.13	Not Detected	0.61	Not Detected
1,1,2-Trichloroethane	0.13	Not Detected	0.73	Not Detected
Tetrachloroethene	0.13	0.084 J	0.91	0.57 J
Dibromochloromethane	0.13	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Chlorobenzene	0.13	Not Detected	0.62	Not Detected
Ethyl Benzene	0.13	0.59	0.58	2.6
m,p-Xylene	0.13	1.3	0.58	5.8
o-Xylene	0.13	0.50	0.58	2.2
Styrene	0.13	0.64	0.57	2.7
Bromoform	0.13	Not Detected	1.4	Not Detected
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.92	Not Detected
1,3-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2011-24

Lab ID#: 0901113-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011415**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.34**	**Date of Analysis: 1/15/09 05:11 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected
1,2-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected
1,2,4-Trichlorobenzene	0.67	Not Detected U J	5.0	Not Detected U J

J = Estimated value.
UJ = Non-detected compound associated with low bias in the CCV

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
1-Propene	115-07-1	72%	54 N J
1-Propyne	74-99-7	90%	8.4 N J
1-Propene, 2-methyl-	115-11-7	80%	63 N J
Acetaldehyde	75-07-0	9.0%	34 N J
1-Pentene	109-67-1	72%	14 N J
Propanal	123-38-6	45%	8.4 N J
Pentane, 3-methylene-	760-21-4	94%	10 N J
1-Pentene, 3-ethyl-2-methyl-	19780-66-6	64%	18 N J
Cyclopropane, 1,1-dimethyl-	1630-94-0	90%	15 N J
Ether, hexyl pentyl	32357-83-8	83%	14 N J

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	100	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-SG2011-24

Lab ID#: 0901113-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011415sim**	**Date of Collection: 1/6/09**	
Dil. Factor:	**1.34**	**Date of Analysis: 1/15/09 05:11 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.027	0.026 J	0.14	0.14 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	103	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-FB2001-00

Lab ID#: 0810584AR3-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110320R1**	**Date of Collection: 10/21/08**	
Dil. Factor:	**1.58**	**Date of Analysis: 11/4/08 03:48 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.53	0.78	2.6
Chloromethane	0.16	0.33	0.33	0.69
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
Bromomethane	0.16	0.16	0.61	0.63
Chloroethane	0.16	Not Detected	0.42	Not Detected
Freon 11	0.16	0.25	0.89	1.4
Freon 113	0.16	0.083 J	1.2	0.64 J
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	5.2	1.9	12
Carbon Disulfide	0.79	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.19 J	1.1	0.66 J
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.16	0.67	0.46	2.0
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Chloroform	0.16	Not Detected	0.77	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Carbon Tetrachloride	0.16	0.10 J	0.99	0.65 J
Benzene	0.16	0.26	0.50	0.82
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
4-Methyl-2-pentanone	0.16	0.031 J	0.65	0.13 J
Toluene	0.16	7.2	0.60	27
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	0.11 J	1.1	0.77 J
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	0.080 J	0.69	0.35 J
m,p-Xylene	0.16	0.17	0.69	0.74
o-Xylene	0.16	0.058 J	0.69	0.25 J
Styrene	0.16	0.020 J	0.67	0.085 J
Bromoform	0.16	Not Detected	1.6	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-FB2001-00

Lab ID#: 0810584AR3-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110320R1**	**Date of Collection: 10/21/08**	
Dil. Factor:	**1.58**	**Date of Analysis: 11/4/08 03:48 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	5.9	Not Detected

J = Estimated value.

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
1-Hexyn-3-ol	105-31-7	53%	4.0 N J
Hexanal	66-25-1	72%	3.6 N J

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	104	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-FB2001-00

Lab ID#: 0810584AR3-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110320sim**	**Date of Collection: 10/21/08**	
Dil. Factor:	**1.58**	**Date of Analysis: 11/4/08 03:48 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.032	0.012 J	0.17	0.062 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-FB2002-00

Lab ID#: 0810584BR2-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110325R1**	**Date of Collection:**	**10/23/08**
Dil. Factor:	**1.55**	**Date of Analysis:**	**11/4/08 06:54 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.49	0.77	2.4
Chloromethane	0.16	0.27	0.32	0.56
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
Bromomethane	0.16	0.19	0.60	0.73
Chloroethane	0.16	Not Detected	0.41	Not Detected
Freon 11	0.16	0.22	0.87	1.2
Freon 113	0.16	0.061 J	1.2	0.47 J
1,1-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Acetone	0.78	2.5	1.8	5.9
Carbon Disulfide	0.78	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	Not Detected U J	1.1	Not Detected U J
Methyl tert-butyl ether	0.16	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.63	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.16	0.16	0.46	0.47
cis-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Chloroform	0.16	Not Detected	0.76	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.84	Not Detected
Carbon Tetrachloride	0.16	0.084 J	0.98	0.53 J
Benzene	0.16	0.10 J	0.50	0.33 J
1,2-Dichloroethane	0.16	Not Detected	0.63	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.72	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.63	Not Detected
Toluene	0.16	0.17	0.58	0.63
trans-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.84	Not Detected
Tetrachloroethene	0.16	Not Detected	1.0	Not Detected
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.71	Not Detected
Ethyl Benzene	0.16	Not Detected	0.67	Not Detected
m,p-Xylene	0.16	0.048 J	0.67	0.21 J
o-Xylene	0.16	Not Detected	0.67	Not Detected
Styrene	0.16	Not Detected	0.66	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-FB2002-00

Lab ID#: 0810584BR2-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110325R1**	**Date of Collection: 10/23/08**	
Dil. Factor:	**1.55**	**Date of Analysis: 11/4/08 06:54 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected	5.8	Not Detected

J = Estimated value.
UJ = Non-detected compound associated with low bias in the CCV

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Acetaldehyde	75-07-0	56%	1.6 N J
1-Pentene, 2,4,4-trimethyl-	107-39-1	86%	1.9 N J
Nonanal	124-19-6	64%	2.0 N J

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	103	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPSI-FB2002-00

Lab ID#: 0810584BR2-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110325sim**	**Date of Collection: 10/23/08**	
Dil. Factor:	**1.55**	**Date of Analysis: 11/4/08 06:54 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.031	0.0035 J	0.17	0.019 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2003-00

Lab ID#: 0810643-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110413**	**Date of Collection: 10/24/08**	
Dil. Factor:	**1.58**	**Date of Analysis: 11/4/08 08:11 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.44	0.78	2.2
Chloromethane	0.16	0.32	0.33	0.66
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
Bromomethane	0.16	0.43	0.61	1.7
Chloroethane	0.16	Not Detected	0.42	Not Detected
Freon 11	0.16	0.22	0.89	1.2
Freon 113	0.16	0.098 J	1.2	0.75 J
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	24 J	1.9	56 J
Carbon Disulfide	0.79	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.059 J	1.1	0.20 J
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.16	0.76	0.46	2.2
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Chloroform	0.16	Not Detected	0.77	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Carbon Tetrachloride	0.16	0.077 J	0.99	0.48 J
Benzene	0.16	0.30	0.50	0.94
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
4-Methyl-2-pentanone	0.16	0.041 J	0.65	0.17 J
Toluene	0.16	0.66	0.60	2.5
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	0.075 J	1.1	0.51 J
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	0.091 J	0.69	0.39 J
m,p-Xylene	0.16	0.25	0.69	1.1
o-Xylene	0.16	0.095 J	0.69	0.41 J
Styrene	0.16	0.021 J	0.67	0.089 J
Bromoform	0.16	Not Detected	1.6	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2003-00

Lab ID#: 0810643-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110413**	**Date of Collection: 10/24/08**	
Dil. Factor:	**1.58**	**Date of Analysis: 11/4/08 08:11 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	5.9	Not Detected

J = Estimated value.
J = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	106	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2003-00

Lab ID#: 0810643-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**g110413sim**	**Date of Collection: 10/24/08**	
Dil. Factor:	**1.58**	**Date of Analysis: 11/4/08 08:11 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.032	0.016 J	0.17	0.083 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2004-00

Lab ID#: 0810701-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111006**	**Date of Collection: 10/28/08**	
Dil. Factor:	**1.44**	**Date of Analysis: 11/10/08 02:31 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.53	0.71	2.6
Chloromethane	0.14	0.61	0.30	1.2
Vinyl Chloride	0.14	Not Detected	0.37	Not Detected
Bromomethane	0.14	Not Detected	0.56	Not Detected
Chloroethane	0.14	Not Detected	0.38	Not Detected
Freon 11	0.14	0.28	0.81	1.6
Freon 113	0.14	0.096 J	1.1	0.73 J
1,1-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Acetone	0.72	3.2	1.7	7.6
Carbon Disulfide	0.72	0.60 J	2.2	1.8 J
Methylene Chloride	0.29	0.18 J	1.0	0.63 J
Methyl tert-butyl ether	0.14	Not Detected	0.52	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.58	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.14	0.67	0.42	2.0
cis-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Chloroform	0.14	Not Detected	0.70	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Carbon Tetrachloride	0.14	0.10 J	0.91	0.63 J
Benzene	0.14	0.30	0.46	0.96
1,2-Dichloroethane	0.14	Not Detected	0.58	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.66	Not Detected
Bromodichloromethane	0.14	Not Detected	0.96	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.59	Not Detected
Toluene	0.14	1.8	0.54	6.6
trans-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Tetrachloroethene	0.14	0.089 J	0.98	0.60 J
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.66	Not Detected
Ethyl Benzene	0.14	0.11 J	0.62	0.47 J
m,p-Xylene	0.14	0.25	0.62	1.1
o-Xylene	0.14	0.091 J	0.62	0.40 J
Styrene	0.14	Not Detected	0.61	Not Detected
Bromoform	0.14	Not Detected	1.5	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.99	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2004-00

Lab ID#: 0810701-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111006**	**Date of Collection:**	**10/28/08**
Dil. Factor:	**1.44**	**Date of Analysis:**	**11/10/08 02:31 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.14	0.052 J	0.86	0.31 J
1,2-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,2,4-Trichlorobenzene	0.72	0.10 J	5.3	0.76 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2004-00

Lab ID#: 0810701-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111006sim**	**Date of Collection: 10/28/08**	
Dil. Factor:	**1.44**	**Date of Analysis: 11/10/08 02:31 PM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (uG/m3)**	**Amount (uG/m3)**
Trichloroethene	0.029	0.015 J	0.15	0.081 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2005-00

Lab ID#: 0811019-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111120**	**Date of Collection: 10/30/08**	
Dil. Factor:	**1.68**	**Date of Analysis: 11/12/08 12:31 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.17	0.60	0.83	3.0
Chloromethane	0.17	0.61	0.35	1.2
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
Bromomethane	0.17	Not Detected	0.65	Not Detected
Chloroethane	0.17	Not Detected	0.44	Not Detected
Freon 11	0.17	0.31	0.94	1.7
Freon 113	0.17	0.086 J	1.3	0.66 J
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	3.5	2.0	8.4
Carbon Disulfide	0.84	0.12 J	2.6	0.36 J
Methylene Chloride	0.34	0.12 J	1.2	0.41 J
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.17	0.50	0.50	1.5
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Carbon Tetrachloride	0.17	0.077 J	1.0	0.49 J
Benzene	0.17	0.14 J	0.54	0.46 J
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.69	Not Detected
Toluene	0.17	0.28	0.63	1.1
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	0.085 J	0.73	0.37 J
o-Xylene	0.17	Not Detected	0.73	Not Detected
Styrene	0.17	Not Detected	0.72	Not Detected
Bromoform	0.17	Not Detected	1.7	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2005-00

Lab ID#: 0811019-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111120**	**Date of Collection: 10/30/08**	
Dil. Factor:	**1.68**	**Date of Analysis: 11/12/08 12:31 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2005-00

Lab ID#: 0811019-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111120sim**	**Date of Collection: 10/30/08**	
Dil. Factor:	**1.68**	**Date of Analysis: 11/12/08 12:31 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.034	0.0098 J	0.18	0.052 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	126	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	99	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2006-00

Lab ID#: 0811019-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111125**	**Date of Collection: 10/31/08**	
Dil. Factor:	**2.01**	**Date of Analysis: 11/12/08 05:05 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.20	0.54	0.99	2.6
Chloromethane	0.20	0.55	0.42	1.1
Vinyl Chloride	0.20	Not Detected	0.51	Not Detected
Bromomethane	0.20	Not Detected	0.78	Not Detected
Chloroethane	0.20	Not Detected	0.53	Not Detected
Freon 11	0.20	0.28	1.1	1.6
Freon 113	0.20	0.096 J	1.5	0.74 J
1,1-Dichloroethene	0.20	Not Detected	0.80	Not Detected
Acetone	1.0	3.8	2.4	9.1
Carbon Disulfide	1.0	Not Detected	3.1	Not Detected
Methylene Chloride	0.40	0.36 J	1.4	1.2 J
Methyl tert-butyl ether	0.20	Not Detected	0.72	Not Detected
trans-1,2-Dichloroethene	0.20	Not Detected	0.80	Not Detected
1,1-Dichloroethane	0.20	Not Detected	0.81	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.20	0.49	0.59	1.4
cis-1,2-Dichloroethene	0.20	Not Detected	0.80	Not Detected
Chloroform	0.20	Not Detected	0.98	Not Detected
1,1,1-Trichloroethane	0.20	Not Detected	1.1	Not Detected
Carbon Tetrachloride	0.20	0.085 J	1.3	0.53 J
Benzene	0.20	0.77	0.64	2.5
1,2-Dichloroethane	0.20	Not Detected	0.81	Not Detected
1,2-Dichloropropane	0.20	Not Detected	0.93	Not Detected
Bromodichloromethane	0.20	Not Detected	1.3	Not Detected
cis-1,3-Dichloropropene	0.20	Not Detected	0.91	Not Detected
4-Methyl-2-pentanone	0.20	0.11 J	0.82	0.45 J
Toluene	0.20	1.8	0.76	6.9
trans-1,3-Dichloropropene	0.20	Not Detected	0.91	Not Detected
1,1,2-Trichloroethane	0.20	Not Detected	1.1	Not Detected
Tetrachloroethene	0.20	0.17 J	1.4	1.1 J
Dibromochloromethane	0.20	Not Detected	1.7	Not Detected
1,2-Dibromoethane (EDB)	0.20	Not Detected	1.5	Not Detected
Chlorobenzene	0.20	Not Detected	0.92	Not Detected
Ethyl Benzene	0.20	0.27	0.87	1.2
m,p-Xylene	0.20	0.78	0.87	3.4
o-Xylene	0.20	0.30	0.87	1.3
Styrene	0.20	0.062 J	0.86	0.27 J
Bromoform	0.20	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.20	Not Detected	1.4	Not Detected
1,3-Dichlorobenzene	0.20	Not Detected	1.2	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2006-00

Lab ID#: 0811019-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111125**	**Date of Collection: 10/31/08**	
Dil. Factor:	**2.01**	**Date of Analysis: 11/12/08 05:05 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.20	0.15 J	1.2	0.90 J
1,2-Dichlorobenzene	0.20	Not Detected	1.2	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected	7.4	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2006-00

Lab ID#: 0811019-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**z111125sim**	**Date of Collection: 10/31/08**	
Dil. Factor:	**2.01**	**Date of Analysis: 11/12/08 05:05 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.040	0.040	0.22	0.22

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	97	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2007-00

Lab ID#: 0901113-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011422**	**Date of Collection: 1/6/09**	
Dil. Factor:	**2.23**	**Date of Analysis: 1/15/09 11:15 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.22	0.50	1.1	2.5
Chloromethane	0.22	0.56	0.46	1.2
Vinyl Chloride	0.22	Not Detected	0.57	Not Detected
Bromomethane	0.22	Not Detected	0.87	Not Detected
Chloroethane	0.22	Not Detected	0.59	Not Detected
Freon 11	0.22	0.21 J	1.2	1.2 J
Freon 113	0.22	0.087 J	1.7	0.66 J
1,1-Dichloroethene	0.22	Not Detected	0.88	Not Detected
Acetone	1.1	0.82 J	2.6	1.9 J
Carbon Disulfide	1.1	Not Detected	3.5	Not Detected
Methylene Chloride	0.45	Not Detected	1.5	Not Detected
Methyl tert-butyl ether	0.22	Not Detected	0.80	Not Detected
trans-1,2-Dichloroethene	0.22	Not Detected	0.88	Not Detected
1,1-Dichloroethane	0.22	Not Detected	0.90	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.22	0.35	0.66	1.0
cis-1,2-Dichloroethene	0.22	Not Detected	0.88	Not Detected
Chloroform	0.22	Not Detected	1.1	Not Detected
1,1,1-Trichloroethane	0.22	Not Detected	1.2	Not Detected
Carbon Tetrachloride	0.22	0.064 J	1.4	0.40 J
Benzene	0.22	0.28	0.71	0.91
1,2-Dichloroethane	0.22	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.22	Not Detected	1.0	Not Detected
Bromodichloromethane	0.22	Not Detected	1.5	Not Detected
cis-1,3-Dichloropropene	0.22	Not Detected	1.0	Not Detected
4-Methyl-2-pentanone	0.22	Not Detected	0.91	Not Detected
Toluene	0.22	0.37	0.84	1.4
trans-1,3-Dichloropropene	0.22	Not Detected	1.0	Not Detected
1,1,2-Trichloroethane	0.22	Not Detected	1.2	Not Detected
Tetrachloroethene	0.22	Not Detected	1.5	Not Detected
Dibromochloromethane	0.22	Not Detected	1.9	Not Detected
1,2-Dibromoethane (EDB)	0.22	Not Detected	1.7	Not Detected
Chlorobenzene	0.22	Not Detected	1.0	Not Detected
Ethyl Benzene	0.22	Not Detected	0.97	Not Detected
m,p-Xylene	0.22	0.11 J	0.97	0.48 J
o-Xylene	0.22	0.043 J	0.97	0.18 J
Styrene	0.22	Not Detected	0.95	Not Detected
Bromoform	0.22	Not Detected	2.3	Not Detected
1,1,2,2-Tetrachloroethane	0.22	Not Detected	1.5	Not Detected
1,3-Dichlorobenzene	0.22	Not Detected	1.3	Not Detected

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2007-00

Lab ID#: 0901113-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011422**	**Date of Collection: 1/6/09**	
Dil. Factor:	**2.23**	**Date of Analysis: 1/15/09 11:15 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,4-Dichlorobenzene	0.22	Not Detected	1.3	Not Detected
1,2-Dichlorobenzene	0.22	Not Detected	1.3	Not Detected
1,2,4-Trichlorobenzene	1.1	Not Detected U J	8.3	Not Detected U J

J = Estimated value.
UJ = Non-detected compound associated with low bias in the CCV

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
None Identified			

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	96	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: BPS1-FB2007-00

Lab ID#: 0901113-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**s011422sim**	**Date of Collection: 1/6/09**	
Dil. Factor:	**2.23**	**Date of Analysis: 1/15/09 11:15 AM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (uG/m3)**	**Amount (uG/m3)**
Trichloroethene	0.045	0.071	0.24	0.38

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	99	70-130

APPENDIX F

DATA VALIDATION SUMMARIES

TETRA TECH NUS **INTERNAL CORRESPONDENCE**

TO: **ROB SOK** **DATE:** **DECEMBER 30, 2008**

FROM: **MARK TRAXLER** **COPIES:** **FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs by EPA Method TO-15**
Contract Task Order (CTO) 147
Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage, Bethpage, New York
SAMPLE DELIVERY GROUP (SDG) – 0810701

SAMPLES: **8/Air/**

BPS1-FB2004-00	BPS1-SG2006-49	BPS1-SG2004-20
BPS1-SG2004-08	BPS1-SG2004-49	BPS1-SG2001-20
BPS1-SG2001-08	BPS1-DUP-02	

OVERVIEW

The sample set for CTO 147 NWIRP Bethpage, Bethpage, New York, SDG 0810701, consists of eight (8) 6-liter SUMMA canister (100% certified) air environmental samples (designated BPS1-). One pair of field duplicate samples (BPS1-FB2004-49/BPS1-DUP-02) was included in this data set.

All samples were analyzed for a list of 42 Volatile Organic Compounds (VOCs) following a modified EPA Method TO-15 using Gas Chromatography/Mass Spectrometry (GC/MS) in the Full Scan and Selective Ion Monitoring (SIM) acquisition modes.

The samples were collected by Tetra Tech NUS on October 28-29, 2008 and analyzed by Air Toxics Ltd. of Folsom, California. All analyses were conducted in accordance with Naval Facilities Engineering Services Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria. The data contained in this SDG were validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
* • GC/MS Tuning
  • Initial/Continuing Calibrations
  • Laboratory Method Blank Results
* • Surrogate Recoveries
* • Laboratory Control Sample Results
* • Laboratory Duplicate Results
* • Internal Standards
* • Field Duplicate Precision
* • Compound Quantitation
* • Compound Identification
* • Detection Limits

The symbol (*) indicates that QC acceptance criteria were met for this parameter.

Problems affecting data quality are discussed below. Qualified analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B. Documentation supporting these findings is presented in Appendix C.

Initial/Continuing Calibrations

The initial calibration analyzed on November 6, 2008 exceeded the QC criteria of a Relative Standard Deviation (RSD) of 30 percent (30%) for the following compounds: methylene chloride and 1,1,1-trichloroethane. The positive and non-detected results for these compounds were qualified (J/UJ) as a result of a poor initial calibration.

Laboratory Method/Preparation Blank Analyses

The following contaminants were detected in the laboratory method/preparation blank(s) at the following maximum concentration(s):

Analyte	Maximum Concentration	Action Level
Methylene Chloride [1]	0.10 ppbv	1.0 ppbv
Trichloroethene [2]	0.0015 ppbv	0.0075 ppbv
Trans-1,2-dichloroethene [3]	0.073 ppbv	0.365 ppbv
2-Butanone [1]	0.25 ppbv	2.50 ppbv
Trans-1,3-dichloropropene [3]	0.074 ppbv	0.37 ppbv
1,2-Dibromoethane [3]	0.081 ppbv	0.405 ppbv
Styrene [3]	0.062 ppbv	0.31 ppbv
Bromoform [3]	0.078 ppbv	0.39 ppbv
1,3-Dichlorobenzene [3]	0.10 ppbv	0.50 ppbv
1,4-Dichlorobenzene [3]	0.14 ppbv	0.70 ppbv
1,2-Dichlorobenzene [3]	0.13 ppbv	0.65 ppbv
1,2-Dichlorobenzene [2]	0.012 ppbv	0.06 ppbv

ppbv – parts per billion by volume

[1] Concentration of this common laboratory contaminate was present in a laboratory method blank affecting all air samples in this SDG.

[2] Concentration present in the laboratory method blank analyzed on November 10, 2008 affecting all samples analyzed on that date.

[3] Concentration present in the laboratory method blank analyzed on November 11, 2008 affecting all samples analyzed on that date.

An action level of five times (5X) the maximum contaminant level has been used to evaluate sample data for blank contamination, except for common laboratory contaminants (methylene chloride), where an action level of 10X the maximum contaminant level has been used. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for the above analytes were qualified (U) as a result of laboratory blank contamination. Methylene chloride, 2-butanone, styrene, and trans-1,2-dichloroethene were qualified due to laboratory blank contamination.

Compound Quantitation

Positive results reported below the laboratory's established RL, but above the laboratory's method detection limit (MDL) for VOCs by modified EPA Method TO-15 were qualified as estimated (J).

Acetone results exceeded the calibration range for several samples. The acetone results for those samples were qualified (J) due to a calibration range exceedance.

Compound Identification

The laboratory was contracted to provide a list of 52 target VOCs for the October 2008 soil gas sampling event for this project, but provided reports with only 42 target VOCs, following the list of compounds that they were contracted to provide for this project during the January 2008 sampling event. Due to this error, the laboratory has agreed to add ten (10) Tentatively Identified Compounds (TICs) and provide the results from the TICs search to the Project Manager in the near future. The TICs are not addressed in this Data Validation Report. A separate report summarizing the TIC data for the October 2008 sampling event may be provided to the Project Manager after the data is obtained.

Detection Limits

The laboratory was contracted to provide detection limits of 0.050 ppbv for 17 target VOCs (including trichloroethene), not taking into account sample dilution due to canister pressurization, with detection limits of 0.10 ppbv (or 0.50 ppbv for a select few VOCs) for the remaining target compounds. However, the laboratory provided reporting limits of 0.10 ppbv (or 0.50 ppbv for a select few VOCs) for all target compounds except trichloroethene, which was analyzed by SIM down to 0.020 ppbv. For the other 16 target VOCs, there is a potential for low-level concentrations that may have gone undetected by the laboratory which may be of interest for the project.

NOTES

The laboratory blanks exhibited no contamination for any of the VOC analytes above the RL.

The laboratory noted that the Chain of Custody information for sample BPS1-SG2004-20 did not match the information on the canister with regard to canister identification.

Samples BPS1-SG2001-20 and BPS1-SG2001-08 arrived at ambient pressure. The samples were collected using flow controllers.

Laboratory duplicate results for sample 0810701-03 exceeded the air QC criteria of a Relative Percent Deviation (RPD) of 20 percent (20%) for the following compounds: benzene, methyl tert-butyl ether, styrene, and trans-1,2-dichloroethene. However, since these compounds did not exceed 5X the reporting limit (RL) and the difference between the two values did not exceed the RL, no results were qualified.

EXECUTIVE SUMMARY

Laboratory Performance: Methylene chloride, 2-butanone, styrene, and trans-1,2-dichloroethene were qualified due to laboratory blank contamination. Two (2) target RSDs exceeded the QC criteria for initial calibrations.

Other Factors Affecting Data Quality: VOCs were detected in associated blanks. Acetone results for two samples exceeded the calibration range of the instrument. Peaks that were not identified and reported by the laboratory were observed in the chromatograms of some samples.

The data for these analyses were reviewed with reference to the Tetra Tech NUS Standard Operating Procedure DV-02 (8/01) "Data Validation for Non-CLP Organics for Solid Matrices" and EPA "Functional Guidelines for Organic Data Review", as amended for use within EPA Region II following the "USEPA Hazardous Waste Support Branch, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15," SOP #HW-31, Revision 4 (10/06).

The text of this report has been formatted to address only those problem areas affecting data quality.

Tetra Tech NUS
Mark Traxler
Senior Environmental Scientist

for
Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Laboratory Analytical Results
3. Appendix C - Support Documentation

TETRA TECH NUS **INTERNAL CORRESPONDENCE**

TO: **ROB SOK** **DATE:** **DECEMBER 30, 2008**

FROM: **MARK TRAXLER** **COPIES:** **FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs by EPA Method TO-15**
Contract Task Order (CTO) 147
Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage, Bethpage, New York
SAMPLE DELIVERY GROUP (SDG) – 0810745

SAMPLES: **4/Air/**

BPS1-SG2001-49 BPS1- SG2002-20 BPS1- SG2002-08
BPS1- SG2002-44

OVERVIEW

The sample set for CTO 147 NWIRP Bethpage, Bethpage, New York, SDG 0810745, consists of four (4) 6-liter SUMMA canister (100% certified) air environmental samples (designated BPS1-). No field duplicate samples were included in this data set.

All samples were analyzed for a list of 42 Volatile Organic Compounds (VOCs) following a modified EPA Method TO-15 using Gas Chromatography/Mass Spectrometry (GC/MS) in the Full Scan and Selective Ion Monitoring (SIM) acquisition modes.

The samples were collected by Tetra Tech NUS on October 30, 2008 and analyzed by Air Toxics Ltd. of Folsom, California. All analyses were conducted in accordance with Naval Facilities Engineering Services Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria. The data contained in this SDG were validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
* • GC/MS Tuning
* • Initial/Continuing Calibrations
  • Laboratory Method Blank Results
* • Surrogate Recoveries
* • Laboratory Control Sample Results
* • Laboratory Duplicate Results
* • Internal Standards
* • Compound Quantitation
* • Compound Identification
* • Detection Limits

The symbol (*) indicates that QC acceptance criteria were met for this parameter.

Problems affecting data quality are discussed below. Qualified analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B. Documentation supporting these findings is presented in Appendix C.

Laboratory Method/Preparation Blank Analyses

The following contaminants were detected in the laboratory method/preparation blank(s) at the following maximum concentration(s):

Analyte	Maximum Concentration	Action Level
Acetone [(1)]	0.13 ppbv	1.3 ppbv
Carbon disulfide [(1)]	0.048 ppbv	0.24 ppbv
Methylene chloride [(1)]	0.12 ppbv	1.2 ppbv
1,2-Dichloroethane [(1)]	0.030 ppbv	0.15 ppbv
Trichloroethene [(1)]	0.0015 ppbv	0.0075 ppbv
Toluene [(1)]	0.039 ppbv	0.195 ppbv
Trans-1,3-dichloropropene [(1)]	0.12 ppbv	0.60 ppbv
Dibromochloromethane [(1)]	0.024 ppbv	0.12 ppbv
Chlorobenzene [(1)]	0.053 ppbv	0.165 ppbv
Styrene [(1)]	0.050 ppbv	0.25 ppbv
1,3-Dichlorobenzene [(1)]	0.10 ppbv	0.50 ppbv
1,4-Dichlorobenzene [(1)]	0.14 ppbv	0.70 ppbv
1,2-Dichlorobenzene [(1)]	0.11 ppbv	0.55 ppbv
1,2,4-Trichlorobenzene [(1)]	0.20 ppbv	1.0 ppbv

ppbv – parts per billion by volume

(1) Concentration present in the laboratory method blank analyzed on November 11, 2008 affecting all air samples analyzed on November 12, 2008.

An action level of five times (5X) the maximum contaminant level has been used to evaluate sample data for blank contamination, except for common laboratory contaminants (acetone and methylene chloride), where an action level of 10X the maximum contaminant level has been used. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for the above analytes were qualified (U) as a result of laboratory blank contamination. Carbon disulfide, methylene chloride, and styrene were qualified due to laboratory blank contamination.

Compound Quantitation

Positive results reported below the laboratory's established reporting limit (RL), but above the laboratory's method detection limit (MDL) for VOCs by modified EPA Method TO-15 were qualified as estimated (J).

Compound Identification

The laboratory was contracted to provide a list of 52 target VOCs for the October 2008 soil gas sampling event for this project, but provided reports with only 42 target VOCs, following the list of compounds that they were contracted to provide for this project during the January 2008 sampling event. Due to this error, the laboratory has agreed to add ten (10) Tentatively Identified Compounds (TICs) and provide the results from the TICs search to the Project Manager in the near future. The TICs are not addressed in this Data Validation Report. A separate report summarizing the TIC data for the October 2008 sampling event may be provided to the Project Manager after the data is obtained.

Detection Limits

The laboratory was contracted to provide detection limits of 0.050 ppbv for 17 target VOCs (including trichloroethene), not taking into account sample dilution due to canister pressurization, with detection limits of 0.10 ppbv (or 0.50 ppbv for a select few VOCs) for the remaining target compounds. However, the laboratory provided reporting limits of 0.10 ppbv (or 0.50 ppbv for a select few VOCs) for all target compounds except trichloroethene, which was analyzed by SIM down to 0.020 ppbv. For the other 16 target VOCs, there is a potential for low-level concentrations that may have gone undetected by the laboratory which may be of interest for the project.

NOTES

The laboratory blanks exhibited no contamination for any of the VOC analytes above the RL. The laboratory may have misidentified "BPS1" as "BPSI" on all samples in this SDG.

The laboratory noted that samples BPSI-SG2001-49, BPSI-SG2002-20, and BPSI-SG2002-08 arrived at ambient pressure yet flow controllers were used for sample collection.

EXECUTIVE SUMMARY

Laboratory Performance: Carbon disulfide, methylene chloride, and styrene were qualified due to laboratory blank contamination.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the Tetra Tech NUS Standard Operating Procedure DV-02 (8/01) "Data Validation for Non-CLP Organics for Solid Matrices" and EPA "Functional Guidelines for Organic Data Review", as amended for use within EPA Region II following the "USEPA Hazardous Waste Support Branch, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15," SOP #HW-31, Revision 4 (10/06).

The text of this report has been formatted to address only those problem areas affecting data quality.

Tetra Tech NUS
Mark Traxler
Senior Environmental Scientist

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Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Laboratory Analytical Results
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TETRA TECH NUS **INTERNAL CORRESPONDENCE**

TO: **ROB SOK** **DATE:** **DECEMBER 30, 2008**

FROM: **MARK TRAXLER** **COPIES:** **FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs by EPA Method TO-15**
Contract Task Order (CTO) 147
Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage, Bethpage, New York
SAMPLE DELIVERY GROUP (SDG) – 0811019

SAMPLES: **6/Air/**

BPS1-FB2005-00	BPS1- SG2003-49	BPS1- SG2003-20
BPS1- SG2003-08	BPS1-FB2006-00	BPS1-DUP-03

OVERVIEW

The sample set for CTO 147 NWIRP Bethpage, Bethpage, New York, SDG 0811019, consists of six (6) 6-liter SUMMA canister (100% certified) air environmental samples (designated BPS1-). One pair of field duplicate samples (BPS1-FB2003-08/BPS1-DUP-03) was included in this data set.

All samples were analyzed for a list of 42 Volatile Organic Compounds (VOCs) following a modified EPA Method TO-15 using Gas Chromatography/Mass Spectrometry (GC/MS) in the Full Scan and Selective Ion Monitoring (SIM) acquisition modes.

The samples were collected by Tetra Tech NUS on October 30-31, 2008 and analyzed by Air Toxics Ltd. of Folsom, California. All analyses were conducted in accordance with Naval Facilities Engineering Services Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria. The data contained in this SDG were validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
* • GC/MS Tuning
• Initial/Continuing Calibrations
• Laboratory Method Blank Results
* • Surrogate Recoveries
* • Laboratory Control Sample Results
* • Laboratory Duplicate Results
* • Internal Standards
* • Field Duplicate Precision
• Compound Quantitation
* • Compound Identification
* • Detection Limits

The symbol (*) indicates that QC acceptance criteria were met for this parameter.

Problems affecting data quality are discussed below. Qualified analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B. Documentation supporting these findings is presented in Appendix C.

Initial/Continuing Calibrations

The initial calibration analyzed on November 6, 2008 exceeded the QC criteria of a Relative Standard Deviation (RSD) of 30% for the following compounds: methylene chloride and 1,1,1-trichloroethane. The positive and non-detected results for these compounds were qualified (J/UJ) as a result of a noncompliant initial calibration.

Laboratory Method/Preparation Blank Analyses

The following contaminants were detected in the laboratory method/preparation blank(s) at the following maximum concentration(s):

Analyte	Maximum Concentration	Action Level
Trichloroethene [1]	0.0018 ppbv	0.0090 ppbv

ppbv – parts per billion by volume

[1] Concentration present in a laboratory method blank affecting all air samples in this SDG.

An action level of five times (5X) the maximum contaminant level has been used to evaluate sample data for blank contamination, except for common laboratory contaminants (methylene chloride), where an action level of 10X the maximum contaminant level has been used. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for the above analytes were qualified (U) as a result of laboratory blank contamination. Trichloroethene was qualified due to laboratory blank contamination.

Compound Quantitation

Positive results reported below the laboratory's established RL, but above the laboratory's method detection limit (MDL) for VOCs by modified EPA Method TO-15, were qualified as estimated (J).

Acetone results exceeded the calibration range for the following samples: 0811019-02A and 0811019-03A. The acetone results for these samples were qualified (J) due to an exceeded calibration range.

Compound Identification

The laboratory was contracted to provide a list of 52 target VOCs for the October 2008 soil gas sampling event for this project, but provided reports with only 42 target VOCs, following the list of compounds that they were contracted to provide for this project during the January 2008 sampling event. Due to this error, the laboratory has agreed to add ten (10) Tentatively Identified Compounds (TICs) and provide the results from the TICs search to the Project Manager in the near future. The TICs are not addressed in this Data Validation Report. A separate report summarizing the TIC data for the October 2008 sampling event may be provided to the Project Manager after the data is obtained.

Detection Limits

The laboratory was contracted to provide detection limits of 0.050 ppbv for 17 target VOCs (including trichloroethene), not taking into account sample dilution due to canister pressurization, with detection limits of 0.10 ppbv (or 0.50 ppbv for a select few VOCs) for the remaining target compounds. However, the laboratory provided reporting limits of 0.10 ppbv (or 0.50 ppbv for a select few VOCs) for all target compounds except trichloroethene, which was analyzed by SIM down to 0.020 ppbv. For the other 16 target VOCs, there is a potential for low-level concentrations that may have gone undetected by the laboratory which may be of interest for the project.

NOTES

The laboratory blanks exhibited no contamination for any of the VOC analytes above the RL.

The laboratory noted that the Chain of Custody was missing method information, information for sample BPS1-DUP-03 did not match the information on the canister with regard to canister identification, and samples BPS1-SG2003-49 and BPS1-SG2003-20 arrived at ambient pressure yet flow controllers were used for sample collection.

Laboratory duplicate results for sample 0811019-03 exceeded the air QC criteria of a Relative Percent Deviation (RPD) of 20 percent (20%) for the following compounds: 1,3-dichlorobenzene, chloromethane, and Freon 12. However, since these compounds did not exceed two times the reporting limit (2xRL) and the difference between the two values did not exceed the RL, no results were qualified.

EXECUTIVE SUMMARY

Laboratory Performance: Trichloroethene was qualified due to laboratory blank contamination. Two (2) target compounds exceeded the QC criteria for RSDs in initial calibrations. Peaks that were not identified and reported by the laboratory were observed in the chromatograms of some samples.

Other Factors Affecting Data Quality: Acetone results for two samples exceeded the calibration range of the instrument.

The data for these analyses were reviewed with reference to the Tetra Tech NUS Standard Operating Procedure DV-02 (8/01) "Data Validation for Non-CLP Organics for Solid Matrices" and EPA "Functional Guidelines for Organic Data Review", as amended for use within EPA Region II following the "USEPA Hazardous Waste Support Branch, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15," SOP #HW-31, Revision 4 (10/06).

The text of this report has been formatted to address only those problem areas affecting data quality.

Tetra Tech NUS
Mark Traxler
Senior Environmental Scientist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Laboratory Analytical Results
3. Appendix C - Support Documentation

TETRA TECH NUS **INTERNAL CORRESPONDENCE**

TO: **ROB SOK** **DATE:** **DECEMBER 30, 2008**

FROM: **MARK TRAXLER** **COPIES:** **FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs by EPA Method TO-15**
Contract Task Order (CTO) 147
Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage, Bethpage, New York
SAMPLE DELIVERY GROUP (SDG) – 0810643

SAMPLES: **7/Air/**

BPS1-FB2003-00	BPS1-SG2007-49	BPS1-SG2006-20
BPS1-SG2006-08	BPS1-SG2005-49	BPS1-SG2005-20
BPS1-SG2005-08		

OVERVIEW

The sample set for CTO 147 NWIRP Bethpage, Bethpage, New York, SDG 0810643, consists of seven (7) 6-liter SUMMA canister (100% certified) air environmental samples (designated BPS1-). No field duplicate samples were included in this data set.

All samples were analyzed for a list of 42 Volatile Organic Compounds (VOCs) following a modified EPA Method TO-15 using Gas Chromatography/Mass Spectrometry (GC/MS) in the Full Scan and Selective Ion Monitoring (SIM) acquisition modes.

The samples were collected by Tetra Tech NUS on October 24th and 27th, 2008 and analyzed by Air Toxics Ltd. of Folsom, California. All analyses were conducted in accordance with Naval Facilities Engineering Services Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria. The data contained in this SDG were validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
* • GC/MS Tuning
• Initial/Continuing Calibrations
• Laboratory Method Blank Results
* • Surrogate Recoveries
* • Laboratory Control Sample Results
* • Laboratory Duplicate Results
* • Internal Standards
* • Compound Quantitation
* • Compound Identification
* • Detection Limits

The symbol (*) indicates that QC acceptance criteria were met for this parameter.

Problems affecting data quality are discussed below. Qualified analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B. Documentation supporting these findings is presented in Appendix C.

Initial/Continuing Calibrations

The initial calibration analyzed on October 22, 2008 exceeded the QC acceptance criteria of a Relative Standard Deviation (RSD) of 30 percent (30%) for the following target compounds: Freon 113 (1,1,2-trichloro-1,2,2-trifluoroethane), carbon disulfide, methylene chloride and trans-1,2-dichloroethene. The positive and non-detected results for these compounds were qualified (J/UJ) as a result of an exceedance of initial calibration QC acceptance criteria.

The continuing calibration verification (CCV) analyzed on November 4, 2008 exceeded the QC acceptance criteria of 30 percent difference (30%D) for acetone. Positive acetone results were qualified (J) due to an exceedance in the continuing calibration.

Laboratory Method/Preparation Blank Analyses

The following contaminants were detected in the laboratory method/preparation blank(s) at the following maximum concentration(s):

Analyte	Maximum Concentration	Action Level
Acetone [(1)]	0.13 ppbv	1.3 ppbv
1,2,4-Trichlorobenzene [(1)]	0.042 ppbv	0.21 ppbv

[(1)] Concentration present in a laboratory method blank affecting all air samples in this SDG.
Ppbv – parts per billion by volume

An action level of five times (5X) the maximum contaminant level has been used to evaluate sample data for blank contamination, except for common laboratory contaminants (acetone), where an action level of 10X the maximum contaminant level has been used. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for the above analytes were qualified (U) as a result of laboratory blank contamination. No compound results were qualified due to laboratory blank contamination.

Laboratory Control Sample Results

The laboratory control sample (LCS) analyzed on November 4, 2008 exceeded the QC acceptance criteria of 30%D for Freon 11 (trichlorofluoromethane). Based on professional judgment, positive Freon 11 results were qualified (J) due to an exceedance in the LCS.

Compound Quantitation

Positive results reported below the laboratory's established reporting limit (RL), but above the laboratory's method detection limit (MDL) for VOCs by modified EPA Method TO-15, were qualified as estimated (J).

Acetone results exceeded the calibration range for all samples except 0810643-01A. The acetone results for these samples were qualified (J) due to a calibration range exceedance.

Compound Identification

The laboratory was contracted to provide a list of 52 target VOCs for the October 2008 soil gas sampling event for this project, but provided reports with only 42 target VOCs, following the list of compounds that they were contracted to provide for this project during the January 2008 sampling event. Due to this error, the laboratory has agreed to add ten (10) Tentatively Identified Compounds (TICs) and provide the results from the TICs search to the Project Manager in the near future. The TICs are not addressed in this Data

Validation Report. A separate report summarizing the TIC data for the October 2008 sampling event may be provided to the Project Manager after the data is obtained.

Detection Limits

The laboratory was contracted to provide detection limits of 0.050 ppbv for 17 target VOCs (including trichloroethene), not taking into account sample dilution due to canister pressurization, with detection limits of 0.10 ppbv (or 0.50 ppbv for a select few VOCs) for the remaining target compounds. However, the laboratory provided reporting limits of 0.10 ppbv (or 0.50 ppbv for a select few VOCs) for all target compounds except trichloroethene, which was analyzed by SIM down to 0.020 ppbv. For the other 16 target VOCs, there is a potential for low-level concentrations that may have gone undetected by the laboratory which may be of interest for the project.

NOTES

The laboratory blanks exhibited no contamination for any of the VOC analytes above the RL.

Laboratory duplicate results for sample 0810643-01 exceeded the air QC criteria of 20 Relative Percent Deviation (RPD) for the following compounds: 2-butanone, bromomethane, carbon tetrachloride, and methylene chloride. However, since these compounds did not exceed 5X the RL and the difference between the two values did not exceed the RL, no results were qualified.

EXECUTIVE SUMMARY

Laboratory Performance: Four (4) target compounds exceeded the QC criteria for RSDs in the initial calibration. Acetone exceeded the QC criteria for %D in a continuing calibration. Freon 11 exceeded the QC criteria for %D in a LCS.

Other Factors Affecting Data Quality: Several acetone results exceeded the calibrated range of the instrument. Peaks that were not identified and reported by the laboratory were observed in the chromatograms of some samples.

The data for these analyses were reviewed with reference to the Tetra Tech NUS Standard Operating Procedure DV-02 (8/01) "Data Validation for Non-CLP Organics for Solid Matrices" and EPA "Functional Guidelines for Organic Data Review", as amended for use within EPA Region II following the "USEPA Hazardous Waste Support Branch, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15," SOP #HW-31, Revision 4 (10/06).

The text of this report has been formatted to address only those problem areas affecting data quality.

Tetra Tech NUS
Mark Traxler
Senior Environmental Scientist

for
Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Laboratory Analytical Results
3. Appendix C - Support Documentation

TETRA TECH NUS INTERNAL CORRESPONDENCE

TO: ROB SOK **DATE:** DECEMBER 30, 2008

FROM: MARK TRAXLER **COPIES:** FILE

SUBJECT: **ORGANIC DATA VALIDATION – VOCs by EPA Method TO-15**
Contract Task Order (CTO) 147
Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage, Bethpage, New York
SAMPLE DELIVERY GROUP (SDG) – 0810584AR1

SAMPLES: **10/Air/**

BPS1-SG2009-48	BPS1-SG2009-08	BPS1-SG2009-25
BPS1-FB2001-00	BPS1-SG2008-08	BPS1-SG2008-20
BPS1-SG2008-49	BPS1-SG2007-20	BPS1-SG2007-08
BPS1-DUP-01		

OVERVIEW

The sample set for CTO 147 NWIRP Bethpage, Bethpage, New York, SDG 0810584AR1, consists of ten (10) 6-liter SUMMA canister (100% certified) air environmental sample. One field duplicate pair (BPS1-SG2007-20/BPS1-DUP-01) was included in this data set.

All samples were analyzed for a list of 42 Volatile Organic Compounds (VOCs) following a modified EPA Method TO-15 using Gas Chromatography/Mass Spectrometry (GC/MS) in the Full Scan and Selective Ion Monitoring (SIM) acquisition modes.

The samples were collected by Tetra Tech NUS on October 21st-23rd, 2008 and analyzed by Air Toxics Ltd. of Folsom, California. All analyses were conducted in accordance with Naval Facilities Engineering Services Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria. The data contained in this SDG were validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
* • GC/MS Tuning
• Initial/Continuing Calibrations
• Laboratory Method Blank Results
* • Surrogate Recoveries
• Laboratory Control Sample Results
* • Laboratory Duplicate Results
* • Internal Standards
* • Field Duplicate Precision
• Compound Quantitation
* • Compound Identification
* • Detection Limits

The symbol (*) indicates that QC acceptance criteria were met for this parameter.

Problems affecting data quality are discussed below. Qualified analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B. Documentation supporting these findings is presented in Appendix C.

Initial/Continuing Calibrations

The initial calibration analyzed on October 22, 2008 exceeded the QC acceptance criteria of a Relative Standard Deviation (RSD) of 30 percent (30%) for the following target compounds: Freon 113 (1,1,2-trichloro-1,2,2-trifluoroethane), carbon disulfide, methylene chloride and trans-1,2-dichloroethene. The positive and non-detected results for these compounds were qualified (J/UJ) as a result of initial calibration QC acceptance criteria exceedance.

The continuing calibration verification (CCV) analyzed on November 3, 2008 exceeded the QC acceptance criteria of 30 percent difference (30%D) for methylene chloride. Positive methylene chloride results were qualified (J) due to an exceedance in the continuing calibration.

Laboratory Method/Preparation Blank Analyses

The following contaminants were detected in the laboratory method/preparation or field blank(s) at the following maximum concentration(s):

Analyte	Maximum Concentration	Action Level
Acetone [(1)]	0.13 ppbv	1.30 ppbv
1,2,4-Trichlorobenzene [(1)]	0.042 ppbv	0.21 ppbv

[(1)] Concentration present in the laboratory method blank analyzed on November 4, 2008 affecting all air samples in this SDG.

ppbv – parts per billion by volume

An action level of five times (5X) the maximum contaminant level has been used to evaluate sample data for blank contamination, except for common laboratory contaminants (acetone), where an action level of 10X the maximum contaminant level has been used. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for the above analytes were qualified (U) as a result of laboratory blank contamination. 1,2,4-trichlorobenzene was qualified due to laboratory blank contamination.

Laboratory Control Sample Results

The laboratory control samples (LCS) analyzed on November 3rd and 4th, 2008 exceeded the QC acceptance criteria of 30%D for Freon 11 (trichlorofluoromethane). Based on professional judgment, positive Freon 11 results were qualified (J) due to an exceedance in the LCS unless previously qualified due to blank contamination.

Compound Quantitation

Positive results reported below the laboratory's established reporting limit (RL), but above the laboratory's method detection limit (MDL) for VOCs by modified EPA Method TO-15, were qualified as estimated (J). Acetone results exceeded the calibration range for all of the samples in this SDG, except 0810584AR1-04A. The acetone results for these samples were qualified (J) due to an exceeded calibration range.

Compound Identification

The laboratory was contracted to provide a list of 52 target VOCs for the October 2008 soil gas sampling event for this project, but provided reports with only 42 target VOCs, following the list of compounds that they were contracted to provide for this project during the January 2008 sampling event. Due to this error, the laboratory has agreed to add ten (10) Tentatively Identified Compounds (TICs) and provide the results from the TICs search to the Project Manager in the near future. The TICs are not addressed in this Data Validation Report. A separate report summarizing the TIC data for the October 2008 sampling event may be provided to the Project Manager after the data is obtained.

Detection Limits

The laboratory was contracted to provide detection limits of 0.050 ppbv for 17 target VOCs (including trichloroethene), not taking into account sample dilution due to canister pressurization, with detection limits of 0.10 ppbv (or 0.50 ppbv for a select few VOCs) for the remaining target compounds. However, the laboratory provided reporting limits of 0.10 ppbv (or 0.50 ppbv for a select few VOCs) for all target compounds except trichloroethene, which was analyzed by SIM and reported down to 0.020 ppbv. For the other 16 target VOCs, there is a potential for low-level concentrations that may have gone undetected by the laboratory which may be of interest for the project.

NOTES

The laboratory blanks exhibited no contamination for any of the VOC analytes above the RL. The laboratory may have misidentified "BPS1" as "BPSI" on all samples in this SDG. The laboratory noted that the Chain of Custody information for sample BPSI-SG2009-25 did not match the information on the canister with regard to canister identification and samples BPSI-SG2009-25, BPSI-SG2008-08, and BPSI-SG2007-49 arrived at ambient pressure yet flow controllers were used for sample collection.

Laboratory duplicate results for sample 0810584AR1-04 exceeded the air QC criteria of a Relative Percent Deviation (RPD) of 20 percent (20%) for the following compounds: methyl ethyl ketone, bromomethane, and tetrachloroethene. The difference between duplicate results for the aforementioned compounds did not exceed the Contract Required Detection Limit (CRDL) and one or both corresponding duplicate results were less than 5X the CRDL; therefore, no results were qualified.

One field duplicate pair (BPS1-SG2007-20/BPS1-DUP-01) was analyzed with this SDG. Field duplicate results exceeded the air QC criteria of 20% RPD for the following compounds: 1,1-dichloroethene and 1,2,4-trichlorobenzene. No results were qualified due to field duplicate imprecision because these compounds did not exceed two times the reporting limit (2xRL) and the difference between the two values did not exceed the RL.

The laboratory did not provide any leak test information.

EXECUTIVE SUMMARY

Laboratory Performance: Four (4) target compounds exceeded the QC criteria for RSDs in the initial calibration. Methylene chloride exceeded the QC criteria for %D in a continuing calibration. Freon 11 exceeded the QC criteria for %D in a LCS. 1,2,4-trichlorobenzene was qualified due to laboratory blank contamination.

Other Factors Affecting Data Quality: VOCs were detected in associated blanks. Acetone results exceeded the calibration range. Peaks that were not identified and reported by the laboratory were observed in the chromatograms of some samples.

The data for these analyses were reviewed with reference to the Tetra Tech NUS Standard Operating Procedure DV-02 (8/01) "Data Validation for Non-CLP Organics for Solid Matrices" and EPA "Functional Guidelines for Organic Data Review", as amended for use within EPA Region II following the "USEPA Hazardous Waste Support Branch, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15," SOP #HW-31, Revision 4 (10/06).

The text of this report has been formatted to address only those problem areas affecting data quality.

Tetra Tech NUS
Mark Traxler
Senior Environmental Scientist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Laboratory Analytical Results
3. Appendix C - Support Documentation

TETRA TECH NUS **INTERNAL CORRESPONDENCE**

TO: **ROB SOK** **DATE:** **DECEMBER 30, 2008**

FROM: **MARK TRAXLER** **COPIES:** **FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs by EPA Method TO-15**
Contract Task Order (CTO) 147
Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage, Bethpage, New York
SAMPLE DELIVERY GROUP (SDG) – 0810584B

SAMPLES: **1/Air/**

BPS1-FB2002-00

OVERVIEW

The sample set for CTO 147 NWIRP Bethpage, Bethpage, New York, SDG 0810584B, consists of one (1) 6-liter SUMMA canister (100% certified) air environmental sample (designated BPS1-). No field duplicate samples were included in this data set.

All samples were analyzed for a list of 42 Volatile Organic Compounds (VOCs) following a modified EPA Method TO-15 using Gas Chromatography/Mass Spectrometry (GC/MS) in the Full Scan and Selective Ion Monitoring (SIM) acquisition modes.

The samples were collected by Tetra Tech NUS on October 23, 2008 and analyzed by Air Toxics Ltd. of Folsom, California. All analyses were conducted in accordance with Naval Facilities Engineering Services Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria. The data contained in this SDG were validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
* • GC/MS Tuning
• Initial/Continuing Calibrations
• Laboratory Method Blank Results
* • Surrogate Recoveries
• Laboratory Control Sample Results
* • Laboratory Duplicate Results
* • Internal Standards
* • Compound Quantitation
* • Compound Identification
* • Detection Limits

The symbol (*) indicates that QC acceptance criteria were met for this parameter.

Problems affecting data quality are discussed below. Qualified analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B. Documentation supporting these findings is presented in Appendix C.

Initial/Continuing Calibrations

The initial calibration analyzed on October 22, 2008 exceeded the QC acceptance criteria of a Relative Standard Deviation (RSD) of 30 percent (30%) for the following target compounds: Freon 113 (1,1,2-trichloro-1,2,2-trifluoroethane), carbon disulfide, methylene chloride and trans-1,2-dichloroethene. The positive and non-detected results for these compounds were qualified (J/UJ) as a result of initial calibration QC acceptance criteria exceedance.

The continuing calibration verification (CCV) analyzed on November 3, 2008 exceeded the QC acceptance criteria of 30 percent difference (30%D) for methylene chloride. The positive methylene chloride result reported was qualified (J) due to an exceedance in the continuing calibration.

The following contaminants were detected in the laboratory method/preparation blank(s) at the following maximum concentration(s):

Analyte	Maximum Concentration	Action Level
Acetone [(1)]	0.11 ppbv	1.10 ppbv
Bromomethane [(1)]	0.070 ppbv	0.35 ppbv
1,2,4-Trichlorobenzene [(1)]	0.020 ppbv	0.10 ppbv

[(1)] Concentration present in the laboratory method blank affecting all air samples in this SDG.

ppbv – parts per billion by volume

An action level of five times (5X) the maximum contaminant level has been used to evaluate sample data for blank contamination, except for common laboratory contaminants (acetone), where an action level of 10X the maximum contaminant level has been used. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for the above analytes were qualified (U) as a result of laboratory blank contamination. Bromomethane was qualified due to laboratory blank contamination.

Laboratory Control Sample Results

The laboratory control sample (LCS) analyzed on November 3, 2008 exceeded the QC acceptance criteria of 30%D for Freon 11 (trichlorofluoromethane). Based on professional judgment, the positive Freon 11 result was qualified (J) due to an exceedance in the LCS.

Compound Quantitation

Positive results reported below the laboratory's established reporting limit (RL), but above the laboratory's method detection limit (MDL) for VOCs by modified EPA Method TO-15, were qualified as estimated (J).

Compound Identification

The laboratory was contracted to provide a list of 52 target VOCs for the October 2008 soil gas sampling event for this project, but provided reports with only 42 target VOCs, following the list of compounds that they were contracted to provide for this project during the January 2008 sampling event. Due to this error, the laboratory has agreed to add ten (10) Tentatively Identified Compounds (TICs) and provide the results from the TICs search to the Project Manager in the near future. The TICs are not addressed in this Data Validation Report. A separate report summarizing the TIC data for the October 2008 sampling event may be provided to the Project Manager after the data is obtained.

Detection Limits

The laboratory was contracted to provide detection limits of 0.050 ppbv for 17 target VOCs (including trichloroethene), not taking into account sample dilution due to canister pressurization, with detection limits of 0.10 ppbv (or 0.50 ppbv for a select few VOCs) for the remaining target compounds. However, the laboratory provided reporting limits of 0.10 ppbv (or 0.50 ppbv for a select few VOCs) for all target compounds except trichloroethene, which was analyzed by SIM and reported down to 0.020 ppbv. For the other 16 target VOCs, there is a potential for low-level concentrations that may have gone undetected by the laboratory which may be of interest for the project.

NOTES

The laboratory blanks exhibited no contamination for any of the VOC analytes above the RL.

Laboratory duplicate results for sample 0810584AR1-04 (analyzed along with sample 0810584B-01) exceeded the air QC criteria of a Relative Percent Deviation (RPD) of 20 percent (20%) for the following compounds: methyl ethyl ketone, bromomethane, styrene, and tetrachloroethene. The difference between duplicate results for the aforementioned compounds did not exceed the Contract Required Detection Limit (CRDL) and one or both corresponding duplicate results were less than 5X the CRDL; therefore, no results were qualified.

EXECUTIVE SUMMARY

Laboratory Performance: Bromomethane was qualified due to laboratory blank contamination. Four (4) target compounds exceeded the QC criteria for RSDs in the initial calibration. Methylene chloride exceeded the QC criteria for %D in a continuing calibration. Freon 11 exceeded the QC criteria for %D in a LCS.

Other Factors Affecting Data Quality: VOCs were detected in associated blanks.

The data for these analyses were reviewed with reference to the Tetra Tech NUS Standard Operating Procedure DV-02 (8/01) "Data Validation for Non-CLP Organics for Solid Matrices" and EPA "Functional Guidelines for Organic Data Review", as amended for use within EPA Region II following the "USEPA Hazardous Waste Support Branch, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15," SOP #HW-31, Revision 4 (10/06).

The text of this report has been formatted to address only those problem areas affecting data quality.

Tetra Tech NUS
Mark Traxler
Senior Environmental Scientist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Laboratory Analytical Results
3. Appendix C - Support Documentation

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**R. SOK**	**DATE:**	**MARCH 20, 2009**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**
SUBJECT:	**ORGANIC DATA VALIDATION – VOC NWIRP BETHPAGE CTO 147 SDG 0901113**		
SAMPLES:	8/Air/VOC		

BPS1-DUP-04	BPS1-FB2007-00	BPS1-SG2010-08
BPS1-SG2010-24	BPS1-SG2010-49	BPS1-SG2011-08
BPS1-SG2011-24	BPS1-SG2011-48	

Overview

The sample set for NWIRP Bethpage, SDG 0901113 consists of eight (8) air environmental samples, including one (1) field blank BPS1-FB2007-00. The eight (8) air samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOC). There was one field duplicate associated with this data set BPS1-SG2010-49 / BPS1-DUP-04.

The samples were collected by Tetra Tech on January 6, 2009 and analyzed by Air Toxics LTD. All analyses were conducted in accordance with EPA Method TO-15 analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

*	• Data completeness
*	• Hold Times
*	• GCMS System Tuning and Performance
	• Initial/Continuing Calibrations
	• Laboratory Method Blank Results
*	• Surrogate Spike Recoveries
*	• Internal Standard Recoveries
	• Lab Duplicate Results
	• Field Duplicate 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 following compound was detected in the associated method blank at the maximum concentration as indicated below:

Compound	Maximum Conc. (ppbv)	Action Level (ppbv)
Benzene [1]	0.032	0.160

(1) Maximum concentration detected in the method blank #0901113-09A affecting all SDG samples.

Blank Actions
- Value < Reporting Limit (RL); value followed by a U.
- Value > RL and < Action level; report value followed by a U.

An action level of 5X was established to evaluate laboratory contamination for the aforementioned compound. Dilution factors and sample aliquots were taken into consideration during the application of all action levels. There were no positive results less than the action levels for any of the SDG samples and no samples were qualified for blank contamination.

The continuing calibration %D was greater than the 30% quality control limit for 1,2,4-trichlorobenzene for instrument MSDS on 01/14/09 @ 21:44 affecting all SDG samples. The non-detected results for 1,2,4-trichlorobenzene for all SDG samples were qualified estimated, (UJ).

The Laboratory Control Sample (LCS) % recovery was less than the quality control limit (50% vs. limit of 70%) for 1,2,4-trichlorobenzene on instrument MSDS on 01/14/09. The non-detected results for the all the SDG samples were qualified estimated, (UJ).

The field duplicate pair BPS1-SG2010-49 / BPS1-DUP-04 had %RPDs which exceeded the 50% quality control limit for 1,1,1-trichloroethane, 2-butanone, acetone, benzene, chloroform, ethylbenzene, m&p xylenes, o-xylene, styrene, tetrachloroethene, toluene, trichloroethene, and trichlorofluoromethane. The positive and non-detected aforementioned compounds for the sample duplicate pair were qualified estimated, (J) and (UJ), respectively.

The laboratory sample duplicate result %RPD was greater than the quality control limit for bromomethane for sample BPS1-SG2010-24. The positive bromomethane result for the sample was qualified estimated, (J).

Additional Comments

Positive results below the Reporting Limit (RL) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

Samples BPS1-DUP-04, BPS1-SG2011-48, BPS1-2011-24, and BPS1-2010-24 arrived at the laboratory at ambient pressure yet flow controllers were used for sample collection.

The compounds 1,1,3-trichlorotrifluoroethane, 2-butanone, acetone, benzene, carbon tetrachloride, chloromethane, dichlorodifluoromethane, m&p-xylenes, o-xylene, toluene, trichloroethene, and trichlorofluoromethane were detected in the field blank sample, BPS1-FB2007-00. Per the laboratory narrative, acetone and 2-butanone results in the field blank may be due to carryover from the previous sample which contained concentrations of these compounds which exceeded the calibration range of the instrument.

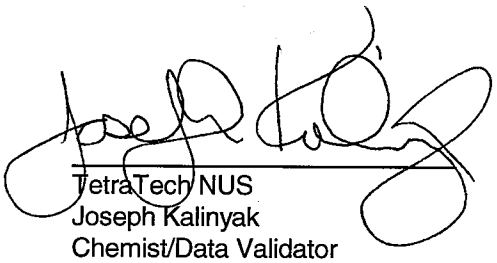
The acetone and 2-butanone results above the instrument calibration range for sample BPS1-DUP04 were qualified estimated, (J).

EXECUTIVE SUMMARY

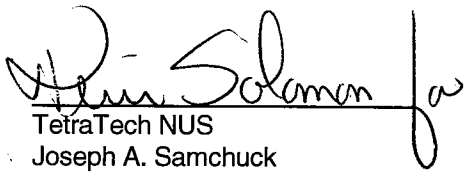
Laboratory Performance Issues: Benzene was detected in the method. There was a continuing calibration %D quality control limit exceedance. There were both field duplicate and lab duplicate %RPD quality control limit exceedances.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99),USEPA Region II Standard Operating Procedures for the Validation of Organic Data (January 1992), and the NFESC guidelines "Navy IRCDQM" (September 1999).



TetraTech NUS
Joseph Kalinyak
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