ONONDAGA LAKE PRE-DESIGN INVESTIGATION: PHASE II & III ODORANT CHARACTERIZATION AND ANALYSIS SUMMARY REPORT

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EXECUTIVE SUMMARY

As part of the Phase II & III Pre-Design Investigation conducted for Onondaga Lake, bench testing was conducted on sediment samples from key areas within the lake to obtain further information on controlling potential odors that may be generated during the remediation of the lake bottom. The objective of this study was to identify representative characteristics of the odor and attempt to identify which chemical compounds were primary potential contributors to the odors. Data obtained from these tests will not be used in the calculation of volatile or odor emission rates. This work was conducted as a follow up to the Phase I Wind Tunnel Testing, which generated information regarding potential volatile and odor emission rates for potential remediation scenarios, but did not provide enough information to conclude which specific compounds contributed to odors detected.

To adequately characterize the sediment that will be dredged, and to target the areas suspected to potentially be the most odoriferous, samples for this study were collected from sediment management units (SMUs) 1, 6, and 7. Based on the results obtained during the original testing, it was recommended that additional tests be run on SMU 6 sediments. This report has been updated to incorporate the results of this additional testing.

The sediment samples were mixed in a container with a headspace of air to allow the odor and chemical concentrations in the air to come into equilibrium with the sediment, and sampled/analyzed for specific chemical compounds and odor panel analyses. The tests and samples are not intended to be representative of conditions anticipated during Remedial Construction, but have been conducted in this way to ensure measurable concentrations of all of the targeted compounds is achieved. By conducting the tests in this way, odor and chemical concentrations of the air were maximized, facilitating characterization of the odor. The sample processing and sampling was conducted by Service Engineering Group in St. Paul Minnesota.

Based on the chemical concentration analyses and odor panel results, emission of specific volatile organic and sulfur compounds appear to have the biggest impact on the strength of the odors generated by the sediments during this study. Specific compounds detected in the headspace samples, including dimethyl disulfide, chlorobenzene, 1,4-dichlorobenzene, and naphthalene were measured in concentrations exceeding published odor threshold values, and demonstrated a strong correlation to the odor results during these tests. Compounds from the aldehyde and amine groups were found to have minimal correlation. The descriptions of the odors, most commonly described as “chemical” and “petrol”, would further support these compounds as being the primary odorants in these air samples.

The identification of these primary odor-causing compounds provides valuable insight regarding the chemistry and makeup of odors that may be generated during the Onondaga Lake remediation. This information may also provide further information regarding which sediments

may potentially generate the strongest odors, and may allow control measures taken during the design and execution of the remedy to be optimized to target specific compound groups.

SECTION 1

INTRODUCTION AND DATA SUMMARY

This report summarizes odor characterization and analysis conducted as part of the Phase II and Phase III Pre-Design Investigation (PDI) for the Onondaga Lake project. This testing was conducted in accordance with the NYSDEC approved Onondaga Lake Pre-Design Investigations: Phase II Work Plan Addendum 5 (Parsons, December 2006) and Phase III Work Plan (Parsons, May 2007), on sediment samples collected from Sediment Management Units (SMUs) 1, 6, and 7. The objective of the testing was to identify the characteristics of potential odors generated by Onondaga Lake sediment, and to identify potential odor-causing compounds. To provide assurance that adequate characterization is achieved, and to ensure maximum achievable chemical concentrations, tests were conducted on headspace air samples in equilibrium with the sediment sample within an enclosed sampling container, which would not be representative of conditions or concentrations anticipated during the execution of the remedy. Data generated from these bench studies are not intended to be used in the calculation of volatile or odor emission rates.

Typical odor causing compounds were targeted for this investigation, including sulfides, aldehydes, amines, and specific volatile organic compounds (VOCs). Additionally, several odor parameters, including odor strength (i.e., detection and recognition thresholds), were obtained by odor panel testing. Various data analyses were performed in order to establish correlations and patterns between the chemical concentrations and the various odor parameters, and to identify which parameters had the largest influence and impact on the odor parameters. This report has been prepared to document the results of the study, identify the primary odorant compounds, and allow development of an odor mitigation program for the remediation of Onondaga Lake.

1.1 SAMPLING METHODOLOGY

Sediment samples were collected from SMUs 1, 6, and 7 for odorant characterization testing. Sample locations were selected based on review of existing site data to identify sediment that is most likely to generate odors representative of each respective SMU. Approximately 5 gallons of sediment was collected from each sample location using a vibracore. SMU 1 and SMU 7 samples were collected from the 0-2 meter (0-6.6 ft) depth, and SMU 6 samples from the 0-1 meter (0-3.3 ft) depth and the 0-2 meter (0-6.5 ft) depth. The sediment was extruded from the Vibracore liner and placed in sealed 5-gallon pails with zero headspace. The samples were refrigerated onsite and shipped on ice to Service Engineering in St. Paul, Minnesota for processing. Samples collected as part of the Phase II PDI were collected November 16 and 17, 2006, and shipped to Service Engineering on November 17, 2006. Phase III samples were collected and shipped to Service Engineering on June 18, 2007. Sample location IDs for these samples include: (SMU 1) OL-STA-10014 through 10019; (SMU 6) OL-STA-60098 through 60100 and OL-STA-60111 and OL-STA-60112, collected as part of Phase III PDI; and (SMU 7)

OL-STA-70048 through 70050. Phase II and Phase III sampling locations are presented on Figures 1.1 through 1.3.

1.2 SAMPLE PROCESSING / TESTING

Prior to testing, each sediment pail was tumbled prior to opening in order to homogenize the samples without loss of odorants. Subsamples of each sediment pail were placed in appropriately sized bags to generate adequate headspace volumes {using a ratio of 1 kg of sediment per 20-liters zero-air (dry, carbon-filtered air)} to meet the sample volume requirements of the following analyses:

- VOC (TO-15) and Reduced Sulfur Compounds (ASTM D5504-01) - 1 liter Tedlar Bag;
- Amines (CAS AQL Method 101) - 100 liter Tedlar bag;
- Organic (Carboxylic) Acids (CAS AQL Method 102) - 100 liter Tedlar bag; and
- Aldehydes (TO-11A) - 100 liter Tedlar bag.

Sample bags containing the sediment were held at room temperature for more than 24 hours before head space samples were withdrawn and measured as per the appropriate method. Headspace air samples were shipped to Columbia Analytical in Simi Valley, California for analysis to quantify odorant concentrations.

In addition, 5 liters of headspace gas from each sediment sample location was obtained for assessment by an odor panel in the same manner as described in the Draft Wind Tunnel Testing Report (Service, 2006). This included assessment of diluted odor samples by the odor panel, which reports the lowest dilution ratio at which an odor is detected (Detection Threshold) (DT), and is "describable" (Recognition Threshold) (RT), along with the intensity and persistence of the odor. The panel also reported the hedonic tones (HT) of the odors, the dose-response (D-R) of the odor (a measure of how quickly the odor dissipates), and descriptors of the odors in accordance with the appropriate standards (ASTM E 679-04: "Standard Practice for Determination of Odor and Taste Thresholds By a Forced-Choice Ascending Concentration Series Method of Limits", and the compatible, but more specific European Odor Testing Standard prEN13725: "Air Quality - Determination of Odor Concentration by Dynamic Olfactometry"). The odor wheel used specifically at the St. Croix Sensory is derived from Figure 5.3, Flavor Wheel Developed by the IAWPRC (International Association on Water Pollution Research and Control), of the “Identification and Treatment of Taste and Odors in Drinking Water” (American Water Works Association, 1987).

1.3 DATA SUMMARY

The results of the chemical and odor panel analyses for the headspace air samples collected during this test are summarized in Tables 1.1 through 1.5. Per the methodology of the odor panel analysis, two odor panel analyses were run on each headspace air sample, typically numbered X10 and X20. The results of both tests are presented in these tables. Raw laboratory results

from the St. Croix Sensory are presented in Appendix A. Analytical results from air and sediment samples collected during this investigation are presented in Appendices B and C, respectively.

Based on the results obtained during the Phase II testing, and comparatively lower DT/RT values for SMU 6 samples (as compared to SMU 1), it was recommended that additional tests be run on SMU 6 sediments. The tests were conducted in accordance with the NYSDEC approved Phase III Work Plan (Parsons, May 2007). Samples for these tests were collected at the same location as the Phase I PDI Wind Tunnel samples (See Figures 1.1 – 1.3). Results of air analysis conducted on samples collected from these samples are presented on Table 1.4. The Phase III samples produced DT/RT values significantly lower than original Phase II SMU 6 results.

Sediment analysis was conducted on samples obtained from each pail for VOCs and SVOCs. The results of the sediment analyses are presented in Table 1.6. For comparison, the sediment concentrations of these Phase II and III samples were compared to Phase I wind-tunnel bench test sediment results, and to average concentrations within the top 2 meters of each SMU measured from previous PDI sampling. A comparison between the Phase II/III, Phase I and SMU averages for certain compounds is presented in Table 1.7. For SMUs 1 and 6, the compound concentrations (including BTEX, chlorinated benzenes, naphthalene, pyrene, fluorene, and phenanthrene) between Phases I and II/III were comparable. Additionally, these samples were comparable to the SMU average concentrations. For SMU 7, results from the Phase II sediments were slightly lower than the Phase I sediments, however, the results still compared well with the SMU average concentrations. Overall, the data suggests that the Phase II and III samples were sufficiently similar to the Phase I wind tunnel sample material and to the SMU average concentrations to be considered representative of prospective dredge material.

Table 1.1
Phase II/III PDI Odor Characterization Summary Report
Odor and Air Data
SMU 1 Area A

SCS Lab Date*	OL-STA-10114 November 29, 2006		OL-STA-10115 December 1, 2006		OL-STA-10116 December 6, 2006	
SCS Field No.	*B10*	*B20*	*E10*	*E20*	*I10*	*I20*
Detection Treshold (DT)	2,900	3,600	2,500	2,500	6,300	6,800
Recognition Threshold (RT)	1,800	2,100	1,800	1,800	4,400	4,400
Intensity	230	210	110	90	680	690
Dose Response (D-R)	-0.51	-0.49	-0.38	-0.43	-0.50	-0.51
Hedonic Tone (HT)	-6.8	-7.2	-3.6	-2.4	-8.2	-7.8
Char 1	Chem	Chem	Paint	Chem	Chem	Chem
Char 2	Offens	Offens	Petrol	Paint	Petrol	Petrol
Char 3	Earthy	Petro	Chem	Turpntn	Plastic	Plastic
Char 4		Solvent	Turpntn	Oil	Kerosine	Kerosine
Char 5			Fishy	Offens	Creosote	Creosote

* Please refer to St. Croix Sensory Laboratory Analytical Reports to define these measures of odor.

Method: ASTM D5504-01 Sulfur Gases	**B30 ug/m^3**	**Flags**	**E30 ug/m^3**	**Flags**	**I30 ug/m^3**	**Flags**
Carbonyl Sulfide	18		6	U	26	
Dimethyl Sulfide	800		190		1,600	
Carbon Disulfide	290		140		190	
Ethyl Methyl Sulfide	34		8	U	31	
Thiophene	160		140		25	
Isobutyl Mercaptan	40		20		20	
Diemethyl Disulfide	410		380		570	
Tetrahydrothiophene	9	U	9	U	18	
3-Methylthiophene	87		88		10	U
2,5-Dimethylthiopne	11.5	U	80		11.5	U
2-Ethylthiophene	88		71		11.5	U
Diethyl Disulfide	6	U	48		37	
Method: EPA Method TO-11A Aldehydes	**B3-FA ug/m^3**	**Flags**	**E3-FA ug/m^3**	**Flags**	**I3-FA ug/m^3**	**Flags**
Acetaldehyde	180		120		75	
Propionaldehyde	4.7		5.8		4.8	
Buthyraldehyde	6.3		7.6		7.7	
Benzaldehyde	7.8		21		7.3	
Isovaleraldehyde	3.2		5.2		0.7	U
n-Hexaldehyde	4.1		5.2		2.3	
Method: CASAQL 501 Amines	**B2-AM ug/m^3**	**Flags**	**E2-AM ug/m^3**	**Flags**	**I2-AM ug/m^3**	**Flags**
Dimethylamine	40		29		36	
Trimethylamine	550		310		110	
Isopropylamine	3.5		1.35	U	1.35	U
t-Butylamine	4		3.3		1.35	U
Propylamine	4.1		2.9		1.35	U
Diethylamine	3.7		4.1		1.35	U
s-Buthylamine	3.2		2.8		1.35	U
Isobutylamine	3.3		1.35	U	1.35	U

Table 1.1
Phase II/III PDI Odor Characterization Summary Report
Odor and Air Data
SMU 1 Area A

Method: CASAQL 102 Carboxylic Acids	**B1-CA ug/m^3**	**Flags**	**E1-CA ug/m^3**	**Flags**	**I1-CA ug/m^3**	**Flags**
None Detected	ND		ND		ND	
Method: EPA TO-15	**B30 ug/m^3**	**Flags**	**E30 ug/m^3**	**Flags**	**I30 ug/m^3**	**Flags**
n-Hexane	1,000		13,000		480	
Benzene	35,000		65,000		10,000	
Toluene	70,000		110,000		19,000	
Chlorobenzene	17,000		7,600		160,000	
Ethylbenzene	15,000		13,000		5,200	
m,p-Xylene	220,000		240,000		95,000	
Styrene	9,600		5,900		2,700	
o-Xylene	64,000		69,000		29,000	
n-Nonane	2,500		2,600		1,500	
Cumene	9,700		14,000		4,700	
4-Ethyltoluene	8,900		5,700		3,400	
1,3,5-Trimethylbenzene	37,000		29,000		18,000	
1,2,4-Trimethylbenzene	47,000		35,000		21,000	
1,3-Dichlorobenzene	165	U	700	U	1,400	
1,4-Dichlorobenzene	2,900		2,400		96,000	
1,2-Dichlorobenzene	2,400		2,000		180,000	
1,2,4-Trichlorobenzene	165	U	700	U	510	
Naphthalene	4,400		3,800		3,700	

U=Undetected value is 0.5 times Reporting Limit

Note - Compounds which were not detected in all samples within the sample group are not included in this table

Table 1.2
Phase II/III PDI Odor Characterization Summary Report
Odor and Air Data
SMU 1 Area B

SCS Lab Date*	OL-STA-10117 December 6, 2006		OL-STA-10118 November 30, 2006		OL-STA-10119 December 5, 2006	
SCS Field No.	*J10*	*J20*	*C10*	*C20*	*H10*	*H20*
Detection Treshold (DT)	7,200	4,200	2,200	2,900	4,500	3,400
Recognition Threshold (RT)	5,500	2,900	1,500	1,900	3,600	2,400
Intensity	450	270	300	390	620	350
Dose Response (D-R)	-0.50	-0.46	-0.73	-0.76	-0.76	-0.64
Hedonic Tone (HT)	-7.8	-6.6	-6.0	-6.6	-6.8	-6.2
Char 1	Chem	Petrol	Petrol	Petrol	Petrol	Chem
Char 2	Petrol	Vinyl	Chem	Chem		Offens
Char 3	Vinyl	Chem	Plastic	Offens		
Char 4		Kerosine	Mothball			
Char 5		Plastic				

* Please refer to St. Croix Sensory Laboratory Analytical Reports to define these measures of odor.

Method: ASTM D5504-01 Sulfur Gases	**J30 ug/m^3**	**Flags**	**C30 ug/m^3**	**Flags**	**H30 ug/m^3**	**Flags**
Dimethyl Sulfide	1,000		64		210	
Carbon Disulfide	290		300		71	
n-Propyl Mercaptan	6.6		8	U	8	U
Ethyl Methyl Sulfide	9.1		8	U	8	U
Thiophene	150		38		45	
Diemethyl Disulfide	540		82		690	
3-Methylthiophene	32		10	U	18	
2-Ethylthiophene	49		17		23	
Diethyl Disulfide	6	U	26		6	U
Method: EPA Method TO-11A Aldehydes	**J3-FA ug/m^3**	**Flags**	**C3-FA ug/m^3**	**Flags**	**H3-FA ug/m^3**	**Flags**
Acetaldehyde	130		110		130	
Propionaldehyde	9.2		4.2		6.9	
Buthyraldehyde	8.2		9.8		5.5	
Benzaldehyde	11		13		18	
Isovaleraldehyde	1.8		3.2		3.2	
Valeraldehyde	0.7	U	0.7	U	4.3	
n-Hexaldehyde	7.8		3.5		4.7	
2,5-Dimethybenzaldehyde	5.3		0.7	U	0.7	U
Method: CASAQL 501 Amines	**J2-AM ug/m^3**	**Flags**	**C2-AM ug/m^3**		**H2-AM ug/m^3**	**Flags**
Dimethylamine	29		28		45	
Trimethylamine	310		470		440	
Diethylamine	3.7		1.35	U	4.5	
s-Buthylamine	1.35	U	1.35	U	3.3	
Method: CASAQL 102 Carboxylic Acids	**J1-CA ug/m^3**	**Flags**	**C1-CA ug/m^3**	**Flags**	**H1-CA ug/m^3**	**Flags**
None Detected	ND		ND		ND	

Table 1.2
Phase II/III PDI Odor Characterization Summary Report
Odor and Air Data
SMU 1 Area B

Method: EPA TO-15	J30 ug/m^3	Flags	C30 ug/m^3	Flags	H30 ug/m^3	Flags
Ethanol	1000	U	1100	U	1,100	
2-Butanone (MEK)	200	U	220	U	160	
n-Hexane	2,300		1,500		1,200	
Benzene	94,000		17,000		17,000	
Toluene	23,000		11,000		18,000	
Chlorobenzene	290,000		130,000		97,000	
Ethylbenzene	11,000		3,500		2,700	
m,p-Xylene	98,000		50,000		45,000	
Styrene	4,900		1,000		3,600	
o-Xylene	37,000		14,000		14,000	
n-Nonane	1,600		690		420	
Cumene	4,900		3,700		2,700	
4-Ethyltoluene	2,200		810		880	
1,3,5-Trimethylbenzene	13,000		6,100		6,200	
1,2,4-Trimethylbenzene	16,000		7,100		7,300	
1,3-Dichlorobenzene	600		220	U	230	
1,4-Dichlorobenzene	63,000		36,000		28,000	
1,2-Dichlorobenzene	33,000		23,000		34,000	
1,2,4-Trichlorobenzene	200	U	680		140	
Naphthalene	4,200		2,200		2,900	

U=Undetected value is 0.5 times Reporting Limit

Note - Compounds which were not detected in all samples within the sample group are not included in this table

Table 1.3
Phase II/III PDI Odor Characterization Summary Report
Odor and Air Data
SMU 6 - Phase II

SCS Lab Date*	OL-STA-60098 December 7, 2006		OL-STA-60099 December 7, 2006		OL-STA-60100 December 5, 2006	
SCS Field No.	*L10*	*L20*	*K10*	*K20*	*G10*	*G20*
Detection Treshold (DT)	340	250	720	550	1,100	830
Recognition Threshold (RT)	200	140	480	280	780	630
Intensity	80	95	170	160	95	100
Dose Response (D-R)	-0.47	-0.49	-0.66	-0.63	-0.53	-0.58
Hedonic Tone (HT)	-0.4	-1.0	-3.4	-3.4	-3.0	-3.4
Char 1	Petrol	Solvent	Petrol	Petrol	Tar	Petrol
Char 2	Cln Fld	Petrol	Cln Fld	Solvent	Kerosine	Oil
Char 3	Solvent	Chem	Solvent	Cln Fld	Oil	Chem
Char 4	Chem	Varnish	Chem	Chem	Chem	Solvent
Char 5	Oil	Gasoline	Gasoline			

* Please refer to St. Croix Sensory Laboratory Analytical Reports to define these measures of odor.

Method: ASTM D5504-01 Sulfur Gases	**L30 ug/m^3**	**Flags**	**K30 ug/m^3**	**Flags**	**G30 ug/m^3**	**Flags**
Hydrogen Sulfide	3.4		3.5	U	3.5	U
Carbonyl Sulfide	110		250		72	
Dimethyl Sulfide	6.5	U	6.6		6.5	U
Carbon Disulfide	97		200		45	
Thiophene	8.5	U	39		8.5	U
Method: EPA Method TO-11A Aldehydes	**L3-FA ug/m^3**	**Flags**	**K3-FA ug/m^3**	**Flags**	**G3-FA ug/m^3**	**Flags**
Formaldehyde	0.7	U	1.7		0.7	U
Acetaldehyde	0.7	U	5.7		1.8	
Propionaldehyde	0.7	U	1.5		0.7	U
Buthyraldehyde	0.7	U	4.1		0.7	U
2,5-Dimethybenzaldehyde	390		7.4		8.1	
Method: CASAQL 501 Amines	**L2-AM ug/m^3**	**Flags**	**K2-AM ug/m^3**	**Flags**	**G2-AM ug/m^3**	**Flags**
Dimethylamine	5.6		3.4		2.9	
Method: CASAQL 102 Carboxylic Acids	**L1-CA ug/m^3**	**Flags**	**K1-CA ug/m^3**	**Flags**	**G1-CA ug/m^3**	**Flags**
None Detected	ND		ND		ND	

Table 1.3
Phase II/III PDI Odor Characterization Summary Report
Odor and Air Data
SMU 6 - Phase II

Method: EPA TO-15	L30 ug/m^3	Flags	K30 ug/m^3	Flags	G30 ug/m^3	Flags
Carbon Disulfide	56		120		31	
2-Butanone (MEK)	16.5	U	100		12	
Benzene	59		500		9.4	
Toluene	170		80		23	
Chlorobenzene	150		1,600		12	
Ethylbenzene	87		33.5	U	5.6	
m,p-Xylene	820		410		38	
o-Xylene	420		330		37	
n-Nonane	16.5	U	33.5	U	8	
Cumene	110		260		46	
alpha-Pinene	16.5	U	33.5	U	6	
4-Ethyltoluene	83		180		96	
1,3,5-Trimethylbenzene	420		500		56	
1,2,4-Trimethylbenzene	350		550		130	
1,4-Dichlorobenzene	96		280		7.2	
1,2-Dichlorobenzene	76		95		5.7	
Naphthalene	16.5	U	33.5	U	16	

U=Undetected value is 0.5 times Reporting Limit

Note - Compounds which were not detected in all samples within the sample group are not included in this table

Table 1.4
Phase II/III PDI Odor Characterization Summary Report
Odor and Air Data
SMU 6 - Phase III

SCS Lab Date*	OL-STA-60112 OL-032502 June 27, 2007		OL-STA-60111 OL-032501 June 27, 2007	
SCS Field No.	*Q10*	*Q20*	*P10*	*P20*
DT	35	50	170	270
RT	19	30	100	160
Intensity	16	21	25	40
D-R	-0.27	-0.23	-0.29	-0.48
HT	0.6	-0.6	-1.2	-2.0
Char 1	Chem	Chem	Earthy	Chem
Char 2		Earthy	Chem	Creosote
Char 3			Offensive	Offensive
Char 4				Earthy
Char 5				

* Please refer to St. Croix Sensory Laboratory Analytical Reports to define these measures of odor.

Method: ASTM D5504-01 Sulfur Gases	**Q30 ug/m^3**	**Flags**	**P30 ug/m^3**	**Flags**
Hydrogen Sulfide	3.5	U	5.5	J
Carbonyl Sulfide	150		16	
Methyl Mercaptan	4.9	U	7.4	J
Ethyl Mercaptan	6.5	U	6.5	U
Dimethyl Sulfide	6.5	U	45	
Carbon Disulfide	130		25	
Diemethyl Disulfide	4.8	U	94	U
Method: EPA Method TO-11A Aldehydes	**Q1-FA ug/m^3**	**Flags**	**P1-FA ug/m^3**	**Flags**
2,5-Dimethybenzaldehyde	3.6		2.2	
Method: CASAQL 501 Amines	**Q3-AM ug/m^3**	**Flags**	**P3-AM ug/m^3**	**Flags**
Dimethylamine	1.35	U	3.8	
Method: CASAQL 102 Carboxylic Acids	**Q2-CA ug/m^3**	**Flags**	**P2-CA ug/m^3**	**Flags**
Acetic Acid	14		20	
Hexanoic Acid (Caproic)	1.8	U	3.9	

Table 1.4
Phase II/III PDI Odor Characterization Summary Report
Odor and Air Data
SMU 6 - Phase III

Method: EPA TO-15	**Q30 ug/m^3**	**Flags**	**P30 ug/m^3**	**Flags**
Dichlorodifluoromethane (CFC 12)	7.3		7.8	U
Acetone	12.5	U	29	
Trichlorofluoromethane	6.2		9.1	U
2-Propanol (Isopropyl Alcohol)	2.5	U	7.1	U
Carbon Disulfide	82		17	
2-Butanone (MEK)	5.4		5.6	
Toluene	12		21	
Chlorobenzene	2.5	U	15	
m,p-Xylene	6.4		12	
Styrene	2.5	U	6.2	
o-Xylene	2.5	U	8.1	
1,2,4-Trimethylbenzene	2.5	U	5.1	

U=Undetected value is 0.5 times Reporting Limit

Note - Compounds which were not detected in all samples within the sample group are not included in this table

Table 1.5
Phase II/III PDI Odor Characterization Summary Report
Odor and Air Data
SMU 7

SCS Lab Date*	OL-STA-70048 November 29, 2006		OL-STA-70049 November 30, 2006		OL-STA-70050 December 1, 2006	
SCS Field No.	*A10*	*A20*	*D10*	*D20*	*F10*	*F20*
Detection Treshold (DT)	2,700	2,900	1,700	1,900	1,100	1,000
Recognition Threshold (RT)	1,700	1,900	1,400	1,400	730	830
Intensity	85	85	220	180	70	75
Dose Response (D-R)	-0.48	-0.45	-0.66	-0.64	-0.40	-0.43
Hedonic Tone (HT)	-3.8	-5.0	-4.0	-3.8	-1.4	-1.2
Char 1	Chem	Petro	Petrol	Petrol	Chem	Chem
Char 2	Tar	Offens	Gasoline	Gas	Paint	Grease
Char 3	Petro		Chem	Cln Fld	Tar	Tar
Char 4				Oil	Creosote	Kerosine
Char 5					Oil	Terpntn

* Please refer to St. Croix Sensory Laboratory Analytical Reports to define these measures of odor.

Method: ASTM D5504-01 Sulfur Gases	**A30 ug/m^3**	**Flags**	**D30 ug/m^3**	**Flags**	**F30 ug/m^3**	**Flags**
Carbonyl Sulfide	140		150		200	
Dimethyl Sulfide	6.8		6.5	U	9.4	
Carbon Disulfide	39		250		240	
Thiophene	13		75		80	
Method: EPA Method TO-11A Aldehydes	**A3-FA ug/m^3**	**Flags**	**D3-FA ug/m^3**	**Flags**	**F3-FA ug/m^3**	**Flags**
Acetaldehyde	1.7		46		43	
Crotonaldehyde	0.7	U	1.9		0.7	U
2,5-Dimethybenzaldehyde	7.7		5.3		4.9	
Method: CASAQL 501 Amines	**A2-AM ug/m^3**	**Flags**	**D2-AM ug/m^3**	**Flags**	**F2-AM ug/m^3**	**Flags**
Dimethylamine	4.1		3.2		7.1	
Trimethylamine	1.45	U	1.45	U	3.4	
Method: CASAQL 102 Carboxylic Acids	**A1-CA ug/m^3**	**Flags**	**D1-CA ug/m^3**	**Flags**	**F1-CA ug/m^3**	**Flags**
None Detected	ND		ND		ND	

Table 1.5
Phase II/III PDI Odor Characterization Summary Report
Odor and Air Data
SMU 7

Method: EPA TO-15	A30 ug/m^3	Flags	D30 ug/m^3	Flags	F30 ug/m^3	Flags
Acetone	160		190		270	
2-Propanol	19		12.5	U	12.5	U
Methylene Chloride	8.5		12.5	U	12.5	U
Carbon Disulfide	25		130		140	
2-Butanone (MEK)	28		50		92	
cis-1,2-Dichloroethene	2.5	U	25		12.5	U
n-Hexane	12		53		28	
Benzene	410		1,500		1,400	
Toluene	470		1,100		690	
Chlorobenzene	1,500		4,800		3,900	
Ethylbenzene	300		960		1,600	
m,p-Xylene	2,500		4,100		5,700	
Styrene	150		12.5	U	12.5	U
o-Xylene	920		1,500		1,900	
n-Nonane	52		170		69	
Cumene	350		1,100		670	
alpha-Pinene	9.7		98		40	
4-Ethyltoluene	270		330		480	
1,3,5-Trimethylbenzene	750		1,500		1,500	
1,2,4-Trimethylbenzene	1,100		1,500		1,900	
1,3-Dichlorobenzene	61		150		91	
1,4-Dichlorobenzene	410		1,300		780	
1,2-Dichlorobenzene	97		460		270	
d-Limonene	7.1		12.5	U	12.5	U
Naphthalene	370		220		660	

U=Undetected value is 0.5 times Reporting Limit

Note - Compounds which were not detected in all samples within the sample group are not included in this table

TABLE 1.6
Phase II/III PDI Odor Characterization Summary Report
Sediment Sample Result Summary

Sample Location	SMU-1 ILWD-A OL-STA-10114		SMU-1 ILWD-A OL-STA-10115		SMU-1 ILWD-A OL-STA-10116	
Analyte						
VOCs	results mg/kg	flags	results mg/kg	flags	results mg/kg	flags
1,2,3-Trichlorobenzene	0.31	U	0.32	U	1.5	
1,2,4-Trichlorobenzene	0.94		0.32	U	11	
1,2,4-Trimethylbenzene	58		43		35	
1,2-Dichlorobenzene	10		5.6		580	
1,3,5-Trimethylbenzene	47		30		25	
1,3-Dichlorobenzene	0.31	U	0.32	U	0.6	U
1,4-Dichlorobenzene	9.4		5.6		280	
4-Isopropyltoluene	4		3.1		2	
Benzene	5		10		1.7	
Chlorobenzene	8.4		3.2		75	
Ethylbenzene	8		5.7		2.7	
Isopropylbenzene	8.9		12		4.7	
m,p-Xylenes	110		100		49	
Napthalene	260		230		150	
n-Propylbenzene	3.6		2.3		0.6	U
o-Xylene	39		32		17	
sec-Butylbenzene	24		27		16	
Styrene	7.4		3.8		1.6	
tert-Butylbenzene	1.7		0.8	U	0.6	U
Toluene	20		28		5.4	
SVOCs	results mg/kg	flags	results mg/kg	flags	results mg/kg	flags
1,2,4-Trichlorobenzene	0.24	U	0.165	U	3	
1,2-Dichlorobenzene	9.6		4.1		170	
1,3-Dichlorobenzene	0.24	U	0.165	U	0.89	
1,4-Dichlorobenzene	11		4.8		77	
2-Methylnaphthalene	24		9.7		2.9	
Acenaphthene	0.24	U	0.165	U	0.12	U
Acenaphthylene	5.3		1.4		0.73	
Anthracene	0.24	U	1.3		0.51	
Benz(a)anthracene	0.61		0.165	U	0.12	U
Benzo(a)pyrene	0.24	U	0.165	U	0.12	U
Benzo(b)fluoranthene	0.24	U	0.165	U	0.12	U
Benzo(g,h,I)perylene	0.24	U	0.165	U	0.12	U
Benzo(k)fluoranthene	0.24	U	0.165	U	0.12	U
Bis(2-Ethylhexyl)phthalate	1.2	U	0.8	U	0.6	U
Carbazole	0.24	U	0.165	U	0.12	U
Chrysene	0.66		0.165	U	0.12	U
Dibenzofuran	2.9		2.4		0.45	
Fluoranthene	1.4		0.65		0.33	
Fluorene	77		31		12	
Indeno(1,2,3-cd)pyrene	0.24	U	0.165	U	0.12	U
Naphthalene	390		150		55	
N-Nitrosodiphenylamine	0.24	U	2.3		0.12	U
Phenanthrene	4		1.9		0.77	
Phenol	2.6		3.1		6	
Pyrene	1.4		0.75		0.35	

U=Undetected value is 0.5 times Reporting Limit

Sediment sample analysis is on a dry weight basis

TABLE 1.6
Phase II/III PDI Odor Characterization Summary Report
Sediment Sample Result Summary

Sample Location	SMU-1 ILWD-B OL-STA-10117		SMU-1 ILWD-B OL-STA-10118		SMU-1 ILWD-B OL-STA-10119	
Analyte						
VOCs	results mg/kg	flags	results mg/kg	flags	results mg/kg	flags
1,2,3-Trichlorobenzene	0.7	U	0.32	U	0.37	U
1,2,4-Trichlorobenzene	5.1		12		1.5	
1,2,4-Trimethylbenzene	18		7.3		5.1	
1,2-Dichlorobenzene	94		52		66	
1,3,5-Trimethylbenzene	13		5.1		3.3	
1,3-Dichlorobenzene	0.7	U	0.32	U	0.37	U
1,4-Dichlorobenzene	170		79		47	
4-Isopropyltoluene	0.7	U	0.8	U	0.9	U
Benzene	12		1.7		1.7	
Chlorobenzene	130		45		29	
Ethylbenzene	4.1		0.8	U	0.9	U
Isopropylbenzene	3.6		1.9		0.9	U
m,p-Xylenes	50		17		13	
Napthalene	140		78		70	
n-Propylbenzene	0.7	U	0.8	U	0.9	U
o-Xylene	15		4.5		3.4	
sec-Butylbenzene	9.9		6.3		4.6	
Styrene	2.1		0.8	U	0.9	U
tert-Butylbenzene	0.7	U	0.8	U	0.9	U
Toluene	4.7		1.9		2.8	
SVOCs	results mg/kg	flags	results mg/kg	flags	results mg/kg	flags
1,2,4-Trichlorobenzene	0.71		17		0.66	
1,2-Dichlorobenzene	15		59		23	
1,3-Dichlorobenzene	0.09	U	0.66		0.15	U
1,4-Dichlorobenzene	29		100		18	
2-Methylnaphthalene	1.8		8.7		2.2	
Acenaphthene	0.09	U	0.265	U	0.15	U
Acenaphthylene	0.34		1.3		0.15	U
Anthracene	0.28		1.2		0.38	
Benz(a)anthracene	0.09	U	0.265	U	0.15	U
Benzo(a)pyrene	0.09	U	0.265	U	0.15	U
Benzo(b)fluoranthene	0.09	U	0.265	U	0.15	U
Benzo(g,h,I)perylene	0.09	U	0.265	U	0.15	U
Benzo(k)fluoranthene	0.09	U	0.265	U	0.15	U
Bis(2-Ethylhexyl)phthalate	0.45	U	1.3	U	0.75	U
Carbazole	0.09	U	0.265	U	0.15	U
Chrysene	0.09	U	0.265	U	0.15	U
Dibenzofuran	0.25		1.5		0.3	
Fluoranthene	0.2		1.4		0.15	U
Fluorene	4.6		24		6.6	
Indeno(1,2,3-cd)pyrene	0.09	U	0.265	U	0.15	U
Naphthalene	29		110		31	
N-Nitrosodiphenylamine	0.09	U	0.265	U	0.36	
Phenanthrene	0.53		2.9		0.74	
Phenol	0.58		2.3		2.5	
Pyrene	0.21		1.1		0.15	U

U=Undetected value is 0.5 times Reporting Limit

Sediment sample analysis is on a dry weight basis

TABLE 1.6
Phase II/III PDI Odor Characterization Summary Report
Sediment Sample Result Summary

Sample Location	SMU-6 Phase II OL-STA-60098		SMU-6 Phase II OL-STA-60099		SMU-6 Phase II OL-STA-60100	
Analyte						
VOCs	results mg/kg	flags	results mg/kg	flags	results mg/kg	flags
1,2,3-Trichlorobenzene	0.085	U	0.6	U	0.0495	U
1,2,4-Trichlorobenzene	0.085	U	0.6	U	0.0495	U
1,2,4-Trimethylbenzene	0.19		0.6	U	0.125	U
1,2-Dichlorobenzene	0.085	U	0.6	U	0.0495	U
1,3,5-Trimethylbenzene	0.085	U	0.6	U	0.125	U
1,3-Dichlorobenzene	0.085	U	0.6	U	0.0495	U
1,4-Dichlorobenzene	0.085	U	0.6	U	0.0495	U
4-Isopropyltoluene	0.085	U	0.6	U	0.125	U
Benzene	0.085	U	0.6	U	0.0495	U
Chlorobenzene	0.085	U	0.6	U	0.0495	U
Ethylbenzene	0.085	U	0.6	U	0.125	U
Isopropylbenzene	0.085	U	0.6	U	0.125	U
m,p-Xylenes	0.21		0.6	U	0.125	U
Napthalene	0.71		2.9		0.16	
n-Propylbenzene	0.085	U	0.6	U	0.125	U
o-Xylene	0.085	U	0.6	U	0.125	U
sec-Butylbenzene	0.085	U	1.3		0.125	U
Styrene	0.085	U	0.6	U	0.125	U
tert-Butylbenzene	0.085	U	0.6	U	0.125	U
Toluene	0.085	U	0.6	U	0.0495	U
SVOCs	results mg/kg	flags	results mg/kg	flags	results mg/kg	flags
1,2,4-Trichlorobenzene	0.165	U	0.27		0.1	U
1,2-Dichlorobenzene	0.165	U	0.62		0.1	U
1,3-Dichlorobenzene	0.165	U	0.36		0.1	U
1,4-Dichlorobenzene	0.165	U	2.4		0.1	U
2-Methylnaphthalene	0.165	U	4.1		0.79	
Acenaphthene	0.165	U	2.2		1.3	
Acenaphthylene	0.165	U	1		0.62	
Anthracene	0.165	U	2.4		1.9	
Benz(a)anthracene	0.165	U	2.6		1.9	
Benzo(a)pyrene	0.165	U	2		1.5	
Benzo(b)fluoranthene	0.165	U	1.9		0.89	
Benzo(g,h,I)perylene	0.165	U	0.32		0.22	
Benzo(k)fluoranthene	0.165	U	1.5		1.1	
Bis(2-Ethylhexyl)phthalate	0.8	U	0.55	U	0.49	U
Carbazole	0.165	U	0.43		0.1	U
Chrysene	0.165	U	2.8		2.2	
Dibenzofuran	0.165	U	0.69		0.1	U
Fluoranthene	0.165	U	6.2		3.4	
Fluorene	0.165	U	11		1.2	
Indeno(1,2,3-cd)pyrene	0.165	U	0.37		0.27	
Naphthalene	1.1		3.1		0.55	
N-Nitrosodiphenylamine	0.165	U	0.11	U	0.1	U
Phenanthrene	0.165	U	7.3		4.3	
Phenol	0.165	U	0.11	U	0.1	U
Pyrene	0.165	U	5.8		3.6	

U=Undetected value is 0.5 times Reporting Limit

Sediment sample analysis is on a dry weight basis

TABLE 1.6
Phase II/III PDI Odor Characterization Summary Report
Sediment Sample Result Summary

Sample Location	SMU-6 Phase III OL-STA-60111		SMU-6 Phase III OL-STA-60112	
Analyte				
VOCs	results mg/kg	flags	results mg/kg	flags
1,2,3-Trichlorobenzene	0.08	U	0.042	U
1,2,4-Trichlorobenzene	0.08	U	0.042	U
1,2,4-Trimethylbenzene	0.2	U	0.105	U
1,2-Dichlorobenzene	0.08	U	0.042	U
1,3,5-Trimethylbenzene	0.2	U	0.105	U
1,3-Dichlorobenzene	0.08	U	0.042	U
1,4-Dichlorobenzene	0.08	U	0.042	U
4-Isopropyltoluene	0.08	U	0.042	U
Benzene	0.08	U	0.042	U
Chlorobenzene	0.08	U	0.042	U
Ethylbenzene	0.08	U	0.042	U
Isopropylbenzene	0.08	U	0.042	U
m,p-Xylenes	0.08	U	0.042	U
Napthalene	0.08	U	0.042	U
n-Propylbenzene	0.08	U	0.042	U
o-Xylene	0.08	U	0.042	U
sec-Butylbenzene	0.2	U	0.105	U
Styrene	0.2	U	0.105	U
tert-Butylbenzene	0.2	U	0.105	U
Toluene	0.08	U	0.042	U
SVOCs	results mg/kg	flags	results mg/kg	flags
1,2,4-Trichlorobenzene	0.105	U	0.06	U
1,2-Dichlorobenzene	0.105	U	0.06	U
1,3-Dichlorobenzene	0.105	U	0.06	U
1,4-Dichlorobenzene	0.105	U	0.22	
2-Methylnaphthalene	0.105	U	0.34	
Acenaphthene	0.105	U	0.23	
Acenaphthylene	0.105	U	0.38	
Anthracene	0.105	U	0.64	
Benz(a)anthracene	0.105	U	1.5	
Benzo(a)pyrene	0.105	U	1.8	
Benzo(b)fluoranthene	0.105	U	1.3	
Benzo(g,h,I)perylene	0.105	U	0.29	
Benzo(k)fluoranthene	0.105	U	1.3	
Bis(2-Ethylhexyl)phthalate	0.5	U	0.29	U
Carbazole	0.105	U	0.14	
Chrysene	0.105	U	1.8	
Dibenzofuran	0.105	U	0.06	U
Fluoranthene	0.5	U	3.0	
Fluorene	0.105	U	0.06	U
Indeno(1,2,3-cd)pyrene	0.105	U	0.38	
Naphthalene	0.105	U	0.49	
N-Nitrosodiphenylamine	0.105	U	0.06	U
Phenanthrene	0.27	U	1.7	
Phenol	0.105	U	0.06	U
Pyrene	0.39		2.6	

U=Undetected value is 0.5 times Reporting Limit

Sediment sample analysis is on a dry weight basis

TABLE 1.6
Phase II/III PDI Odor Characterization Summary Report
Sediment Sample Result Summary

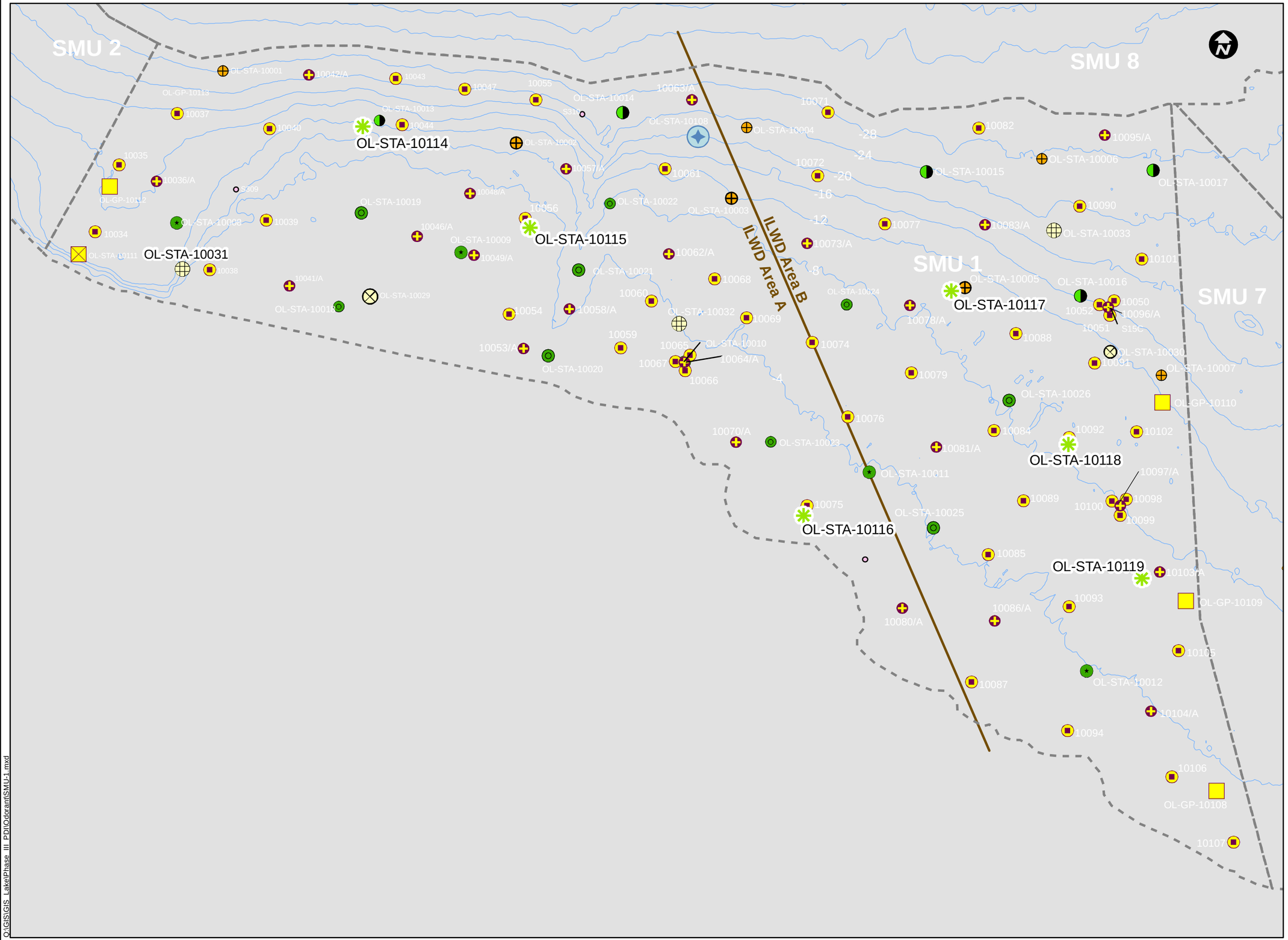
Sample Location	SMU-7 OL-STA-70048		SMU-7 OL-STA-70049		SMU-7 OL-STA-70050	
Analyte						
VOCs	results mg/kg	flags	results mg/kg	flags	results mg/kg	flags
1,2,3-Trichlorobenzene	0.065	U	0.37	U	1.45	U
1,2,4-Trichlorobenzene	0.065	U	0.97		1.45	U
1,2,4-Trimethylbenzene	0.165	U	3.7		7.4	
1,2-Dichlorobenzene	0.065	U	3		1.45	U
1,3,5-Trimethylbenzene	0.165	U	2.7		3.65	U
1,3-Dichlorobenzene	0.065	U	0.77		1.45	U
1,4-Dichlorobenzene	0.6		8.1		6.4	
4-Isopropyltoluene	0.165	U	0.95	U	3.65	U
Benzene	0.065	U	0.37	U	1.45	U
Chlorobenzene	0.7		4.1		3.3	
Ethylbenzene	0.165	U	0.95	U	3.65	U
Isopropylbenzene	0.165	U	0.95	U	3.65	U
m,p-Xylenes	0.165	U	3.5		3.65	U
Napthalene	2		29		170	
n-Propylbenzene	0.165	U	0.95	U	3.65	U
o-Xylene	0.165	U	0.95	U	3.65	U
sec-Butylbenzene	0.68		6.2		3.65	U
Styrene	0.165	U	0.95	U	3.65	U
tert-Butylbenzene	0.165	U	0.95	U	3.65	U
Toluene	0.065	U	0.37	U	1.45	U
SVOCs	results mg/kg	flags	results mg/kg	flags	results mg/kg	flags
1,2,4-Trichlorobenzene	0.255	U	1.4		0.29	U
1,2-Dichlorobenzene	0.255	U	2.7		1.9	
1,3-Dichlorobenzene	0.255	U	0.96		0.7	
1,4-Dichlorobenzene	2.7		9.3		6.3	
2-Methylnaphthalene	1.7		5		19	
Acenaphthene	1.9		0.31	U	6.4	
Acenaphthylene	0.83		0.81		3.8	
Anthracene	2.7		2.9		4.9	
Benz(a)anthracene	2.8		1.7		3	
Benzo(a)pyrene	2.5		1.3		2.2	
Benzo(b)fluoranthene	1.9		1.5		2.5	
Benzo(g,h,I)perylene	0.069		0.31	U	0.29	U
Benzo(k)fluoranthene	2.1		1.1		2.5	
Bis(2-Ethylhexyl)phthalate	1.25	U	1.5	U	3.7	
Carbazole	0.52		0.31	U	1.9	
Chrysene	3.5		2.1		3.5	
Dibenzofuran	1.2		1.6		7.3	
Fluoranthene	7.7		4.8		10	
Fluorene	12		53		41	
Indeno(1,2,3-cd)pyrene	0.81		0.31	U	0.29	U
Naphthalene	4.4		24		69	
N-Nitrosodiphenylamine	0.255	U	0.31	U	0.29	U
Phenanthrene	7.6		6.3		18	
Phenol	0.255	U	0.31	U	0.29	U
Pyrene	6.8		4.3		7.6	

U=Undetected value is 0.5 times Reporting Limit

Sediment sample analysis is on a dry weight basis

TABLE 1.7
Phase II/III PDI Odor Characterization Summary Report
Sediment Analytical Result Comparison
SMUs 1, 6, and 7

	SMU 1			SMU 6			SMU 7		
Sample Location / *Analyte*	**Phase II Odorant Characterization Study Average Concentration**	**Phase I Wind Tunnel Test Sediment**	**RI / PDI Average Concentration of Top 2 Meters**	**Phase II/III Odorant Characterization Study Average Concentration**	**Phase I Wind Tunnel Test Sediment**	**RI / PDI Average Concentration of Top 2 Meters**	**Phase II Odorant Characterization Study Average Concentration**	**Phase I Wind Tunnel Test Sediment**	**RI / PDI Average Concentration of Top 2 Meters**
	results mg/kg			results mg/kg			results mg/kg		
1,2-Dichlorobenzene	134.60	no data	37.22	0.17	no data	0.15	1.51	no data	11.69
1,3-Dichlorobenzene	0.44	no data	9.62	0.17	no data	0.16	0.76	no data	2.26
1,4-Dichlorobenzene	98.50	96.00	74.89	0.17	0.19	0.28	5.03	19.00	27.91
Benzene	5.35	15.00	5.24	0.17	0.17	0.06	0.63	1.00	1.15
Chlorobenzene	48.43	63.00	52.83	0.17	0.22	0.23	2.70	10.00	13.60
Ethylbenzene	3.70	3.00	6.52	0.19	0.17	0.08	1.59	1.00	1.10
Fluorene	25.90	21.00	2.89	2.51	3.00	1.51	35.33	93.00	6.91
Napthalene	154.67	180.00	152.36	1.07	4.83	1.51	67.00	127.00	41.15
Phenanthrene	1.81	5.00	8.42	2.75	12.07	6.18	10.63	37.00	13.81
Pyrene	0.66	2.00	4.15	2.51	10.83	5.32	6.23	11.00	8.47
Toluene	10.47	18.00	11.01	0.17	0.19	0.06	0.63	2.00	2.31
Total Xylenes	74.98	70.00	45.22	0.40	0.27	0.27	4.03	6.00	17.66



Water Treatment, CST, EET and Odor Bench Test Sample Location

Phase II PDI Sample Locations

- 20 Ft (6 m) Core (Sample on 3.3 Ft intervals to 20 Ft)
- 20 Ft (6 m) Colocated Core (Sample on 3.3 Ft intervals to 20 Ft)
- Conductivity / Temperature Probe
- Conductivity / Temperature Probe + 10 Ft Core (Sample on 1 Ft intervals)
- Deep Boring to Till / Top of Bedrock

Phase I PDI Sample Locations

- 13 Ft (4 m) Core
- 20 Ft (6 m) Core
- 72 Ft (22 m) Boring, CPT and 13 Ft (4 m) Core
- 72 Ft (22 m) Boring, CPT and 20 Ft (6 m) Core
- Bulk Sediment and Water Sample for Emissions and Supernatant Water Treatment Evaluations (two locations, one composite)
- Bulk Sediment Sample for Column Settling and Effluent Ellutriate Testing

RI/FS Locations

- 0 - 6.6 Ft (0 - 2 m)
- 20 - 26 Ft (6 - 8 m)

NOTES

1. Bathymetry contours are in 4 foot intervals.
2. Water depth based on average lake elevation of 362.82 feet.
3. Colocated cores will be less than 1 meter apart.
4. Clustered cores will be 25 feet from center core.

0 55 110 220 330 440 550
Feet

FIGURE 1.1

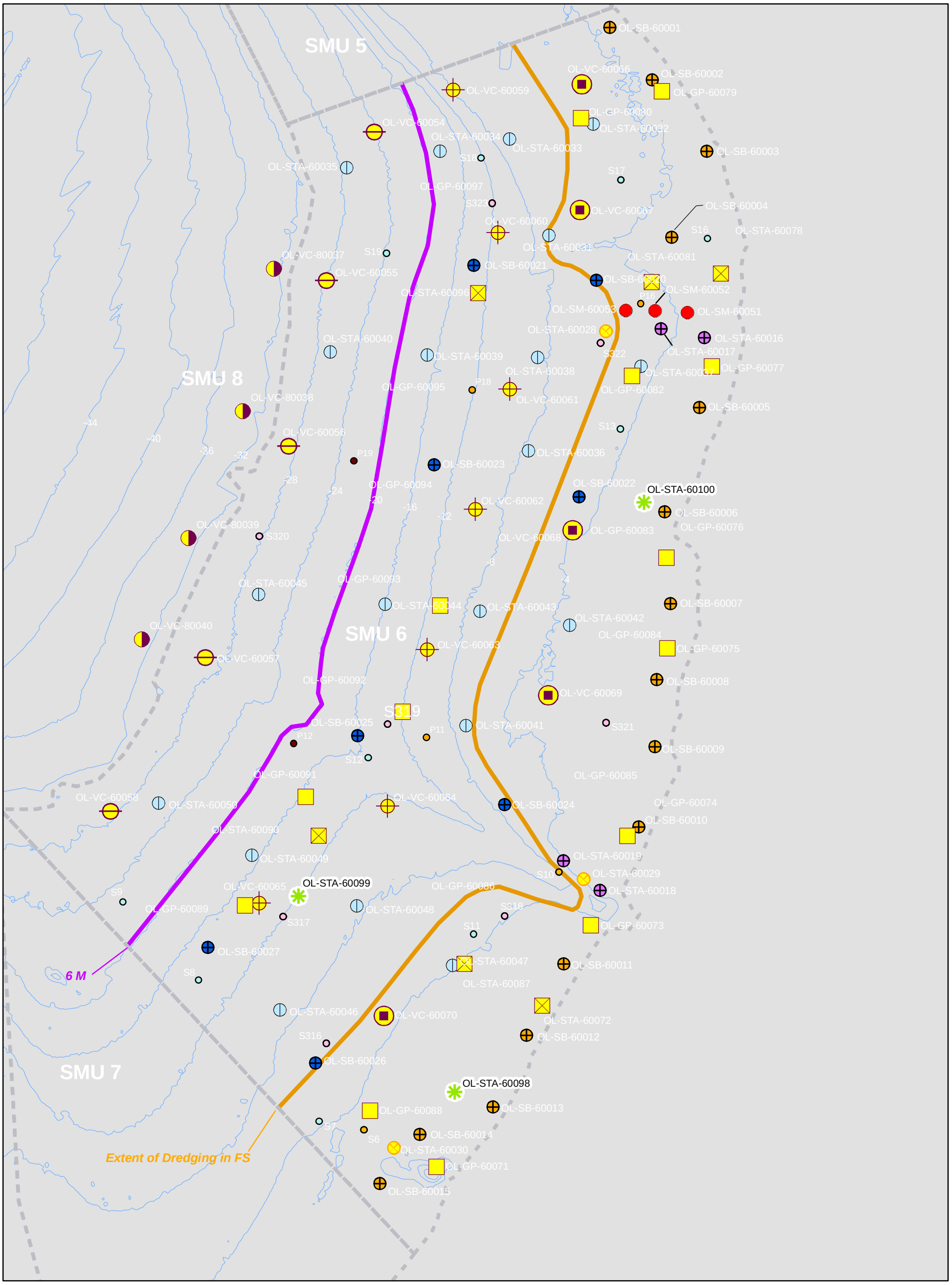
Honeywell

Onondaga Lake
Syracuse, New York

SMU 1
Phase II PDI Bench Test
Sample Locations

PARSONS
290 ELWOOD DAVIS RD, SUITE 312, LIVERPOOL, NY 13088 Phone:(315)451-9560

Q:\GIS\GIS_Lake\Phase III_PDI\Odorant\SMU-1.mxd



RI/FS Locations

- 0.07 - 0.16 Ft (0 - 5 cm)
- 0.17 - 0.50 Ft (5 - 15 cm)
- 0.5 - 1.0 Ft (15 - 30 cm)
- 1.0 - 3.3 Ft (30 - 100 cm)
- 3.3 - 7.0 Ft (1 - 2 m)
- 7 - 13 Ft (2 - 4 m)
- 13 - 17 Ft (4 - 5 m)
- 17 - 26 Ft (5 - 8 m)

Phase I PDI Sample Locations

- 13 Ft (4 m) Core
- 33 Ft (10 m) Boring, 13 Ft (4 m) Core, and Porewater Samples (Groundwater Model)
- Vane Shear/Atterberg Limits
- Bulk Sediment and Water Sample for Emissions, Column Settling and Effluent Ellutriate Testing (3 Locations, 1 Composite)
- Porewater Sample (Cap Model)
- Seepage Meter

Phase II PDI Sample Locations

- 20 Ft (6 m) Core (Sample 0-0.5 Ft and 0.5-3.3 Ft)
- 20 Ft (6 m) Core (Sample on 3.3 Ft intervals to 10 Ft)
- 20 Ft (6 m) Core (Sample on 3.3 Ft intervals to 20 Ft)
- 3.3 Ft (1 m) Core (Sample 0-0.5 Ft and 0.5-3.3 Ft)
- Conductivity / Temperature Probe
- Conductivity / Temperature Probe + 10 Ft Core (Sample on 1 Ft intervals)
- Water Treatment, CST, EET, and Odor Bench Test Sample Location

0 70 140 280 420 560
Feet

NOTES

1. Bathymetry contours are in 4 foot intervals.
2. Water depth based on average lake elevation of 362.82 feet.

FIGURE 1.2

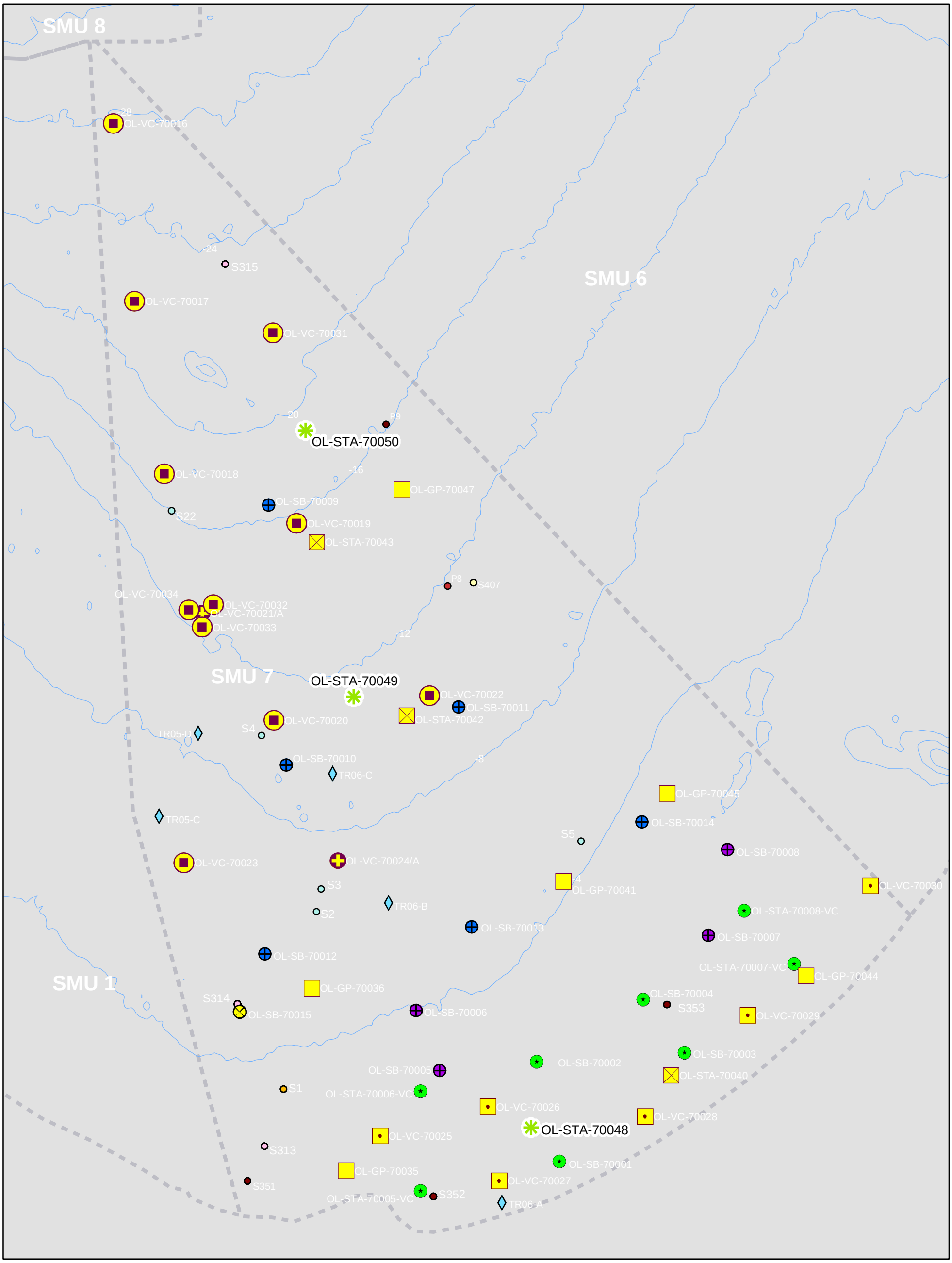
Honeywell

Onondaga Lake
Syracuse, New York

SMU 6
Phase II PDI Bench Testing
Sample Locations

PARSONS
290 ELWOOD DAVIS RD, SUITE 312, LIVERPOOL, NY 13088 Phone:(315)451-9560

Q:\GIS\GIS_Lake\Phase_III_PDI\Odorant\SMU-6.mxd



RI/FS Locations

- 0.07 - 0.16 Ft (0 - 5 cm)
- 0.17 - 0.50 Ft (5 - 15 cm)
- 0.5 - 1.0 Ft (15 - 30 cm)
- 1.0 - 3.3 Ft (30 - 100 cm)
- 3.3 - 7.0 Ft (1 - 2 m)
- 7 - 13 Ft (2 - 4 m)
- 13 - 17 Ft (4- 5 m)
- 17 - 26 Ft (5 - 8 m)
- Upwelling Sample Station

Phase I PDI Sample Locations

- 20 Ft (6 m) Core
- 33 Ft (10 m) Boring, 20 Ft (6 m) Core, and Porewater Samples (Groundwater Model)
- Vane Shear/Atterberg Limits
- Bulk Sediment Sample for Emissions Testing and Odor

Phase II PDI Sample Locations

- 20 Ft (6 m) Core (Sample on 3.3 Ft intervals to 13 Ft)
- 20 Ft (6 m) Core (Sample on 3.3 Ft intervals to 20 Ft)
- 20 Ft (6 m) Co-located Core (Sample on 3.3 Ft intervals to 20 Ft)
- Water Treatment, CST, EET, and Odor Bench Test Sample Location
- Conductivity / Temperature Probe
- Conductivity / Temperature Probe + 10 Ft Core (Sample on 1 Ft intervals)

NOTES

1. Bathymetry contours are in 4 foot intervals.
2. Water depth based on average lake elevation of 362.82 feet.

0 35 70 140 210 280 350
Feet

FIGURE 1.3

Honeywell
Onondaga Lake
Syracuse, New York

SMU 7
Phase II PDI Bench Testing
Sample Locations

PARSONS
290 ELWOOD DAVIS RD, SUITE 312, LIVERPOOL, NY 13088 Phone:(315)451-9560

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SECTION 2

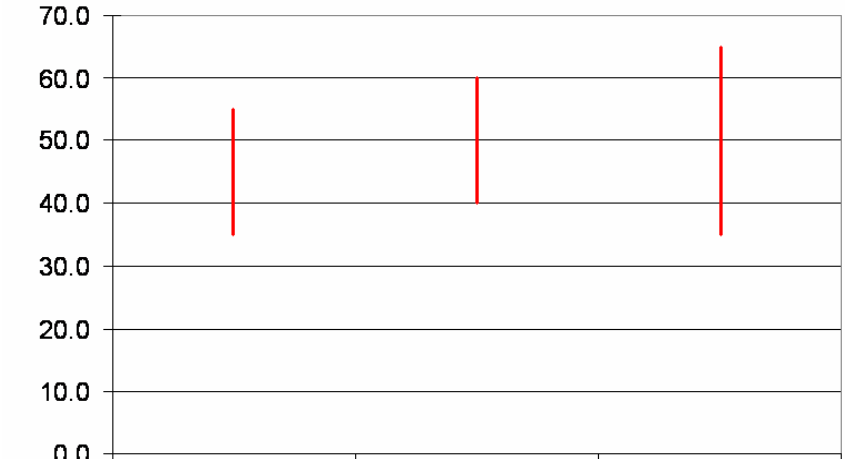
DATA EVALUATION

2.1 RECOGNITION THRESHOLD SUMMARY

As part of the odor panel evaluation, the RT's of the headspace air samples from the sediment were obtained. The RT represents the dilution ratio at which the odor's characteristics are first detectable and describable. The headspace values obtained as part of this investigation represent the maximum odor value that could occur, even in an enclosed space, but are not realistic representations of odor levels expected during the Onondaga Lake remediation.

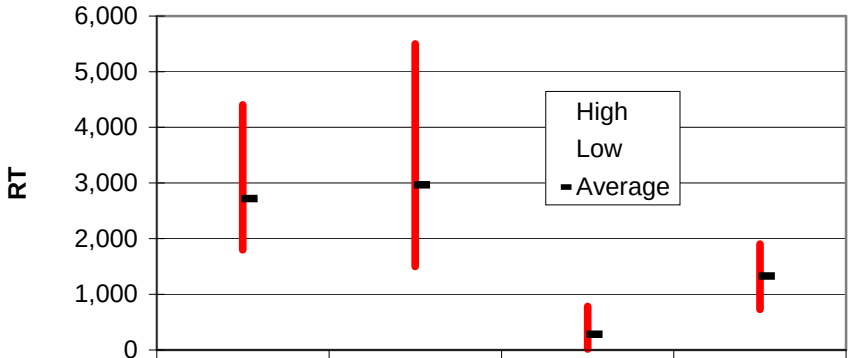
Comparatively, the relative values of RTs shown in Tables 1.1 through 1.5 indicate SMU 1 material had the strongest odor of the samples tested. The sediment samples from SMUs 6 and 7 produced comparatively lower odor levels. For comparison, the average RTs obtained during the Phase I and Phase II/III test have been summarized on Figures 2.1 and 2.2, respectively. Although the absolute values between Phases I and II/III are not comparable (headspace concentrations would be far greater than wind tunnel concentrations), the comparison between SMUs reveals that the low odor measured from SMU 6 samples during the Phase II and III tests was inconsistent with the Phase I wind tunnel bench testing.

Figure 2.1 - Phase I RT Values



	SMU 1	SMU 6	SMU 7
Exposed RT	55.0	60.0	60.0
10% Mix RT	40.0	40.0	65.0
10% Que RT	35.0	50.0	35.0

Figure 2.2 - Phase II & III RT Values



	SMU 1A	SMU 1B	SMU 6	SMU 7
High	4,400	5,500	780	1,900
Low	1,800	1,500	19	730
Average	2,717	2,967	282	1,327

As discussed in Section 1.3, this discrepancy led to the recommendation that additional samples be tested in SMU 6, using samples collected from the same locations as the Phase I test. After analysis, the Phase III samples confirmed the validity of the Phase II SMU 6 samples. Based on the data results, the discrepancy between RT values of SMU 1 compared to SMUs 6/7 in the Phase II/III test is likely driven by the large difference in sediment concentrations of the primary VOCs and SVOCs, and the differences in the nature of the sediment processing conducted in the two tests. The discrepancy, however, does not diminish the validity of the Phase II/III data, nor the ability to characterize the sampled odors. Additional odorants beyond those analyzed to date may be contributing to the measured odor levels. The analysis scope for future potential bench tests and sampling programs will be discussed with the NYSDEC to ensure any additional analyses that may be justified are included.

2.2 DATA EVALUATION METHODOLOGY

Two evaluation methodologies were utilized to assess the analytical results and to draw correlations between compound concentrations and RT values.

2.2.1 Data Correlation Coefficients

Within a SMU group, three samples (e.g., OL-STA-10114, 10115, and 10116) were collected and analyzed for both chemical concentrations and odor parameters. For the purposes of this evaluation, the results from the Phase III SMU 6 locations have been included with the results from the Phase II SMU 6 locations. In the first analytical method, Pearson's correlation coefficients (r) were calculated for the two data sets (concentration and RT values). The non-parametric Pearson's coefficient is the most common measure of "correlation" or "predictability" between two data sets. The coefficient can have a value anywhere between -1 and 1. The larger

the coefficient, ignoring sign, the stronger the association between the two variables and the more accurately you can predict one variable from knowledge of the other variable. At its extreme, a correlation of 1 or -1 means that the two variables are perfectly correlated. The sign of the correlation implies the "direction" of the association. A positive correlation means that relatively high scores on one variable are paired with relatively high scores on the other variable, and low scores are paired with relatively low scores. Tables 2.1 through 2.4 present correlation coefficient values calculated for the data sets obtained for each SMU. The Pearson's coefficients calculated are summarized on these tables for each of the individual compounds within a SMU group. Additionally, Pearson's p- value was also calculated for each compound group. This value provides a level of confidence that a calculated Pearson's coefficient was not generated by a random, uncorrelated data set. This value lies between 0 and 1, with 0 meaning that there is 100% certainty that the data is correlated, and 1 meaning that there is 0% certainty that the data is truly correlated. In Tables 2.1 through 2.4, shaded boxes call out stronger relationships between compound concentration and RT values. For the purposes of this evaluation, "stronger relationship" is defined as having a Pearson's coefficients greater than +0.75. An additional indication of strength of those relationships is also shaded, where the p-value is less than 0.1.

In addition to the SMU group analysis, Pearson's coefficients and p-values were similarly calculated for the entire data set (values from all four SMU groups). The larger data set may provide a different interpretation of the relationships, as some may be stronger or weaker when viewed over a larger set of data. Since no strong, positive, consistent correlations within the aldehyde or amine groups were identified in the SMU group analysis, this larger data set evaluation was limited to the sulfur gases and VOCs. Table 2.5 summarizes calculated Pearson's coefficients and p-values for the entire data set.

2.3 ODOR THRESHOLD COMPARISON

The second analysis conducted compared the detected chemical concentrations of the air samples to published odor threshold concentrations of the respective compounds. This simple comparison can provide an indication as to what compounds, based on published values, *should* have been detectable at the concentrations present in the air sample. Table 2.6 presents published odor threshold values and characteristics for the various compounds detected in the air samples analyzed during this investigation.

Five sources of published odor threshold values were referenced for this table. The first reference, "Odor Thresholds for Chemicals with Established Occupational Health Standards", was prepared for the American Industrial Hygiene Association in 1989 by TRC Environmental Consultants, Inc. (TRC, 1989). The report identified and compiled published experimental odor threshold references, and evaluated their methodologies against a set of objective criteria. Using these methods to eliminate questionable data, a geometric mean of acceptable data was calculated.

The second reference, EPA's "Reference Guide to Odor Thresholds for Hazardous Air Pollutants Listed in the Clean Air Act Amendments of 1990", was published to provide state and local agencies with data tables and an explanatory narrative so that community odor perception can be properly evaluated and interpreted in terms of chemical exposure and risk. This report utilized the same approach taken in the AIHA report, and applies it to hazardous air pollutant compounds identified in Clean Air Act of 1990.

Two additional references, "Handbook on Environmental Data on Organic Compounds" (Verschueren, 1983), and the United States National Library of Medicine Toxicology Data Network (http://toxnet.nlm.nih.gov/), are compilations of chemical characteristics pulled from various referenced studies.

The final reference, a Technical Bulletin by ETS Laboratories on Sulfide Compounds in Wine (http://www.etslabs.com/scripts/ets/pagetemplate/blank.asp?pageid=350) was a compilation of referenced and ETS study information to help winemakers understand the origins of common sulfide problems. This study was referenced because it provided odor threshold values for several sulfur compounds for which limited information was provided by the other references.

It is important to note that different published sources report a range of values for odor detection and recognition thresholds. The range of odor threshold values for a given compound can vary over several orders of magnitude, depending on the published study. Due to the limited amount of scientific research, range of test methods, variety of definitions of detection, and variability of sensitivity between subjects, consensus has not been reached on odor threshold values. The odor threshold values presented in Table 2.6 may differ from other published sources, and therefore, are not intended to be definitive.

Tables 2.7 through 2.10 present the comparison between the chemical concentrations and published odor threshold values for SMUs 1a, 1b, 6, and 7 respectively. For each compound, a "strength factor" was calculated by dividing the analytical concentration by the published odor threshold value (i.e., a "strength factor" of 10 implies the concentration was ten times greater than the threshold value). As presented in the tables, the "strength factors" have been calculated for each sample and compounds detected, and have also been averaged across the three samples within the SMU group.

2.4 DATA EVALUATION RESULTS

Based on the evaluations discussed in Section 2.2, several trends, correlations, and conclusions can be drawn on the impact that the individual compounds have on the odor Detection and Recognition threshold values obtained by the Odor Panel during the Phase II testing. Sections 2.3.1 through 2.3.4 discuss these conclusions, grouped by compound group, and by SMU group.

2.4.1 Sulfur Gases

Data Correlation

Based on coefficients calculated for SMU 1, several sulfur compounds appear to demonstrate some correlation to RT. Dimethyl sulfide and dimethyl disulfide had high coefficients for both SMU 1A and 1B, while several other compounds, including carbonyl sulfide, thiophene, 3-methylthiophene, and 2-ethylthiophene showed high correlation values for one of the SMU 1 groups, but not the other.

Based on coefficients calculated for SMUs 6 and 7, no sulfur compounds appear to have correlation to RT.

Based on the entire dataset, dimethyl disulfide, with a coefficient of 0.84 is the only sulfur gas compound appearing to have a strong correlation to the RT values.

Odor Threshold Comparison

A comparison of SMU 1 headspace concentrations to the odor threshold values for sulfur gases reveal that many of the compounds exceeded the odor threshold values by a significant factor. Dimethyl sulfide, dimethyl disulfide and ethyl methyl sulfide were the largest exceedances for SMU 1, with strength factors ranging from 5 to 12.17. As the RT values of the SMU 1 samples were relatively high (compared to SMUs 6 and 7), this could imply that the SMU 1 odors are strongly tied to the presence of sulfur gases. Within the sample groupings, an increase in dimethyl sulfide and dimethyl disulfide concentrations consistently corresponded with increases in RT values.

A comparison of SMU 6 concentrations to the odor threshold values reveals a much lower prominence of sulfur gases exceeding their threshold values. No sulfur gas compounds exceeded their odor threshold value in the SMU 6 samples analyzed. Potential correlation between sulfur gas concentrations and RT values may be supported by the fact that SMU 6 samples had low strength factors and very low RT values. However, within the sample groupings, an increase in carbonyl sulfide and carbon disulfide did not correspond with an increase in RT value, in fact, the highest RT value within the group corresponded to the second lowest concentration for these two compounds.

SMU 7 compared similarly to SMU 6 for sulfur gas compounds. Of the four sulfur gas compounds detected, none exceeded their thresholds. Potential correlation between sulfur gas concentrations and RT values may be supported by the fact that SMU 7 samples had low strength factors and very low RT values. However, similar to SMU 6, an increase in carbon disulfide did not correspond with an increase in RT value. In fact, the highest RT value corresponded to the lowest concentration.

2.4.2 Aldehydes

Data Correlation

Based on coefficients calculated for SMU 1, some correlation may be drawn between several aldehyde compounds and RT. High coefficients were calculated for acetaldehyde, propionaldehyde, and n-Hexaldehyde for the SMU 1B group, although coefficients were poor for the SMU 1A group.

Based on coefficients calculated for SMU 6, no aldehyde compounds appear to have correlation to RT. One compound, 2,5-dimethylbenzaldehyde, had a high correlation coefficient for SMU 7 samples.

Odor Threshold Comparison

Using this evaluation method, no link can be drawn between any of the aldehyde compounds and the overall RT values, as no aldehydes were measured in exceedance of their odor threshold values in any SMU.

2.4.3 Amines

Data Correlation

Based on coefficients calculated for amine compounds, only diethylamine (for SMU 1B), had a high calculated correlation coefficient.

Odor Threshold Comparison

Using this evaluation method, no link can be drawn between any of the amine compounds and the overall RT values, as no amines were measured in exceedance of their odor threshold values in any SMU.

2.4.4 Volatile Organic Compounds

Data Correlation

Based on coefficients calculated for SMU 1, several VOC compounds appear to demonstrate strong correlation to RT. 1,4-dichlorobenzene, and 1,2-dichlorobenzene had high correlation coefficients for both SMU 1A and 1B data sets. Several other compounds, including benzene, toluene, xylenes, and napthalene had high correlation values for SMU 1B only. Chlorobenzene demonstrated a very strong relationship (Coefficient =1.0; P-Value = 0) for SMU 1A only.

Based on coefficients calculated for SMUs 6 and 7, no VOC compounds appear to have correlation to RT.

Based on coefficients for the entire dataset, several VOC compounds appear to have some correlation to the RT values. Chlorobenzene, dichlorobenzenes (1,3-, 1,4-), and naphthalene all appear to have strong correlation to the RT values with Pearson coefficients all above 0.7. Additionally, 1,2-dichlorobenzene may also have some correlation, with a coefficient of 0.73.

Odor Threshold Comparison

A comparison of SMU 1 concentrations to the odor threshold values for VOC compounds reveal that many of the compounds exceeded the odor threshold values by a significant factor. As the RT values of the SMU 1 samples were relatively high, this would imply that the SMU 1 odors may be strongly tied to the presence of VOC compounds. Chlorobenzene, naphthalene, cumene, and xylenes (amongst others) exceeded their odor threshold values by relatively high strength factors. Of these, chlorobenzene and naphthalene demonstrated a linear relationship in that an increase in air concentration resulted in an increase in RT value.

A comparison of SMU 6 concentrations to the odor threshold values reveals a much lower prominence of VOC compounds exceeding their threshold values. No compounds detected exceeded their threshold values. Additionally, no relationship could be drawn for these compounds demonstrating an increase in concentration corresponded to an increase in the RT value. Potential correlation between VOC concentrations and RT values may be supported by the fact that SMU 6 samples had low strength factors and very low RT values.

A comparison of SMU 7 concentrations to the odor threshold values for VOC compounds reveal that a limited number of compounds exceeded the odor threshold values. As the RT values of the SMU 7 samples were relatively low, this could imply that a lack of strong odor may be tied to a lack of high VOC concentrations. Cumene, chlorobenzene, and m,p-xylene exceeded their odor threshold values with relatively low strength factors, however no relationship could be drawn for these compounds demonstrating an increase in concentration corresponded to an increase in the RT value.

2.4.5 Odor Descriptors

As discussed in Section 1.2, odor descriptors were obtained for each sample as part of the odor panel analysis. These descriptors are summarized for each sample in Tables 1.1 through 1.5. Additionally, a blank statistical data form, used by the St. Croix Sensory, is included as Attachment D, to summarize the odor choices available to the assessor. Although variable characteristics were reported by the odor panelists, several trends were realized within the results, which generally correspond well with the results of the data evaluation discussed above.

Within SMU 1, “chemical” and “petrol” were the most prominent descriptor for the odors, as “chemical” was the primary description for seven of the 12 characterizations performed (and a descriptor for four of the remaining), while “petrol” was a descriptor for a total of nine tests.

These descriptors generally match the data results for the SMU 1 samples, in that the odors due to sulfur gas compounds and VOCs would likely be described by a "chemical" and "petrol" odor.

The descriptors given to the SMU 6 (Phase II) samples varied slightly from SMU 1. The most common descriptors for these samples were "petrol" and "solvent", which were both descriptors for five of the six tests. "Chemical" was also a minor descriptor (the third or fourth characteristic) for all six tests. Similar to the SMU 1 samples, these characteristics generally align with the previously identified odorants of concern (specific sulfur gases and VOCs). SMU 6 (Phase III) samples varied slightly from the Phase II samples. For Phase III, "chemical" was the primary descriptor for three of the four samples, and the secondary descriptor for the fourth. Other minor descriptors include "earthy" (three of the four samples) and offensive (two of the four samples).

Similar to both SMUs 1 and 6, "petrol" and "chemical" were the most common descriptors for SMU 7 sediments, both used for four of the six tests. "Tar" was also a minor descriptor for all three tests. Similar to the SMU 1 and SMU 6 samples, these characteristics generally align with the previously identified odorants of concern (specific sulfur gases and VOCs).

TABLE 2.1
Phase II/III PDI Odor Characterization Summary Report
SMU 1A Pearson Coefficient Values

		Sulfur Gases								
Compound	Average RT	Carbonyl Sulfide	Dimethyl Sulfide	Carbon Disulfide	Ethyl Methyl Sulfide	Thiophene	Isobutyl Mercaptan	Dimethyl Disulfide	Tetrahydro-thiophene	3-Methyl-thiophene
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-10114	1950	18	800	290	34	160	40	410	**9**	87
OL-STA-10115	1800	**6**	190	140	**8**	140	20	380	**9**	88
OL-STA-10116	4400	26	1600	190	31	25	20	570	18	**10**
	Pearson's Coefficient	0.83	0.92	-0.14	0.45	-0.98	-0.45	1.00	**1.00**	-1.00
	Pearson's P Value	0.37	0.25	0.91	0.70	0.12	0.70	0.06	0.03	0.03

		Sulfur Gases			Aldehydes					
Compound	Average RT	2,5-Dimethyl-thiopne	2-Ethyl-thiophene	Diethyl Disulfide	Acetaldehyde	Propionaldehyde	Buthyraldehyde	Benzaldehyde	Isovaleraldehyde	n-Hexaldehyde
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-10114	1950	**11.5**	88	**6**	180	4.7	6.3	7.8	3.2	4.1
OL-STA-10115	1800	80	71	48	120	5.8	7.6	21	5.2	5.2
OL-STA-10116	4400	11.5	**11.5**	37	75	4.8	7.7	7.3	**0.7**	2.3
	Pearson's Coefficient	**-0.54**	-0.97	0.22	-0.79	-0.47	0.51	-0.57	-0.92	-0.94
	Pearson's P Value	0.63	0.17	0.86	0.42	0.69	0.66	0.61	0.26	0.21

		Amines							
Compound	Average RT	Dimethylamine	Trimethylamine	Isopropylamine	t-Butylamine	Propylamine	Diethylamine	s-Buthylamine	Isobutylamine
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-10114	1950	40	550	3.5	4	4.1	3.7	3.2	3.3
OL-STA-10115	1800	29	310	**1.35**	3.3	2.9	4.1	2.8	**1.35**
OL-STA-10116	4400	36	110	**1.35**	**1.35**	**1.35**	**1.35**	**1.35**	**1.35**
	Pearson's Coefficient	0.21	-0.81	**-0.45**	-0.95	-0.88	-1.00	-0.97	**-0.45**
	Pearson's P Value	0.87	0.40	**0.70**	0.20	0.32	0.05	0.16	**0.70**

TABLE 2.1
Phase II/III PDI Odor Characterization Summary Report
SMU 1A Pearson Coefficient Values

		EPA TO-15 VOCs								
Compound	Average RT	n-Hexane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	m,p-Xylene	Styrene	o-Xylene	n-Nonane
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-10114	1950	1000	35000	70000	17000	15000	220000	9600	64000	2500
OL-STA-10115	1800	13000	65000	110000	7600	13000	240000	5900	69000	2600
OL-STA-10116	4400	480	10000	19000	160000	5200	95000	2700	29000	1500
	Pearson's Coefficient	-0.57	-0.87	-0.92	1.00	-0.97	-1.00	-0.82	-1.00	-1.00
	Pearson's P Value	0.61	0.33	0.26	0.00	0.16	0.05	0.39	0.04	0.02

		EPA TO-15 VOCs (continued)								
Compound	Average RT	4-Ethyltoluene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	1,2,4-Trichlorobenzene	Naphthalene	Cumene
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-10114	1950	8900	37000	47000	**165**	2900	2400	**165**	4400	9700
OL-STA-10115	1800	5700	29000	35000	**700**	2400	2000	**700**	3800	14000
OL-STA-10116	4400	3400	18000	21000	1400	96000	180000	510	3700	4700
	Pearson's Coefficient	-0.78	-0.89	-0.86	**0.88**	1.00	1.00	**0.11**	-0.57	-0.91
	Pearson's P Value	0.43	0.31	0.34	**0.32**	0.03	0.03	**0.93**	0.62	0.27

Notes:
NA = Not Analyzed
Bold = Undetected value is 0.5 times Reporting Limit
Shaded box indicates stronger correlation (Pearson's coefficient greater than +0.75, P Value less than 0.1 for compounds w/ coefficients >0.75.

TABLE 2.2
Phase II/III PDI Odor Characterization Summary Report
SMU 1B Pearson Coefficient Values

		Sulfur Gases								
Compound	Average RT	Dimethyl Sulfide	Carbon Disulfide	Ethyl Methyl Sulfide	Thiophene	n-Propyl Mercaptan	Dimethyl Disulfide	3-Methylthiophene	2-Ethylthiophene	Diethyl Disulfide
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-10117	4200	1000	290	9.1	150	6.6	540	32	49	**6**
OL-STA-10118	1025	64	300	**8**	38	**8**	82	**10**	17	26
OL-STA-10119	3000	210	71	**8**	45	**8**	690	18	23	**6**
	Pearson's Coefficient	0.87	-0.18	**0.79**	0.82	**-0.79**	0.81	0.96	0.88	**-0.93**
	Pearson's P Value	0.33	0.89	**0.42**	0.39	**0.42**	0.40	0.19	0.31	**0.24**

		Aldehydes							
Compound	Average RT	Acetaldehyde	Propionaldehyde	Buthyraldehyde	Benzaldehyde	Isovaleraldehyde	Valeraldehyde	n-Hexaldehyde	2,5-Dimethylbenzaldehyde
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-10117	4200	130	9.2	8.2	11	1.8	**0.7**	7.8	5.3
OL-STA-10118	1025	110	4.2	9.8	13	3.2	**0.7**	3.5	**0.7**
OL-STA-10119	3000	130	6.9	5.5	18	3.2	4.3	4.7	**0.7**
	Pearson's Coefficient	0.93	1.00	-0.49	-0.14	-0.79	**0.14**	0.92	**0.79**
	Pearson's P Value	0.24	0.06	0.67	0.91	0.42	**0.91**	0.25	**0.42**

		Amines			
Compound	Average RT	Dimethylamine	Trimethylamine	Diethylamine	s-Buthylamine
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-10117	4200	29	310	3.7	**1.35**
OL-STA-10118	1025	28	470	**1.35**	**1.35**
OL-STA-10119	3000	45	440	4.5	3.3
	Pearson's Coefficient	0.19	-0.88	0.81	**0.14**
	Pearson's P Value	0.88	0.31	0.40	**0.91**

TABLE 2.2
Phase II/III PDI Odor Characterization Summary Report
SMU 1B Pearson Coefficient Values

		EPA TO-15 VOCs									
Compound	Average RT	n-Hexane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	m,p-Xylene	Styrene	o-Xylene	n-Nonane	Cumene
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-10117	4200	2300	94000	23000	290000	11000	98000	4900	37000	1600	4900
OL-STA-10118	1025	1500	17000	11000	130000	3500	50000	1000	14000	690	3700
OL-STA-10119	3000	1200	17000	18000	97000	2700	45000	3600	14000	420	2700
	Pearson's Coefficient	0.60	0.79	1.00	0.68	0.73	0.73	1.00	0.79	0.63	0.42
	Pearson's P Value	0.59	0.42	0.03	0.52	0.48	0.48	0.03	0.42	0.56	0.72

		EPA TO-15 VOCs (continued)									
Compound	Average RT	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	1,2,4-Trichlorobenzene	Naphthalene	Ethanol	2-Butanone (MEK)	4-Ethyltolue
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-10117	4200	13000	16000	600	63000	33000	**200**	4200	**1000**	**200**	2200
OL-STA-10118	1025	6100	7100	**220**	36000	23000	680	2200	**1100**	**220**	810
OL-STA-10119	3000	6200	7300	230	28000	34000	140	2900	1100	160	880
	Pearson's Coefficient	0.80	0.80	0.80	0.63	0.89	-0.88	0.95	**-0.79**	**-0.46**	0.81
	Pearson's P Value	0.41	0.41	0.41	0.56	0.30	0.31	0.20	**0.42**	**0.70**	0.39

Notes:
NA = Not Analyzed
Bold = Undetected value is 0.5 times Reporting Limit
Shaded box indicates stronger correlation (Pearson's coefficient greater than +0.75, P Value less than 0.1 for compounds w/ coefficients >0.75.

TABLE 2.3
Phase II/III PDI Odor Characterization Summary Report
SMU 6 Pearson Coefficient Values

		Sulfur Gases					Aldehydes				
Compound	Average RT	Hydrogen Sulfide	Carbonyl Sulfide	Dimethyl Sulfide	Carbon Disulfide	Thiophene	Acetaldehyde	Propionaldehyde	Buthyraldehyde	2,5-Dimethyl-benzaldehyde	Formaldehyde
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-60098	170	3.4	110	**6.5**	97	8.5	**0.7**	**0.7**	**0.7**	390	**0.7**
OL-STA-60099	380	**3.5**	250	**6.6**	200	39	5.7	1.5	4.1	7.4	1.7
OL-STA-60100	705	**3.5**	72	6.5	45	8.5	1.8	**0.7**	**0.7**	8.1	**0.7**
OL-STA-60111	130	5.5	16	45	25	**8.5**	**0.7**	**0.7**	**0.7**	2.2	**0.7**
OL-STA-60112	24.5	**3.5**	150	**6.5**	130	**8.5**	**0.7**	**0.7**	**0.7**	3.6	**0.7**
	Pearson's Coefficient	**-0.30**	0.02	**-0.31**	-0.13	0.20	**0.41**	**0.20**	**0.20**	-0.22	**0.20**
	Pearson's P Value	**0.81**	0.99	**0.80**	0.92	0.87	0.73	**0.87**	**0.87**	0.86	**0.87**

		Amines	EPA TO-15 VOCs								
Compound	Average RT	Dimethylamine	Carbon Disulfide	Benzene	Toluene	Chlorobenzene	Ethylbenzene	m,p-Xylene	alpha-Pinene	o-Xylene	n-Nonane
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-60098	170	5.6	56	59	170	150	87	820	**16.5**	420	**16.5**
OL-STA-60099	380	3.4	120	500	80	1600	33.5	410	**33.5**	330	**33.5**
OL-STA-60100	705	2.9	31	9.4	23	12	5.6	38	6	37	8
OL-STA-60111	130	3.8	17	**2.5**	**21**	15	**2.5**	12	**2.5**	8.1	**2.5**
OL-STA-60112	24.5	**1.35**	82	**2.5**	**12**	**2.5**	**2.5**	6.4	**2.5**	**2.5**	**2.5**
	Pearson's Coefficient	0.01	-0.11	0.19	-0.11	0.19	-0.13	-0.10	**0.21**	0.00	**0.27**
	Pearson's P Value	1.00	0.93	0.88	0.93	0.88	0.92	0.94	**0.87**	1.00	**0.83**

TABLE 2.3
Phase II/III PDI Odor Characterization Summary Report
SMU 6 Pearson Coefficient Values

		EPA TO-15 VOCs (continued)							
Compound	Average RT	Cumene	4-Ethyltoluene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	Naphthalene	2-Butanone (MEK)
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-60098	170	110	83	420	350	96	76	**16.5**	**16.5**
OL-STA-60099	380	260	180	500	550	280	95	**33.5**	100
OL-STA-60100	705	46	96	56	130	7.2	5.7	16	12
OL-STA-60111	130	**2.5**	**2.5**	**2.5**	5.1	**2.5**	**2.5**	**2.5**	5.6
OL-STA-60112	24.5	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	5.4
	Pearson's Coefficient	0.27	0.60	0.09	0.27	0.15	0.05	**0.52**	0.25
	Pearson's P Value	0.82	0.59	0.94	0.83	0.91	0.97	**0.65**	0.84

Notes:
NA = Not Analyzed
Bold = Undetected value is 0.5 times Reporting Limit
Shaded box indicates stronger correlation (Pearson's coefficient greater than +0.75, P Value less than 0.1 for compounds w/ coefficients >0.75.

TABLE 2.4
Phase II/III PDI Odor Characterization Summary Report
SMU 7 Pearson Coefficient Values

		Sulfur Gases				Aldehydes			Amines	
Compound	Average RT	Carbonyl Sulfide	Dimethyl Sulfide	Carbon Disulfide	Thiophene	Acetaldehyde	Crotonaldehyde	2,5-Dimethyl-benzaldehyde	Dimethylamine	Trimethylamine
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-70048	1800	140	6.8	39	13	1.7	**0.7**	7.7	4.1	**1.45**
OL-STA-70049	1400	150	**6.5**	250	75	46	1.9	5.3	3.2	**1.45**
OL-STA-70050	780	200	9.4	240	80	43	**0.7**	4.9	7.1	3.4
	Pearson's Coefficient	-0.97	-0.88	-0.77	-0.84	-0.76	**0.12**	0.87	-0.81	**-0.92**
	Pearson's P Value	0.16	0.31	0.44	0.37	0.45	0.92	0.33	0.40	0.25

		EPA TO-15 VOCs							
Compound	Average RT	n-Hexane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	m,p-Xylene	Styrene	o-Xylene
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-70048	1800	12	410	470	1500	300	2500	150	920
OL-STA-70049	1400	53	1500	1100	4800	960	4100	**12.5**	1500
OL-STA-70050	780	28	1400	690	3900	1600	5700	**12.5**	1900
	Pearson's Coefficient	-0.27	-0.74	-0.23	-0.61	-0.99	-0.99	**0.80**	-0.97
	Pearson's P Value	0.83	0.47	0.86	0.58	0.08	0.08	**0.41**	0.15

TABLE 2.4
Phase II/III PDI Odor Characterization Summary Report
SMU 7 Pearson Coefficient Values

		EPA TO-15 VOCs (continued)							
Compound	Average RT	n-Nonane	Cumene	4-Ethyltoluene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-70048	1800	52	350	270	750	1100	61	410	97
OL-STA-70049	1400	170	1100	330	1500	1500	150	1300	460
OL-STA-70050	780	69	670	480	1500	1900	91	780	270
	Pearson's Coefficient	-0.01	-0.31	-0.99	-0.80	-0.99	-0.21	-0.30	-0.36
	Pearson's P Value	0.99	0.80	0.08	0.41	0.08	0.86	0.81	0.76

		EPA TO-15 VOCs (continued)							
Compound	Average RT	Naphthalene	Acetone	2-Propanol	Methylene Chloride	Carbon Disulfide	2-Butanone (MEK)	cis-1,2-Dichloroethene	alpha-Pinene
Location	Odor Units	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)	Conc. (ug/m3)
OL-STA-70048	1800	370	160	19	8.5	25	28	**12.5**	9.7
OL-STA-70049	1400	220	190	**12.5**	**12.5**	130	50	25	98
OL-STA-70050	780	660	270	**12.5**	**12.5**	140	92	**12.5**	40
	Pearson's Coefficient	-0.74	-0.99	**0.80**	**-0.80**	-0.84	-1.00	**0.12**	-0.22
	Pearson's P Value	0.47	0.08	**0.41**	**0.41**	0.36	0.03	**0.92**	0.86

Notes:
NA = Not Analyzed
Bold = Undetected value is 0.5 times Reporting Limit
Shaded box indicates stronger correlation (Pearson's coefficient greater than +0.75, P Value less than 0.1 for compounds w/ coefficients >0.75.

TABLE 2.5
Phase II/III PDI Odor Characterization Summary Report
Pearson Coefficients for Select Compounds (All SMUs)

Sample point	RT	Carbonyl Sulfide	Dimethyl Sulfide	Carbon Disulfide	Ethyl Methyl Sulfide	Thiophene	Dimethyl Disulfide	n-Hexane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	Styrene
OL-STA-60112	25	150	3.75	130	4	4.25	2.4	1	1	12	1	1	1
OL-STA-60111	130	16	45	25	4	4.25	94	1	1	21	8	1	6
OL-STA-60098	170	110	3.25	97	4	4.25	2.4	6	59	170	150	87	9
OL-STA-60099	380	250	6.6	200	4	39	2.4	17	500	80	1,600	17	17
OL-STA-60100	705	72	3.25	45	4	4.25	2.4	2	9	23	12	6	2
OL-STA-70050	780	200	9.4	240	4	80	2.4	28	1,400	690	3,900	1,600	7
OL-STA-70049	1,400	150	3.25	250	1	75	2.4	53	1,500	1,100	4,800	960	6
OL-STA-10118	1,700	64	300	4	4	38	82	1,500	17,000	11,000	130,000	3,500	1,000
OL-STA-10115	1,800	3	190	140	4	140	380	13,000	65,000	110,000	7,600	13,000	5,900
OL-STA-70048	1,800	140	6.8	39	4	13	2.4	12	410	470	1,500	300	150
OL-STA-10114	1,950	18	800	290	34	160	410	1,000	35,000	70,000	17,000	15,000	9,600
OL-STA-10119	3,000	210	71	4	4	45	690	1,200	17,000	18,000	97,000	2,700	3,600
OL-STA-10117	4,200	1000	290	6.6	9.1	150	540	2,300	94,000	23,000	290,000	11,000	4,900
OL-STA-10116	4,400	26	1,600	190	31	25	570	480	10,000	19,000	160,000	5,200	2,700
Pearson's Coefficient		**0.43**	**0.67**	**-0.12**	**0.52**	**0.44**	**0.84**	**0.19**	**0.60**	**0.31**	**0.83**	**0.55**	**0.54**
Pearson's P Values		**0.71**	**0.53**	**0.92**	**0.65**	**0.71**	**0.36**	**0.88**	**0.59**	**0.80**	**0.38**	**0.63**	**0.64**

Sample point	RT	m,p-Xylene	o-Xylene	n-Nonane	Cumene	4-Ethyltoluene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	1,2,4-Trichlorobenzene	Naphthalene
OL-STA-60112	25	6.4	1.25	1.25	1.25	1.25	1.25	1	1	1	1	1	1
OL-STA-60111	130	12	8.1	1.25	1.25	1.25	1.25	5	1	1	1	1	1
OL-STA-60098	170	820	420	8.25	110	83	420	350	9	96	76	8	8
OL-STA-60099	380	410	330	17	260	180	500	550	17	280	95	17	17
OL-STA-60100	705	38	37	8	46	96	56	130	2	4	6	6	16
OL-STA-70050	780	5,700	1,900	69	670	480	1,500	1,900	91	780	270	6	660
OL-STA-70049	1,400	4,100	1,500	170	1,100	330	1,500	1,500	150	1,300	460	7	220
OL-STA-10118	1,700	50,000	14,000	690	3,700	810	6,100	7,100	110	36,000	23,000	680	2,200
OL-STA-10115	1,800	240,000	69,000	2,600	14,000	5,700	29,000	35,000	350	2,400	2,000	350	3,800
OL-STA-70048	1,800	2,500	920	52	350	270	750	1,100	61	410	97	2	370
OL-STA-10114	1,950	220,000	64,000	2,500	9,700	8,900	37,000	47,000	82.5	2,900	2,400	82.5	4,400
OL-STA-10119	3,000	45,000	14,000	420	2,700	880	6,200	7,300	230	28,000	34,000	140	2,900
OL-STA-10117	4,200	98,000	37,000	1,600	4,900	2,200	13,000	16,000	600	63,000	33,000	100	4,200
OL-STA-10116	4,400	95,000	29,000	1,500	4,700	3,400	18,000	21,000	1,400	96,000	180,000	510	3,700
Pearson's Coefficient		**0.46**	**0.51**	**0.58**	**0.45**	**0.41**	**0.49**	**0.48**	**0.82**	**0.86**	**0.72**	**0.49**	**0.81**
Pearson's P Values		**0.69**	**0.66**	**0.61**	**0.71**	**0.73**	**0.67**	**0.68**	**0.39**	**0.34**	**0.49**	**0.67**	**0.40**

Notes:

Non-detect values are represented as 1/2 the detection limit

Concentrations presented in this table are in ($\mu g/m^3$)

Shaded box indicates stronger correlation (Pearson's coefficient greater than +0.75, P Value less than 0.1 for compounds w/ coefficients >0.75.

Table 2.6
Phase II/III PDI Odor Characterization Summary Report
Published Odor Threshold Criteria for Select Compounds

	Reference Odor Threshold Values (mg/m^3)						
Compound	**Verschueren[1]**	**EPA/600/ R-92/047[2]**	**Toxicology Network[3]**	**AIHA[4]**	**ETS[5]**	**Average Reference OTV**	**Odor Characteristic**
Sulfur Gases							
Carbonyl Sulfide	NL	0.25	NL	NL	NL	0.25	sulfide
Hydrogen Sulfide	0.006	NL	0.07	0.013	0.001	0.023	rotten eggs
Dimethyl Sulfide	0.06	NL	0.16	NL	0.043	0.088	unpleasant / cabbage-like
Carbon Disulfide	0.5	0.222	0.318	0.05	0.016	0.221	Vegetable sulfide / medicinal
Ethyl Methyl Sulfide	NL	NL	0.002	NL	NL	0.002	leek / garlic / skunk-like
Thiophene	5	NL	NL	NL	NL	5	benzene-like
n-propyl Mercaptan	NL	NL	0.005	NL	NL	0.005	offensive / cabbage
Dimethyl Disulfide	0.029	NL	0.029	NL	0.385	0.148	decayed fish
Tetrahydrothiophene	NL	NL	0.004	NL	NL	0.004	stench
Diethyl Disulfide	0.03	NL	NL	NL	0.020	0.025	
Aldehydes							
Acetaldehyde	0.3	0.12	0.38	0.12	NL	0.23	Pungent/fruity
Propionaldehyde	0.1	0.1	2.413	NL	NL	0.871	pungent / suffocating / unpleasant
Crotonaldehyde	0.6	NL	21	0.316	NL	7.31	pungent / suffocating
Butyraldehyde	0.027	NL	NL	NL	NL	0.027	none listed
Benzaldehyde	0.5	NL	0.182	NL	NL	0.341	almond
Valeraldehyde	0.072	NL	NL	0.0021	NL	0.037	acrid / pungent
Formaldehyde	1.1	0.033	0.06	0.033	NL	0.307	pungent
n-Hexaldehyde	0.039	NL	NL	NL	NL	0.039	fruity / grassy
Amines							
Dimethylamine	1.2	NL	0.0486	0.00139	NL	0.417	ammonia / fish-like
Trimethylamine	1	NL	0.00087	3.6	NL	1.534	ammonia / fish-like
Isopropylamine	2.3	NL	0.504	0.51	NL	1.105	ammonia
t-Butylamine	0.72	NL	NL	NL	NL	0.720	sour, ammoniacal
Propylamine	0.022	NL	NL	NL	NL	0.022	ammonia
Diethylamine	1	NL	0.11	0.16	NL	0.423	ammonia / fish-like
s-Buthylamine	0.72	NL	NL	NL	NL	0.720	fish

Table 2.6
Phase II/III PDI Odor Characterization Summary Report
Published Odor Threshold Criteria for Select Compounds

	Reference Odor Threshold Values (mg/m^3)						
Volatiles							
n-Hexane	230	230	6.4	230	NL	174.10	feint gasoline
Benzene	43	193.4	4.9	193.4	NL	108.675	aromatic / sweet / solvent
Toluene	10	10.5	8	6.02	NL	8.63	sour / burnt / benzene like
Chlorobenzene	3	6.1	0.98	6.1	NL	4.045	almond-like / shoe polish
Ethylbenzene	2.6	0.4	2.6	0.4	NL	1.50	oily / solvent / aromatic
m,p-Xylene	1.1	3.212	NL	2.728	NL	2.347	none listed
Styrene	0.6	0.645	0.2	0.602	NL	0.512	Sharp / sweet / aromatic / unpleasant
o-Xylene	1	23.44	0.22	23.44	NL	12.025	none listed
n-Nonane	108	NL	3412.5	NL	NL	1760.3	gasoline
Cumene	0.59	0.16	0.06	0.16	NL	0.243	sharp
1,3,5-Trimethylbenzene	0.4	NL	NL	10.82	NL	5.61	sweet
1,2,4-Trimethylbenzene	0.2	NL	NL	11.8	NL	6.00	distinctive / aromatic
1,4-Dichlorobenzene	90	0.72	NL	0.72	NL	30.48	distinctive / aromatic
1,2-Dichlorobenzene	305	NL	300.5	4.2	NL	203.233	camphori / mothballs / penetrating
1,2,4-Trichlorobenzene	NL	24	24	NL	NL	24.00	aromatic
Napthalene	0.3	0.2	0.17	0.2	NL	0.218	Tar / creosote / mothballs
Ethanol	150	NL	18.8	188	NL	118.93	pleasant / wine / whiskey
2-butanone	32	51	30	48	NL	40.25	sweet / acetone-like
Acetone	100	NL	30.94	147.56	NL	92.83	fruity
2-Propanol	10	NL	7.84	105.78	NL	41.207	sweet / alcohol
Methylene Chloride	500	500	540	555.2	NL	523.80	chloroform
cis-1,2-Dichloroethene	1100	NL	NL	NL	NL	1100.00	sweetish

Sources:

1. Handbook of Environmental Data on Organic Chemicals (2nd Edition), Verschueren, 1983
2. EPA/600/R-92/-047 - Reference Guide to Odor Thresholds for Hazardous Air Pollutants Listed In the Clean Air Act Amendments of 1990, USEPA, March 1992
3. United States National Library of Medicine Toxicology Data Network (http://toxnet.nlm.nih.gov/)
4. Odor Thresholds for Chemicals with Established Occupational Health Standards, 1989. American Industrial Hygiene Association, Akron, OH.
5. ETS Laboratories - Reported Sensory Thresholds of Sulfur Compounds (http://www.etslabs.com/scripts/ets/pagetemplate/blank.asp?pageid=350)

Note:

Different published sources report a range of values for odor detection and recognition thresholds, therefore, the odor threshold values presented in Table 2.6 are not intended to be definitive.

NL - No value listed in reference

TABLE 2.7
Phase II/III Odor Characterization Summary Report
SMU 1A Odor Threshold Comparison

		Sulfur Gases															
	Compound	Carbonyl Sulfide		Dimethyl Sulfide		Carbon Disulfide		Ethyl Methyl Sulfide		Thiophene		Dimethyl Disulfide		Tetrahydrothiophene		Diethyl Disulfide	
	Odor Threshold (ug/m^3)	250		88		221		2		5,000		148		4		25	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-10114	1950	18	0.07	800	9	290	1.31	34	17.00	160	0.03	410	3	**9**	2.25	**6**	0.24
OL-STA-10115	1800	**6**	0.02	190	2	140	0.63	**8**	4.00	140	0.03	380	3	**9**	2.25	48	1.92
OL-STA-10116	4400	26	0.10	1600	18	190	0.86	31	15.50	25	0.01	570	4	18	4.50	37	1.48
	Average Strength Factor	0.07		10		0.94		12.17		0.02		3.06		**3.00**		1.21	

		Aldehydes										Amines							
	Compound	Acetaldehyde		Propionaldehyde		Buthyraldehyde		Benzaldehyde		n-Hexaldehyde		Dimethylamine		Trimethylamine		Isopropylamine		t-Butylamine	
	Odor Threshold (ug/m^3)	230		870		27		341		39		417		1534		1105		720	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-10114	1950	180	0.78	4.7	0.01	6.3	0.23	7.8	0.02	4.1	0.11	40	0.10	550	0.36	3.5	0.00	4	0.01
OL-STA-10115	1800	120	0.52	5.8	0.01	7.6	0.28	21	0.06	5.2	0.13	29	0.07	310	0.20	**1.35**	0.00	3.3	0.00
OL-STA-10116	4400	75	0.33	4.8	0.01	7.7	0.29	7.3	0.02	2.3	0.06	36	0.09	110	0.07	**1.35**	0.00	**1.35**	0.00
	Average Strength Factor	0.54		0.01		0.27		0.04		0.10		0.08		0.21		0.00		0.00	

TABLE 2.7
Phase II/III Odor Characterization Summary Report
SMU 1A Odor Threshold Comparison

		Amines						EPA TO-15 VOCs											
	Compound	Propylamine		Diethylamine		s-Buthylamine		n-Hexane		Benzene		Toluene		Chlorobenzene		Ethylbenzene		m,p-Xylene	
	Odor Threshold (ug/m^3)	22		423		720		174,100		108,675		8,630		4,045		1,500		2,347	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-10114	1950	4.1	0.19	3.7	0.01	3.2	0.00	1000	0.01	35000	0.32	70000	8.11	17000	4.20	15000	10.00	220000	93.74
OL-STA-10115	1800	2.9	0.13	4.1	0.01	2.8	0.00	13000	0.07	65000	0.60	110000	12.75	7600	1.88	13000	8.67	240000	102.26
OL-STA-10116	4400	**1.35**	0.06	**1.35**	0.00	**1.35**	0.00	480	0.00	10000	0.09	19000	2.20	160000	39.56	5200	3.47	95000	40.48
	Average Strength Factor	0.13		0.01		0.00		0.03		0.34		7.69		15.21		7.38		78.82	

		EPA TO-15 VOCs																			
	Compound	Styrene		o-Xylene		n-Nonane		Cumene		1,3,5-Trimethylbenzene		1,2,4-Trimethylbenzene		1,4-Dichlorobenzene		1,2-Dichlorobenzene		1,2,4-Trichlorobenzene		Naphthalene	
	Odor Threshold (ug/m^3)	512		12,025		1,760,250		243		5,610		6,000		30,480		203,233		24,000		218	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-10114	1950	9600	18.75	64000	5.32	2500	0.00	9700	39.92	37000	6.60	47000	7.83	2900	0.10	2400	0.01	**165**	0.01	4400	20.18
OL-STA-10115	1800	5900	11.52	69000	5.74	2600	0.00	14000	57.61	29000	5.17	35000	5.83	2400	0.08	2000	0.01	**700**	0.03	3800	17.43
OL-STA-10116	4400	2700	5.27	29000	2.41	1500	0.00	4700	19.34	18000	3.21	21000	3.50	96000	3.15	180000	0.89	510	0.02	3700	16.97
	Average Strength Factor	11.85		4.49		0.00		38.96		4.99		5.72		1.11		0.30		**0.02**		18.20	

Notes:
NA = Not Analyzed
Bold = Undetected value is 0.5 times Reporting Limit
Shaded box indicates high strength factor (>1)

TABLE 2.8
Phase II/III Odor Characterization Summary Report
SMU 1B Odor Threshold Comparison

		Sulfur Gases														Aldehydes			
	Compound	Dimethyl Sulfide		Carbon Disulfide		Ethyl Methyl Sulfide		Thiophene		n-Propyl Mercaptan		Dimethyl Disulfide		Diethyl Disulfide		Acetaldehyde		Propionaldehyde	
	Odor Threshold (ug/m^3)	88		221		2		5,000		5		148		3.6		230		871	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-10117	4200	1000	11	290	1.31	9.1	4.55	150	0.03	6.6	1.32	540	4	**6**	1.67	130	0.57	9.2	0.01
OL-STA-10118	1700	64	1	300	1.36	**8**	4.00	38	0.01	**8**	1.60	82	1	26	7.22	110	0.48	4.2	0.00
OL-STA-10119	3000	210	2	71	0.32	**8**	4.00	45	0.01	**8**	1.60	690	5	**6**	1.67	130	0.57	6.9	0.01
	Average Strength Factor	5		1.00		**4.18**		0.02		1.51		2.95		**3.52**		0.54		0.01	

		Aldehydes								Amines							
	Compound	Buthyraldehyde		Benzaldehyde		Valeraldehyde		n-Hexaldehyde		Dimethylamine		Trimethylamine		Diethylamine		s-Buthylamine	
	Odor Threshold (ug/m^3)	27		341		37		39		417		1534		423		720	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-10117	4200	8.2	0.30	11	0.03	**0.7**	0.02	7.8	0.20	29	0.07	310	0.20	3.7	0.01	**1.35**	0.00
OL-STA-10118	1700	9.8	0.36	13	0.04	**0.7**	0.02	3.5	0.09	28	0.07	470	0.31	**1.35**	0.00	**1.35**	0.00
OL-STA-10119	3000	5.5	0.20	18	0.05	4.3	0.12	4.7	0.12	45	0.11	440	0.29	4.5	0.01	3.3	0.00
	Average Strength Factor	0.29		0.04		**0.05**		0.14		0.08		0.27		0.01		**0.00**	

TABLE 2.8
Phase II/III Odor Characterization Summary Report
SMU 1B Odor Threshold Comparison

		EPA TO-15 VOCs																	
	Compound	n-Hexane		Benzene		Toluene		Chlorobenzene		Ethylbenzene		m,p-Xylene		Styrene		o-Xylene		n-Nonane	
	Odor Threshold (ug/m^3)	174,100		108,675		8,630		4,045		1,500		2,347		512		12,025		1,760,250	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-10117	4200	2300	0.01	94000	0.86	23000	2.67	290000	71.69	11000	7.33	98000	41.76	4900	9.57	37000	3.08	1600	0.00
OL-STA-10118	1700	1500	0.01	17000	0.16	11000	1.27	130000	32.14	3500	2.33	50000	21.30	1000	1.95	14000	1.16	690	0.00
OL-STA-10119	3000	1200	0.01	17000	0.16	18000	2.09	97000	23.98	2700	1.80	45000	19.17	3600	7.03	14000	1.16	420	0.00
	Average Strength Factor	0.01		0.16		1.68		28.06		2.07		20.24		4.49		1.16		0.00	

		EPA TO-15 VOCs (continued)																	
	Compound	1,3,5-Trimethylbenzene		1,2,4-Trimethylbenzene		1,4-Dichlorobenzene		1,2-Dichlorobenzene		1,2,4-Trichlorobenzene		Naphthalene		Ethanol		2-Butanone (MEK)		Cumene	
	Odor Threshold (ug/m^3)	5,610		6,000		30,480		203,233		24,000		218		118,933		40,250		243	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-10117	4200	13000	2.32	16000	2.67	63000	2.07	33000	0.16	**200**	0.01	4200	19.27	**1000**	0.01	**200**	0.00	4900	20.16
OL-STA-10118	1700	6100	1.09	7100	1.18	36000	1.18	23000	0.11	680	0.03	2200	10.09	**1100**	0.01	**220**	0.01	3700	15.23
OL-STA-10119	3000	6200	1.11	7300	1.22	28000	0.92	34000	0.17	140	0.01	2900	13.30	1100	0.01	160	0.00	2700	11.11
	Average Strength Factor	1.11		1.22		0.92		0.17		0.01		13.30		**0.01**		**0.00**		13.17	

Notes:
NA = Not Analyzed
Bold = Undetected value is 0.5 times Reporting Limit
Shaded box indicates high strength factor (>1)

TABLE 2.9
Phase II/III Odor Characterization Summary Report
SMU 6 Odor Threshold Comparison

		Sulfur Gases										Aldehydes							
	Compound	Hydrogen Sulfide		Carbonyl Sulfide		Dimethyl Sulfide		Carbon Disulfide		Thiophene		Acetaldehyde		Propionaldehyde		Buthyraldehyde		Formaldehyde	
	Odor Threshold (ug/m^3)	23		250		88		221		5,000		230		870		27		307	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-60111	24.5	5.5	0.24	16	0.06	45	1	25	0.11	**8.5**	0.00	**0.7**	0.00	**0.7**	0.00	**0.7**	0.03	**0.7**	0.00
OL-STA-60112	130	**3.5**	0.15	150	0.60	**6.5**	0	130	0.59	**8.5**	0.00	**0.7**	0.00	**0.7**	0.00	**0.7**	0.03	**0.7**	0.00
OL-STA-60098	170	3.4	0.15	110	0.44	**6.5**	0	97	0.44	8.5	0.00	**0.7**	0.00	**0.7**	0.00	**0.7**	0.03	**0.7**	0.00
OL-STA-60099	380	**3.5**	0.15	250	1.00	**6.6**	0	200	0.90	39	0.01	5.7	0.02	1.5	0.00	4.1	0.15	1.7	0.01
OL-STA-60100	705	**3.5**	0.15	72	0.29	6.5	0	45	0.20	8.5	0.00	1.8	0.01	**0.7**	0.00	**0.7**	0.03	**0.7**	0.00
	Average Strength Factor	**0.17**		0.48		**0.16**		0.45		0.00		**0.01**		**0.00**		**0.05**		**0.00**	

		Amines		EPA TO-15 VOCs															
	Compound	Dimethylamine		Carbon Disulfide		Benzene		Toluene		Chlorobenzene		Ethylbenzene		m,p-Xylene		o-Xylene		n-Nonane	
	Odor Threshold (ug/m^3)	417		221		108,675		8,630		4,045		1500		2347		12,025		1,760,250	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-60111	24.5	3.8	0.01	17	0.08	**2.5**	0.00	21	0.00	15	0.00	**2.5**	0.00	12	0.01	8	0.00	**2.5**	0.00
OL-STA-60112	130	**1.35**	0.00	82	0.37	**2.5**	0.00	12	0.00	**2.5**	0.00	**2.5**	0.00	6.4	0.00	**3**	0.00	**2.5**	0.00
OL-STA-60098	170	5.6	0.01	56	0.25	59	0.00	170	0.02	150	0.04	87	0.06	820	0.35	420	0.03	**16.5**	0.00
OL-STA-60099	380	3.4	0.01	120	0.54	500	0.00	80	0.01	1600	0.40	33.5	0.02	410	0.17	330	0.03	**33.5**	0.00
OL-STA-60100	705	2.9	0.01	31	0.14	9.4	0.00	23	0.00	12	0.00	5.6	0.00	38	0.02	37	0.00	8	0.00
	Average Strength Factor	0.01		0.28		0.00		0.01		0.09		0.02		0.11		0.01		**0.00**	

		EPA TO-15 VOCs (continued)													
	Compound	Cumene		1,3,5-Trimethylbenzene		1,2,4-Trimethylbenzene		1,4-Dichlorobenzene		1,2-Dichlorobenzene		Naphthalene		2-Butanone (MEK)	
	Odor Threshold (ug/m^3)	243		5610		6000		30,480		203,233		218		40,250	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-60111	24.5	**2.5**	0.01	**2.5**	0.00	5.1	0.00	**2.5**	0.00	**2.5**	0.00	**2.5**	0.01	5.6	0.00
OL-STA-60112	130	**2.5**	0.01	**2.5**	0.00	**2.5**	0.00	**2.5**	0.00	**2.5**	0.00	**2.5**	0.01	5.4	0.00
OL-STA-60098	170	110	0.45	420	0.07	350	0.06	96	0.00	76	0.00	**16.5**	0.08	**16.5**	0.00
OL-STA-60099	380	260	1.07	500	0.09	550	0.09	280	0.01	95	0.00	**33.5**	0.15	100	0.00
OL-STA-60100	705	46	0.19	56	0.01	130	0.02	7.2	0.00	5.7	0.00	16	0.07	12	0.00
	Average Strength Factor	0.35		0.03		0.03		0.00		0.00		**0.07**		0.00	

Notes:
NA = Not Analyzed
Bold = Undetected value is 0.5 times Reporting Limit
Shaded box indicates high strength factor (>1)

TABLE 2.10
Phase II/III Odor Characterization Summary Report
SMU 7 Odor Threshold Comparison

		Sulfur Gases								Aldehydes				Amines			
	Compound	Carbonyl Sulfide		Dimethyl Sulfide		Carbon Disulfide		Thiophene		Acetaldehyde		Crotonaldehyde		Dimethylamine		Trimethylamine	
	Odor Threshold (ug/m^3)	250		88		221		5,000		230		7305		417		1534	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-70048	1800	140	0.56	6.8	0.08	39	0.18	13	0.00	1.7	0.01	**0.7**	0.00	4.1	0.01	**1.45**	**0.00**
OL-STA-70049	1400	150	0.60	**6.5**	0.07	250	1.13	75	0.02	46	0.20	1.9	0.00	3.2	0.01	**1.45**	**0.00**
OL-STA-70050	780	200	0.80	9.4	0.11	240	1.09	80	0.02	43	0.19	**0.7**	0.00	7.1	0.02	3.4	0.00
	Average Strength Factor	0.65		0.09		0.80		0.01		0.13		**0.00**		0.01		**0.00**	

		EPA TO-15 VOCs															
	Compound	n-Hexane		Benzene		Toluene		Chlorobenzene		Ethylbenzene		m,p-Xylene		Styrene		o-Xylene	
	Odor Threshold (ug/m^3)	174,100		108,675		8,630		4,045		1500		2,347		512		12,025	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-70048	1800	12	0.00	410	0.00	470	0.05	1500	0.37	300	0.20	2500	1.07	150	0.29	920	0.08
OL-STA-70049	1400	53	0.00	1500	0.01	1100	0.13	4800	1.19	960	0.64	4100	1.75	**12.5**	0.02	1500	0.12
OL-STA-70050	780	28	0.00	1400	0.01	690	0.08	3900	0.96	1600	1.07	5700	2.43	**12.5**	0.02	1900	0.16
	Average Strength Factor	0.00		0.01		0.10		1.08		0.85		2.09		**0.02**		0.14	

TABLE 2.10
Phase II/III Odor Characterization Summary Report
SMU 7 Odor Threshold Comparison

		EPA TO-15 VOCs (continued)															
	Compound	n-Nonane		Cumene		1,3,5-Trimethylbenzene		1,2,4-Trimethylbenzene		1,4-Dichlorobenzene		1,2-Dichlorobenzene		Naphthalene		Acetone	
	Odor Threshold (ug/m^3)	1,760,250		243		5,610		6,000		30,480		203,233		24,000		92,833	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-70048	1800	52	0.00	350	1.44	750	0.13	1100	0.18	410	0.01	97	0.00	370	0.02	160	0.00
OL-STA-70049	1400	170	0.00	1100	4.53	1500	0.27	1500	0.25	1300	0.04	460	0.00	220	0.01	190	0.00
OL-STA-70050	780	69	0.00	670	2.76	1500	0.27	1900	0.32	780	0.03	270	0.00	660	0.03	270	0.00
	Average Strength Factor	0.00		3.64		0.27		0.28		0.03		0.00		0.03		0.00	

		EPA TO-15 VOCs (continued)									
	Compound	2-Propanol		Methylene Chloride		Carbon Disulfide		2-Butanone (MEK)		cis-1,2-Dichloroethene	
	Odor Threshold (ug/m^3)	41,207		523,800		221		40,250		1,100,000	
Location	Average RT	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor	Conc. (ug/m3)	Strength Factor
OL-STA-70048	1800	19	0.00	8.5	0.00	25	0.11	28	0.00	**12.5**	0.00
OL-STA-70049	1400	**12.5**	0.00	**12.5**	0.00	130	0.59	50	0.00	25	0.00
OL-STA-70050	780	**12.5**	0.00	**12.5**	0.00	140	0.63	92	0.00	**12.5**	0.00
	Average Strength Factor	**0.00**		**0.00**		0.63		0.00		**0.00**	

Notes:
NA = Not Analyzed
Bold = Undetected value is 0.5 times Reporting Limit
Shaded box indicates high strength factor (>1)

SECTION 3

CONCLUSIONS

3.1 PRIMARY ODORANTS

Based on the results of the evaluations summarized in Section 2 of this Summary Report, it appears that sulfur gases and VOCs are most likely the primary odorants in the samples collected during this investigation, and that the most effective odor management may result from control measures focusing on these compound groups. Within these groups, the strongest correlation between concentration and RT values appear to be with dimethyl sulfide, methyl sulfide, chlorobenzene, and naphthalene, with some correlation possible between dichlorobenzene and trimethylbenzene compounds. Table 3.1 summarizes the data evaluation results for these compounds. As these results are not considered representative of the conditions anticipated during remediation, further evaluation will be necessary to determine to what extent emission control measures are needed.

Based on previous project experience, some additional recommendations can be made pertaining to the potential control strategies for addressing these compounds:

- For volatile organic compounds, the results presented in Section 2 follow the considerable variability of contaminant levels that has been noted in other portions of the Pre-Design Investigation. Although specific compounds within the VOC/SVOC group appear to have a demonstrated relationship within the samples collected for this investigation, the high number of contaminants found exceeding their threshold values indicate that VOC/SVOC controls should be focused on the compound group as a whole, as opposed to individual compounds.

- Similarly, for the sulfur group, it is recommended that the sulfur compounds be addressed as a whole, as opposed to individual compounds within the group. It is known from other industries that dimethyl sulfide "converts" to dimethyl disulfide, and that other "conversions" between compounds may also occur. Control strategies focused on one or two compounds could lead to the production of other sulfide compounds. Additionally, control strategies prescribed for the sulfide family of odorous compounds may correspondingly reduce the aldehydes family of odorous compounds.

- Although strong correlations were not found between the odors and amine compounds during this phase of testing, some contingency mitigation controls that may be considered to reduce emissions (e.g., pH adjustments) may lead to an increase in amine release. This will be considered in future analyses and amines may be re-evaluated.

TABLE 3.1
Phase II/III PDI Odor Characterization Summary Report
Data Evaluation Summary

	Pearson Coefficients					Odor Threshold Strength Factors			
Compound / Data Set	SMU 1A	SMU 1B	SMU 6	SMU 7	All Data	SMU 1A	SMU 1B	SMU 6	SMU 7
Dimethyl Sulfide	0.92	0.87	-0.31	-0.88	0.66	10	5	**0.16**	0.09
Dimethyl Disulfide	1	0.81	NC	NC	0.85	3.06	2.95	NC	NC
Benzene	-0.87	0.79	0.19	-0.74	0.56	0.34	0.16	0	0.01
Chlorobenzene	1	0.68	0.19	-0.61	0.83	15.21	28.06	0.09	1.08
1,2-Dichlorobenzene	1	0.89	0.05	-0.36	0.73	0.3	0.17	0	0
1,4-Dichlorobenzene	1	0.63	0.15	-0.3	0.87	1.11	0.92	0.01	0.03
1,3,5-Trimethylbenzene	-0.89	0.8	0.09	-0.8	0.42	4.99	1.11	0.03	0.27
1,2,4-Trimethylbenzene	-0.86	0.8	0.27	-0.99	0.41	5.72	1.22	0.03	0.28
Napthalene	-0.57	0.95	0.52	-0.74	0.77	18.2	13.3	**0.07**	0.03

Notes:

NC = not calculated (values were all non-detect)

Bold - values were calculated based on 2 (of 3) values being non-detect

SECTION 4

REFERENCES

Parsons, 2005, *Onondaga Lake Pre-Design Investigation: Phase I Work Plan Appendix D: Air Emission And Odor Work Plan*. Prepared for Honeywell, Morristown, New Jersey. Syracuse, New York.

Parsons, 2006, *Onondaga Lake Pre-Design Investigation: Phase II Work Plan and Addenda*. Prepared for Honeywell, Morristown, New Jersey. Syracuse, New York.

Service Engineering Group, 2006, *Wind Tunnel Testing Report*. Prepared for Parsons and Honeywell, Morristown, New Jersey. Saint Paul, MN

TRC Environmental Consultants, 1989. *Odor Thresholds for Chemicals with Established Occupational Health Standards*. American Industrial Hygiene Association, Akron, OH.

United States Environmental Protection Agency, March 1992, *Reference Guide to Odor Thresholds for Hazardous Air Pollutants Listed in the Clean Air Act Amendments of 1990*. EPA/600/R-92-047. Available at: http://www.epa.gov/ttn/atw/publicat.html

United States National Library of Medicine, Toxicology Data Network (TOXNET). Internet Address: http://toxnet.nlm.nih.gov/

Verschueren, Karel, 1983, Handbook of Environmental Data on Organic Chemicals, Van Nostrand Reinhold Company, New York

APPENDIX A

RAW LABORATORY RESULTS FROM ST. CROIX SENSORY

St.Croix Sensory, Inc.

Service Engineering Group

Dredge Sediment

Odor Evaluation Report

Report No. 633302
11/29/06

Data Release Authorization:

Melissa McGinley
Laboratory Associate

Reviewed and Approved:

Charles M. McGinley, P.E.
Technical Director

St. Croix Sensory is a laboratory dedicated to practicing state-of-the-art sensory evaluation and to advancing the science of sensory perception.

We are a family owned and operated business providing our clients with personal customer service, flexible scheduling, timely results.

Our focus is to provide the best professional services available to help make your project or product a success.

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P.O. Box 313
Lake Elmo, Minnesota 55042 U.S.A.

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Email: stcroix@fivesenses.com

St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group

Report No.: **633302**

Project: Dredge Sediment

Evaluation Date: 11/29/06

			ASTM E679 & EN13725		ASTM E544	PERSISTENCY	CHARACTERIZATION		
#	Field No.	Sample Description	Detection Threshold	Recognition Threshold	Intensity	Dose-Response Slope	Hedonic Tone	Principal Odor Descriptors	**Comments**
1	A10	5L of A1	2,700	1,700	85	-0.48	-3.8	Chemical, Tar, Petroleum	
2	A20	5L of A2	2,900	1,900	85	-0.45	-5.0	Petroleum, Offensive	
3	B10	5L of B1	2,900	1,800	230	-0.51	-6.8	Chemical, Offensive, Earthy	
4	B20	5L of B2	3,600	2,100	210	-0.49	-7.2	Chemical, Offensive, Petroleum, Solvent	
5									
6									
7									
8									
9									
10									

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St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group

Report No.: **633302**

Project: Dredge Sediment

Evaluation Date: 11/29/06

			ASTM E679 & EN13725		ASTM E544	PERSISTENCY	CHARACTERIZATION		
#	Field No.	Sample Description	Detection Threshold	Recognition Threshold	Intensity	Dose-Response Slope	Hedonic Tone	Principal Odor Descriptors	**Comments**
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

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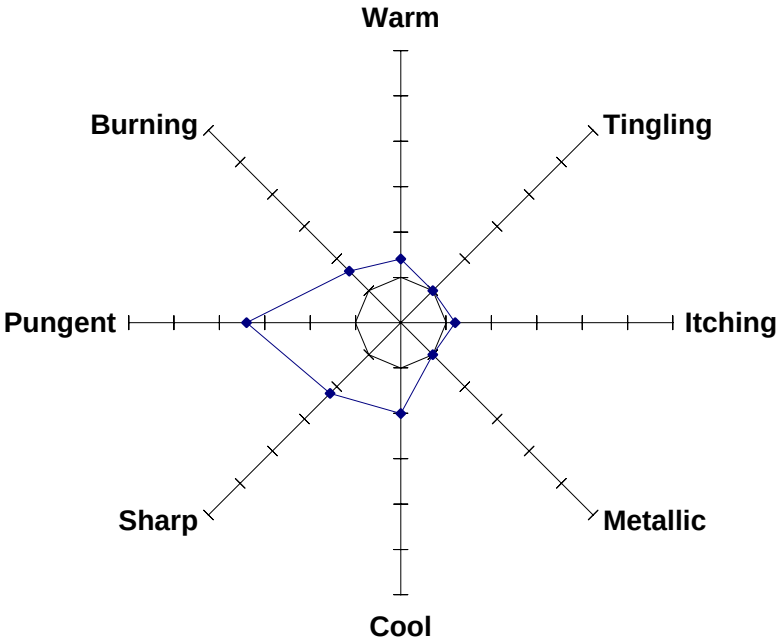
St. Croix Sensory, Inc.

Odor Evaluation Report

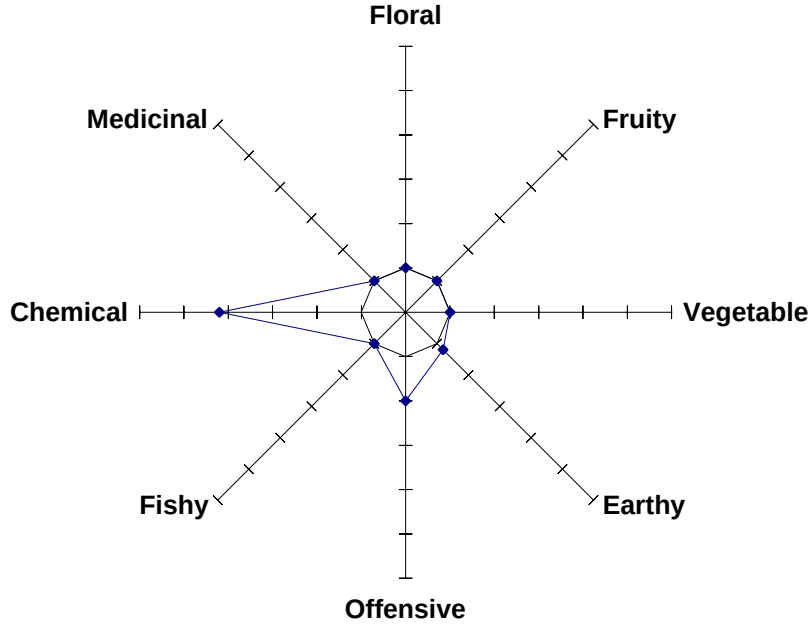
Client:	Service Engineering Group	Field No.:	A10	Report No.:	**633302**
Project:	Dredge Sediment	Description:	5L of A1	Evaluation Date:	11/29/06

Sensation Descriptor Graph



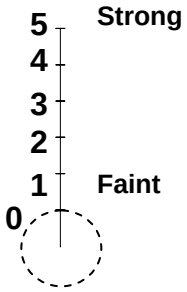
	Average Relative Strength
Warm	0.4
Tingling	0.0
Itching	0.2
Metallic	0.0
Cool	1.0
Sharp	1.2
Pungent	2.4
Burning	0.6

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.2
Offensive	1.0
Fishy	0.0
Chemical	3.2
Medicinal	0.0

KEY



Relative Strength

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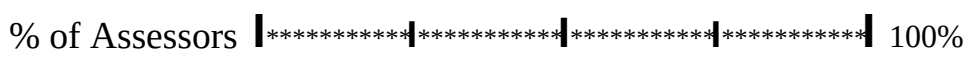
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: A10 | Report No.: **633302**

Project: Dredge Sediment | Description: 5L of A1 | Evaluation Date: 11/29/06



Chemical	**********
Grease	**********
Tar	**********
Car exhaust	**********
Petroleum	**********
Creosote	**********
Solvent	**********
Oil	**********
Offensive	**********
Earthy	**********
Musty	**********

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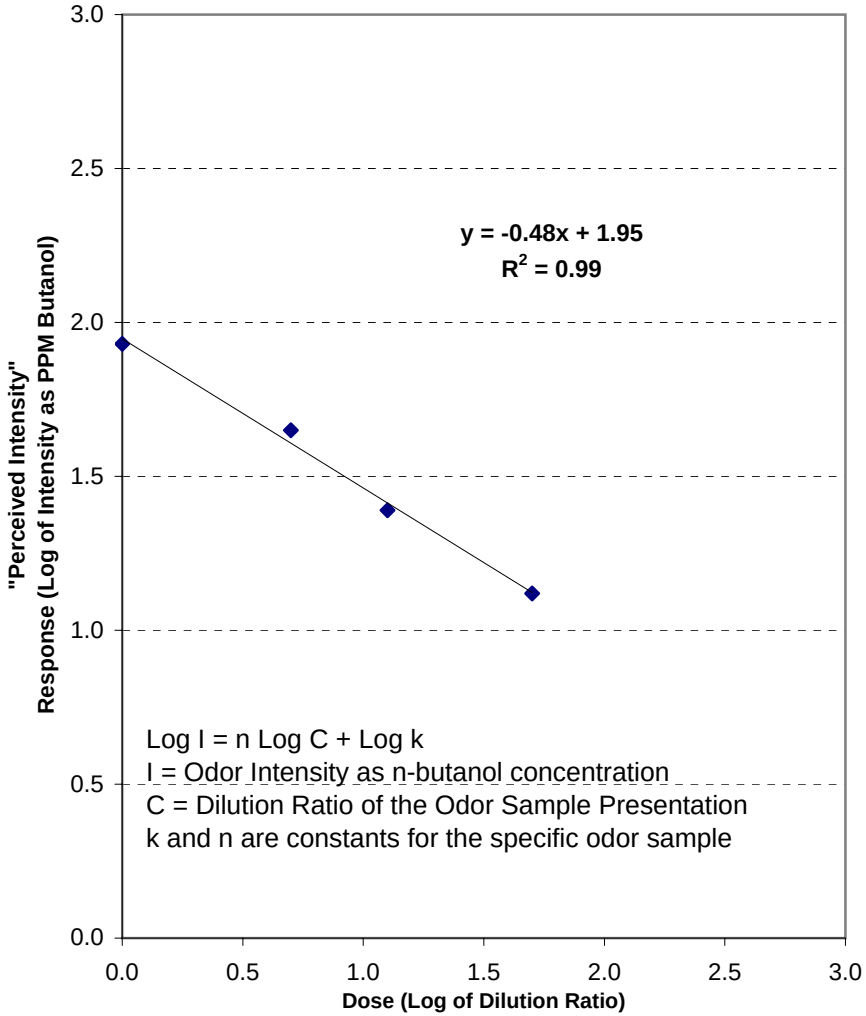
St. Croix Sensory, Inc.

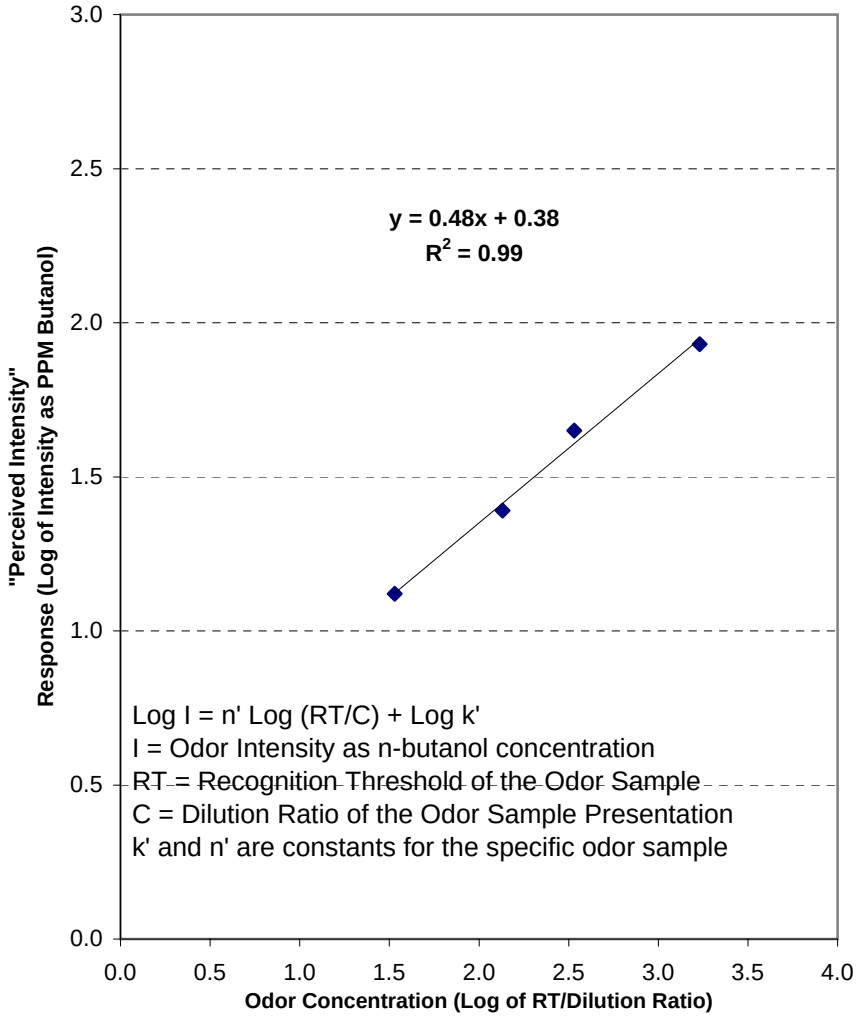
Odor Evaluation Report

Client:	Service Engineering Group	Field No.:	A10	Report No.:	**633302**
Project:	Dredge Sediment	Description:	5L of A1	Evaluation Date:	11/29/06

Dose-Response



Dose-Response as Power Law



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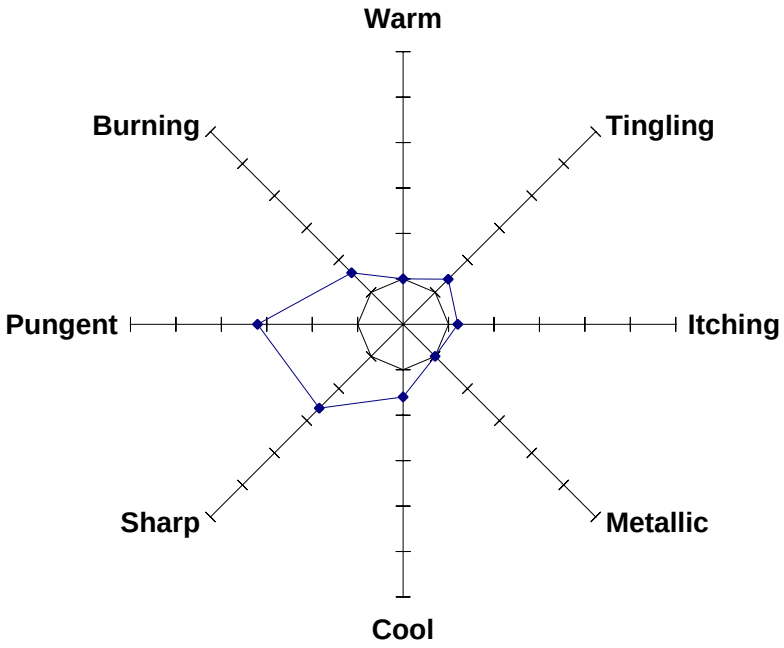
St. Croix Sensory, Inc.

Odor Evaluation Report

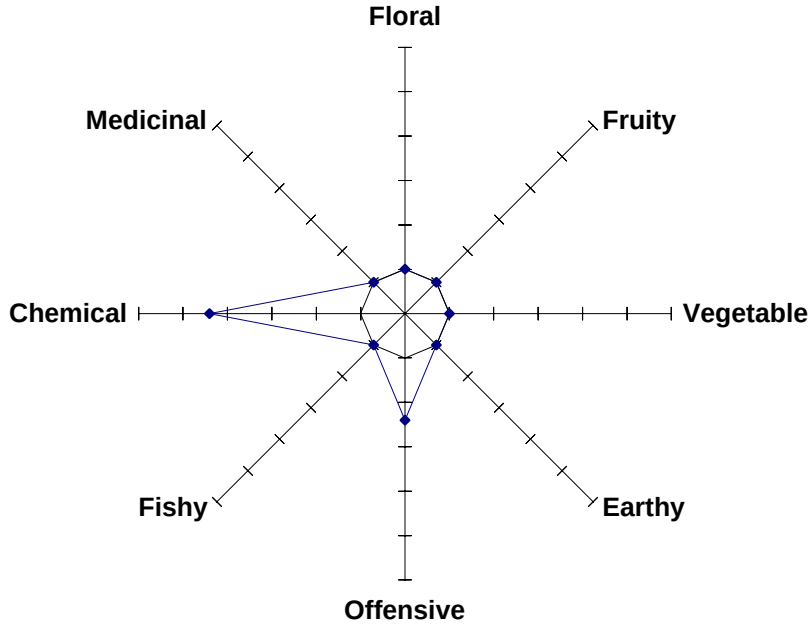
Client:	Service Engineering Group	Field No.:	A20	Report No.:	**633302**
Project:	Dredge Sediment	Description:	5L of A2	Evaluation Date:	11/29/06

Sensation Descriptor Graph



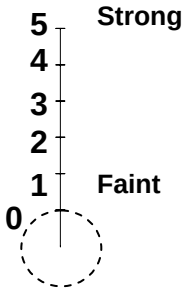
	Average Relative Strength
Warm	0.0
Tingling	0.4
Itching	0.2
Metallic	0.0
Cool	0.6
Sharp	1.6
Pungent	2.2
Burning	0.6

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.0
Offensive	1.4
Fishy	0.0
Chemical	3.4
Medicinal	0.0

KEY



Relative Strength

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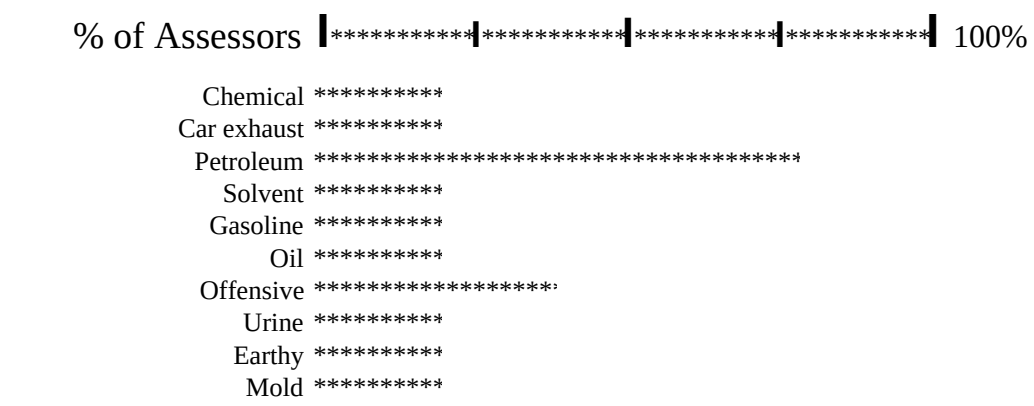
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: A20 | Report No.: **633302**

Project: Dredge Sediment | Description: 5L of A2 | Evaluation Date: 11/29/06



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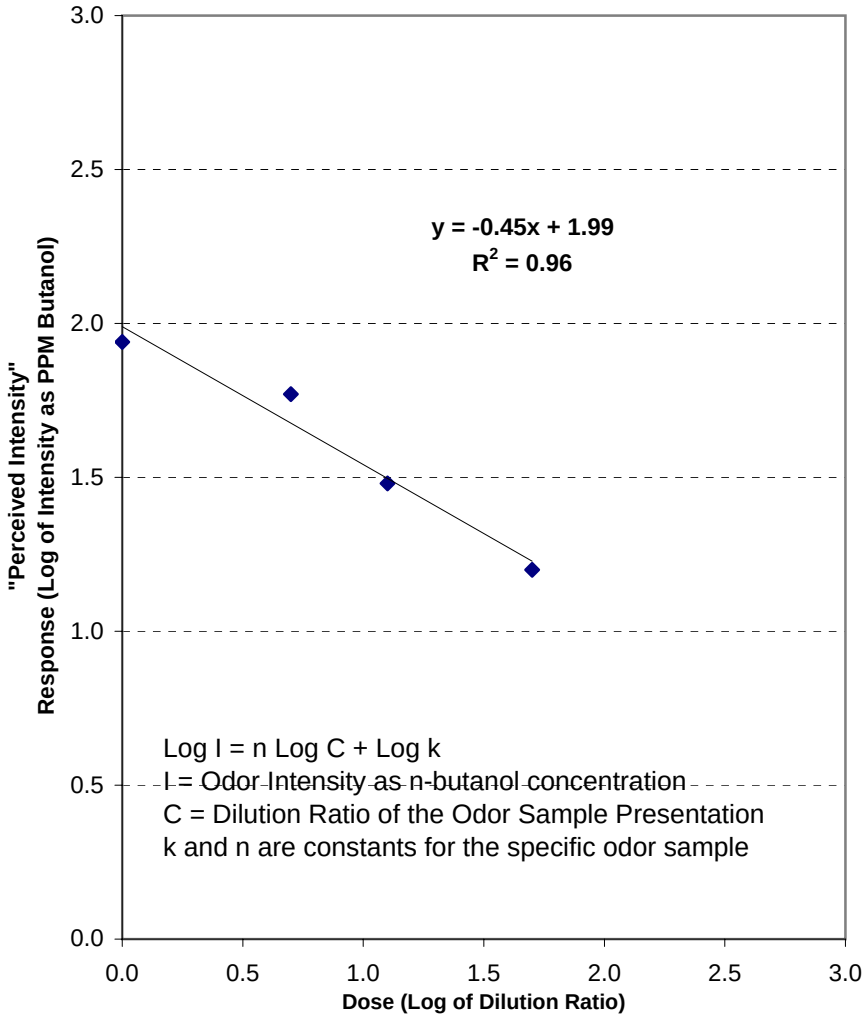
St. Croix Sensory, Inc.

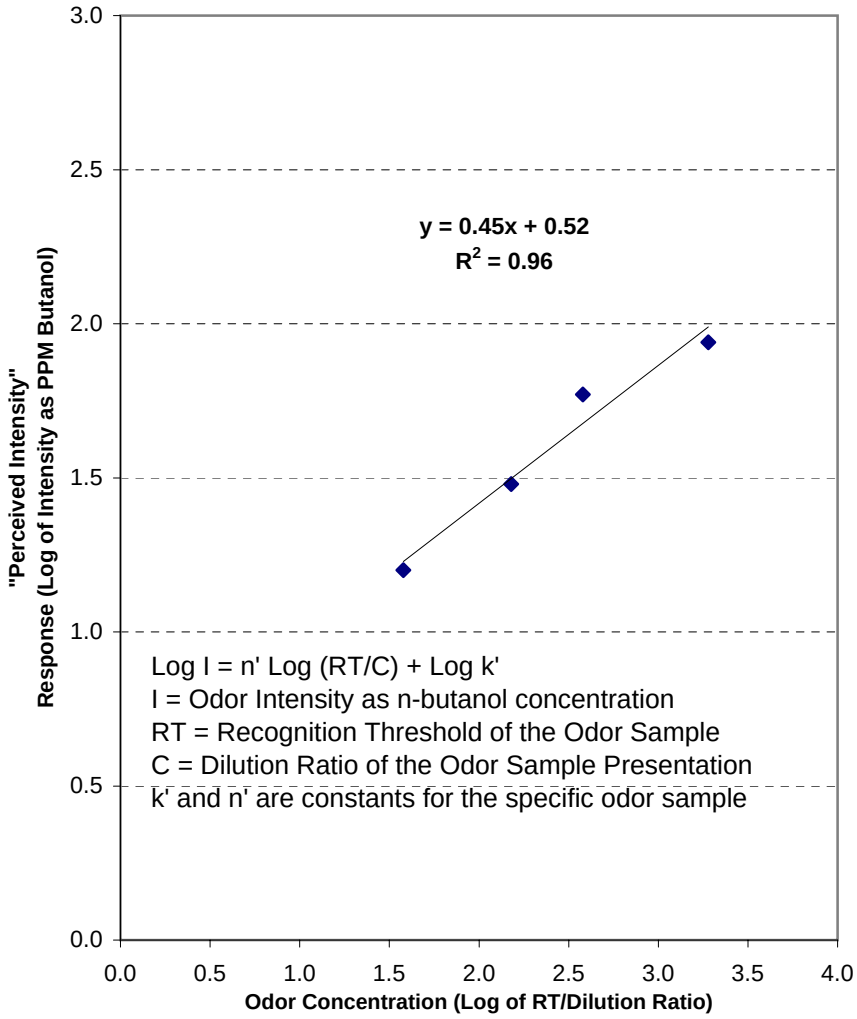
Odor Evaluation Report

Client:	Service Engineering Group	Field No.:	A20	Report No.:	**633302**
Project:	Dredge Sediment	Description:	5L of A2	Evaluation Date:	11/29/06

Dose-Response



Dose-Response as Power Law



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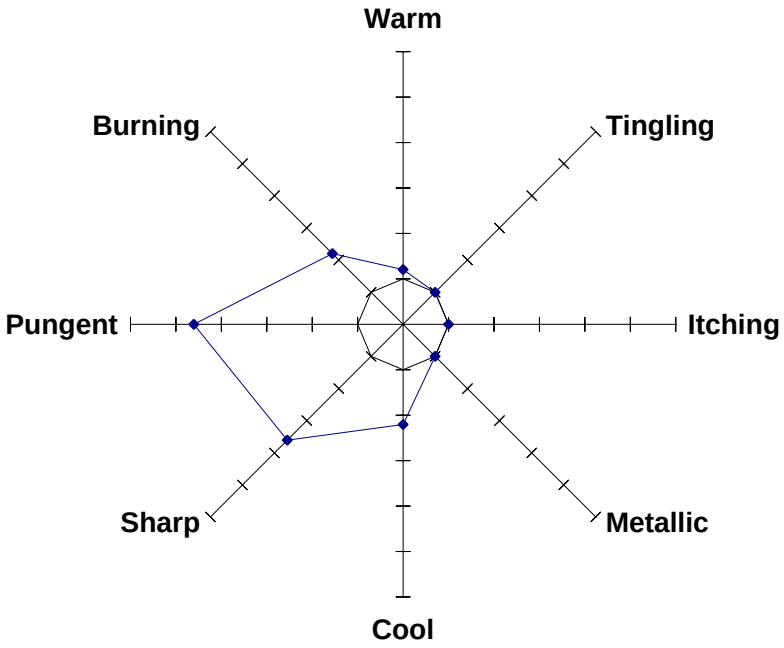
St. Croix Sensory, Inc.

Odor Evaluation Report

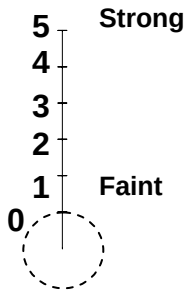
Client:	Service Engineering Group	Field No.:	B10	Report No.:	**633302**
Project:	Dredge Sediment	Description:	5L of B1	Evaluation Date:	11/29/06

Sensation Descriptor Graph



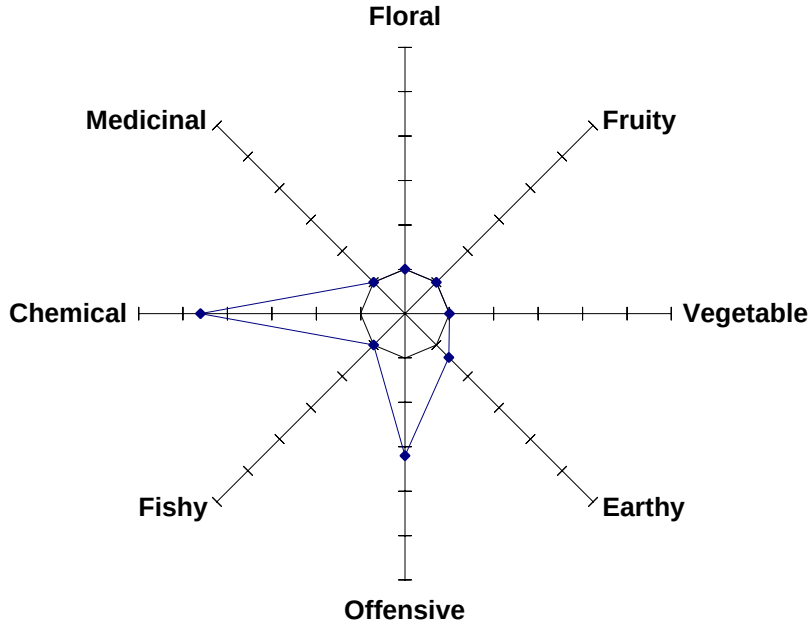
	Average Relative Strength
Warm	0.2
Tingling	0.0
Itching	0.0
Metallic	0.0
Cool	1.2
Sharp	2.6
Pungent	3.6
Burning	1.2

KEY



Relative Strength

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.4
Offensive	2.2
Fishy	0.0
Chemical	3.6
Medicinal	0.0

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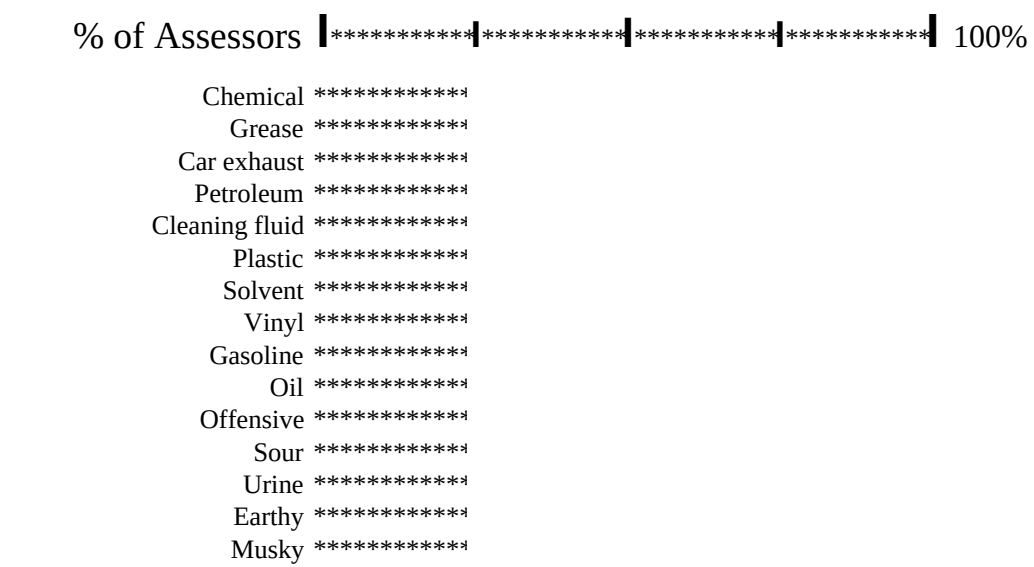
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: B10 | Report No.: **633302**

Project: Dredge Sediment | Description: 5L of B1 | Evaluation Date: 11/29/06



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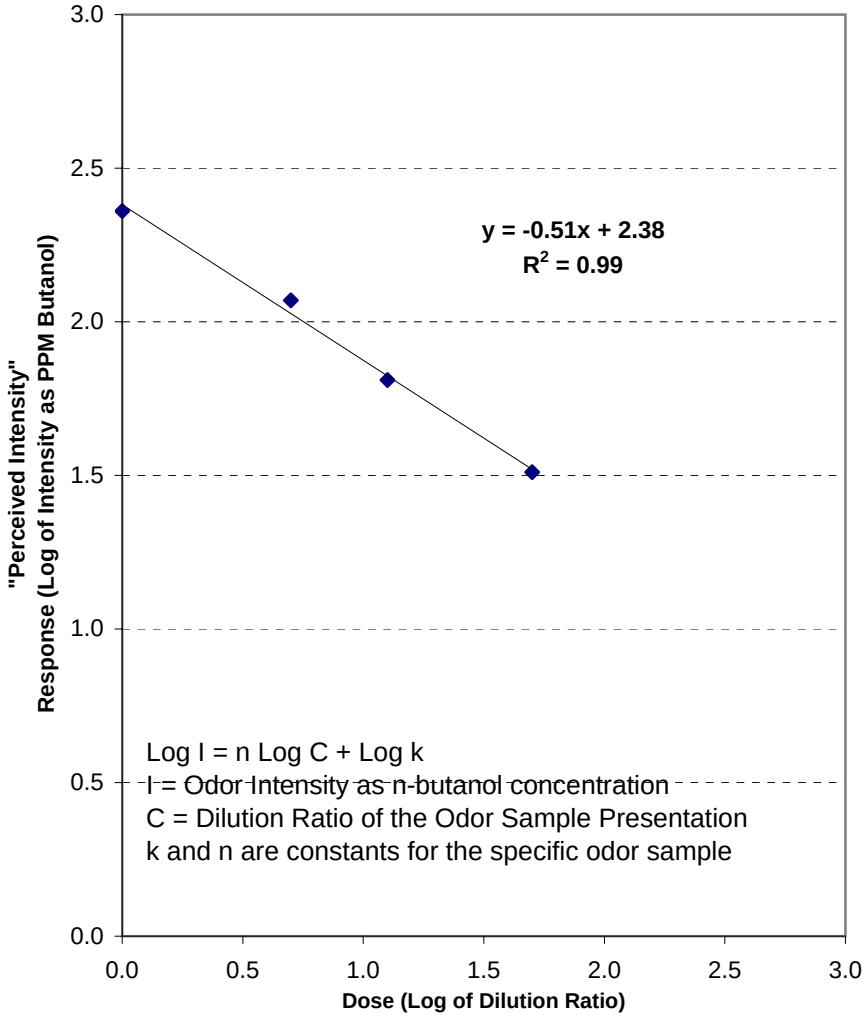
St. Croix Sensory, Inc.

Odor Evaluation Report

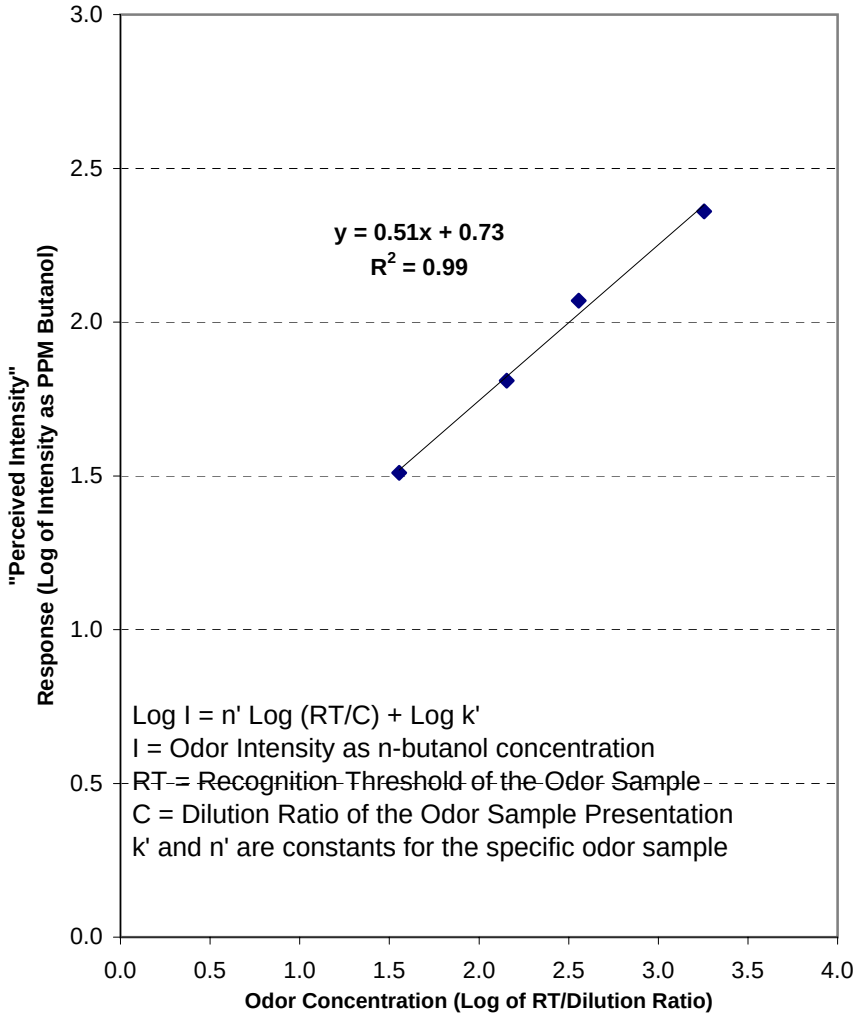
Client: Service Engineering Group | Field No.: B10 | Report No.: **633302**

Project: Dredge Sediment | Description: 5L of B1 | Evaluation Date: 11/29/06

Dose-Response



Dose-Response as Power Law



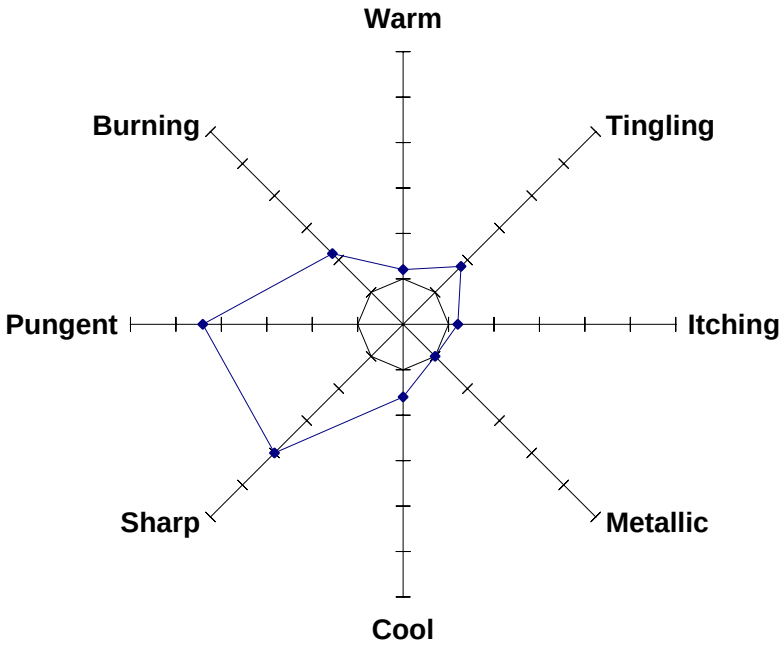
P.O. Box 313, 3549 Lake Elmo Ave. N., Lake Elmo, MN 55042 U.S.A. Tel:800-879-9231 Fax:651-439-1065 E-mail:stcroix@fivesenses.com Web:www.fivesenses.com

St. Croix Sensory, Inc.

Odor Evaluation Report

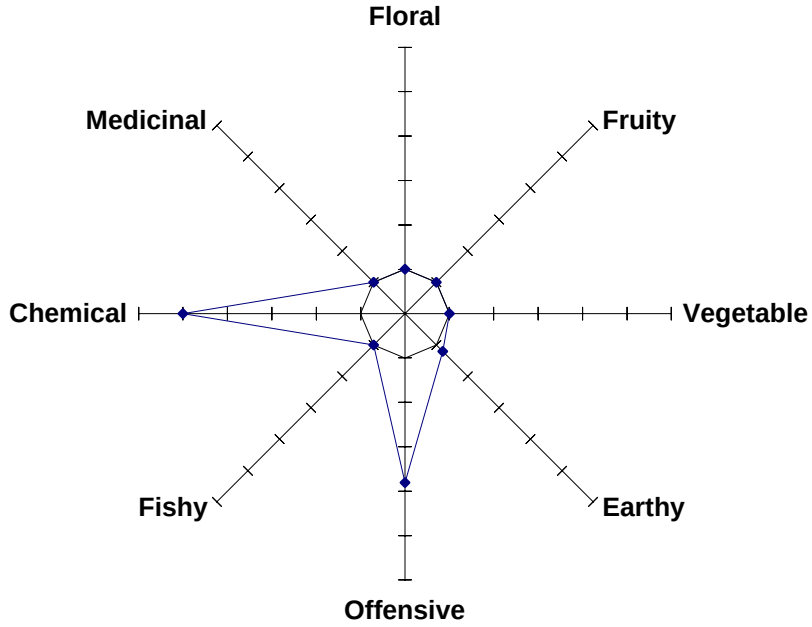
Client:	Service Engineering Group	Field No.:	B20	Report No.:	**633302**
Project:	Dredge Sediment	Description:	5L of B2	Evaluation Date:	11/29/06

Sensation Descriptor Graph



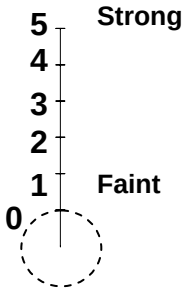
	Average Relative Strength
Warm	0.2
Tingling	0.8
Itching	0.2
Metallic	0.0
Cool	0.6
Sharp	3.0
Pungent	3.4
Burning	1.2

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.2
Offensive	2.8
Fishy	0.0
Chemical	4.0
Medicinal	0.0

KEY



Relative Strength

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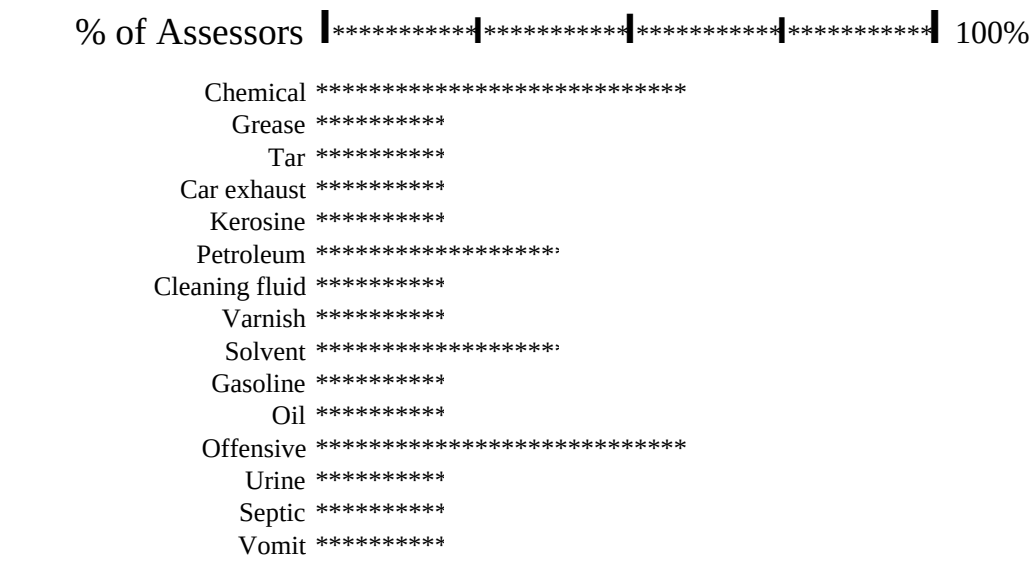
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: B20 | Report No.: **633302**

Project: Dredge Sediment | Description: 5L of B2 | Evaluation Date: 11/29/06



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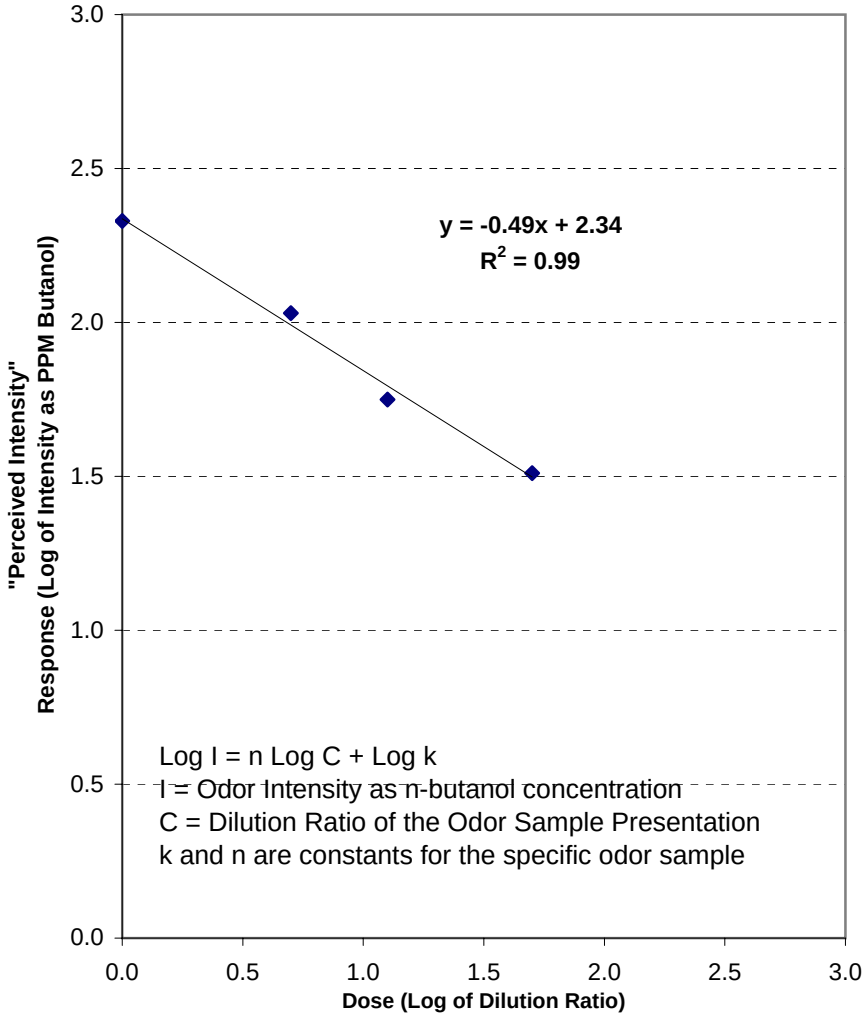
St. Croix Sensory, Inc.

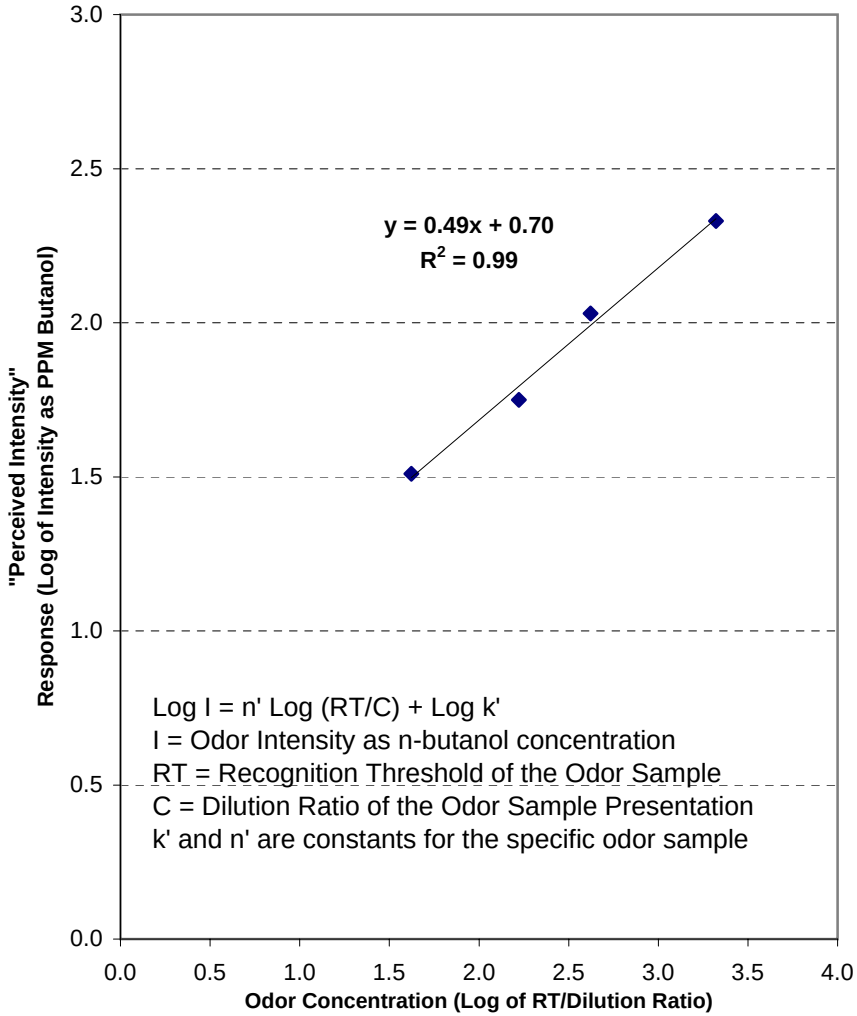
Odor Evaluation Report

Client:	Service Engineering Group	Field No.:	B20	Report No.:	**633302**
Project:	Dredge Sediment	Description:	5L of B2	Evaluation Date:	11/29/06

Dose-Response



Dose-Response as Power Law



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St. Croix Sensory, Inc.

CHAIN OF CUSTODY RECORD FOR ODOR SAMPLES

Page 1 of 1

Client: SCS

Sampled By: AML

Project Name: Dredge Sediment

Sampling Date: 11-29-06

Comments:

Odor Evaluations Requested: (X)

For Laboratory use Only

Odor Evaluation Report No. 633302

Line No.	Field No.	Sample Description	Sample Time	Field H_2S (ppm)	Odor Concentration* (Detection & Recognition Threshold)	Odor Intensity* (PPM 1-Butanol)	Odor Characterization (Hedonic Tone & Descriptors)	Odor Persistency ("Dose-Response")	Laboratory Sample No. LN	Laboratory Sample No. FN
1	A10	5L of A1	10:00A		X	X	X	X		
2	A20	5L of A2	10:10A		↓	↓	↓	↓		
3	B10	5L of B1	10:15A		↓	↓	↓	↓		
4	B20	5L of B2	10:25A		↓	↓	↓	↓		
5										
6										
7										
8										
9										
10										
11										
12										

Transmittal

Number of Shipping Boxes _____

Relinquished By	Date	Time	Accepted By	Date	Time	Comments & Exceptions Noted
Alin Lay	11-29-06	10:30				
Received at St. Croix Sensory Laboratory			Natalie Kelson	11/29/06	12:10	

*Odor Concentration: ASTM E679-04 and EN13725:2003 and Odor Intensity: ASTM E544-99(2004)

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LAB COPIES WHITE & YELLOW

CLIENT COPY PINK

St.Croix Sensory, Inc.

Service Engineering Group

Dredge Sediment

Odor Evaluation Report

Report No. 633401
11/30/06

Data Release Authorization:

Melissa McGinley
Laboratory Associate

Reviewed and Approved:

Michael A. McGinley, P.E.
Laboratory Director

St. Croix Sensory is a laboratory dedicated to practicing state-of-the-art sensory evaluation and to advancing the science of sensory perception.

We are a family owned and operated business providing our clients with personal customer service, flexible scheduling, timely results.

Our focus is to provide the best professional services available to help make your project or product a success.

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Fax: 651-439-1065

Email: stcroix@fivesenses.com

St.Croix Sensory, Inc.

Service Engineering Group

Dredge Sediment

Odor Evaluation Report

Report No. 633401
11/30/06

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Melissa McGinley
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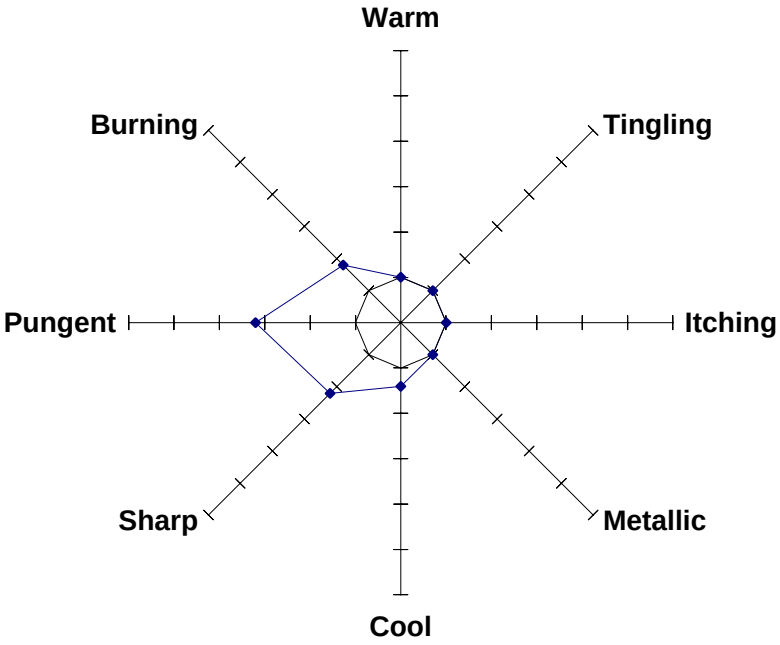
St. Croix Sensory, Inc.

Odor Evaluation Report

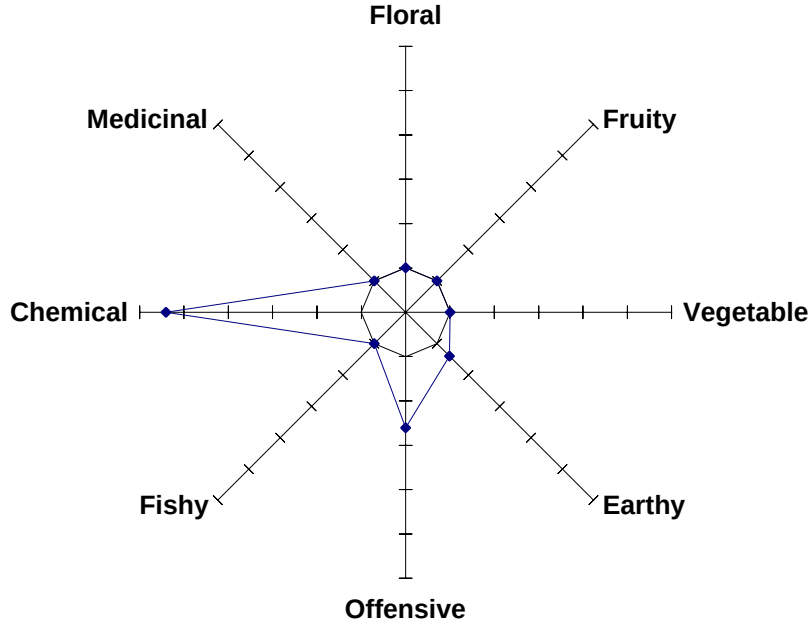
Client:	Service Engineering Group	Field No.:	C10	Report No.:	**633401**
Project:	Dredge Sediment	Description:	5L from 100L Tedlar	Evaluation Date:	11/30/06

Sensation Descriptor Graph



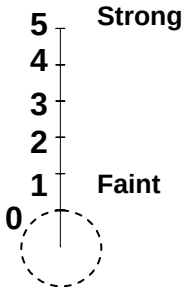
	Average Relative Strength
Warm	0.0
Tingling	0.0
Itching	0.0
Metallic	0.0
Cool	0.4
Sharp	1.2
Pungent	2.2
Burning	0.8

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.4
Offensive	1.6
Fishy	0.0
Chemical	4.4
Medicinal	0.0

KEY



Relative Strength

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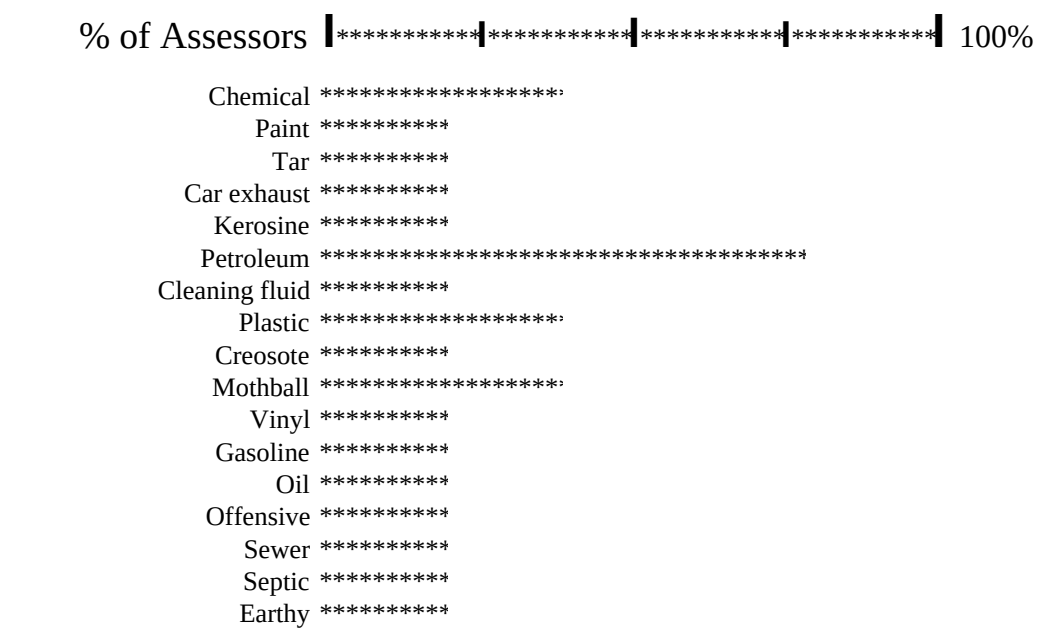
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: C10 | Report No.: **633401**

Project: Dredge Sediment | Description: 5L from 100L Tedlar | Evaluation Date: 11/30/06



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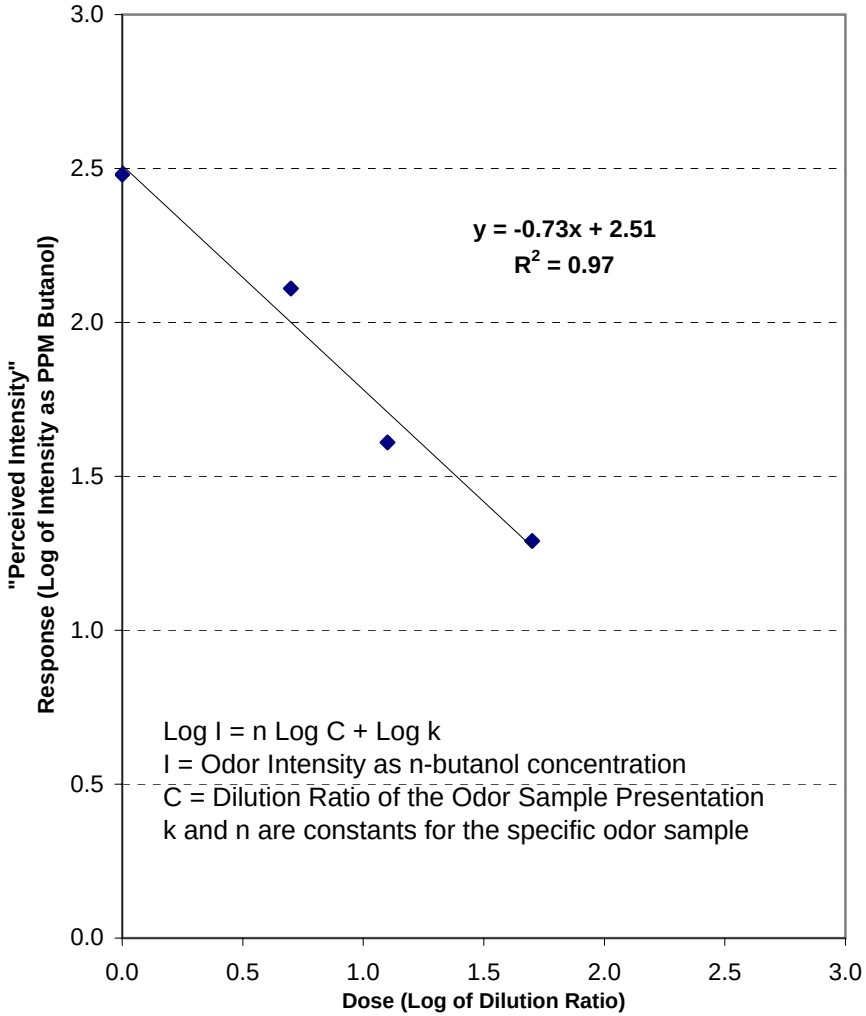
St. Croix Sensory, Inc.

Odor Evaluation Report

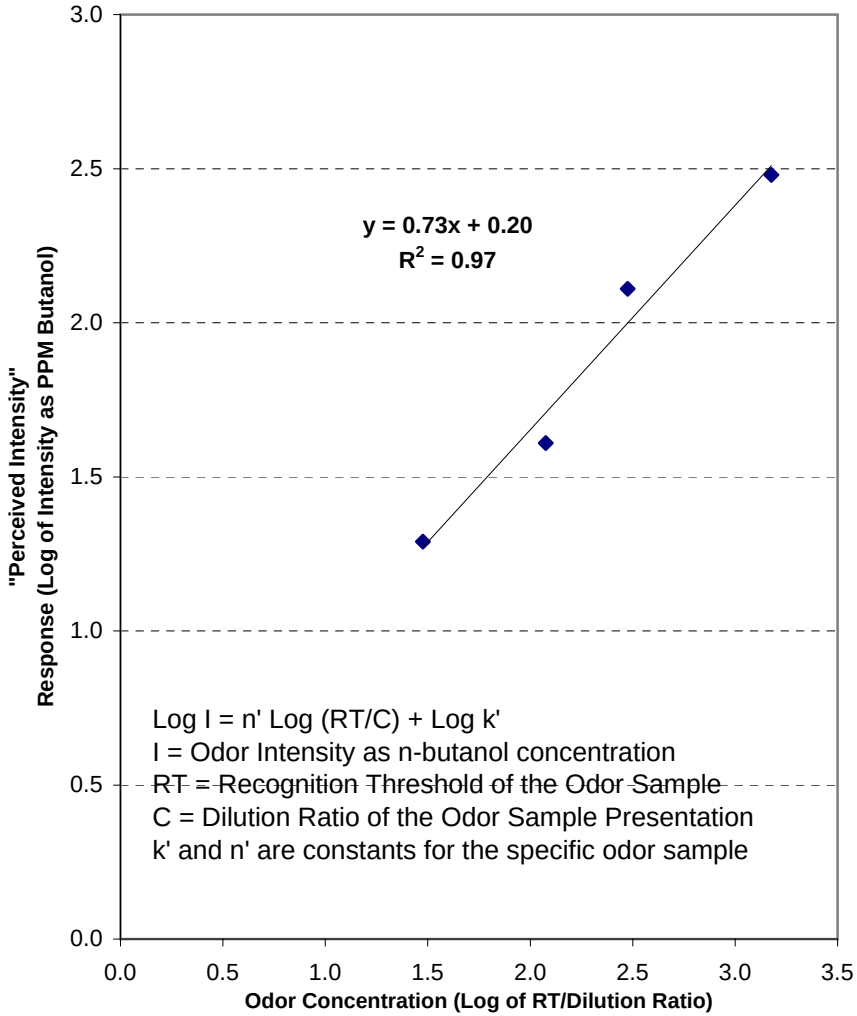
Client: Service Engineering Group | Field No.: C10 | Report No.: **633401**

Project: Dredge Sediment | Description: 5L from 100L Tedlar | Evaluation Date: 11/30/06

Dose-Response



Dose-Response as Power Law



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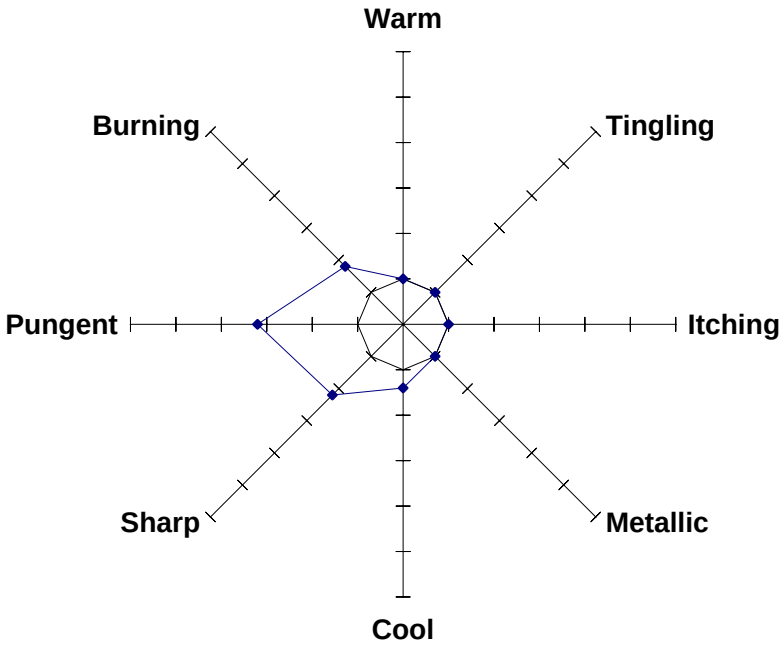
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: C20 | Report No.: **633401**

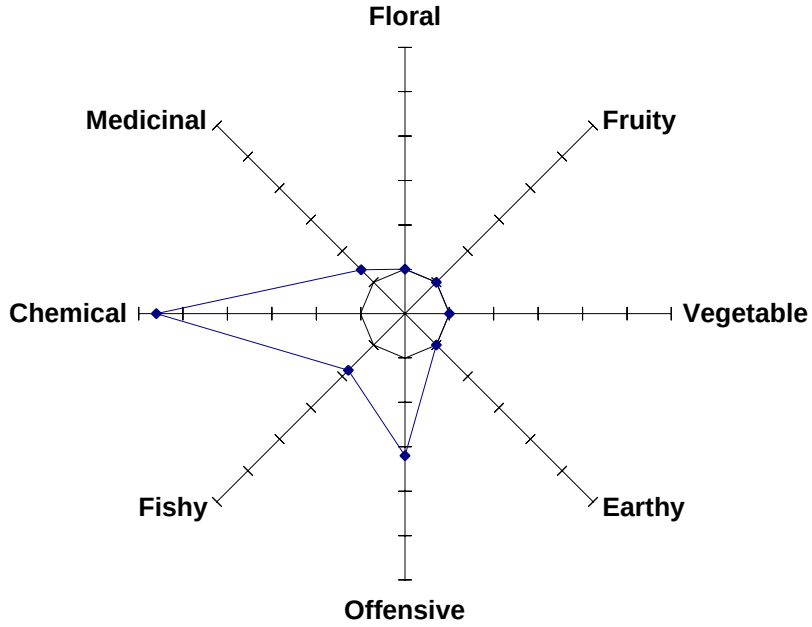
Project: Dredge Sediment | Description: 5L from 100L Tedlar | Evaluation Date: 11/30/06

Sensation Descriptor Graph



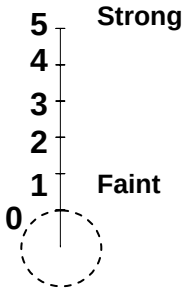
	Average Relative Strength
Warm	0.0
Tingling	0.0
Itching	0.0
Metallic	0.0
Cool	0.4
Sharp	1.2
Pungent	2.2
Burning	0.8

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.0
Offensive	2.2
Fishy	0.8
Chemical	4.6
Medicinal	0.4

KEY



Relative Strength

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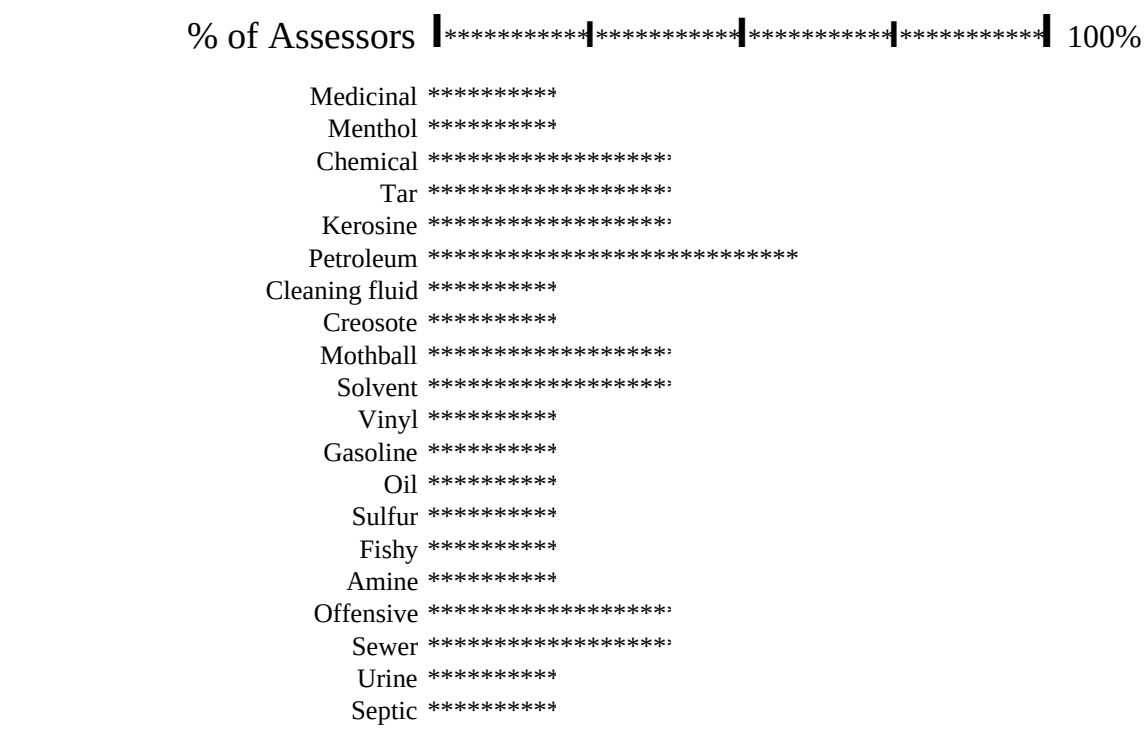
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: C20 | Report No.: **633401**

Project: Dredge Sediment | Description: 5L from 100L Tedlar | Evaluation Date: 11/30/06



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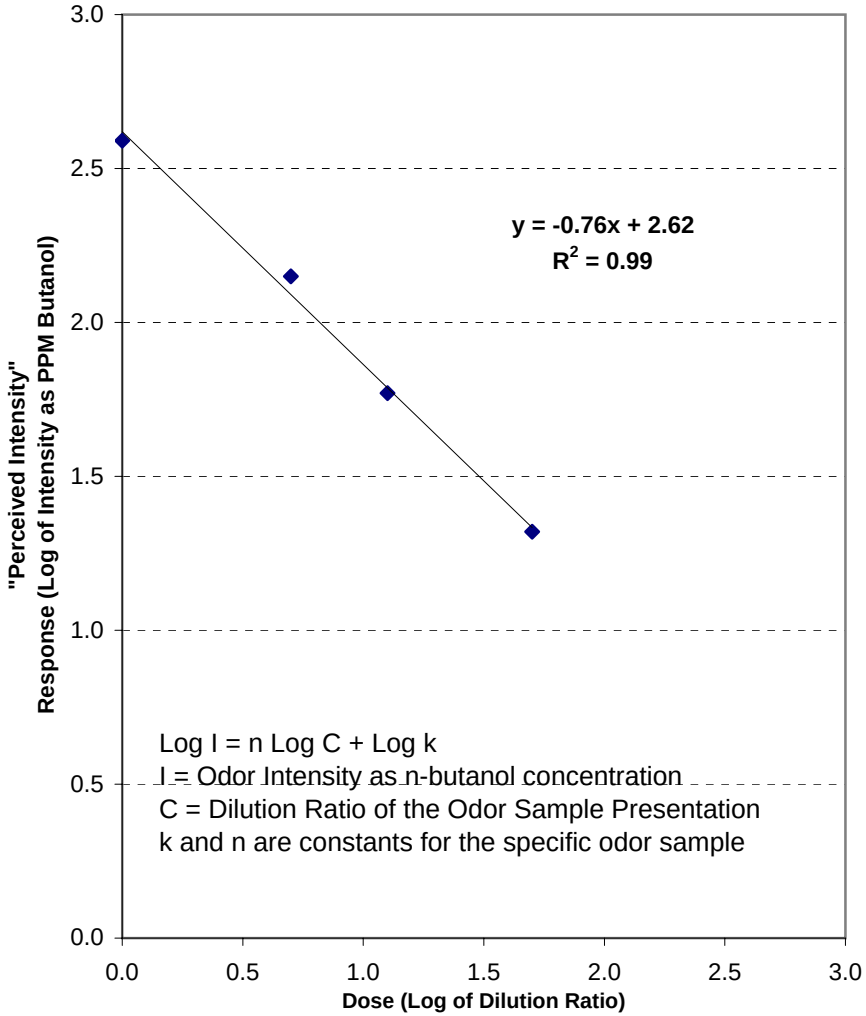
St. Croix Sensory, Inc.

Odor Evaluation Report

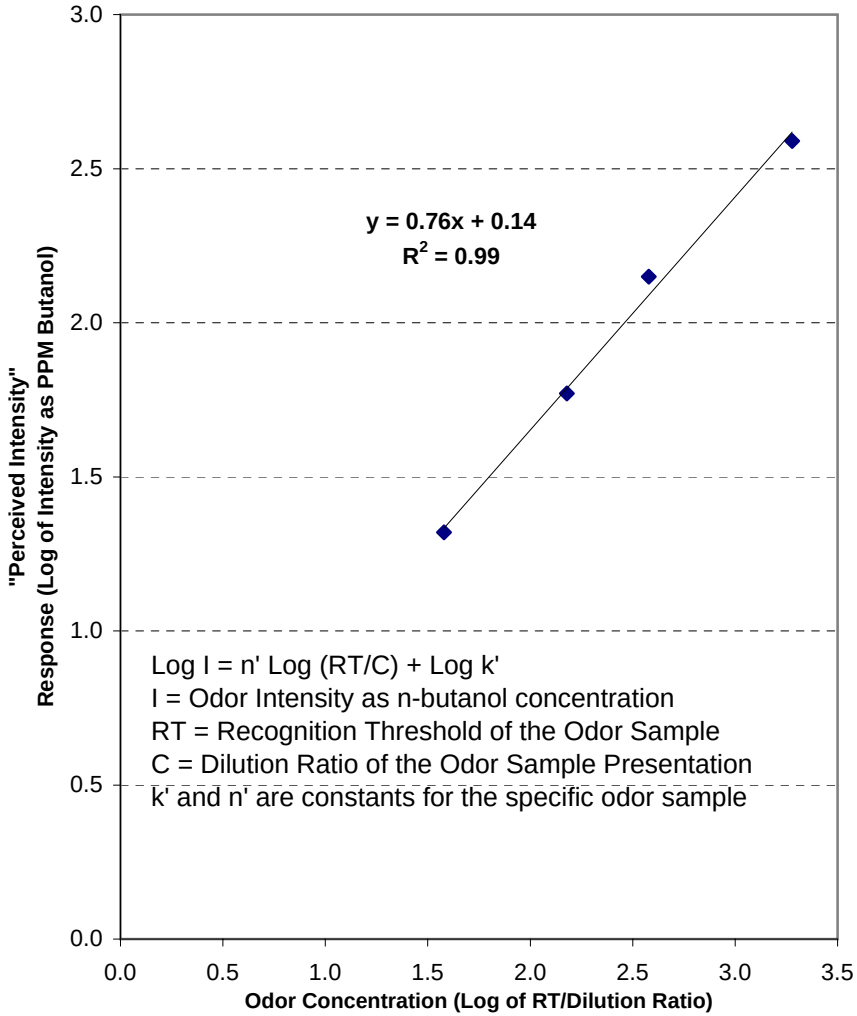
Client: Service Engineering Group | Field No.: C20 | Report No.: **633401**

Project: Dredge Sediment | Description: 5L from 100L Tedlar | Evaluation Date: 11/30/06

Dose-Response



Dose-Response as Power Law



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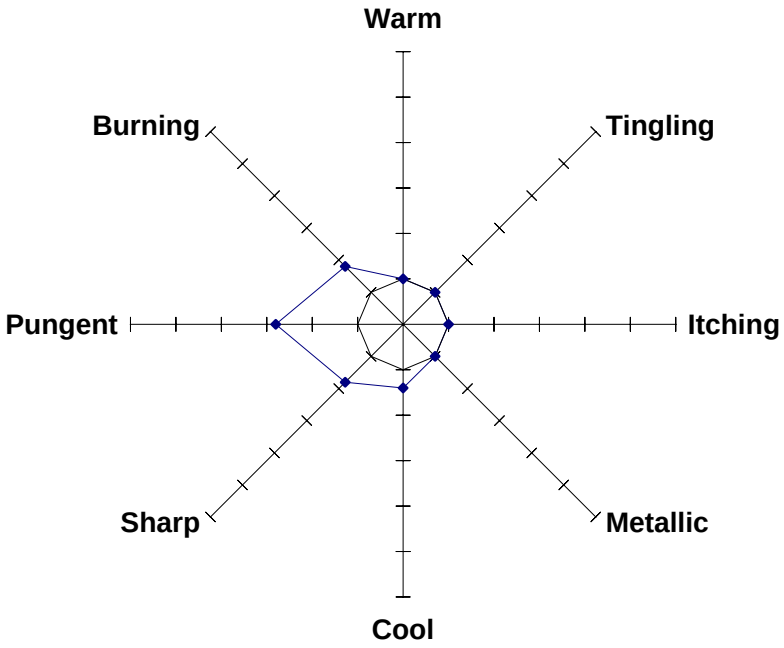
St. Croix Sensory, Inc.

Odor Evaluation Report

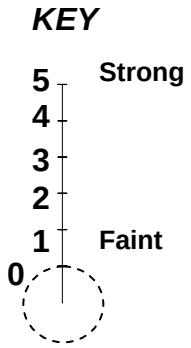
Client: Service Engineering Group | Field No.: D10 | Report No.: **633401**

Project: Dredge Sediment | Description: 5L from 100L Tedlar | Evaluation Date: 11/30/06

Sensation Descriptor Graph

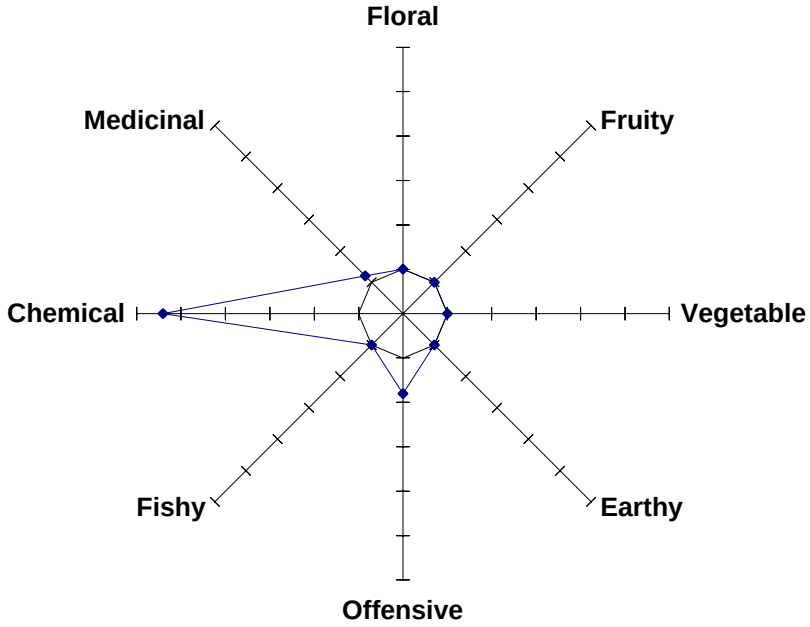


	Average Relative Strength
Warm	0.0
Tingling	0.0
Itching	0.0
Metallic	0.0
Cool	0.4
Sharp	0.8
Pungent	1.8
Burning	0.8



Relative Strength

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.0
Offensive	0.8
Fishy	0.0
Chemical	4.4
Medicinal	0.2

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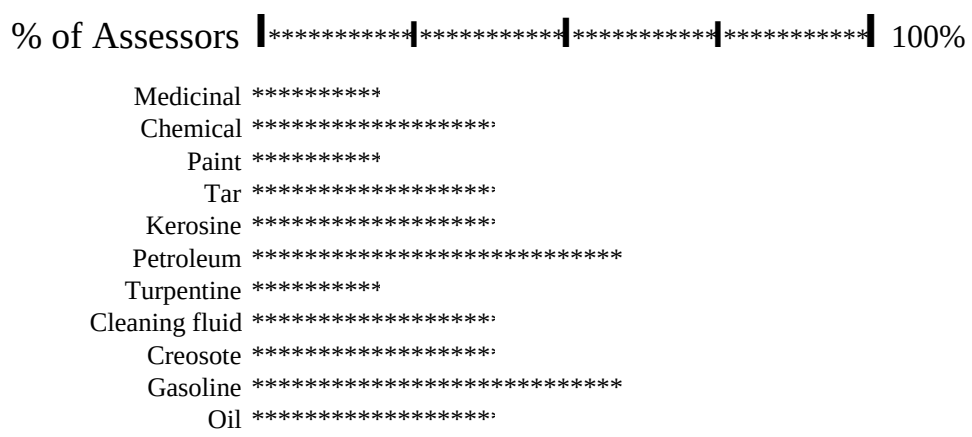
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: D10 | Report No.: **633401**

Project: Dredge Sediment | Description: 5L from 100L Tedlar | Evaluation Date: 11/30/06



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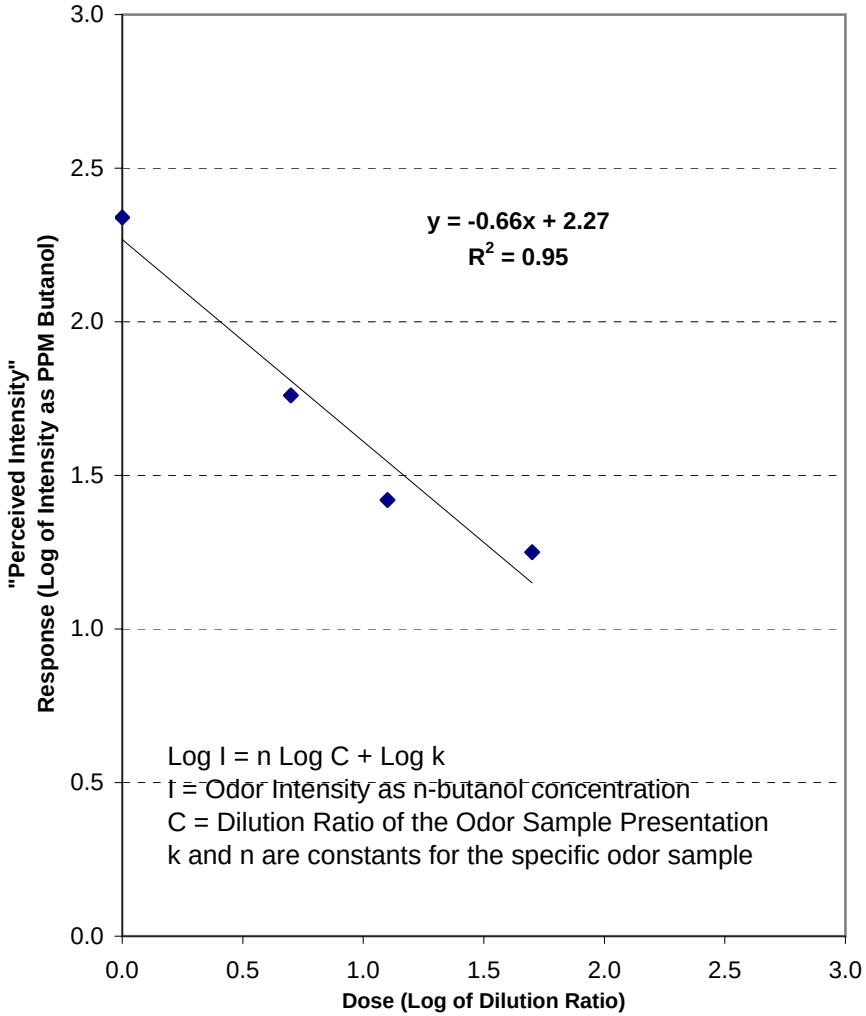
St. Croix Sensory, Inc.

Odor Evaluation Report

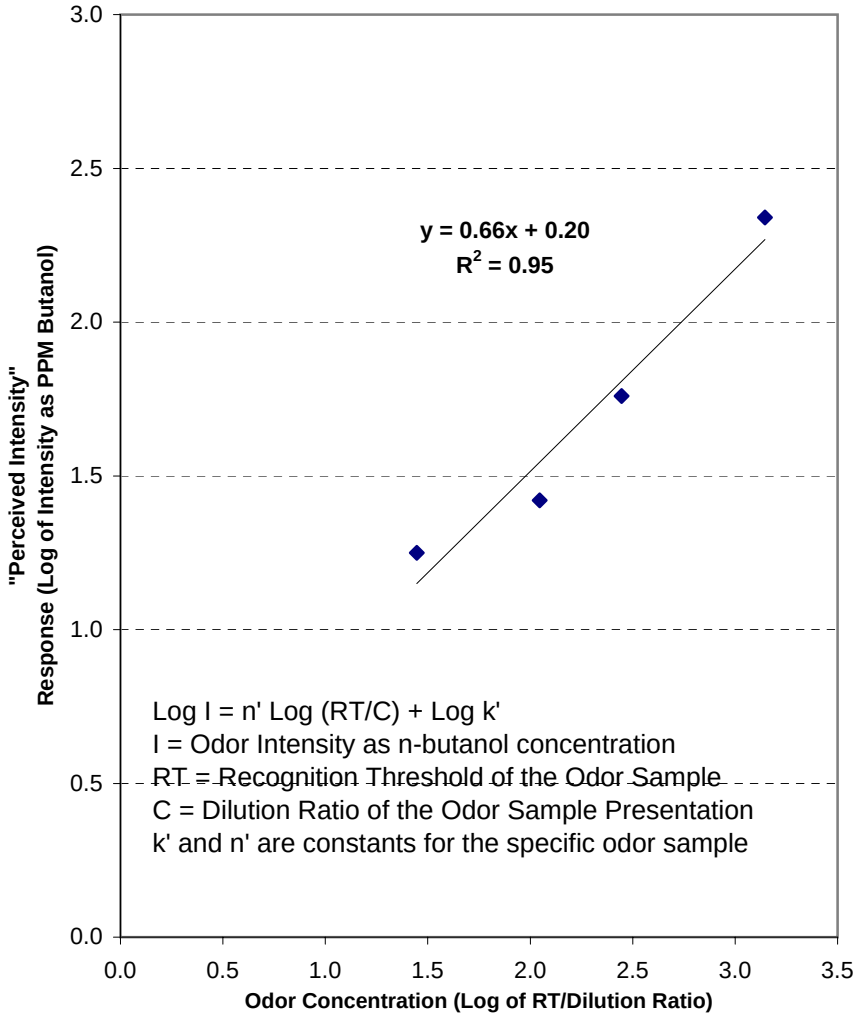
Client: Service Engineering Group | Field No.: D10 | Report No.: **633401**

Project: Dredge Sediment | Description: 5L from 100L Tedlar | Evaluation Date: 11/30/06

Dose-Response



Dose-Response as Power Law



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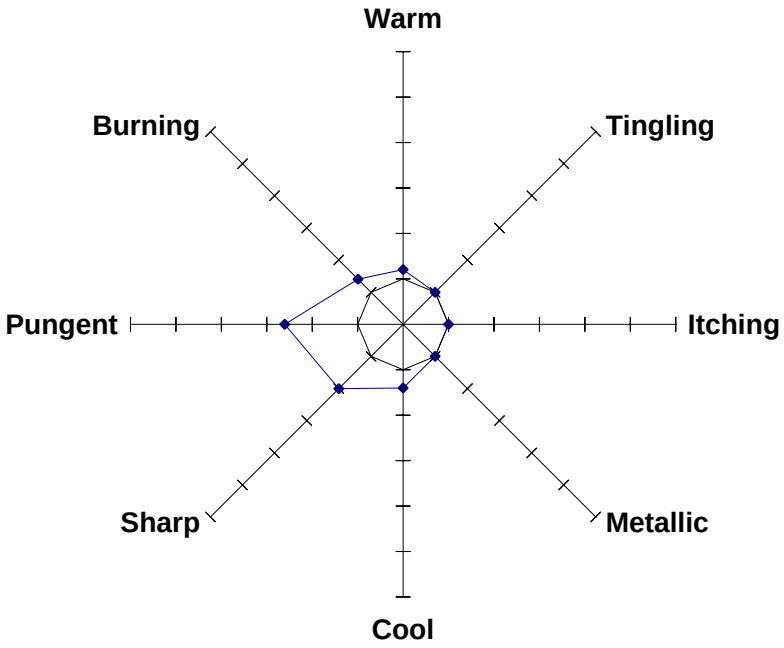
St. Croix Sensory, Inc.

Odor Evaluation Report

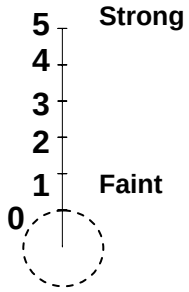
Client:	Service Engineering Group	Field No.:	D20	Report No.:	**633401**
Project:	Dredge Sediment	Description:	5L from 100L Tedlar	Evaluation Date:	11/30/06

Sensation Descriptor Graph



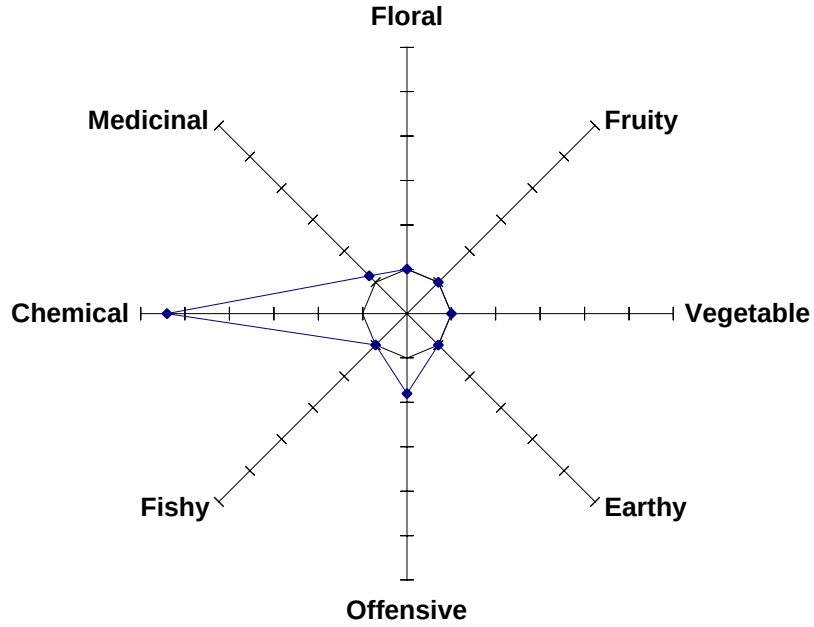
	Average Relative Strength
Warm	0.2
Tingling	0.0
Itching	0.0
Metallic	0.0
Cool	0.4
Sharp	1.0
Pungent	1.6
Burning	0.4

KEY



Relative Strength

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.0
Offensive	0.8
Fishy	0.0
Chemical	4.4
Medicinal	0.2

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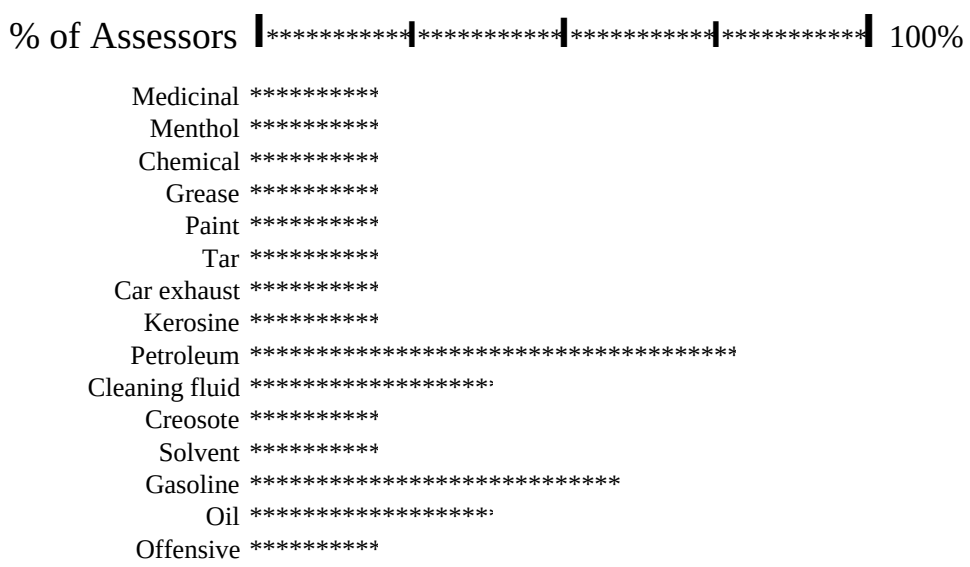
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: D20 | Report No.: **633401**

Project: Dredge Sediment | Description: 5L from 100L Tedlar | Evaluation Date: 11/30/06



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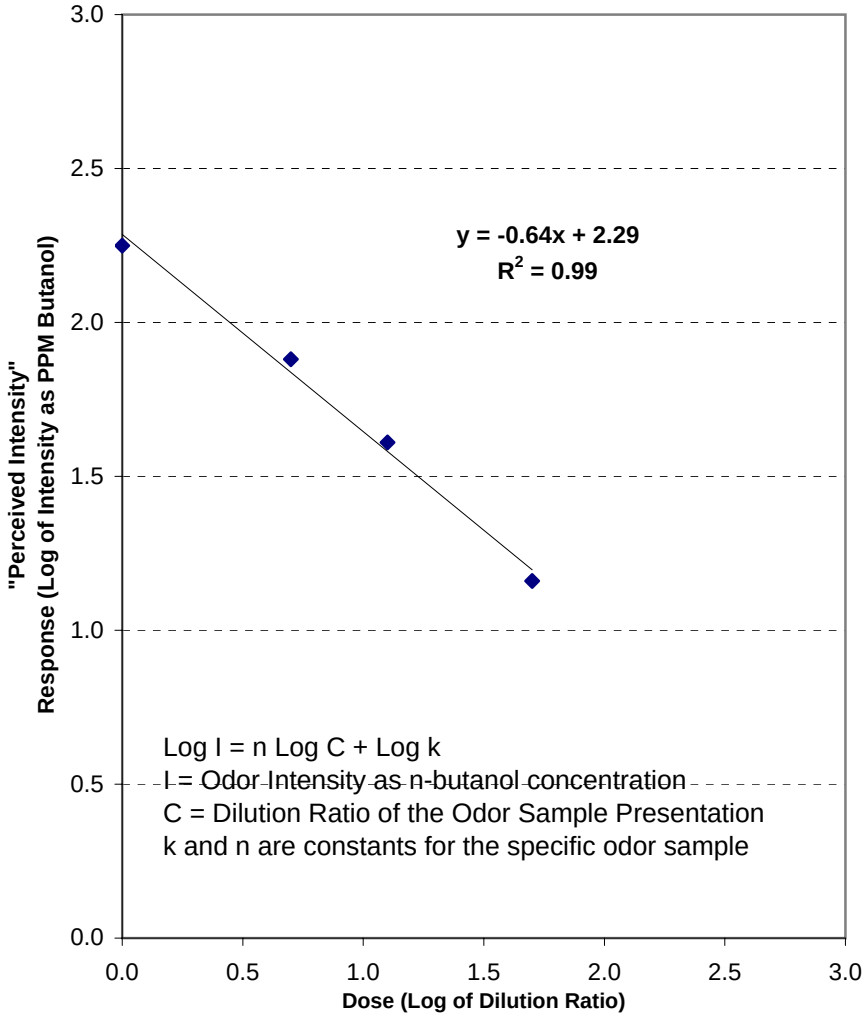
St. Croix Sensory, Inc.

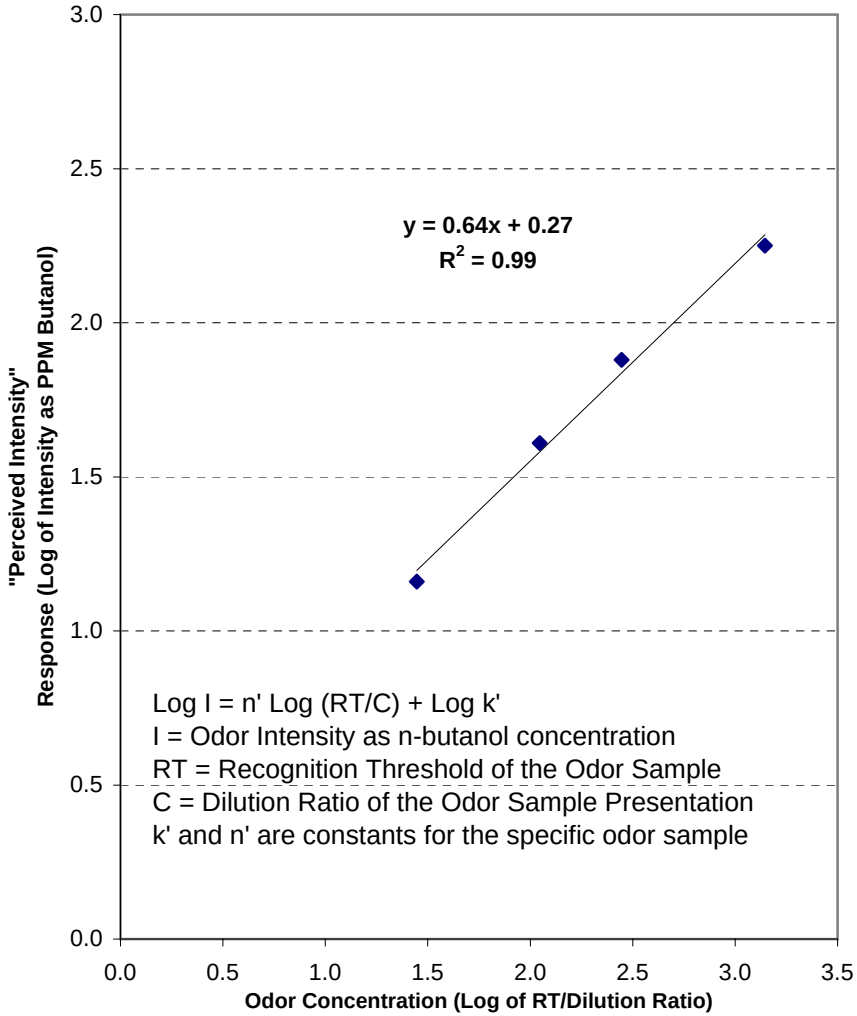
Odor Evaluation Report

Client:	Service Engineering Group	Field No.:	D20	Report No.:	**633401**
Project:	Dredge Sediment	Description:	5L from 100L Tedlar	Evaluation Date:	11/30/06

Dose-Response



Dose-Response as Power Law



P.O. Box 313, 3549 Lake Elmo Ave. N., Lake Elmo, MN 55042 U.S.A. Tel:800-879-9231 Fax:651-439-1065 E-mail:stcroix@fivesenses.com Web:www.fivesenses.com

St. Croix Sensory, Inc.

CHAIN OF CUSTODY RECORD FOR ODOR SAMPLES

Page 1 of 1

Client: SEG | Sampled By: AML

Project Name: Dredge Sediment | Sampling Date: 11-30-06

Comments:

Line No.	Field No.	Sample Description	Sample Time	Field H_2S (ppm)	Odor Concentration* (Detection & Recognition Threshold)	Odor Intensity* (PPM 1-Butanol)	Odor Characterization (Hedonic Tone & Descriptors)	Odor Persistency ("Dose-Response")	For Laboratory use Only: Odor Evaluation Report No. / Laboratory Sample No. LN	FN
1	C10	5L from 100L Tedlar	11:00		X	X	X	X		
2	C20	5L from 100L Tedlar	11:05		↓	↓	↓	↓		
3	D10	5L from 100L Tedlar	11:20		↓	↓	↓	↓		
4	D20	5L from 100L Tedlar	11:30		↓	↓	↓	↓		
5										
6										
7										
8										
9										
10										
11										
12										

Transmittal

Number of Shipping Boxes _____

Relinquished By	Date	Time	Accepted By	Date	Time	Comments & Exceptions Noted
Alicia Lay	11/30/06	11:30				
Received at St. Croix Sensory Laboratory			Natasha Klopt	11/30/06	12:40	

*Odor Concentration: ASTM E679-04 and EN13725:2003 and Odor Intensity: ASTM E544-99(2004)

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St.Croix Sensory, Inc.

Service Engineering Group

Dredge Sediment Headspace

Odor Evaluation Report

Report No. 633502
12/01/06

Data Release Authorization:

Melissa McGinley
Laboratory Associate

Reviewed and Approved:

Michael A. McGinley, P.E.
Laboratory Director

St. Croix Sensory is a laboratory dedicated to practicing state-of-the-art sensory evaluation and to advancing the science of sensory perception.

We are a family owned and operated business providing our clients with personal customer service, flexible scheduling, timely results.

Our focus is to provide the best professional services available to help make your project or product a success.

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Fax: 651-439-1065

Email: stcroix@fivesenses.com

St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group

Report No.: **633502**

Project: Dredge Sediment Headspace

Evaluation Date: 12/01/06

			ASTM E679 & EN13725		ASTM E544	PERSISTENCY	CHARACTERIZATION		
#	Field No.	Sample Description	Detection Threshold	Recognition Threshold	Intensity	Dose-Response Slope	Hedonic Tone	Principal Odor Descriptors	**Comments**
1	F10	5L form 100L Tedlar	1,100	730	70	-0.40	-1.4	Chemical, Paint, Tar, Creosote, Oil	
2	F20	5L from 100L Tedlar	1,000	830	75	-0.43	-1.2	Chemical, Grease, Tar, Kerosine, Turpentine, Oil	
3	E10	5L from 100L Tedlar	2,500	1,800	110	-0.38	-3.6	Paint, Chemical, Turpentine, Fishy	
4	E20	5L from 100L Tedlar	2,500	1,800	90	-0.43	-2.4	Chemical, Paint, Turpentine, Oil, Offensive	
5									
6									
7									
8									
9									
10									

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St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group

Report No.: **633502**

Project: Dredge Sediment Headspace

Evaluation Date: 12/01/06

			ASTM E679 & EN13725		ASTM E544	PERSISTENCY	CHARACTERIZATION		
#	Field No.	Sample Description	Detection Threshold	Recognition Threshold	Intensity	Dose-Response Slope	Hedonic Tone	Principal Odor Descriptors	**Comments**
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

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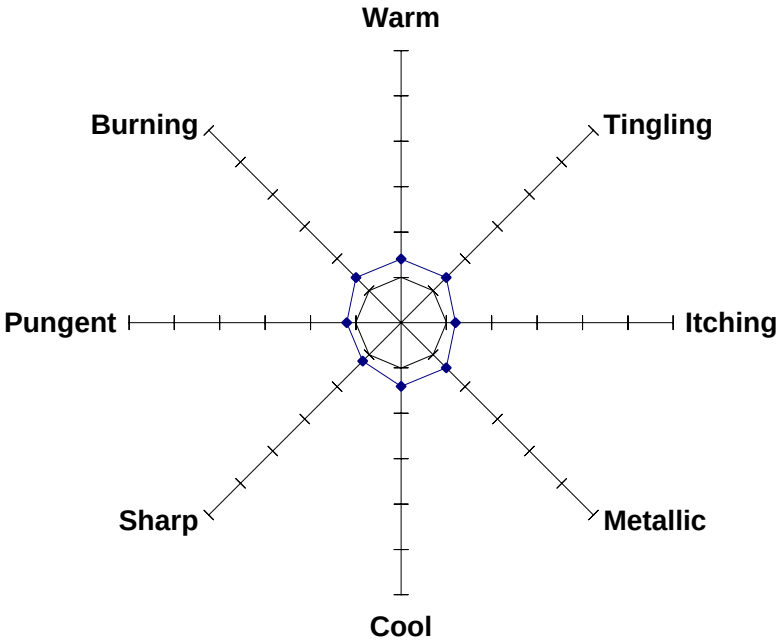
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: F10 | Report No.: **633502**

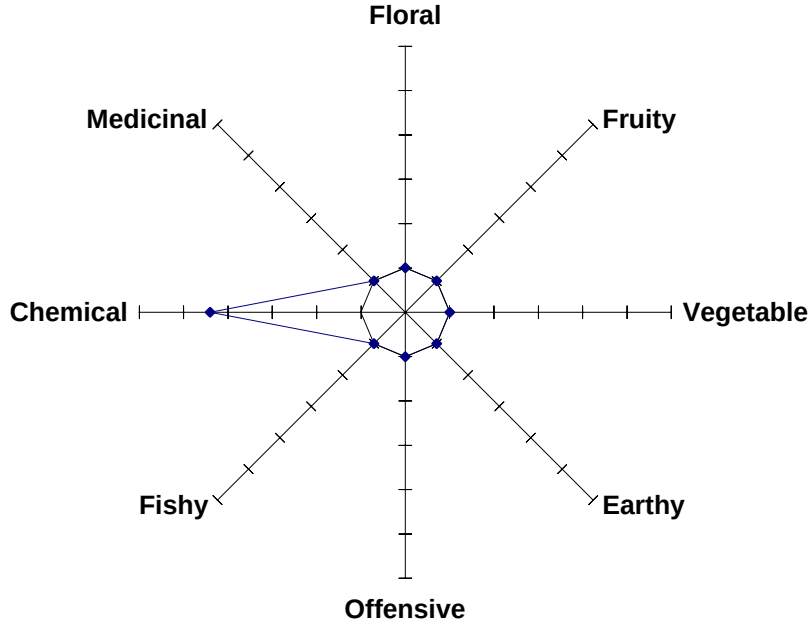
Project: Dredge Sediment Headspace | Description: 5L form 100L Tedlar | Evaluation Date: 12/01/06

Sensation Descriptor Graph



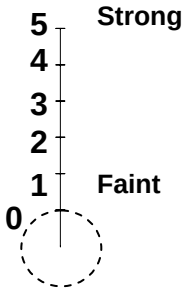
	Average Relative Strength
Warm	0.4
Tingling	0.4
Itching	0.2
Metallic	0.4
Cool	0.4
Sharp	0.2
Pungent	0.2
Burning	0.4

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.0
Offensive	0.0
Fishy	0.0
Chemical	3.4
Medicinal	0.0

KEY



Relative Strength

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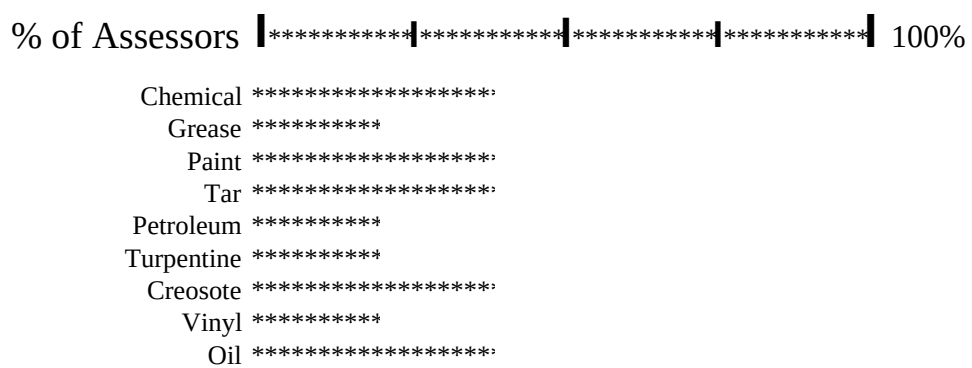
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: F10 | Report No.: **633502**

Project: Dredge Sediment Headspace | Description: 5L form 100L Tedlar | Evaluation Date: 12/01/06



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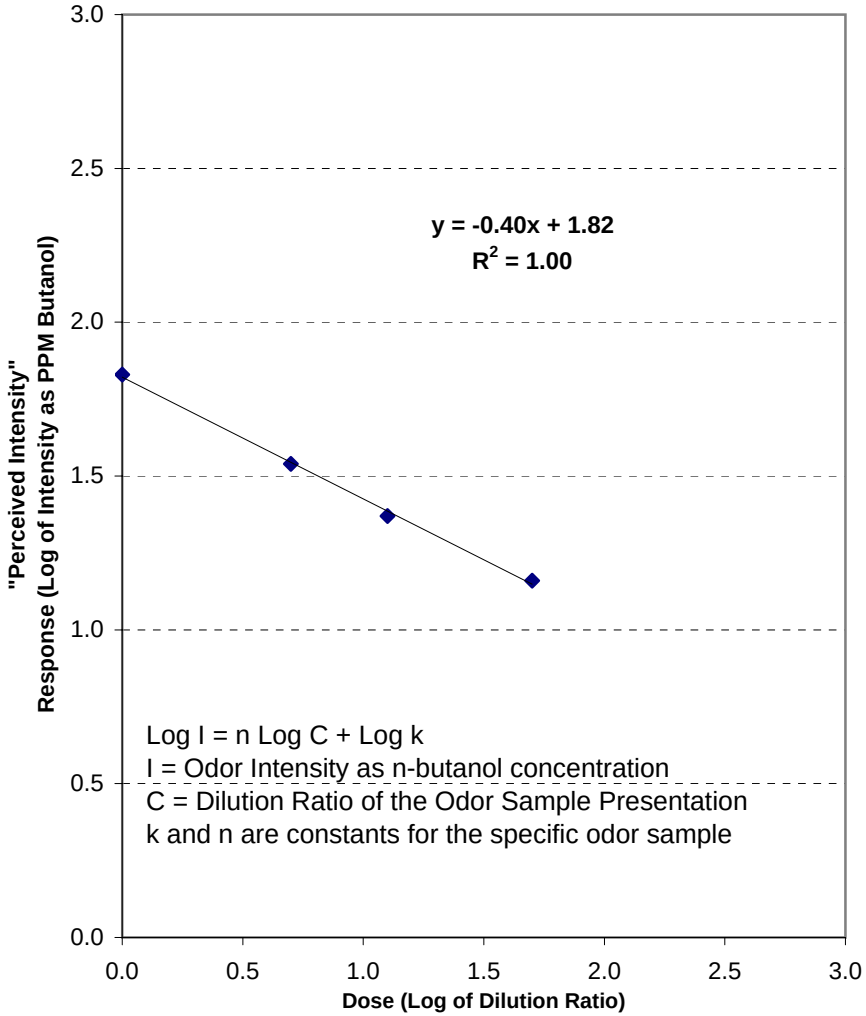
St. Croix Sensory, Inc.

Odor Evaluation Report

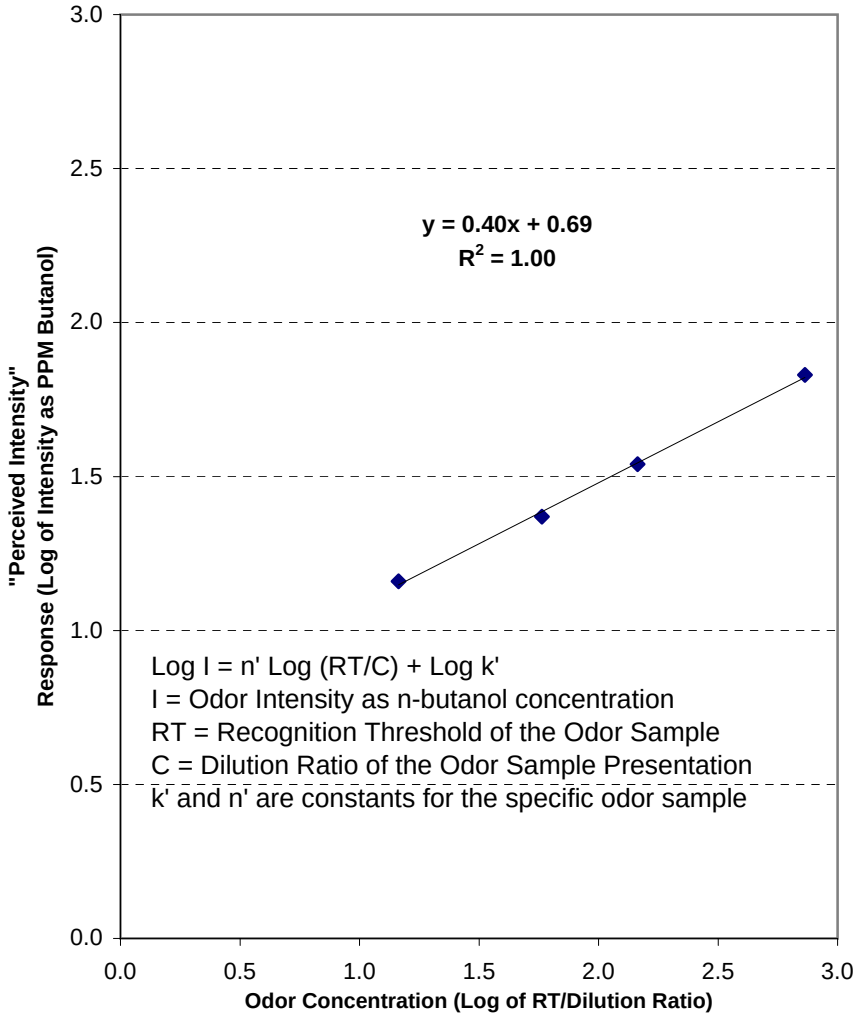
Client: Service Engineering Group | Field No.: F10 | Report No.: **633502**

Project: Dredge Sediment Headspace | Description: 5L form 100L Tedlar | Evaluation Date: 12/01/06

Dose-Response



Dose-Response as Power Law



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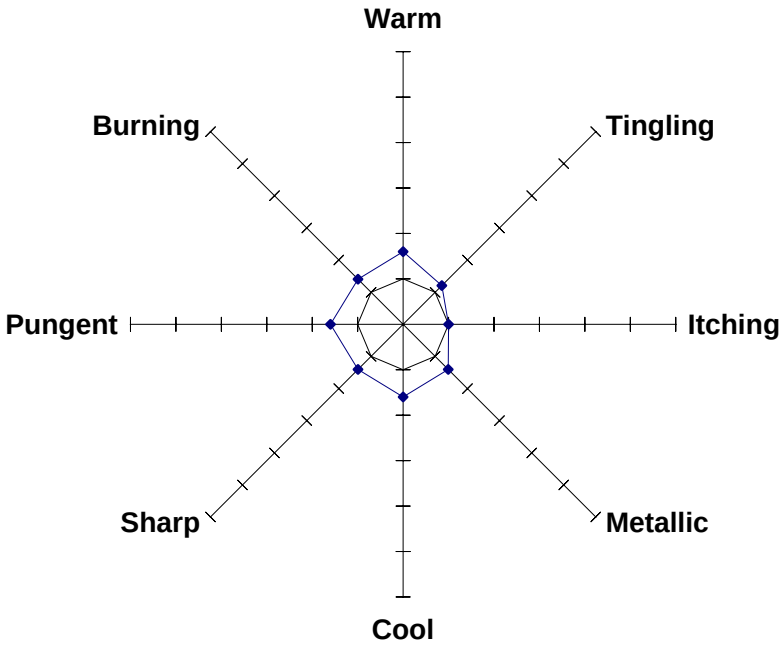
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: F20 | Report No.: **633502**

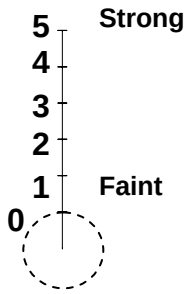
Project: Dredge Sediment Headspace | Description: 5L from 100L Tedlar | Evaluation Date: 12/01/06

Sensation Descriptor Graph



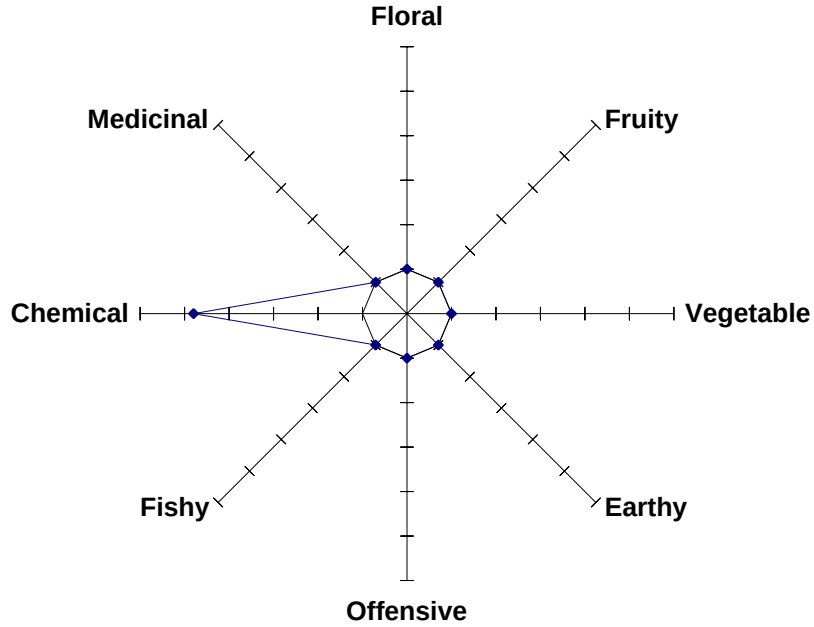
	Average Relative Strength
Warm	0.6
Tingling	0.2
Itching	0.0
Metallic	0.4
Cool	0.6
Sharp	0.4
Pungent	0.6
Burning	0.4

KEY



Relative Strength

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.0
Offensive	0.0
Fishy	0.0
Chemical	3.8
Medicinal	0.0

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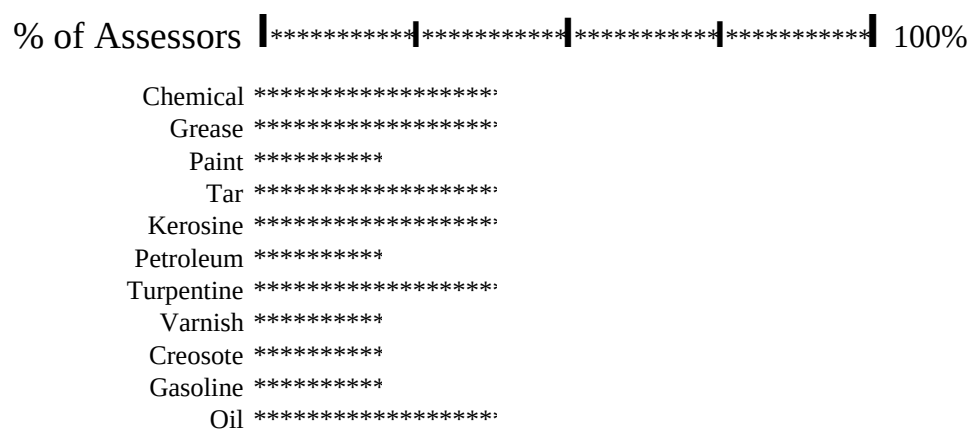
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: F20 | Report No.: **633502**

Project: Dredge Sediment Headspace | Description: 5L from 100L Tedlar | Evaluation Date: 12/01/06



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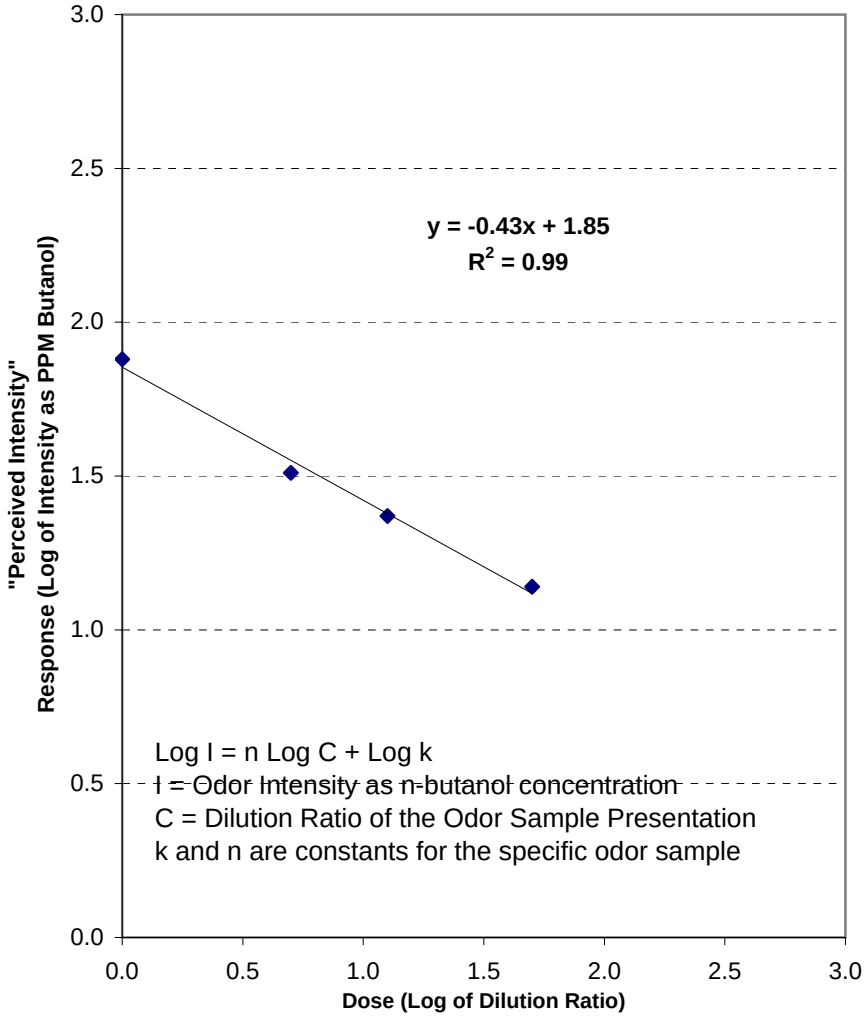
St. Croix Sensory, Inc.

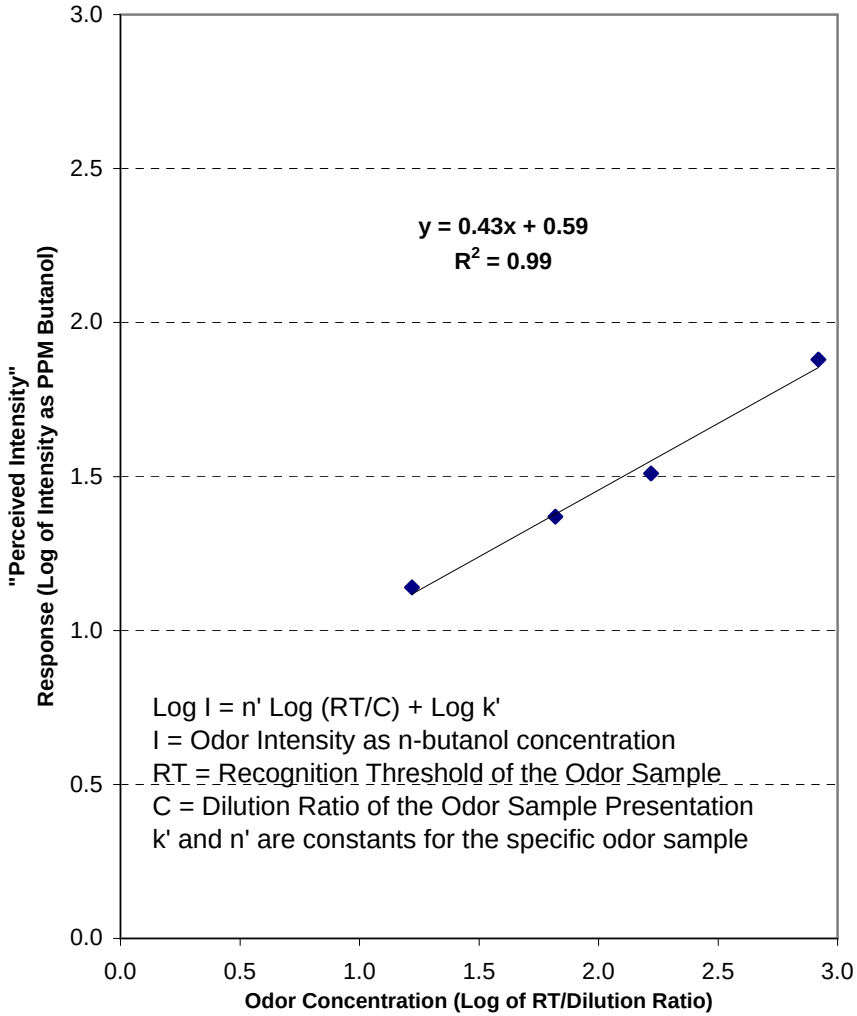
Odor Evaluation Report

Client:	Service Engineering Group	Field No.:	F20	Report No.:	**633502**
Project:	Dredge Sediment Headspace	Description:	5L from 100L Tedlar	Evaluation Date:	12/01/06

Dose-Response



Dose-Response as Power Law



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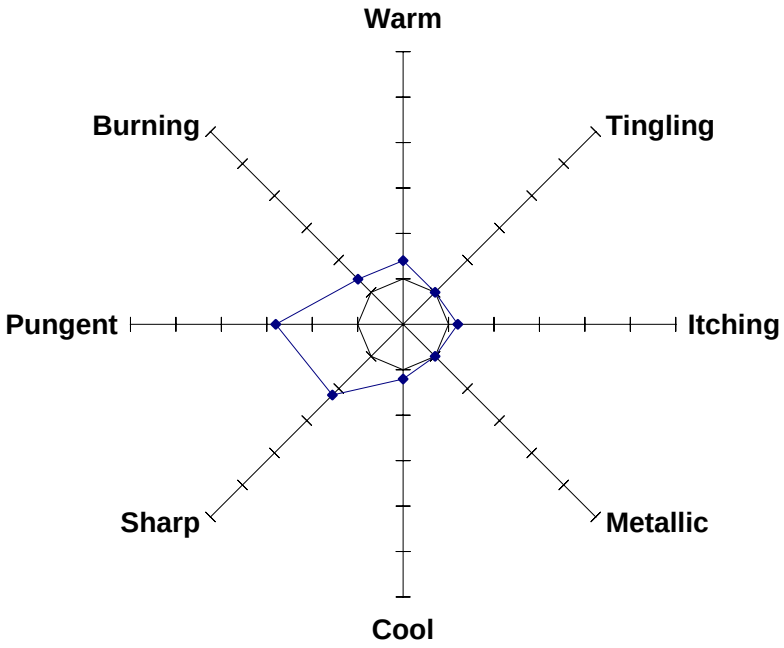
St. Croix Sensory, Inc.

Odor Evaluation Report

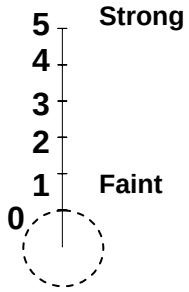
Client:	Service Engineering Group	Field No.:	E10	Report No.:	**633502**
Project:	Dredge Sediment Headspace	Description:	5L from 100L Tedlar	Evaluation Date:	12/01/06

Sensation Descriptor Graph



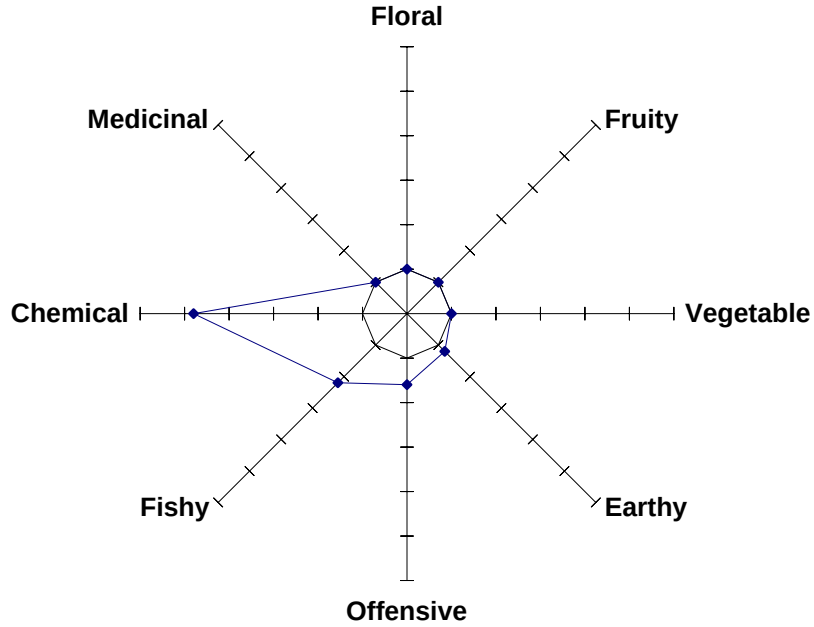
	Average Relative Strength
Warm	0.4
Tingling	0.0
Itching	0.2
Metallic	0.0
Cool	0.2
Sharp	1.2
Pungent	1.8
Burning	0.4

KEY



Relative Strength

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.2
Offensive	0.6
Fishy	1.2
Chemical	3.8
Medicinal	0.0

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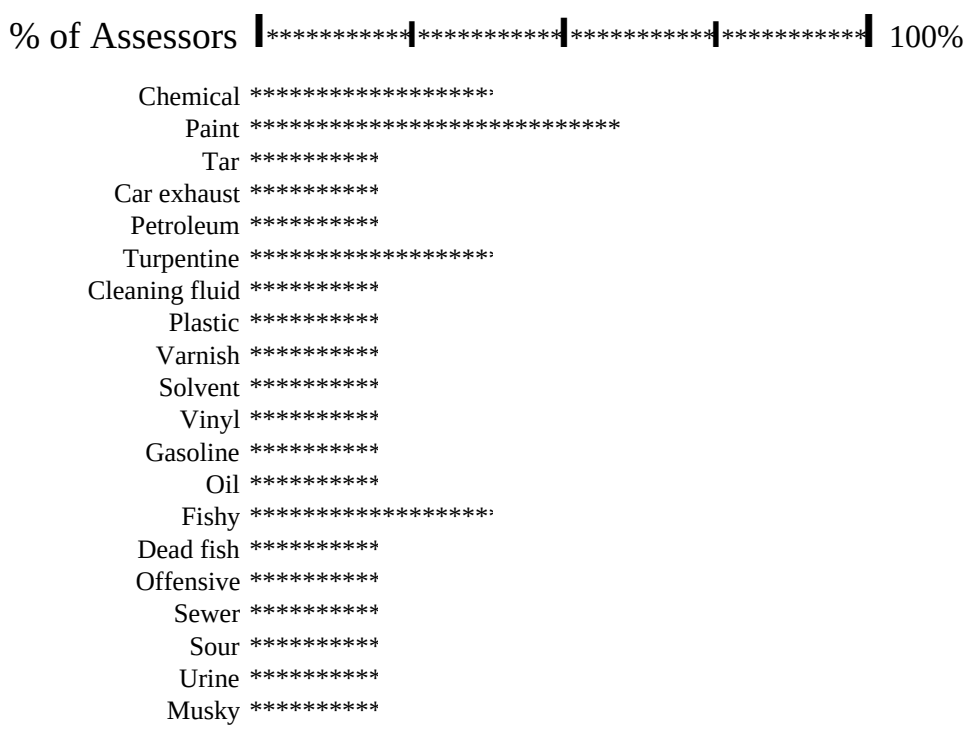
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: E10 | Report No.: **633502**

Project: Dredge Sediment Headspace | Description: 5L from 100L Tedlar | Evaluation Date: 12/01/06



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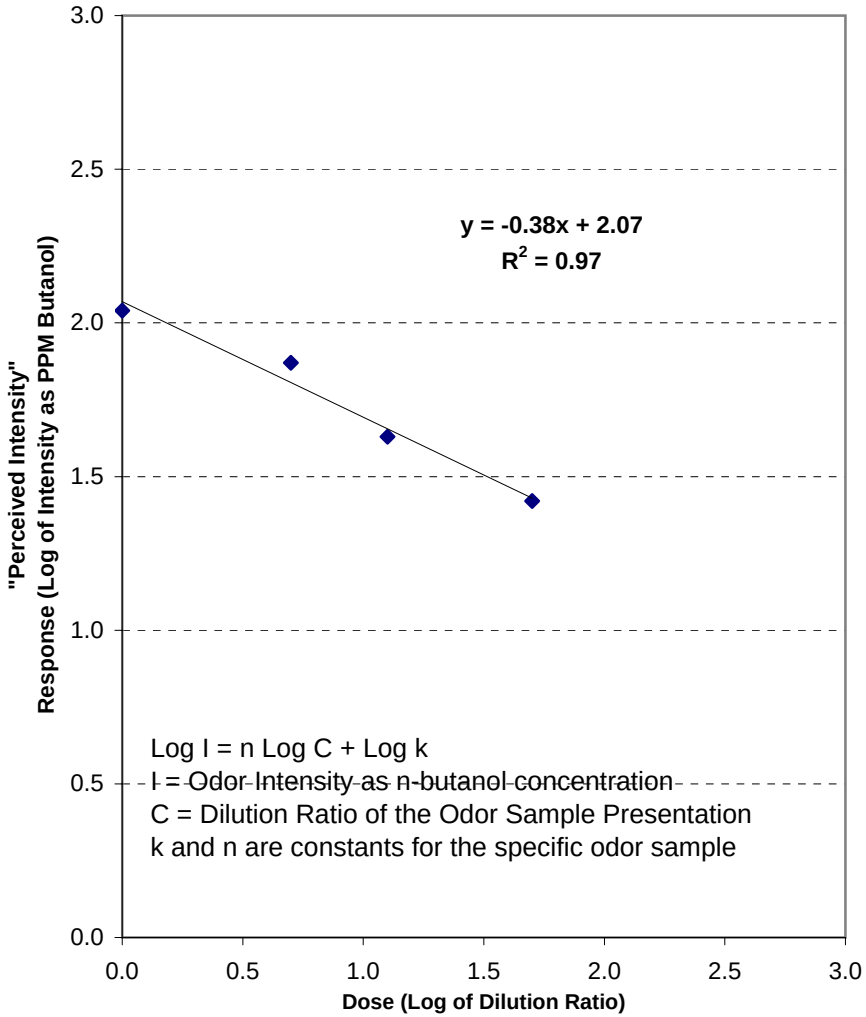
St. Croix Sensory, Inc.

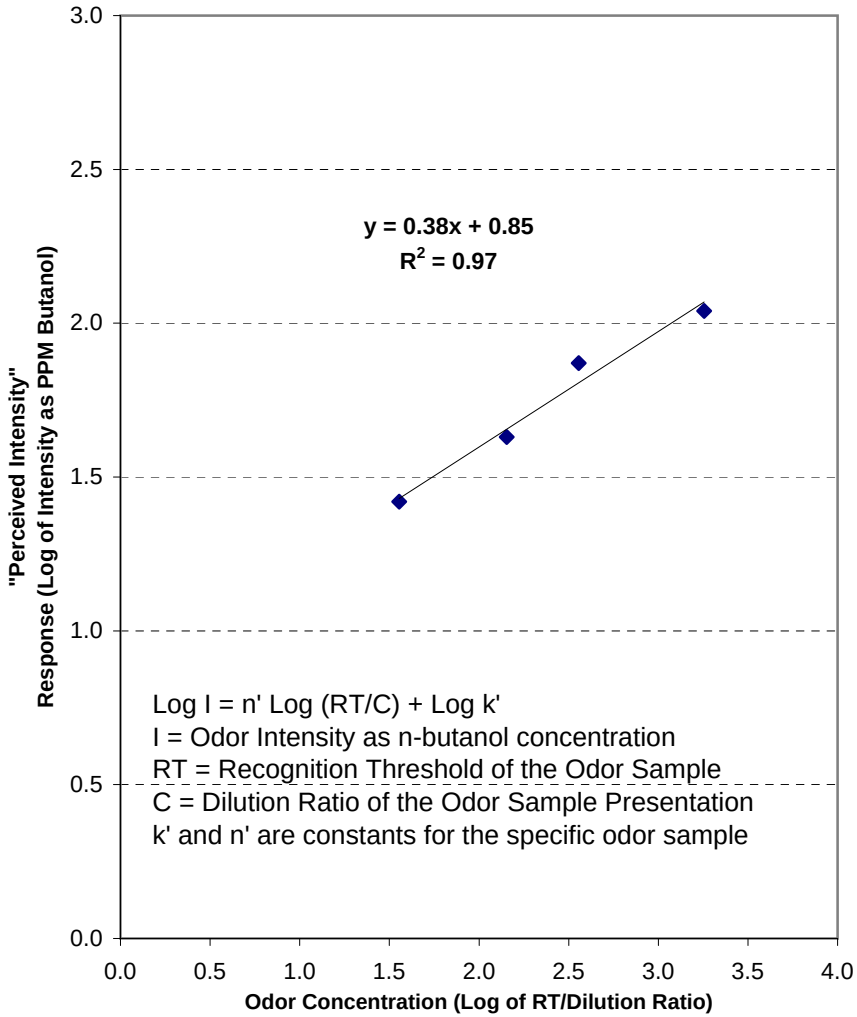
Odor Evaluation Report

Client:	Service Engineering Group	Field No.:	E10	Report No.:	**633502**
Project:	Dredge Sediment Headspace	Description:	5L from 100L Tedlar	Evaluation Date:	12/01/06

Dose-Response



Dose-Response as Power Law



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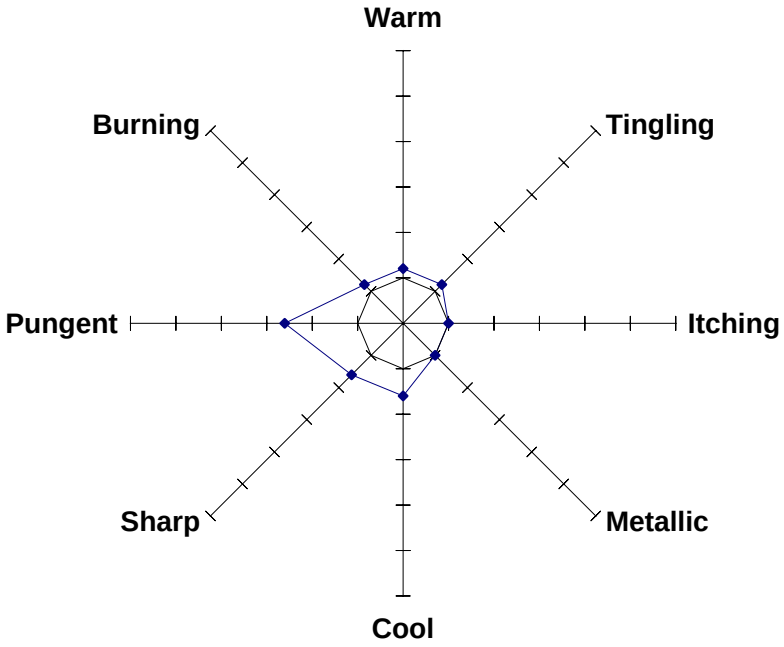
St. Croix Sensory, Inc.

Odor Evaluation Report

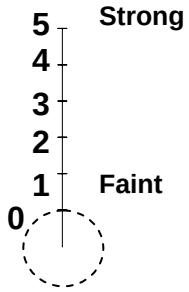
Client:	Service Engineering Group	Field No.:	E20	Report No.:	**633502**
Project:	Dredge Sediment Headspace	Description:	5L from 100L Tedlar	Evaluation Date:	12/01/06

Sensation Descriptor Graph



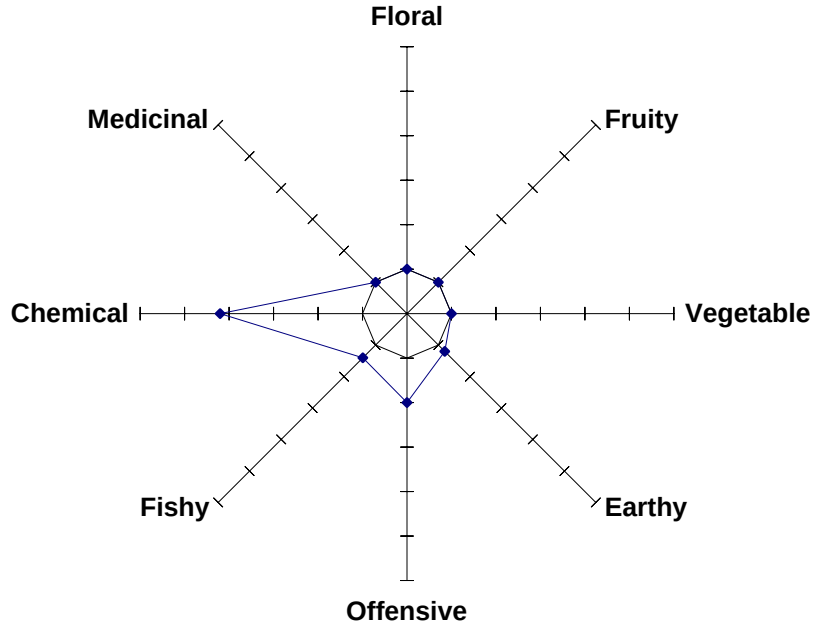
	Average Relative Strength
Warm	0.2
Tingling	0.2
Itching	0.0
Metallic	0.0
Cool	0.6
Sharp	0.6
Pungent	1.6
Burning	0.2

KEY



Relative Strength

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.2
Offensive	1.0
Fishy	0.4
Chemical	3.2
Medicinal	0.0

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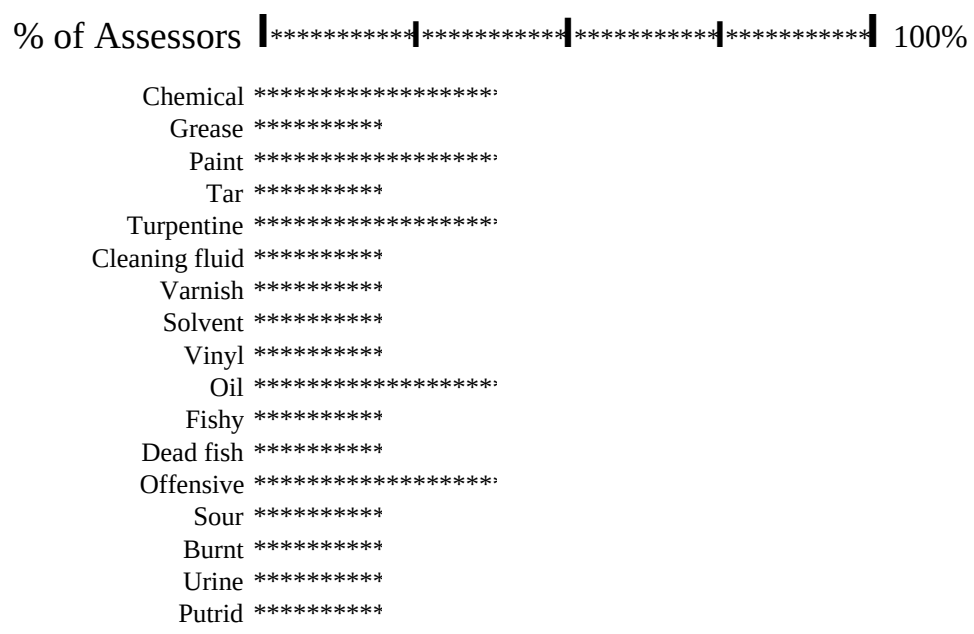
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: E20 | Report No.: **633502**

Project: Dredge Sediment Headspace | Description: 5L from 100L Tedlar | Evaluation Date: 12/01/06



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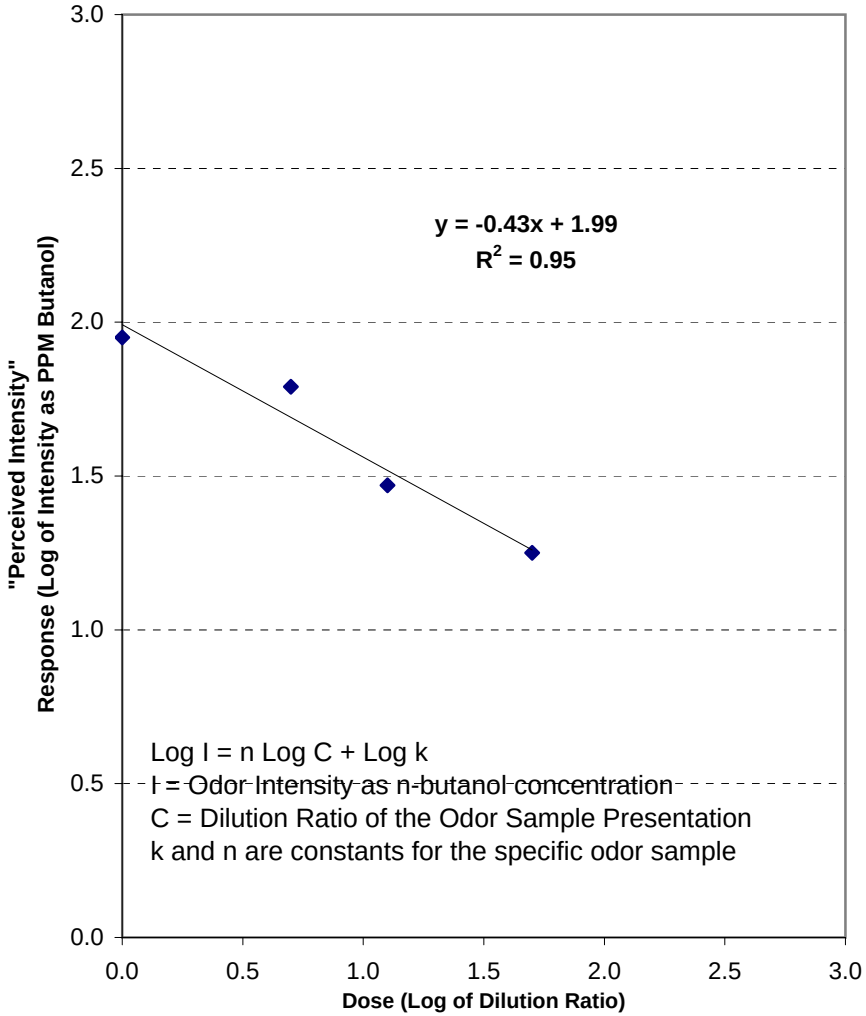
St. Croix Sensory, Inc.

Odor Evaluation Report

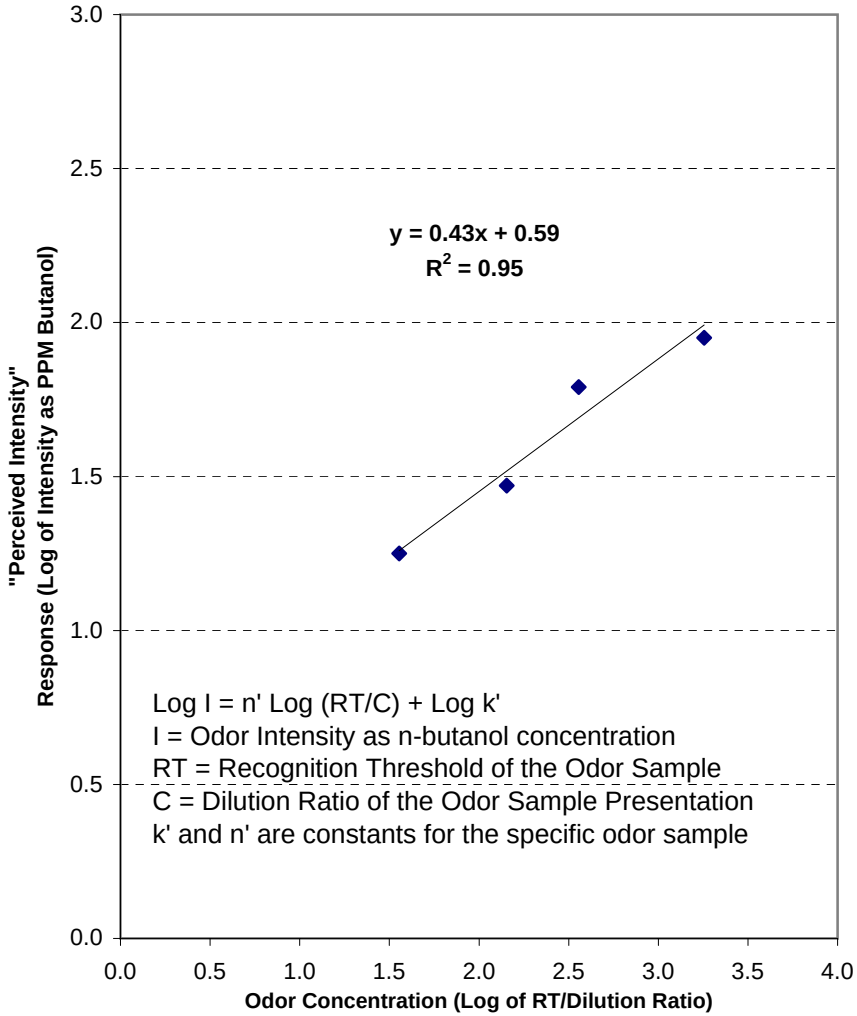
Client: Service Engineering Group | Field No.: E20 | Report No.: **633502**

Project: Dredge Sediment Headspace | Description: 5L from 100L Tedlar | Evaluation Date: 12/01/06

Dose-Response



Dose-Response as Power Law



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St. Croix Sensory, Inc.

CHAIN OF CUSTODY RECORD FOR ODOR SAMPLES

Page 1 of 1

Client: SCS	Sampled By: AML
Project Name: Dredge Sediment	Sampling Date: 12-1-06
Comments: Headspace	

Line No.	Field No.	Sample Description	Sample Time	Field H_2S (ppm)	Odor Concentration* (Detection & Recognition Threshold)	Odor Intensity* (PPM 1-Butanol)	Odor Characterization (Hedonic Tone & Descriptors)	Odor Persistency ("Dose-Response")	Laboratory Sample No. LN	Laboratory Sample No. FN
1	E10	5L from 100L Tedlar	10:30		X	X	X	X		
2	E20	5L from 100L Tedlar	10:35							
3	F10	5L from 100L Tedlar	10:40							
4	F20	5L from 100L Tedlar	10:50							
5										
6										
7										
8										
9										
10										
11										
12										

Odor Evaluations Requested: (X)

For Laboratory use Only

Odor Evaluation Report No.

Transmittal

Number of Shipping Boxes _____

Relinquished By	Date	Time	Accepted By	Date	Time	Comments & Exceptions Noted
Allie Lay						
Received at St. Croix Sensory Laboratory			Natasha Kolont	12/1/06	10:55	

*Odor Concentration: ASTM E679-04 and EN13725:2003 and Odor Intensity: ASTM E544-99(2004)

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St. Croix Sensory, Inc.

Service Engineering Group

Dredge Sediment

Odor Evaluation Report

Report No. 633901
12/05/06

Data Release Authorization:

Melissa McGinley
Laboratory Associate

Reviewed and Approved:

Michael A. McGinley, P.E.
Laboratory Director

St. Croix Sensory is a laboratory dedicated to practicing state-of-the-art sensory evaluation and to advancing the science of sensory perception.

We are a family owned and operated business providing our clients with personal customer service, flexible scheduling, timely results.

Our focus is to provide the best professional services available to help make your project or product a success.

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3549 Lake Elmo Avenue North
P.O. Box 313
Lake Elmo, Minnesota 55042 U.S.A.

Tel: 800-879-9231
Fax: 651-439-1065

Email: stcroix@fivesenses.com

St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group

Report No.: **633901**

Project: Dredge Sediment

Evaluation Date: 12/05/06

			ASTM E679 & EN13725		ASTM E544	PERSISTENCY	CHARACTERIZATION		
#	Field No.	Sample Description	Detection Threshold	Recognition Threshold	Intensity	Dose-Response Slope	Hedonic Tone	Principal Odor Descriptors	**Comments**
1	G10	5L from 100L	1,100	780	95	-0.53	-3.0	Tar, Kerosine, Oil, Chemical	
2	G20	5L from 100L	830	630	100	-0.58	-3.4	Petroleum, Oil, Chemical, Solvent	
3	H10	5L from 100L	4,500	3,600	620	-0.76	-6.8	Petroleum	
4	H20	5L from 100L	3,400	2,400	350	-0.64	-6.2	Chemical, Offensive	
5									
6									
7									
8									
9									
10									

P.O. Box 313, 3549 Lake Elmo Ave. N., Lake Elmo, MN 55042 U.S.A. Tel:800-879-9231 Fax:651-439-1065 E-mail:stcroix@fivesenses.com Web:www.fivesenses.com

St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group

Report No.: **633901**

Project: Dredge Sediment

Evaluation Date: 12/05/06

			ASTM E679 & EN13725		ASTM E544	PERSISTENCY	CHARACTERIZATION		
#	Field No.	Sample Description	Detection Threshold	Recognition Threshold	Intensity	Dose-Response Slope	Hedonic Tone	Principal Odor Descriptors	**Comments**
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

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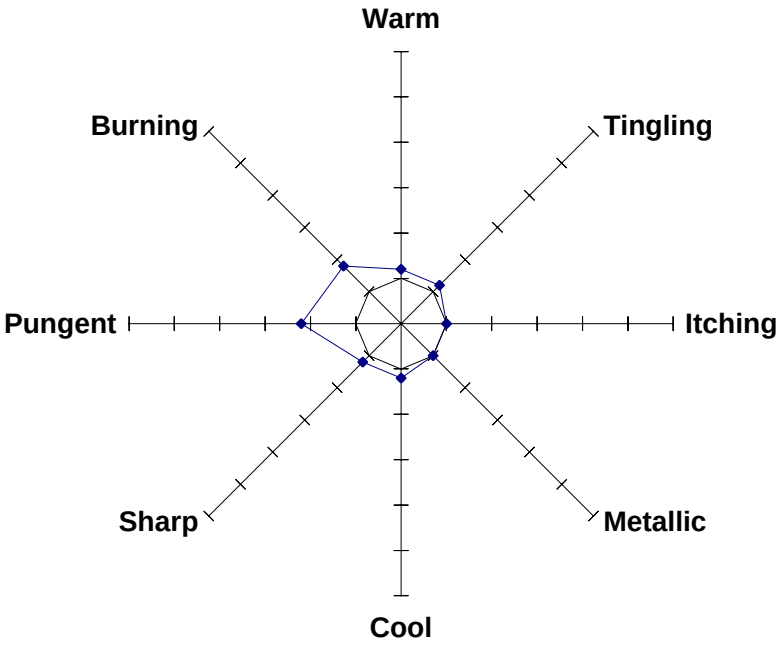
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: G10 | Report No.: **633901**

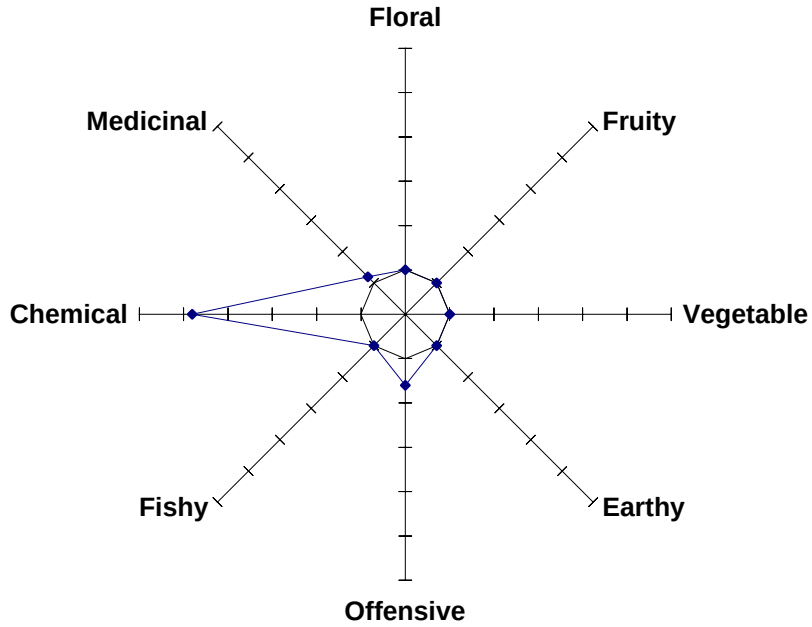
Project: Dredge Sediment | Description: 5L from 100L | Evaluation Date: 12/05/06

Sensation Descriptor Graph



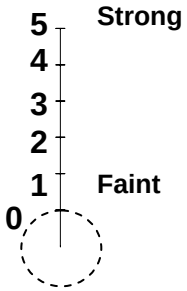
	Average Relative Strength
Warm	0.2
Tingling	0.2
Itching	0.0
Metallic	0.0
Cool	0.2
Sharp	0.2
Pungent	1.2
Burning	0.8

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.0
Offensive	0.6
Fishy	0.0
Chemical	3.8
Medicinal	0.2

KEY



Relative Strength

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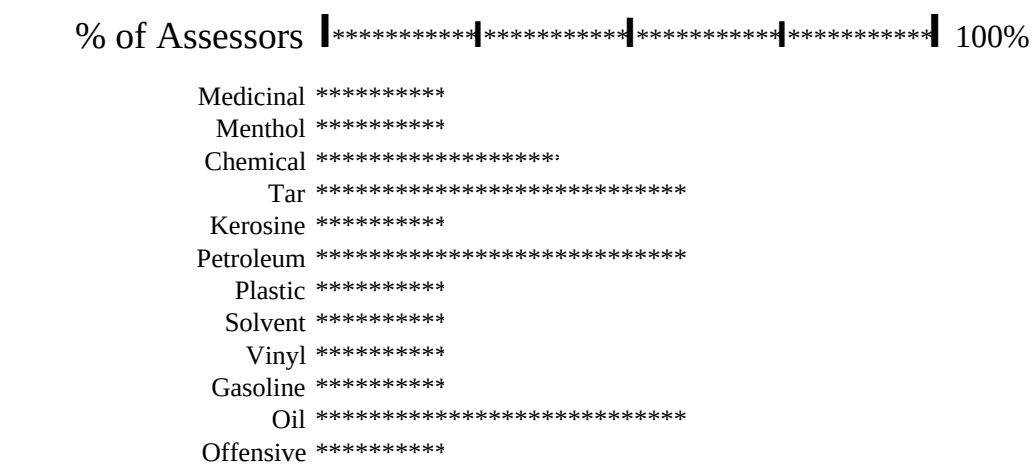
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: G10 | Report No.: **633901**

Project: Dredge Sediment | Description: 5L from 100L | Evaluation Date: 12/05/06



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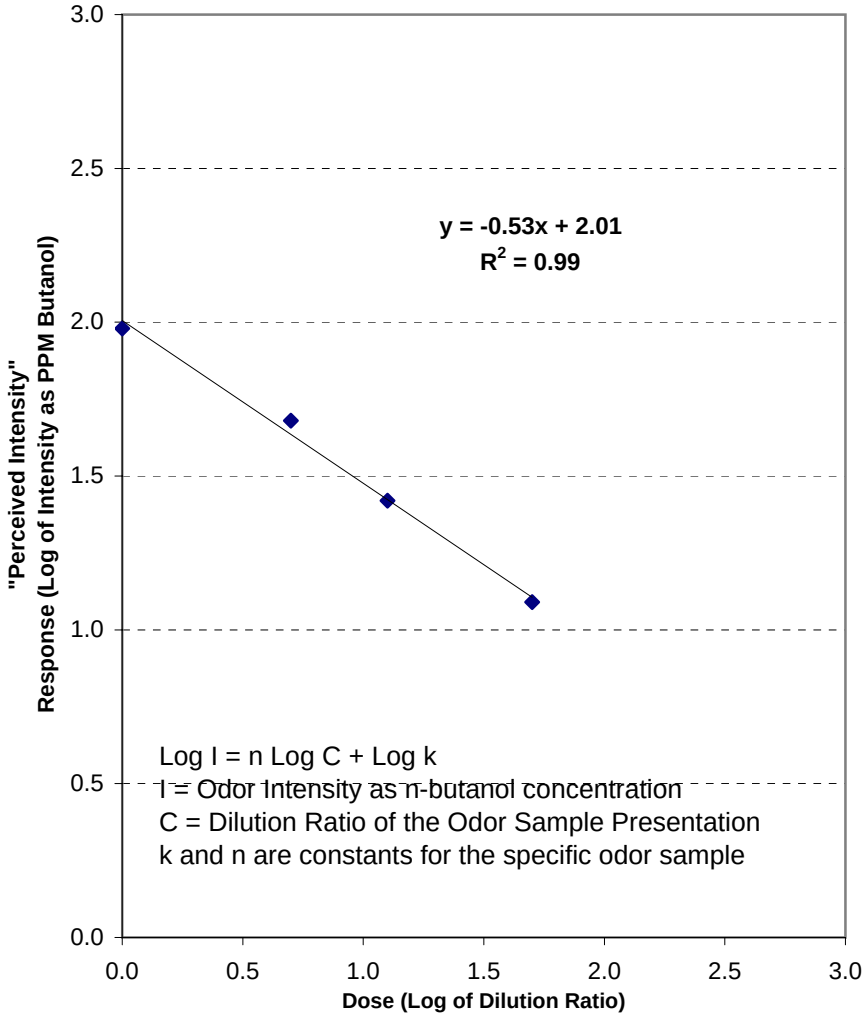
St. Croix Sensory, Inc.

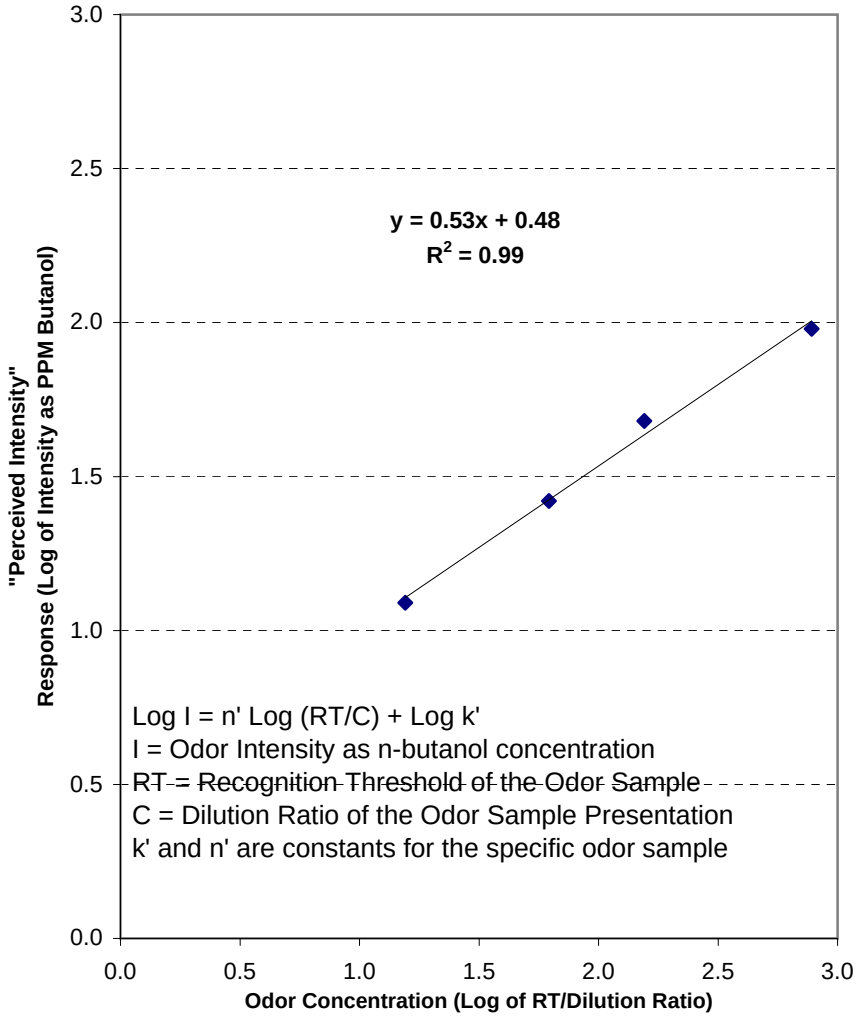
Odor Evaluation Report

Client:	Service Engineering Group	Field No.:	G10	Report No.:	**633901**
Project:	Dredge Sediment	Description:	5L from 100L	Evaluation Date:	12/05/06

Dose-Response



Dose-Response as Power Law



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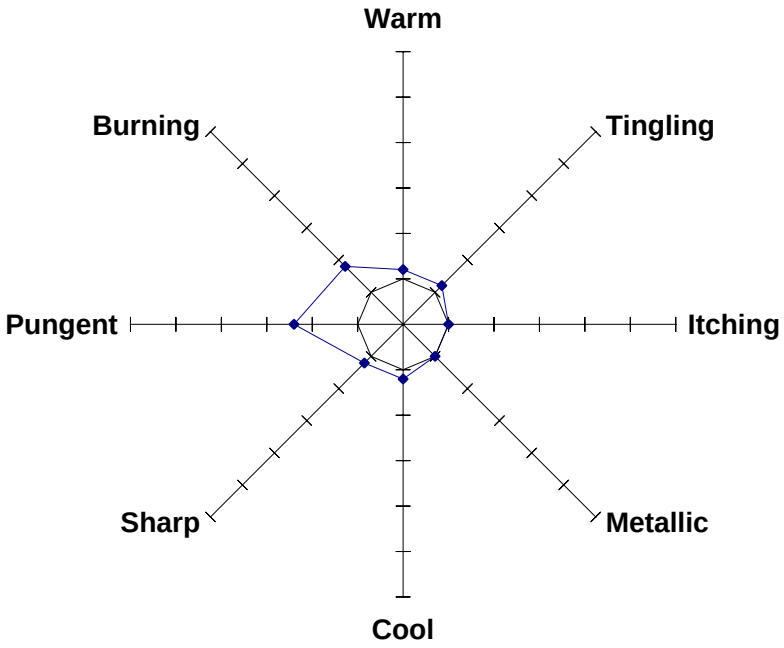
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: G20 | Report No.: **633901**

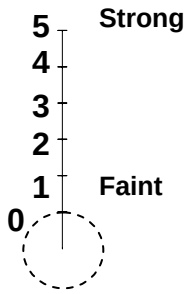
Project: Dredge Sediment | Description: 5L from 100L | Evaluation Date: 12/05/06

Sensation Descriptor Graph



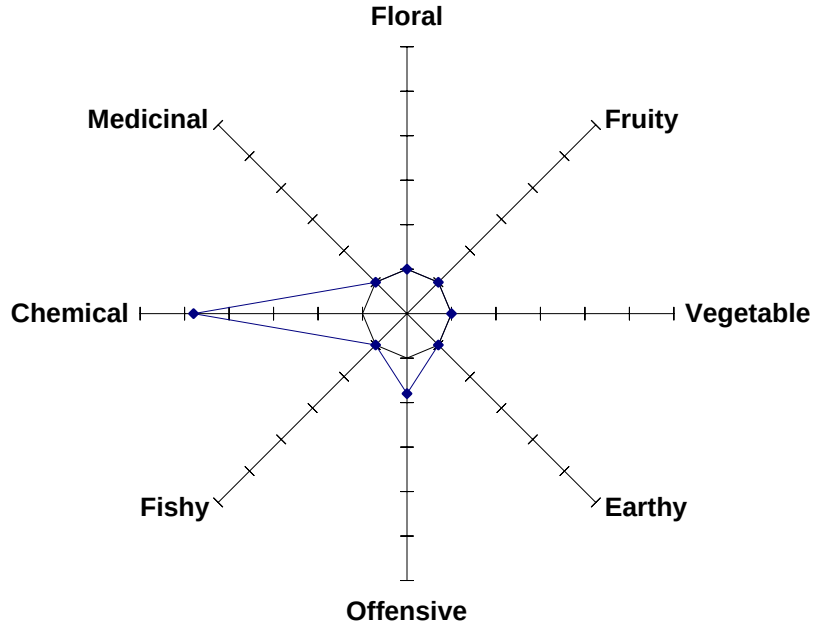
	Average Relative Strength
Warm	0.2
Tingling	0.2
Itching	0.0
Metallic	0.0
Cool	0.2
Sharp	0.2
Pungent	1.4
Burning	0.8

KEY



Relative Strength

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.0
Offensive	0.8
Fishy	0.0
Chemical	3.8
Medicinal	0.0

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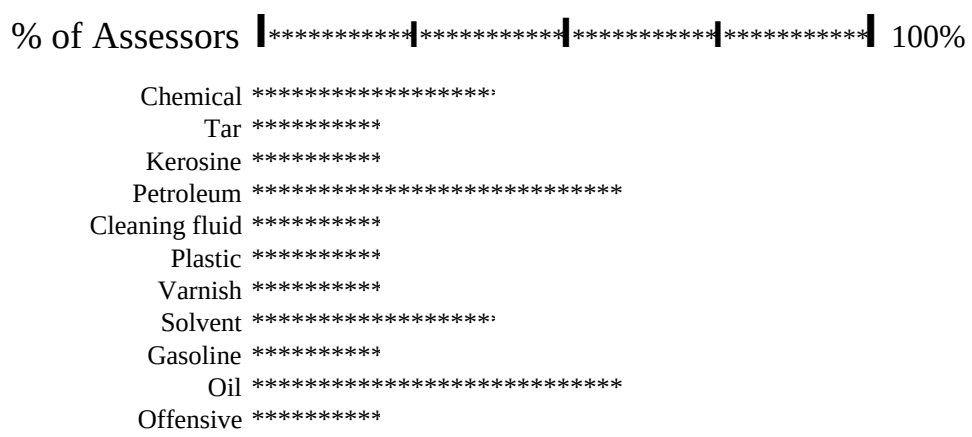
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: G20 | Report No.: **633901**

Project: Dredge Sediment | Description: 5L from 100L | Evaluation Date: 12/05/06



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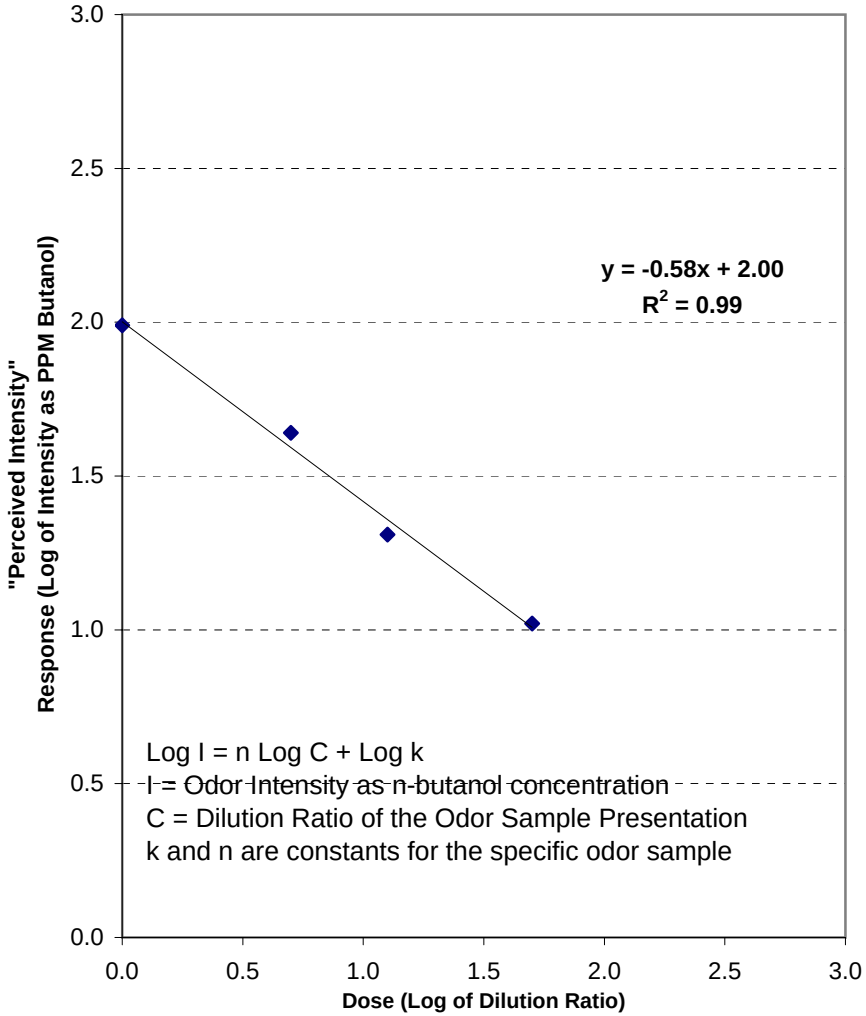
St. Croix Sensory, Inc.

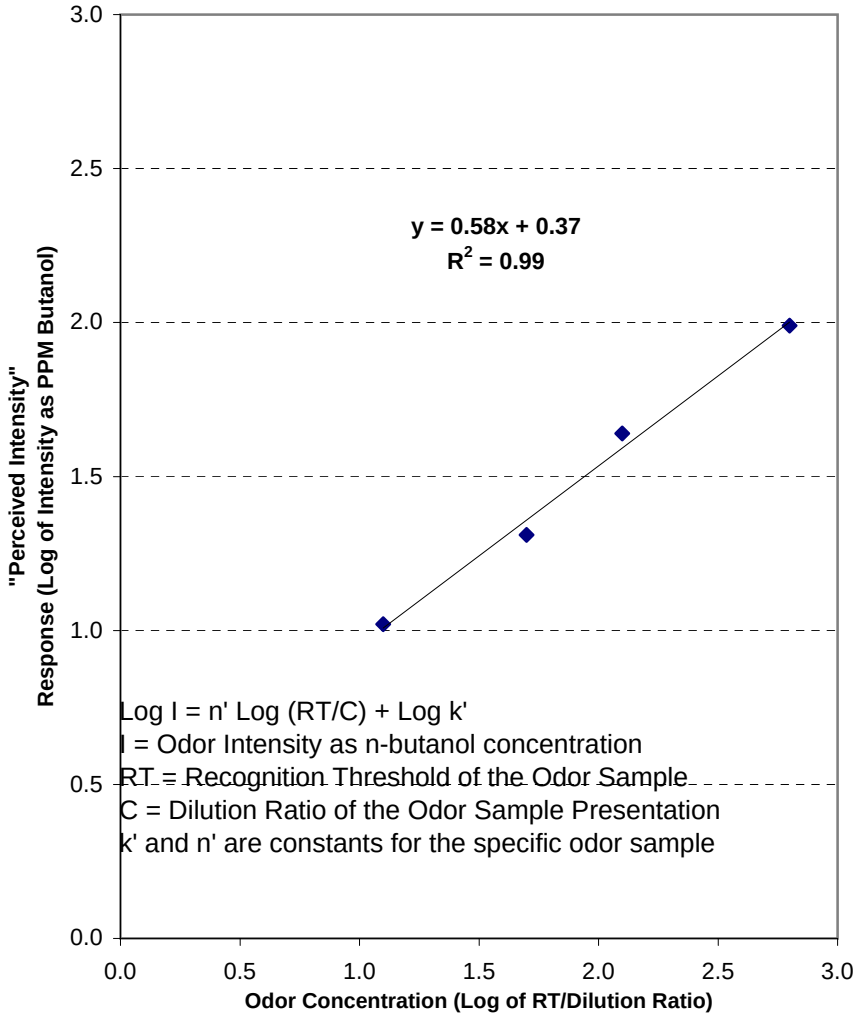
Odor Evaluation Report

Client:	Service Engineering Group	Field No.:	G20	Report No.:	**633901**
Project:	Dredge Sediment	Description:	5L from 100L	Evaluation Date:	12/05/06

Dose-Response



Dose-Response as Power Law



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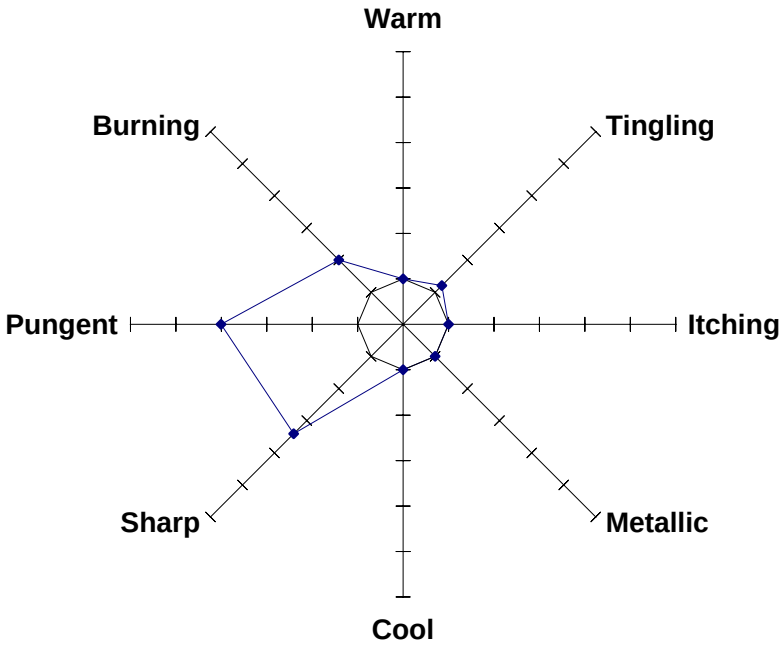
St. Croix Sensory, Inc.

Odor Evaluation Report

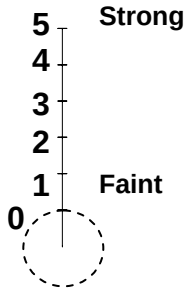
Client:	Service Engineering Group	Field No.:	H10	Report No.:	**633901**
Project:	Dredge Sediment	Description:	5L from 100L	Evaluation Date:	12/05/06

Sensation Descriptor Graph



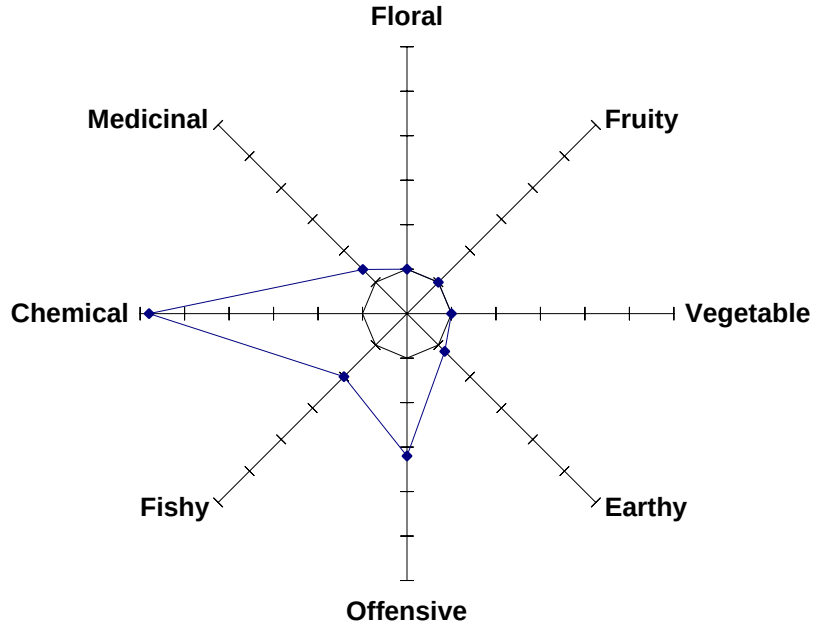
	Average Relative Strength
Warm	0.0
Tingling	0.2
Itching	0.0
Metallic	0.0
Cool	0.0
Sharp	2.4
Pungent	3.0
Burning	1.0

KEY



Relative Strength

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.2
Offensive	2.2
Fishy	1.0
Chemical	4.8
Medicinal	0.4

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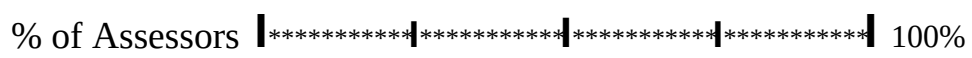
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: H10 | Report No.: **633901**

Project: Dredge Sediment | Description: 5L from 100L | Evaluation Date: 12/05/06



Ammonia	**********
Chemical	**********
Grease	**********
Tar	**********
Kerosine	**********
Petroleum	**********
Creosote	**********
Mothball	**********
Solvent	**********
Gasoline	**********
Oil	**********
Fishy	**********
Amine	**********
Offensive	**********
Fecal	**********
Sour	**********
Urine	**********
Earthy	**********
Mouse-like	**********

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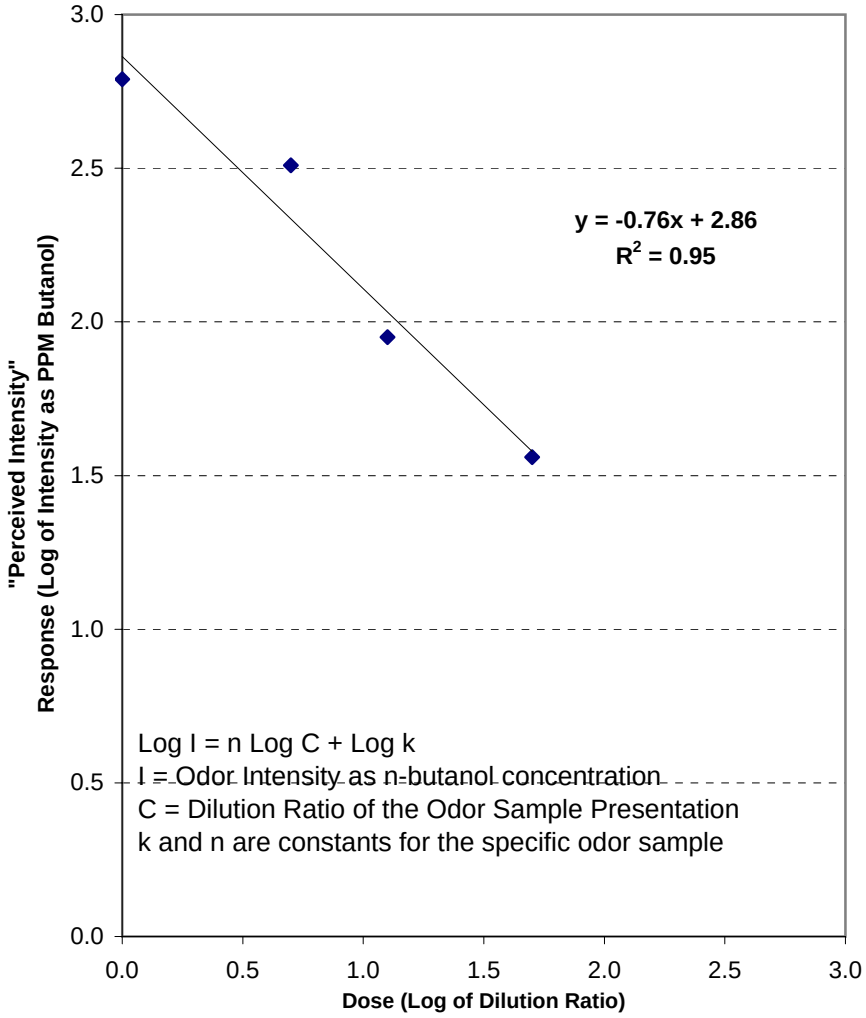
St. Croix Sensory, Inc.

Odor Evaluation Report

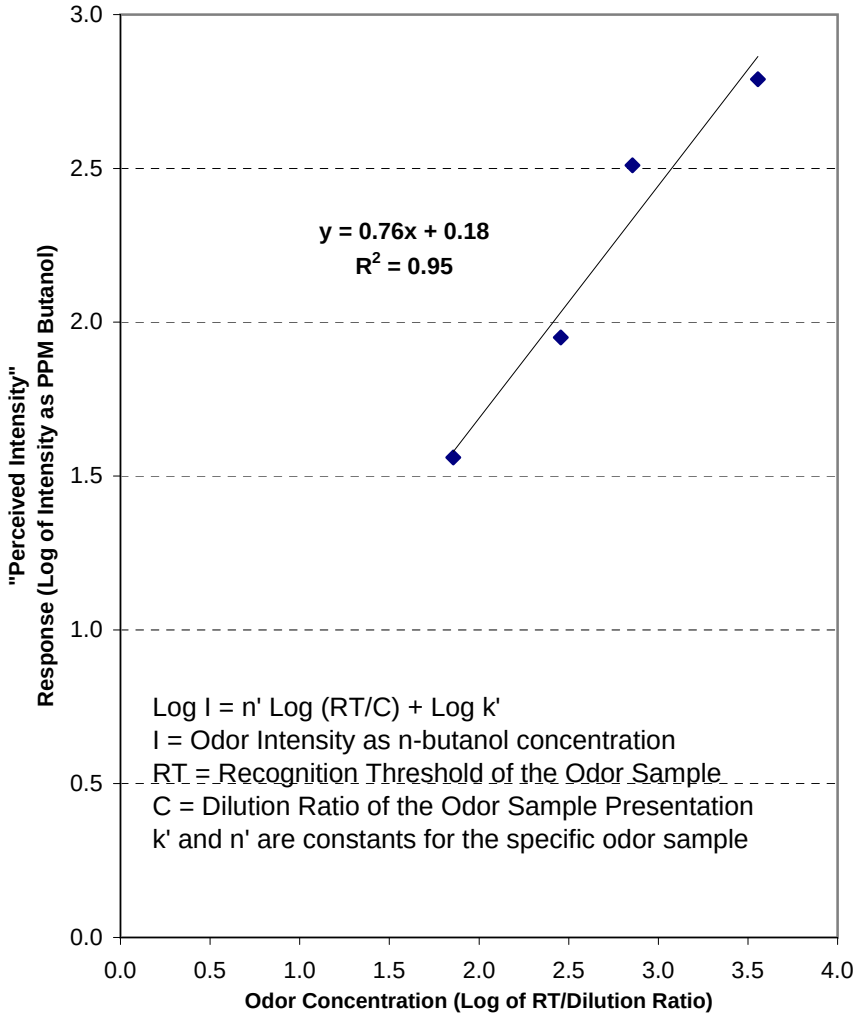
Client: Service Engineering Group | Field No.: H10 | Report No.: **633901**

Project: Dredge Sediment | Description: 5L from 100L | Evaluation Date: 12/05/06

Dose-Response



Dose-Response as Power Law



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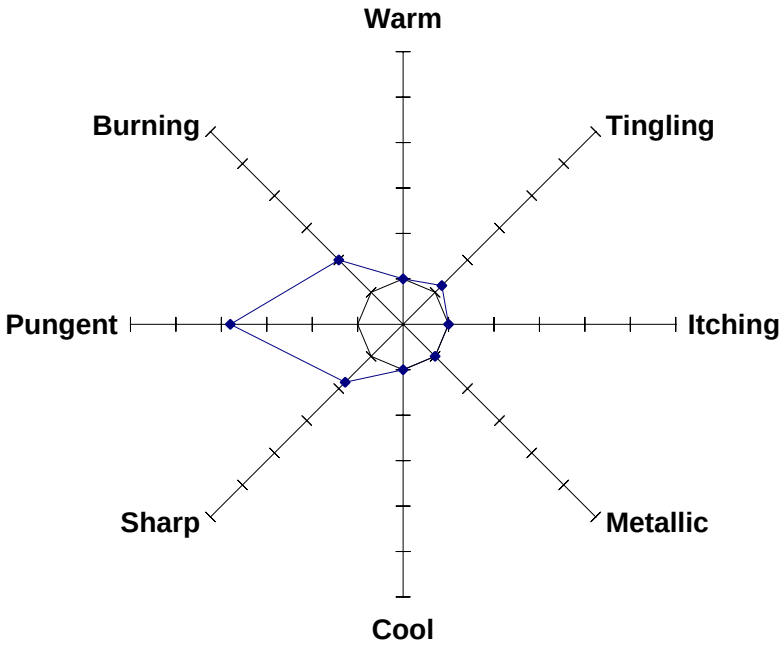
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: H20 | Report No.: **633901**

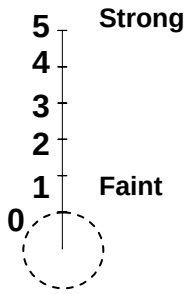
Project: Dredge Sediment | Description: 5L from 100L | Evaluation Date: 12/05/06

Sensation Descriptor Graph



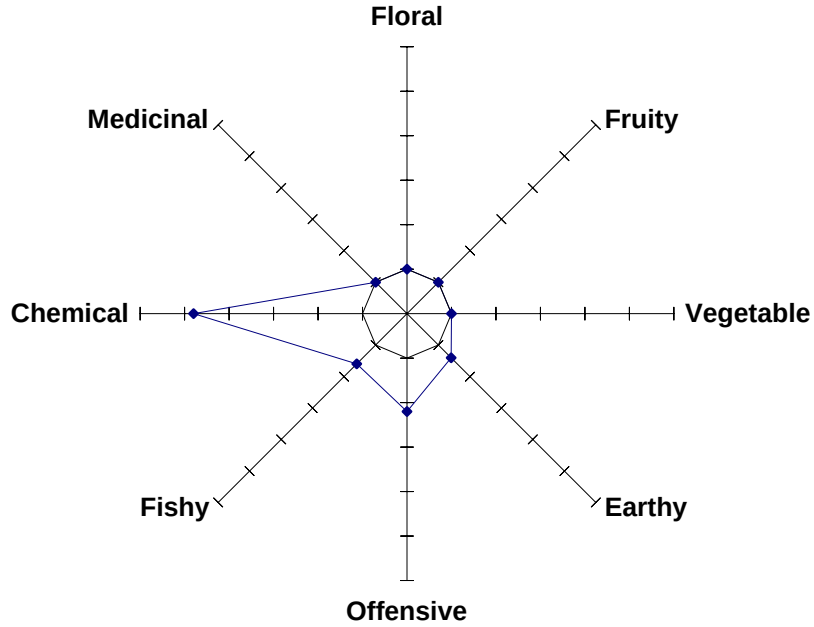
	Average Relative Strength
Warm	0.0
Tingling	0.2
Itching	0.0
Metallic	0.0
Cool	0.0
Sharp	0.8
Pungent	2.8
Burning	1.0

KEY



Relative Strength

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.4
Offensive	1.2
Fishy	0.6
Chemical	3.8
Medicinal	0.0

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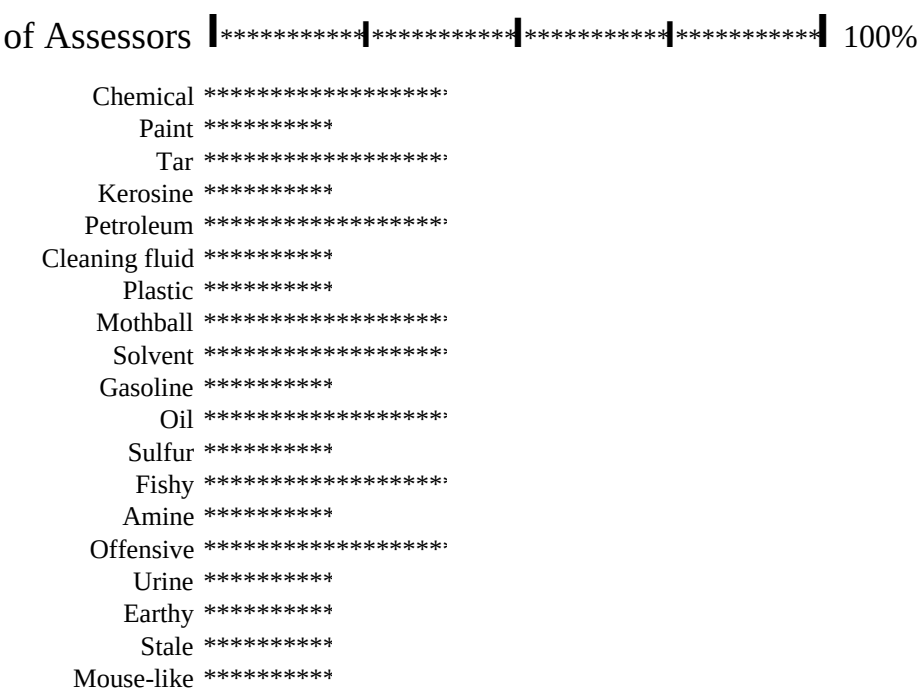
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: H20 | Report No.: **633901**

Project: Dredge Sediment | Description: 5L from 100L | Evaluation Date: 12/05/06



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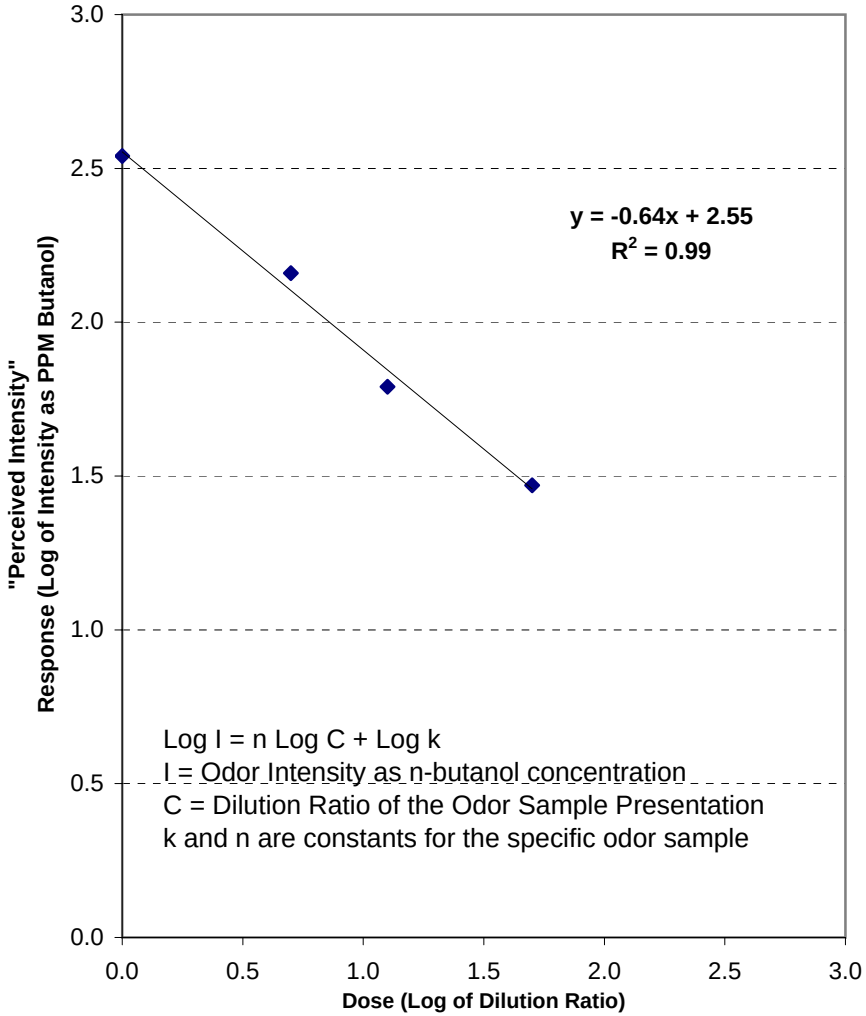
St. Croix Sensory, Inc.

Odor Evaluation Report

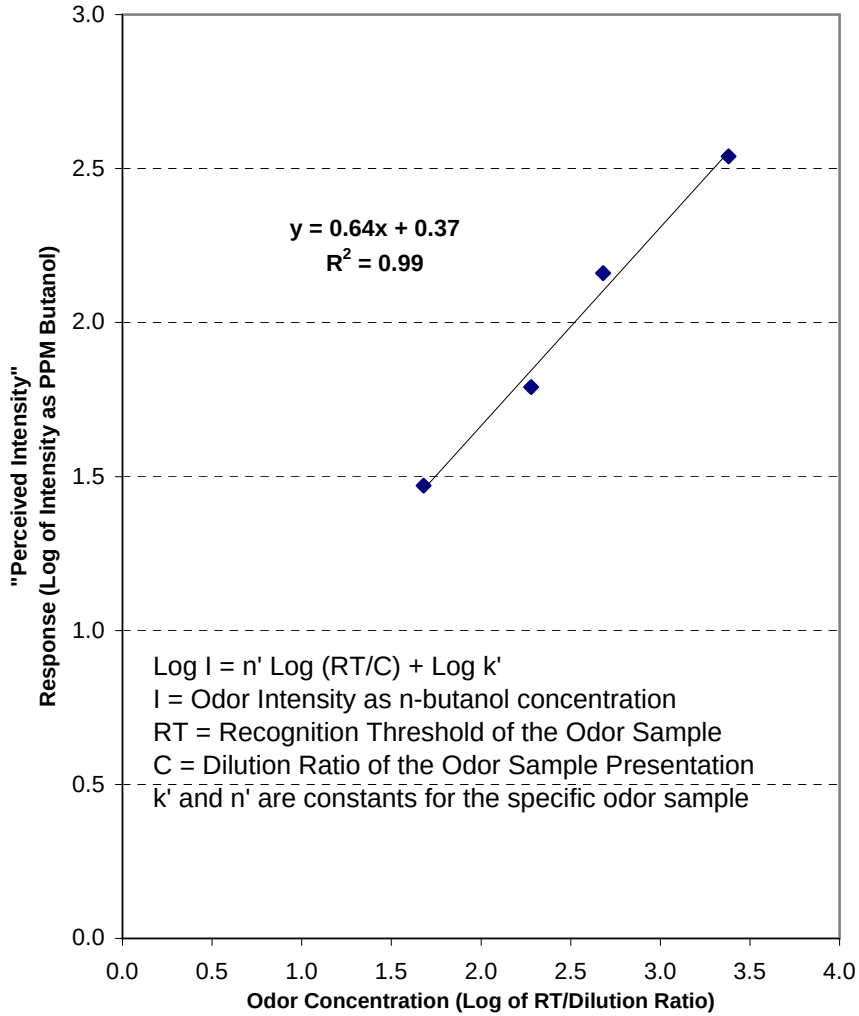
Client: Service Engineering Group | Field No.: H20 | Report No.: **633901**

Project: Dredge Sediment | Description: 5L from 100L | Evaluation Date: 12/05/06

Dose-Response



Dose-Response as Power Law



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St. Croix Sensory, Inc.

CHAIN OF CUSTODY RECORD FOR ODOR SAMPLES

Client: SCS | Sampled By: AML

Project Name: Dredge Sediment | Sampling Date: 12-5-06

Comments:

Odor Evaluations Requested: (X)

Line No.	Field No.	Sample Description	Sample Time	Field H_2S (ppm)	Odor Concentration* (Detection & Recognition Threshold)	Odor Intensity* (PPM 1-Butanol)	Odor Characterization (Hedonic Tone & Descriptors)	Odor Persistency ("Dose-Response")	For Laboratory use Only: Odor Evaluation Report No. / Laboratory Sample No. LN	FN
1	G10	5L from 100L	10:00A							
2	G20	↓	10:10A							
3	EH10		10:25A							
4	H20		10:30A							
5										
6										
7										
8										
9										
10										
11										
12										

Transmittal

Number of Shipping Boxes _____

Relinquished By	Date	Time	Accepted By	Date	Time	Comments & Exceptions Noted
[signature]	12-5-06	10:50A				
Received at St. Croix Sensory Laboratory			Natasha Kolstad	12/5/06	11:15	

*Odor Concentration: ASTM E679-04 and EN13725:2003 and Odor Intensity: ASTM E544-99(2004)

St. Croix Sensory, Inc. ◆ 3549 Lake Elmo Avenue North ◆ Lake Elmo, MN 55042 U.S.A.◆ Tel:800-879-9231 ◆ Fax:651-439-1065 ◆ Email:reports@fivesenses.com ◆ Web:www.fivesenses.com

LAB COPIES WHITE & YELLOW

CLIENT COPY PINK

St. Croix Sensory, Inc.

Service Engineering Group

Dredge Sediment Headspace

Odor Evaluation Report

Report No. 634001
12/06/06

Data Release Authorization:

Melissa McGinley
Laboratory Associate

Reviewed and Approved:

Michael A. McGinley, P.E.
Laboratory Director

St. Croix Sensory is a laboratory dedicated to practicing state-of-the-art sensory evaluation and to advancing the science of sensory perception.

We are a family owned and operated business providing our clients with personal customer service, flexible scheduling, timely results.

Our focus is to provide the best professional services available to help make your project or product a success.

www.fivesenses.com

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St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group

Report No.: **634001**

Project: Dredge Sediment Headspace

Evaluation Date: 12/06/06

			ASTM E679 & EN13725		ASTM E544	PERSISTENCY	CHARACTERIZATION		
#	Field No.	Sample Description	Detection Threshold	Recognition Threshold	Intensity	Dose-Response Slope	Hedonic Tone	Principal Odor Descriptors	**Comments**
1	I10	5L from 100L	6,300	4,400	680	-0.50	-8.2	Chemical, Petroleum, Plastic, Kerosine, Creosote, Vinyl	
2	I20	5L from 100L	6,800	4,400	690	-0.51	-7.8	Chemical, Petroleum, Plastic, Kerosine, Creosote, Vinyl	
3	J10	5L from 100L	7,200	5,500	450	-0.50	-7.8	Chemical, Petroleum, Vinyl	
4	J20	5L from 100L	4,200	2,900	270	-0.46	-6.6	Petroleum, Vinyl, Chemical, Kerosine, Plastic	
5									
6									
7									
8									
9									
10									

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St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group

Report No.: **634001**

Project: Dredge Sediment Headspace

Evaluation Date: 12/06/06

			ASTM E679 & EN13725		ASTM E544	PERSISTENCY	CHARACTERIZATION		
#	Field No.	Sample Description	Detection Threshold	Recognition Threshold	Intensity	Dose-Response Slope	Hedonic Tone	Principal Odor Descriptors	**Comments**
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

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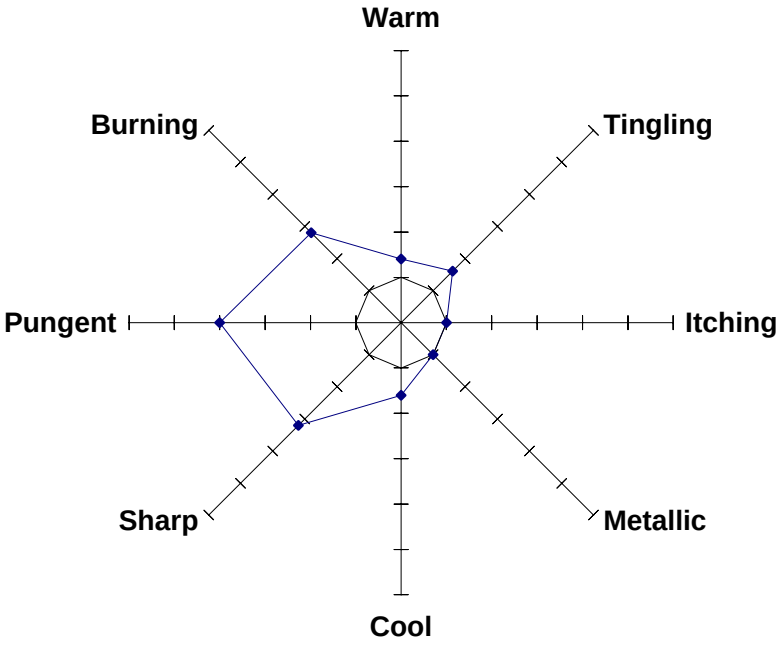
St. Croix Sensory, Inc.

Odor Evaluation Report

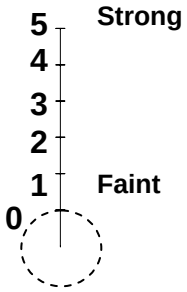
Client:	Service Engineering Group	Field No.:	I10	Report No.:	**634001**
Project:	Dredge Sediment Headspace	Description:	5L from 100L	Evaluation Date:	12/06/06

Sensation Descriptor Graph



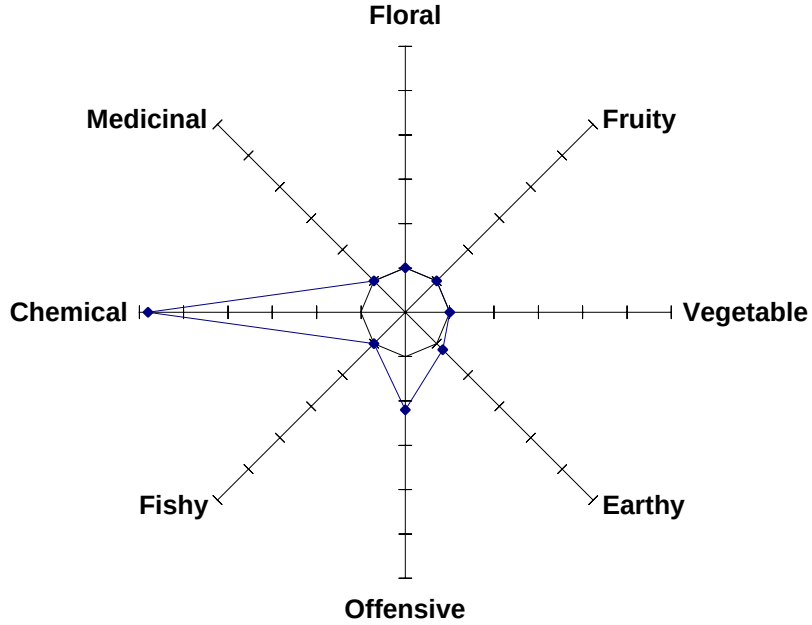
	Average Relative Strength
Warm	0.4
Tingling	0.6
Itching	0.0
Metallic	0.0
Cool	0.6
Sharp	2.2
Pungent	3.0
Burning	1.8

KEY



Relative Strength

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.2
Offensive	1.2
Fishy	0.0
Chemical	4.8
Medicinal	0.0

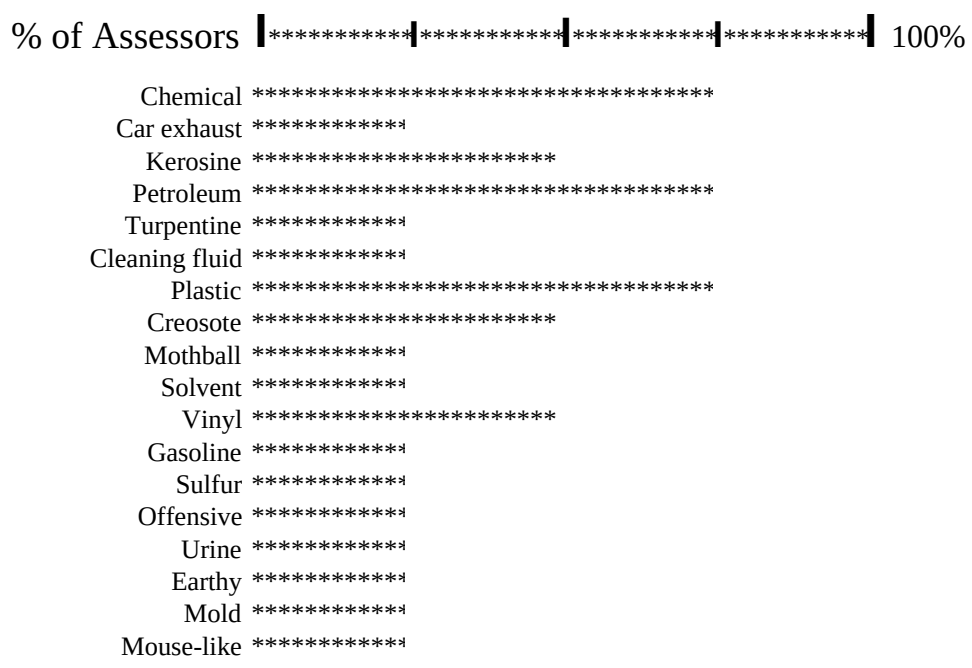
P.O. Box 313, 3549 Lake Elmo Ave. N., Lake Elmo, MN 55042 U.S.A. Tel:800-879-9231 Fax:651-439-1065 E-mail:stcroix@fivesenses.com Web:www.fivesenses.com

St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: I10 | Report No.: **634001**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/06/06



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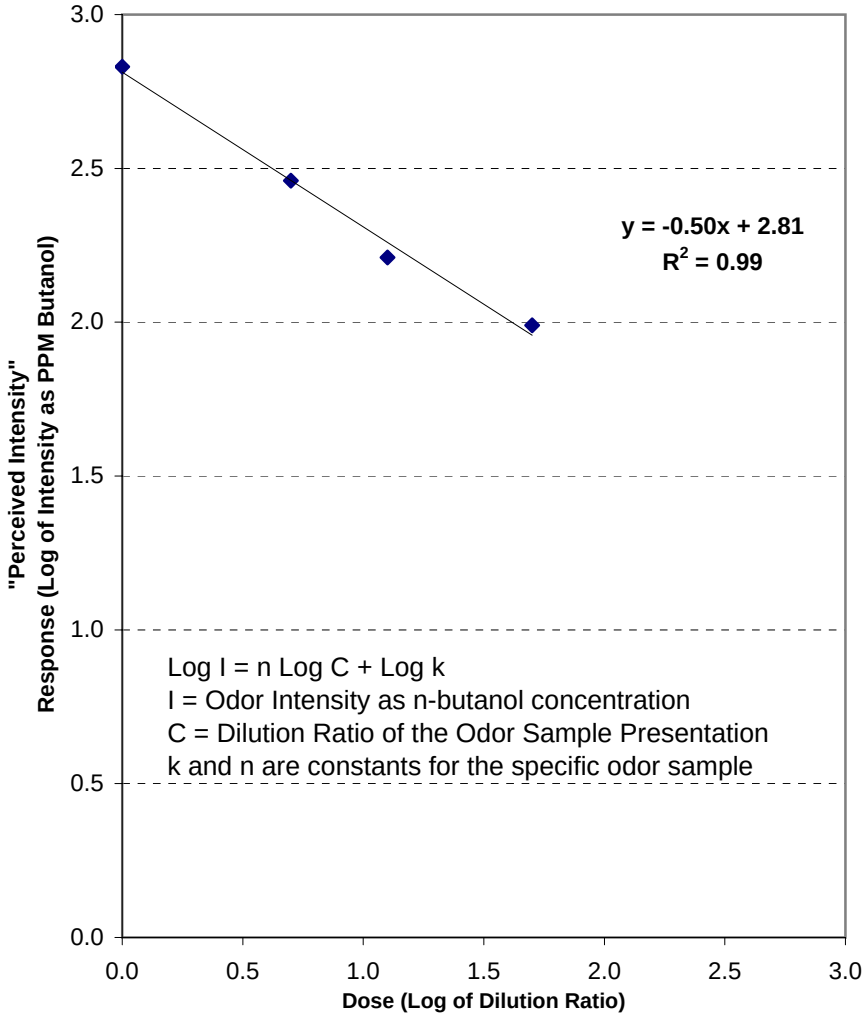
St. Croix Sensory, Inc.

Odor Evaluation Report

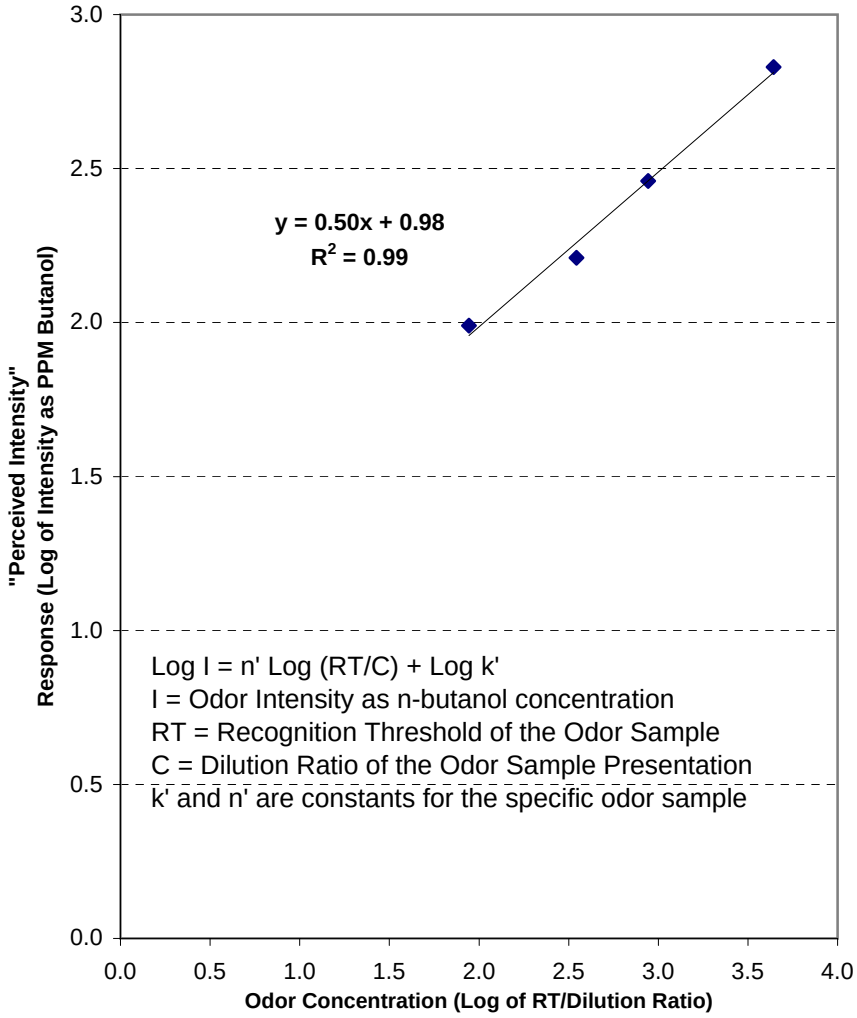
Client: Service Engineering Group | Field No.: I10 | Report No.: **634001**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/06/06

Dose-Response



Dose-Response as Power Law



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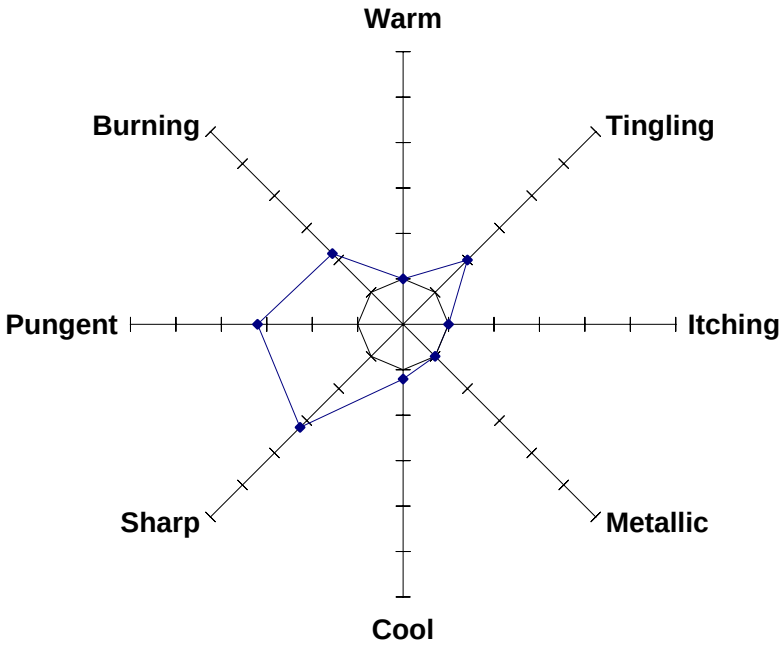
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: I20 | Report No.: **634001**

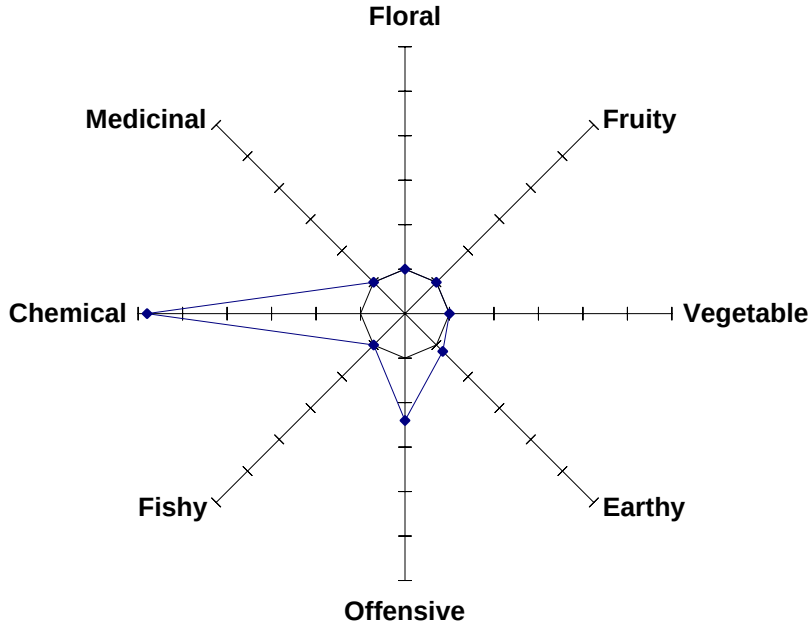
Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/06/06

Sensation Descriptor Graph



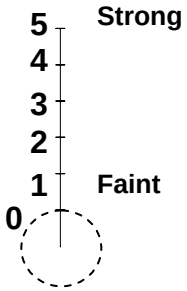
	Average Relative Strength
Warm	0.0
Tingling	1.0
Itching	0.0
Metallic	0.0
Cool	0.2
Sharp	2.2
Pungent	2.2
Burning	1.2

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.2
Offensive	1.4
Fishy	0.0
Chemical	4.8
Medicinal	0.0

KEY



Relative Strength

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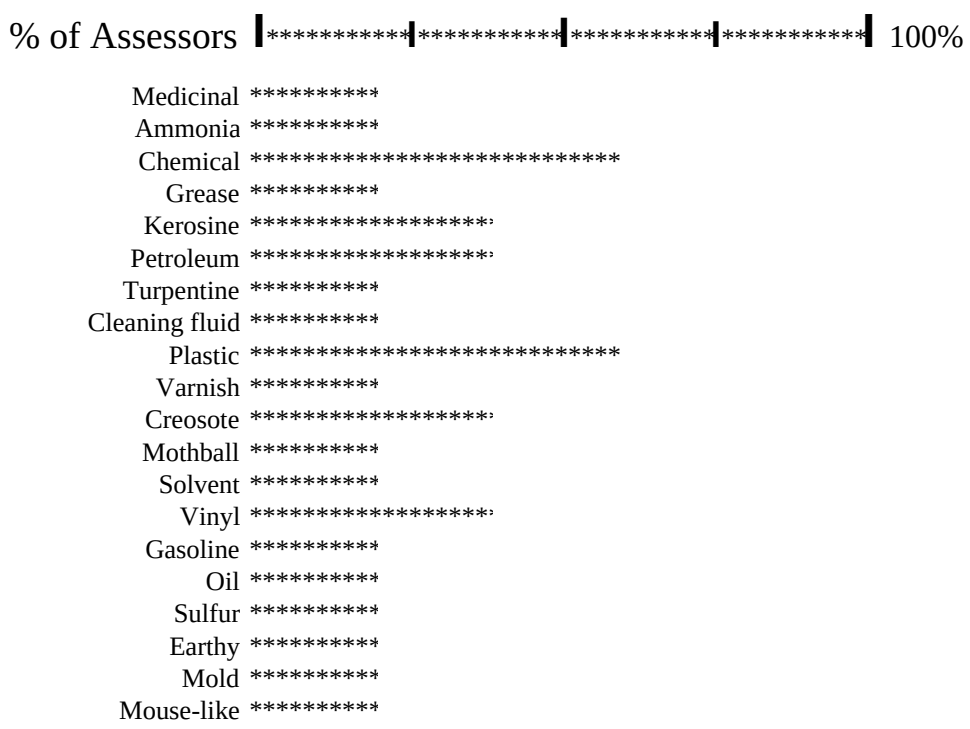
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: I20 | Report No.: **634001**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/06/06



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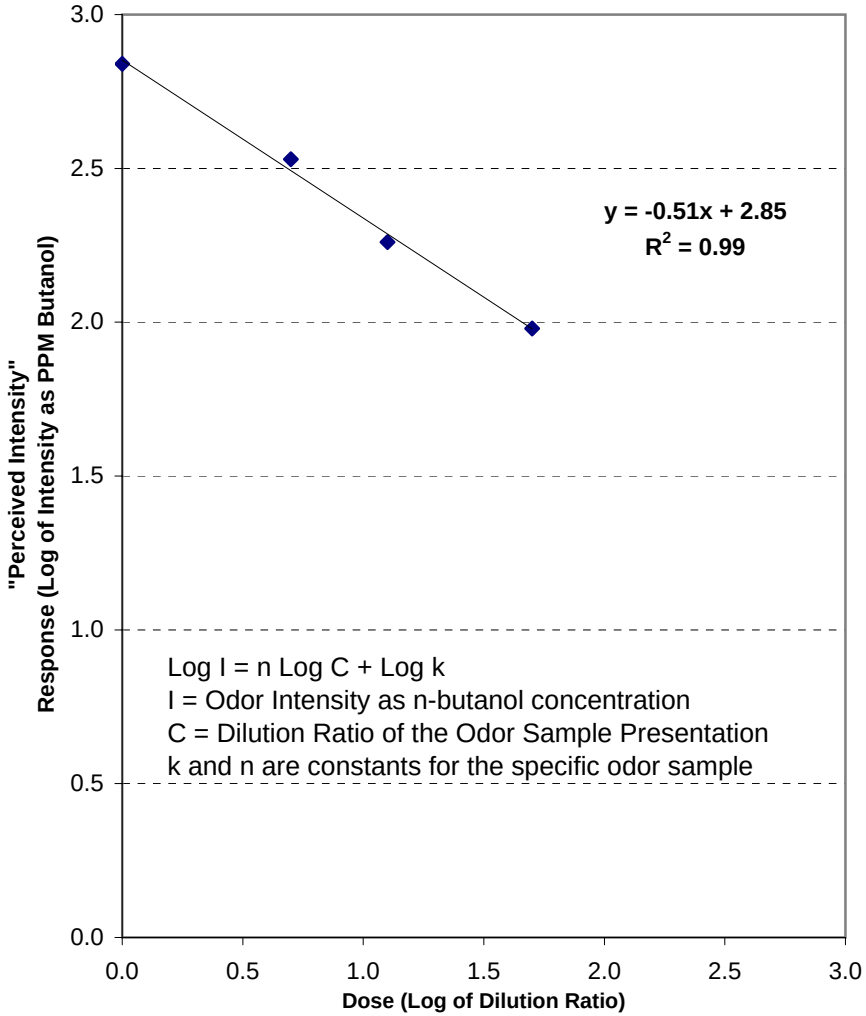
St. Croix Sensory, Inc.

Odor Evaluation Report

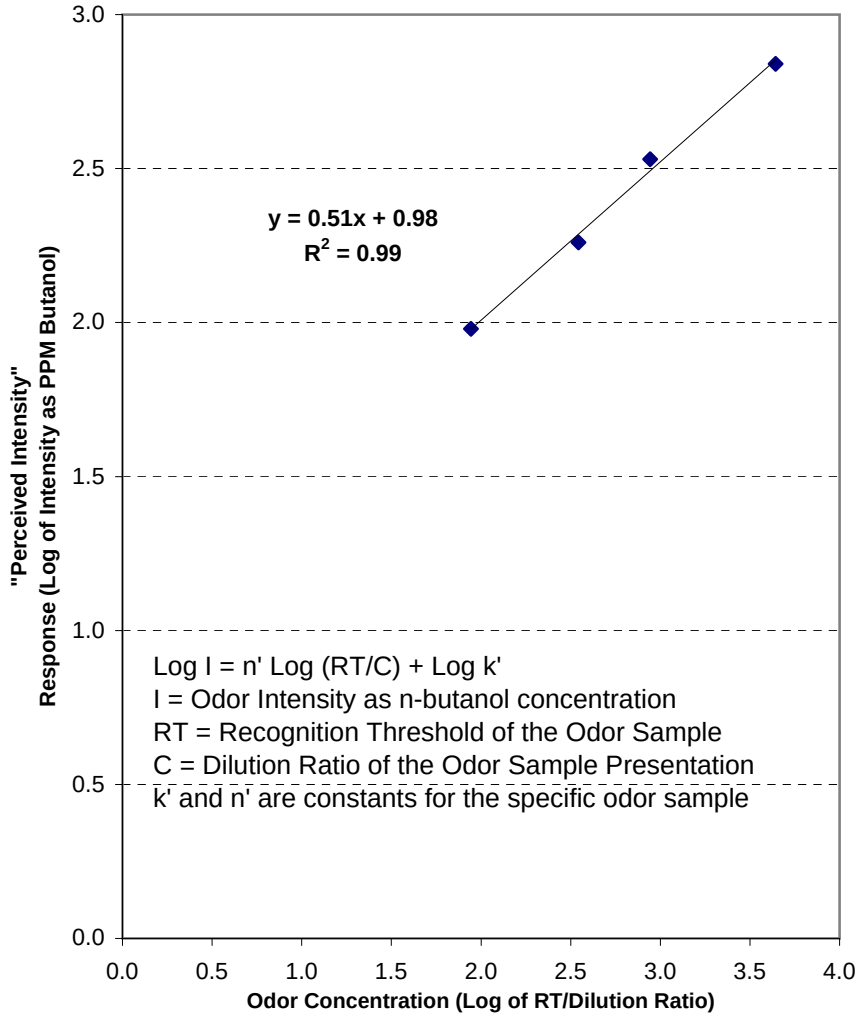
Client: Service Engineering Group | Field No.: I20 | Report No.: **634001**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/06/06

Dose-Response



Dose-Response as Power Law



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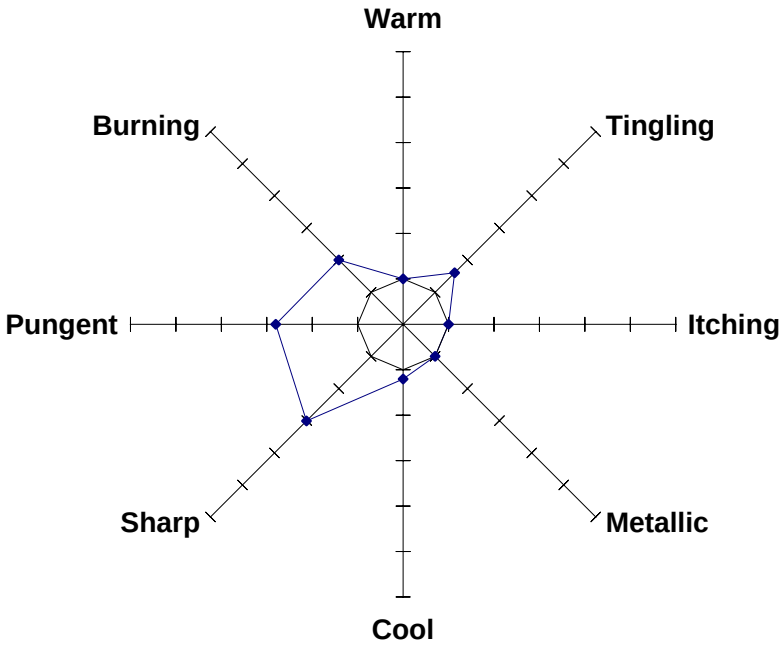
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: J10 | Report No.: **634001**

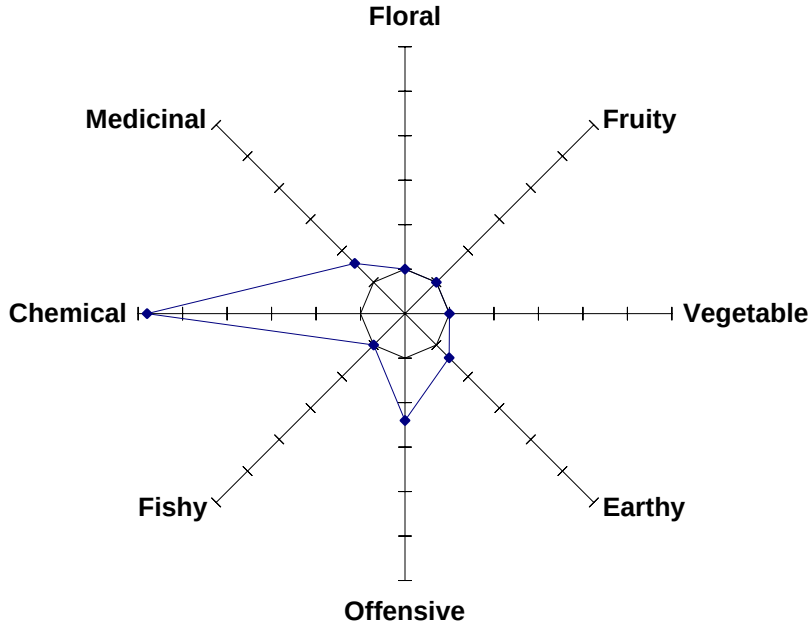
Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/06/06

Sensation Descriptor Graph



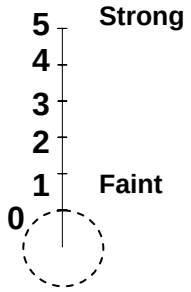
	Average Relative Strength
Warm	0.0
Tingling	0.6
Itching	0.0
Metallic	0.0
Cool	0.2
Sharp	2.0
Pungent	1.8
Burning	1.0

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.4
Offensive	1.4
Fishy	0.0
Chemical	4.8
Medicinal	0.6

KEY



Relative Strength

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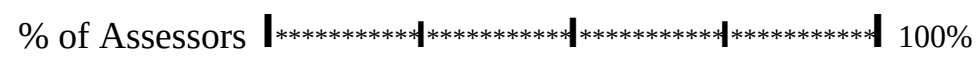
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: J10 | Report No.: **634001**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/06/06



Disinfectant	**********
Chemical	**********
Grease	**********
Kerosine	**********
Petroleum	**********
Turpentine	**********
Cleaning fluid	**********
Plastic	**********
Varnish	**********
Creosote	**********
Mothball	**********
Solvent	**********
Vinyl	**********
Gasoline	**********
Oil	**********
Earthy	**********
Mold	**********
Mouse-like	**********

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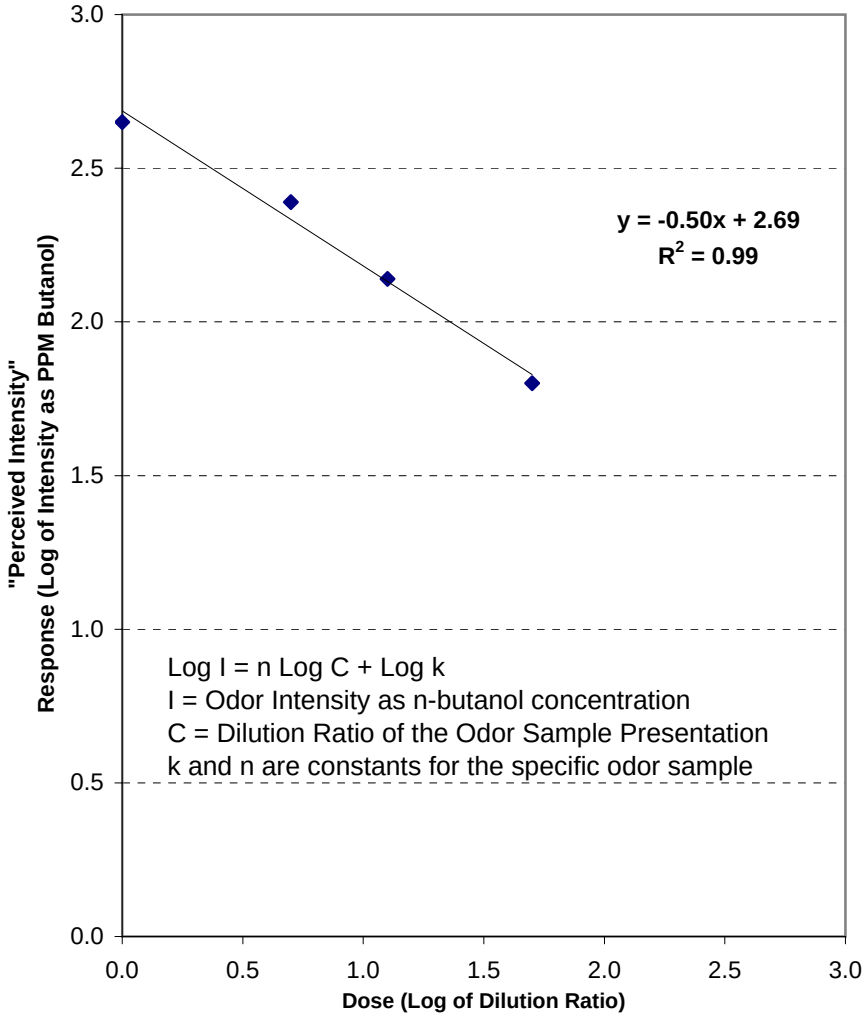
St. Croix Sensory, Inc.

Odor Evaluation Report

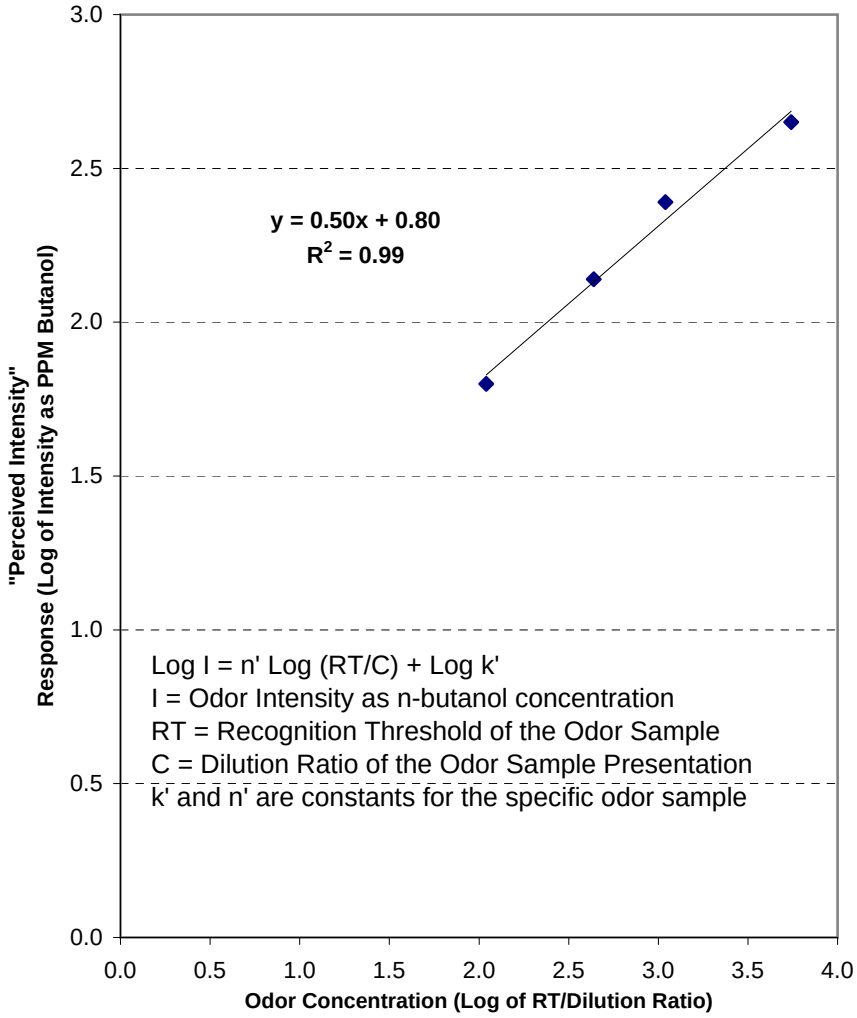
Client: Service Engineering Group | Field No.: J10 | Report No.: **634001**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/06/06

Dose-Response



Dose-Response as Power Law



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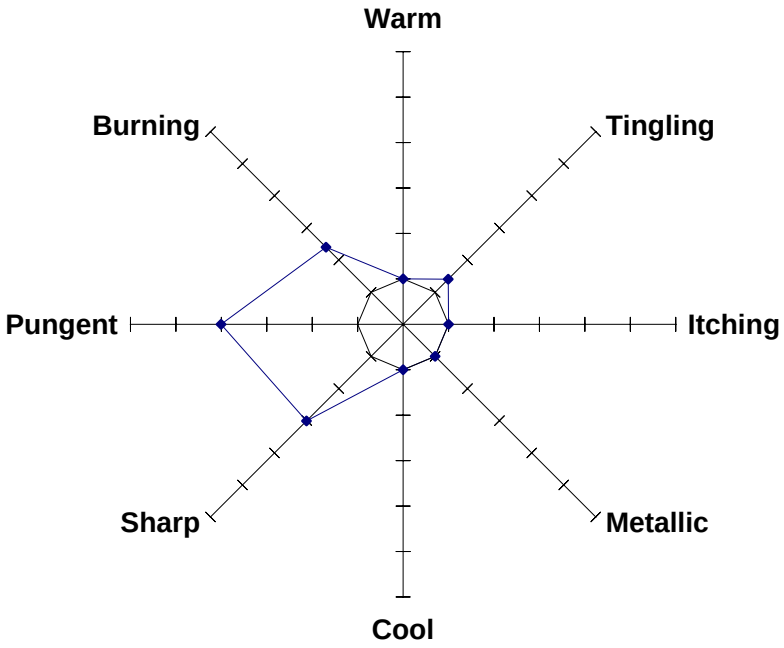
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: J20 | Report No.: **634001**

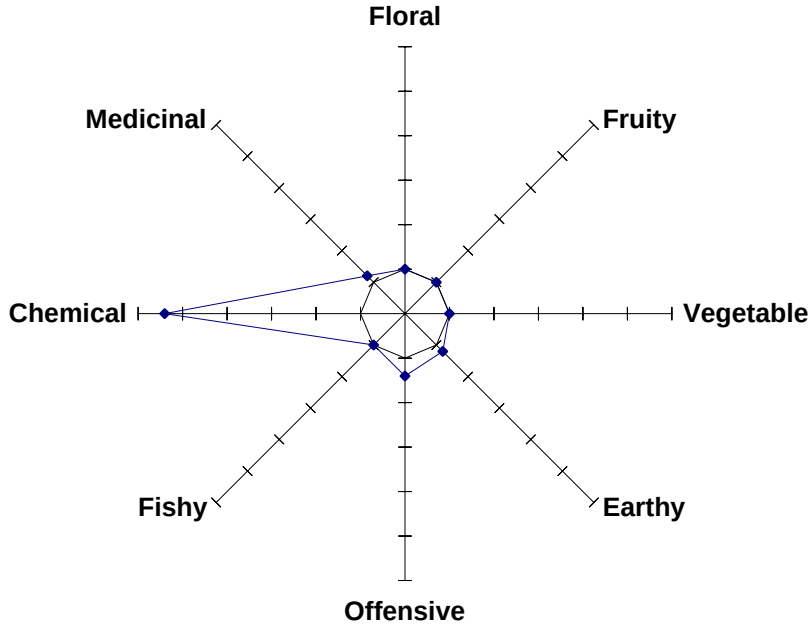
Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/06/06

Sensation Descriptor Graph



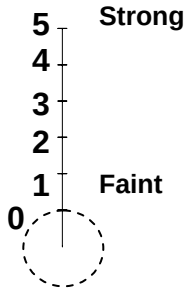
	Average Relative Strength
Warm	0.0
Tingling	0.4
Itching	0.0
Metallic	0.0
Cool	0.0
Sharp	2.0
Pungent	3.0
Burning	1.4

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.2
Offensive	0.4
Fishy	0.0
Chemical	4.4
Medicinal	0.2

KEY



Relative Strength

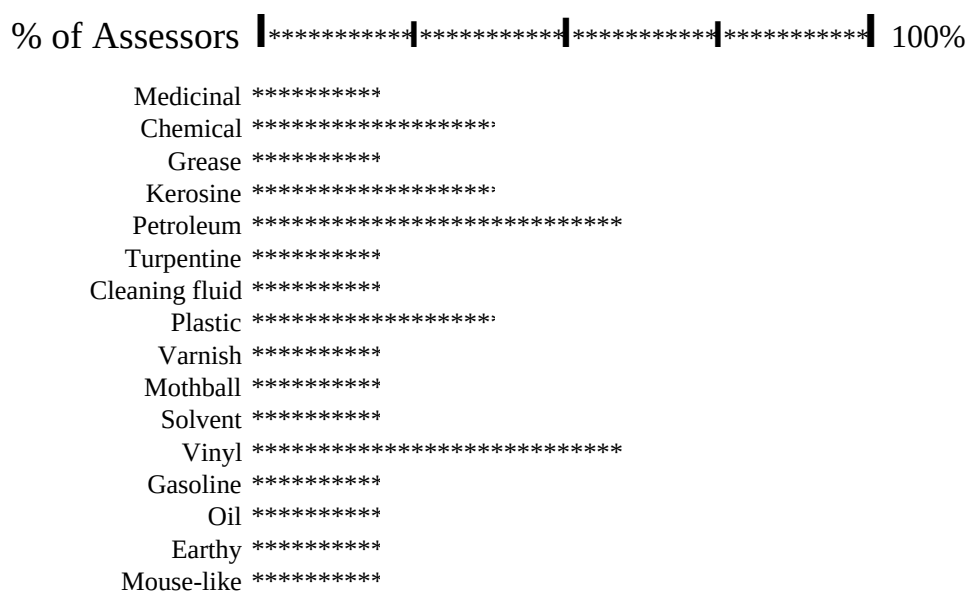
P.O. Box 313, 3549 Lake Elmo Ave. N., Lake Elmo, MN 55042 U.S.A. Tel:800-879-9231 Fax:651-439-1065 E-mail:stcroix@fivesenses.com Web:www.fivesenses.com

St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: J20 | Report No.: **634001**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/06/06



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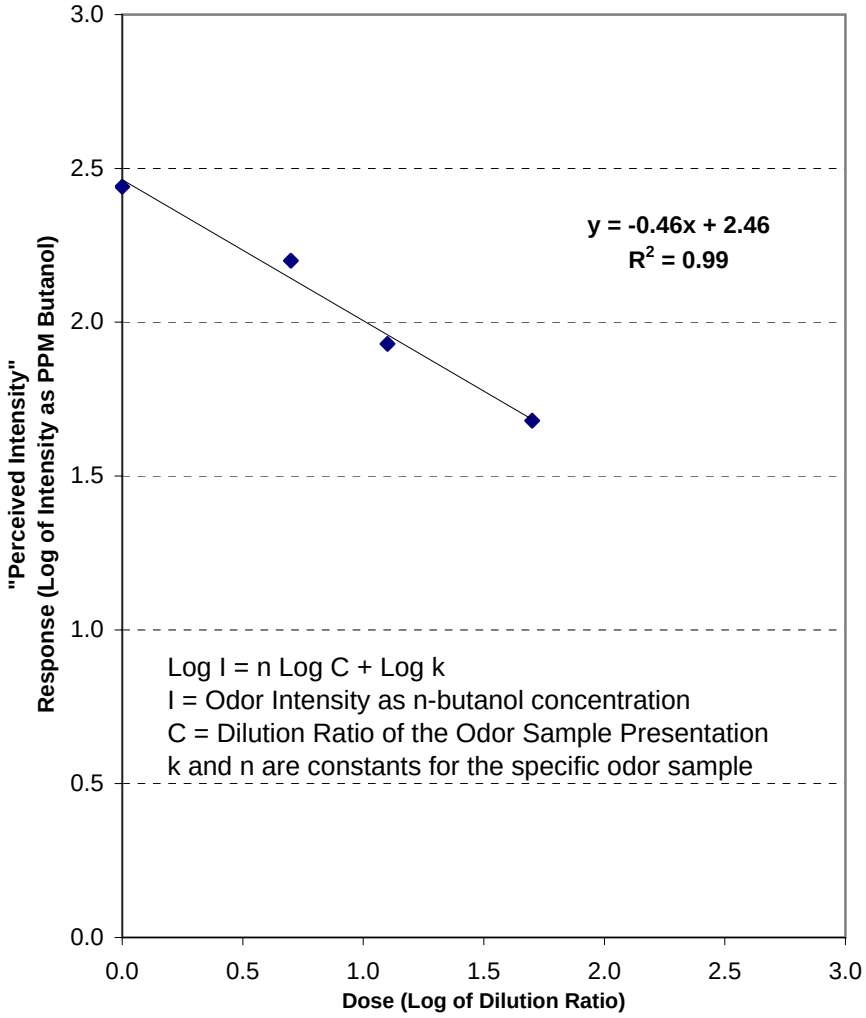
St. Croix Sensory, Inc.

Odor Evaluation Report

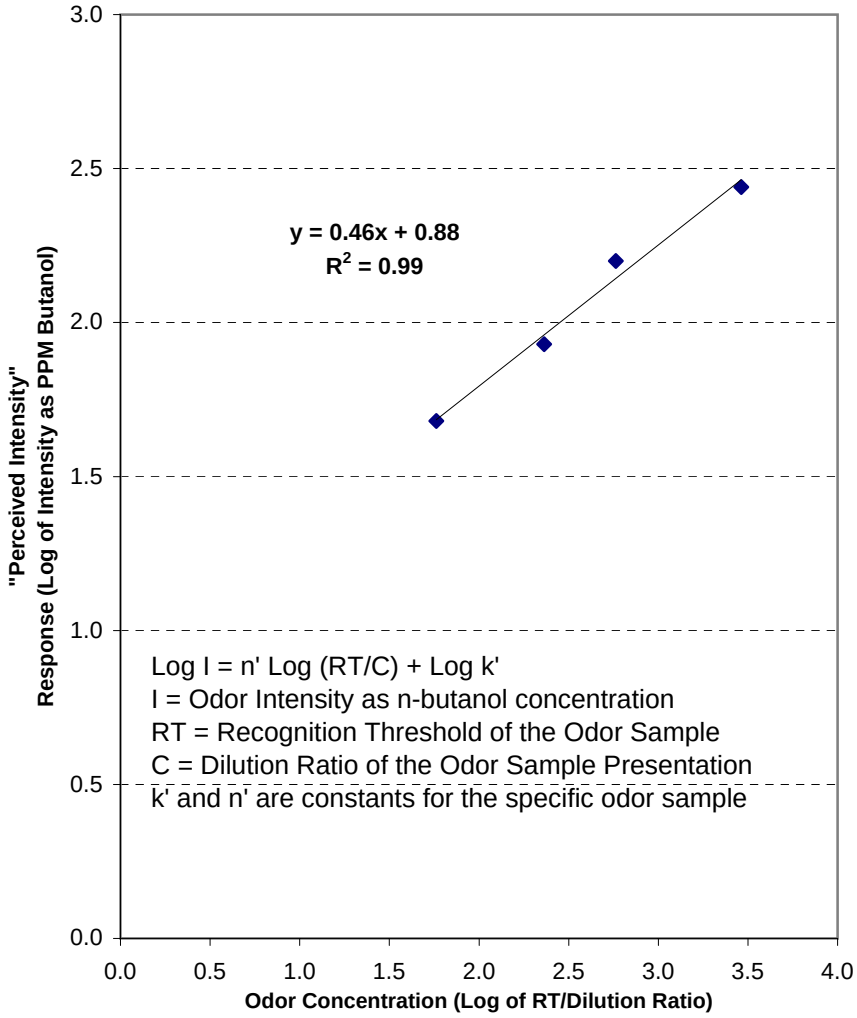
Client: Service Engineering Group | Field No.: J20 | Report No.: **634001**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/06/06

Dose-Response



Dose-Response as Power Law



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St. Croix Sensory, Inc.

CHAIN OF CUSTODY RECORD FOR ODOR SAMPLES

Page 1 of 1

Client: SCS

Sampled By: AMM

Project Name: Dredge Sediment Headspace

Sampling Date: 12-6-06

Comments:

Odor Evaluations Requested: (X)

Line No.	Field No.	Sample Description	Sample Time	Field H_2S (ppm)	Odor Concentration* (Detection & Recognition Threshold)	Odor Intensity* (PPM 1-Butanol)	Odor Characterization (Hedonic Tone & Descriptors)	Odor Persistency ("Dose-Response")	For Laboratory use Only: Odor Evaluation Report No. / Laboratory Sample No. LN	FN
1	I10	5 L from 100 L	10:15A							
2	I20	↓	10:25A							
3	J10		10:45A							
4	J20		10:50A							
5										
6										
7										
8										
9										
10										
11										
12										

Transmittal

Number of Shipping Boxes _____

Relinquished By	Date	Time	Accepted By	Date	Time	Comments & Exceptions Noted
Alicia Lacy						
Received at St. Croix Sensory Laboratory			Natasha Kohnert	12/6/06	11:20	

*Odor Concentration: ASTM E679-04 and EN13725:2003 and Odor Intensity: ASTM E544-99(2004)

St. Croix Sensory, Inc. ♦ 3549 Lake Elmo Avenue North ♦ Lake Elmo, MN 55042 U.S.A. ♦ Tel:800-879-9231 ♦ Fax:651-439-1065 ♦ Email:reports@fivesenses.com ♦ Web:www.fivesenses.com

LAB COPIES WHITE & YELLOW

CLIENT COPY PINK

St. Croix Sensory, Inc.

Service Engineering Group

Dredge Sediment Headspace

Odor Evaluation Report

Report No. 634101
12/07/06

Data Release Authorization:
Melissa McGinley

Melissa McGinley
Laboratory Associate

Reviewed and Approved:

Michael A. McGinley, P.E.
Laboratory Director

St. Croix Sensory is a laboratory dedicated to practicing state-of-the-art sensory evaluation and to advancing the science of sensory perception.

We are a family owned and operated business providing our clients with personal customer service, flexible scheduling, timely results.

Our focus is to provide the best professional services available to help make your project or product a success.

www.fivesenses.com

3549 Lake Elmo Avenue North
P.O. Box 313
Lake Elmo, Minnesota 55042 U.S.A.

Tel: 800-879-9231
Fax: 651-439-1065

Email: stcroix@fivesenses.com

St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group

Report No.: **634101**

Project: Dredge Sediment Headspace

Evaluation Date: 12/07/06

			ASTM E679 & EN13725		ASTM E544	PERSISTENCY	CHARACTERIZATION		
#	Field No.	Sample Description	Detection Threshold	Recognition Threshold	Intensity	Dose-Response Slope	Hedonic Tone	Principal Odor Descriptors	**Comments**
1	K10	5L from 100L	720	480	170	-0.66	-3.4	Petroleum, Cleaning Fluid, Solvent, Chemical, Gasoline, Oil	
2	K20	5L from 100L	550	280	160	-0.63	-3.4	Petroleum, Solvent, Cleaning Fluid, Chemical	
3	L10	5L from 100L	340	200	80	-0.47	-0.4	Petroleum, Cleaning Fluid, Solvent, Chemical, Oil	
4	L20	5L from 100L	250	140	95	-0.49	-1.0	Solvent, Petroleum, Chemical, Varnish, Gasoline, Oil	
5									
6									
7									
8									
9									
10									

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St. Croix Sensory, Inc. **Odor Evaluation Report**

Client: Service Engineering Group

Project: Dredge Sediment Headspace

Report No.: **634101**

Evaluation Date: 12/07/06

			ASTM E679 & EN13725		ASTM E544	PERSISTENCY	CHARACTERIZATION		
#	Field No.	Sample Description	Detection Threshold	Recognition Threshold	Intensity	Dose-Response Slope	Hedonic Tone	Principal Odor Descriptors	**Comments**
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

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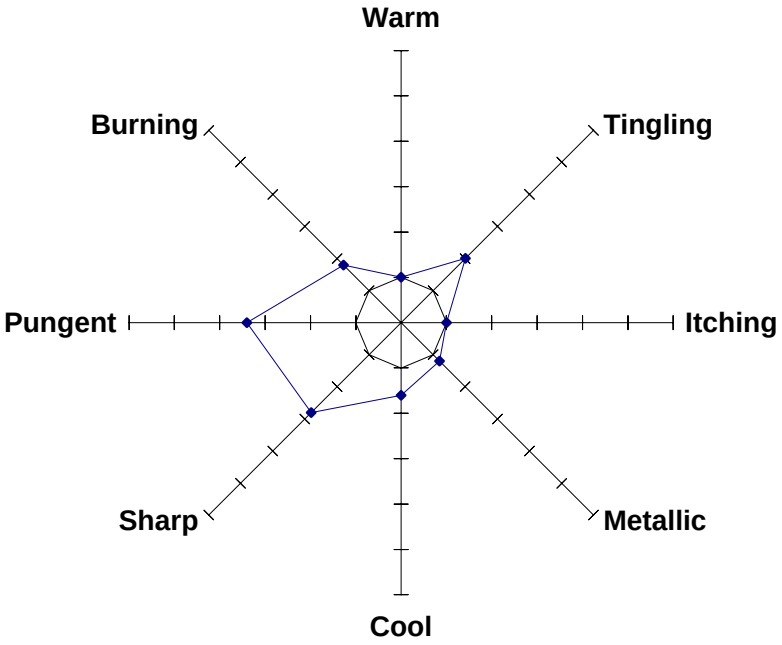
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: K10 | Report No.: **634101**

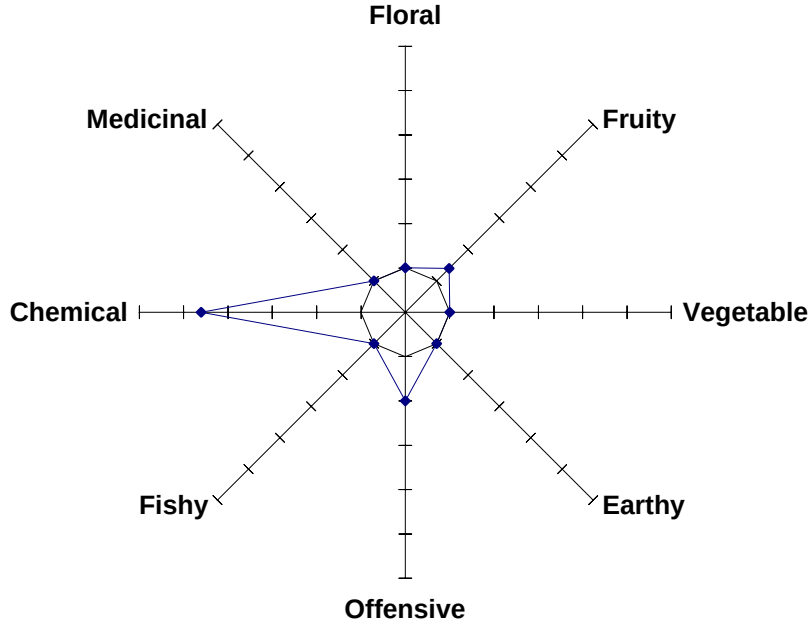
Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/07/06

Sensation Descriptor Graph



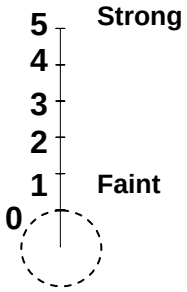
	Average Relative Strength
Warm	0.0
Tingling	1.0
Itching	0.0
Metallic	0.2
Cool	0.6
Sharp	1.8
Pungent	2.4
Burning	0.8

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.4
Vegetable	0.0
Earthy	0.0
Offensive	1.0
Fishy	0.0
Chemical	3.6
Medicinal	0.0

KEY



Relative Strength

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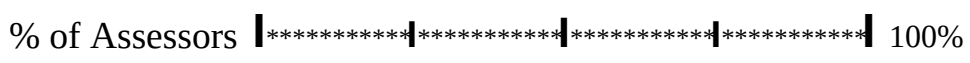
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: K10 | Report No.: **634101**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/07/06



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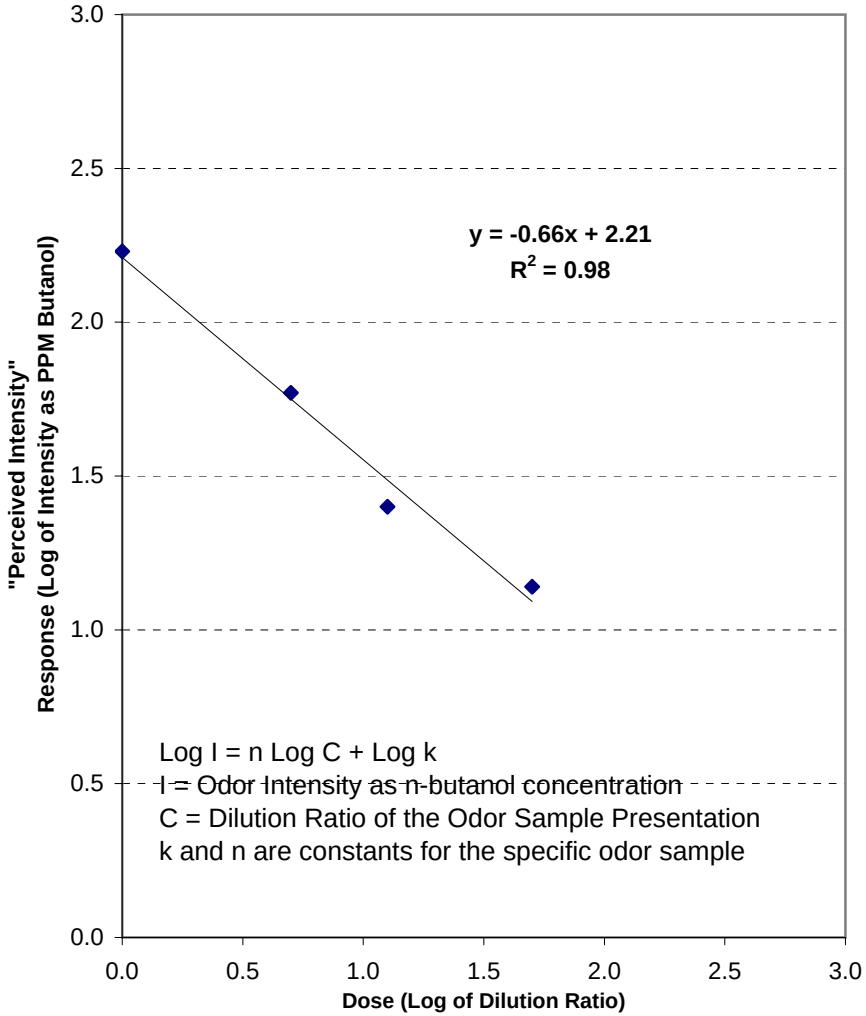
St. Croix Sensory, Inc.

Odor Evaluation Report

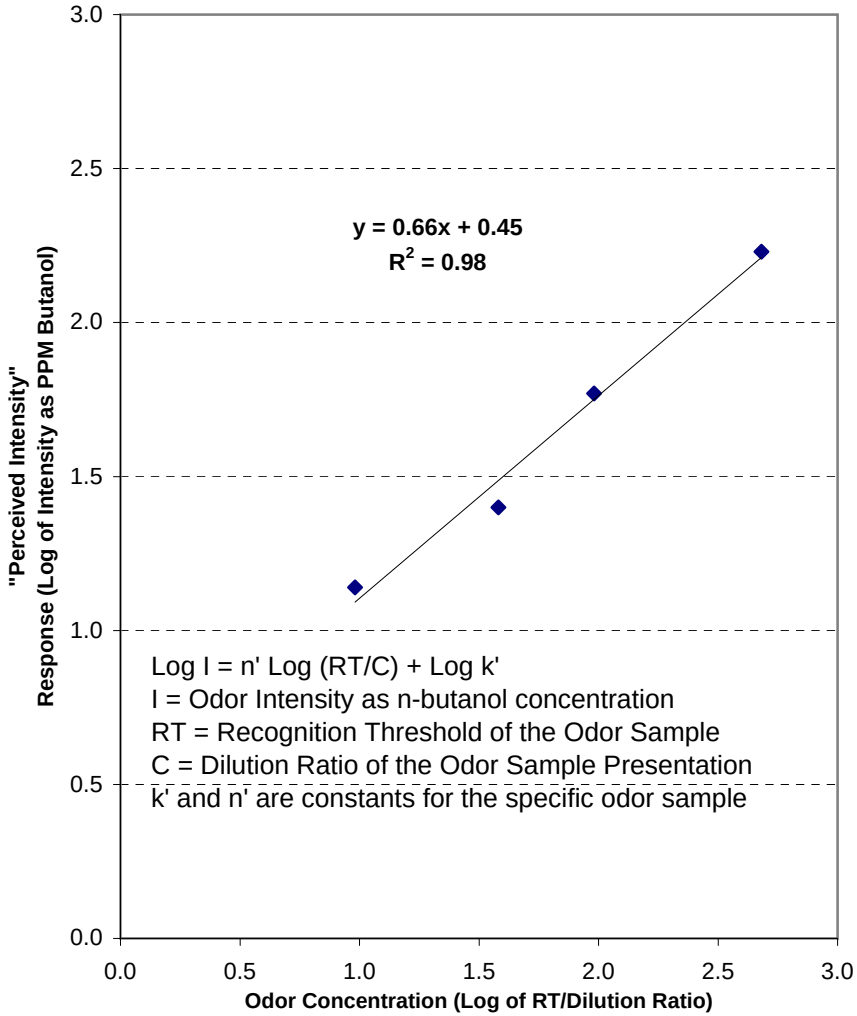
Client: Service Engineering Group | Field No.: K10 | Report No.: **634101**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/07/06

Dose-Response



Dose-Response as Power Law



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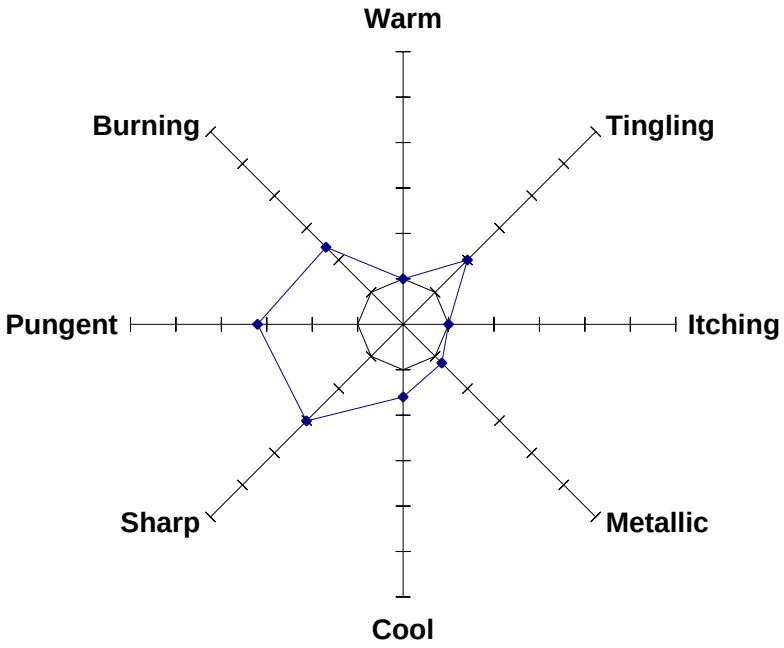
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: K20 | Report No.: **634101**

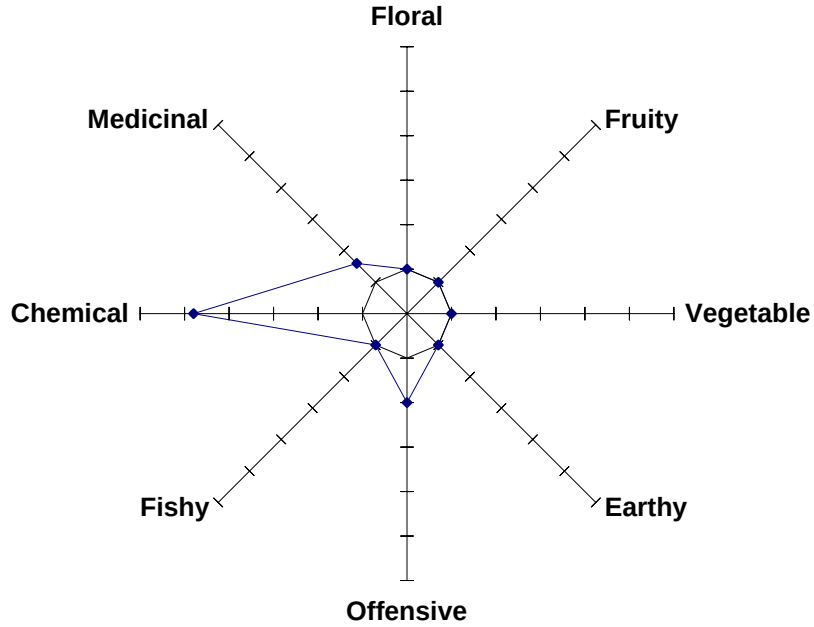
Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/07/06

Sensation Descriptor Graph



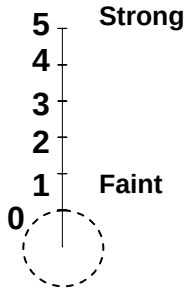
	Average Relative Strength
Warm	0.0
Tingling	1.0
Itching	0.0
Metallic	0.2
Cool	0.6
Sharp	2.0
Pungent	2.2
Burning	1.4

Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.0
Offensive	1.0
Fishy	0.0
Chemical	3.8
Medicinal	0.6

KEY



Relative Strength

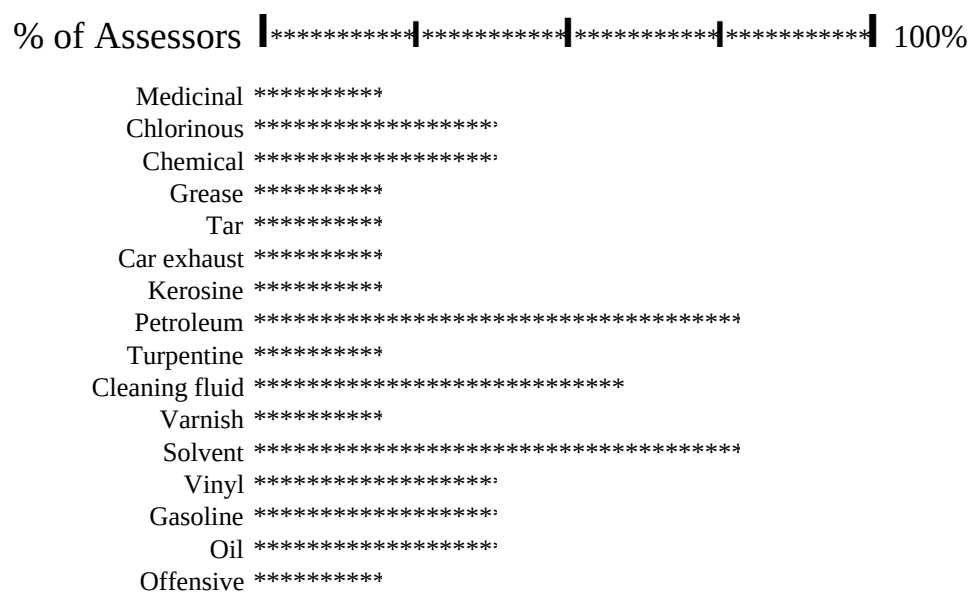
P.O. Box 313, 3549 Lake Elmo Ave. N., Lake Elmo, MN 55042 U.S.A. Tel:800-879-9231 Fax:651-439-1065 E-mail:stcroix@fivesenses.com Web:www.fivesenses.com

St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: K20 | Report No.: **634101**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/07/06



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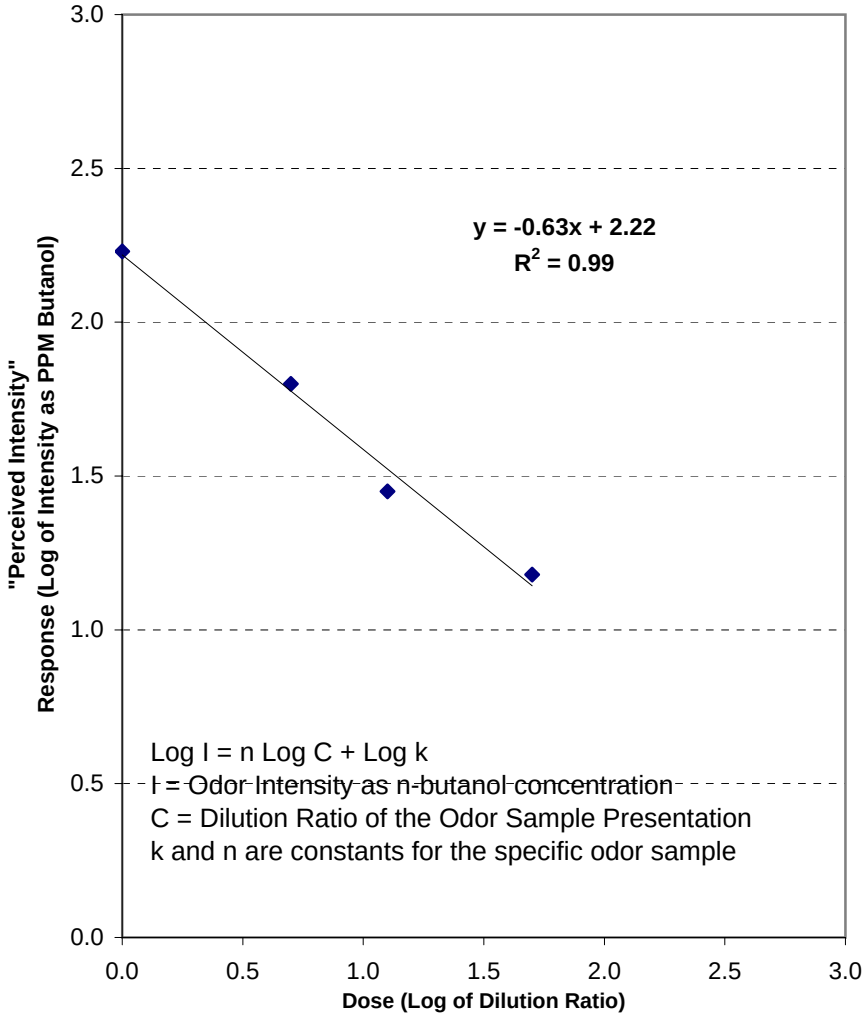
St. Croix Sensory, Inc.

Odor Evaluation Report

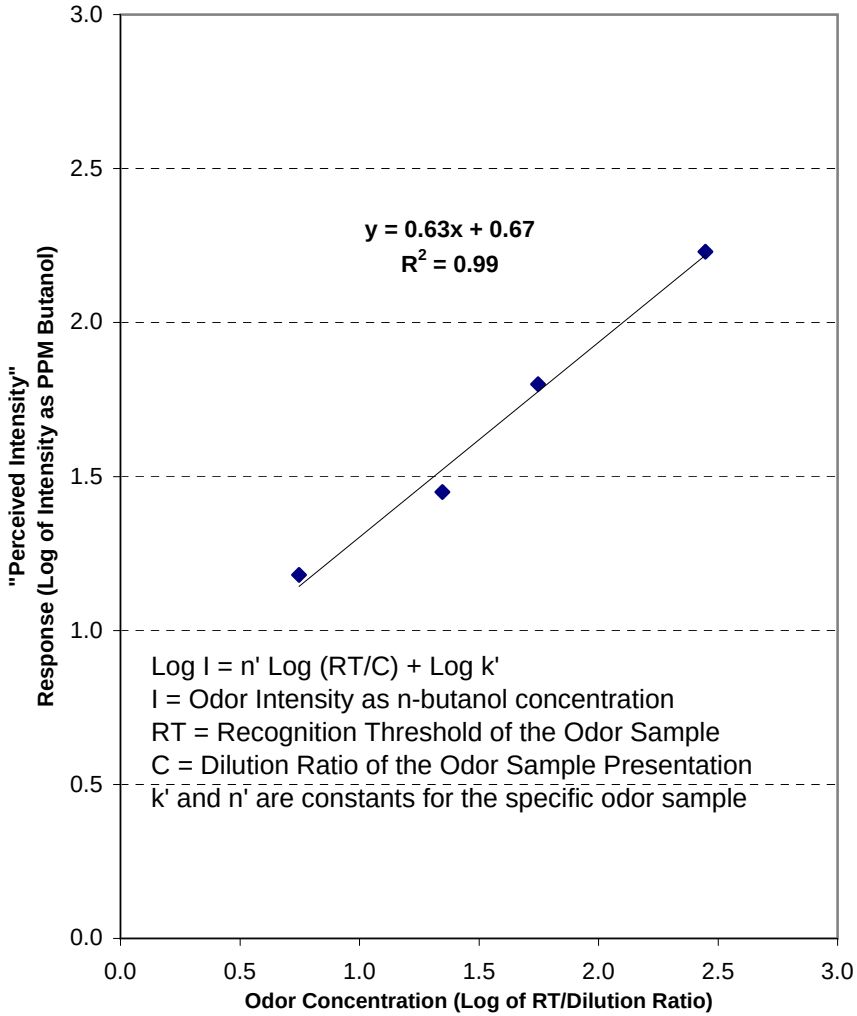
Client: Service Engineering Group | Field No.: K20 | Report No.: **634101**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/07/06

Dose-Response



Dose-Response as Power Law



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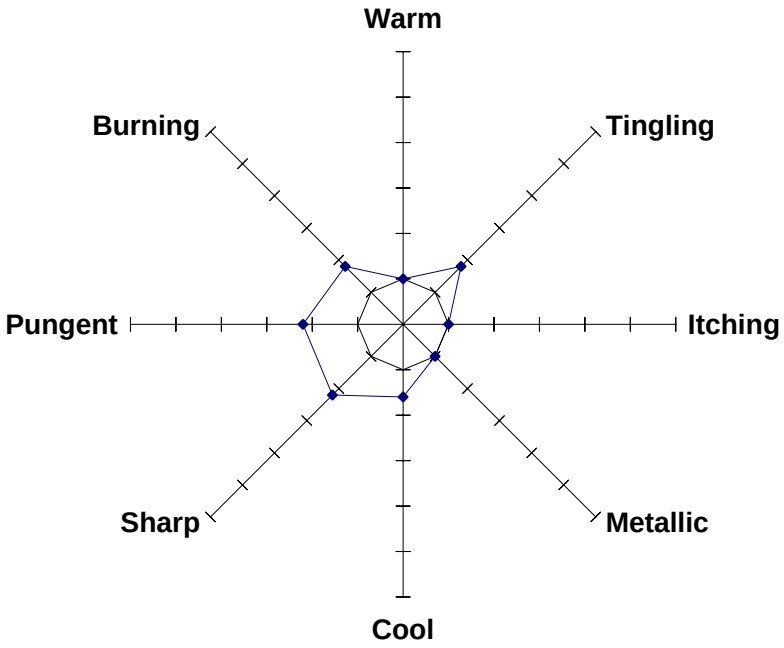
St. Croix Sensory, Inc.

Odor Evaluation Report

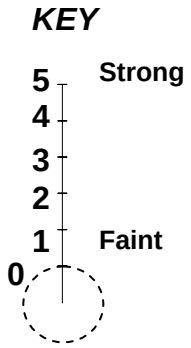
Client: Service Engineering Group | Field No.: L10 | Report No.: **634101**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/07/06

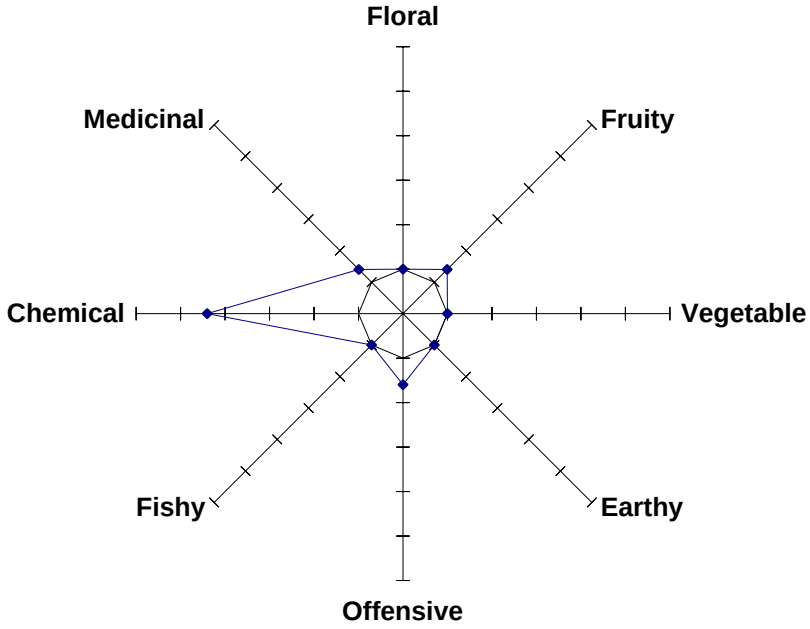
Sensation Descriptor Graph



	Average Relative Strength
Warm	0.0
Tingling	0.8
Itching	0.0
Metallic	0.0
Cool	0.6
Sharp	1.2
Pungent	1.2
Burning	0.8



Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.4
Vegetable	0.0
Earthy	0.0
Offensive	0.6
Fishy	0.0
Chemical	3.4
Medicinal	0.4

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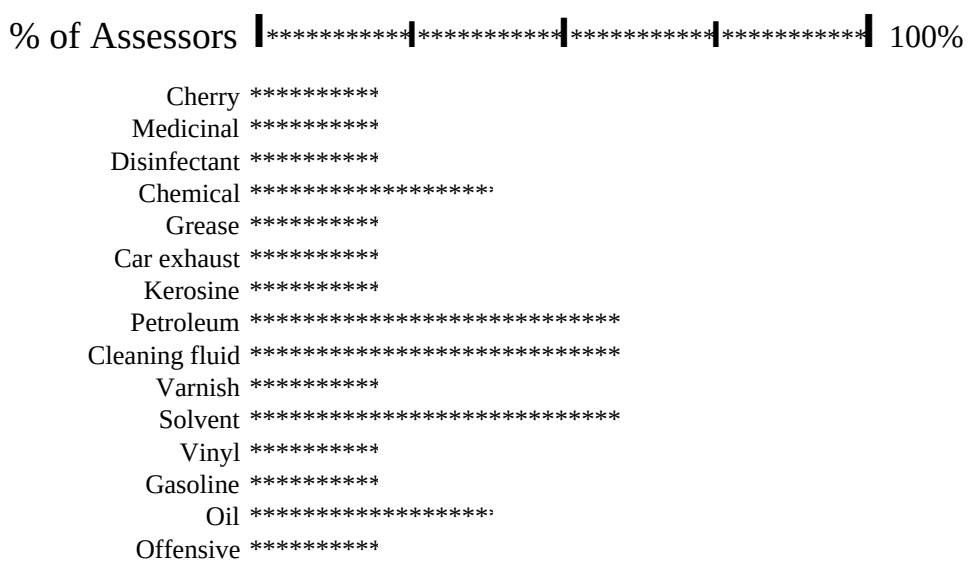
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: L10 | Report No.: **634101**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/07/06



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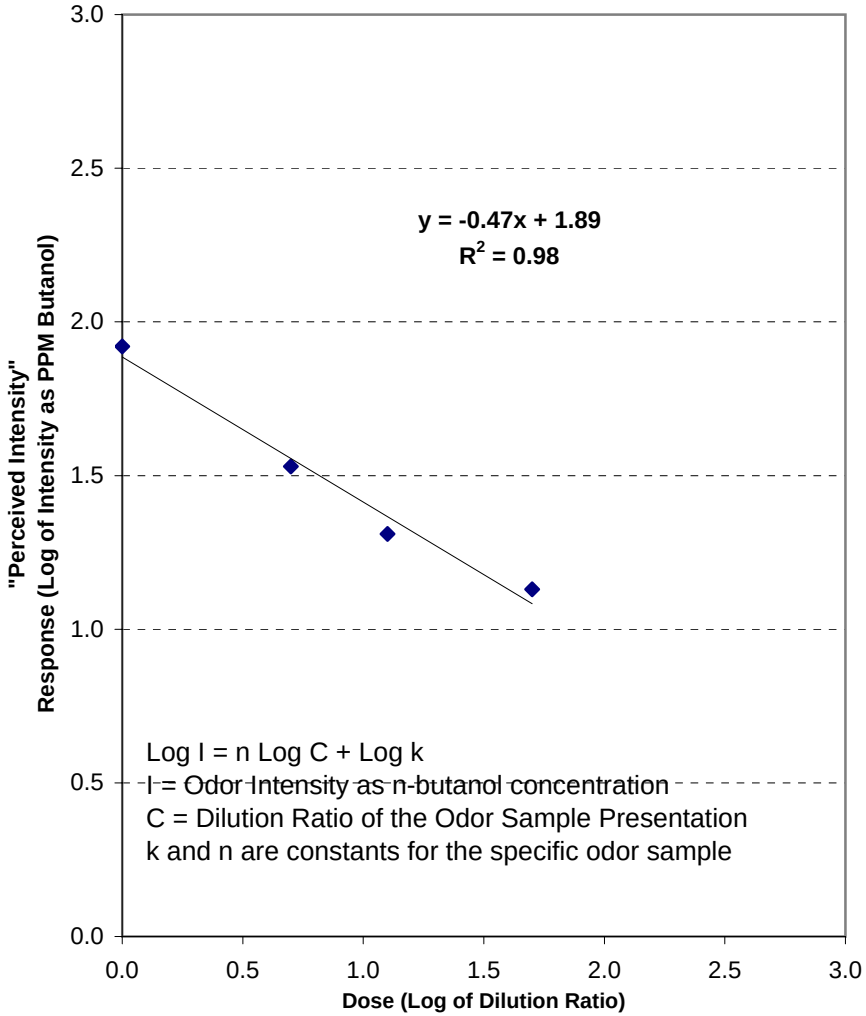
St. Croix Sensory, Inc.

Odor Evaluation Report

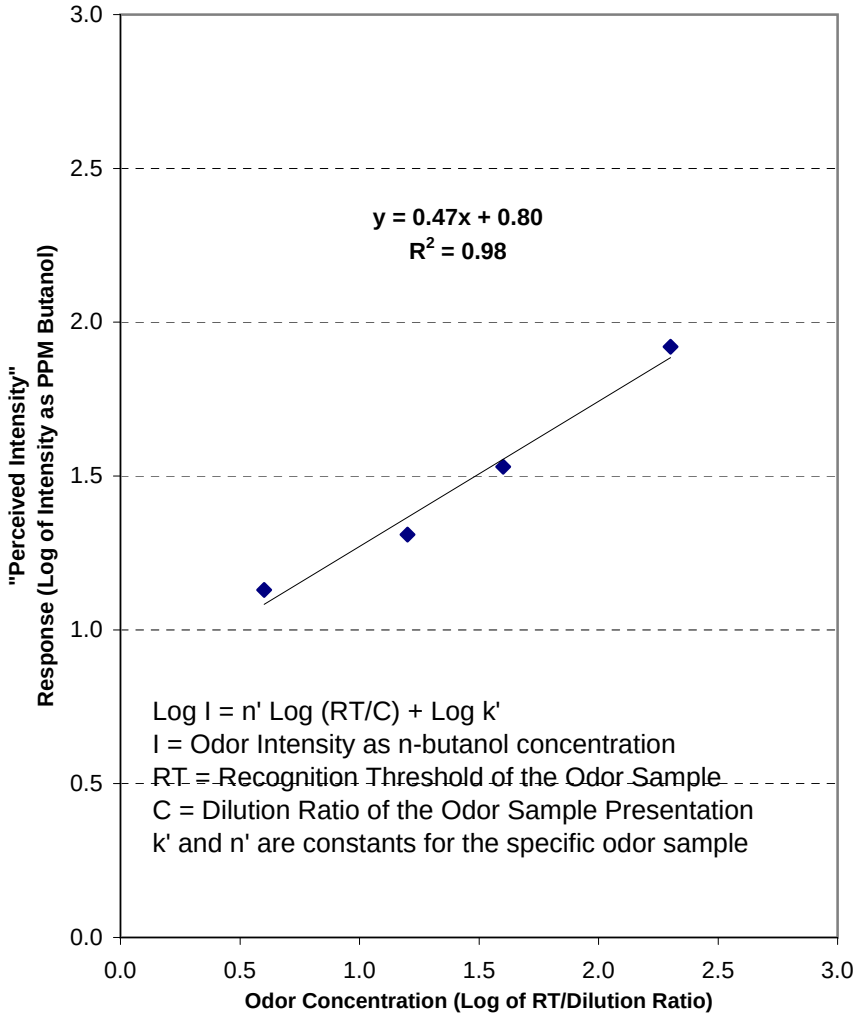
Client: Service Engineering Group | Field No.: L10 | Report No.: **634101**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/07/06

Dose-Response



Dose-Response as Power Law



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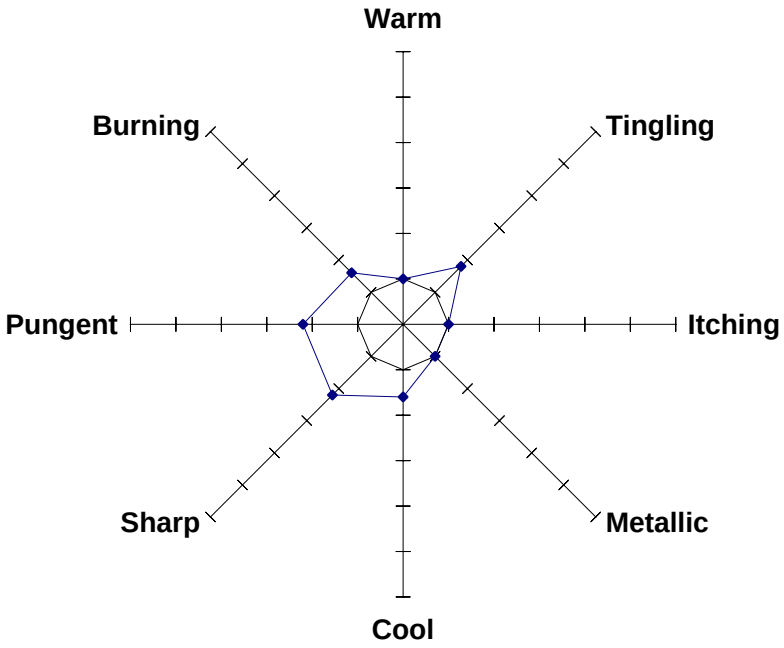
St. Croix Sensory, Inc.

Odor Evaluation Report

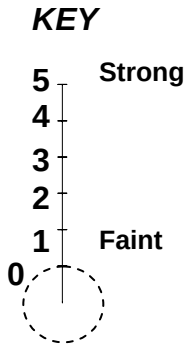
Client: Service Engineering Group | Field No.: L20 | Report No.: **634101**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/07/06

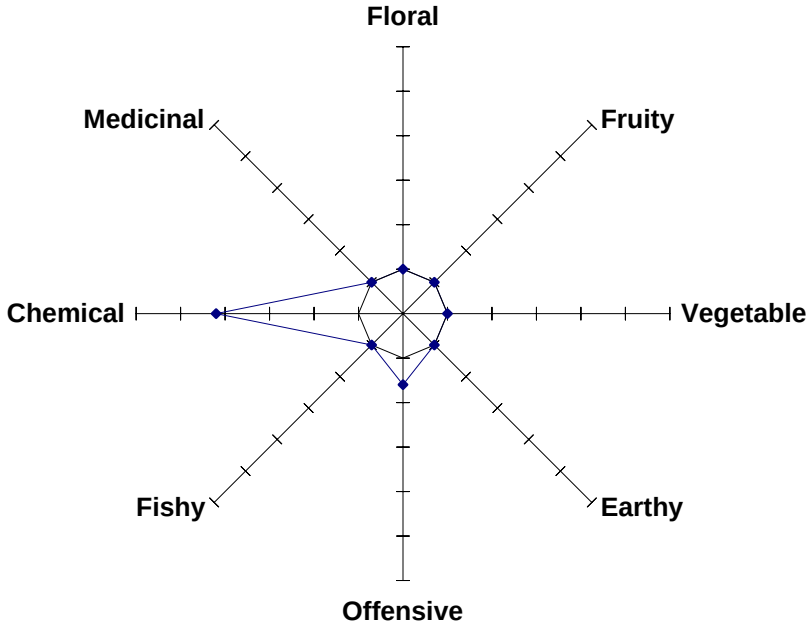
Sensation Descriptor Graph



	Average Relative Strength
Warm	0.0
Tingling	0.8
Itching	0.0
Metallic	0.0
Cool	0.6
Sharp	1.2
Pungent	1.2
Burning	0.6



Odor Descriptor Graph



	Average Relative Strength
Floral	0.0
Fruity	0.0
Vegetable	0.0
Earthy	0.0
Offensive	0.6
Fishy	0.0
Chemical	3.2
Medicinal	0.0

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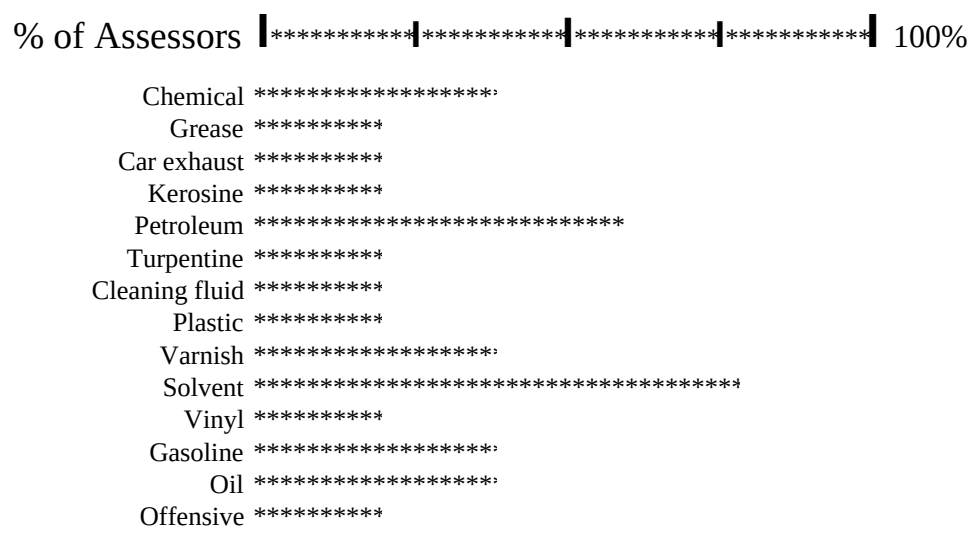
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: L20 | Report No.: **634101**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/07/06



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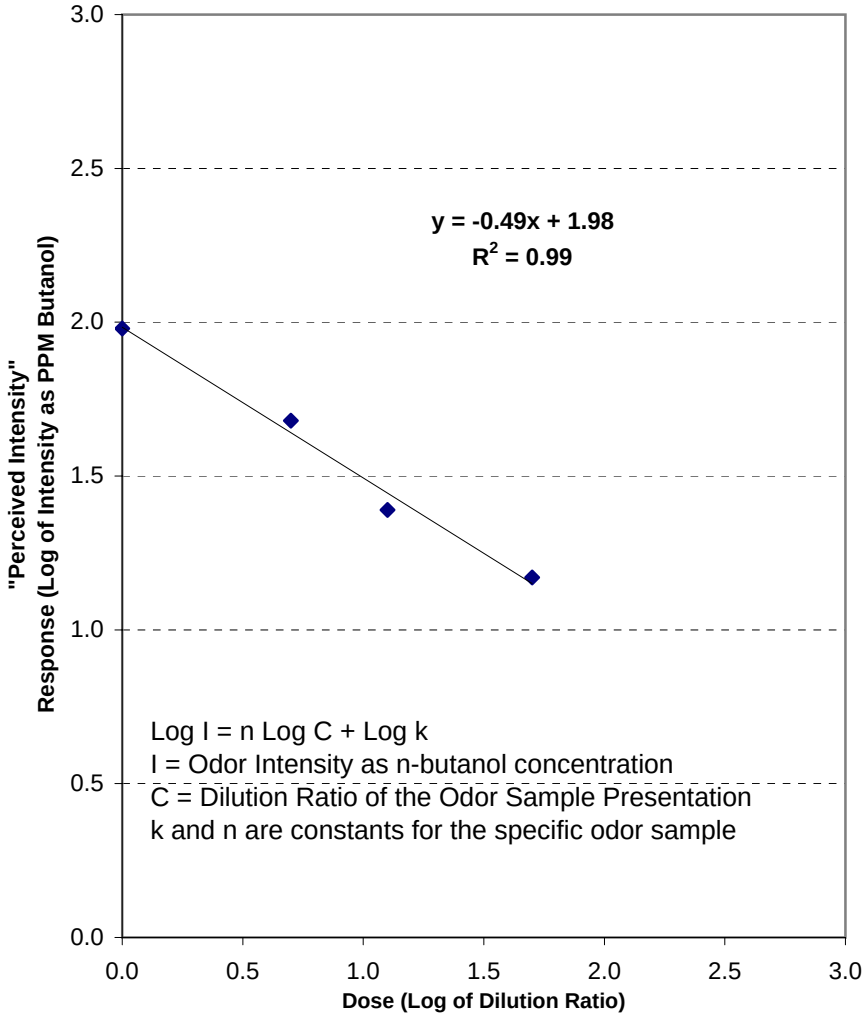
St. Croix Sensory, Inc.

Odor Evaluation Report

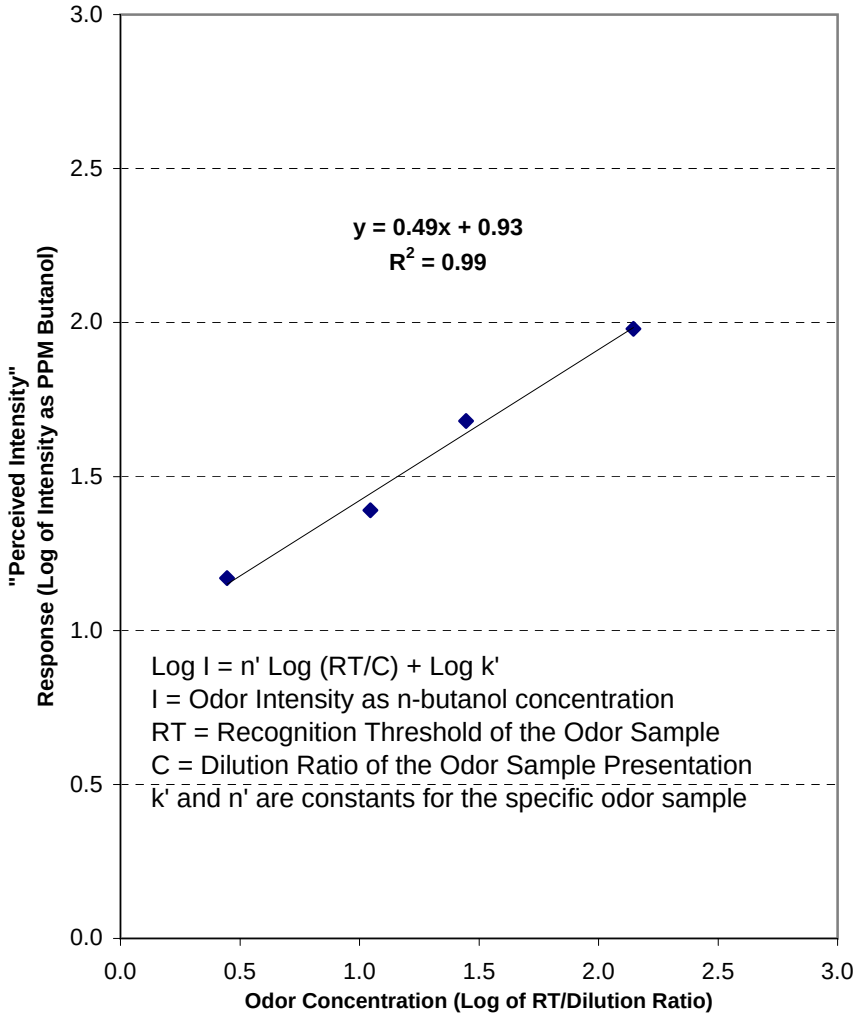
Client: Service Engineering Group | Field No.: L20 | Report No.: **634101**

Project: Dredge Sediment Headspace | Description: 5L from 100L | Evaluation Date: 12/07/06

Dose-Response



Dose-Response as Power Law



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St. Croix Sensory, Inc.

CHAIN OF CUSTODY RECORD FOR ODOR SAMPLES

Client: SCS	Sampled By: AML	Odor Evaluations Requested: (X)	Page ___ of ___
Project Name: Dredge Sediment Headspace	Sampling Date: 12-7-06		
Comments:			

Line No.	Field No.	Sample Description	Sample Time	Field H_2S (ppm)	Odor Concentration* (Detection & Recognition Threshold)	Odor Intensity* (PPM 1-Butanol)	Odor Characterization (Hedonic Tone & Descriptors)	Odor Persistency ("Dose-Response")	For Laboratory use Only: Odor Evaluation Report No. / Laboratory Sample No. LN	FN
1	K10	5L from 100L	10:00A		X	X	X	X		
2	K20	↓	10:10A		↓	→	→	→		
3	L10	↓	10:30A		↓	→	→	→		
4	L20	↓	10:40A		↓	→	→	→		
5										
6										
7										
8										
9										
10										
11										
12										

Transmittal

Number of Shipping Boxes _____

Relinquished By	Date	Time	Accepted By	Date	Time	Comments & Exceptions Noted
Alice Lay	12-7-06	10:45				
Received at St. Croix Sensory Laboratory			Natasha Kosford	12/7/06	11:25	

*Odor Concentration: ASTM E679-04 and EN13725:2003 and Odor Intensity: ASTM E544-99(2004)

St. Croix Sensory, Inc. ◆ 3549 Lake Elmo Avenue North ◆ Lake Elmo, MN 55042 U.S.A. ◆ Tel:800-879-9231 ◆ Fax:651-439-1065 ◆ Email:reports@fivesenses.com ◆ Web:www.fivesenses.com

LAB COPIES WHITE & YELLOW

CLIENT COPY PINK

St. Croix Sensory, Inc.

Service Engineering Group

Onondaga

Odor Evaluation Report

Report No. 717804
06/27/07

Data Release Authorization:

Melissa McGinley
Laboratory Associate

Reviewed and Approved:

Charles M. McGinley, P.E.
Technical Director

St. Croix Sensory is a laboratory dedicated to practicing state-of-the-art sensory evaluation and to advancing the science of sensory perception.

We are a family owned and operated business providing our clients with personal customer service, flexible scheduling, timely results.

Our focus is to provide the best professional services available to help make your project or product a success.

www.fivesenses.com

3549 Lake Elmo Avenue North
P.O. Box 313
Lake Elmo, Minnesota 55042 U.S.A.

Tel: 800-879-9231
Fax: 651-439-1065

Email: stcroix@fivesenses.com

St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group

Report No.: **717804**

Project: Onondaga

Evaluation Date: 06/27/07

			ASTM E679 & EN13725		ASTM E544	PERSISTENCY	CHARACTERIZATION		
#	Field No.	Sample Description	Detection Threshold	Recognition Threshold	Intensity	Dose-Response Slope	Hedonic Tone	Principal Odor Descriptors	**Comments**
1	P10	8L form 100L	170	100	25	-0.29	-1.2	Earthy, Chemical, Offensive	
2	P20	8L from 100L	270	160	40	-0.48	-2.0	Chemical, Creosote, Offensive, Earthy	
3	Q10	8L from 100L	35	19	16	-0.27	0.6	Chemical	
4	Q20	8L from 100L	50	30	21	-0.23	-0.6	Chemical, Earthy	
5									
6									
7									
8									
9									
10									

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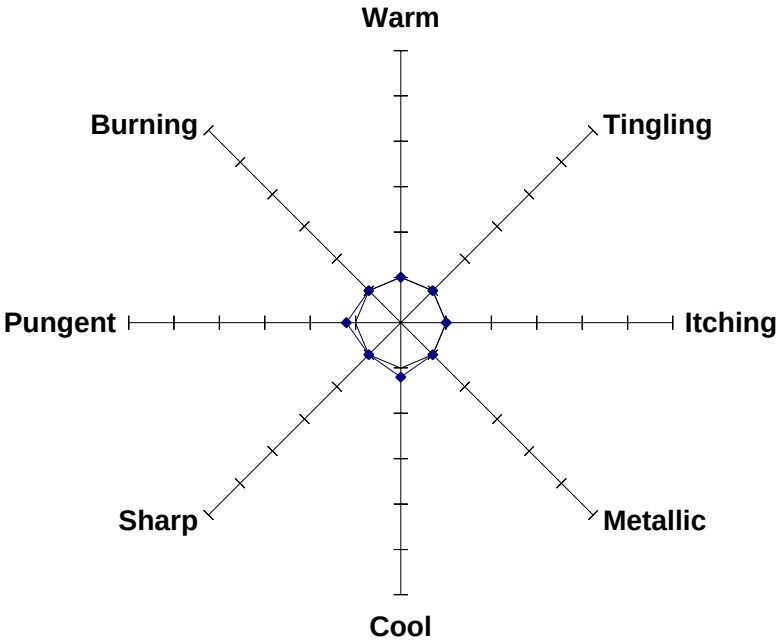
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: P10 | Report No.: **717804**

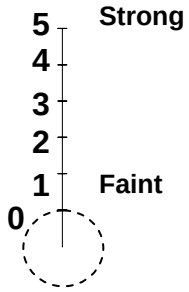
Project: Onondaga | Description: 8L form 100L | Evaluation Date: 06/27/07

Sensation Descriptor Graph



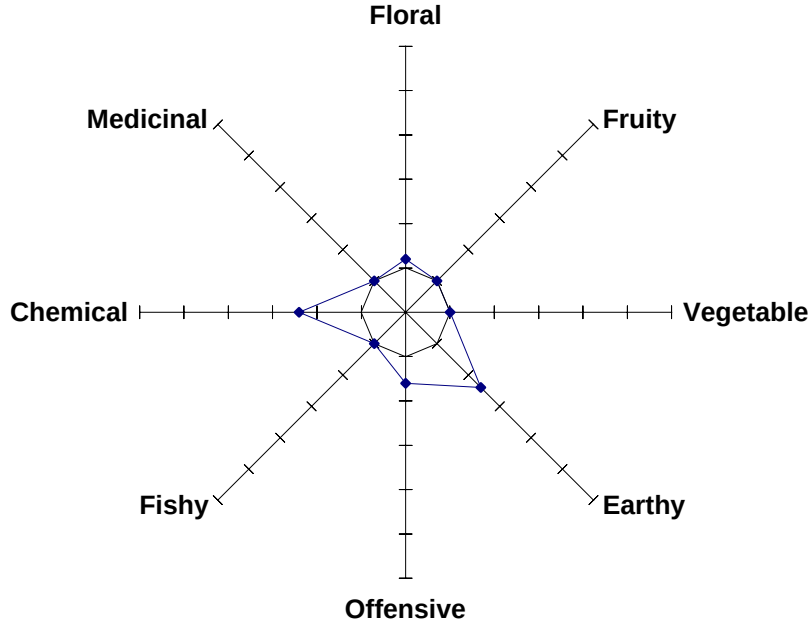
	Average Relative Strength
Warm	0.0
Tingling	0.0
Itching	0.0
Metallic	0.0
Cool	0.2
Sharp	0.0
Pungent	0.2
Burning	0.0

KEY



Relative Strength

Odor Descriptor Graph



	Average Relative Strength
Floral	0.2
Fruity	0.0
Vegetable	0.0
Earthy	1.4
Offensive	0.6
Fishy	0.0
Chemical	1.4
Medicinal	0.0

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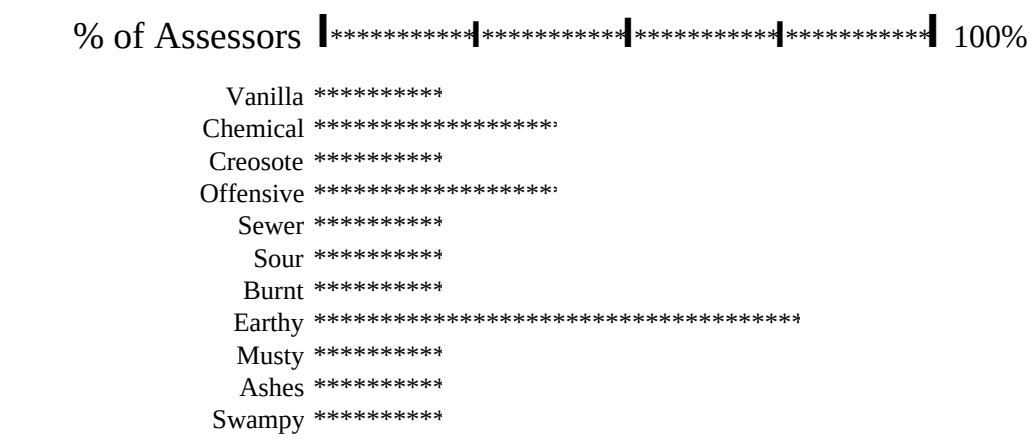
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: P10 | Report No.: **717804**

Project: Onondaga | Description: 8L form 100L | Evaluation Date: 06/27/07



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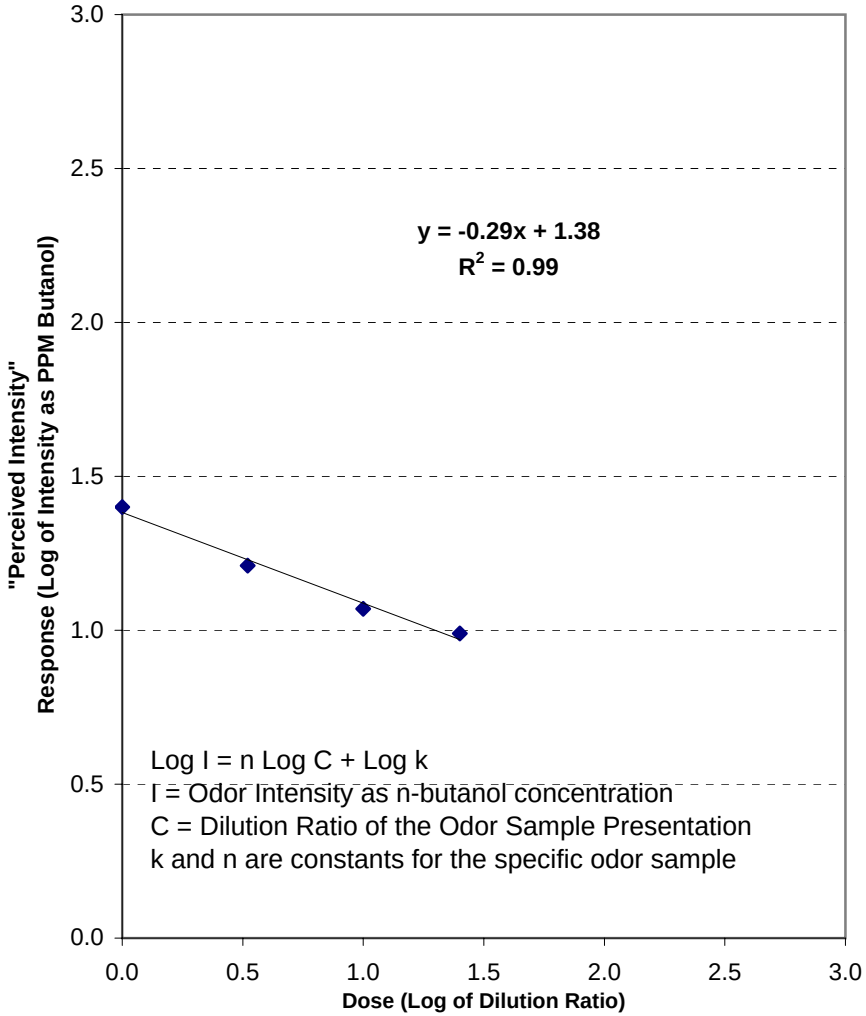
St. Croix Sensory, Inc.

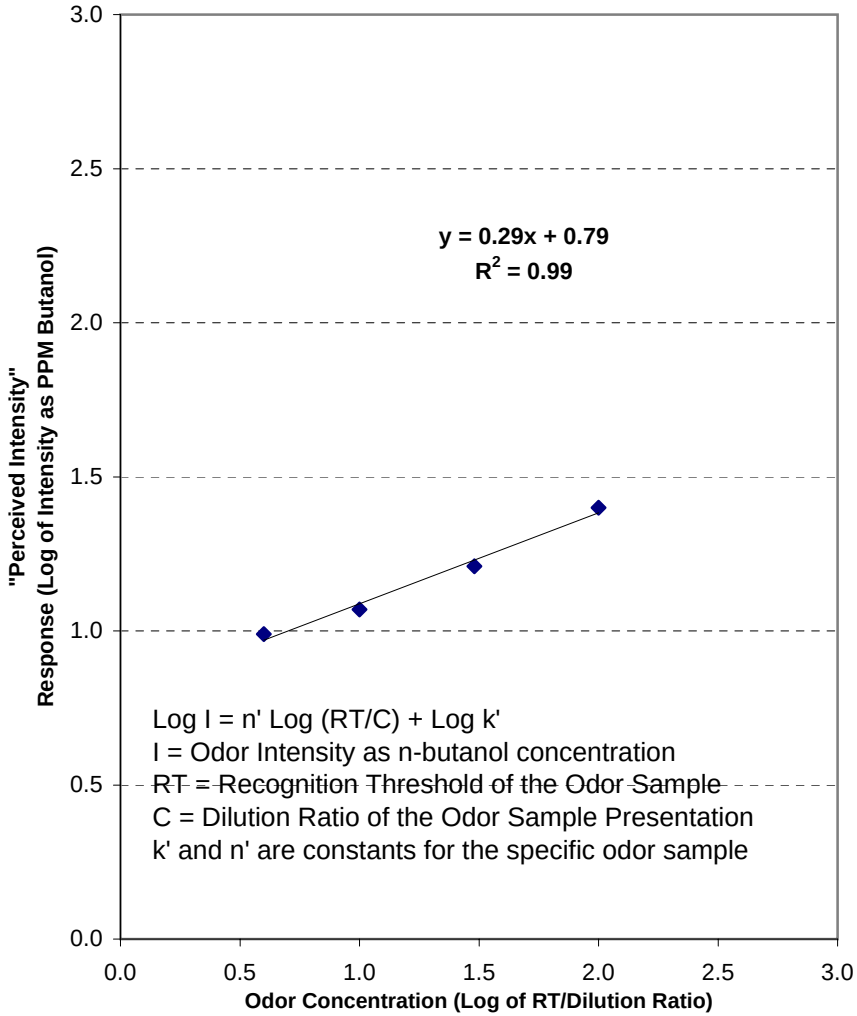
Odor Evaluation Report

Client:	Service Engineering Group	Field No.:	P10	Report No.:	**717804**
Project:	Onondaga	Description:	8L form 100L	Evaluation Date:	06/27/07

Dose-Response



Dose-Response as Power Law



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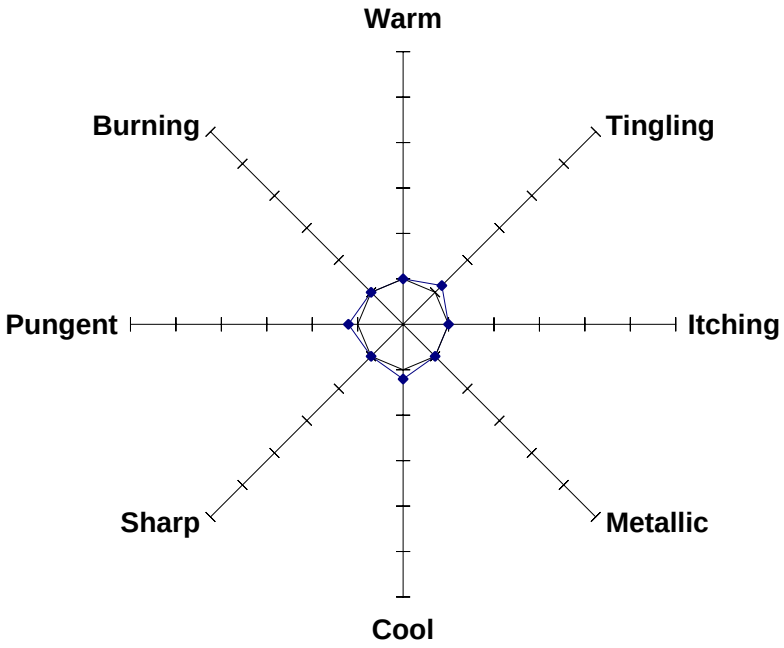
St. Croix Sensory, Inc.

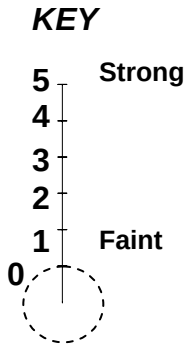
Odor Evaluation Report

Client:	Service Engineering Group	Field No.:	P20	Report No.:	**717804**
Project:	Onondaga	Description:	8L from 100L	Evaluation Date:	06/27/07

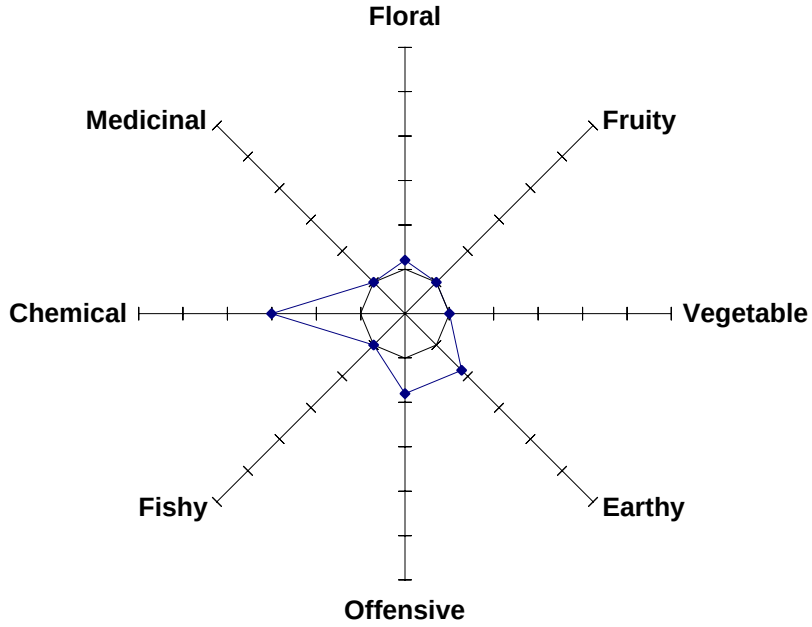
Sensation Descriptor Graph



	Average Relative Strength
Warm	0.0
Tingling	0.2
Itching	0.0
Metallic	0.0
Cool	0.2
Sharp	0.0
Pungent	0.2
Burning	0.0



Odor Descriptor Graph



	Average Relative Strength
Floral	0.2
Fruity	0.0
Vegetable	0.0
Earthy	0.8
Offensive	0.8
Fishy	0.0
Chemical	2.0
Medicinal	0.0

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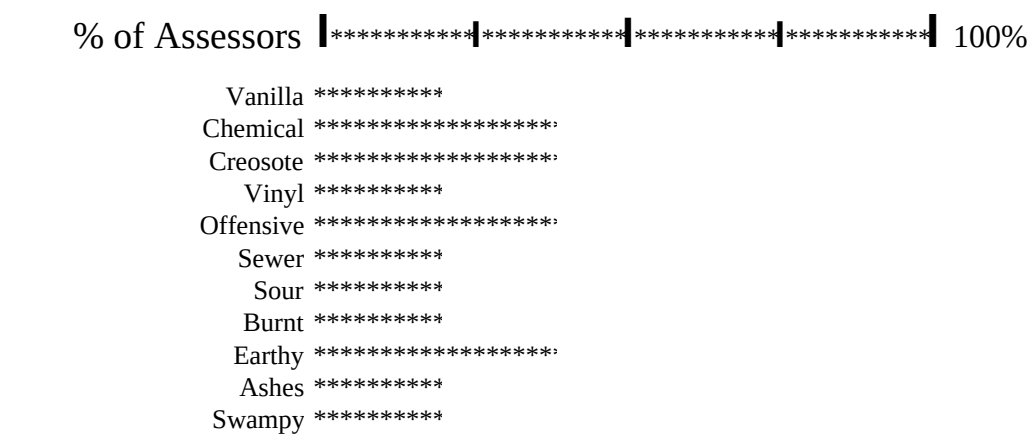
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: P20 | Report No.: **717804**

Project: Onondaga | Description: 8L from 100L | Evaluation Date: 06/27/07



P.O. Box 313, 3549 Lake Elmo Ave. N., Lake Elmo, MN 55042 U.S.A. Tel:800-879-9231 Fax:651-439-1065 E-mail:stcroix@fivesenses.com Web:www.fivesenses.com

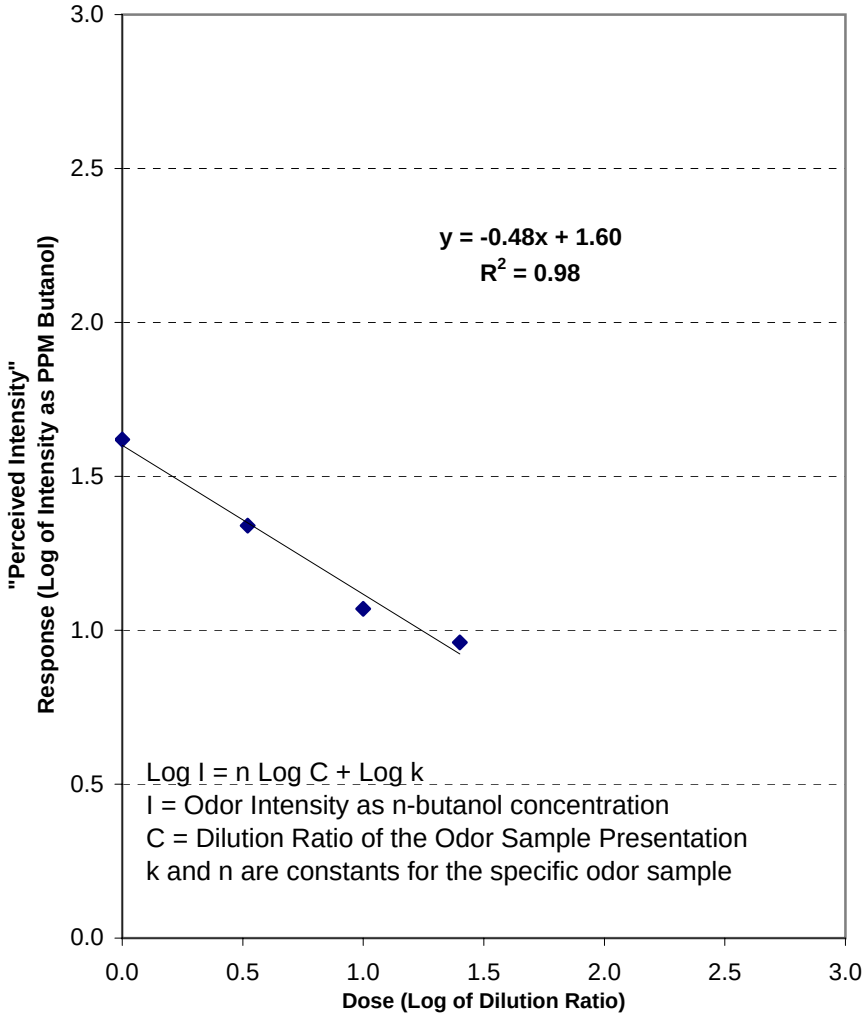
St. Croix Sensory, Inc.

Odor Evaluation Report

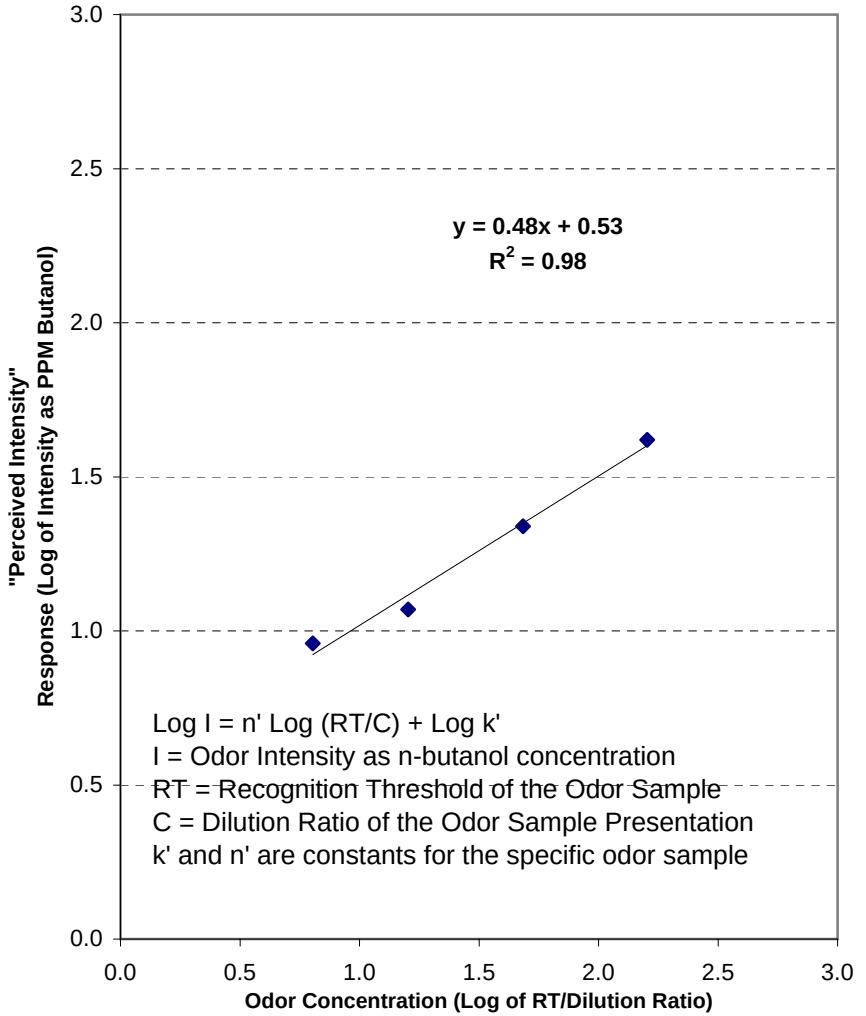
Client: Service Engineering Group | Field No.: P20 | Report No.: **717804**

Project: Onondaga | Description: 8L from 100L | Evaluation Date: 06/27/07

Dose-Response



Dose-Response as Power Law



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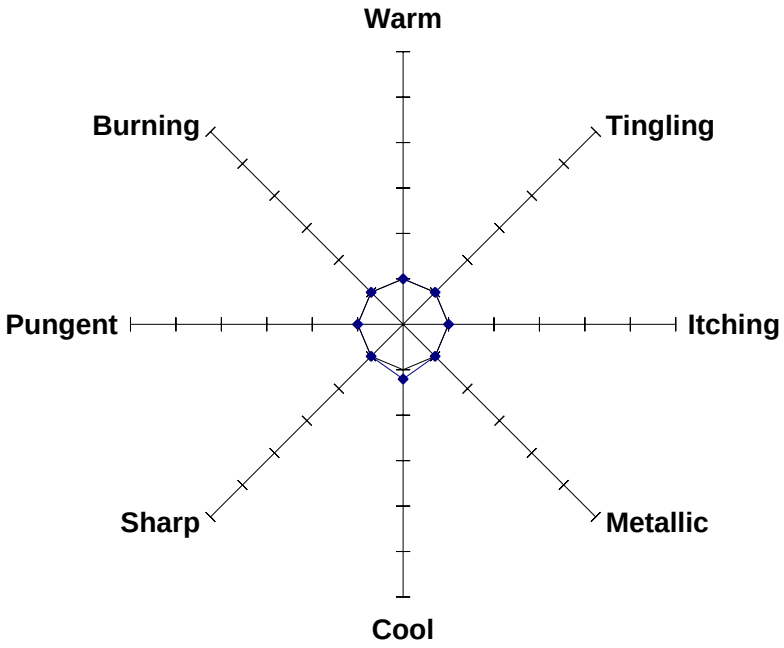
St. Croix Sensory, Inc.

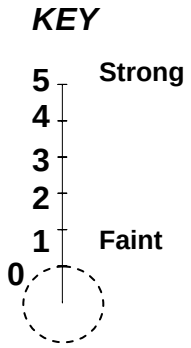
Odor Evaluation Report

Client:	Service Engineering Group	Field No.:	Q10	Report No.:	**717804**
Project:	Onondaga	Description:	8L from 100L	Evaluation Date:	06/27/07

Sensation Descriptor Graph

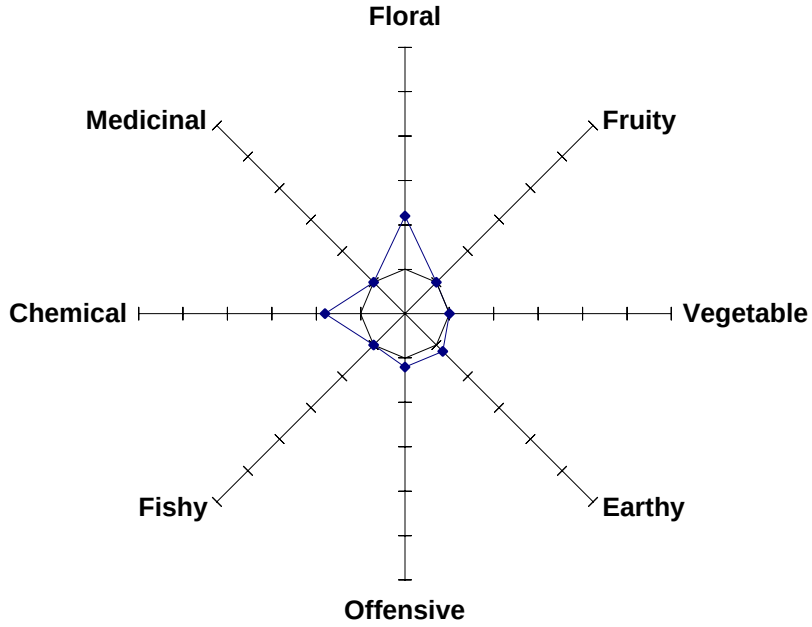


	Average Relative Strength
Warm	0.0
Tingling	0.0
Itching	0.0
Metallic	0.0
Cool	0.2
Sharp	0.0
Pungent	0.0
Burning	0.0



Relative Strength

Odor Descriptor Graph



	Average Relative Strength
Floral	1.2
Fruity	0.0
Vegetable	0.0
Earthy	0.2
Offensive	0.2
Fishy	0.0
Chemical	0.8
Medicinal	0.0

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St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: Q10 | Report No.: **717804**

Project: Onondaga | Description: 8L from 100L | Evaluation Date: 06/27/07

% of Assessors |**********|**********|**********|**********| 100%

Floral	**********
Rose-like	**********
Vanilla	**********
Chemical	**********
Vinyl	**********
Offensive	**********
Earthy	**********

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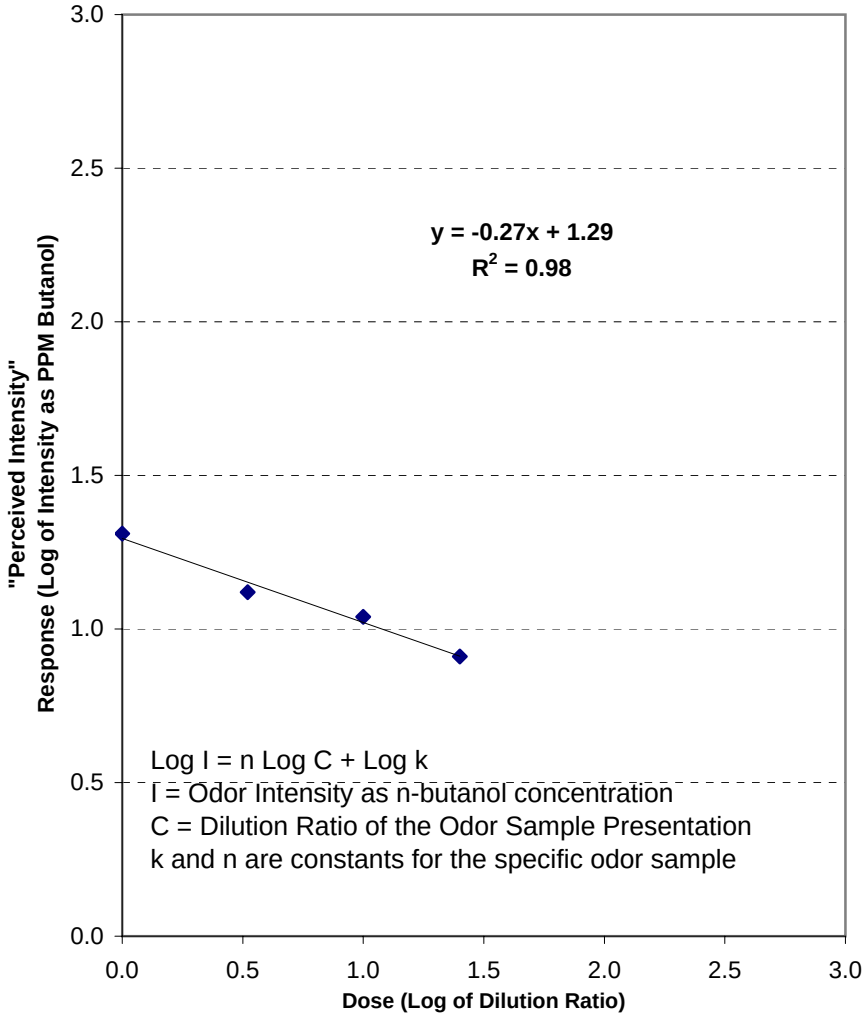
St. Croix Sensory, Inc.

Odor Evaluation Report

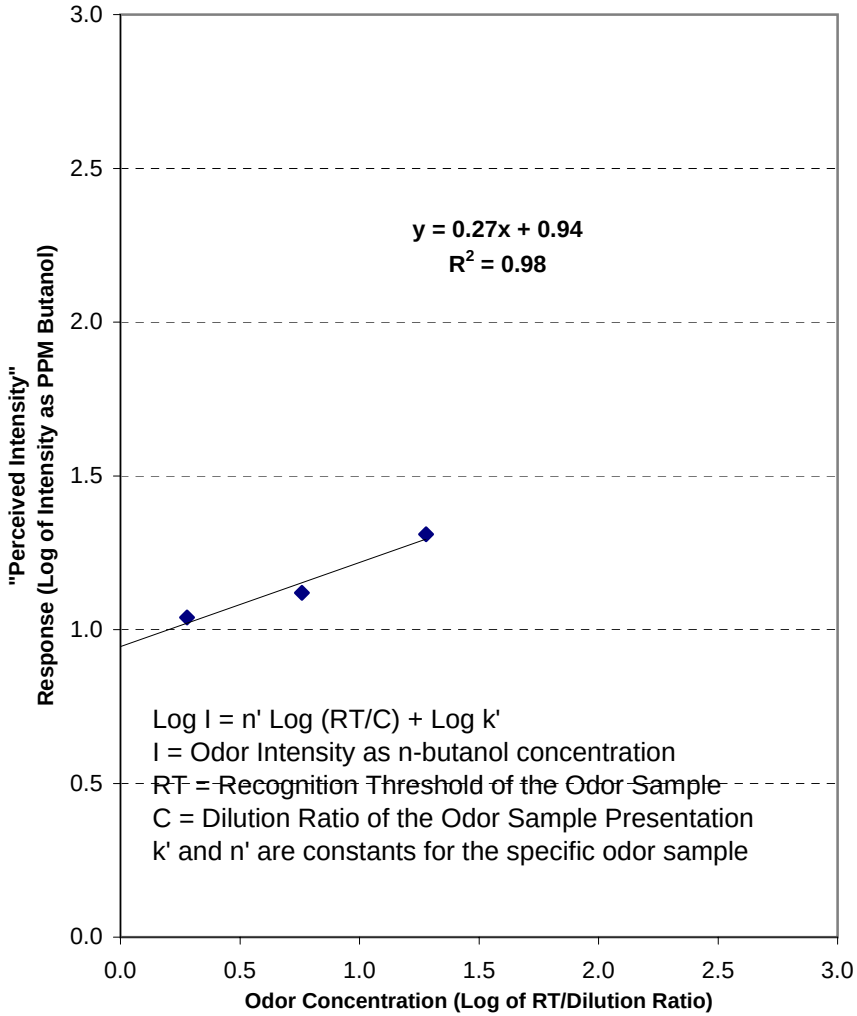
Client: Service Engineering Group | Field No.: Q10 | Report No.: **717804**

Project: Onondaga | Description: 8L from 100L | Evaluation Date: 06/27/07

Dose-Response



Dose-Response as Power Law



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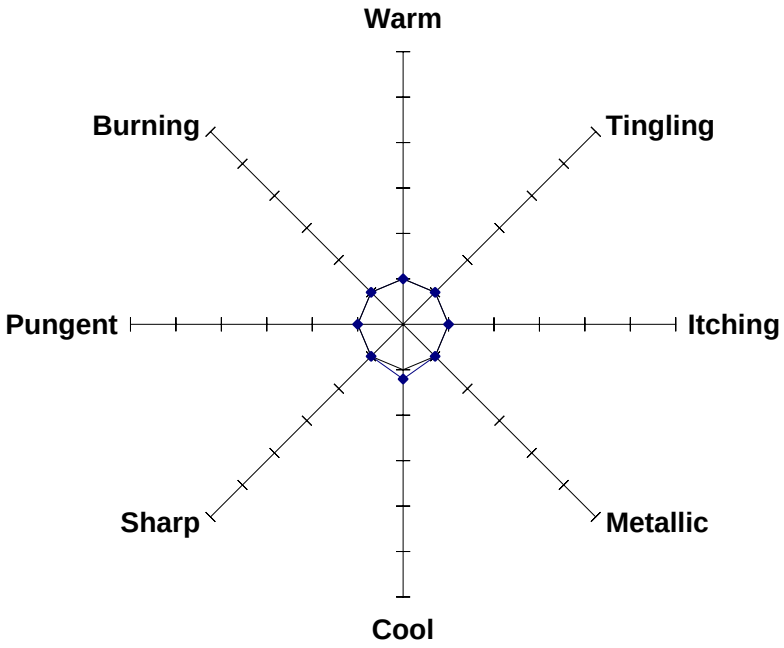
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: Q20 | Report No.: **717804**

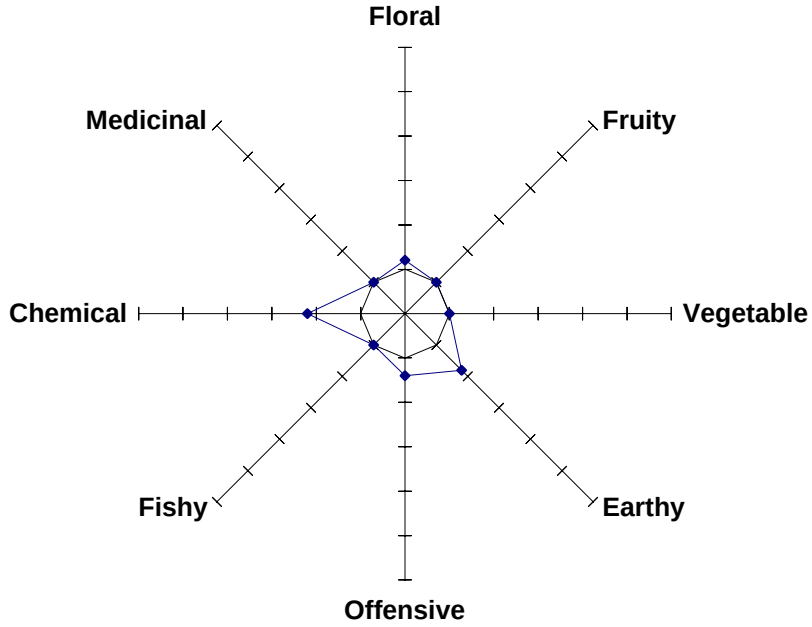
Project: Onondaga | Description: 8L from 100L | Evaluation Date: 06/27/07

Sensation Descriptor Graph



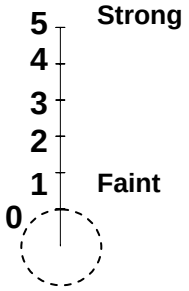
	Average Relative Strength
Warm	0.0
Tingling	0.0
Itching	0.0
Metallic	0.0
Cool	0.2
Sharp	0.0
Pungent	0.0
Burning	0.0

Odor Descriptor Graph



	Average Relative Strength
Floral	0.2
Fruity	0.0
Vegetable	0.0
Earthy	0.8
Offensive	0.4
Fishy	0.0
Chemical	1.2
Medicinal	0.0

KEY



Relative Strength

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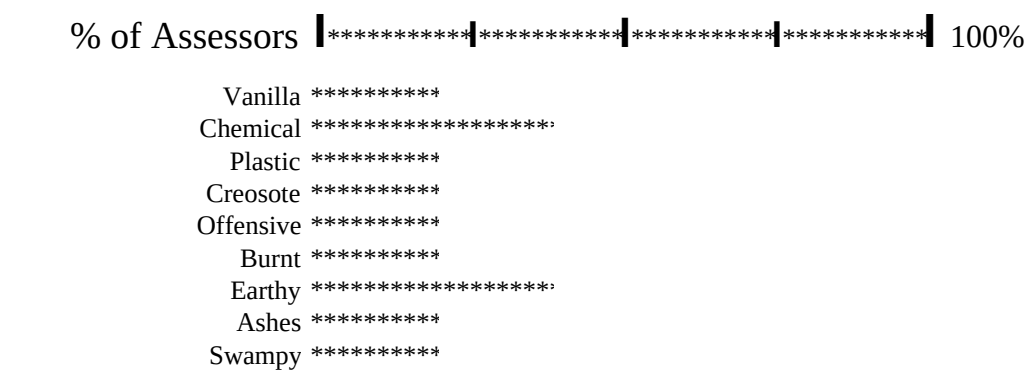
St. Croix Sensory, Inc.

Odor Evaluation Report

Client: Service Engineering Group | Field No.: Q20 | Report No.: **717804**

Project: Onondaga | Description: 8L from 100L | Evaluation Date: 06/27/07



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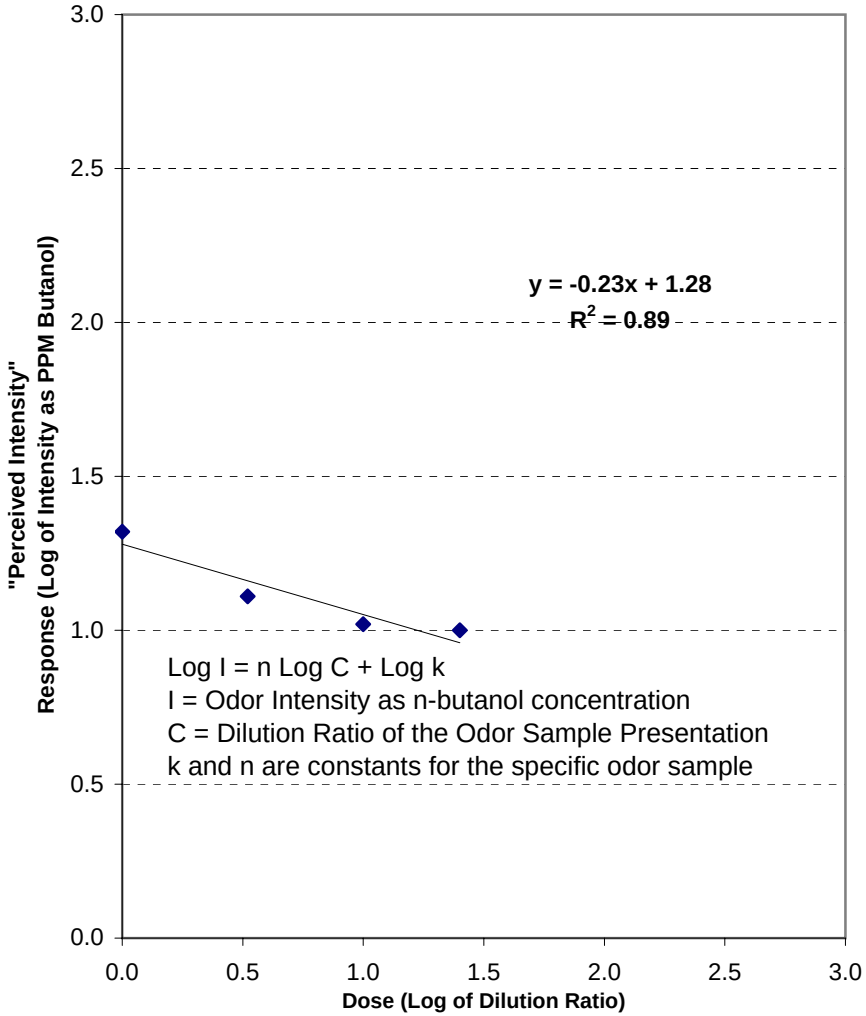
St. Croix Sensory, Inc.

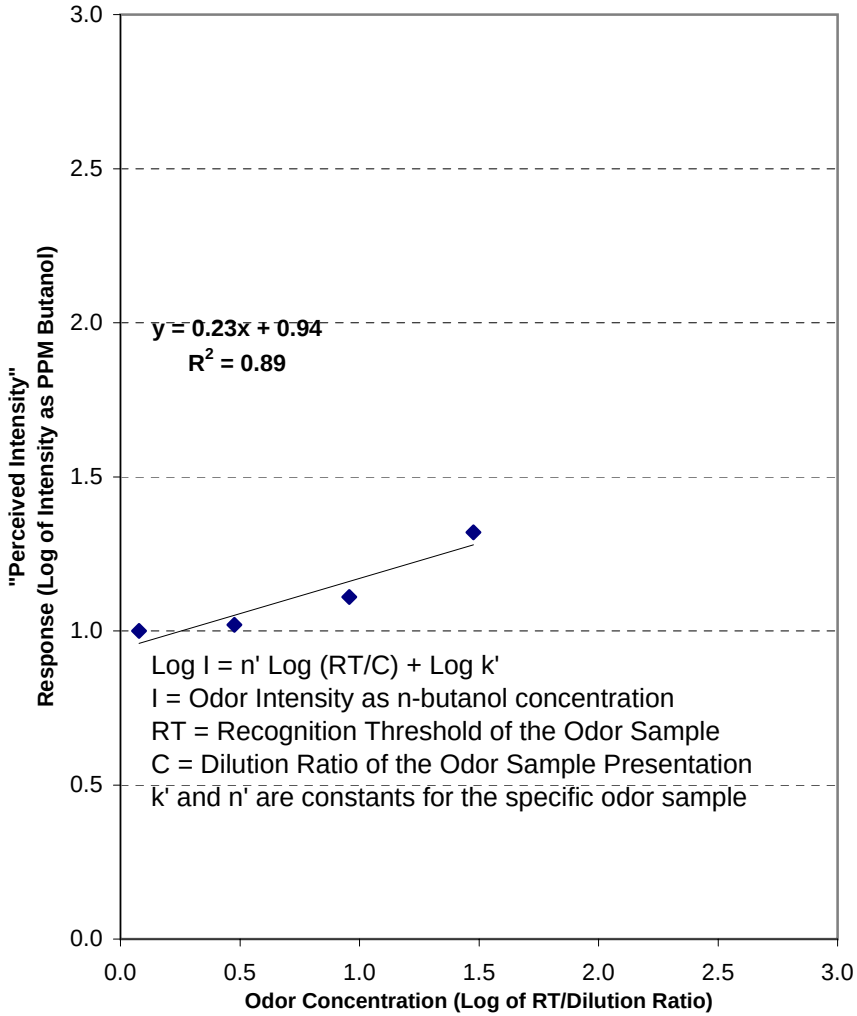
Odor Evaluation Report

Client:	Service Engineering Group	Field No.:	Q20	Report No.:	**717804**
Project:	Onondaga	Description:	8L from 100L	Evaluation Date:	06/27/07

Dose-Response



Dose-Response as Power Law



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St. Croix Sensory, Inc.

CHAIN OF CUSTODY RECORD FOR ODOR SAMPLES

Page 1 of 1

Client: Service Engineering Group | Sampled By: Alicc Lay

Project Name: Onondaga | Sampling Date: 6-27-07

Comments:

Line No.	Field No.	Sample Description	Sample Time	Field H_2S (ppm)	Odor Concentration* (Detection & Recognition Threshold)	Odor Intensity* (PPM 1-Butanol)	Odor Characterization (Hedonic Tone & Descriptors)	Odor Persistency ("Dose-Response")	For Laboratory use Only: Odor Evaluation Report No. / Laboratory Sample No. LN	FN
1	P10	8 L from 100 L	10:05		X		X			
2	P20	8 L from 100 L	10:10		X		X			
3	Q10	8 L from 100 L	10:25		X		X			
4	Q20	8 L from 100 L	10:35		X		X			
5										
6										
7										
8										
9										
10										
11										
12										

Odor Evaluations Requested: (X)

Transmittal

Number of Shipping Boxes: 2

Relinquished By	Date	Time	Accepted By	Date	Time	Comments & Exceptions Noted
Alicc Lay	6-27-07	10:35				
Received at St. Croix Sensory Laboratory			Matthew Kloot	6/27/07	10:35	

*Odor Concentration: ASTM E679-04 and EN13725:2003 and Odor Intensity: ASTM E544-99(2004)

St. Croix Sensory, Inc. ♦ 3549 Lake Elmo Avenue North ♦ Lake Elmo, MN 55042 U.S.A. ♦ Tel:800-879-9231 ♦ Fax:651-439-1065 ♦ Email:reports@fivesenses.com ♦ Web:www.fivesenses.com

LAB COPIES WHITE & YELLOW

CLIENT COPY PINK

APPENDIX B

RAW LABORATORY RESULTS FROM COLUMBIA ANALYTICAL

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **A1-CA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603281
CAS Sample ID: P2603281-001

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: ########
Date Analyzed: 12/11-12/06
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **B1-CA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603281
CAS Sample ID: P2603281-002

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: ########
Date Analyzed: 12/11-12/06
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
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DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603281
CAS Sample ID: P061211-MB

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/11/06
Desorption Volume: 1.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	NA	NA	NA	NA	
107-92-6	Butanoic Acid (Butyric)	< 0.25	NA	NA	NA	NA	
116-53-0	2-Methylbutanoic Acid	< 0.25	NA	NA	NA	NA	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	NA	NA	NA	NA	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	NA	NA	NA	NA	
97-61-0	2-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
105-43-1	3-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	NA	NA	NA	NA	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	NA	NA	NA	NA	
149-57-5	2-Ethylhexanoic Acid	< 0.28	NA	NA	NA	NA	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	NA	NA	NA	NA	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	NA	NA	NA	NA	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	NA	NA	NA	NA	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	NA	NA	NA	NA	
65-85-0	Benzoic Acid	< 0.30	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **A2-AM**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603281
CAS Sample ID: P2603281-003

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: 11/30/2006
Date Analyzed: 12/7/2006
Desorption Volume: 2.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	**0.28**	**4.1**	2.7	**2.2**	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	< 0.20	ND	2.9	ND	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	< 0.19	ND	2.7	ND	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **B2-AM**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603281
CAS Sample ID: P2603281-004

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: 11/30/2006
Date Analyzed: 12/7/2006
Desorption Volume: 2.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	2.8	**40**	2.7	**22**	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	39	**550**	2.9	**230**	1.2	
75-31-0	Isopropylamine	0.25	**3.5**	2.7	**1.5**	1.1	
75-64-9	t-Butylamine	0.28	**4.0**	2.7	**1.3**	0.90	
107-10-8	Propylamine	0.29	**4.1**	2.7	**1.7**	1.1	
109-89-7	Diethylamine	0.26	**3.7**	2.7	**1.2**	0.89	
13952-84-6	s-Butylamine	0.23	**3.2**	2.7	**1.1**	0.91	
78-81-9	Isobutylamine	0.23	**3.3**	2.7	**1.1**	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603281
CAS Sample ID: P061207-MB

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/07/06
Desorption Volume: 2.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	< 0.19	NA	NA	NA	NA	
75-04-7	Ethylamine	< 0.20	NA	NA	NA	NA	
75-50-3	Trimethylamine	< 0.20	NA	NA	NA	NA	
75-31-0	Isopropylamine	< 0.19	NA	NA	NA	NA	
75-64-9	t-Butylamine	< 0.19	NA	NA	NA	NA	
107-10-8	Propylamine	< 0.19	NA	NA	NA	NA	
109-89-7	Diethylamine	< 0.19	NA	NA	NA	NA	
13952-84-6	s-Butylamine	< 0.19	NA	NA	NA	NA	
78-81-9	Isobutylamine	< 0.19	NA	NA	NA	NA	
109-73-9	Butylamine	< 0.19	NA	NA	NA	NA	
108-18-9	Diisopropylamine	< 0.19	NA	NA	NA	NA	
121-44-8	Triethylamine	< 0.19	NA	NA	NA	NA	
142-84-7	Dipropylamine	< 0.38	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **A3-FA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603281
CAS Sample ID: P2603281-005

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: DNPH Silica Gel Tube
Test Notes: **BC**

Date Collected: NA
Date Received: 11/30/2006
Date Analyzed: 12/12/2006
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	**120**	**1.7**	1.4	**0.93**	0.79	
123-38-6	Propionaldehyde	< 100	ND	1.4	ND	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	< 100	ND	1.4	ND	0.48	
100-52-7	Benzaldehyde	< 100	ND	1.4	ND	0.33	
590-86-3	Isovaleraldehyde	< 100	ND	1.4	ND	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	< 100	ND	1.4	ND	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	**540**	**7.7**	1.4	**1.4**	0.26	**BH**

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
BH = The back portion of the tube yielded higher results than the front.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **B3-FA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603281
CAS Sample ID: P2603281-006

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: DNPH Silica Gel Tube
Test Notes: **BC**

Date Collected: NA
Date Received: 11/30/2006
Date Analyzed: 12/12-13/06
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	**13,000**	**180**	1.4	**100**	0.79	**BT**
123-38-6	Propionaldehyde	**330**	**4.7**	1.4	**2.0**	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	**440**	**6.3**	1.4	**2.1**	0.48	
100-52-7	Benzaldehyde	**550**	**7.8**	1.4	**1.8**	0.33	**BT**
590-86-3	Isovaleraldehyde	**220**	**3.2**	1.4	**0.89**	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	**290**	**4.1**	1.4	**1.0**	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	1.4	ND	0.26	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
BT = Indicates possible breakthrough - result for back section > 10% of result from front section of tube.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Reagent Blank** CAS Project ID: P2603281
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061212-RB

Test Code: EPA Method TO-11A Date Collected: NA
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1 Date Received: NA
Analyst: Madeleine Dangazyan Date Analyzed: 12/12/06
Sampling Media: Acetonitrile Desorption Volume: 1.0 ml
Test Notes: **BC** Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603281
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061212-MB

Test Code: EPA Method TO-11A Date Collected: NA
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1 Date Received: NA
Analyst: Madeleine Dangazyan Date Analyzed: 12/12/06
Sampling Media: DNPH Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC** Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **A30**
Client Project ID: **Dredge Sediment Head Space/06332**

CAS Project ID: P2603272
CAS Sample ID: P2603272-001

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 11/29/2006
Time Collected: NA
Date Received: 11/30/2006
Date Analyzed: 11/30/06
Time Analyzed: 11:03
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	**Result** **µg/m³**	MRL µg/m³	**Result** **ppbV**	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	**140**	12	**58**	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	**6.8**	13	**2.7**	5.0	**J**
75-15-0	Carbon Disulfide	**39**	7.8	**13**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	**13**	17	**3.7**	5.0	**J**
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The analyte was positively identified below the laboratory method reporting limit; the associated numerical value is considered estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **B30**
Client Project ID: **Dredge Sediment Head Space/06332**

CAS Project ID: P2603272
CAS Sample ID: P2603272-002

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 11/29/2006
Time Collected: NA
Date Received: 11/30/2006
Date Analyzed: 11/30/06
Time Analyzed: 11:28
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	**18**	12	**7.3**	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	**800**	13	**320**	5.0	
75-15-0	Carbon Disulfide	**290**	7.8	**92**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	**34**	16	**11**	5.0	
110-02-1	Thiophene	**160**	17	**46**	5.0	
513-44-0	Isobutyl Mercaptan	**40**	18	**11**	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	**410**	9.6	**110**	2.5	
616-44-4	3-Methylthiophene	**87**	20	**22**	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	**88**	23	**19**	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603272
Client Project ID: **Dredge Sediment Head Space/06332** CAS Sample ID: P061130-MB

Test Code: ASTM D 5504-01 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Time Collected: NA
Analyst: Zheng Wang Date Received: NA
Sampling Media: Tedlar Bag Date Analyzed: 11/30/06
Test Notes: Time Analyzed: 09:23
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **A30** CAS Project ID: P2603272
Client Project ID: **Dredge Sediment Head Space/06332** CAS Sample ID: P2603272-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 11/29/06
Date Received: 11/30/06
Date(s) Analyzed: 11/30/06
Volume(s) Analyzed: 0.20 Liter(s)
0.025 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	5.0	ND	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	ND	25	ND	13	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	5.0	ND	2.2	
67-64-1	Acetone	**160**	25	**67**	11	
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	**19**	5.0	**7.7**	2.0	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene chloride	**8.5**	5.0	**2.5**	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65	
75-15-0	Carbon Disulfide	**25**	5.0	**8.1**	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **A30** CAS Project ID: P2603272
Client Project ID: **Dredge Sediment Head Space/06332** CAS Sample ID: P2603272-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 11/29/06
Date Received: 11/30/06
Date(s) Analyzed: 11/30/06
Volume(s) Analyzed: 0.20 Liter(s)
0.025 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**28**	5.0	**9.4**	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
110-54-3	n-Hexane	**12**	5.0	**3.4**	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	**410**	5.0	**130**	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.93	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	**470**	5.0	**130**	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	
127-18-4	Tetrachloroethene	ND	5.0	ND	0.74	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **A30** CAS Project ID: P2603272
Client Project ID: **Dredge Sediment Head Space/06332** CAS Sample ID: P2603272-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 11/29/06
Date Received: 11/30/06
Date(s) Analyzed: 11/30/06
Volume(s) Analyzed: 0.20 Liter(s)
0.025 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	**1,500**	5.0	**320**	1.1	
100-41-4	Ethylbenzene	**300**	5.0	**69**	1.2	
179601-23-1	*m,p* -Xylenes	**2,500**	5.0	**580**	1.2	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	**150**	5.0	**36**	1.2	
95-47-6	o-Xylene	**920**	5.0	**210**	1.2	
111-84-2	n-Nonane	**52**	5.0	**9.9**	0.95	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	**350**	5.0	**72**	1.0	
80-56-8	alpha-Pinene	**9.7**	5.0	**1.7**	0.90	
622-96-8	4-Ethyltoluene	**270**	5.0	**55**	1.0	
108-67-8	1,3,5-Trimethylbenzene	**750**	5.0	**150**	1.0	
95-63-6	1,2,4-Trimethylbenzene	**1,100**	5.0	**230**	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	**61**	5.0	**10**	0.83	
106-46-7	1,4-Dichlorobenzene	**410**	5.0	**68**	0.83	
95-50-1	1,2-Dichlorobenzene	**97**	5.0	**16**	0.83	
5989-27-5	d-Limonene	**7.1**	5.0	**1.3**	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.67	
91-20-3	Naphthalene	**370**	5.0	**71**	0.95	
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **A30** CAS Project ID: P2603272
Client Project ID: **Dredge Sediment Head Space/06332** CAS Sample ID: P2603272-001

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 11/29/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 11/30/06
Analyst: Rusty Bravo Date Analyzed: 11/30/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.20 Liter(s)
Test Notes: **T** 0.025 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
18.20	3-Ethyltoluene	**500**	
19.16	sec-Butylbenzene	**800**	
19.34	p-Isopropyltoluene + 1,2,3-Trimethylbenzene	**500**	
19.59	Unidentified Aromatic Compound + Unidentified Compound	**900**	
19.71	C_9H_8 Aromatic Compound	**2,000**	
19.93	$C_{10}H_{12}$ Aromatic Compound	**500**	
20.34	$C_{11}H_{16}$ Aromatic Compound	**600**	
20.38	$C_{11}H_{16}$ Aromatic Compound	**1,000**	
20.51	$C_{11}H_{16}$ Aromatic Compound	**1,000**	
20.62	Unidentified Aromatic Compound	**800**	
20.74	Unidentified Aromatic Compound	**700**	
21.45	$C_{12}H_{18}$ Aromatic Compound	**800**	
21.82	Unidentified Aromatic Compound	**500**	
22.14	Phenylcyclopentane	**900**	
22.53	Unidentified Aromatic Compound	**600**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **B30** CAS Project ID: P2603272
Client Project ID: **Dredge Sediment Head Space/06332** CAS Sample ID: P2603272-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 11/29/06
Date Received: 11/30/06
Date(s) Analyzed: 11/30/06
Volume(s) Analyzed: 0.0030 Liter(s)
0.0010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	330	ND	67	
74-87-3	Chloromethane	ND	330	ND	160	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	330	ND	48	
75-01-4	Vinyl Chloride	ND	330	ND	130	
106-99-0	1,3-Butadiene	ND	330	ND	150	
74-83-9	Bromomethane	ND	330	ND	86	
75-00-3	Chloroethane	ND	330	ND	130	
64-17-5	Ethanol	ND	1,700	ND	880	
75-05-8	Acetonitrile	ND	330	ND	200	
107-02-8	Acrolein	ND	330	ND	150	
67-64-1	Acetone	ND	1,700	ND	700	
75-69-4	Trichlorofluoromethane	ND	330	ND	59	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	330	ND	140	
107-13-1	Acrylonitrile	ND	330	ND	150	
75-35-4	1,1-Dichloroethene	ND	330	ND	84	
75-09-2	Methylene chloride	ND	330	ND	96	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	330	ND	110	
76-13-1	Trichlorotrifluoroethane	ND	330	ND	44	
75-15-0	Carbon Disulfide	ND	330	ND	110	
156-60-5	trans-1,2-Dichloroethene	ND	330	ND	84	
75-34-3	1,1-Dichloroethane	ND	330	ND	82	
1634-04-4	Methyl tert-Butyl Ether	ND	330	ND	92	
108-05-4	Vinyl Acetate	ND	330	ND	95	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **B30** CAS Project ID: P2603272
Client Project ID: **Dredge Sediment Head Space/06332** CAS Sample ID: P2603272-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 11/29/06
Date Received: 11/30/06
Date(s) Analyzed: 11/30/06
Volume(s) Analyzed: 0.0030 Liter(s)
0.0010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	330	ND	110	
156-59-2	cis-1,2-Dichloroethene	ND	330	ND	84	
110-54-3	n-Hexane	**1,000**	330	**290**	95	
67-66-3	Chloroform	ND	330	ND	68	
107-06-2	1,2-Dichloroethane	ND	330	ND	82	
71-55-6	1,1,1-Trichloroethane	ND	330	ND	61	
71-43-2	Benzene	**35,000**	330	**11,000**	100	
56-23-5	Carbon Tetrachloride	ND	330	ND	53	
78-87-5	1,2-Dichloropropane	ND	330	ND	72	
75-27-4	Bromodichloromethane	ND	330	ND	50	
79-01-6	Trichloroethene	ND	330	ND	62	
123-91-1	1,4-Dioxane	ND	330	ND	93	
10061-01-5	cis-1,3-Dichloropropene	ND	330	ND	73	
108-10-1	4-Methyl-2-pentanone	ND	330	ND	81	
10061-02-6	trans-1,3-Dichloropropene	ND	330	ND	73	
79-00-5	1,1,2-Trichloroethane	ND	330	ND	61	
108-88-3	Toluene	**70,000**	330	**19,000**	88	
591-78-6	2-Hexanone	ND	330	ND	81	
124-48-1	Dibromochloromethane	ND	330	ND	39	
106-93-4	1,2-Dibromoethane	ND	330	ND	43	
123-86-4	n-Butyl Acetate	ND	330	ND	70	
127-18-4	Tetrachloroethene	ND	330	ND	49	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **B30** CAS Project ID: P2603272
Client Project ID: **Dredge Sediment Head Space/06332** CAS Sample ID: P2603272-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 11/29/06
Date Received: 11/30/06
Date(s) Analyzed: 11/30/06
Volume(s) Analyzed: 0.0030 Liter(s)
0.0010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	**17,000**	330	**3,600**	72	
100-41-4	Ethylbenzene	**15,000**	330	**3,500**	77	
179601-23-1	*m,p* -Xylenes	**220,000**	330	**50,000**	77	
75-25-2	Bromoform	ND	330	ND	32	
100-42-5	Styrene	**9,600**	330	**2,300**	78	
95-47-6	o-Xylene	**64,000**	330	**15,000**	77	
111-84-2	n-Nonane	**2,500**	330	**470**	64	
79-34-5	1,1,2,2-Tetrachloroethane	ND	330	ND	49	
98-82-8	Cumene	**9,700**	330	**2,000**	68	
80-56-8	alpha-Pinene	ND	330	ND	60	
622-96-8	4-Ethyltoluene	**8,900**	330	**1,800**	68	
108-67-8	1,3,5-Trimethylbenzene	**37,000**	330	**7,500**	68	
95-63-6	1,2,4-Trimethylbenzene	**47,000**	330	**9,700**	68	
100-44-7	Benzyl Chloride	ND	330	ND	64	
541-73-1	1,3-Dichlorobenzene	ND	330	ND	55	
106-46-7	1,4-Dichlorobenzene	**2,900**	330	**470**	55	
95-50-1	1,2-Dichlorobenzene	**2,400**	330	**400**	55	
5989-27-5	d-Limonene	ND	330	ND	60	
96-12-8	1,2-Dibromo-3-chloropropane	ND	330	ND	34	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ND	45	
91-20-3	Naphthalene	**4,400**	330	**840**	64	
87-68-3	Hexachlorobutadiene	ND	330	ND	31	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **B30** CAS Project ID: P2603272
Client Project ID: **Dredge Sediment Head Space/06332** CAS Sample ID: P2603272-002

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 11/29/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 11/30/06
Analyst: Rusty Bravo Date Analyzed: 11/30/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.0030 Liter(s)
Test Notes: **T** 0.0010 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
11.11	C_6H_{10} Compound	**8,000**	
12.52	Methylcyclohexane	**5,000**	
18.06	n-Propylbenzene	**3,000**	
18.19	3-Ethyltoluene	**20,000**	
18.56	2-Ethyltoluene	**4,000**	
18.76	C_9H_{10} Aromatic Compound	**9,000**	
18.92	n-Decane	**2,000**	
19.15	sec-Butylbenzene	**20,000**	
19.33	p-Isopropyltoluene + 1,2,3-Trimethylbenzene	**9,000**	
19.57	Unidentified Aromatic Compound + Unidentified Compound	**10,000**	
19.69	C_9H_8 Aromatic Compound	**40,000**	
19.92	$C_{10}H_{12}$ Aromatic Compound	**9,000**	
20.36	$C_{11}H_{16}$ Aromatic Compound	**8,000**	
20.50	$C_{11}H_{16}$ Aromatic Compound	**9,000**	
20.61	Unidentified Aromatic Compound	**5,000**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603272
Client Project ID: **Dredge Sediment Head Space/06332** CAS Sample ID: P061130-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 11/30/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	1.0	ND	0.20	
74-87-3	Chloromethane	ND	1.0	ND	0.48	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.0	ND	0.14	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
106-99-0	1,3-Butadiene	ND	1.0	ND	0.45	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	1.0	ND	0.60	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	ND	0.41	
107-13-1	Acrylonitrile	ND	1.0	ND	0.46	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.0	ND	0.32	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603272
Client Project ID: **Dredge Sediment Head Space/06332** CAS Sample ID: P061130-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 11/30/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
110-54-3	n-Hexane	ND	1.0	ND	0.28	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
123-91-1	1,4-Dioxane	ND	1.0	ND	0.28	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
123-86-4	n-Butyl Acetate	ND	1.0	ND	0.21	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603272
Client Project ID: **Dredge Sediment Head Space/06332** CAS Sample ID: P061130-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 11/30/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
179601-23-1	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	o-Xylene	ND	1.0	ND	0.23	
111-84-2	n-Nonane	ND	1.0	ND	0.19	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
98-82-8	Cumene	ND	1.0	ND	0.20	
80-56-8	alpha-Pinene	ND	1.0	ND	0.18	
622-96-8	4-Ethyltoluene	ND	1.0	ND	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ND	0.20	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ND	0.20	
100-44-7	Benzyl Chloride	ND	1.0	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	
5989-27-5	d-Limonene	ND	1.0	ND	0.18	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ND	0.10	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	
91-20-3	Naphthalene	ND	1.0	ND	0.19	
87-68-3	Hexachlorobutadiene	ND	1.0	ND	0.094	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603272
Client Project ID: **Dredge Sediment Head Space/06332** CAS Sample ID: P061130-MB

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date Analyzed: 11/30/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **C1-CA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603307
CAS Sample ID: P2603307-001

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: ########
Date Received: 12/4/2006
Date Analyzed: 12/11-12/06
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **D1-CA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603307
CAS Sample ID: P2603307-002

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: ########
Date Received: 12/4/2006
Date Analyzed: 12/11-12/06
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603307
CAS Sample ID: P061211-MB

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/11/06
Desorption Volume: 1.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	NA	NA	NA	NA	
107-92-6	Butanoic Acid (Butyric)	< 0.25	NA	NA	NA	NA	
116-53-0	2-Methylbutanoic Acid	< 0.25	NA	NA	NA	NA	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	NA	NA	NA	NA	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	NA	NA	NA	NA	
97-61-0	2-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
105-43-1	3-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	NA	NA	NA	NA	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	NA	NA	NA	NA	
149-57-5	2-Ethylhexanoic Acid	< 0.28	NA	NA	NA	NA	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	NA	NA	NA	NA	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	NA	NA	NA	NA	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	NA	NA	NA	NA	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	NA	NA	NA	NA	
65-85-0	Benzoic Acid	< 0.30	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **C2-AM**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603307
CAS Sample ID: P2603307-003

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: 11/30/2006
Date Received: 12/4/2006
Date Analyzed: 12/7/2006
Desorption Volume: 2.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	**2.0**	**28**	2.7	**15**	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	**33**	**470**	2.9	**190**	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	< 0.19	ND	2.7	ND	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **D2-AM**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603307
CAS Sample ID: P2603307-004

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: 11/30/2006
Date Received: 12/4/2006
Date Analyzed: 12/7/2006
Desorption Volume: 2.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	**0.22**	**3.2**	2.7	**1.7**	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	< 0.20	ND	2.9	ND	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	< 0.19	ND	2.7	ND	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603307
CAS Sample ID: P061207-MB

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/07/06
Desorption Volume: 2.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	< 0.19	NA	NA	NA	NA	
75-04-7	Ethylamine	< 0.20	NA	NA	NA	NA	
75-50-3	Trimethylamine	< 0.20	NA	NA	NA	NA	
75-31-0	Isopropylamine	< 0.19	NA	NA	NA	NA	
75-64-9	t-Butylamine	< 0.19	NA	NA	NA	NA	
107-10-8	Propylamine	< 0.19	NA	NA	NA	NA	
109-89-7	Diethylamine	< 0.19	NA	NA	NA	NA	
13952-84-6	s-Butylamine	< 0.19	NA	NA	NA	NA	
78-81-9	Isobutylamine	< 0.19	NA	NA	NA	NA	
109-73-9	Butylamine	< 0.19	NA	NA	NA	NA	
108-18-9	Diisopropylamine	< 0.19	NA	NA	NA	NA	
121-44-8	Triethylamine	< 0.19	NA	NA	NA	NA	
142-84-7	Dipropylamine	< 0.38	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **C3-FA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603307
CAS Sample ID: P2603307-005

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: DNPH Silica Gel Tube
Test Notes: **BC**

Date Collected: 11/30/2006
Date Received: 12/4/2006
Date Analyzed: 12/12/2006
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	**7,400**	**110**	1.4	**59**	0.79	**BT**
123-38-6	Propionaldehyde	**290**	**4.2**	1.4	**1.8**	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	**690**	**9.8**	1.4	**3.3**	0.48	
100-52-7	Benzaldehyde	**920**	**13**	1.4	**3.0**	0.33	**BT**
590-86-3	Isovaleraldehyde	**230**	**3.2**	1.4	**0.92**	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	**240**	**3.5**	1.4	**0.84**	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	1.4	ND	0.26	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
BT = Indicates possible breakthrough - result for back section > 10% of result from front section of tube.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **D3-FA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603307
CAS Sample ID: P2603307-006

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: DNPH Silica Gel Tube
Test Notes: **BC**

Date Collected: 11/30/2006
Date Received: 12/4/2006
Date Analyzed: 12/12/2006
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	**3,200**	**46**	1.4	**26**	0.79	
123-38-6	Propionaldehyde	< 100	ND	1.4	ND	0.60	
# 4170-30-3	Crotonaldehyde, Total	**130**	**1.9**	1.4	**0.66**	0.50	**BH**
123-72-8	Butyraldehyde	< 100	ND	1.4	ND	0.48	
100-52-7	Benzaldehyde	< 100	ND	1.4	ND	0.33	
590-86-3	Isovaleraldehyde	< 100	ND	1.4	ND	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	< 100	ND	1.4	ND	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	**370**	**5.3**	1.4	**0.97**	0.26	**BH**

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
BH = The back portion of the tube yielded higher results than the front.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Reagent Blank** CAS Project ID: P2603307
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061212-RB

Test Code: EPA Method TO-11A Date Collected: NA
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1 Date Received: NA
Analyst: Madeleine Dangazyan Date Analyzed: 12/12/06
Sampling Media: Acetonitrile Desorption Volume: 1.0 ml
Test Notes: **BC** Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603307
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061212-MB

Test Code: EPA Method TO-11A Date Collected: NA
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1 Date Received: NA
Analyst: Madeleine Dangazyan Date Analyzed: 12/12/06
Sampling Media: DNPH Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC** Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **C30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603308
CAS Sample ID: P2603308-001

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang
Sampling Media: Tedlar Bag
Test Notes: **RH**

Date Collected: 11/30/2006
Time Collected: 11:30
Date Received: 12/4/2006
Date Analyzed: 12/4/06
Time Analyzed: 11:34
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	**64**	13	**25**	5.0	
75-15-0	Carbon Disulfide	**300**	7.8	**97**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	**38**	17	**11**	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	**82**	9.6	**21**	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	**17**	23	**3.7**	5.0	**J**
110-81-6	Diethyl Disulfide	**26**	12	**5.1**	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
RH = Sample received outside of holding time.
J = The analyte was positively identified below the laboratory method reporting limit; the associated numerical value is considered estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **D30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603308
CAS Sample ID: P2603308-002

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang
Sampling Media: Tedlar Bag
Test Notes: **RH**

Date Collected: 11/30/2006
Time Collected: 11:35
Date Received: 12/4/2006
Date Analyzed: 12/4/06
Time Analyzed: 12:03
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	**150**	12	**60**	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	**250**	7.8	**82**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	**75**	17	**22**	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
RH = Sample received outside of holding time.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603308
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061204-MB

Test Code: ASTM D 5504-01 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Time Collected: NA
Analyst: Zheng Wang Date Received: NA
Sampling Media: Tedlar Bag Date Analyzed: 12/04/06
Test Notes: Time Analyzed: 09:58
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **C30** CAS Project ID: P2603308
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603308-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chaney Bolster
Sampling Media: Tedlar Bag
Test Notes: **RH**

Date Collected: 11/30/06
Date Received: 12/4/06
Date(s) Analyzed: 12/5/06
Volume(s) Analyzed: 0.00225 Liter(s)
0.00075 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	440	ND	90	
74-87-3	Chloromethane	ND	440	ND	220	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	440	ND	64	
75-01-4	Vinyl Chloride	ND	440	ND	170	
106-99-0	1,3-Butadiene	ND	440	ND	200	
74-83-9	Bromomethane	ND	440	ND	110	
75-00-3	Chloroethane	ND	440	ND	170	
64-17-5	Ethanol	ND	2,200	ND	1,200	
75-05-8	Acetonitrile	ND	440	ND	260	
107-02-8	Acrolein	ND	440	ND	190	
67-64-1	Acetone	ND	2,200	ND	940	
75-69-4	Trichlorofluoromethane	ND	440	ND	79	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	440	ND	180	
107-13-1	Acrylonitrile	ND	440	ND	200	
75-35-4	1,1-Dichloroethene	ND	440	ND	110	
75-09-2	Methylene chloride	ND	440	ND	130	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	440	ND	140	
76-13-1	Trichlorotrifluoroethane	ND	440	ND	58	
75-15-0	Carbon Disulfide	ND	440	ND	140	
156-60-5	trans-1,2-Dichloroethene	ND	440	ND	110	
75-34-3	1,1-Dichloroethane	ND	440	ND	110	
1634-04-4	Methyl tert-Butyl Ether	ND	440	ND	120	
108-05-4	Vinyl Acetate	ND	440	ND	130	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
RH = Sample received outside of holding time.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **C30** CAS Project ID: P2603308
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603308-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chaney Bolster
Sampling Media: Tedlar Bag
Test Notes: **RH**

Date Collected: 11/30/06
Date Received: 12/4/06
Date(s) Analyzed: 12/5/06
Volume(s) Analyzed: 0.00225 Liter(s)
0.00075 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	440	ND	150	
156-59-2	cis-1,2-Dichloroethene	ND	440	ND	110	
110-54-3	n-Hexane	**1,500**	440	**430**	130	
67-66-3	Chloroform	ND	440	ND	91	
107-06-2	1,2-Dichloroethane	ND	440	ND	110	
71-55-6	1,1,1-Trichloroethane	ND	440	ND	81	
71-43-2	Benzene	**17,000**	440	**5,200**	140	
56-23-5	Carbon Tetrachloride	ND	440	ND	71	
78-87-5	1,2-Dichloropropane	ND	440	ND	96	
75-27-4	Bromodichloromethane	ND	440	ND	66	
79-01-6	Trichloroethene	ND	440	ND	83	
123-91-1	1,4-Dioxane	ND	440	ND	120	
10061-01-5	cis-1,3-Dichloropropene	ND	440	ND	98	
108-10-1	4-Methyl-2-pentanone	ND	440	ND	110	
10061-02-6	trans-1,3-Dichloropropene	ND	440	ND	98	
79-00-5	1,1,2-Trichloroethane	ND	440	ND	81	
108-88-3	Toluene	**11,000**	440	**2,900**	120	
591-78-6	2-Hexanone	ND	440	ND	110	
124-48-1	Dibromochloromethane	ND	440	ND	52	
106-93-4	1,2-Dibromoethane	ND	440	ND	58	
123-86-4	n-Butyl Acetate	ND	440	ND	94	
127-18-4	Tetrachloroethene	ND	440	ND	66	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
RH = Sample received outside of holding time.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **C30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603308
CAS Sample ID: P2603308-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chaney Bolster
Sampling Media: Tedlar Bag
Test Notes: **RH**

Date Collected: 11/30/06
Date Received: 12/4/06
Date(s) Analyzed: 12/5/06
Volume(s) Analyzed: 0.00225 Liter(s)
0.00075 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	**130,000**	440	**27,000**	97	
100-41-4	Ethylbenzene	**3,500**	440	**810**	100	
179601-23-1	*m,p* -Xylenes	**50,000**	440	**11,000**	100	
75-25-2	Bromoform	ND	440	ND	43	
100-42-5	Styrene	**1,000**	440	**250**	100	
95-47-6	o-Xylene	**14,000**	440	**3,300**	100	
111-84-2	n-Nonane	**690**	440	**130**	85	
79-34-5	1,1,2,2-Tetrachloroethane	ND	440	ND	65	
98-82-8	Cumene	**3,700**	440	**760**	90	
80-56-8	alpha-Pinene	ND	440	ND	80	
622-96-8	4-Ethyltoluene	**810**	440	**170**	90	
108-67-8	1,3,5-Trimethylbenzene	**6,100**	440	**1,200**	90	
95-63-6	1,2,4-Trimethylbenzene	**7,100**	440	**1,500**	90	
100-44-7	Benzyl Chloride	ND	440	ND	86	
541-73-1	1,3-Dichlorobenzene	ND	440	ND	74	
106-46-7	1,4-Dichlorobenzene	**36,000**	440	**6,100**	74	
95-50-1	1,2-Dichlorobenzene	**23,000**	440	**3,900**	74	
5989-27-5	d-Limonene	ND	440	ND	80	
96-12-8	1,2-Dibromo-3-chloropropane	ND	440	ND	46	
120-82-1	1,2,4-Trichlorobenzene	**680**	440	**92**	60	
91-20-3	Naphthalene	**2,200**	440	**420**	85	
87-68-3	Hexachlorobutadiene	ND	440	ND	42	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
RH = Sample received outside of holding time.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **C30** CAS Project ID: P2603308
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603308-001

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 11/30/06
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: 12/4/06
Analyst: Chaney Bolster Date Analyzed: 12/5/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.00225 Liter(s)
Test Notes: **T, RH** 0.00075 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
10.24	Methylcyclopentane	**2,000**	
11.29	Cyclohexane	**3,000**	
12.35	n-Heptane	**5,000**	
13.17	Methylcyclohexane	**5,000**	
18.74	3-Ethyltoluene	**2,000**	
19.67	sec-Butylbenzene	**6,000**	
19.86	1,2,3-Trimethylbenzene	**1,000**	
20.10	Indane + Unidentified Compound	**1,000**	
20.21	C_9H_8 Compound	**2,000**	
20.42	$C_{10}H_{12}$ Compound	**2,000**	
20.86	$C_{11}H_{16}$ Aromatic Compound	**2,000**	
20.99	$C_{11}H_{16}$ Aromatic Compound	**2,000**	

T = Analyte is a tentatively identified compound, result is estimated.
RH = Sample received outside of holding time.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **D30** CAS Project ID: P2603308
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603308-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chaney Bolster
Sampling Media: Tedlar Bag
Test Notes: **RH**

Date Collected: 11/30/06
Date Received: 12/4/06
Date(s) Analyzed: 12/5/06
Volume(s) Analyzed: 0.040 Liter(s)
0.010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	25	ND	5.1	
74-87-3	Chloromethane	ND	25	ND	12	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	25	ND	3.6	
75-01-4	Vinyl Chloride	ND	25	ND	9.8	
106-99-0	1,3-Butadiene	ND	25	ND	11	
74-83-9	Bromomethane	ND	25	ND	6.4	
75-00-3	Chloroethane	ND	25	ND	9.5	
64-17-5	Ethanol	ND	130	ND	66	
75-05-8	Acetonitrile	ND	25	ND	15	
107-02-8	Acrolein	ND	25	ND	11	
67-64-1	Acetone	**190**	130	**78**	53	
75-69-4	Trichlorofluoromethane	ND	25	ND	4.5	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	25	ND	10	
107-13-1	Acrylonitrile	ND	25	ND	12	
75-35-4	1,1-Dichloroethene	ND	25	ND	6.3	
75-09-2	Methylene chloride	ND	25	ND	7.2	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	25	ND	8.0	
76-13-1	Trichlorotrifluoroethane	ND	25	ND	3.3	
75-15-0	Carbon Disulfide	**130**	25	**41**	8.0	
156-60-5	trans-1,2-Dichloroethene	ND	25	ND	6.3	
75-34-3	1,1-Dichloroethane	ND	25	ND	6.2	
1634-04-4	Methyl tert-Butyl Ether	ND	25	ND	6.9	
108-05-4	Vinyl Acetate	ND	25	ND	7.1	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
RH = Sample received outside of holding time.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **D30** CAS Project ID: P2603308
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603308-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chaney Bolster
Sampling Media: Tedlar Bag
Test Notes: **RH**

Date Collected: 11/30/06
Date Received: 12/4/06
Date(s) Analyzed: 12/5/06
Volume(s) Analyzed: 0.040 Liter(s)
0.010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**50**	25	**17**	8.5	
156-59-2	cis-1,2-Dichloroethene	**25**	25	**6.3**	6.3	
110-54-3	n-Hexane	**53**	25	**15**	7.1	
67-66-3	Chloroform	ND	25	ND	5.1	
107-06-2	1,2-Dichloroethane	ND	25	ND	6.2	
71-55-6	1,1,1-Trichloroethane	ND	25	ND	4.6	
71-43-2	Benzene	**1,500**	25	**480**	7.8	
56-23-5	Carbon Tetrachloride	ND	25	ND	4.0	
78-87-5	1,2-Dichloropropane	ND	25	ND	5.4	
75-27-4	Bromodichloromethane	ND	25	ND	3.7	
79-01-6	Trichloroethene	ND	25	ND	4.7	
123-91-1	1,4-Dioxane	ND	25	ND	6.9	
10061-01-5	cis-1,3-Dichloropropene	ND	25	ND	5.5	
108-10-1	4-Methyl-2-pentanone	ND	25	ND	6.1	
10061-02-6	trans-1,3-Dichloropropene	ND	25	ND	5.5	
79-00-5	1,1,2-Trichloroethane	ND	25	ND	4.6	
108-88-3	Toluene	**1,100**	25	**300**	6.6	
591-78-6	2-Hexanone	ND	25	ND	6.1	
124-48-1	Dibromochloromethane	ND	25	ND	2.9	
106-93-4	1,2-Dibromoethane	ND	25	ND	3.3	
123-86-4	n-Butyl Acetate	ND	25	ND	5.3	
127-18-4	Tetrachloroethene	ND	25	ND	3.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
RH = Sample received outside of holding time.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **D30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603308
CAS Sample ID: P2603308-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chaney Bolster
Sampling Media: Tedlar Bag
Test Notes: **RH**

Date Collected: 11/30/06
Date Received: 12/4/06
Date(s) Analyzed: 12/5/06
Volume(s) Analyzed: 0.040 Liter(s)
0.010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	**4,800**	25	**1,000**	5.4	
100-41-4	Ethylbenzene	**960**	25	**220**	5.8	
179601-23-1	*m,p* -Xylenes	**4,100**	25	**940**	5.8	
75-25-2	Bromoform	ND	25	ND	2.4	
100-42-5	Styrene	ND	25	ND	5.9	
95-47-6	o-Xylene	**1,500**	25	**350**	5.8	
111-84-2	n-Nonane	**170**	25	**32**	4.8	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	ND	3.6	
98-82-8	Cumene	**1,100**	25	**230**	5.1	
80-56-8	alpha-Pinene	**98**	25	**18**	4.5	
622-96-8	4-Ethyltoluene	**330**	25	**68**	5.1	
108-67-8	1,3,5-Trimethylbenzene	**1,500**	25	**300**	5.1	
95-63-6	1,2,4-Trimethylbenzene	**1,500**	25	**300**	5.1	
100-44-7	Benzyl Chloride	ND	25	ND	4.8	
541-73-1	1,3-Dichlorobenzene	**150**	25	**25**	4.2	
106-46-7	1,4-Dichlorobenzene	**1,300**	25	**220**	4.2	
95-50-1	1,2-Dichlorobenzene	**460**	25	**77**	4.2	
5989-27-5	d-Limonene	ND	25	ND	4.5	
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	ND	2.6	
120-82-1	1,2,4-Trichlorobenzene	ND	25	ND	3.4	
91-20-3	Naphthalene	**220**	25	**42**	4.8	
87-68-3	Hexachlorobutadiene	ND	25	ND	2.3	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
RH = Sample received outside of holding time.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **D30** CAS Project ID: P2603308
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603308-002

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 11/30/06
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: 12/4/06
Analyst: Chaney Bolster Date Analyzed: 12/5/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.040 Liter(s)
Test Notes: **T, RH** 0.010 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
18.31	$C_{10}H_{22}$ Branched Alkane	**800**	
18.39	Propyl Cyclohexane	**1,000**	
18.74	3-Ethyltoluene	**700**	
19.03	$C_{10}H_{20}$ Compound	**800**	
19.68	sec-Butylbenzene	**3,000**	
20.08	$C_{10}H_{14}$ Aromatic Compound	**900**	
20.10	Indane + Unidentified Compound	**1,000**	
20.15	Butyl-Cyclohexane	**900**	
20.84	(1-ethyl propyl)-Benzene	**1,000**	
20.86	$C_{11}H_{16}$ Aromatic Compound	**2,000**	
20.96	$C_{11}H_{16}$ Aromatic Compound	**800**	
21.00	$C_{11}H_{16}$ Aromatic Compound	**2,000**	
21.10	$C_{11}H_{16}$ Aromatic Compound	**1,000**	
21.23	$C_{11}H_{16}$ Aromatic Compound	**1,000**	
21.94	(1-ethyl Butyl)-Benzene	**1,000**	

T = Analyte is a tentatively identified compound, result is estimated.
RH = Sample received outside of holding time.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603308
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061205-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: NA
Analyst: Chaney Bolster Date(s) Analyzed: 12/5/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	1.0	ND	0.20	
74-87-3	Chloromethane	ND	1.0	ND	0.48	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.0	ND	0.14	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
106-99-0	1,3-Butadiene	ND	1.0	ND	0.45	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	1.0	ND	0.60	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	ND	0.41	
107-13-1	Acrylonitrile	ND	1.0	ND	0.46	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.0	ND	0.32	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603308
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061205-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: NA
Analyst: Chaney Bolster Date(s) Analyzed: 12/5/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
110-54-3	n-Hexane	ND	1.0	ND	0.28	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
123-91-1	1,4-Dioxane	ND	1.0	ND	0.28	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
123-86-4	n-Butyl Acetate	ND	1.0	ND	0.21	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603308
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061205-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: NA
Analyst: Chaney Bolster Date(s) Analyzed: 12/5/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
179601-23-1	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	o-Xylene	ND	1.0	ND	0.23	
111-84-2	n-Nonane	ND	1.0	ND	0.19	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
98-82-8	Cumene	ND	1.0	ND	0.20	
80-56-8	alpha-Pinene	ND	1.0	ND	0.18	
622-96-8	4-Ethyltoluene	ND	1.0	ND	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ND	0.20	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ND	0.20	
100-44-7	Benzyl Chloride	ND	1.0	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	
5989-27-5	d-Limonene	ND	1.0	ND	0.18	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ND	0.10	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	
91-20-3	Naphthalene	ND	1.0	ND	0.19	
87-68-3	Hexachlorobutadiene	ND	1.0	ND	0.094	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603308
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061205-MB

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: NA
Analyst: Chaney Bolster Date Analyzed: 12/5/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **E1-CA** CAS Project ID: P2603329
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603329-001

Test Code: GC/MS Date Collected: 12/1/2006
Instrument ID: HP5970/HP5890II+/MS4 Date Received: 12/6/2006
Analyst: Madeleine Dangazyan Date Analyzed: 12/11/2006
Sampling Media: Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC, DE** Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **F1-CA** CAS Project ID: P2603329
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603329-002

Test Code: GC/MS Date Collected: 12/1/2006
Instrument ID: HP5970/HP5890II+/MS4 Date Received: 12/6/2006
Analyst: Madeleine Dangazyan Date Analyzed: 12/11/2006
Sampling Media: Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC, DE** Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603329
CAS Sample ID: P061211-MB

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/11/06
Desorption Volume: 1.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	NA	NA	NA	NA	
107-92-6	Butanoic Acid (Butyric)	< 0.25	NA	NA	NA	NA	
116-53-0	2-Methylbutanoic Acid	< 0.25	NA	NA	NA	NA	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	NA	NA	NA	NA	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	NA	NA	NA	NA	
97-61-0	2-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
105-43-1	3-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	NA	NA	NA	NA	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	NA	NA	NA	NA	
149-57-5	2-Ethylhexanoic Acid	< 0.28	NA	NA	NA	NA	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	NA	NA	NA	NA	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	NA	NA	NA	NA	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	NA	NA	NA	NA	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	NA	NA	NA	NA	
65-85-0	Benzoic Acid	< 0.30	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **E2-AM**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603329
CAS Sample ID: P2603329-003

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: 12/1/2006
Date Received: 12/6/2006
Date Analyzed: 12/7/2006
Desorption Volume: 2.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	**2.1**	**29**	2.7	**16**	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	**21**	**310**	2.9	**130**	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	**0.23**	**3.3**	2.7	**1.1**	0.90	
107-10-8	Propylamine	**0.20**	**2.9**	2.7	**1.2**	1.1	
109-89-7	Diethylamine	**0.29**	**4.1**	2.7	**1.4**	0.89	
13952-84-6	s-Butylamine	**0.20**	**2.8**	2.7	**0.94**	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **F2-AM**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603329
CAS Sample ID: P2603329-004

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: 12/1/2006
Date Received: 12/6/2006
Date Analyzed: 12/7/2006
Desorption Volume: 2.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	**0.50**	**7.1**	2.7	**3.9**	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	**0.23**	**3.4**	2.9	**1.4**	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	< 0.19	ND	2.7	ND	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603329
CAS Sample ID: P061207-MB

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/07/06
Desorption Volume: 2.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	< 0.19	NA	NA	NA	NA	
75-04-7	Ethylamine	< 0.20	NA	NA	NA	NA	
75-50-3	Trimethylamine	< 0.20	NA	NA	NA	NA	
75-31-0	Isopropylamine	< 0.19	NA	NA	NA	NA	
75-64-9	t-Butylamine	< 0.19	NA	NA	NA	NA	
107-10-8	Propylamine	< 0.19	NA	NA	NA	NA	
109-89-7	Diethylamine	< 0.19	NA	NA	NA	NA	
13952-84-6	s-Butylamine	< 0.19	NA	NA	NA	NA	
78-81-9	Isobutylamine	< 0.19	NA	NA	NA	NA	
109-73-9	Butylamine	< 0.19	NA	NA	NA	NA	
108-18-9	Diisopropylamine	< 0.19	NA	NA	NA	NA	
121-44-8	Triethylamine	< 0.19	NA	NA	NA	NA	
142-84-7	Dipropylamine	< 0.38	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **E3-FA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603329
CAS Sample ID: P2603329-005

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: DNPH Silica Gel Tube
Test Notes: **BC**

Date Collected: 12/1/2006
Date Received: 12/6/2006
Date Analyzed: 12/12/2006
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	**8,100**	**120**	1.4	**64**	0.79	**BT**
123-38-6	Propionaldehyde	**410**	**5.8**	1.4	**2.5**	0.60	**BT**
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	**530**	**7.6**	1.4	**2.6**	0.48	**BT**
100-52-7	Benzaldehyde	**1,500**	**21**	1.4	**5.0**	0.33	**BT**
590-86-3	Isovaleraldehyde	**360**	**5.2**	1.4	**1.5**	0.41	**BT**
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	**370**	**5.2**	1.4	**1.3**	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	1.4	ND	0.26	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
BT = Indicates possible breakthrough - result for back section > 10% of result from front section of tube.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **F3-FA** CAS Project ID: P2603329
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603329-006

Test Code: EPA Method TO-11A Date Collected: NA
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1 Date Received: 12/6/2006
Analyst: Madeleine Dangazyan Date Analyzed: 12/12/2006
Sampling Media: DNPH Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC** Volume Sampled: 70.0 Liters

CAS #	Compound	**Result ng/Sample**	**Result µg/m³**	MRL µg/m³	**Result ppbV**	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	**3,000**	**43**	1.4	**24**	0.79	
123-38-6	Propionaldehyde	< 100	ND	1.4	ND	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	< 100	ND	1.4	ND	0.48	
100-52-7	Benzaldehyde	< 100	ND	1.4	ND	0.33	
590-86-3	Isovaleraldehyde	< 100	ND	1.4	ND	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	< 100	ND	1.4	ND	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	**340**	**4.9**	1.4	**0.89**	0.26	**BH**

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
BH = The back portion of the tube yielded higher results than the front.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Reagent Blank** CAS Project ID: P2603329
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061212-RB

Test Code: EPA Method TO-11A Date Collected: NA
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1 Date Received: NA
Analyst: Madeleine Dangazyan Date Analyzed: 12/12/06
Sampling Media: Acetonitrile Desorption Volume: 1.0 ml
Test Notes: **BC** Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603329
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061212-MB

Test Code: EPA Method TO-11A Date Collected: NA
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1 Date Received: NA
Analyst: Madeleine Dangazyan Date Analyzed: 12/12/06
Sampling Media: DNPH Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC** Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **E30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603304
CAS Sample ID: P2603304-001

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/1/2006
Time Collected: 11:00
Date Received: 12/2/2006
Date Analyzed: 12/2/06
Time Analyzed: 09:56
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	**190**	13	**74**	5.0	
75-15-0	Carbon Disulfide	**140**	7.8	**45**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	**140**	17	**40**	5.0	
513-44-0	Isobutyl Mercaptan	**20**	18	**5.4**	5.0	**W**
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	**380**	9.6	**100**	2.5	
616-44-4	3-Methylthiophene	**88**	20	**22**	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	**80**	23	**17**	5.0	
872-55-9	2-Ethylthiophene	**71**	23	**16**	5.0	
110-81-6	Diethyl Disulfide	**48**	12	**9.5**	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
W = Result quantified but corresponding peak was detected outside of generated retention time window.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **F30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603304
CAS Sample ID: P2603304-002

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/1/2006
Time Collected: 11:05
Date Received: 12/2/2006
Date Analyzed: 12/2/06
Time Analyzed: 10:21
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	**200**	12	**81**	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	**9.4**	13	**3.7**	5.0	**J**
75-15-0	Carbon Disulfide	**240**	7.8	**77**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	**80**	17	**23**	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The analyte was positively identified below the laboratory method reporting limit; the associated numerical value is considered estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603304
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061202-MB

Test Code: ASTM D 5504-01 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Time Collected: NA
Analyst: Zheng Wang Date Received: NA
Sampling Media: Tedlar Bag Date Analyzed: 12/02/06
Test Notes: Time Analyzed: 09:16
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **E30** CAS Project ID: P2603304
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603304-001

Test Code: EPA TO-15 Modified Date Collected: 12/1/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/2/06
Analyst: Rusty Bravo Date(s) Analyzed: 12/2/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.00070 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	1,400	ND	290	
74-87-3	Chloromethane	ND	1,400	ND	690	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1,400	ND	200	
75-01-4	Vinyl Chloride	ND	1,400	ND	560	
106-99-0	1,3-Butadiene	ND	1,400	ND	650	
74-83-9	Bromomethane	ND	1,400	ND	370	
75-00-3	Chloroethane	ND	1,400	ND	540	
64-17-5	Ethanol	ND	7,100	ND	3,800	
75-05-8	Acetonitrile	ND	1,400	ND	850	
107-02-8	Acrolein	ND	1,400	ND	620	
67-64-1	Acetone	ND	7,100	ND	3,000	
75-69-4	Trichlorofluoromethane	ND	1,400	ND	250	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1,400	ND	580	
107-13-1	Acrylonitrile	ND	1,400	ND	660	
75-35-4	1,1-Dichloroethene	ND	1,400	ND	360	
75-09-2	Methylene chloride	ND	1,400	ND	410	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1,400	ND	460	
76-13-1	Trichlorotrifluoroethane	ND	1,400	ND	190	
75-15-0	Carbon Disulfide	ND	1,400	ND	460	
156-60-5	trans-1,2-Dichloroethene	ND	1,400	ND	360	
75-34-3	1,1-Dichloroethane	ND	1,400	ND	350	
1634-04-4	Methyl tert-Butyl Ether	ND	1,400	ND	400	
108-05-4	Vinyl Acetate	ND	1,400	ND	410	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **E30** CAS Project ID: P2603304
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603304-001

Test Code: EPA TO-15 Modified Date Collected: 12/1/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/2/06
Analyst: Rusty Bravo Date(s) Analyzed: 12/2/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.00070 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	1,400	ND	480	
156-59-2	cis-1,2-Dichloroethene	ND	1,400	ND	360	
110-54-3	n-Hexane	**13,000**	1,400	**3,800**	410	
67-66-3	Chloroform	ND	1,400	ND	290	
107-06-2	1,2-Dichloroethane	ND	1,400	ND	350	
71-55-6	1,1,1-Trichloroethane	ND	1,400	ND	260	
71-43-2	Benzene	**65,000**	1,400	**20,000**	450	
56-23-5	Carbon Tetrachloride	ND	1,400	ND	230	
78-87-5	1,2-Dichloropropane	ND	1,400	ND	310	
75-27-4	Bromodichloromethane	ND	1,400	ND	210	
79-01-6	Trichloroethene	ND	1,400	ND	270	
123-91-1	1,4-Dioxane	ND	1,400	ND	400	
10061-01-5	cis-1,3-Dichloropropene	ND	1,400	ND	310	
108-10-1	4-Methyl-2-pentanone	ND	1,400	ND	350	
10061-02-6	trans-1,3-Dichloropropene	ND	1,400	ND	310	
79-00-5	1,1,2-Trichloroethane	ND	1,400	ND	260	
108-88-3	Toluene	**110,000**	1,400	**28,000**	380	
591-78-6	2-Hexanone	ND	1,400	ND	350	
124-48-1	Dibromochloromethane	ND	1,400	ND	170	
106-93-4	1,2-Dibromoethane	ND	1,400	ND	190	
123-86-4	n-Butyl Acetate	ND	1,400	ND	300	
127-18-4	Tetrachloroethene	ND	1,400	ND	210	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **E30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603304
CAS Sample ID: P2603304-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/1/06
Date Received: 12/2/06
Date(s) Analyzed: 12/2/06
Volume(s) Analyzed: 0.00070 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	**7,600**	1,400	**1,700**	310	
100-41-4	Ethylbenzene	**13,000**	1,400	**3,100**	330	
179601-23-1	*m,p* -Xylenes	**240,000**	1,400	**56,000**	330	
75-25-2	Bromoform	ND	1,400	ND	140	
100-42-5	Styrene	**5,900**	1,400	**1,400**	340	
95-47-6	o-Xylene	**69,000**	1,400	**16,000**	330	
111-84-2	n-Nonane	**2,600**	1,400	**490**	270	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1,400	ND	210	
98-82-8	Cumene	**14,000**	1,400	**2,900**	290	
80-56-8	alpha-Pinene	ND	1,400	ND	260	
622-96-8	4-Ethyltoluene	**5,700**	1,400	**1,200**	290	
108-67-8	1,3,5-Trimethylbenzene	**29,000**	1,400	**5,900**	290	
95-63-6	1,2,4-Trimethylbenzene	**35,000**	1,400	**7,100**	290	
100-44-7	Benzyl Chloride	ND	1,400	ND	280	
541-73-1	1,3-Dichlorobenzene	ND	1,400	ND	240	
106-46-7	1,4-Dichlorobenzene	**2,400**	1,400	**390**	240	
95-50-1	1,2-Dichlorobenzene	**2,000**	1,400	**330**	240	
5989-27-5	d-Limonene	ND	1,400	ND	260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1,400	ND	150	
120-82-1	1,2,4-Trichlorobenzene	ND	1,400	ND	190	
91-20-3	Naphthalene	**3,800**	1,400	**730**	270	
87-68-3	Hexachlorobutadiene	ND	1,400	ND	130	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **E30** CAS Project ID: P2603304
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603304-001

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 12/1/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/2/06
Analyst: Rusty Bravo Date Analyzed: 12/2/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.00070 Liter(s)
Test Notes: **T**

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
7.89	2-Methylpentane	**5,000**	
8.28	3-Methylpentane	**4,000**	
9.61	Methylcyclopentane	**6,000**	
18.18	3-Ethyltoluene	**10,000**	
18.75	C_9H_{10} Aromatic Compound	**4,000**	
19.14	sec-Butylbenzene	**20,000**	
19.33	p-Isopropyltoluene + 1,2,3-Trimethylbenzene	**7,000**	
19.57	Indane + $C_{10}H_{14}$ Aromatic Compound	**7,000**	
19.68	C_9H_8 Aromatic Compound	**20,000**	
19.92	$C_{10}H_{12}$ Aromatic Compound	**9,000**	
20.33	$C_{11}H_{16}$ Aromatic Compound	**4,000**	
20.36	$C_{11}H_{16}$ Aromatic Compound	**6,000**	
20.50	$C_{11}H_{16}$ Aromatic Compound	**9,000**	
20.61	Unidentified Aromatic Compound	**4,000**	
20.73	Unidentified Aromatic Compound	**4,000**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **F30** CAS Project ID: P2603304
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603304-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/1/06
Date Received: 12/2/06
Date(s) Analyzed: 12/2/06
Volume(s) Analyzed: 0.040 Liter(s)
0.010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	25	ND	5.1	
74-87-3	Chloromethane	ND	25	ND	12	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	25	ND	3.6	
75-01-4	Vinyl Chloride	ND	25	ND	9.8	
106-99-0	1,3-Butadiene	ND	25	ND	11	
74-83-9	Bromomethane	ND	25	ND	6.4	
75-00-3	Chloroethane	ND	25	ND	9.5	
64-17-5	Ethanol	ND	130	ND	66	
75-05-8	Acetonitrile	ND	25	ND	15	
107-02-8	Acrolein	ND	25	ND	11	
67-64-1	Acetone	**270**	130	**110**	53	
75-69-4	Trichlorofluoromethane	ND	25	ND	4.5	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	25	ND	10	
107-13-1	Acrylonitrile	ND	25	ND	12	
75-35-4	1,1-Dichloroethene	ND	25	ND	6.3	
75-09-2	Methylene chloride	ND	25	ND	7.2	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	25	ND	8.0	
76-13-1	Trichlorotrifluoroethane	ND	25	ND	3.3	
75-15-0	Carbon Disulfide	**140**	25	**44**	8.0	
156-60-5	trans-1,2-Dichloroethene	ND	25	ND	6.3	
75-34-3	1,1-Dichloroethane	ND	25	ND	6.2	
1634-04-4	Methyl tert-Butyl Ether	ND	25	ND	6.9	
108-05-4	Vinyl Acetate	ND	25	ND	7.1	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **F30** CAS Project ID: P2603304
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603304-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/1/06
Date Received: 12/2/06
Date(s) Analyzed: 12/2/06
Volume(s) Analyzed: 0.040 Liter(s)
0.010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**92**	25	**31**	8.5	
156-59-2	cis-1,2-Dichloroethene	ND	25	ND	6.3	
110-54-3	n-Hexane	**28**	25	**7.9**	7.1	
67-66-3	Chloroform	ND	25	ND	5.1	
107-06-2	1,2-Dichloroethane	ND	25	ND	6.2	
71-55-6	1,1,1-Trichloroethane	ND	25	ND	4.6	
71-43-2	Benzene	**1,400**	25	**440**	7.8	
56-23-5	Carbon Tetrachloride	ND	25	ND	4.0	
78-87-5	1,2-Dichloropropane	ND	25	ND	5.4	
75-27-4	Bromodichloromethane	ND	25	ND	3.7	
79-01-6	Trichloroethene	ND	25	ND	4.7	
123-91-1	1,4-Dioxane	ND	25	ND	6.9	
10061-01-5	cis-1,3-Dichloropropene	ND	25	ND	5.5	
108-10-1	4-Methyl-2-pentanone	ND	25	ND	6.1	
10061-02-6	trans-1,3-Dichloropropene	ND	25	ND	5.5	
79-00-5	1,1,2-Trichloroethane	ND	25	ND	4.6	
108-88-3	Toluene	**690**	25	**180**	6.6	
591-78-6	2-Hexanone	ND	25	ND	6.1	
124-48-1	Dibromochloromethane	ND	25	ND	2.9	
106-93-4	1,2-Dibromoethane	ND	25	ND	3.3	
123-86-4	n-Butyl Acetate	ND	25	ND	5.3	
127-18-4	Tetrachloroethene	ND	25	ND	3.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **F30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603304
CAS Sample ID: P2603304-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/1/06
Date Received: 12/2/06
Date(s) Analyzed: 12/2/06
Volume(s) Analyzed: 0.040 Liter(s)
0.010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	**3,900**	25	**850**	5.4	
100-41-4	Ethylbenzene	**1,600**	25	**370**	5.8	
179601-23-1	*m,p* -Xylenes	**5,700**	25	**1,300**	5.8	
75-25-2	Bromoform	ND	25	ND	2.4	
100-42-5	Styrene	ND	25	ND	5.9	
95-47-6	o-Xylene	**1,900**	25	**450**	5.8	
111-84-2	n-Nonane	**69**	25	**13**	4.8	**M**
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	ND	3.6	
98-82-8	Cumene	**670**	25	**140**	5.1	
80-56-8	alpha-Pinene	**40**	25	**7.3**	4.5	
622-96-8	4-Ethyltoluene	**480**	25	**99**	5.1	
108-67-8	1,3,5-Trimethylbenzene	**1,500**	25	**300**	5.1	
95-63-6	1,2,4-Trimethylbenzene	**1,900**	25	**400**	5.1	
100-44-7	Benzyl Chloride	ND	25	ND	4.8	
541-73-1	1,3-Dichlorobenzene	**91**	25	**15**	4.2	
106-46-7	1,4-Dichlorobenzene	**780**	25	**130**	4.2	
95-50-1	1,2-Dichlorobenzene	**270**	25	**45**	4.2	
5989-27-5	d-Limonene	ND	25	ND	4.5	
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	ND	2.6	
120-82-1	1,2,4-Trichlorobenzene	ND	25	ND	3.4	
91-20-3	Naphthalene	**660**	25	**130**	4.8	
87-68-3	Hexachlorobutadiene	ND	25	ND	2.3	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased .

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **F30** CAS Project ID: P2603304
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603304-002

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 12/1/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/2/06
Analyst: Rusty Bravo Date Analyzed: 12/2/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.040 Liter(s)
Test Notes: **T** 0.010 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
17.82	Unidentified Compound	**1,000**	
18.19	3-Ethyltoluene	**1,000**	
18.48	C_9H_{18} + $C_{10}H_{20}$ Compound	**900**	
19.15	sec-Butylbenzene	**2,000**	
19.33	p-Isopropyltoluene + 1,2,3,-Trimethylbenzene	**600**	
19.59	Indane	**5,000**	
19.63	$C_{10}H_{20}$ Compound	**1,000**	
19.70	C_9H_8 Aromatic Compound	**1,000**	
20.16	$C_{10}H_{18}$ Compound + $C_{10}H_{14}$ Aromatic Compound	**900**	
20.34	$C_{11}H_{16}$ Aromatic Compound	**1,000**	
20.36	$C_{11}H_{16}$ Aromatic Compound	**2,000**	
20.51	$C_{11}H_{16}$ Aromatic Compound	**2,000**	
20.61	Unidentified Aromatic Compound	**1,000**	
20.73	Unidentified Aromatic Compound	**800**	
21.44	$C_{12}H_{18}$ Aromatic Compound	**1,000**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603304
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061202-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 12/2/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	1.0	ND	0.20	
74-87-3	Chloromethane	ND	1.0	ND	0.48	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.0	ND	0.14	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
106-99-0	1,3-Butadiene	ND	1.0	ND	0.45	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	1.0	ND	0.60	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	ND	0.41	
107-13-1	Acrylonitrile	ND	1.0	ND	0.46	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.0	ND	0.32	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603304
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061202-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 12/2/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
110-54-3	n-Hexane	ND	1.0	ND	0.28	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
123-91-1	1,4-Dioxane	ND	1.0	ND	0.28	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
123-86-4	n-Butyl Acetate	ND	1.0	ND	0.21	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603304
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061202-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 12/2/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
179601-23-1	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	o-Xylene	ND	1.0	ND	0.23	
111-84-2	n-Nonane	ND	1.0	ND	0.19	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
98-82-8	Cumene	ND	1.0	ND	0.20	
80-56-8	alpha-Pinene	ND	1.0	ND	0.18	
622-96-8	4-Ethyltoluene	ND	1.0	ND	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ND	0.20	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ND	0.20	
100-44-7	Benzyl Chloride	ND	1.0	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	
5989-27-5	d-Limonene	ND	1.0	ND	0.18	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ND	0.10	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	
91-20-3	Naphthalene	ND	1.0	ND	0.19	
87-68-3	Hexachlorobutadiene	ND	1.0	ND	0.094	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603304
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061202-MB

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date Analyzed: 12/2/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **G1-CA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603330
CAS Sample ID: P2603330-001

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: 12/5/2006
Date Received: 12/6/2006
Date Analyzed: ########
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **H1-CA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603330
CAS Sample ID: P2603330-002

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: 12/5/2006
Date Received: 12/6/2006
Date Analyzed: ########
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603330
CAS Sample ID: P061211-MB

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/11/06
Desorption Volume: 1.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	NA	NA	NA	NA	
107-92-6	Butanoic Acid (Butyric)	< 0.25	NA	NA	NA	NA	
116-53-0	2-Methylbutanoic Acid	< 0.25	NA	NA	NA	NA	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	NA	NA	NA	NA	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	NA	NA	NA	NA	
97-61-0	2-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
105-43-1	3-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	NA	NA	NA	NA	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	NA	NA	NA	NA	
149-57-5	2-Ethylhexanoic Acid	< 0.28	NA	NA	NA	NA	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	NA	NA	NA	NA	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	NA	NA	NA	NA	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	NA	NA	NA	NA	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	NA	NA	NA	NA	
65-85-0	Benzoic Acid	< 0.30	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **G2-AM**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603330
CAS Sample ID: P2603330-003

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: 12/5/2006
Date Received: 12/6/2006
Date Analyzed: 12/7/2006
Desorption Volume: 2.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	**0.20**	**2.9**	2.7	**1.6**	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	< 0.20	ND	2.9	ND	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	< 0.19	ND	2.7	ND	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **H2-AM**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603330
CAS Sample ID: P2603330-004

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: 12/5/2006
Date Received: 12/6/2006
Date Analyzed: 12/7/2006
Desorption Volume: 2.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	**3.2**	**45**	2.7	**25**	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	**31**	**440**	2.9	**180**	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	**0.32**	**4.5**	2.7	**1.5**	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	**0.23**	**3.3**	2.7	**1.1**	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603330
CAS Sample ID: P061207-MB

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/07/06
Desorption Volume: 2.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	< 0.19	NA	NA	NA	NA	
75-04-7	Ethylamine	< 0.20	NA	NA	NA	NA	
75-50-3	Trimethylamine	< 0.20	NA	NA	NA	NA	
75-31-0	Isopropylamine	< 0.19	NA	NA	NA	NA	
75-64-9	t-Butylamine	< 0.19	NA	NA	NA	NA	
107-10-8	Propylamine	< 0.19	NA	NA	NA	NA	
109-89-7	Diethylamine	< 0.19	NA	NA	NA	NA	
13952-84-6	s-Butylamine	< 0.19	NA	NA	NA	NA	
78-81-9	Isobutylamine	< 0.19	NA	NA	NA	NA	
109-73-9	Butylamine	< 0.19	NA	NA	NA	NA	
108-18-9	Diisopropylamine	< 0.19	NA	NA	NA	NA	
121-44-8	Triethylamine	< 0.19	NA	NA	NA	NA	
142-84-7	Dipropylamine	< 0.38	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **G3-FA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603330
CAS Sample ID: P2603330-005

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: DNPH Silica Gel Tube
Test Notes: **BC**

Date Collected: 12/5/2006
Date Received: 12/6/2006
Date Analyzed: 12/12/2006
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	**120**	**1.8**	1.4	**0.98**	0.79	
123-38-6	Propionaldehyde	< 100	ND	1.4	ND	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	< 100	ND	1.4	ND	0.48	
100-52-7	Benzaldehyde	< 100	ND	1.4	ND	0.33	
590-86-3	Isovaleraldehyde	< 100	ND	1.4	ND	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	< 100	ND	1.4	ND	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	**570**	**8.1**	1.4	**1.5**	0.26	**BH**

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
BH = The back portion of the tube yielded higher results than the front.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **H3-FA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603330
CAS Sample ID: P2603330-006

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: DNPH Silica Gel Tube
Test Notes: **BC**

Date Collected: 12/5/2006
Date Received: 12/6/2006
Date Analyzed: 12/12/2006
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	**8,800**	**130**	1.4	**70**	0.79	**BT**
123-38-6	Propionaldehyde	**480**	**6.9**	1.4	**2.9**	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	**390**	**5.5**	1.4	**1.9**	0.48	
100-52-7	Benzaldehyde	**1,200**	**18**	1.4	**4.1**	0.33	**BT**
590-86-3	Isovaleraldehyde	**230**	**3.2**	1.4	**0.92**	0.41	
110-62-3	Valeraldehyde	**300**	**4.3**	1.4	**1.2**	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	**330**	**4.7**	1.4	**1.1**	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	1.4	ND	0.26	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
BT = Indicates possible breakthrough - result for back section > 10% of result from front section of tube.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Reagent Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603330
CAS Sample ID: P061212-RB

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: Acetonitrile
Test Notes: **BC**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/12/06
Desorption Volume: 1.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603330
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061212-MB

Test Code: EPA Method TO-11A Date Collected: NA
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1 Date Received: NA
Analyst: Madeleine Dangazyan Date Analyzed: 12/12/06
Sampling Media: DNPH Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC** Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **G30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603322
CAS Sample ID: P2603322-001

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang
Sampling Media: Tedlar Bag
Test Notes: **H**

Date Collected: 12/5/2006
Time Collected: 10:30
Date Received: 12/6/2006
Date Analyzed: 12/6/06
Time Analyzed: 11:41
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	**Result** **µg/m³**	MRL µg/m³	**Result** **ppbV**	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	**72**	12	**29**	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	**45**	7.8	**14**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
H = Sample analyzed outside of holding time.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **H30** CAS Project ID: P2603322
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603322-002

Test Code: ASTM D 5504-01 Date Collected: 12/5/2006
Instrument ID: Agilent 6890A/GC13/SCD Time Collected: 10:35
Analyst: Zheng Wang Date Received: 12/6/2006
Sampling Media: Tedlar Bag Date Analyzed: 12/6/06
Test Notes: **H** Time Analyzed: 12:06
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	**210**	13	**81**	5.0	
75-15-0	Carbon Disulfide	**71**	7.8	**23**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	**45**	17	**13**	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	**690**	9.6	**180**	2.5	
616-44-4	3-Methylthiophene	**18**	20	**4.4**	5.0	**J**
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	**23**	23	**5.1**	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
H = Sample analyzed outside of holding time.
J = The analyte was positively identified below the laboratory method reporting limit; the associated numerical value is considered estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603322
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061206-MB

Test Code: ASTM D 5504-01 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Time Collected: NA
Analyst: Zheng Wang Date Received: NA
Sampling Media: Tedlar Bag Date Analyzed: 12/06/06
Test Notes: Time Analyzed: 09:28
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **G30** CAS Project ID: P2603322
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603322-001

Test Code: EPA TO-15 Modified Date Collected: 12/5/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/6/06
Analyst: Rusty Bravo Date(s) Analyzed: 12/6/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	5.0	ND	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	ND	25	ND	13	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	5.0	ND	2.2	
67-64-1	Acetone	**110**	25	**46**	11	
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	**6.3**	5.0	**2.6**	2.0	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene chloride	ND	5.0	ND	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65	
75-15-0	Carbon Disulfide	**31**	5.0	**10**	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **G30** CAS Project ID: P2603322
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603322-001

Test Code: EPA TO-15 Modified Date Collected: 12/5/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/6/06
Analyst: Rusty Bravo Date(s) Analyzed: 12/6/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**12**	5.0	**3.9**	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
110-54-3	n-Hexane	ND	5.0	ND	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	**9.4**	5.0	**2.9**	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.93	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	**23**	5.0	**6.1**	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	
127-18-4	Tetrachloroethene	ND	5.0	ND	0.74	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **G30** CAS Project ID: P2603322
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603322-001

Test Code: EPA TO-15 Modified Date Collected: 12/5/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/6/06
Analyst: Rusty Bravo Date(s) Analyzed: 12/6/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	**12**	5.0	**2.6**	1.1	**M**
100-41-4	Ethylbenzene	**5.6**	5.0	**1.3**	1.2	
179601-23-1	*m,p* -Xylenes	**38**	5.0	**8.7**	1.2	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	ND	5.0	ND	1.2	
95-47-6	o-Xylene	**37**	5.0	**8.5**	1.2	
111-84-2	n-Nonane	**8.0**	5.0	**1.5**	0.95	**M**
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	**46**	5.0	**9.3**	1.0	
80-56-8	alpha-Pinene	**6.0**	5.0	**1.1**	0.90	**M**
622-96-8	4-Ethyltoluene	**96**	5.0	**19**	1.0	
108-67-8	1,3,5-Trimethylbenzene	**56**	5.0	**11**	1.0	
95-63-6	1,2,4-Trimethylbenzene	**130**	5.0	**27**	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83	
106-46-7	1,4-Dichlorobenzene	**7.2**	5.0	**1.2**	0.83	
95-50-1	1,2-Dichlorobenzene	**5.7**	5.0	**0.95**	0.83	
5989-27-5	d-Limonene	**12**	5.0	**2.2**	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.67	
91-20-3	Naphthalene	**16**	5.0	**3.0**	0.95	**M**
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **G30** CAS Project ID: P2603322
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603322-001

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 12/5/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/6/06
Analyst: Rusty Bravo Date Analyzed: 12/6/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.20 Liter(s)
Test Notes: **T**

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
19.33	$C_{11}H_{24}$ Branched Alkane + p-Isopropyltoluene + 1,2,3-Trimethylbenzene	**600**	
19.69	$C_{10}H_{14}$ Aromatic Compound	**200**	
19.81	$C_{10}H_{14}$ Aromatic Compound	**400**	
20.16	$C_{10}H_{14}$ Aromatic Compound	**300**	
20.25	$C_{10}H_{14}$ Aromatic Compound	**400**	
20.35	$C_{10}H_{12}$ Aromatic Compound	**300**	
20.59	$C_{11}H_{16}$ Aromatic Compound + Unidentified Compound	**300**	
20.94	$C_{11}H_{16}$ Aromatic Compound + Unidentified Compound	**300**	
21.06	$C_{10}H_{22}$ Aromatic Compound + Unidentified Compound	**200**	
21.18	Unidentified Compound	**300**	
21.23	$C_{11}H_{16}$ Aromatic Compound	**200**	
21.64	$C_{11}H_{14}$ Aromatic Compound	**300**	
21.83	$C_{13}H_{28}$ Branched Alkane	**400**	
22.28	Unidentified Compound	**200**	
22.51	$C_{14}H_{30}$ Branched Alkane	**200**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **H30** CAS Project ID: P2603322
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603322-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/5/06
Date Received: 12/6/06
Date(s) Analyzed: 12/6/06
Volume(s) Analyzed: 0.0080 Liter(s)
0.00020 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	130	ND	25	
74-87-3	Chloromethane	ND	130	ND	61	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	130	ND	18	
75-01-4	Vinyl Chloride	ND	130	ND	49	
106-99-0	1,3-Butadiene	ND	130	ND	57	
74-83-9	Bromomethane	ND	130	ND	32	
75-00-3	Chloroethane	ND	130	ND	47	
64-17-5	Ethanol	**1,100**	630	**570**	330	
75-05-8	Acetonitrile	ND	130	ND	74	
107-02-8	Acrolein	ND	130	ND	55	
67-64-1	Acetone	ND	630	ND	260	
75-69-4	Trichlorofluoromethane	ND	130	ND	22	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	130	ND	51	
107-13-1	Acrylonitrile	ND	130	ND	58	
75-35-4	1,1-Dichloroethene	ND	130	ND	32	
75-09-2	Methylene chloride	ND	130	ND	36	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	130	ND	40	
76-13-1	Trichlorotrifluoroethane	ND	130	ND	16	
75-15-0	Carbon Disulfide	ND	130	ND	40	
156-60-5	trans-1,2-Dichloroethene	ND	130	ND	32	
75-34-3	1,1-Dichloroethane	ND	130	ND	31	
1634-04-4	Methyl tert-Butyl Ether	ND	130	ND	35	
108-05-4	Vinyl Acetate	ND	130	ND	36	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **H30** CAS Project ID: P2603322
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603322-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/5/06
Date Received: 12/6/06
Date(s) Analyzed: 12/6/06
Volume(s) Analyzed: 0.0080 Liter(s)
0.00020 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**160**	130	**56**	42	
156-59-2	cis-1,2-Dichloroethene	ND	130	ND	32	
110-54-3	n-Hexane	**1,200**	130	**340**	35	
67-66-3	Chloroform	ND	130	ND	26	
107-06-2	1,2-Dichloroethane	ND	130	ND	31	
71-55-6	1,1,1-Trichloroethane	ND	130	ND	23	
71-43-2	Benzene	**17,000**	130	**5,300**	39	
56-23-5	Carbon Tetrachloride	ND	130	ND	20	
78-87-5	1,2-Dichloropropane	ND	130	ND	27	
75-27-4	Bromodichloromethane	ND	130	ND	19	
79-01-6	Trichloroethene	ND	130	ND	23	
123-91-1	1,4-Dioxane	ND	130	ND	35	
10061-01-5	cis-1,3-Dichloropropene	ND	130	ND	28	
108-10-1	4-Methyl-2-pentanone	ND	130	ND	31	
10061-02-6	trans-1,3-Dichloropropene	ND	130	ND	28	
79-00-5	1,1,2-Trichloroethane	ND	130	ND	23	
108-88-3	Toluene	**18,000**	130	**4,700**	33	
591-78-6	2-Hexanone	ND	130	ND	31	
124-48-1	Dibromochloromethane	ND	130	ND	15	
106-93-4	1,2-Dibromoethane	ND	130	ND	16	
123-86-4	n-Butyl Acetate	ND	130	ND	26	
127-18-4	Tetrachloroethene	ND	130	ND	18	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **H30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603322
CAS Sample ID: P2603322-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/5/06
Date Received: 12/6/06
Date(s) Analyzed: 12/6/06
Volume(s) Analyzed: 0.0080 Liter(s)
0.00020 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	**97,000**	130	**21,000**	27	
100-41-4	Ethylbenzene	**2,700**	130	**620**	29	
179601-23-1	*m,p* -Xylenes	**45,000**	130	**10,000**	29	
75-25-2	Bromoform	ND	130	ND	12	
100-42-5	Styrene	**3,600**	130	**840**	29	
95-47-6	o-Xylene	**14,000**	130	**3,100**	29	
111-84-2	n-Nonane	**420**	130	**79**	24	
79-34-5	1,1,2,2-Tetrachloroethane	ND	130	ND	18	
98-82-8	Cumene	**2,700**	130	**560**	25	
80-56-8	alpha-Pinene	ND	130	ND	22	
622-96-8	4-Ethyltoluene	**880**	130	**180**	25	
108-67-8	1,3,5-Trimethylbenzene	**6,200**	130	**1,300**	25	
95-63-6	1,2,4-Trimethylbenzene	**7,300**	130	**1,500**	25	
100-44-7	Benzyl Chloride	ND	130	ND	24	
541-73-1	1,3-Dichlorobenzene	**230**	130	**38**	21	
106-46-7	1,4-Dichlorobenzene	**28,000**	130	**4,700**	21	
95-50-1	1,2-Dichlorobenzene	**34,000**	130	**5,700**	21	
5989-27-5	d-Limonene	ND	130	ND	22	
96-12-8	1,2-Dibromo-3-chloropropane	ND	130	ND	13	
120-82-1	1,2,4-Trichlorobenzene	**140**	130	**18**	17	
91-20-3	Naphthalene	**2,900**	130	**540**	24	
87-68-3	Hexachlorobutadiene	ND	130	ND	12	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **H30** CAS Project ID: P2603322
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603322-002

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 12/5/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/6/06
Analyst: Rusty Bravo Date Analyzed: 12/6/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.0080 Liter(s)
Test Notes: **T** 0.00020 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
11.71	n-Heptane	**2,000**	
12.52	Methylcyclohexane	**3,000**	
17.46	C_9H_{12} Aromatic Compound	**5,000**	
18.18	3-Ethyltoluene	**2,000**	
18.76	C_9H_{10} Aromatic Compound	**1,000**	
19.15	sec-Butylbenzene	**5,000**	
19.34	p-Isopropyltoluene + 1,2,3-Trimethylbenzene	**2,000**	
19.58	C_9H_{10} Aromatic Compound	**2,000**	
19.69	C_9H_8 Aromatic Compound	**7,000**	
19.92	$C_{10}H_{12}$ Aromatic Compound	**2,000**	
20.36	$C_{11}H_{16}$ Aromatic Compound	**2,000**	
20.50	$C_{11}H_{16}$ Aromatic Compound	**3,000**	
20.61	$C_{11}H_{16}$ Aromatic Compound	**1,000**	
20.73	$C_{11}H_{16}$ Aromatic Compound	**2,000**	
22.13	Cyclopentylbenzene	**2,000**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603322
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061206-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 12/6/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	1.0	ND	0.20	
74-87-3	Chloromethane	ND	1.0	ND	0.48	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.0	ND	0.14	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
106-99-0	1,3-Butadiene	ND	1.0	ND	0.45	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	1.0	ND	0.60	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	ND	0.41	
107-13-1	Acrylonitrile	ND	1.0	ND	0.46	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.0	ND	0.32	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603322
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061206-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 12/6/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
110-54-3	n-Hexane	ND	1.0	ND	0.28	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
123-91-1	1,4-Dioxane	ND	1.0	ND	0.28	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
123-86-4	n-Butyl Acetate	ND	1.0	ND	0.21	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603322
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061206-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 12/6/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
179601-23-1	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	o-Xylene	ND	1.0	ND	0.23	
111-84-2	n-Nonane	ND	1.0	ND	0.19	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
98-82-8	Cumene	ND	1.0	ND	0.20	
80-56-8	alpha-Pinene	ND	1.0	ND	0.18	
622-96-8	4-Ethyltoluene	ND	1.0	ND	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ND	0.20	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ND	0.20	
100-44-7	Benzyl Chloride	ND	1.0	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	
5989-27-5	d-Limonene	ND	1.0	ND	0.18	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ND	0.10	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	
91-20-3	Naphthalene	ND	1.0	ND	0.19	
87-68-3	Hexachlorobutadiene	ND	1.0	ND	0.094	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603322
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061206-MB

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date Analyzed: 12/6/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **I1-CA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603356
CAS Sample ID: P2603356-001

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: 12/6/2006
Date Received: 12/7/2006
Date Analyzed: ########
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **J1-CA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603356
CAS Sample ID: P2603356-002

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: 12/6/2006
Date Received: 12/7/2006
Date Analyzed: ########
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603356
CAS Sample ID: P061211-MB

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/11/06
Desorption Volume: 1.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	NA	NA	NA	NA	
107-92-6	Butanoic Acid (Butyric)	< 0.25	NA	NA	NA	NA	
116-53-0	2-Methylbutanoic Acid	< 0.25	NA	NA	NA	NA	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	NA	NA	NA	NA	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	NA	NA	NA	NA	
97-61-0	2-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
105-43-1	3-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	NA	NA	NA	NA	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	NA	NA	NA	NA	
149-57-5	2-Ethylhexanoic Acid	< 0.28	NA	NA	NA	NA	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	NA	NA	NA	NA	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	NA	NA	NA	NA	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	NA	NA	NA	NA	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	NA	NA	NA	NA	
65-85-0	Benzoic Acid	< 0.30	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **I2-AM**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603356
CAS Sample ID: P2603356-003

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: 12/6/2006
Date Received: 12/7/2006
Date Analyzed: 12/18/2006
Desorption Volume: 2.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	**2.5**	**36**	2.7	**19**	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	**7.4**	**110**	2.9	**44**	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	< 0.19	ND	2.7	ND	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **J2-AM**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603356
CAS Sample ID: P2603356-004

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: 12/6/2006
Date Received: 12/7/2006
Date Analyzed: 12/18/2006
Desorption Volume: 2.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	**2.1**	**29**	2.7	**16**	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	**22**	**310**	2.9	**130**	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	**0.26**	**3.7**	2.7	**1.2**	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603356
CAS Sample ID: P061218-MB

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/18/06
Desorption Volume: 2.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	< 0.19	NA	NA	NA	NA	
75-04-7	Ethylamine	< 0.20	NA	NA	NA	NA	
75-50-3	Trimethylamine	< 0.20	NA	NA	NA	NA	
75-31-0	Isopropylamine	< 0.19	NA	NA	NA	NA	
75-64-9	t-Butylamine	< 0.19	NA	NA	NA	NA	
107-10-8	Propylamine	< 0.19	NA	NA	NA	NA	
109-89-7	Diethylamine	< 0.19	NA	NA	NA	NA	
13952-84-6	s-Butylamine	< 0.19	NA	NA	NA	NA	
78-81-9	Isobutylamine	< 0.19	NA	NA	NA	NA	
109-73-9	Butylamine	< 0.19	NA	NA	NA	NA	
108-18-9	Diisopropylamine	< 0.19	NA	NA	NA	NA	
121-44-8	Triethylamine	< 0.19	NA	NA	NA	NA	
142-84-7	Dipropylamine	< 0.38	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **I3-FA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603356
CAS Sample ID: P2603356-005

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: DNPH Silica Gel Tube
Test Notes: **BC**

Date Collected: 12/6/2006
Date Received: 12/7/2006
Date Analyzed: 12/12-13/06
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	**5,200**	**75**	1.4	**42**	0.79	**BH**
123-38-6	Propionaldehyde	**340**	**4.8**	1.4	**2.0**	0.60	**BT**
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	**540**	**7.7**	1.4	**2.6**	0.48	**BT**
100-52-7	Benzaldehyde	**510**	**7.3**	1.4	**1.7**	0.33	**BT**
590-86-3	Isovaleraldehyde	< 100	ND	1.4	ND	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	**160**	**2.3**	1.4	**0.57**	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	1.4	ND	0.26	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
BH = The back portion of the tube yielded higher results than the front.
BT = Indicates possible breakthrough - result for back section > 10% of result from front section of tube.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **J3-FA** CAS Project ID: P2603356
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603356-006

Test Code: EPA Method TO-11A Date Collected: 12/6/2006
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1 Date Received: 12/7/2006
Analyst: Madeleine Dangazyan Date Analyzed: 12/12-13/06
Sampling Media: DNPH Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC** Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	**8,800**	**130**	1.4	**70**	0.79	**BT**
123-38-6	Propionaldehyde	**640**	**9.2**	1.4	**3.9**	0.60	**BT**
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	**580**	**8.2**	1.4	**2.8**	0.48	**BT**
100-52-7	Benzaldehyde	**780**	**11**	1.4	**2.6**	0.33	**BT**
590-86-3	Isovaleraldehyde	**130**	**1.8**	1.4	**0.52**	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	**550**	**7.8**	1.4	**1.9**	0.35	**BT**
5779-94-2	2,5-Dimethylbenzaldehyde	**370**	**5.3**	1.4	**0.97**	0.26	**BH**

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
BH = The back portion of the tube yielded higher results than the front.
BT = Indicates possible breakthrough - result for back section > 10% of result from front section of tube.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Reagent Blank** CAS Project ID: P2603356
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061212-RB

Test Code: EPA Method TO-11A Date Collected: NA
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1 Date Received: NA
Analyst: Madeleine Dangazyan Date Analyzed: 12/12/06
Sampling Media: Acetonitrile Desorption Volume: 1.0 ml
Test Notes: **BC** Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603356
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061212-MB

Test Code: EPA Method TO-11A Date Collected: NA
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1 Date Received: NA
Analyst: Madeleine Dangazyan Date Analyzed: 12/12/06
Sampling Media: DNPH Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC** Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **I30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603338
CAS Sample ID: P2603338-001

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/6/2006
Time Collected: 10:25
Date Received: 12/7/2006
Date Analyzed: 12/7/06
Time Analyzed: 10:12
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	**Result** **µg/m³**	MRL µg/m³	**Result** **ppbV**	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	**26**	12	**11**	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	**1,600**	13	**650**	5.0	
75-15-0	Carbon Disulfide	**190**	7.8	**60**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	**31**	16	**10.0**	5.0	
110-02-1	Thiophene	**25**	17	**7.3**	5.0	
513-44-0	Isobutyl Mercaptan	**20**	18	**5.5**	5.0	**W**
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	**570**	9.6	**150**	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	**18**	18	**5.0**	5.0	**J**
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	**37**	12	**7.5**	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The analyte was positively identified below the laboratory method reporting limit; the associated numerical value is considered estimated.
W = Result quantified but corresponding peak was detected outside of generated retention time window.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **J30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603338
CAS Sample ID: P2603338-002

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/6/2006
Time Collected: 10:55
Date Received: 12/7/2006
Date Analyzed: 12/7/06
Time Analyzed: 10:37
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	**Result** **µg/m³**	MRL µg/m³	**Result** **ppbV**	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	**1,000**	13	**410**	5.0	
75-15-0	Carbon Disulfide	**290**	7.8	**94**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	**6.6**	16	**2.1**	5.0	**J**
624-89-5	Ethyl Methyl Sulfide	**9.1**	16	**2.9**	5.0	**J**
110-02-1	Thiophene	**150**	17	**43**	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	**540**	9.6	**140**	2.5	
616-44-4	3-Methylthiophene	**32**	20	**8.1**	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	**49**	23	**11**	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The analyte was positively identified below the laboratory method reporting limit; the associated numerical value is considered estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603338
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061207-MB

Test Code: ASTM D 5504-01 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Time Collected: NA
Analyst: Zheng Wang Date Received: NA
Sampling Media: Tedlar Bag Date Analyzed: 12/07/06
Test Notes: Time Analyzed: 09:50
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **I30** CAS Project ID: P2603338
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603338-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/6/06
Date Received: 12/7/06
Date(s) Analyzed: 12/7/06
Volume(s) Analyzed: 0.0025 Liter(s)
0.00010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	400	ND	81	
74-87-3	Chloromethane	ND	400	ND	190	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	400	ND	57	
75-01-4	Vinyl Chloride	ND	400	ND	160	
106-99-0	1,3-Butadiene	ND	400	ND	180	
74-83-9	Bromomethane	ND	400	ND	100	
75-00-3	Chloroethane	ND	400	ND	150	
64-17-5	Ethanol	ND	2,000	ND	1,100	
75-05-8	Acetonitrile	ND	400	ND	240	
107-02-8	Acrolein	ND	400	ND	170	
67-64-1	Acetone	ND	2,000	ND	840	
75-69-4	Trichlorofluoromethane	ND	400	ND	71	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	400	ND	160	
107-13-1	Acrylonitrile	ND	400	ND	180	
75-35-4	1,1-Dichloroethene	ND	400	ND	100	
75-09-2	Methylene chloride	ND	400	ND	120	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	400	ND	130	
76-13-1	Trichlorotrifluoroethane	ND	400	ND	52	
75-15-0	Carbon Disulfide	ND	400	ND	130	
156-60-5	trans-1,2-Dichloroethene	ND	400	ND	100	
75-34-3	1,1-Dichloroethane	ND	400	ND	99	
1634-04-4	Methyl tert-Butyl Ether	ND	400	ND	110	
108-05-4	Vinyl Acetate	ND	400	ND	110	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **I30** CAS Project ID: P2603338
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603338-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/6/06
Date Received: 12/7/06
Date(s) Analyzed: 12/7/06
Volume(s) Analyzed: 0.0025 Liter(s)
0.00010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	400	ND	140	
156-59-2	cis-1,2-Dichloroethene	ND	400	ND	100	
110-54-3	n-Hexane	**480**	400	**140**	110	
67-66-3	Chloroform	ND	400	ND	82	
107-06-2	1,2-Dichloroethane	ND	400	ND	99	
71-55-6	1,1,1-Trichloroethane	ND	400	ND	73	
71-43-2	Benzene	**10,000**	400	**3,200**	130	
56-23-5	Carbon Tetrachloride	ND	400	ND	64	
78-87-5	1,2-Dichloropropane	ND	400	ND	87	
75-27-4	Bromodichloromethane	ND	400	ND	60	
79-01-6	Trichloroethene	ND	400	ND	74	
123-91-1	1,4-Dioxane	ND	400	ND	110	
10061-01-5	cis-1,3-Dichloropropene	ND	400	ND	88	
108-10-1	4-Methyl-2-pentanone	ND	400	ND	98	
10061-02-6	trans-1,3-Dichloropropene	ND	400	ND	88	
79-00-5	1,1,2-Trichloroethane	ND	400	ND	73	
108-88-3	Toluene	**19,000**	400	**5,100**	110	
591-78-6	2-Hexanone	ND	400	ND	98	
124-48-1	Dibromochloromethane	ND	400	ND	47	
106-93-4	1,2-Dibromoethane	ND	400	ND	52	
123-86-4	n-Butyl Acetate	ND	400	ND	84	
127-18-4	Tetrachloroethene	ND	400	ND	59	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **I30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603338
CAS Sample ID: P2603338-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/6/06
Date Received: 12/7/06
Date(s) Analyzed: 12/7/06
Volume(s) Analyzed: 0.0025 Liter(s)
0.00010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	**160,000**	400	**36,000**	87	
100-41-4	Ethylbenzene	**5,200**	400	**1,200**	92	
179601-23-1	*m,p* -Xylenes	**95,000**	400	**22,000**	92	
75-25-2	Bromoform	ND	400	ND	39	
100-42-5	Styrene	**2,700**	400	**630**	94	
95-47-6	o-Xylene	**29,000**	400	**6,800**	92	
111-84-2	n-Nonane	**1,500**	400	**280**	76	
79-34-5	1,1,2,2-Tetrachloroethane	ND	400	ND	58	
98-82-8	Cumene	**4,700**	400	**960**	81	
80-56-8	alpha-Pinene	ND	400	ND	72	
622-96-8	4-Ethyltoluene	**3,400**	400	**690**	81	
108-67-8	1,3,5-Trimethylbenzene	**18,000**	400	**3,600**	81	
95-63-6	1,2,4-Trimethylbenzene	**21,000**	400	**4,300**	81	
100-44-7	Benzyl Chloride	ND	400	ND	77	
541-73-1	1,3-Dichlorobenzene	**1,400**	400	**230**	67	
106-46-7	1,4-Dichlorobenzene	**96,000**	400	**16,000**	67	
95-50-1	1,2-Dichlorobenzene	**180,000**	400	**29,000**	67	
5989-27-5	d-Limonene	ND	400	ND	72	
96-12-8	1,2-Dibromo-3-chloropropane	ND	400	ND	41	
120-82-1	1,2,4-Trichlorobenzene	**510**	400	**69**	54	
91-20-3	Naphthalene	**3,700**	400	**720**	76	
87-68-3	Hexachlorobutadiene	ND	400	ND	38	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **I30** CAS Project ID: P2603338
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603338-001

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 12/6/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/7/06
Analyst: Rusty Bravo Date Analyzed: 12/7/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.0025 Liter(s)
Test Notes: **T** 0.00010 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
11.72	n-Heptane	**3,000**	
12.52	Methylcyclohexane	**8,000**	
18.18	3-Ethyltoluene	**7,000**	
18.76	C_9H_{10} Aromatic Compound	**4,000**	
19.14	sec-Butylbenzene	**8,000**	
19.34	p-Isopropyltoluene + 1,2,3-Trimethylbenzene	**4,000**	
19.58	C_9H_{10} + $C_{10}H_{12}$ Aromatic Compound	**4,000**	
19.69	C_9H_8 Aromatic Compound	**20,000**	
19.92	$C_{10}H_{12}$ Aromatic Compound	**3,000**	
20.33	$C_{11}H_{16}$ Aromatic Compound	**2,000**	
20.36	$C_{11}H_{16}$ Aromatic Compound	**3,000**	
20.50	$C_{11}H_{16}$ Aromatic Compound	**5,000**	
20.61	$C_{11}H_{16}$ Aromatic Compound	**2,000**	
20.73	$C_{11}H_{16}$ Aromatic Compound	**2,000**	
22.12	Cyclopentylbenzene	**2,000**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **J30** CAS Project ID: P2603338
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603338-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/6/06
Date Received: 12/7/06
Date(s) Analyzed: 12/7/06
Volume(s) Analyzed: 0.0025 Liter(s)
0.000050 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	400	ND	81	
74-87-3	Chloromethane	ND	400	ND	190	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	400	ND	57	
75-01-4	Vinyl Chloride	ND	400	ND	160	
106-99-0	1,3-Butadiene	ND	400	ND	180	
74-83-9	Bromomethane	ND	400	ND	100	
75-00-3	Chloroethane	ND	400	ND	150	
64-17-5	Ethanol	ND	2,000	ND	1,100	
75-05-8	Acetonitrile	ND	400	ND	240	
107-02-8	Acrolein	ND	400	ND	170	
67-64-1	Acetone	ND	2,000	ND	840	
75-69-4	Trichlorofluoromethane	ND	400	ND	71	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	400	ND	160	
107-13-1	Acrylonitrile	ND	400	ND	180	
75-35-4	1,1-Dichloroethene	ND	400	ND	100	
75-09-2	Methylene chloride	ND	400	ND	120	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	400	ND	130	
76-13-1	Trichlorotrifluoroethane	ND	400	ND	52	
75-15-0	Carbon Disulfide	ND	400	ND	130	
156-60-5	trans-1,2-Dichloroethene	ND	400	ND	100	
75-34-3	1,1-Dichloroethane	ND	400	ND	99	
1634-04-4	Methyl tert-Butyl Ether	ND	400	ND	110	
108-05-4	Vinyl Acetate	ND	400	ND	110	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **J30** CAS Project ID: P2603338
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603338-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/6/06
Date Received: 12/7/06
Date(s) Analyzed: 12/7/06
Volume(s) Analyzed: 0.0025 Liter(s)
0.000050 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	400	ND	140	
156-59-2	cis-1,2-Dichloroethene	ND	400	ND	100	
110-54-3	n-Hexane	**2,300**	400	**660**	110	
67-66-3	Chloroform	ND	400	ND	82	
107-06-2	1,2-Dichloroethane	ND	400	ND	99	
71-55-6	1,1,1-Trichloroethane	ND	400	ND	73	
71-43-2	Benzene	**94,000**	400	**30,000**	130	
56-23-5	Carbon Tetrachloride	ND	400	ND	64	
78-87-5	1,2-Dichloropropane	ND	400	ND	87	
75-27-4	Bromodichloromethane	ND	400	ND	60	
79-01-6	Trichloroethene	ND	400	ND	74	
123-91-1	1,4-Dioxane	ND	400	ND	110	
10061-01-5	cis-1,3-Dichloropropene	ND	400	ND	88	
108-10-1	4-Methyl-2-pentanone	ND	400	ND	98	
10061-02-6	trans-1,3-Dichloropropene	ND	400	ND	88	
79-00-5	1,1,2-Trichloroethane	ND	400	ND	73	
108-88-3	Toluene	**23,000**	400	**6,100**	110	
591-78-6	2-Hexanone	ND	400	ND	98	
124-48-1	Dibromochloromethane	ND	400	ND	47	
106-93-4	1,2-Dibromoethane	ND	400	ND	52	
123-86-4	n-Butyl Acetate	ND	400	ND	84	
127-18-4	Tetrachloroethene	ND	400	ND	59	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **J30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603338
CAS Sample ID: P2603338-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/6/06
Date Received: 12/7/06
Date(s) Analyzed: 12/7/06
Volume(s) Analyzed: 0.0025 Liter(s)
0.000050 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	**290,000**	400	**63,000**	87	
100-41-4	Ethylbenzene	**11,000**	400	**2,500**	92	
179601-23-1	*m,p* -Xylenes	**98,000**	400	**23,000**	92	
75-25-2	Bromoform	ND	400	ND	39	
100-42-5	Styrene	**4,900**	400	**1,100**	94	
95-47-6	o-Xylene	**37,000**	400	**8,500**	92	
111-84-2	n-Nonane	**1,600**	400	**300**	76	
79-34-5	1,1,2,2-Tetrachloroethane	ND	400	ND	58	
98-82-8	Cumene	**4,900**	400	**990**	81	
80-56-8	alpha-Pinene	ND	400	ND	72	
622-96-8	4-Ethyltoluene	**2,200**	400	**440**	81	
108-67-8	1,3,5-Trimethylbenzene	**13,000**	400	**2,700**	81	
95-63-6	1,2,4-Trimethylbenzene	**16,000**	400	**3,200**	81	
100-44-7	Benzyl Chloride	ND	400	ND	77	
541-73-1	1,3-Dichlorobenzene	**600**	400	**100**	67	
106-46-7	1,4-Dichlorobenzene	**63,000**	400	**10,000**	67	
95-50-1	1,2-Dichlorobenzene	**33,000**	400	**5,400**	67	
5989-27-5	d-Limonene	ND	400	ND	72	
96-12-8	1,2-Dibromo-3-chloropropane	ND	400	ND	41	
120-82-1	1,2,4-Trichlorobenzene	ND	400	ND	54	
91-20-3	Naphthalene	**4,200**	400	**800**	76	
87-68-3	Hexachlorobutadiene	ND	400	ND	38	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **J30** CAS Project ID: P2603338
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603338-002

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 12/6/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/7/06
Analyst: Rusty Bravo Date Analyzed: 12/7/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.0025 Liter(s)
Test Notes: **T** 0.000050 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
9.62	Methylcyclopentane	**3,000**	
10.66	Cyclohexane	**4,000**	
11.72	n-Heptane	**5,000**	
12.53	Methylcyclohexane	**8,000**	
18.18	3-Ethyltoluene	**5,000**	
18.76	C_9H_{10} Aromatic Compound	**4,000**	
19.14	sec-Butylbenzene	**7,000**	
19.33	p-Isopropyltoluene + 1,2,3-Trimethylbenzene	**3,000**	
19.58	C_9H_{10} + $C_{10}H_{12}$ Aromatic Compound	**5,000**	
19.69	C_9H_8 Aromatic Compound	**10,000**	
19.92	$C_{10}H_{12}$ Aromatic Compound	**3,000**	
20.33	$C_{11}H_{16}$ Aromatic Compound	**2,000**	
20.36	$C_{11}H_{16}$ Aromatic Compound	**3,000**	
20.50	$C_{11}H_{16}$ Aromatic Compound	**4,000**	
20.61	$C_{11}H_{16}$ Aromatic Compound	**2,000**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603338
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061207-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 12/7/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	1.0	ND	0.20	
74-87-3	Chloromethane	ND	1.0	ND	0.48	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.0	ND	0.14	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
106-99-0	1,3-Butadiene	ND	1.0	ND	0.45	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	1.0	ND	0.60	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	ND	0.41	
107-13-1	Acrylonitrile	ND	1.0	ND	0.46	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.0	ND	0.32	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603338
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061207-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 12/7/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
110-54-3	n-Hexane	ND	1.0	ND	0.28	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
123-91-1	1,4-Dioxane	ND	1.0	ND	0.28	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
123-86-4	n-Butyl Acetate	ND	1.0	ND	0.21	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603338
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061207-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 12/7/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
179601-23-1	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	o-Xylene	ND	1.0	ND	0.23	
111-84-2	n-Nonane	ND	1.0	ND	0.19	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
98-82-8	Cumene	ND	1.0	ND	0.20	
80-56-8	alpha-Pinene	ND	1.0	ND	0.18	
622-96-8	4-Ethyltoluene	ND	1.0	ND	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ND	0.20	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ND	0.20	
100-44-7	Benzyl Chloride	ND	1.0	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	
5989-27-5	d-Limonene	ND	1.0	ND	0.18	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ND	0.10	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	
91-20-3	Naphthalene	ND	1.0	ND	0.19	
87-68-3	Hexachlorobutadiene	ND	1.0	ND	0.094	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603338
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061207-MB

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date Analyzed: 12/7/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **K1-CA** CAS Project ID: P2603372
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603372-001

Test Code: GC/MS Date Collected: 12/7/2006
Instrument ID: HP5970/HP5890II+/MS4 Date Received: 12/8/2006
Analyst: Madeleine Dangazyan Date Analyzed: 12/11-12/06
Sampling Media: Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC, DE** Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **L1-CA** CAS Project ID: P2603372
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603372-002

Test Code: GC/MS Date Collected: 12/7/2006
Instrument ID: HP5970/HP5890II+/MS4 Date Received: 12/8/2006
Analyst: Madeleine Dangazyan Date Analyzed: 12/11-12/06
Sampling Media: Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC, DE** Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603372
CAS Sample ID: P061211-MB

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/11/06
Desorption Volume: 1.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	NA	NA	NA	NA	
107-92-6	Butanoic Acid (Butyric)	< 0.25	NA	NA	NA	NA	
116-53-0	2-Methylbutanoic Acid	< 0.25	NA	NA	NA	NA	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	NA	NA	NA	NA	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	NA	NA	NA	NA	
97-61-0	2-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
105-43-1	3-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	NA	NA	NA	NA	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	NA	NA	NA	NA	
149-57-5	2-Ethylhexanoic Acid	< 0.28	NA	NA	NA	NA	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	NA	NA	NA	NA	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	NA	NA	NA	NA	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	NA	NA	NA	NA	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	NA	NA	NA	NA	
65-85-0	Benzoic Acid	< 0.30	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **K2-AM**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603372
CAS Sample ID: P2603372-003

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: 12/7/2006
Date Received: 12/8/2006
Date Analyzed: 12/18/2006
Desorption Volume: 2.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	**0.24**	**3.4**	2.7	**1.9**	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	< 0.20	ND	2.9	ND	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	< 0.19	ND	2.7	ND	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **L2-AM**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603372
CAS Sample ID: P2603372-004

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: 12/7/2006
Date Received: 12/8/2006
Date Analyzed: 12/18/2006
Desorption Volume: 2.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	**0.39**	**5.6**	2.7	**3.1**	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	< 0.20	ND	2.9	ND	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	< 0.19	ND	2.7	ND	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603372
CAS Sample ID: P061218-MB

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/18/06
Desorption Volume: 2.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	< 0.19	NA	NA	NA	NA	
75-04-7	Ethylamine	< 0.20	NA	NA	NA	NA	
75-50-3	Trimethylamine	< 0.20	NA	NA	NA	NA	
75-31-0	Isopropylamine	< 0.19	NA	NA	NA	NA	
75-64-9	t-Butylamine	< 0.19	NA	NA	NA	NA	
107-10-8	Propylamine	< 0.19	NA	NA	NA	NA	
109-89-7	Diethylamine	< 0.19	NA	NA	NA	NA	
13952-84-6	s-Butylamine	< 0.19	NA	NA	NA	NA	
78-81-9	Isobutylamine	< 0.19	NA	NA	NA	NA	
109-73-9	Butylamine	< 0.19	NA	NA	NA	NA	
108-18-9	Diisopropylamine	< 0.19	NA	NA	NA	NA	
121-44-8	Triethylamine	< 0.19	NA	NA	NA	NA	
142-84-7	Dipropylamine	< 0.38	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **K3-FA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603372
CAS Sample ID: P2603372-005

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: DNPH Silica Gel Tube
Test Notes: **BC**

Date Collected: 12/7/2006
Date Received: 12/8/2006
Date Analyzed: 12/12-13/06
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	**120**	**1.7**	1.4	**1.4**	1.2	
75-07-0	Acetaldehyde	**400**	**5.7**	1.4	**3.2**	0.79	
123-38-6	Propionaldehyde	**110**	**1.5**	1.4	**0.64**	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	**290**	**4.1**	1.4	**1.4**	0.48	
100-52-7	Benzaldehyde	< 100	ND	1.4	ND	0.33	
590-86-3	Isovaleraldehyde	< 100	ND	1.4	ND	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	< 100	ND	1.4	ND	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	**520**	**7.4**	1.4	**1.4**	0.26	**BH**

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
BH = The back portion of the tube yielded higher results than the front.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **L3-FA**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603372
CAS Sample ID: P2603372-006

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: DNPH Silica Gel Tube
Test Notes: **BC**

Date Collected: 12/7/2006
Date Received: 12/8/2006
Date Analyzed: 12/12-13/06
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	< 100	ND	1.4	ND	0.79	
123-38-6	Propionaldehyde	< 100	ND	1.4	ND	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	< 100	ND	1.4	ND	0.48	
100-52-7	Benzaldehyde	< 100	ND	1.4	ND	0.33	
590-86-3	Isovaleraldehyde	< 100	ND	1.4	ND	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	< 100	ND	1.4	ND	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	**390**	**5.6**	1.4	**1.0**	0.26	**BH**

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
BH = The back portion of the tube yielded higher results than the front.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Reagent Blank**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603372
CAS Sample ID: P061212-RB

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: Acetonitrile
Test Notes: **BC**

Date Collected: NA
Date Received: NA
Date Analyzed: 12/12/06
Desorption Volume: 1.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603372
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061212-MB

Test Code: EPA Method TO-11A Date Collected: NA
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1 Date Received: NA
Analyst: Madeleine Dangazyan Date Analyzed: 12/12/06
Sampling Media: DNPH Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC** Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **K30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603361
CAS Sample ID: P2603361-001

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang
Sampling Media: Tedlar Bag
Test Notes: **H**

Date Collected: 12/7/2006
Time Collected: 10:50
Date Received: 12/8/2006
Date Analyzed: 12/8/06
Time Analyzed: 11:17
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	**250**	12	**100**	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	**6.6**	13	**2.6**	5.0	**J**
75-15-0	Carbon Disulfide	**200**	7.8	**64**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	**39**	17	**11**	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
H = Sample analyzed outside of holding time.
J = The analyte was positively identified below the laboratory method reporting limit; the associated numerical value is considered estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **L30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603361
CAS Sample ID: P2603361-002

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/7/2006
Time Collected: 10:55
Date Received: 12/8/2006
Date Analyzed: 12/8/06
Time Analyzed: 10:52
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	**Result** **µg/m³**	MRL µg/m³	**Result** **ppbV**	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**3.4**	7.0	**2.5**	5.0	**J**
463-58-1	Carbonyl Sulfide	**110**	12	**44**	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	**97**	7.8	**31**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The analyte was positively identified below the laboratory method reporting limit; the associated numerical value is considered estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603361
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061208-MB

Test Code: ASTM D 5504-01 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Time Collected: NA
Analyst: Zheng Wang Date Received: NA
Sampling Media: Tedlar Bag Date Analyzed: 12/08/06
Test Notes: Time Analyzed: 09:29
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **K30** CAS Project ID: P2603361
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603361-001

Test Code: EPA TO-15 Modified Date Collected: 12/7/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/8/06
Analyst: Rusty Bravo Date(s) Analyzed: 12/8/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.015 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	67	ND	13	
74-87-3	Chloromethane	ND	67	ND	32	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	67	ND	9.5	
75-01-4	Vinyl Chloride	ND	67	ND	26	
106-99-0	1,3-Butadiene	ND	67	ND	30	
74-83-9	Bromomethane	ND	67	ND	17	
75-00-3	Chloroethane	ND	67	ND	25	
64-17-5	Ethanol	ND	330	ND	180	
75-05-8	Acetonitrile	ND	67	ND	40	
107-02-8	Acrolein	ND	67	ND	29	
67-64-1	Acetone	ND	330	ND	140	
75-69-4	Trichlorofluoromethane	ND	67	ND	12	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	67	ND	27	
107-13-1	Acrylonitrile	ND	67	ND	31	
75-35-4	1,1-Dichloroethene	ND	67	ND	17	
75-09-2	Methylene chloride	ND	67	ND	19	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	67	ND	21	
76-13-1	Trichlorotrifluoroethane	ND	67	ND	8.7	
75-15-0	Carbon Disulfide	**120**	67	**37**	21	
156-60-5	trans-1,2-Dichloroethene	ND	67	ND	17	
75-34-3	1,1-Dichloroethane	ND	67	ND	16	
1634-04-4	Methyl tert-Butyl Ether	ND	67	ND	18	
108-05-4	Vinyl Acetate	ND	67	ND	19	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **K30** CAS Project ID: P2603361
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603361-001

Test Code: EPA TO-15 Modified Date Collected: 12/7/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/8/06
Analyst: Rusty Bravo Date(s) Analyzed: 12/8/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.015 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**100**	67	**34**	23	
156-59-2	cis-1,2-Dichloroethene	ND	67	ND	17	
110-54-3	n-Hexane	ND	67	ND	19	
67-66-3	Chloroform	ND	67	ND	14	
107-06-2	1,2-Dichloroethane	ND	67	ND	16	
71-55-6	1,1,1-Trichloroethane	ND	67	ND	12	
71-43-2	Benzene	**500**	67	**160**	21	
56-23-5	Carbon Tetrachloride	ND	67	ND	11	
78-87-5	1,2-Dichloropropane	ND	67	ND	14	
75-27-4	Bromodichloromethane	ND	67	ND	10	
79-01-6	Trichloroethene	ND	67	ND	12	
123-91-1	1,4-Dioxane	ND	67	ND	19	
10061-01-5	cis-1,3-Dichloropropene	ND	67	ND	15	
108-10-1	4-Methyl-2-pentanone	ND	67	ND	16	
10061-02-6	trans-1,3-Dichloropropene	ND	67	ND	15	
79-00-5	1,1,2-Trichloroethane	ND	67	ND	12	
108-88-3	Toluene	**80**	67	**21**	18	
591-78-6	2-Hexanone	ND	67	ND	16	
124-48-1	Dibromochloromethane	ND	67	ND	7.8	
106-93-4	1,2-Dibromoethane	ND	67	ND	8.7	
123-86-4	n-Butyl Acetate	ND	67	ND	14	
127-18-4	Tetrachloroethene	ND	67	ND	9.8	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **K30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603361
CAS Sample ID: P2603361-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/7/06
Date Received: 12/8/06
Date(s) Analyzed: 12/8/06
Volume(s) Analyzed: 0.015 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	**1,600**	67	**350**	14	
100-41-4	Ethylbenzene	ND	67	ND	15	
179601-23-1	*m,p* -Xylenes	**410**	67	**95**	15	
75-25-2	Bromoform	ND	67	ND	6.5	
100-42-5	Styrene	ND	67	ND	16	
95-47-6	o-Xylene	**330**	67	**76**	15	
111-84-2	n-Nonane	ND	67	ND	13	
79-34-5	1,1,2,2-Tetrachloroethane	ND	67	ND	9.7	
98-82-8	Cumene	**260**	67	**52**	14	
80-56-8	alpha-Pinene	ND	67	ND	12	
622-96-8	4-Ethyltoluene	**180**	67	**36**	14	
108-67-8	1,3,5-Trimethylbenzene	**500**	67	**100**	14	
95-63-6	1,2,4-Trimethylbenzene	**550**	67	**110**	14	
100-44-7	Benzyl Chloride	ND	67	ND	13	
541-73-1	1,3-Dichlorobenzene	ND	67	ND	11	
106-46-7	1,4-Dichlorobenzene	**280**	67	**46**	11	
95-50-1	1,2-Dichlorobenzene	**95**	67	**16**	11	
5989-27-5	d-Limonene	ND	67	ND	12	
96-12-8	1,2-Dibromo-3-chloropropane	ND	67	ND	6.9	
120-82-1	1,2,4-Trichlorobenzene	ND	67	ND	9.0	
91-20-3	Naphthalene	ND	67	ND	13	
87-68-3	Hexachlorobutadiene	ND	67	ND	6.3	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **K30** CAS Project ID: P2603361
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603361-001

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 12/7/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/8/06
Analyst: Rusty Bravo Date Analyzed: 12/8/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.015 Liter(s)
Test Notes: **T**

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
17.75	$C_{10}H_{22}$ Branched Alkane	**1,000**	
17.82	C_9H_{18} Compound	**2,000**	
17.94	$C_{10}H_{22}$ Branched Alkane	**900**	
18.17	$C_{10}H_{22}$ Branched Alkane + 3-Ethyltoluene	**1,000**	
18.26	$C_{10}H_{22}$ Branched Alkane	**1,000**	
18.47	$C_{10}H_{20}$ Compound	**1,000**	
19.32	$C_{11}H_{24}$ Branched Alkane + p-Isopropyltoluene + 1,2,3-Trimethylbenzene	**2,000**	
19.63	$C_{10}H_{20}$ Compound	**1,000**	
20.16	$C_{10}H_{18}$ Compound + $C_{10}H_{14}$ Aromatic Compound	**1,000**	
20.36	$C_{11}H_{16}$ Aromatic Compound	**1,000**	
20.46	$C_{11}H_{16}$ Aromatic Compound	**700**	
20.50	$C_{11}H_{16}$ Aromatic Compound	**1,000**	
20.60	$C_{11}H_{16}$ Aromatic Compound	**700**	
21.44	$C_{12}H_{18}$ Aromatic Compound	**700**	
21.71	$C_{12}H_{18}$ Aromatic Compound	**1,000**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **L30** CAS Project ID: P2603361
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603361-002

Test Code: EPA TO-15 Modified Date Collected: 12/7/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/8/06
Analyst: Rusty Bravo Date(s) Analyzed: 12/8/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.030 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	33	ND	6.7	
74-87-3	Chloromethane	ND	33	ND	16	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	33	ND	4.8	
75-01-4	Vinyl Chloride	ND	33	ND	13	
106-99-0	1,3-Butadiene	ND	33	ND	15	
74-83-9	Bromomethane	ND	33	ND	8.6	
75-00-3	Chloroethane	ND	33	ND	13	
64-17-5	Ethanol	ND	170	ND	88	
75-05-8	Acetonitrile	ND	33	ND	20	
107-02-8	Acrolein	ND	33	ND	15	
67-64-1	Acetone	ND	170	ND	70	
75-69-4	Trichlorofluoromethane	ND	33	ND	5.9	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	33	ND	14	
107-13-1	Acrylonitrile	ND	33	ND	15	
75-35-4	1,1-Dichloroethene	ND	33	ND	8.4	
75-09-2	Methylene chloride	ND	33	ND	9.6	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	33	ND	11	
76-13-1	Trichlorotrifluoroethane	ND	33	ND	4.4	
75-15-0	Carbon Disulfide	**56**	33	**18**	11	
156-60-5	trans-1,2-Dichloroethene	ND	33	ND	8.4	
75-34-3	1,1-Dichloroethane	ND	33	ND	8.2	
1634-04-4	Methyl tert-Butyl Ether	ND	33	ND	9.2	
108-05-4	Vinyl Acetate	ND	33	ND	9.5	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **L30** CAS Project ID: P2603361
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603361-002

Test Code: EPA TO-15 Modified Date Collected: 12/7/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/8/06
Analyst: Rusty Bravo Date(s) Analyzed: 12/8/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.030 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	33	ND	11	
156-59-2	cis-1,2-Dichloroethene	ND	33	ND	8.4	
110-54-3	n-Hexane	ND	33	ND	9.5	
67-66-3	Chloroform	ND	33	ND	6.8	
107-06-2	1,2-Dichloroethane	ND	33	ND	8.2	
71-55-6	1,1,1-Trichloroethane	ND	33	ND	6.1	
71-43-2	Benzene	**59**	33	**19**	10	
56-23-5	Carbon Tetrachloride	ND	33	ND	5.3	
78-87-5	1,2-Dichloropropane	ND	33	ND	7.2	
75-27-4	Bromodichloromethane	ND	33	ND	5.0	
79-01-6	Trichloroethene	ND	33	ND	6.2	
123-91-1	1,4-Dioxane	ND	33	ND	9.3	
10061-01-5	cis-1,3-Dichloropropene	ND	33	ND	7.3	
108-10-1	4-Methyl-2-pentanone	ND	33	ND	8.1	
10061-02-6	trans-1,3-Dichloropropene	ND	33	ND	7.3	
79-00-5	1,1,2-Trichloroethane	ND	33	ND	6.1	
108-88-3	Toluene	**170**	33	**46**	8.8	
591-78-6	2-Hexanone	ND	33	ND	8.1	
124-48-1	Dibromochloromethane	ND	33	ND	3.9	
106-93-4	1,2-Dibromoethane	ND	33	ND	4.3	
123-86-4	n-Butyl Acetate	ND	33	ND	7.0	
127-18-4	Tetrachloroethene	ND	33	ND	4.9	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **L30**
Client Project ID: **Dredge Sediment Headspace/06332**

CAS Project ID: P2603361
CAS Sample ID: P2603361-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/7/06
Date Received: 12/8/06
Date(s) Analyzed: 12/8/06
Volume(s) Analyzed: 0.030 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	**150**	33	**32**	7.2	
100-41-4	Ethylbenzene	**87**	33	**20**	7.7	
179601-23-1	*m,p* -Xylenes	**820**	33	**190**	7.7	
75-25-2	Bromoform	ND	33	ND	3.2	
100-42-5	Styrene	ND	33	ND	7.8	
95-47-6	o-Xylene	**420**	33	**98**	7.7	
111-84-2	n-Nonane	ND	33	ND	6.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	33	ND	4.9	
98-82-8	Cumene	**110**	33	**22**	6.8	
80-56-8	alpha-Pinene	ND	33	ND	6.0	
622-96-8	4-Ethyltoluene	**83**	33	**17**	6.8	
108-67-8	1,3,5-Trimethylbenzene	**420**	33	**85**	6.8	
95-63-6	1,2,4-Trimethylbenzene	**350**	33	**71**	6.8	
100-44-7	Benzyl Chloride	ND	33	ND	6.4	
541-73-1	1,3-Dichlorobenzene	ND	33	ND	5.5	
106-46-7	1,4-Dichlorobenzene	**96**	33	**16**	5.5	
95-50-1	1,2-Dichlorobenzene	**76**	33	**13**	5.5	
5989-27-5	d-Limonene	ND	33	ND	6.0	
96-12-8	1,2-Dibromo-3-chloropropane	ND	33	ND	3.4	
120-82-1	1,2,4-Trichlorobenzene	ND	33	ND	4.5	
91-20-3	Naphthalene	ND	33	ND	6.4	
87-68-3	Hexachlorobutadiene	ND	33	ND	3.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **L30** CAS Project ID: P2603361
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P2603361-002

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 12/7/06
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: 12/8/06
Analyst: Rusty Bravo Date Analyzed: 12/8/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.030 Liter(s)
Test Notes: **T**

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
18.18	3-Ethyltoluene	**200**	
19.14	sec-Butylbenzene	**300**	
19.33	$C_{11}H_{24}$ Branched Alkane + p-Isopropyltoluene + 1,2,3-Trimethylbenzene	**300**	
19.56	C_9H_{20} Compound + $C_{10}H_{14}$ Aromatic Compound	**200**	
19.80	$C_{10}H_{14}$ Aromatic Compound	**90**	
19.92	$C_{10}H_{14}$ Aromatic Compound	**100**	
20.36	$C_{11}H_{16}$ Aromatic Compound	**300**	
20.46	$C_{11}H_{16}$ Aromatic Compound	**80**	
20.50	$C_{11}H_{16}$ Aromatic Compound	**300**	
20.61	$C_{11}H_{16}$ Aromatic Compound	**200**	
20.73	$C_{11}H_{14}$ Aromatic Compound	**200**	
21.34	$C_{12}H_{18}$ Aromatic Compound	**80**	
21.44	$C_{12}H_{18}$ Aromatic Compound	**80**	
21.68	$C_{11}H_{16}$ Aromatic Compound	**200**	
22.13	$C_{11}H_{14}$ Aromatic Compound	**200**	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603361
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061208-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 12/8/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	1.0	ND	0.20	
74-87-3	Chloromethane	ND	1.0	ND	0.48	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.0	ND	0.14	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
106-99-0	1,3-Butadiene	ND	1.0	ND	0.45	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	1.0	ND	0.60	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	ND	0.41	
107-13-1	Acrylonitrile	ND	1.0	ND	0.46	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.0	ND	0.32	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603361
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061208-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 12/8/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
110-54-3	n-Hexane	ND	1.0	ND	0.28	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
123-91-1	1,4-Dioxane	ND	1.0	ND	0.28	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
123-86-4	n-Butyl Acetate	ND	1.0	ND	0.21	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603361
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061208-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date(s) Analyzed: 12/8/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
179601-23-1	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	o-Xylene	ND	1.0	ND	0.23	
111-84-2	n-Nonane	ND	1.0	ND	0.19	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
98-82-8	Cumene	ND	1.0	ND	0.20	
80-56-8	alpha-Pinene	ND	1.0	ND	0.18	
622-96-8	4-Ethyltoluene	ND	1.0	ND	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ND	0.20	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ND	0.20	
100-44-7	Benzyl Chloride	ND	1.0	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	
5989-27-5	d-Limonene	ND	1.0	ND	0.18	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ND	0.10	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	
91-20-3	Naphthalene	ND	1.0	ND	0.19	
87-68-3	Hexachlorobutadiene	ND	1.0	ND	0.094	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **Service Engineering Group**
Client Sample ID: **Method Blank** CAS Project ID: P2603361
Client Project ID: **Dredge Sediment Headspace/06332** CAS Sample ID: P061208-MB

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3 Date Received: NA
Analyst: Rusty Bravo Date Analyzed: 12/8/06
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **P1-FA**
Client Project ID: **Dredge Sediment Headspace**

CAS Project ID: P2701921
CAS Sample ID: P2701921-001

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: DNPH Silica Gel Tube
Test Notes: **BC**

Date Collected: 6/27/2007
Date Received: 6/28/2007
Date Analyzed: 7/2/2007
Desorption Volume: 1.0 ml
Volume Sampled: 70 Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	< 100	ND	1.4	ND	0.79	
123-38-6	Propionaldehyde	< 100	ND	1.4	ND	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	< 100	ND	1.4	ND	0.48	
100-52-7	Benzaldehyde	< 100	ND	1.4	ND	0.33	
590-86-3	Isovaleraldehyde	< 100	ND	1.4	ND	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	< 100	ND	1.4	ND	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	**160**	**2.2**	1.4	**0.40**	0.26	**BH**

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected
BH = The back portion of the sampling tube yielded higher results than the front.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Q1-FA**
Client Project ID: **Dredge Sediment Headspace**

CAS Project ID: P2701921
CAS Sample ID: P2701921-002

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: DNPH Silica Gel Tube
Test Notes: **BC**

Date Collected: 6/27/2007
Date Received: 6/28/2007
Date Analyzed: 7/2/2007
Desorption Volume: 1.0 ml
Volume Sampled: 70 Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	< 100	ND	1.4	ND	0.79	
123-38-6	Propionaldehyde	< 100	ND	1.4	ND	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	< 100	ND	1.4	ND	0.48	
100-52-7	Benzaldehyde	< 100	ND	1.4	ND	0.33	
590-86-3	Isovaleraldehyde	< 100	ND	1.4	ND	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	< 100	ND	1.4	ND	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	**250**	**3.6**	1.4	**0.66**	0.26	**BH**

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected
BH = The back portion of the sampling tube yielded higher results than the front.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Reagent Blank**
Client Project ID: **Dredge Sediment Headspace**

CAS Project ID: P2701921
CAS Sample ID: P070702-RB

Test Code: EPA Method TO-11A
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1
Analyst: Madeleine Dangazyan
Sampling Media: Acetonitrile
Test Notes: **BC**

Date Collected: NA
Date Received: NA
Date Analyzed: 7/02/07
Desorption Volume: 1.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Method Blank** CAS Project ID: P2701921
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P070702-MB

Test Code: EPA Method TO-11A Date Collected: NA
Instrument ID: Waters LC Module I Plus/UV_Vis 360/LC1 Date Received: NA
Analyst: Madeleine Dangazyan Date Analyzed: 7/02/07
Sampling Media: DNPH Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC** Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5 104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **P2-CA** CAS Project ID: P2701921
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P2701921-003

Test Code: GC/MS Date Collected: 6/27/2007
Instrument ID: HP5970/HP5890II+/MS4 Date Received: 6/28/2007
Analyst: Madeleine Dangazyan Date Analyzed: 7/10/2007
Sampling Media: Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC, DE** Volume Sampled: 70 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	**1.4**	**20**	14	**8.3**	5.6	**L**
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	**L**
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	**0.27**	**3.9**	3.6	**0.81**	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.
L = Laboratory control sample recovery outside specified limits; results may be biased high.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Q2-CA** CAS Project ID: P2701921
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P2701921-004

Test Code: GC/MS Date Collected: 6/27/2007
Instrument ID: HP5970/HP5890II+/MS4 Date Received: 6/28/2007
Analyst: Madeleine Dangazyan Date Analyzed: 7/10/2007
Sampling Media: Silica Gel Tube Desorption Volume: 1.0 ml
Test Notes: **BC, DE** Volume Sampled: 70 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	**0.97**	**14**	14	**5.6**	5.6	**L**
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	**L**
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.
L = Laboratory control sample recovery outside specified limits; results may be biased high.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace**

CAS Project ID: P2701921
CAS Sample ID: P070710-MB

Test Code: GC/MS
Instrument ID: HP5970/HP5890II+/MS4
Analyst: Madeleine Dangazyan
Sampling Media: Silica Gel Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 7/10/07
Desorption Volume: 1.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	**L**
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	**L**
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	NA	NA	NA	NA	
107-92-6	Butanoic Acid (Butyric)	< 0.25	NA	NA	NA	NA	
116-53-0	2-Methylbutanoic Acid	< 0.25	NA	NA	NA	NA	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	NA	NA	NA	NA	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	NA	NA	NA	NA	
97-61-0	2-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
105-43-1	3-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	NA	NA	NA	NA	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	NA	NA	NA	NA	
149-57-5	2-Ethylhexanoic Acid	< 0.28	NA	NA	NA	NA	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	NA	NA	NA	NA	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	NA	NA	NA	NA	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	NA	NA	NA	NA	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	NA	NA	NA	NA	
65-85-0	Benzoic Acid	< 0.30	NA	NA	NA	NA	

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
NA = Not applicable
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.
L = Laboratory control sample recovery outside specified limits; results may be biased high.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **P3-AM**
Client Project ID: **Dredge Sediment Headspace**

CAS Project ID: P2701921
CAS Sample ID: P2701921-005

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: 6/27/2007
Date Received: 6/28/2007
Date Analyzed: 7/5/2007
Desorption Volume: 2.0 ml
Volume Sampled: 70 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	**0.27**	**3.8**	2.7	**2.1**	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	< 0.20	ND	2.9	ND	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	< 0.19	ND	2.7	ND	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Q3-AM**
Client Project ID: **Dredge Sediment Headspace**

CAS Project ID: P2701921
CAS Sample ID: P2701921-006

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: 6/27/2007
Date Received: 6/28/2007
Date Analyzed: 7/5/2007
Desorption Volume: 2.0 ml
Volume Sampled: 70 Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	< 0.19	ND	2.7	ND	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	< 0.20	ND	2.9	ND	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	< 0.19	ND	2.7	ND	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Dredge Sediment Headspace**

CAS Project ID: P2701921
CAS Sample ID: P070705-MB

Test Code: GC/NPD
Instrument ID: Agilent 6890N/GC14/NPD
Analyst: Madeleine Dangazyan
Sampling Media: Treated Alumina Tube
Test Notes: **BC, DE**

Date Collected: NA
Date Received: NA
Date Analyzed: 7/05/07
Desorption Volume: 2.0 ml
Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualfier
124-40-3	Dimethylamine	< 0.19	NA	NA	NA	NA	
75-04-7	Ethylamine	< 0.20	NA	NA	NA	NA	
75-50-3	Trimethylamine	< 0.20	NA	NA	NA	NA	
75-31-0	Isopropylamine	< 0.19	NA	NA	NA	NA	
75-64-9	t-Butylamine	< 0.19	NA	NA	NA	NA	
107-10-8	Propylamine	< 0.19	NA	NA	NA	NA	
109-89-7	Diethylamine	< 0.19	NA	NA	NA	NA	
13952-84-6	s-Butylamine	< 0.19	NA	NA	NA	NA	
78-81-9	Isobutylamine	< 0.19	NA	NA	NA	NA	
109-73-9	Butylamine	< 0.19	NA	NA	NA	NA	
108-18-9	Diisopropylamine	< 0.19	NA	NA	NA	NA	
121-44-8	Triethylamine	< 0.19	NA	NA	NA	NA	
142-84-7	Dipropylamine	< 0.38	NA	NA	NA	NA	

NA = Not applicable
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
BC = Results reported are not blank corrected
DE = Results reported are corrected for desorption efficiency.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **P30**
Client Project ID: **Dredge Sediment Headspace**

CAS Project ID: P2701914
CAS Sample ID: P2701914-001

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang
Sampling Media: Tedlar Bag
Test Notes: **RH**

Date Collected: 6/27/2007
Time Collected: 10:15
Date Received: 6/28/2007
Date Analyzed: 6/28/07
Time Analyzed: 14:45
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	**5.5**	7.0	**3.9**	5.0	**J**
463-58-1	Carbonyl Sulfide	**16**	12	**6.3**	5.0	
74-93-1	Methyl Mercaptan	**7.4**	9.8	**3.8**	5.0	**J**
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	**45**	13	**18**	5.0	
75-15-0	Carbon Disulfide	**25**	7.8	**8.2**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	**94**	9.6	**25**	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
RH = Sample received outside of holding time.
J = The analyte was positively identified below the laboratory method reporting limit; the associated numerical value is considered estimated.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Q30**
Client Project ID: **Dredge Sediment Headspace**

CAS Project ID: P2701914
CAS Sample ID: P2701914-002

Test Code: ASTM D 5504-01
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Zheng Wang
Sampling Media: Tedlar Bag
Test Notes: **H**

Date Collected: 6/27/2007
Time Collected: 10:35
Date Received: 6/28/2007
Date Analyzed: 6/28/07
Time Analyzed: 15:53
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	**150**	12	**61**	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	**130**	7.8	**41**	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
H = Sample analyzed outside of holding time.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Method Blank** CAS Project ID: P2701914
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P070628-MB

Test Code: ASTM D 5504-01 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Time Collected: NA
Analyst: Zheng Wang Date Received: NA
Sampling Media: Tedlar Bag Date Analyzed: 6/28/07
Test Notes: Time Analyzed: 09:24
Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **P30** CAS Project ID: P2701914
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P2701914-001

Test Code: EPA TO-15 Modified Date Collected: 6/27/07
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: 6/28/07
Analyst: Chaney Humphrey Date(s) Analyzed: 6/28/07
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**7.8**	5.0	**1.6**	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	ND	25	ND	13	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	5.0	ND	2.2	
67-64-1	Acetone	**29**	25	**12**	11	
75-69-4	Trichlorofluoromethane	**9.1**	5.0	**1.6**	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	**7.1**	5.0	**2.9**	2.0	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene chloride	ND	5.0	ND	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65	
75-15-0	Carbon Disulfide	**17**	5.0	**5.4**	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **P30** CAS Project ID: P2701914
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P2701914-001

Test Code: EPA TO-15 Modified Date Collected: 6/27/07
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: 6/28/07
Analyst: Chaney Humphrey Date(s) Analyzed: 6/28/07
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**5.6**	5.0	**1.9**	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
110-54-3	n-Hexane	ND	5.0	ND	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	ND	5.0	ND	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.93	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	**21**	5.0	**5.5**	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	
127-18-4	Tetrachloroethene	ND	5.0	ND	0.74	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **P30** CAS Project ID: P2701914
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P2701914-001

Test Code: EPA TO-15 Modified Date Collected: 6/27/07
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: 6/28/07
Analyst: Chaney Humphrey Date(s) Analyzed: 6/28/07
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	**15**	5.0	**3.2**	1.1	
100-41-4	Ethylbenzene	ND	5.0	ND	1.2	
179601-23-1	*m,p* -Xylenes	**12**	5.0	**2.8**	1.2	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	**6.2**	5.0	**1.5**	1.2	
95-47-6	o-Xylene	**8.1**	5.0	**1.9**	1.2	
111-84-2	n-Nonane	ND	5.0	ND	0.95	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	ND	5.0	ND	1.0	
80-56-8	alpha-Pinene	ND	5.0	ND	0.90	
622-96-8	4-Ethyltoluene	ND	5.0	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	**5.1**	5.0	**1.0**	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.83	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.83	
5989-27-5	d-Limonene	ND	5.0	ND	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.67	
91-20-3	Naphthalene	ND	5.0	ND	0.95	
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **P30** CAS Project ID: P2701914
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P2701914-001

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 6/27/07
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: 6/28/07
Analyst: Chaney Humphrey Date Analyzed: 6/28/07
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.20 Liter(s)
Test Notes: **T**

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
4.62	Propane + Propene + Chlorodifluoromethane + Carbonyl sulfide	**20**	
5.03	Isobutane	**10**	
6.98	Dimethyl Sulfide	**20**	
7.03	tert-Butanol	**20**	
9.12	Ethyl Acetate	**20**	
10.60	1-Butanol	**50**	
13.17	Dimethyl Disulfide	**70**	
15.44	Hexamethylcyclotrisiloxane	**50**	*
18.38	$C_{10}H_{22}$ Branched Alkane	**20**	
19.43	Unidentified Compound	**30**	
19.74	$C_{11}H_{24}$ Branched Alkane + C_9H_{12} Aromatic Compound + $C_{10}H_{14}$ Aromatic Compound	**30**	
20.11	$C_{10}H_{14}$ Aromatic Compound + Unidentified Compound	**30**	
20.39	$C_{11}H_{24}$ Branched Alkane + $C_{11}H_{22}$ Compound	**30**	
20.63	$C_{10}H_{14}$ Aromatic Compound + $C_{11}H_{22}$ Compound + n-Nonanal	**30**	
25.56	$C_{11}H_{20}$ Compound	**20**	

T = Analyte is a tentatively identified compound, result is estimated.
* = Possible Artifact.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Q30** CAS Project ID: P2701914
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P2701914-002

Test Code: EPA TO-15 Modified Date Collected: 6/27/07
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: 6/28/07
Analyst: Chaney Humphrey Date(s) Analyzed: 6/28/07
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**7.3**	5.0	**1.5**	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	ND	25	ND	13	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	5.0	ND	2.2	
67-64-1	Acetone	ND	25	ND	11	
75-69-4	Trichlorofluoromethane	**6.2**	5.0	**1.1**	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene chloride	ND	5.0	ND	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65	
75-15-0	Carbon Disulfide	**82**	5.0	**26**	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Q30** CAS Project ID: P2701914
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P2701914-002

Test Code: EPA TO-15 Modified Date Collected: 6/27/07
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: 6/28/07
Analyst: Chaney Humphrey Date(s) Analyzed: 6/28/07
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**5.4**	5.0	**1.8**	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
110-54-3	n-Hexane	ND	5.0	ND	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	ND	5.0	ND	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.93	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	**12**	5.0	**3.1**	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	
127-18-4	Tetrachloroethene	ND	5.0	ND	0.74	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Q30**
Client Project ID: **Dredge Sediment Headspace**

CAS Project ID: P2701914
CAS Sample ID: P2701914-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chaney Humphrey
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 6/27/07
Date Received: 6/28/07
Date(s) Analyzed: 6/28/07
Volume(s) Analyzed: 0.20 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	5.0	ND	1.1	
100-41-4	Ethylbenzene	ND	5.0	ND	1.2	
179601-23-1	*m,p* -Xylenes	**6.4**	5.0	**1.5**	1.2	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	ND	5.0	ND	1.2	
95-47-6	o-Xylene	ND	5.0	ND	1.2	
111-84-2	n-Nonane	ND	5.0	ND	0.95	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	ND	5.0	ND	1.0	
80-56-8	alpha-Pinene	ND	5.0	ND	0.90	
622-96-8	4-Ethyltoluene	ND	5.0	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ND	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.83	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.83	
5989-27-5	d-Limonene	ND	5.0	ND	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.67	
91-20-3	Naphthalene	ND	5.0	ND	0.95	
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Q30** CAS Project ID: P2701914
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P2701914-002

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: 6/27/07
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: 6/28/07
Analyst: Chaney Humphrey Date Analyzed: 6/28/07
Sampling Media: Tedlar Bag Volume(s) Analyzed: 0.20 Liter(s)
Test Notes: **T**

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
4.62	Carbonyl Sulfide	**60**	
5.03	Isobutane	**10**	
10.61	1-Butanol	**10**	
15.44	Hexamethylcyclotrisiloxane	**30**	*
19.99	Indane	**10**	
20.63	n-Nonanal + $C_{10}H_{14}$ Aromatic Compound	**20**	

T = Analyte is a tentatively identified compound, result is estimated.
* = Possible Artifact.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Method Blank** CAS Project ID: P2701914
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P070628-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: NA
Analyst: Chaney Humphrey Date(s) Analyzed: 6/28/07
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	1.0	ND	0.20	
74-87-3	Chloromethane	ND	1.0	ND	0.48	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.0	ND	0.14	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
106-99-0	1,3-Butadiene	ND	1.0	ND	0.45	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	1.0	ND	0.60	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	ND	0.41	
107-13-1	Acrylonitrile	ND	1.0	ND	0.46	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.0	ND	0.32	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Method Blank** CAS Project ID: P2701914
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P070628-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: NA
Analyst: Chaney Humphrey Date(s) Analyzed: 6/28/07
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
110-54-3	n-Hexane	ND	1.0	ND	0.28	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
123-91-1	1,4-Dioxane	ND	1.0	ND	0.28	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
123-86-4	n-Butyl Acetate	ND	1.0	ND	0.21	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Method Blank** CAS Project ID: P2701914
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P070628-MB

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: NA
Analyst: Chaney Humphrey Date(s) Analyzed: 6/28/07
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
179601-23-1	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	o-Xylene	ND	1.0	ND	0.23	
111-84-2	n-Nonane	ND	1.0	ND	0.19	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
98-82-8	Cumene	ND	1.0	ND	0.20	
80-56-8	alpha-Pinene	ND	1.0	ND	0.18	
622-96-8	4-Ethyltoluene	ND	1.0	ND	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ND	0.20	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ND	0.20	
100-44-7	Benzyl Chloride	ND	1.0	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	
5989-27-5	d-Limonene	ND	1.0	ND	0.18	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ND	0.10	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	
91-20-3	Naphthalene	ND	1.0	ND	0.19	
87-68-3	Hexachlorobutadiene	ND	1.0	ND	0.094	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

Client: **St. Croix Sensory, Inc.**
Client Sample ID: **Method Blank** CAS Project ID: P2701914
Client Project ID: **Dredge Sediment Headspace** CAS Sample ID: P070628-MB

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified Date Collected: NA
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2 Date Received: NA
Analyst: Chaney Humphrey Date Analyzed: 6/28/07
Sampling Media: Tedlar Bag Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By:_____Date:_____

APPENDIX C

RAW LABORATORY RESULTS FROM BRAUN INTERTEC

BRAUN INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

Mr. Dean Myers
Service Engineering Group
675 Vandalia Street
St. Paul, MN 55114

DEC 14 2006

December 13, 2006

Work Order #: 0607249

RE: 2006 Tier I pricing

Dear Mr. Dean Myers

Braun Intertec Corporation received samples for the project identified above on 11/29/06 13:09. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Steven J. Albrecht

Steven J. Albrecht
Associate Principal

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

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BRAUN
INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group	Client Ref:	2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID: S15039

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

BRAUN INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group	Client Ref:	2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN. 55114	PO Number:		Account ID: S15039

Qualifiers and Abbreviations

vfa	The method reporting limit (MRL) was raised for one or more analytes; a dilution of the sample was necessary due to high analyte levels and/or matrix interferences.
sk	The surrogate recovery is outside of laboratory control limits due to matrix interference.
go	The laboratory control sample recovery is outside of laboratory control limits.
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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Service Engineering Group	Client Ref:	2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID: S15039

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OL-STA-10114	0607249-01	Soil	11/28/06 10:15	11/29/06 13:09
OL-STA-70048	0607249-02	Soil	11/28/06 10:35	11/29/06 13:09
OL-STA-10118	0607249-03	Soil	11/29/06 10:45	11/29/06 13:09
OL-STA-70049	0607249-04	Soil	11/29/06 10:55	11/29/06 13:09
Trip Blank	0607249-05	Soil	11/29/06 00:00	11/29/06 13:09

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952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group 675 Vandalia Street St. Paul MN, 55114	Client Ref: Client Contact: PO Number:	2006 Tier I pricing Mr. Dean Myers	Work Order #: 0607249 Project Mgr:Steven J. Albrecht Account ID:S15039		

Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	5.4 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	No
Custody Seals Used:	No	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	No	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	No

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952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group 675 Vandalia Street St. Paul MN, 55114	Client Ref: 2006 Tier I pricing Client Contact: Mr. Dean Myers PO Number:	Work Order #: 0607249 Project Mgr: Steven J. Albrecht Account ID: S15039

OL-STA-10114

0607249-01 (Soil)

11/28/06 10:15

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**40**		% Wt	1	B6K0465	11/30/06	12/1/06	SM 2540G	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,2-Dichlorobenzene	**9.6**	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,2-Diphenylhydrazine	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,3-Dichlorobenzene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,4-Dichlorobenzene	**11**	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4,5-Trichlorophenol	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4,6-Trichlorophenol	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dichlorophenol	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dimethylphenol	< 1.2	1.2	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dinitrophenol	< 1.2	1.2	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dinitrotoluene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,6-Dinitrotoluene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Chloronaphthalene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Chlorophenol	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Methylnaphthalene	**24**	4.8	mg/kg dry	10	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Methylphenol	< 1.2	1.2	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Nitroaniline	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Nitrophenol	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3,3-Dichlorobenzidine	< 2.4	2.4	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3-/4-Methylphenol	< 1.2	1.2	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3-Nitroaniline	< 1.2	1.2	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 1.2	1.2	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chloro-3-methylphenol	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chloroaniline	< 1.2	1.2	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Nitroaniline	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Nitrophenol	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Acenaphthene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Acenaphthylene	**5.3**	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Aniline	< 1.2	1.2	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Anthracene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	

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BRAUN INTERTEC

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952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group 675 Vandalia Street St. Paul MN, 55114	Client Ref: 2006 Tier I pricing Client Contact: Mr. Dean Myers PO Number:	Work Order #: 0607249 Project Mgr:Steven J. Albrecht Account ID:S15039

OL-STA-10114

0607249-01 (Soil)

11/28/06 10:15

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benz(a)anthracene	**0.61**	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(a)pyrene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(b)fluoranthene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(g,h,i)perylene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(k)fluoranthene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzyl alcohol	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	< 2.4	2.4	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Butyl benzyl phthalate	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Carbazole	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Chrysene	**0.66**	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dibenz(a,h)anthracene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dibenzofuran	**2.9**	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Diethylphthalate	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dimethyl phthalate	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Di-n-butyl phthalate	< 2.4	2.4	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Di-n-octyl phthalate	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Fluoranthene	**1.4**	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Fluorene	**77**	4.8	mg/kg dry	10	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorobenzene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorobutadiene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorocyclopentadiene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachloroethane	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Indeno(1,2,3-cd)pyrene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Isophorone	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Naphthalene	**390**	48	mg/kg dry	100	B6L0116	12/7/06	12/11/06	EPA 8270C	
Nitrobenzene	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodimethylamine	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodiphenylamine	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pentachlorophenol	< 1.2	1.2	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Phenanthrene	**4.0**	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Phenol	**2.6**	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	

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Service Engineering Group 675 Vandalia Street St. Paul MN, 55114	Client Ref: 2006 Tier I pricing Client Contact: Mr. Dean Myers PO Number:	Work Order #: 0607249 Project Mgr: Steven J. Albrecht Account ID: S15039

OL-STA-10114

0607249-01 (Soil)

11/28/06 10:15

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Pyrene	**1.4**	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pyridine	< 0.48	0.48	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*150 %*	*Limits: 30-150%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl	*95.5 %*	*Limits: 30-104%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: 2-Fluorophenol	*45.3 %*	*Limits: 30-106%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Nitrobenzene-d5	*79.2 %*	*Limits: 30-90%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Phenol-d6	*69.2 %*	*Limits: 30-102%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Terphenyl-d14	*67.5 %*	*Limits: 30-115%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloroethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloroethene	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloropropene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,4-Trichlorobenzene	**0.94**	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,4-Trimethylbenzene	**58**	16	mg/kg dry	50	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dibromoethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichlorobenzene	**10**	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichloroethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichloropropane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3,5-Trimethylbenzene	**47**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3-Dichloropropane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,4-Dichlorobenzene	**9.4**	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
2,2-Dichloropropane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
2-Butanone (MEK)	< 6.2	6.2	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
2-Chlorotoluene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	

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11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group 675 Vandalia Street St. Paul MN. 55114	Client Ref: 2006 Tier I pricing Client Contact: Mr. Dean Myers PO Number:	Work Order #: 0607249 Project Mgr:Steven J. Albrecht Account ID:S15039

OL-STA-10114

0607249-01 (Soil)

11/28/06 10:15

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chlorotoluene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
4-Isopropyltoluene	**4.0**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Acetone	< 12	12	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Allyl Chloride	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Benzene	**5.0**	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromobenzene	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromochloromethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromodichloromethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromoform	< 3.1	3.1	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromomethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Carbon Tetrachloride	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chlorobenzene	**8.4**	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chlorodibromomethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloroethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloroform	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloromethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
cis-1,3-Dichloropropene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Dibromomethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Dichlorodifluoromethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	go
Dichlorofluoromethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Ethyl Ether	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Ethylbenzene	**8.0**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Hexachlorobutadiene	< 1.2	1.2	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Isopropylbenzene	**8.9**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
m,p-Xylenes	**110**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methyl Isobutyl Ketone	< 6.2	6.2	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methylene chloride	< 3.1	3.1	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methyl-t-butyl ether	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Naphthalene	**260**	6.2	mg/kg dry	50	B6L0064	12/1/06	12/5/06	EPA 8260B	
n-Butylbenzene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
n-Propylbenzene	**3.6**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
o-Xylene	**39**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
sec-Butylbenzene	**24**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Styrene	**7.4**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr:Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID:S15039

OL-STA-10114

0607249-01 (Soil)

11/28/06 10:15

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
tert-Butylbenzene	**1.7**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Tetrachloroethene	< 1.2	1.2	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Tetrahydrofuran	< 6.2	6.2	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Toluene	**20**	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
trans-1,3-Dichloropropene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Trichloroethene	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Trichlorofluoromethane	< 0.62	0.62	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Vinyl chloride	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*98.4 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*95.6 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*99.6 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*100 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-70048

0607249-02 (Soil)

11/28/06 10:35

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**38**		% Wt	1	B6K0465	11/30/06	12/1/06	SM 2540G	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,2-Dichlorobenzene	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,2-Diphenylhydrazine	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,3-Dichlorobenzene	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,4-Dichlorobenzene	**2.7**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4,5-Trichlorophenol	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4,6-Trichlorophenol	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dichlorophenol	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dimethylphenol	< 1.3	1.3	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dinitrophenol	< 1.3	1.3	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dinitrotoluene	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,6-Dinitrotoluene	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Chloronaphthalene	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Chlorophenol	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Methylnaphthalene	**1.7**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Methylphenol	< 1.3	1.3	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Nitroaniline	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Nitrophenol	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3,3-Dichlorobenzidine	< 2.5	2.5	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3-/4-Methylphenol	< 1.3	1.3	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3-Nitroaniline	< 1.3	1.3	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 1.3	1.3	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chloro-3-methylphenol	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chloroaniline	< 1.3	1.3	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Nitroaniline	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Nitrophenol	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Acenaphthene	**1.9**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Acenaphthylene	**0.83**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Aniline	< 1.3	1.3	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Anthracene	**2.7**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	

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Service Engineering Group 675 Vandalia Street St. Paul MN, 55114	Client Ref: 2006 Tier I pricing Client Contact: Mr. Dean Myers PO Number:	Work Order #: 0607249 Project Mgr:Steven J. Albrecht Account ID:S15039

OL-STA-70048

0607249-02 (Soil)

11/28/06 10:35

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benz(a)anthracene	**2.8**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(a)pyrene	**2.5**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(b)fluoranthene	**1.9**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(g,h,i)perylene	**0.69**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(k)fluoranthene	**2.1**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzyl alcohol	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	< 2.5	2.5	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Butyl benzyl phthalate	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Carbazole	**0.52**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Chrysene	**3.5**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dibenz(a,h)anthracene	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dibenzofuran	**1.2**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Diethylphthalate	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dimethyl phthalate	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Di-n-butyl phthalate	< 2.5	2.5	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Di-n-octyl phthalate	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Fluoranthene	**7.7**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Fluorene	**12**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorobenzene	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorobutadiene	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorocyclopentadiene	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachloroethane	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Indeno(1,2,3-cd)pyrene	**0.81**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Isophorone	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Naphthalene	**4.4**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Nitrobenzene	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodimethylamine	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodiphenylamine	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pentachlorophenol	< 1.3	1.3	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Phenanthrene	**7.6**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Phenol	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	

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11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN. 55114	PO Number:	Account ID: S15039

OL-STA-70048

0607249-02 (Soil)

11/28/06 10:35

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Pyrene	**6.8**	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pyridine	< 0.51	0.51	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*99.2 %*	*Limits: 30-150%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl	*83.3 %*	*Limits: 30-104%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: 2-Fluorophenol	*65.7 %*	*Limits: 30-106%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Nitrobenzene-d5	*67.9 %*	*Limits: 30-90%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Phenol-d6	*72.0 %*	*Limits: 30-102%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Terphenyl-d14	*80.0 %*	*Limits: 30-115%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloroethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloroethene	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloropropene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dibromoethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichloroethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichloropropane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3-Dichloropropane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,4-Dichlorobenzene	**0.60**	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
2,2-Dichloropropane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
2-Butanone (MEK)	< 1.3	1.3	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
2-Chlorotoluene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-70048

0607249-02 (Soil)

11/28/06 10:35

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chlorotoluene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
4-Isopropyltoluene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Acetone	< 2.6	2.6	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Allyl Chloride	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Benzene	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromobenzene	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromochloromethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromodichloromethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromoform	< 0.66	0.66	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromomethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Carbon Tetrachloride	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chlorobenzene	**0.70**	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chlorodibromomethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloroethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloroform	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloromethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Dibromomethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Dichlorodifluoromethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	go
Dichlorofluoromethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Ethyl Ether	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Ethylbenzene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Hexachlorobutadiene	< 0.26	0.26	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Isopropylbenzene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
m,p-Xylenes	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methyl Isobutyl Ketone	< 1.3	1.3	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methylene chloride	< 0.66	0.66	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methyl-t-butyl ether	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Naphthalene	**2.0**	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
n-Butylbenzene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
n-Propylbenzene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
o-Xylene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
sec-Butylbenzene	**0.68**	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Styrene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
tert-Butylbenzene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-70048

0607249-02 (Soil)

11/28/06 10:35

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Tetrachloroethene	< 0.26	0.26	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Tetrahydrofuran	< 1.3	1.3	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Toluene	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
trans-1,3-Dichloropropene	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Trichloroethene	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Trichlorofluoromethane	< 0.13	0.13	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Vinyl chloride	< 0.33	0.33	mg/kg dry	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*108 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*92.8 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*102 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*99.2 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	

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St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-10118

0607249-03 (Soil)

11/29/06 10:45

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	39		% Wt	1	B6K0465	11/30/06	12/1/06	SM 2540G	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	**17**	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,2-Dichlorobenzene	**59**	5.3	mg/kg dry	10	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,2-Diphenylhydrazine	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,3-Dichlorobenzene	**0.66**	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,4-Dichlorobenzene	**100**	5.3	mg/kg dry	10	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4,5-Trichlorophenol	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4,6-Trichlorophenol	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dichlorophenol	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dimethylphenol	< 1.4	1.4	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dinitrophenol	< 1.4	1.4	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dinitrotoluene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,6-Dinitrotoluene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Chloronaphthalene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Chlorophenol	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Methylnaphthalene	**8.7**	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Methylphenol	< 1.4	1.4	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Nitroaniline	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Nitrophenol	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3,3-Dichlorobenzidine	< 2.6	2.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3-/4-Methylphenol	< 1.4	1.4	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3-Nitroaniline	< 1.4	1.4	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 1.4	1.4	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chloro-3-methylphenol	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chloroaniline	< 1.4	1.4	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Nitroaniline	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Nitrophenol	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Acenaphthene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Acenaphthylene	**1.3**	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Aniline	< 1.4	1.4	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	

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St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-10118

0607249-03 (Soil)

11/29/06 10:45

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	**1.2**	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benz(a)anthracene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(a)pyrene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(b)fluoranthene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(g,h,i)perylene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(k)fluoranthene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzyl alcohol	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	< 2.6	2.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Butyl benzyl phthalate	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Carbazole	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Chrysene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dibenz(a,h)anthracene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dibenzofuran	**1.5**	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Diethylphthalate	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dimethyl phthalate	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Di-n-butyl phthalate	< 2.6	2.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Di-n-octyl phthalate	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Fluoranthene	**1.4**	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Fluorene	**24**	5.3	mg/kg dry	10	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorobenzene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorobutadiene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorocyclopentadiene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachloroethane	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Indeno(1,2,3-cd)pyrene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Isophorone	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Naphthalene	**110**	5.3	mg/kg dry	10	B6L0116	12/7/06	12/11/06	EPA 8270C	
Nitrobenzene	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodimethylamine	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodiphenylamine	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pentachlorophenol	< 1.4	1.4	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Phenanthrene	**2.9**	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	

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Service Engineering Group 675 Vandalia Street St. Paul MN, 55114	Client Ref: 2006 Tier I pricing Client Contact: Mr. Dean Myers PO Number:	Work Order #: 0607249 Project Mgr: Steven J. Albrecht Account ID: S15039

OL-STA-10118

0607249-03 (Soil)

11/29/06 10:45

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenol	**2.3**	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pyrene	**1.1**	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pyridine	< 0.53	0.53	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*19.2 %*	*Limits: 30-150%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	*sk*
Surrogate: 2-Fluorobiphenyl	*112 %*	*Limits: 30-104%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	*sk*
Surrogate: 2-Fluorophenol	*35.7 %*	*Limits: 30-106%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Nitrobenzene-d5	*75.8 %*	*Limits: 30-90%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Phenol-d6	*81.8 %*	*Limits: 30-102%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Terphenyl-d14	*81.0 %*	*Limits: 30-115%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloroethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloroethene	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloropropene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,4-Trichlorobenzene	**12**	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,4-Trimethylbenzene	**7.3**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dibromoethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichlorobenzene	**52**	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichloroethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichloropropane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3,5-Trimethylbenzene	**5.1**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3-Dichloropropane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,4-Dichlorobenzene	**79**	2.6	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
2,2-Dichloropropane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
2-Butanone (MEK)	< 6.5	6.5	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	

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Service Engineering Group 675 Vandalia Street St. Paul MN, 55114	Client Ref: 2006 Tier I pricing Client Contact: Mr. Dean Myers PO Number:	Work Order #: 0607249 Project Mgr:Steven J. Albrecht Account ID:S15039

OL-STA-10118

0607249-03 (Soil)

11/29/06 10:45

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chlorotoluene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
4-Chlorotoluene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
4-Isopropyltoluene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Acetone	< 13	13	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Allyl Chloride	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Benzene	**1.7**	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromobenzene	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromochloromethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromodichloromethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromoform	< 3.2	3.2	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromomethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Carbon Tetrachloride	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chlorobenzene	**45**	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chlorodibromomethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloroethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloroform	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloromethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
cis-1,3-Dichloropropene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Dibromomethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Dichlorodifluoromethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	go
Dichlorofluoromethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Ethyl Ether	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Ethylbenzene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Hexachlorobutadiene	< 1.3	1.3	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Isopropylbenzene	**1.9**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
m,p-Xylenes	**17**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methyl Isobutyl Ketone	< 6.5	6.5	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methylene chloride	< 3.2	3.2	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methyl-t-butyl ether	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Naphthalene	**78**	2.6	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
n-Butylbenzene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
n-Propylbenzene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
o-Xylene	**4.5**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
sec-Butylbenzene	**6.3**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-10118

0607249-03 (Soil)

11/29/06 10:45

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Styrene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
tert-Butylbenzene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Tetrachloroethene	< 1.3	1.3	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Tetrahydrofuran	< 6.5	6.5	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Toluene	**1.9**	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
trans-1,3-Dichloropropene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Trichloroethene	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Trichlorofluoromethane	< 0.65	0.65	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Vinyl chloride	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*98.4 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*96.0 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*98.8 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*100 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	

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Service Engineering Group 675 Vandalia Street St. Paul MN, 55114	Client Ref: 2006 Tier I pricing Client Contact: Mr. Dean Myers PO Number:	Work Order #: 0607249 Project Mgr:Steven J. Albrecht Account ID:S15039

OL-STA-70049

0607249-04 (Soil)

11/29/06 10:55

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**34**		% Wt	1	B6K0465	11/30/06	12/1/06	SM 2540G	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	**1.4**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,2-Dichlorobenzene	**2.7**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,2-Diphenylhydrazine	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,3-Dichlorobenzene	**0.96**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,4-Dichlorobenzene	**9.3**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4,5-Trichlorophenol	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4,6-Trichlorophenol	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dichlorophenol	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dimethylphenol	< 1.6	1.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dinitrophenol	< 1.6	1.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dinitrotoluene	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,6-Dinitrotoluene	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Chloronaphthalene	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Chlorophenol	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Methylnaphthalene	**5.0**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Methylphenol	< 1.6	1.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Nitroaniline	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Nitrophenol	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3,3-Dichlorobenzidine	< 3.0	3.0	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3-/4-Methylphenol	< 1.6	1.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3-Nitroaniline	< 1.6	1.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 1.6	1.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chloro-3-methylphenol	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chloroaniline	< 1.6	1.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Nitroaniline	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Nitrophenol	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Acenaphthene	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Acenaphthylene	**0.81**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Aniline	< 1.6	1.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-70049

0607249-04 (Soil)

11/29/06 10:55

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	**2.9**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benz(a)anthracene	**1.7**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(a)pyrene	**1.3**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(b)fluoranthene	**1.5**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(g,h,i)perylene	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(k)fluoranthene	**1.1**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzyl alcohol	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	< 3.0	3.0	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Butyl benzyl phthalate	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Carbazole	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Chrysene	**2.1**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dibenz(a,h)anthracene	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dibenzofuran	**1.6**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Diethylphthalate	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dimethyl phthalate	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Di-n-butyl phthalate	< 3.0	3.0	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Di-n-octyl phthalate	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Fluoranthene	**4.8**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Fluorene	**53**	6.2	mg/kg dry	10	B6L0116	12/7/06	12/13/06	EPA 8270C	
Hexachlorobenzene	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorobutadiene	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorocyclopentadiene	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachloroethane	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Indeno(1,2,3-cd)pyrene	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Isophorone	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Naphthalene	**24**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Nitrobenzene	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodimethylamine	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodiphenylamine	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pentachlorophenol	< 1.6	1.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Phenanthrene	**6.3**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	

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BRAUN INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-70049

0607249-04 (Soil)

11/29/06 10:55

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenol	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pyrene	**4.3**	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pyridine	< 0.62	0.62	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*110 %*	*Limits: 30-150%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl	*69.1 %*	*Limits: 30-104%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: 2-Fluorophenol	*61.8 %*	*Limits: 30-106%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Nitrobenzene-d5	*47.4 %*	*Limits: 30-90%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Phenol-d6	*69.3 %*	*Limits: 30-102%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Terphenyl-d14	*75.3 %*	*Limits: 30-115%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloroethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloroethene	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloropropene	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,4-Trichlorobenzene	**0.97**	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,4-Trimethylbenzene	**3.7**	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dibromoethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichlorobenzene	**3.0**	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichloroethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichloropropane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3,5-Trimethylbenzene	**2.7**	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3-Dichlorobenzene	**0.77**	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3-Dichloropropane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,4-Dichlorobenzene	**8.1**	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
2,2-Dichloropropane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
2-Butanone (MEK)	< 7.4	7.4	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	

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BRAUN INTERTEC

11001 Hampshire Ave. S.
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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr:Steven J. Albrecht
St. Paul MN. 55114	PO Number:	Account ID:S15039

OL-STA-70049

0607249-04 (Soil)

11/29/06 10:55

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chlorotoluene	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
4-Chlorotoluene	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
4-Isopropyltoluene	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Acetone	< 15	15	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Allyl Chloride	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Benzene	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromobenzene	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromochloromethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromodichloromethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromoform	< 3.7	3.7	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromomethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Carbon Tetrachloride	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chlorobenzene	**4.1**	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chlorodibromomethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloroethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloroform	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloromethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
cis-1,3-Dichloropropene	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Dibromomethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Dichlorodifluoromethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	go
Dichlorofluoromethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Ethyl Ether	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Ethylbenzene	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Hexachlorobutadiene	< 1.5	1.5	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Isopropylbenzene	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
m,p-Xylenes	**3.5**	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methyl Isobutyl Ketone	< 7.4	7.4	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methylene chloride	< 3.7	3.7	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methyl-t-butyl ether	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Naphthalene	**29**	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
n-Butylbenzene	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
n-Propylbenzene	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
o-Xylene	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
sec-Butylbenzene	**6.2**	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Styrene	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	

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BRAUN INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
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Service Engineering Group	Client Ref:	2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID: S15039

OL-STA-70049

0607249-04 (Soil)

11/29/06 10:55

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
tert-Butylbenzene	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Tetrachloroethene	< 1.5	1.5	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Tetrahydrofuran	< 7.4	7.4	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Toluene	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
trans-1,3-Dichloropropene	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Trichloroethene	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Trichlorofluoromethane	< 0.74	0.74	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Vinyl chloride	< 1.9	1.9	mg/kg dry	5	B6L0064	12/1/06	12/1/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*101 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*93.2 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*100 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*100 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Trip Blank

0607249-05 (Soil)

11/29/06 0:00

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloroethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloroethene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,1-Dichloropropene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dibromoethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichloroethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,2-Dichloropropane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,3-Dichloropropane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
2,2-Dichloropropane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
2-Butanone (MEK)	< 0.50	0.50	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
2-Chlorotoluene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
4-Chlorotoluene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
4-Isopropyltoluene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Acetone	< 1.0	1.0	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Allyl Chloride	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Benzene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromobenzene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromochloromethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromodichloromethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromoform	< 0.25	0.25	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Bromomethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Carbon Tetrachloride	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chlorobenzene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	

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BRAUN INTERTEC

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Trip Blank

0607249-05 (Soil)

11/29/06 0:00

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chlorodibromomethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloroethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloroform	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Chloromethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Dibromomethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Dichlorodifluoromethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	go
Dichlorofluoromethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Ethyl Ether	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Ethylbenzene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Hexachlorobutadiene	< 0.10	0.10	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Isopropylbenzene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
m,p-Xylenes	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.50	0.50	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methylene chloride	< 0.25	0.25	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Methyl-t-butyl ether	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Naphthalene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
n-Butylbenzene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
n-Propylbenzene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
o-Xylene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
sec-Butylbenzene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Styrene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
tert-Butylbenzene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Tetrachloroethene	< 0.10	0.10	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Tetrahydrofuran	< 0.50	0.50	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Toluene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
trans-1,3-Dichloropropene	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Trichloroethene	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Trichlorofluoromethane	< 0.050	0.050	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Vinyl chloride	< 0.12	0.12	mg/kg	1	B6L0064	12/1/06	12/1/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*110 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*89.6 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*101 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*100 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/1/06*	*EPA 8260B*	

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Classical Chemistry Parameters - Quality Control

Batch B6K0465 - % Solids

Method Blank (B6K0465-BLK1) Prepared: 11/30/06 Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	<		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B6K0465-SRM1) Prepared: 11/30/06 Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	87.4		% Wt	88.8	NA	98.4	90-110	NA	NA	

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675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0116 - EPA 3545

Method Blank (B6L0116-BLK1) Prepared: 12/07/06 Analyzed: 12/11/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Diphenylhydrazine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,4,5-Trichlorophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,4,6-Trichlorophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dichlorophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dimethylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dinitrophenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dinitrotoluene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,6-Dinitrotoluene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chloronaphthalene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Methylnaphthalene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2-Nitroaniline	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Nitrophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
3,3-Dichlorobenzidine	< 0.33	0.33	mg/kg	NA	NA	NA	NA	NA	NA	
3-/4-Methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
3-Nitroaniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4,6-Dinitro-2-methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4-Bromophenyl phenyl ether	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chloro-3-methylphenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chloroaniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorophenyl phenyl ether	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
4-Nitroaniline	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
4-Nitrophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthylene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Aniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
Anthracene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benz(a)anthracene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(g,h,i)perylene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzyl alcohol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
bis(2-Chloroethoxy)methane	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-Chloroethyl)ether	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-chloroisopropyl)ether	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-Ethylhexyl)phthalate	< 0.33	0.33	mg/kg	NA	NA	NA	NA	NA	NA	
Butyl benzyl phthalate	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Carbazole	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Chrysene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenzofuran	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0116 - EPA 3545

Method Blank (B6L0116-BLK1) Prepared: 12/07/06 Analyzed: 12/11/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diethylphthalate	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Dimethyl phthalate	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Di-n-butyl phthalate	< 0.33	0.33	mg/kg	NA	NA	NA	NA	NA	NA	
Di-n-octyl phthalate	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Fluoranthene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Fluorene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobutadiene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorocyclopentadiene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachloroethane	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Isophorone	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Nitrobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodimethylamine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodi-n-propylamine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodiphenylamine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Pentachlorophenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
Phenanthrene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Phenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Pyrene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Pyridine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 2,4,6-Tribromophenol	*1.49*		*mg/kg*	*1.67*	*NA*	*89.2*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.718*		*mg/kg*	*0.835*	*NA*	*86.0*	*30-104*			
Surrogate: 2-Fluorophenol	*1.18*		*mg/kg*	*1.67*	*NA*	*70.7*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.596*		*mg/kg*	*0.835*	*NA*	*71.4*	*30-90*			
Surrogate: Phenol-d6	*1.25*		*mg/kg*	*1.67*	*NA*	*74.9*	*30-102*			
Surrogate: Terphenyl-d14	*0.740*		*mg/kg*	*0.835*	*NA*	*88.6*	*30-115*			

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0116 - EPA 3545

Laboratory Control Sample (B6L0116-BS1)

Prepared: 12/07/06 Analyzed: 12/11/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.18	0.067	mg/kg	1.68	NA	70.2	55-115	NA	NA	
1,4-Dichlorobenzene	1.20	0.067	mg/kg	1.68	NA	71.4	55-115	NA	NA	
2,4-Dinitrotoluene	1.65	0.067	mg/kg	1.68	NA	98.2	60-130	NA	NA	
2-Chlorophenol	1.27	0.067	mg/kg	1.68	NA	75.6	55-115	NA	NA	
4-Chloro-3-methylphenol	1.39	0.067	mg/kg	1.68	NA	82.7	55-115	NA	NA	
4-Nitrophenol	1.71	0.067	mg/kg	1.68	NA	102	45-130	NA	NA	
Acenaphthene	1.50	0.067	mg/kg	1.68	NA	89.3	50-115	NA	NA	
N-Nitrosodi-n-propylamine	1.51	0.067	mg/kg	1.68	NA	89.9	65-115	NA	NA	
Pentachlorophenol	1.35	0.17	mg/kg	1.68	NA	80.4	30-130	NA	NA	
Phenol	1.32	0.067	mg/kg	1.68	NA	78.6	55-115	NA	NA	
Pyrene	1.37	0.067	mg/kg	1.68	NA	81.5	50-130	NA	NA	
Surrogate: 2,4,6-Tribromophenol	*1.64*		*mg/kg*	*1.68*	*NA*	*97.6*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.773*		*mg/kg*	*0.841*	*NA*	*91.9*	*30-104*			
Surrogate: 2-Fluorophenol	*1.24*		*mg/kg*	*1.68*	*NA*	*73.8*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.650*		*mg/kg*	*0.841*	*NA*	*77.3*	*30-90*			
Surrogate: Phenol-d6	*1.31*		*mg/kg*	*1.68*	*NA*	*78.0*	*30-102*			
Surrogate: Terphenyl-d14	*0.737*		*mg/kg*	*0.841*	*NA*	*87.6*	*30-115*			

Laboratory Control Sample Duplicate (B6L0116-BSD1)

Prepared: 12/07/06 Analyzed: 12/11/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.18	0.067	mg/kg	1.67	NA	70.7	55-115	0.00	25	
1,4-Dichlorobenzene	1.21	0.067	mg/kg	1.67	NA	72.5	55-115	0.830	25	
2,4-Dinitrotoluene	1.58	0.067	mg/kg	1.67	NA	94.6	60-130	4.33	25	
2-Chlorophenol	1.29	0.067	mg/kg	1.67	NA	77.2	55-115	1.56	25	
4-Chloro-3-methylphenol	1.35	0.067	mg/kg	1.67	NA	80.8	55-115	2.92	25	
4-Nitrophenol	1.66	0.067	mg/kg	1.67	NA	99.4	45-130	2.97	30	
Acenaphthene	1.46	0.067	mg/kg	1.67	NA	87.4	50-115	2.70	25	
N-Nitrosodi-n-propylamine	1.49	0.067	mg/kg	1.67	NA	89.2	65-115	1.33	25	
Pentachlorophenol	1.34	0.17	mg/kg	1.67	NA	80.2	30-130	0.743	30	
Phenol	1.33	0.067	mg/kg	1.67	NA	79.6	55-115	0.755	25	
Pyrene	1.36	0.067	mg/kg	1.67	NA	81.4	50-130	0.733	25	
Surrogate: 2,4,6-Tribromophenol	*1.59*		*mg/kg*	*1.67*	*NA*	*95.2*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.759*		*mg/kg*	*0.833*	*NA*	*91.1*	*30-104*			
Surrogate: 2-Fluorophenol	*1.23*		*mg/kg*	*1.67*	*NA*	*73.7*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.651*		*mg/kg*	*0.833*	*NA*	*78.2*	*30-90*			
Surrogate: Phenol-d6	*1.31*		*mg/kg*	*1.67*	*NA*	*78.4*	*30-102*			
Surrogate: Terphenyl-d14	*0.726*		*mg/kg*	*0.833*	*NA*	*87.2*	*30-115*			

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St. Paul MN, 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B6L0064 - EPA 5030B

Method Blank (B6L0064-BLK1) Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichlorotrifluoroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromo-3-chloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromoethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3,5-Trimethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	< 0.50	0.50	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorotoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorotoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
4-Isopropyltoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Acetone	< 1.0	1.0	mg/kg	NA	NA	NA	NA	NA	NA	
Allyl Chloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Benzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromochloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromoform	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Bromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Carbon Tetrachloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorodibromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroform	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dibromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorodifluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethyl Ether	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B6L0064 - EPA 5030B

Method Blank (B6L0064-BLK1)

Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Hexachlorobutadiene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Isopropylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylenes	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl Isobutyl Ketone	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Methylene chloride	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl-t-butyl ether	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
n-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
n-Propylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
sec-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Styrene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
tert-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrachloroethene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrahydrofuran	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Trichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Trichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Vinyl chloride	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*26.2*		*ug/L*	*25.0*	*NA*	*105*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*22.8*		*ug/L*	*25.0*	*NA*	*91.2*	*80-120*			
Surrogate: Dibromofluoromethane	*25.4*		*ug/L*	*25.0*	*NA*	*102*	*80-120*			
Surrogate: Toluene-d8	*25.5*		*ug/L*	*25.0*	*NA*	*102*	*80-120*			

Laboratory Control Sample (B6L0064-BS1)

Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	NA	NA	
1,1,1-Trichloroethane	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	NA	NA	
1,1,2,2-Tetrachloroethane	1.07	0.050	mg/kg	1.25	NA	85.6	75-125	NA	NA	
1,1,2-Trichloroethane	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	NA	NA	
1,1,2-Trichlorotrifluoroethane	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	NA	NA	
1,1-Dichloroethane	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	NA	NA	
1,1-Dichloroethene	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	NA	NA	
1,1-Dichloropropene	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	NA	NA	
1,2,3-Trichlorobenzene	1.05	0.050	mg/kg	1.25	NA	84.0	75-125	NA	NA	
1,2,3-Trichloropropane	1.07	0.050	mg/kg	1.25	NA	85.6	75-125	NA	NA	
1,2,4-Trichlorobenzene	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	NA	NA	
1,2,4-Trimethylbenzene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
1,2-Dibromo-3-chloropropane	0.980	0.050	mg/kg	1.25	NA	78.4	75-125	NA	NA	
1,2-Dibromoethane	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	NA	NA	
1,2-Dichlorobenzene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	NA	NA	
1,2-Dichloroethane	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	NA	NA	

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr:Steven J. Albrecht
St. Paul MN. 55114	PO Number:	Account ID:S15039

Volatile Organic Compounds - Quality Control

Batch B6L0064 - EPA 5030B

Laboratory Control Sample (B6L0064-BS1) Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dichloropropane	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	NA	NA	
1,3,5-Trimethylbenzene	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	NA	NA	
1,3-Dichlorobenzene	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	NA	NA	
1,3-Dichloropropane	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	NA	NA	
1,4-Dichlorobenzene	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	NA	NA	
1,4-Dioxane	0.00		mg/kg	NA	NA	NA	75-125	NA	NA	
2,2-Dichloropropane	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	NA	NA	
2-Butanone (MEK)	0.964	0.50	mg/kg	1.25	NA	77.1	75-125	NA	NA	
2-Chlorotoluene	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	NA	NA	
4-Chlorotoluene	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	NA	NA	
4-Isopropyltoluene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
Acetone	1.07	1.0	mg/kg	1.25	NA	85.6	75-125	NA	NA	
Allyl Chloride	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
Benzene	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	NA	NA	
Bromobenzene	1.25	0.050	mg/kg	1.25	NA	100	75-125	NA	NA	
Bromochloromethane	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	NA	NA	
Bromodichloromethane	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	NA	NA	
Bromoform	1.10	0.25	mg/kg	1.25	NA	88.0	75-125	NA	NA	
Bromomethane	1.18	0.050	mg/kg	1.25	NA	94.4	70-130	NA	NA	
Carbon Tetrachloride	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	NA	NA	
Chlorobenzene	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	NA	NA	
Chlorodibromomethane	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	NA	NA	
Chloroethane	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	NA	NA	
Chloroform	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	NA	NA	
Chloromethane	1.02	0.050	mg/kg	1.25	NA	81.6	75-125	NA	NA	
cis-1,2-Dichloroethene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	NA	NA	
cis-1,3-Dichloropropene	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	NA	NA	
Dibromomethane	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	NA	NA	
Dichlorodifluoromethane	0.911	0.050	mg/kg	1.25	NA	72.9	70-130	NA	NA	
Dichlorofluoromethane	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	NA	NA	
Ethyl Ether	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	NA	NA	
Ethylbenzene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	NA	NA	
Hexachlorobutadiene	1.15	0.10	mg/kg	1.25	NA	92.0	75-125	NA	NA	
Isopropylbenzene	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	NA	NA	
m,p-Xylenes	2.34	0.050	mg/kg	2.50	NA	93.6	75-125	NA	NA	
Methyl Isobutyl Ketone	0.994	0.25	mg/kg	1.25	NA	79.5	75-125	NA	NA	
Methylene chloride	0.994	0.25	mg/kg	1.25	NA	79.5	75-125	NA	NA	
Methyl-t-butyl ether	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	NA	NA	
Naphthalene	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	NA	NA	
n-Butylbenzene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
n-Propylbenzene	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	NA	NA	
o-Xylene	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	NA	NA	
sec-Butylbenzene	1.25	0.050	mg/kg	1.25	NA	100	75-125	NA	NA	
Styrene	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	NA	NA	
tert-Butylbenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Tetrachloroethene	1.17	0.10	mg/kg	1.25	NA	93.6	75-125	NA	NA	
Tetrahydrofuran	0.990	0.25	mg/kg	1.25	NA	79.2	75-125	NA	NA	

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B6L0064 - EPA 5030B

Laboratory Control Sample (B6L0064-BS1)

Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Toluene	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	NA	NA	
trans-1,2-Dichloroethene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
trans-1,3-Dichloropropene	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	NA	NA	
Trichloroethene	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	NA	NA	
Trichlorofluoromethane	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	NA	NA	
Vinyl chloride	1.08	0.12	mg/kg	1.25	NA	86.4	70-130	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*24.7*		*ug/L*	*25.0*	*NA*	*98.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.5*		*ug/L*	*25.0*	*NA*	*98.0*	*80-120*			
Surrogate: Dibromofluoromethane	*25.6*		*ug/L*	*25.0*	*NA*	*102*	*80-120*			
Surrogate: Toluene-d8	*24.4*		*ug/L*	*25.0*	*NA*	*97.6*	*80-120*			

Laboratory Control Sample Duplicate (B6L0064-BSD1)

Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	2.71	20	
1,1,1-Trichloroethane	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	3.45	20	
1,1,2,2-Tetrachloroethane	1.04	0.050	mg/kg	1.25	NA	83.2	75-125	2.84	20	
1,1,2-Trichloroethane	1.07	0.050	mg/kg	1.25	NA	85.6	75-125	1.85	20	
1,1,2-Trichlorotrifluoroethane	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	3.54	20	
1,1-Dichloroethane	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	2.60	20	
1,1-Dichloroethene	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	1.72	20	
1,1-Dichloropropene	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	1.72	20	
1,2,3-Trichlorobenzene	1.02	0.050	mg/kg	1.25	NA	81.6	75-125	2.90	20	
1,2,3-Trichloropropane	1.02	0.050	mg/kg	1.25	NA	81.6	75-125	4.78	20	
1,2,4-Trichlorobenzene	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	2.64	20	
1,2,4-Trimethylbenzene	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	4.12	20	
1,2-Dibromo-3-chloropropane	0.956	0.050	mg/kg	1.25	NA	76.5	75-125	2.48	20	
1,2-Dibromoethane	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	1.80	20	
1,2-Dichlorobenzene	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	3.39	20	
1,2-Dichloroethane	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	3.57	20	
1,2-Dichloropropane	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	3.42	20	
1,3,5-Trimethylbenzene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	2.47	20	
1,3-Dichlorobenzene	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	3.42	20	
1,3-Dichloropropane	1.08	0.050	mg/kg	1.25	NA	86.4	75-125	2.74	20	
1,4-Dichlorobenzene	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	2.67	20	
2,2-Dichloropropane	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	3.33	20	
2-Butanone (MEK)	0.979	0.50	mg/kg	1.25	NA	78.3	75-125	1.54	20	
2-Chlorotoluene	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	2.71	20	
4-Chlorotoluene	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	1.80	20	
4-Isopropyltoluene	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	4.12	20	
Acetone	1.09	1.0	mg/kg	1.25	NA	87.2	75-125	1.85	20	
Allyl Chloride	1.27	0.050	mg/kg	1.25	NA	102	75-125	1.56	20	
Benzene	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	4.18	20	
Bromobenzene	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	3.25	20	
Bromochloromethane	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	2.69	20	

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Service Engineering Group	Client Ref: 2006 Tier I pricing	Work Order #: 0607249
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr:Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID:S15039

Volatile Organic Compounds - Quality Control

Batch B6L0064 - EPA 5030B

Laboratory Control Sample Duplicate (B6L0064-BSD1) Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bromodichloromethane	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	4.37	20	
Bromoform	1.07	0.25	mg/kg	1.25	NA	85.6	75-125	2.76	20	
Bromomethane	1.13	0.050	mg/kg	1.25	NA	90.4	70-130	4.33	20	
Carbon Tetrachloride	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	5.22	20	
Chlorobenzene	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	2.67	20	
Chlorodibromomethane	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	1.79	20	
Chloroethane	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	3.60	20	
Chloroform	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	1.75	20	
Chloromethane	0.977	0.050	mg/kg	1.25	NA	78.2	75-125	4.31	20	
cis-1,2-Dichloroethene	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	1.68	20	
cis-1,3-Dichloropropene	1.07	0.050	mg/kg	1.25	NA	85.6	75-125	3.67	20	
Dibromomethane	1.07	0.050	mg/kg	1.25	NA	85.6	75-125	2.76	20	
Dichlorodifluoromethane	0.861	0.050	mg/kg	1.25	NA	68.9	70-130	5.64	20	
Dichlorofluoromethane	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	5.36	20	
Ethyl Ether	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	3.60	20	
Ethylbenzene	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	3.39	20	
Hexachlorobutadiene	1.11	0.10	mg/kg	1.25	NA	88.8	75-125	3.54	20	
Isopropylbenzene	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	2.51	20	
m,p-Xylenes	2.28	0.050	mg/kg	2.50	NA	91.2	75-125	2.60	20	
Methyl Isobutyl Ketone	0.967	0.25	mg/kg	1.25	NA	77.4	75-125	2.75	20	
Methylene chloride	0.962	0.25	mg/kg	1.25	NA	77.0	75-125	3.27	20	
Methyl-t-butyl ether	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	1.77	20	
Naphthalene	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	1.82	20	
n-Butylbenzene	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	2.45	20	
n-Propylbenzene	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	2.69	20	
o-Xylene	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	3.57	20	
sec-Butylbenzene	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	3.25	20	
Styrene	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	1.80	20	
tert-Butylbenzene	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	3.20	20	
Tetrachloroethene	1.11	0.10	mg/kg	1.25	NA	88.8	75-125	5.26	20	
Tetrahydrofuran	0.987	0.25	mg/kg	1.25	NA	79.0	75-125	0.303	20	
Toluene	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	2.62	20	
trans-1,2-Dichloroethene	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	2.41	20	
trans-1,3-Dichloropropene	1.06	0.050	mg/kg	1.25	NA	84.8	75-125	2.79	20	
Trichloroethene	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	3.42	20	
Trichlorofluoromethane	1.05	0.050	mg/kg	1.25	NA	84.0	75-125	11.7	20	
Vinyl chloride	1.01	0.12	mg/kg	1.25	NA	80.8	70-130	6.70	20	
Surrogate: 1,2-Dichloroethane-d4	*24.6*		*ug/L*	*25.0*	*NA*	*98.4*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.7*		*ug/L*	*25.0*	*NA*	*98.8*	*80-120*			
Surrogate: Dibromofluoromethane	*25.8*		*ug/L*	*25.0*	*NA*	*103*	*80-120*			
Surrogate: Toluene-d8	*24.5*		*ug/L*	*25.0*	*NA*	*98.0*	*80-120*			

BRAUN INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group 675 Vandalia Street St. Paul MN, 55114	Client Ref: 2006 Tier I pricing Client Contact: Mr. Dean Myers PO Number:	Work Order #: 0607249 Project Mgr: Steven J. Albrecht Account ID: S15039

For Braun Intertec Use Only
Braun Intertec Project No.
0607249

BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438

REQUEST FOR LABORATORY ANALYTICAL SERVICES

Bottle orders and sampling inquiries:
labservices@braunintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

IMPORTANT
Date Results Requested: Standard
Time
Rush Charges Authorized? ___ Yes ___ No
Rush / Quote #

Page 1 of 1

REPORT RESULTS TO
Contact Name: Dean Myers
Company: Service Eng Group
Mailing Address: 675 Vandalia Street
City, State, Zip: St. Paul 55114
Telephone #: 651-644-6650 Fax #: 651-644-7008
E-mail:

SEND INVOICE TO
Contact Name: Company:
Address: SAME
City, State, Zip:
Telephone #: Fax #:

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petroleum, reporting units)

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request)

	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	VOC's EXO	SVOC's EXO								FOR LAB USE ONLY
1	OL-STA-10114	11/28	10:15	Soil/Sediment		4		X	X								0607249-01
2	OL-STA-70048	11/29	10:35	Soil/Sediment		4		X	X								-02
3	OL-STA-10118	11/29	10:45	Sediment		4		X	X								-03
4	OL-STA-70049	11/29	10:55	↓		4		X	X								-04
5	Trip Blank							X									-05
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

CHAIN OF CUSTODY
Collected by: (Print) Dean Myers
Relinquished by: [signature] Date/Time 11/29 13:05
Relinquished by: Date/Time
Collector's Signature: [signature]
Received by: Date/Time
Received Contents Not Verified: Date/Time
Received Contents Verified: [signature] Date/Time 11/29/06 1309
Custody Seal Intact ☐ Yes ☐ No ☑ N/A
On Ice ☑ Yes ☐ No
Temp Blank ☐ Yes ☑ No
Temp: 5.4 °C
Comments: HAND DEL, ON BLUE ICE

Form # C002.01 F:\Groups\QA-QC\Forms\plans\services\COC-CS02 Effective Date: 7/23/06

BRAUN INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: brauninterteC.com

DEC 18 2006

Mr. Dean Myers
Service Engineering Group
675 Vandalia Street
St. Paul, MN 55114

December 13, 2006

Work Order #: 0607280

RE: Parsons Onondaga 05017

Dear Mr. Dean Myers

Braun Intertec Corporation received samples for the project identified above on 11/30/06 13:22. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Steven J. Albrecht

Steven J. Albrecht
Associate Principal

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

FILE COPY
#05017 G

BRAUN
INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group	Client Ref:	Parsons Onondaga 05017	Work Order #: 0607280
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID: S15039

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

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Service Engineering Group	Client Ref:	Parsons Onondaga 05017	Work Order #: 0607280
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID: S15039

Qualifiers and Abbreviations

vfa	The method reporting limit (MRL) was raised for one or more analytes; a dilution of the sample was necessary due to high analyte levels and/or matrix interferences.
sk	The surrogate recovery is outside of laboratory control limits due to matrix interference.
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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Service Engineering Group	Client Ref:	Parsons Onondaga 05017	Work Order #: 0607280
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID: S15039

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OL-STA-10115	0607280-01	Soil	11/30/06 10:45	11/30/06 13:22
OL-STA-70050	0607280-02	Soil	11/30/06 10:55	11/30/06 13:22

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Service Engineering Group 675 Vandalia Street St. Paul MN, 55114	Client Ref: Client Contact: PO Number:	Parsons Onondaga 05017 Mr. Dean Myers	Work Order #: 0607280 Project Mgr:Steven J. Albrecht Account ID:S15039		

Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	8.5 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	No
Custody Seals Used:	No	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	No	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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Service Engineering Group	Client Ref: Parsons Onondaga 05017	Work Order #: 0607280
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-10115

0607280-01 (Soil)

11/30/06 10:45

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**39**		% Wt	1	B6L0020	12/1/06	12/5/06	SM 2540G	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,2-Dichlorobenzene	**4.1**	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,2-Diphenylhydrazine	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,3-Dichlorobenzene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,4-Dichlorobenzene	**4.8**	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4,5-Trichlorophenol	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4,6-Trichlorophenol	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dichlorophenol	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dimethylphenol	< 0.85	0.85	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dinitrophenol	< 0.85	0.85	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dinitrotoluene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,6-Dinitrotoluene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Chloronaphthalene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Chlorophenol	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Methylnaphthalene	**9.7**	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Methylphenol	< 0.85	0.85	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Nitroaniline	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Nitrophenol	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3,3-Dichlorobenzidine	< 1.6	1.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3-/4-Methylphenol	< 0.85	0.85	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3-Nitroaniline	< 0.85	0.85	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 0.85	0.85	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chloro-3-methylphenol	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chloroaniline	< 0.85	0.85	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Nitroaniline	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Nitrophenol	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Acenaphthene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Acenaphthylene	**1.4**	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Aniline	< 0.85	0.85	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Anthracene	**1.3**	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	

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Bloomington, MN 55438
952-995-2000 Phone
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Service Engineering Group 675 Vandalia Street St. Paul MN, 55114	Client Ref: Parsons Onondaga 05017 Client Contact: Mr. Dean Myers PO Number:	Work Order #: 0607280 Project Mgr:Steven J. Albrecht Account ID:S15039

OL-STA-10115

0607280-01 (Soil)

11/30/06 10:45

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benz(a)anthracene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(a)pyrene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(b)fluoranthene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(g,h,i)perylene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(k)fluoranthene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzyl alcohol	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	< 1.6	1.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Butyl benzyl phthalate	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Carbazole	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Chrysene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dibenz(a,h)anthracene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dibenzofuran	**2.4**	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Diethylphthalate	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dimethyl phthalate	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Di-n-butyl phthalate	< 1.6	1.6	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Di-n-octyl phthalate	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Fluoranthene	**0.65**	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Fluorene	**31**	3.3	mg/kg dry	10	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorobenzene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorobutadiene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorocyclopentadiene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachloroethane	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Indeno(1,2,3-cd)pyrene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Isophorone	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Naphthalene	**150**	3.3	mg/kg dry	10	B6L0116	12/7/06	12/11/06	EPA 8270C	
Nitrobenzene	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodimethylamine	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodiphenylamine	**2.3**	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pentachlorophenol	< 0.85	0.85	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Phenanthrene	**1.9**	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Phenol	**3.1**	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	

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Service Engineering Group	Client Ref: Parsons Onondaga 05017	Work Order #: 0607280
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-10115

0607280-01 (Soil)

11/30/06 10:45

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Pyrene	**0.75**	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pyridine	< 0.33	0.33	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*14.6 %*	*Limits: 30-150%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	*sk*
Surrogate: 2-Fluorobiphenyl	*66.8 %*	*Limits: 30-104%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: 2-Fluorophenol	*18.2 %*	*Limits: 30-106%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	*sk*
Surrogate: Nitrobenzene-d5	*51.4 %*	*Limits: 30-90%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Phenol-d6	*45.2 %*	*Limits: 30-102%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Terphenyl-d14	*64.7 %*	*Limits: 30-115%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1-Dichloroethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1-Dichloroethene	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1-Dichloropropene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2,4-Trimethylbenzene	**43**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2-Dibromoethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2-Dichlorobenzene	**5.6**	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2-Dichloroethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2-Dichloropropane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,3,5-Trimethylbenzene	**30**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,3-Dichloropropane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,4-Dichlorobenzene	**5.6**	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
2,2-Dichloropropane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
2-Butanone (MEK)	< 6.4	6.4	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
2-Chlorotoluene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	

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675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-10115

0607280-01 (Soil)

11/30/06 10:45

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chlorotoluene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
4-Isopropyltoluene	**3.1**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Acetone	< 13	13	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Allyl Chloride	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Benzene	**10**	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Bromobenzene	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Bromochloromethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Bromodichloromethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Bromoform	< 3.2	3.2	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Bromomethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Carbon Tetrachloride	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Chlorobenzene	**3.2**	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Chlorodibromomethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Chloroethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Chloroform	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Chloromethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
cis-1,3-Dichloropropene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Dibromomethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Dichlorodifluoromethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Dichlorofluoromethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Ethyl Ether	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Ethylbenzene	**5.7**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Hexachlorobutadiene	< 1.3	1.3	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Isopropylbenzene	**12**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
m,p-Xylenes	**100**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Methyl Isobutyl Ketone	< 6.4	6.4	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Methylene chloride	< 3.2	3.2	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Methyl-t-butyl ether	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Naphthalene	**230**	6.4	mg/kg dry	50	B6L0064	12/1/06	12/5/06	EPA 8260B	
n-Butylbenzene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
n-Propylbenzene	**2.3**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
o-Xylene	**32**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
sec-Butylbenzene	**27**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Styrene	**3.8**	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	

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Service Engineering Group	Client Ref: Parsons Onondaga 05017	Work Order #: 0607280
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-10115

0607280-01 (Soil)

11/30/06 10:45

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
tert-Butylbenzene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Tetrachloroethene	< 1.3	1.3	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Tetrahydrofuran	< 6.4	6.4	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Toluene	**28**	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
trans-1,3-Dichloropropene	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Trichloroethene	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Trichlorofluoromethane	< 0.64	0.64	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Vinyl chloride	< 1.6	1.6	mg/kg dry	5	B6L0064	12/1/06	12/5/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*103 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/5/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*98.4 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/5/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*99.2 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/5/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*98.0 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/5/06*	*EPA 8260B*	

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Service Engineering Group	Client Ref: Parsons Onondaga 05017	Work Order #: 0607280
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-70050

0607280-02 (Soil)

11/30/06 10:55

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**34**		% Wt	1	B6L0020	12/1/06	12/5/06	SM 2540G	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,2-Dichlorobenzene	**1.9**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,2-Diphenylhydrazine	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,3-Dichlorobenzene	**0.70**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
1,4-Dichlorobenzene	**6.3**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4,5-Trichlorophenol	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4,6-Trichlorophenol	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dichlorophenol	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dimethylphenol	< 1.5	1.5	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dinitrophenol	< 1.5	1.5	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,4-Dinitrotoluene	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2,6-Dinitrotoluene	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Chloronaphthalene	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Chlorophenol	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Methylnaphthalene	**19**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Methylphenol	< 1.5	1.5	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Nitroaniline	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
2-Nitrophenol	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3,3-Dichlorobenzidine	< 2.9	2.9	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3-/4-Methylphenol	< 1.5	1.5	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
3-Nitroaniline	< 1.5	1.5	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 1.5	1.5	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chloro-3-methylphenol	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chloroaniline	< 1.5	1.5	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Nitroaniline	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
4-Nitrophenol	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Acenaphthene	**6.4**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Acenaphthylene	**3.8**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Aniline	< 1.5	1.5	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	

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St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-70050

0607280-02 (Soil)

11/30/06 10:55

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	**4.9**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benz(a)anthracene	**3.0**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(a)pyrene	**2.2**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(b)fluoranthene	**2.5**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(g,h,i)perylene	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzo(k)fluoranthene	**2.5**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Benzyl alcohol	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	**3.7**	2.9	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Butyl benzyl phthalate	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Carbazole	**1.9**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Chrysene	**3.5**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dibenz(a,h)anthracene	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dibenzofuran	**7.3**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Diethylphthalate	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Dimethyl phthalate	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Di-n-butyl phthalate	< 2.9	2.9	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Di-n-octyl phthalate	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Fluoranthene	**10**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Fluorene	**41**	5.8	mg/kg dry	10	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorobenzene	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorobutadiene	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachlorocyclopentadiene	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Hexachloroethane	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Indeno(1,2,3-cd)pyrene	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Isophorone	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Naphthalene	**69**	5.8	mg/kg dry	10	B6L0116	12/7/06	12/11/06	EPA 8270C	
Nitrobenzene	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodimethylamine	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
N-Nitrosodiphenylamine	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pentachlorophenol	< 1.5	1.5	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Phenanthrene	**18**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	

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675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-70050

0607280-02 (Soil)

11/30/06 10:55

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenol	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pyrene	**7.6**	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Pyridine	< 0.58	0.58	mg/kg dry	1	B6L0116	12/7/06	12/11/06	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*110 %*	*Limits: 30-150%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl	*67.5 %*	*Limits: 30-104%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: 2-Fluorophenol	*65.1 %*	*Limits: 30-106%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Nitrobenzene-d5	*46.7 %*	*Limits: 30-90%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Phenol-d6	*72.9 %*	*Limits: 30-102%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	
Surrogate: Terphenyl-d14	*76.5 %*	*Limits: 30-115%*			*B6L0116*	*12/7/06*	*12/11/06*	*EPA 8270C*	

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1,1-Trichloroethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1,2-Trichloroethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1-Dichloroethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1-Dichloroethene	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,1-Dichloropropene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2,3-Trichloropropane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2,4-Trimethylbenzene	**7.4**	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2-Dibromoethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2-Dichlorobenzene	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2-Dichloroethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,2-Dichloropropane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,3-Dichlorobenzene	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,3-Dichloropropane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
1,4-Dichlorobenzene	**6.4**	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
2,2-Dichloropropane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
2-Butanone (MEK)	< 29	29	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	

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675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-70050

0607280-02 (Soil)

11/30/06 10:55

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chlorotoluene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
4-Chlorotoluene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
4-Isopropyltoluene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Acetone	< 58	58	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Allyl Chloride	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Benzene	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Bromobenzene	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Bromochloromethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Bromodichloromethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Bromoform	< 15	15	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Bromomethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Carbon Tetrachloride	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Chlorobenzene	**3.3**	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Chlorodibromomethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Chloroethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Chloroform	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Chloromethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
cis-1,2-Dichloroethene	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
cis-1,3-Dichloropropene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Dibromomethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Dichlorodifluoromethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Dichlorofluoromethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Ethyl Ether	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Ethylbenzene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Hexachlorobutadiene	< 5.8	5.8	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Isopropylbenzene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
m,p-Xylenes	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Methyl Isobutyl Ketone	< 29	29	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Methylene chloride	< 15	15	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Methyl-t-butyl ether	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Naphthalene	**170**	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
n-Butylbenzene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
n-Propylbenzene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
o-Xylene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
sec-Butylbenzene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Styrene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	

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675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr:Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID:S15039

OL-STA-70050

0607280-02 (Soil)

11/30/06 10:55

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
tert-Butylbenzene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Tetrachloroethene	< 5.8	5.8	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Tetrahydrofuran	< 29	29	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Toluene	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
trans-1,2-Dichloroethene	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
trans-1,3-Dichloropropene	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Trichloroethene	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Trichlorofluoromethane	< 2.9	2.9	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Vinyl chloride	< 7.3	7.3	mg/kg dry	20	B6L0064	12/1/06	12/5/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*104 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/5/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*96.4 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/5/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*101 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/5/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*99.6 %*	*Limits: 80-120%*			*B6L0064*	*12/1/06*	*12/5/06*	*EPA 8260B*	

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St. Paul MN, 55114	PO Number:		Account ID: S15039

Classical Chemistry Parameters - Quality Control

Batch B6L0020 - Default Prep GenChem

Method Blank (B6L0020-BLK1) Prepared: 12/01/06 Analyzed: 12/05/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	<		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B6L0020-SRM1) Prepared: 12/01/06 Analyzed: 12/05/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	87.6		% Wt	88.8	NA	98.6	90-110	NA	NA	

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St. Paul MN, 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0116 - EPA 3545

Method Blank (B6L0116-BLK1) Prepared: 12/07/06 Analyzed: 12/11/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Diphenylhydrazine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,4,5-Trichlorophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,4,6-Trichlorophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dichlorophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dimethylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dinitrophenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dinitrotoluene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,6-Dinitrotoluene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chloronaphthalene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Methylnaphthalene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2-Nitroaniline	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Nitrophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
3,3-Dichlorobenzidine	< 0.33	0.33	mg/kg	NA	NA	NA	NA	NA	NA	
3-/4-Methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
3-Nitroaniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4,6-Dinitro-2-methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4-Bromophenyl phenyl ether	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chloro-3-methylphenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chloroaniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorophenyl phenyl ether	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
4-Nitroaniline	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
4-Nitrophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthylene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Aniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
Anthracene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benz(a)anthracene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(g,h,i)perylene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzyl alcohol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
bis(2-Chloroethoxy)methane	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-Chloroethyl)ether	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-chloroisopropyl)ether	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-Ethylhexyl)phthalate	< 0.33	0.33	mg/kg	NA	NA	NA	NA	NA	NA	
Butyl benzyl phthalate	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Carbazole	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Chrysene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenzofuran	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	

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St. Paul MN, 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0116 - EPA 3545

Method Blank (B6L0116-BLK1) Prepared: 12/07/06 Analyzed: 12/11/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diethylphthalate	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Dimethyl phthalate	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Di-n-butyl phthalate	< 0.33	0.33	mg/kg	NA	NA	NA	NA	NA	NA	
Di-n-octyl phthalate	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Fluoranthene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Fluorene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobutadiene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorocyclopentadiene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachloroethane	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Isophorone	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Nitrobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodimethylamine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodi-n-propylamine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodiphenylamine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Pentachlorophenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
Phenanthrene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Phenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Pyrene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Pyridine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 2,4,6-Tribromophenol	*1.49*		*mg/kg*	*1.67*	*NA*	*89.2*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.718*		*mg/kg*	*0.835*	*NA*	*86.0*	*30-104*			
Surrogate: 2-Fluorophenol	*1.18*		*mg/kg*	*1.67*	*NA*	*70.7*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.596*		*mg/kg*	*0.835*	*NA*	*71.4*	*30-90*			
Surrogate: Phenol-d6	*1.25*		*mg/kg*	*1.67*	*NA*	*74.9*	*30-102*			
Surrogate: Terphenyl-d14	*0.740*		*mg/kg*	*0.835*	*NA*	*88.6*	*30-115*			

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Service Engineering Group	Client Ref: Parsons Onondaga 05017	Work Order #: 0607280
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0116 - EPA 3545

Laboratory Control Sample (B6L0116-BS1)

Prepared: 12/07/06 Analyzed: 12/11/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.18	0.067	mg/kg	1.68	NA	70.2	55-115	NA	NA	
1,4-Dichlorobenzene	1.20	0.067	mg/kg	1.68	NA	71.4	55-115	NA	NA	
2,4-Dinitrotoluene	1.65	0.067	mg/kg	1.68	NA	98.2	60-130	NA	NA	
2-Chlorophenol	1.27	0.067	mg/kg	1.68	NA	75.6	55-115	NA	NA	
4-Chloro-3-methylphenol	1.39	0.067	mg/kg	1.68	NA	82.7	55-115	NA	NA	
4-Nitrophenol	1.71	0.067	mg/kg	1.68	NA	102	45-130	NA	NA	
Acenaphthene	1.50	0.067	mg/kg	1.68	NA	89.3	50-115	NA	NA	
N-Nitrosodi-n-propylamine	1.51	0.067	mg/kg	1.68	NA	89.9	65-115	NA	NA	
Pentachlorophenol	1.35	0.17	mg/kg	1.68	NA	80.4	30-130	NA	NA	
Phenol	1.32	0.067	mg/kg	1.68	NA	78.6	55-115	NA	NA	
Pyrene	1.37	0.067	mg/kg	1.68	NA	81.5	50-130	NA	NA	
Surrogate: 2,4,6-Tribromophenol	*1.64*		*mg/kg*	*1.68*	*NA*	*97.6*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.773*		*mg/kg*	*0.841*	*NA*	*91.9*	*30-104*			
Surrogate: 2-Fluorophenol	*1.24*		*mg/kg*	*1.68*	*NA*	*73.8*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.650*		*mg/kg*	*0.841*	*NA*	*77.3*	*30-90*			
Surrogate: Phenol-d6	*1.31*		*mg/kg*	*1.68*	*NA*	*78.0*	*30-102*			
Surrogate: Terphenyl-d14	*0.737*		*mg/kg*	*0.841*	*NA*	*87.6*	*30-115*			

Laboratory Control Sample Duplicate (B6L0116-BSD1)

Prepared: 12/07/06 Analyzed: 12/11/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.18	0.067	mg/kg	1.67	NA	70.7	55-115	0.00	25	
1,4-Dichlorobenzene	1.21	0.067	mg/kg	1.67	NA	72.5	55-115	0.830	25	
2,4-Dinitrotoluene	1.58	0.067	mg/kg	1.67	NA	94.6	60-130	4.33	25	
2-Chlorophenol	1.29	0.067	mg/kg	1.67	NA	77.2	55-115	1.56	25	
4-Chloro-3-methylphenol	1.35	0.067	mg/kg	1.67	NA	80.8	55-115	2.92	25	
4-Nitrophenol	1.66	0.067	mg/kg	1.67	NA	99.4	45-130	2.97	30	
Acenaphthene	1.46	0.067	mg/kg	1.67	NA	87.4	50-115	2.70	25	
N-Nitrosodi-n-propylamine	1.49	0.067	mg/kg	1.67	NA	89.2	65-115	1.33	25	
Pentachlorophenol	1.34	0.17	mg/kg	1.67	NA	80.2	30-130	0.743	30	
Phenol	1.33	0.067	mg/kg	1.67	NA	79.6	55-115	0.755	25	
Pyrene	1.36	0.067	mg/kg	1.67	NA	81.4	50-130	0.733	25	
Surrogate: 2,4,6-Tribromophenol	*1.59*		*mg/kg*	*1.67*	*NA*	*95.2*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.759*		*mg/kg*	*0.833*	*NA*	*91.1*	*30-104*			
Surrogate: 2-Fluorophenol	*1.23*		*mg/kg*	*1.67*	*NA*	*73.7*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.651*		*mg/kg*	*0.833*	*NA*	*78.2*	*30-90*			
Surrogate: Phenol-d6	*1.31*		*mg/kg*	*1.67*	*NA*	*78.4*	*30-102*			
Surrogate: Terphenyl-d14	*0.726*		*mg/kg*	*0.833*	*NA*	*87.2*	*30-115*			

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Service Engineering Group	Client Ref: Parsons Onondaga 05017	Work Order #: 0607280
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B6L0064 - EPA 5030B

Method Blank (B6L0064-BLK1) Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichlorotrifluoroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromo-3-chloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromoethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3,5-Trimethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	< 0.50	0.50	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorotoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorotoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
4-Isopropyltoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Acetone	< 1.0	1.0	mg/kg	NA	NA	NA	NA	NA	NA	
Allyl Chloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Benzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromochloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromoform	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Bromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Carbon Tetrachloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorodibromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroform	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dibromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorodifluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethyl Ether	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	

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Service Engineering Group	Client Ref: Parsons Onondaga 05017	Work Order #: 0607280
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B6L0064 - EPA 5030B

Method Blank (B6L0064-BLK1)

Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Hexachlorobutadiene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Isopropylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylenes	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl Isobutyl Ketone	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Methylene chloride	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl-t-butyl ether	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
n-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
n-Propylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
sec-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Styrene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
tert-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrachloroethene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrahydrofuran	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Trichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Trichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Vinyl chloride	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*26.2*		*ug/L*	*25.0*	*NA*	*105*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*22.8*		*ug/L*	*25.0*	*NA*	*91.2*	*80-120*			
Surrogate: Dibromofluoromethane	*25.4*		*ug/L*	*25.0*	*NA*	*102*	*80-120*			
Surrogate: Toluene-d8	*25.5*		*ug/L*	*25.0*	*NA*	*102*	*80-120*			

Laboratory Control Sample (B6L0064-BS1)

Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	NA	NA	
1,1,1-Trichloroethane	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	NA	NA	
1,1,2,2-Tetrachloroethane	1.07	0.050	mg/kg	1.25	NA	85.6	75-125	NA	NA	
1,1,2-Trichloroethane	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	NA	NA	
1,1,2-Trichlorotrifluoroethane	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	NA	NA	
1,1-Dichloroethane	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	NA	NA	
1,1-Dichloroethene	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	NA	NA	
1,1-Dichloropropene	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	NA	NA	
1,2,3-Trichlorobenzene	1.05	0.050	mg/kg	1.25	NA	84.0	75-125	NA	NA	
1,2,3-Trichloropropane	1.07	0.050	mg/kg	1.25	NA	85.6	75-125	NA	NA	
1,2,4-Trichlorobenzene	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	NA	NA	
1,2,4-Trimethylbenzene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
1,2-Dibromo-3-chloropropane	0.980	0.050	mg/kg	1.25	NA	78.4	75-125	NA	NA	
1,2-Dibromoethane	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	NA	NA	
1,2-Dichlorobenzene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	NA	NA	
1,2-Dichloroethane	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	NA	NA	

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Service Engineering Group	Client Ref: Parsons Onondaga 05017	Work Order #: 0607280
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B6L0064 - EPA 5030B

Laboratory Control Sample (B6L0064-BS1) Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dichloropropane	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	NA	NA	
1,3,5-Trimethylbenzene	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	NA	NA	
1,3-Dichlorobenzene	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	NA	NA	
1,3-Dichloropropane	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	NA	NA	
1,4-Dichlorobenzene	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	NA	NA	
1,4-Dioxane	0.00		mg/kg	NA	NA	NA	75-125	NA	NA	
2,2-Dichloropropane	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	NA	NA	
2-Butanone (MEK)	0.964	0.50	mg/kg	1.25	NA	77.1	75-125	NA	NA	
2-Chlorotoluene	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	NA	NA	
4-Chlorotoluene	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	NA	NA	
4-Isopropyltoluene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
Acetone	1.07	1.0	mg/kg	1.25	NA	85.6	75-125	NA	NA	
Allyl Chloride	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
Benzene	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	NA	NA	
Bromobenzene	1.25	0.050	mg/kg	1.25	NA	100	75-125	NA	NA	
Bromochloromethane	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	NA	NA	
Bromodichloromethane	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	NA	NA	
Bromoform	1.10	0.25	mg/kg	1.25	NA	88.0	75-125	NA	NA	
Bromomethane	1.18	0.050	mg/kg	1.25	NA	94.4	70-130	NA	NA	
Carbon Tetrachloride	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	NA	NA	
Chlorobenzene	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	NA	NA	
Chlorodibromomethane	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	NA	NA	
Chloroethane	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	NA	NA	
Chloroform	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	NA	NA	
Chloromethane	1.02	0.050	mg/kg	1.25	NA	81.6	75-125	NA	NA	
cis-1,2-Dichloroethene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	NA	NA	
cis-1,3-Dichloropropene	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	NA	NA	
Dibromomethane	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	NA	NA	
Dichlorodifluoromethane	0.911	0.050	mg/kg	1.25	NA	72.9	70-130	NA	NA	
Dichlorofluoromethane	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	NA	NA	
Ethyl Ether	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	NA	NA	
Ethylbenzene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	NA	NA	
Hexachlorobutadiene	1.15	0.10	mg/kg	1.25	NA	92.0	75-125	NA	NA	
Isopropylbenzene	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	NA	NA	
m,p-Xylenes	2.34	0.050	mg/kg	2.50	NA	93.6	75-125	NA	NA	
Methyl Isobutyl Ketone	0.994	0.25	mg/kg	1.25	NA	79.5	75-125	NA	NA	
Methylene chloride	0.994	0.25	mg/kg	1.25	NA	79.5	75-125	NA	NA	
Methyl-t-butyl ether	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	NA	NA	
Naphthalene	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	NA	NA	
n-Butylbenzene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
n-Propylbenzene	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	NA	NA	
o-Xylene	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	NA	NA	
sec-Butylbenzene	1.25	0.050	mg/kg	1.25	NA	100	75-125	NA	NA	
Styrene	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	NA	NA	
tert-Butylbenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Tetrachloroethene	1.17	0.10	mg/kg	1.25	NA	93.6	75-125	NA	NA	
Tetrahydrofuran	0.990	0.25	mg/kg	1.25	NA	79.2	75-125	NA	NA	

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

BRAUN INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group	Client Ref: Parsons Onondaga 05017	Work Order #: 0607280
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B6L0064 - EPA 5030B

Laboratory Control Sample (B6L0064-BS1)

Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Toluene	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	NA	NA	
trans-1,2-Dichloroethene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
trans-1,3-Dichloropropene	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	NA	NA	
Trichloroethene	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	NA	NA	
Trichlorofluoromethane	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	NA	NA	
Vinyl chloride	1.08	0.12	mg/kg	1.25	NA	86.4	70-130	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*24.7*		*ug/L*	*25.0*	*NA*	*98.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.5*		*ug/L*	*25.0*	*NA*	*98.0*	*80-120*			
Surrogate: Dibromofluoromethane	*25.6*		*ug/L*	*25.0*	*NA*	*102*	*80-120*			
Surrogate: Toluene-d8	*24.4*		*ug/L*	*25.0*	*NA*	*97.6*	*80-120*			

Laboratory Control Sample Duplicate (B6L0064-BSD1)

Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	2.71	20	
1,1,1-Trichloroethane	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	3.45	20	
1,1,2,2-Tetrachloroethane	1.04	0.050	mg/kg	1.25	NA	83.2	75-125	2.84	20	
1,1,2-Trichloroethane	1.07	0.050	mg/kg	1.25	NA	85.6	75-125	1.85	20	
1,1,2-Trichlorotrifluoroethane	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	3.54	20	
1,1-Dichloroethane	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	2.60	20	
1,1-Dichloroethene	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	1.72	20	
1,1-Dichloropropene	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	1.72	20	
1,2,3-Trichlorobenzene	1.02	0.050	mg/kg	1.25	NA	81.6	75-125	2.90	20	
1,2,3-Trichloropropane	1.02	0.050	mg/kg	1.25	NA	81.6	75-125	4.78	20	
1,2,4-Trichlorobenzene	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	2.64	20	
1,2,4-Trimethylbenzene	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	4.12	20	
1,2-Dibromo-3-chloropropane	0.956	0.050	mg/kg	1.25	NA	76.5	75-125	2.48	20	
1,2-Dibromoethane	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	1.80	20	
1,2-Dichlorobenzene	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	3.39	20	
1,2-Dichloroethane	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	3.57	20	
1,2-Dichloropropane	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	3.42	20	
1,3,5-Trimethylbenzene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	2.47	20	
1,3-Dichlorobenzene	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	3.42	20	
1,3-Dichloropropane	1.08	0.050	mg/kg	1.25	NA	86.4	75-125	2.74	20	
1,4-Dichlorobenzene	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	2.67	20	
2,2-Dichloropropane	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	3.33	20	
2-Butanone (MEK)	0.979	0.50	mg/kg	1.25	NA	78.3	75-125	1.54	20	
2-Chlorotoluene	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	2.71	20	
4-Chlorotoluene	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	1.80	20	
4-Isopropyltoluene	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	4.12	20	
Acetone	1.09	1.0	mg/kg	1.25	NA	87.2	75-125	1.85	20	
Allyl Chloride	1.27	0.050	mg/kg	1.25	NA	102	75-125	1.56	20	
Benzene	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	4.18	20	
Bromobenzene	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	3.25	20	
Bromochloromethane	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	2.69	20	

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952-995-2020 Fax

Service Engineering Group	Client Ref: Parsons Onondaga 05017	Work Order #: 0607280
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr:Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID:S15039

Volatile Organic Compounds - Quality Control

Batch B6L0064 - EPA 5030B

Laboratory Control Sample Duplicate (B6L0064-BSD1) Prepared & Analyzed: 12/01/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bromodichloromethane	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	4.37	20	
Bromoform	1.07	0.25	mg/kg	1.25	NA	85.6	75-125	2.76	20	
Bromomethane	1.13	0.050	mg/kg	1.25	NA	90.4	70-130	4.33	20	
Carbon Tetrachloride	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	5.22	20	
Chlorobenzene	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	2.67	20	
Chlorodibromomethane	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	1.79	20	
Chloroethane	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	3.60	20	
Chloroform	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	1.75	20	
Chloromethane	0.977	0.050	mg/kg	1.25	NA	78.2	75-125	4.31	20	
cis-1,2-Dichloroethene	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	1.68	20	
cis-1,3-Dichloropropene	1.07	0.050	mg/kg	1.25	NA	85.6	75-125	3.67	20	
Dibromomethane	1.07	0.050	mg/kg	1.25	NA	85.6	75-125	2.76	20	
Dichlorodifluoromethane	0.861	0.050	mg/kg	1.25	NA	68.9	70-130	5.64	20	
Dichlorofluoromethane	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	5.36	20	
Ethyl Ether	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	3.60	20	
Ethylbenzene	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	3.39	20	
Hexachlorobutadiene	1.11	0.10	mg/kg	1.25	NA	88.8	75-125	3.54	20	
Isopropylbenzene	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	2.51	20	
m,p-Xylenes	2.28	0.050	mg/kg	2.50	NA	91.2	75-125	2.60	20	
Methyl Isobutyl Ketone	0.967	0.25	mg/kg	1.25	NA	77.4	75-125	2.75	20	
Methylene chloride	0.962	0.25	mg/kg	1.25	NA	77.0	75-125	3.27	20	
Methyl-t-butyl ether	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	1.77	20	
Naphthalene	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	1.82	20	
n-Butylbenzene	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	2.45	20	
n-Propylbenzene	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	2.69	20	
o-Xylene	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	3.57	20	
sec-Butylbenzene	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	3.25	20	
Styrene	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	1.80	20	
tert-Butylbenzene	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	3.20	20	
Tetrachloroethene	1.11	0.10	mg/kg	1.25	NA	88.8	75-125	5.26	20	
Tetrahydrofuran	0.987	0.25	mg/kg	1.25	NA	79.0	75-125	0.303	20	
Toluene	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	2.62	20	
trans-1,2-Dichloroethene	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	2.41	20	
trans-1,3-Dichloropropene	1.06	0.050	mg/kg	1.25	NA	84.8	75-125	2.79	20	
Trichloroethene	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	3.42	20	
Trichlorofluoromethane	1.05	0.050	mg/kg	1.25	NA	84.0	75-125	11.7	20	
Vinyl chloride	1.01	0.12	mg/kg	1.25	NA	80.8	70-130	6.70	20	
Surrogate: 1,2-Dichloroethane-d4	*24.6*		*ug/L*	*25.0*	*NA*	*98.4*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.7*		*ug/L*	*25.0*	*NA*	*98.8*	*80-120*			
Surrogate: Dibromofluoromethane	*25.8*		*ug/L*	*25.0*	*NA*	*103*	*80-120*			
Surrogate: Toluene-d8	*24.5*		*ug/L*	*25.0*	*NA*	*98.0*	*80-120*			

BRAUN INTERTEC

11001 Hampshire Ave. S.
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952-995-2000 Phone
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Service Engineering Group 675 Vandalia Street St. Paul MN, 55114	Client Ref: Parsons Onondaga 05017 Client Contact: Mr. Dean Myers PO Number:	Work Order #: 0607280 Project Mgr: Steven J. Albrecht Account ID: S15039

For Braun Intertec Use Only
Braun Intertec Project No.
0607280

BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438

REQUEST FOR LABORATORY ANALYTICAL SERVICES

Bottle orders and sampling inquiries:
labservices@braunintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

IMPORTANT
Date Results Requested: Standard
Time
Rush Charges Authorized? Yes No
Rush / Quote #

Page 1 of 1

REPORT RESULTS TO
Contact Name Dean Myers
Company Service Eng Group
Mailing Address 675 Vandalia street
City, State, Zip St. Paul, MN 55114
Telephone # 651-644-6680 Fax # 651-644-7008
E-mail

Project ID/Project Name Parsons Onondaga 05017
P.O. #

SEND INVOICE TO
Contact Name
Company
Address SAME
City, State, Zip
Telephone #
Fax #

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petrofund, reporting units)

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request)

	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	VOC's	SVOC's								FOR LAB USE ONLY
1	OL-STA-10115	11/30	10:45	Sediment		4		X	X								01
2	OL-STA-70050	11/30	10:55	⊥		4		X	X								02
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

CHAIN OF CUSTODY
Collected by: (Print) Dean Myers
Relinquished by: [signature] Date/Time 11/30 13:22
Relinquished by: Date/Time
Collector's Signature: [signature]
Received by: Date/Time
Received Contents Not Verified: [signature] Date/Time 11/30/06 13:22
Received Contents Verified: [signature] Date/Time 11/30/06 1620
Comments: Hand del.

Custody Seal Intact ☐ Yes ☐ No ☒ N/A
On Ice ☒ Yes ☐ No blue ice
Temp Blank ☐ Yes ☒ No
Temp: 8.5 °C

Form # CS02.01 F:\Groups\QA-QC\Forms\clientservices\CDC-CS02 Effective Date: 7/22/06

BRAUN INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

Mr. Dean Myers
Service Engineering Group
675 Vandalia Street
St. Paul, MN 55114

December 18, 2006

Work Order #: 0607348

RE: Parsons Onondaga 05017

Dear Mr. Dean Myers

Braun Intertec Corporation received samples for the project identified above on 12/05/06 13:20. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Steven J. Albrecht

Steven J. Albrecht
Associate Principal

Providing engineering and environmental solutions since 1957

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

BRAUN INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
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Service Engineering Group	Client Ref:	Parsons Onondaga 05017	Work Order #:	0607348
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

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Service Engineering Group	Client Ref:	Parsons Onondaga 05017	Work Order #:	0607348
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Qualifiers and Abbreviations

vfa	The method reporting limit (MRL) was raised for one or more analytes; a dilution of the sample was necessary due to high analyte levels and/or matrix interferences.
sk	The surrogate recovery is outside of laboratory control limits due to matrix interference.
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OL-STA-10116	0607348-01	Soil	12/05/06 10:45	12/05/06 13:20
OL-STA-10117	0607348-02	Soil	12/05/06 10:55	12/05/06 13:20

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	3.0 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	No
Custody Seals Used:	No	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	No	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

OL-STA-10116

0607348-01 (Soil)

12/5/06 10:45

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**41**		% Wt	1	B6L0074	12/5/06	12/7/06	SM 2540G	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	**3.0**	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
1,2-Dichlorobenzene	**170**	12	mg/kg dry	50	B6L0175	12/11/06	12/13/06	EPA 8270C	
1,2-Diphenylhydrazine	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
1,3-Dichlorobenzene	**0.89**	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
1,4-Dichlorobenzene	**77**	2.4	mg/kg dry	10	B6L0175	12/11/06	12/13/06	EPA 8270C	
2,4,5-Trichlorophenol	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4,6-Trichlorophenol	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dichlorophenol	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dimethylphenol	< 0.60	0.60	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dinitrophenol	< 0.60	0.60	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dinitrotoluene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,6-Dinitrotoluene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Chloronaphthalene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Chlorophenol	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Methylnaphthalene	**2.9**	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Methylphenol	< 0.60	0.60	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Nitroaniline	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Nitrophenol	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
3,3-Dichlorobenzidine	< 1.2	1.2	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
3-/4-Methylphenol	< 0.60	0.60	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
3-Nitroaniline	< 0.60	0.60	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 0.60	0.60	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Chloro-3-methylphenol	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Chloroaniline	< 0.60	0.60	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Nitroaniline	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Nitrophenol	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Acenaphthene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Acenaphthylene	**0.73**	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Aniline	< 0.60	0.60	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	

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Service Engineering Group	Client Ref:	Parsons Onondaga 05017	Work Order #:	0607348
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

OL-STA-10116

0607348-01 (Soil)

12/5/06 10:45

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	**0.51**	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benz(a)anthracene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(a)pyrene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(b)fluoranthene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(g,h,i)perylene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(k)fluoranthene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzyl alcohol	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	< 1.2	1.2	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Butyl benzyl phthalate	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Carbazole	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Chrysene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Dibenz(a,h)anthracene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Dibenzofuran	**0.45**	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Diethylphthalate	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Dimethyl phthalate	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Di-n-butyl phthalate	< 1.2	1.2	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Di-n-octyl phthalate	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Fluoranthene	**0.33**	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Fluorene	**12**	2.4	mg/kg dry	10	B6L0175	12/11/06	12/13/06	EPA 8270C	
Hexachlorobenzene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachlorobutadiene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachlorocyclopentadiene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachloroethane	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Indeno(1,2,3-cd)pyrene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Isophorone	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Naphthalene	**55**	2.4	mg/kg dry	10	B6L0175	12/11/06	12/13/06	EPA 8270C	
Nitrobenzene	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
N-Nitrosodimethylamine	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
N-Nitrosodiphenylamine	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Pentachlorophenol	< 0.60	0.60	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Phenanthrene	**0.77**	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	

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675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-10116

0607348-01 (Soil)

12/5/06 10:45

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenol	**6.0**	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Pyrene	**0.35**	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Pyridine	< 0.24	0.24	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*37.5 %*	*Limits: 30-150%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl	*25.2 %*	*Limits: 30-104%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	*sk*
Surrogate: 2-Fluorophenol	*27.8 %*	*Limits: 30-106%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	*sk*
Surrogate: Nitrobenzene-d5	*20.8 %*	*Limits: 30-90%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	*sk*
Surrogate: Phenol-d6	*46.7 %*	*Limits: 30-102%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	
Surrogate: Terphenyl-d14	*30.9 %*	*Limits: 30-115%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1,1-Trichloroethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1,2-Trichloroethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1-Dichloroethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1-Dichloroethene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1-Dichloropropene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2,3-Trichlorobenzene	**1.5**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2,3-Trichloropropane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2,4-Trichlorobenzene	**11**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2,4-Trimethylbenzene	**35**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2-Dibromoethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2-Dichlorobenzene	**580**	12	mg/kg dry	100	B6L0124	12/7/06	12/8/06	EPA 8260B	
1,2-Dichloroethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2-Dichloropropane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,3,5-Trimethylbenzene	**25**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,3-Dichlorobenzene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,3-Dichloropropane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,4-Dichlorobenzene	**280**	12	mg/kg dry	100	B6L0124	12/7/06	12/8/06	EPA 8260B	
2,2-Dichloropropane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
2-Butanone (MEK)	< 12	12	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	

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Service Engineering Group	Client Ref: Parsons Onondaga 05017	Work Order #: 0607348
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-10116

0607348-01 (Soil)

12/5/06 10:45

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chlorotoluene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
4-Chlorotoluene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
4-Isopropyltoluene	**2.0**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Acetone	< 24	24	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Allyl Chloride	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Benzene	**1.7**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Bromobenzene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Bromochloromethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Bromodichloromethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Bromoform	< 6.1	6.1	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Bromomethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Carbon Tetrachloride	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Chlorobenzene	**75**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Chlorodibromomethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Chloroethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Chloroform	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Chloromethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
cis-1,2-Dichloroethene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
cis-1,3-Dichloropropene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Dibromomethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Dichlorodifluoromethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Dichlorofluoromethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Ethyl Ether	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Ethylbenzene	**2.7**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Hexachlorobutadiene	< 2.4	2.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Isopropylbenzene	**4.7**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
m,p-Xylenes	**49**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Methyl Isobutyl Ketone	< 6.1	6.1	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Methylene chloride	< 6.1	6.1	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Methyl-t-butyl ether	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Naphthalene	**150**	12	mg/kg dry	100	B6L0124	12/7/06	12/8/06	EPA 8260B	
n-Butylbenzene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
n-Propylbenzene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
o-Xylene	**17**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
sec-Butylbenzene	**16**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

OL-STA-10116

0607348-01 (Soil)

12/5/06 10:45

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Styrene	**1.6**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
tert-Butylbenzene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Tetrachloroethene	< 2.4	2.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Tetrahydrofuran	< 6.1	6.1	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Toluene	**5.4**	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
trans-1,2-Dichloroethene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
trans-1,3-Dichloropropene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Trichloroethene	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Trichlorofluoromethane	< 1.2	1.2	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Vinyl chloride	< 3.1	3.1	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*107 %*	*Limits: 80-120%*			*B6L0124*	*12/7/06*	*12/7/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*97.6 %*	*Limits: 80-120%*			*B6L0124*	*12/7/06*	*12/7/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*100 %*	*Limits: 80-120%*			*B6L0124*	*12/7/06*	*12/7/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*98.0 %*	*Limits: 80-120%*			*B6L0124*	*12/7/06*	*12/7/06*	*EPA 8260B*	

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

OL-STA-10117

0607348-02 (Soil)

12/5/06 10:55

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**37**		% Wt	1	B6L0074	12/5/06	12/7/06	SM 2540G	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	**0.71**	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
1,2-Dichlorobenzene	**15**	1.8	mg/kg dry	10	B6L0175	12/11/06	12/13/06	EPA 8270C	
1,2-Diphenylhydrazine	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
1,3-Dichlorobenzene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
1,4-Dichlorobenzene	**29**	1.8	mg/kg dry	10	B6L0175	12/11/06	12/13/06	EPA 8270C	
2,4,5-Trichlorophenol	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4,6-Trichlorophenol	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dichlorophenol	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dimethylphenol	< 0.46	0.46	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dinitrophenol	< 0.46	0.46	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dinitrotoluene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,6-Dinitrotoluene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Chloronaphthalene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Chlorophenol	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Methylnaphthalene	**1.8**	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Methylphenol	< 0.46	0.46	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Nitroaniline	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Nitrophenol	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
3,3-Dichlorobenzidine	< 0.90	0.90	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
3-/4-Methylphenol	< 0.46	0.46	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
3-Nitroaniline	< 0.46	0.46	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 0.46	0.46	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Chloro-3-methylphenol	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Chloroaniline	< 0.46	0.46	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Nitroaniline	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Nitrophenol	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Acenaphthene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Acenaphthylene	**0.34**	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Aniline	< 0.46	0.46	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	

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Service Engineering Group	Client Ref:	Parsons Onondaga 05017	Work Order #:	0607348
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

OL-STA-10117

0607348-02 (Soil)

12/5/06 10:55

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	**0.28**	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benz(a)anthracene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(a)pyrene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(b)fluoranthene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(g,h,i)perylene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(k)fluoranthene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzyl alcohol	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	< 0.90	0.90	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Butyl benzyl phthalate	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Carbazole	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Chrysene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Dibenz(a,h)anthracene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Dibenzofuran	**0.25**	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Diethylphthalate	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Dimethyl phthalate	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Di-n-butyl phthalate	< 0.90	0.90	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Di-n-octyl phthalate	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Fluoranthene	**0.20**	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Fluorene	**4.6**	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachlorobenzene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachlorobutadiene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachlorocyclopentadiene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachloroethane	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Indeno(1,2,3-cd)pyrene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Isophorone	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Naphthalene	**29**	1.8	mg/kg dry	10	B6L0175	12/11/06	12/13/06	EPA 8270C	
Nitrobenzene	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
N-Nitrosodimethylamine	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
N-Nitrosodiphenylamine	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Pentachlorophenol	< 0.46	0.46	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Phenanthrene	**0.53**	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	

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675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

OL-STA-10117

0607348-02 (Soil)

12/5/06 10:55

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenol	**0.58**	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Pyrene	**0.21**	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Pyridine	< 0.18	0.18	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*9.34 %*	*Limits: 30-150%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	*sk*
Surrogate: 2-Fluorobiphenyl	*14.1 %*	*Limits: 30-104%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	*sk*
Surrogate: 2-Fluorophenol	*4.93 %*	*Limits: 30-106%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	*sk*
Surrogate: Nitrobenzene-d5	*19.1 %*	*Limits: 30-90%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	*sk*
Surrogate: Phenol-d6	*22.3 %*	*Limits: 30-102%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	*sk*
Surrogate: Terphenyl-d14	*26.7 %*	*Limits: 30-115%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	*sk*

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1,1-Trichloroethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1,2-Trichloroethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1-Dichloroethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1-Dichloroethene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,1-Dichloropropene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2,3-Trichloropropane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2,4-Trichlorobenzene	**5.1**	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2,4-Trimethylbenzene	**18**	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2-Dibromoethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2-Dichlorobenzene	**94**	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2-Dichloroethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,2-Dichloropropane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,3,5-Trimethylbenzene	**13**	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,3-Dichlorobenzene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,3-Dichloropropane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
1,4-Dichlorobenzene	**170**	14	mg/kg dry	100	B6L0124	12/7/06	12/8/06	EPA 8260B	
2,2-Dichloropropane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
2-Butanone (MEK)	< 14	14	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	

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Service Engineering Group	Client Ref: Parsons Onondaga 05017	Work Order #: 0607348
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-10117

0607348-02 (Soil)

12/5/06 10:55

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chlorotoluene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
4-Chlorotoluene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
4-Isopropyltoluene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Acetone	< 27	27	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Allyl Chloride	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Benzene	**12**	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Bromobenzene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Bromochloromethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Bromodichloromethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Bromoform	< 6.8	6.8	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Bromomethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Carbon Tetrachloride	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Chlorobenzene	**130**	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Chlorodibromomethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Chloroethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Chloroform	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Chloromethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
cis-1,2-Dichloroethene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
cis-1,3-Dichloropropene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Dibromomethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Dichlorodifluoromethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Dichlorofluoromethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Ethyl Ether	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Ethylbenzene	**4.1**	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Hexachlorobutadiene	< 2.7	2.7	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Isopropylbenzene	**3.6**	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
m,p-Xylenes	**50**	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Methyl Isobutyl Ketone	< 6.8	6.8	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Methylene chloride	< 6.8	6.8	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Methyl-t-butyl ether	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Naphthalene	**140**	14	mg/kg dry	100	B6L0124	12/7/06	12/8/06	EPA 8260B	
n-Butylbenzene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
n-Propylbenzene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
o-Xylene	**15**	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
sec-Butylbenzene	**9.9**	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

OL-STA-10117

0607348-02 (Soil)

12/5/06 10:55

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Styrene	**2.1**	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
tert-Butylbenzene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Tetrachloroethene	< 2.7	2.7	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Tetrahydrofuran	< 6.8	6.8	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Toluene	**4.7**	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
trans-1,2-Dichloroethene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
trans-1,3-Dichloropropene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Trichloroethene	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Trichlorofluoromethane	< 1.4	1.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Vinyl chloride	< 3.4	3.4	mg/kg dry	10	B6L0124	12/7/06	12/7/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*103 %*	*Limits: 80-120%*			*B6L0124*	*12/7/06*	*12/7/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*99.6 %*	*Limits: 80-120%*			*B6L0124*	*12/7/06*	*12/7/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*96.4 %*	*Limits: 80-120%*			*B6L0124*	*12/7/06*	*12/7/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*100 %*	*Limits: 80-120%*			*B6L0124*	*12/7/06*	*12/7/06*	*EPA 8260B*	

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Service Engineering Group	Client Ref:	Parsons Onondaga 05017	Work Order #:	0607348
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Classical Chemistry Parameters - Quality Control

Batch B6L0074 - Default Prep GenChem

Method Blank (B6L0074-BLK1) Prepared: 12/05/06 Analyzed: 12/07/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	0.0218		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B6L0074-SRM1) Prepared: 12/05/06 Analyzed: 12/07/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	89.9		% Wt	88.8	NA	101	90-110	NA	NA	

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0175 - EPA 3545

Method Blank (B6L0175-BLK1) Prepared: 12/11/06 Analyzed: 12/12/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Diphenylhydrazine	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2,4,5-Trichlorophenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2,4,6-Trichlorophenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dichlorophenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dimethylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dinitrophenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dinitrotoluene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2,6-Dinitrotoluene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chloronaphthalene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorophenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2-Methylnaphthalene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2-Methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2-Nitroaniline	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2-Nitrophenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
3,3-Dichlorobenzidine	< 0.32	0.32	mg/kg	NA	NA	NA	NA	NA	NA	
3-/4-Methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
3-Nitroaniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4,6-Dinitro-2-methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4-Bromophenyl phenyl ether	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chloro-3-methylphenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chloroaniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorophenyl phenyl ether	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
4-Nitroaniline	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
4-Nitrophenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthylene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Aniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
Anthracene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Benz(a)anthracene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(g,h,i)perylene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Benzyl alcohol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
bis(2-Chloroethoxy)methane	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-Chloroethyl)ether	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-chloroisopropyl)ether	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-Ethylhexyl)phthalate	< 0.32	0.32	mg/kg	NA	NA	NA	NA	NA	NA	
Butyl benzyl phthalate	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Carbazole	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Chrysene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenzofuran	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	

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675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0175 - EPA 3545

Method Blank (B6L0175-BLK1) Prepared: 12/11/06 Analyzed: 12/12/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diethylphthalate	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Dimethyl phthalate	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Di-n-butyl phthalate	< 0.32	0.32	mg/kg	NA	NA	NA	NA	NA	NA	
Di-n-octyl phthalate	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Fluoranthene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Fluorene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobenzene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobutadiene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorocyclopentadiene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachloroethane	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Isophorone	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Nitrobenzene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodimethylamine	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodi-n-propylamine	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodiphenylamine	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Pentachlorophenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
Phenanthrene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Phenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Pyrene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Pyridine	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 2,4,6-Tribromophenol	*1.47*		*mg/kg*	*1.63*	*NA*	*90.2*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.683*		*mg/kg*	*0.815*	*NA*	*83.8*	*30-104*			
Surrogate: 2-Fluorophenol	*1.15*		*mg/kg*	*1.63*	*NA*	*70.6*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.578*		*mg/kg*	*0.815*	*NA*	*70.9*	*30-90*			
Surrogate: Phenol-d6	*1.22*		*mg/kg*	*1.63*	*NA*	*74.8*	*30-102*			
Surrogate: Terphenyl-d14	*0.722*		*mg/kg*	*0.815*	*NA*	*88.6*	*30-115*			

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0175 - EPA 3545

Laboratory Control Sample (B6L0175-BS1) Prepared: 12/11/06 Analyzed: 12/12/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.01	0.067	mg/kg	1.65	NA	61.2	55-115	NA	NA	
1,4-Dichlorobenzene	1.02	0.067	mg/kg	1.65	NA	61.8	55-115	NA	NA	
2,4-Dinitrotoluene	1.51	0.067	mg/kg	1.65	NA	91.5	60-130	NA	NA	
2-Chlorophenol	1.11	0.067	mg/kg	1.65	NA	67.3	55-115	NA	NA	
4-Chloro-3-methylphenol	1.28	0.067	mg/kg	1.65	NA	77.6	55-115	NA	NA	
4-Nitrophenol	1.66	0.067	mg/kg	1.65	NA	101	45-130	NA	NA	
Acenaphthene	1.29	0.067	mg/kg	1.65	NA	78.2	50-115	NA	NA	
N-Nitrosodi-n-propylamine	1.29	0.067	mg/kg	1.65	NA	78.2	65-115	NA	NA	
Pentachlorophenol	1.27	0.17	mg/kg	1.65	NA	77.0	30-130	NA	NA	
Phenol	1.15	0.067	mg/kg	1.65	NA	69.7	55-115	NA	NA	
Pyrene	1.34	0.067	mg/kg	1.65	NA	81.2	50-130	NA	NA	
Surrogate: 2,4,6-Tribromophenol	*1.54*		*mg/kg*	*1.65*	*NA*	*93.3*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.666*		*mg/kg*	*0.827*	*NA*	*80.5*	*30-104*			
Surrogate: 2-Fluorophenol	*1.06*		*mg/kg*	*1.65*	*NA*	*64.2*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.539*		*mg/kg*	*0.827*	*NA*	*65.2*	*30-90*			
Surrogate: Phenol-d6	*1.13*		*mg/kg*	*1.65*	*NA*	*68.5*	*30-102*			
Surrogate: Terphenyl-d14	*0.708*		*mg/kg*	*0.827*	*NA*	*85.6*	*30-115*			

Laboratory Control Sample Duplicate (B6L0175-BSD1) Prepared: 12/11/06 Analyzed: 12/12/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.19	0.067	mg/kg	1.67	NA	71.3	55-115	16.4	25	
1,4-Dichlorobenzene	1.23	0.067	mg/kg	1.67	NA	73.7	55-115	18.7	25	
2,4-Dinitrotoluene	1.62	0.067	mg/kg	1.67	NA	97.0	60-130	7.03	25	
2-Chlorophenol	1.34	0.067	mg/kg	1.67	NA	80.2	55-115	18.8	25	
4-Chloro-3-methylphenol	1.41	0.067	mg/kg	1.67	NA	84.4	55-115	9.67	25	
4-Nitrophenol	1.75	0.067	mg/kg	1.67	NA	105	45-130	5.28	30	
Acenaphthene	1.49	0.067	mg/kg	1.67	NA	89.2	50-115	14.4	25	
N-Nitrosodi-n-propylamine	1.52	0.067	mg/kg	1.67	NA	91.0	65-115	16.4	25	
Pentachlorophenol	1.34	0.17	mg/kg	1.67	NA	80.2	30-130	5.36	30	
Phenol	1.35	0.067	mg/kg	1.67	NA	80.8	55-115	16.0	25	
Pyrene	1.36	0.067	mg/kg	1.67	NA	81.4	50-130	1.48	25	
Surrogate: 2,4,6-Tribromophenol	*1.66*		*mg/kg*	*1.67*	*NA*	*99.4*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.767*		*mg/kg*	*0.833*	*NA*	*92.1*	*30-104*			
Surrogate: 2-Fluorophenol	*1.27*		*mg/kg*	*1.67*	*NA*	*76.0*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.649*		*mg/kg*	*0.833*	*NA*	*77.9*	*30-90*			
Surrogate: Phenol-d6	*1.36*		*mg/kg*	*1.67*	*NA*	*81.4*	*30-102*			
Surrogate: Terphenyl-d14	*0.726*		*mg/kg*	*0.833*	*NA*	*87.2*	*30-115*			

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0124 - EPA 5030B

Method Blank (B6L0124-BLK1) Prepared & Analyzed: 12/07/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichlorotrifluoroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromo-3-chloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromoethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3,5-Trimethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	< 0.50	0.50	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorotoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorotoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
4-Isopropyltoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Acetone	< 1.0	1.0	mg/kg	NA	NA	NA	NA	NA	NA	
Allyl Chloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Benzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromochloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromoform	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Bromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Carbon Tetrachloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorodibromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroform	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dibromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorodifluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethyl Ether	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0124 - EPA 5030B

Method Blank (B6L0124-BLK1) Prepared & Analyzed: 12/07/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Hexachlorobutadiene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Isopropylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylenes	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl Isobutyl Ketone	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Methylene chloride	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl-t-butyl ether	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
n-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
n-Propylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
sec-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Styrene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
tert-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrachloroethene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrahydrofuran	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Trichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Trichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Vinyl chloride	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*26.0*		*ug/L*	*25.0*	*NA*	*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.0*		*ug/L*	*25.0*	*NA*	*100*	*80-120*			
Surrogate: Dibromofluoromethane	*25.1*		*ug/L*	*25.0*	*NA*	*100*	*80-120*			
Surrogate: Toluene-d8	*24.0*		*ug/L*	*25.0*	*NA*	*96.0*	*80-120*			

Laboratory Control Sample (B6L0124-BS1) Prepared & Analyzed: 12/07/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.32	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
1,1,1-Trichloroethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
1,1,2,2-Tetrachloroethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
1,1,2-Trichloroethane	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,1,2-Trichlorotrifluoroethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
1,1-Dichloroethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
1,1-Dichloroethene	1.33	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
1,1-Dichloropropene	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
1,2,3-Trichlorobenzene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
1,2,3-Trichloropropane	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
1,2,4-Trichlorobenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
1,2,4-Trimethylbenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,2-Dibromo-3-chloropropane	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,2-Dibromoethane	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,2-Dichlorobenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
1,2-Dichloroethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	

BRAUN INTERTEC

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Bloomington, MN 55438
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Service Engineering Group	Client Ref:	Parsons Onondaga 05017	Work Order #:	0607348
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0124 - EPA 5030B

Laboratory Control Sample (B6L0124-BS1) Prepared & Analyzed: 12/07/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dichloropropane	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,3,5-Trimethylbenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,3-Dichlorobenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,3-Dichloropropane	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,4-Dichlorobenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
2,2-Dichloropropane	1.33	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
2-Butanone (MEK)	1.36	0.50	mg/kg	1.25	NA	109	75-125	NA	NA	
2-Chlorotoluene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
4-Chlorotoluene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
4-Isopropyltoluene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Acetone	1.39	1.0	mg/kg	1.25	NA	111	75-125	NA	NA	
Allyl Chloride	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
Benzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Bromobenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Bromochloromethane	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Bromodichloromethane	1.34	0.050	mg/kg	1.25	NA	107	75-125	NA	NA	
Bromoform	1.30	0.25	mg/kg	1.25	NA	104	75-125	NA	NA	
Bromomethane	1.31	0.050	mg/kg	1.25	NA	105	70-130	NA	NA	
Carbon Tetrachloride	1.33	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
Chlorobenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Chlorodibromomethane	1.33	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
Chloroethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
Chloroform	1.31	0.050	mg/kg	1.25	NA	105	75-125	NA	NA	
Chloromethane	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
cis-1,2-Dichloroethene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
cis-1,3-Dichloropropene	1.31	0.050	mg/kg	1.25	NA	105	75-125	NA	NA	
Dibromomethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
Dichlorodifluoromethane	1.30	0.050	mg/kg	1.25	NA	104	70-130	NA	NA	
Dichlorofluoromethane	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
Ethyl Ether	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
Ethylbenzene	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
Hexachlorobutadiene	1.24	0.10	mg/kg	1.25	NA	99.2	75-125	NA	NA	
Isopropylbenzene	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
m,p-Xylenes	2.55	0.050	mg/kg	2.50	NA	102	75-125	NA	NA	
Methyl Isobutyl Ketone	1.34	0.25	mg/kg	1.25	NA	107	75-125	NA	NA	
Methylene chloride	1.28	0.25	mg/kg	1.25	NA	102	75-125	NA	NA	
Methyl-t-butyl ether	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
Naphthalene	1.25	0.050	mg/kg	1.25	NA	100	75-125	NA	NA	
n-Butylbenzene	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
n-Propylbenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
o-Xylene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
sec-Butylbenzene	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
Styrene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
tert-Butylbenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Tetrachloroethene	1.31	0.10	mg/kg	1.25	NA	105	75-125	NA	NA	
Tetrahydrofuran	1.24	0.25	mg/kg	1.25	NA	99.2	75-125	NA	NA	
Toluene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	

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BRAUN INTERTEC

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Service Engineering Group	Client Ref:	Parsons Onondaga 05017	Work Order #:	0607348
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0124 - EPA 5030B

Laboratory Control Sample (B6L0124-BS1) Prepared & Analyzed: 12/07/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
trans-1,2-Dichloroethene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
trans-1,3-Dichloropropene	1.34	0.050	mg/kg	1.25	NA	107	75-125	NA	NA	
Trichloroethene	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
Trichlorofluoromethane	1.45	0.050	mg/kg	1.25	NA	116	75-125	NA	NA	
Vinyl chloride	1.23	0.12	mg/kg	1.25	NA	98.4	70-130	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*25.6*		*ug/L*	*25.0*	*NA*	*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.1*		*ug/L*	*25.0*	*NA*	*100*	*80-120*			
Surrogate: Dibromofluoromethane	*25.4*		*ug/L*	*25.0*	*NA*	*102*	*80-120*			
Surrogate: Toluene-d8	*24.7*		*ug/L*	*25.0*	*NA*	*98.8*	*80-120*			

Laboratory Control Sample Duplicate (B6L0124-BSD1) Prepared & Analyzed: 12/07/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.31	0.050	mg/kg	1.25	NA	105	75-125	0.760	20	
1,1,1-Trichloroethane	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.778	20	
1,1,2,2-Tetrachloroethane	1.32	0.050	mg/kg	1.25	NA	106	75-125	2.30	20	
1,1,2-Trichloroethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	2.33	20	
1,1,2-Trichlorotrifluoroethane	1.26	0.050	mg/kg	1.25	NA	101	75-125	2.35	20	
1,1-Dichloroethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	0.772	20	
1,1-Dichloroethene	1.31	0.050	mg/kg	1.25	NA	105	75-125	1.52	20	
1,1-Dichloropropene	1.28	0.050	mg/kg	1.25	NA	102	75-125	1.55	20	
1,2,3-Trichlorobenzene	1.25	0.050	mg/kg	1.25	NA	100	75-125	0.803	20	
1,2,3-Trichloropropane	1.30	0.050	mg/kg	1.25	NA	104	75-125	0.772	20	
1,2,4-Trichlorobenzene	1.29	0.050	mg/kg	1.25	NA	103	75-125	2.35	20	
1,2,4-Trimethylbenzene	1.29	0.050	mg/kg	1.25	NA	103	75-125	0.778	20	
1,2-Dibromo-3-chloropropane	1.26	0.050	mg/kg	1.25	NA	101	75-125	1.57	20	
1,2-Dibromoethane	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.00	20	
1,2-Dichlorobenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.791	20	
1,2-Dichloroethane	1.30	0.050	mg/kg	1.25	NA	104	75-125	0.00	20	
1,2-Dichloropropane	1.26	0.050	mg/kg	1.25	NA	101	75-125	0.791	20	
1,3,5-Trimethylbenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.00	20	
1,3-Dichlorobenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.00	20	
1,3-Dichloropropane	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.784	20	
1,4-Dichlorobenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	0.791	20	
2,2-Dichloropropane	1.31	0.050	mg/kg	1.25	NA	105	75-125	1.52	20	
2-Butanone (MEK)	1.39	0.50	mg/kg	1.25	NA	111	75-125	2.18	20	
2-Chlorotoluene	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.00	20	
4-Chlorotoluene	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.00	20	
4-Isopropyltoluene	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.00	20	
Acetone	1.37	1.0	mg/kg	1.25	NA	110	75-125	1.45	20	
Allyl Chloride	1.30	0.050	mg/kg	1.25	NA	104	75-125	0.00	20	
Benzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	1.57	20	
Bromobenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.784	20	
Bromochloromethane	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.784	20	
Bromodichloromethane	1.32	0.050	mg/kg	1.25	NA	106	75-125	1.50	20	

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11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group	Client Ref:	Parsons Onondaga 05017	Work Order #:	0607348
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0124 - EPA 5030B

Laboratory Control Sample Duplicate (B6L0124-BSD1) Prepared & Analyzed: 12/07/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bromoform	1.31	0.25	mg/kg	1.25	NA	105	75-125	0.766	20	
Bromomethane	1.28	0.050	mg/kg	1.25	NA	102	70-130	2.32	20	
Carbon Tetrachloride	1.30	0.050	mg/kg	1.25	NA	104	75-125	2.28	20	
Chlorobenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.00	20	
Chlorodibromomethane	1.34	0.050	mg/kg	1.25	NA	107	75-125	0.749	20	
Chloroethane	1.31	0.050	mg/kg	1.25	NA	105	75-125	0.766	20	
Chloroform	1.29	0.050	mg/kg	1.25	NA	103	75-125	1.54	20	
Chloromethane	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.00	20	
cis-1,2-Dichloroethene	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.00	20	
cis-1,3-Dichloropropene	1.31	0.050	mg/kg	1.25	NA	105	75-125	0.00	20	
Dibromomethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	0.772	20	
Dichlorodifluoromethane	1.27	0.050	mg/kg	1.25	NA	102	70-130	2.33	20	
Dichlorofluoromethane	1.35	0.050	mg/kg	1.25	NA	108	75-125	0.738	20	
Ethyl Ether	1.26	0.050	mg/kg	1.25	NA	101	75-125	0.00	20	
Ethylbenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.778	20	
Hexachlorobutadiene	1.25	0.10	mg/kg	1.25	NA	100	75-125	0.803	20	
Isopropylbenzene	1.29	0.050	mg/kg	1.25	NA	103	75-125	0.00	20	
m,p-Xylenes	2.55	0.050	mg/kg	2.50	NA	102	75-125	0.00	20	
Methyl Isobutyl Ketone	1.33	0.25	mg/kg	1.25	NA	106	75-125	0.749	20	
Methylene chloride	1.27	0.25	mg/kg	1.25	NA	102	75-125	0.784	20	
Methyl-t-butyl ether	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.791	20	
Naphthalene	1.27	0.050	mg/kg	1.25	NA	102	75-125	1.59	20	
n-Butylbenzene	1.29	0.050	mg/kg	1.25	NA	103	75-125	0.772	20	
n-Propylbenzene	1.30	0.050	mg/kg	1.25	NA	104	75-125	2.33	20	
o-Xylene	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.784	20	
sec-Butylbenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	1.55	20	
Styrene	1.28	0.050	mg/kg	1.25	NA	102	75-125	1.57	20	
tert-Butylbenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.00	20	
Tetrachloroethene	1.29	0.10	mg/kg	1.25	NA	103	75-125	1.54	20	
Tetrahydrofuran	1.26	0.25	mg/kg	1.25	NA	101	75-125	1.60	20	
Toluene	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.00	20	
trans-1,2-Dichloroethene	1.25	0.050	mg/kg	1.25	NA	100	75-125	0.797	20	
trans-1,3-Dichloropropene	1.32	0.050	mg/kg	1.25	NA	106	75-125	1.50	20	
Trichloroethene	1.29	0.050	mg/kg	1.25	NA	103	75-125	0.772	20	
Trichlorofluoromethane	1.40	0.050	mg/kg	1.25	NA	112	75-125	3.51	20	
Vinyl chloride	1.24	0.12	mg/kg	1.25	NA	99.2	70-130	0.810	20	
Surrogate: 1,2-Dichloroethane-d4	*25.6*		*ug/L*	*25.0*	*NA*	*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.3*		*ug/L*	*25.0*	*NA*	*101*	*80-120*			
Surrogate: Dibromofluoromethane	*25.2*		*ug/L*	*25.0*	*NA*	*101*	*80-120*			
Surrogate: Toluene-d8	*24.8*		*ug/L*	*25.0*	*NA*	*99.2*	*80-120*			

BRAUN INTERTEC

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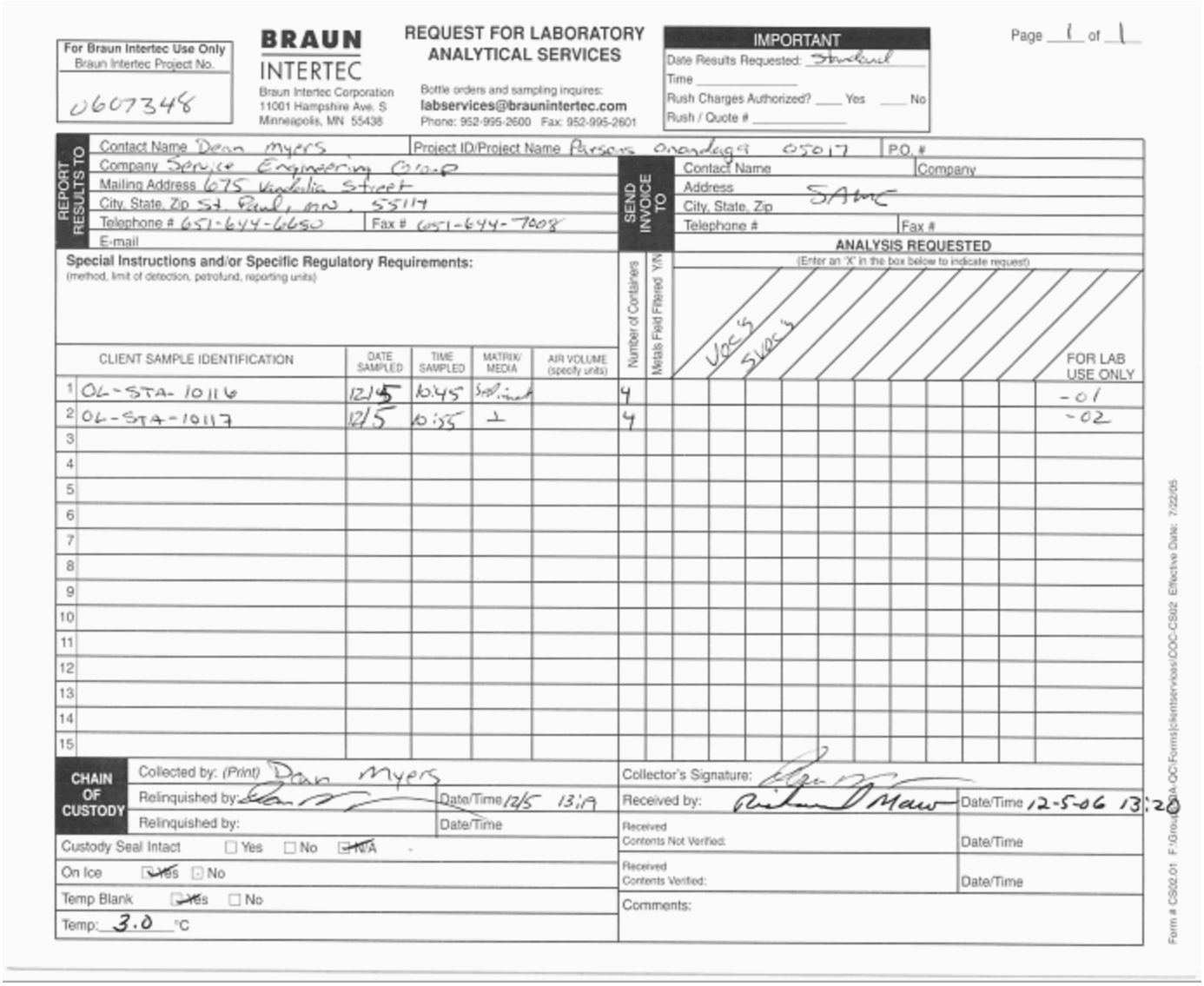
Service Engineering Group	Client Ref:	Parsons Onondaga 05017	Work Order #: 0607348
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID: S15039



For Braun Intertec Use Only
Braun Intertec Project No.
0607348

BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438

REQUEST FOR LABORATORY ANALYTICAL SERVICES

Bottle orders and sampling inquires:
labservices@braunintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

IMPORTANT
Date Results Requested: Standard
Time
Rush Charges Authorized? ___ Yes ___ No
Rush / Quote #

Page 1 of 1

REPORT RESULTS TO
Contact Name: Dean Myers
Company: Service Engineering Group
Mailing Address: 675 Vandalia Street
City, State, Zip: St. Paul, MN, 55114
Telephone #: 651-644-6650 Fax #: 651-644-7008
E-mail

Project ID/Project Name: Parsons Onondaga 05017
P.O. #

SEND INVOICE TO
Contact Name
Company
Address: SAME
City, State, Zip
Telephone #
Fax #

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petrofund, reporting units)

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request)

	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	VOC's	SVOC's	FOR LAB USE ONLY
1	OL-STA-10116	12/5	10:45	Soil		4		X	X	-01
2	OL-STA-10117	12/5	10:55	"		4		X	X	-02
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

CHAIN OF CUSTODY
Collected by: (Print) Dean Myers
Collector's Signature:
Relinquished by: Date/Time 12/5 13:19
Received by: Date/Time 12-5-06 13:20
Relinquished by: Date/Time
Received Contents Not Verified: Date/Time
Received Contents Verified: Date/Time
Custody Seal Intact ☐ Yes ☐ No ☒ N/A
On Ice ☒ Yes ☐ No
Temp Blank ☒ Yes ☐ No
Temp: 3.0 °C
Comments:

Form # CS02.01 F:\Group\QA-QC-Forms\clientservices\COC-CS02 Effective Date: 7/22/05

BRAUN INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

Mr. Dean Myers
Service Engineering Group
675 Vandalia Street
St. Paul, MN 55114

December 18, 2006

Work Order #: 0607407

RE: Onondada Parsons 05017

Dear Mr. Dean Myers

Braun Intertec Corporation received samples for the project identified above on 12/06/06 13:54. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Steven J. Albrecht

Steven J. Albrecht
Associate Principal

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

BRAUN INTERTEC

11001 Hampshire Ave. S.
Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group	Client Ref:	Onondada Parsons 05017	Work Order #:	0607407
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

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675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Qualifiers and Abbreviations

vfa	The method reporting limit (MRL) was raised for one or more analytes; a dilution of the sample was necessary due to high analyte levels and/or matrix interferences.
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OL-STA-60098	0607407-01	Sediment	12/06/06 10:30	12/06/06 13:54
OL-STA-60099	0607407-02	Sediment	12/06/06 10:45	12/06/06 13:54

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Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	5.3 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	Yes	**Temperature Blank:**	No
Custody Seals Used:	No	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	No	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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OL-STA-60098

0607407-01 (Sediment)

12/6/06 10:30

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**29**		% Wt	1	B6L0122	12/7/06	12/8/06	SM 2540G	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
1,2-Dichlorobenzene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
1,2-Diphenylhydrazine	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
1,3-Dichlorobenzene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
1,4-Dichlorobenzene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,4,5-Trichlorophenol	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,4,6-Trichlorophenol	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,4-Dichlorophenol	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,4-Dimethylphenol	< 0.85	0.85	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,4-Dinitrophenol	< 1.6	1.6	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,4-Dinitrotoluene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,6-Dinitrotoluene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2-Chloronaphthalene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2-Chlorophenol	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2-Methylnaphthalene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2-Methylphenol	< 0.85	0.85	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2-Nitroaniline	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2-Nitrophenol	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
3,3-Dichlorobenzidine	< 1.6	1.6	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
3-/4-Methylphenol	< 0.85	0.85	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
3-Nitroaniline	< 0.85	0.85	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 0.85	0.85	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4-Chloro-3-methylphenol	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4-Chloroaniline	< 0.85	0.85	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4-Nitroaniline	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4-Nitrophenol	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Acenaphthene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Acenaphthylene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Aniline	< 0.85	0.85	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Anthracene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

OL-STA-60098

0607407-01 (Sediment)

12/6/06 10:30

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benz(a)anthracene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Benzo(a)pyrene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Benzo(b)fluoranthene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Benzo(g,h,i)perylene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Benzo(k)fluoranthene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Benzyl alcohol	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	< 1.6	1.6	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Butyl benzyl phthalate	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Carbazole	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Chrysene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Dibenz(a,h)anthracene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Dibenzofuran	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Diethylphthalate	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Dimethyl phthalate	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Di-n-butyl phthalate	< 1.6	1.6	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Di-n-octyl phthalate	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Fluoranthene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Fluorene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Hexachlorobenzene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Hexachlorobutadiene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Hexachlorocyclopentadiene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Hexachloroethane	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Indeno(1,2,3-cd)pyrene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Isophorone	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Naphthalene	**1.1**	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Nitrobenzene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
N-Nitrosodimethylamine	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
N-Nitrosodiphenylamine	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Pentachlorophenol	< 0.85	0.85	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Phenanthrene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Phenol	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Pyrene	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	

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St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-60098

0607407-01 (Sediment)

12/6/06 10:30

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Pyridine	< 0.33	0.33	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*82.2 %*	*Limits: 30-150%*			*B6L0222*	*12/13/06*	*12/14/06*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl	*83.4 %*	*Limits: 30-104%*			*B6L0222*	*12/13/06*	*12/14/06*	*EPA 8270C*	
Surrogate: 2-Fluorophenol	*69.4 %*	*Limits: 30-106%*			*B6L0222*	*12/13/06*	*12/14/06*	*EPA 8270C*	
Surrogate: Nitrobenzene-d5	*43.6 %*	*Limits: 30-90%*			*B6L0222*	*12/13/06*	*12/14/06*	*EPA 8270C*	
Surrogate: Phenol-d6	*76.9 %*	*Limits: 30-102%*			*B6L0222*	*12/13/06*	*12/14/06*	*EPA 8270C*	
Surrogate: Terphenyl-d14	*69.2 %*	*Limits: 30-115%*			*B6L0222*	*12/13/06*	*12/14/06*	*EPA 8270C*	

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1-Dichloroethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1-Dichloroethene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1-Dichloropropene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2,4-Trimethylbenzene	**0.19**	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2-Dibromoethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2-Dichloroethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2-Dichloropropane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,3-Dichloropropane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
2,2-Dichloropropane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
2-Butanone (MEK)	< 1.7	1.7	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
2-Chlorotoluene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
4-Chlorotoluene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
4-Isopropyltoluene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	

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675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-60098

0607407-01 (Sediment)

12/6/06 10:30

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acetone	< 3.4	3.4	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Allyl Chloride	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Benzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Bromobenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Bromochloromethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Bromodichloromethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Bromoform	< 0.86	0.86	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Bromomethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Carbon Tetrachloride	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Chlorobenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Chlorodibromomethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Chloroethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Chloroform	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Chloromethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Dibromomethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Dichlorodifluoromethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Dichlorofluoromethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Ethyl Ether	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Ethylbenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Hexachlorobutadiene	< 0.34	0.34	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Isopropylbenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
m,p-Xylenes	**0.21**	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.86	0.86	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Methylene chloride	< 0.86	0.86	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Methyl-t-butyl ether	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Naphthalene	**0.71**	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
n-Butylbenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
n-Propylbenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
o-Xylene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
sec-Butylbenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Styrene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
tert-Butylbenzene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Tetrachloroethene	< 0.34	0.34	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Tetrahydrofuran	< 0.86	0.86	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	

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11001 Hampshire Ave. S.
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Service Engineering Group	Client Ref:	Onondada Parsons 05017	Work Order #:	0607407
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

OL-STA-60098

0607407-01 (Sediment)

12/6/06 10:30

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Toluene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
trans-1,3-Dichloropropene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Trichloroethene	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Trichlorofluoromethane	< 0.17	0.17	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Vinyl chloride	< 0.43	0.43	mg/kg dry	1	B6L0153	12/8/06	12/8/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*105 %*	*Limits: 80-120%*			*B6L0153*	*12/8/06*	*12/8/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*98.4 %*	*Limits: 80-120%*			*B6L0153*	*12/8/06*	*12/8/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*100 %*	*Limits: 80-120%*			*B6L0153*	*12/8/06*	*12/8/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*96.0 %*	*Limits: 80-120%*			*B6L0153*	*12/8/06*	*12/8/06*	*EPA 8260B*	

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675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

OL-STA-60099

0607407-02 (Sediment)

12/6/06 10:45

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**43**		% Wt	1	B6L0122	12/7/06	12/8/06	SM 2540G	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	**0.27**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
1,2-Dichlorobenzene	**0.62**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
1,2-Diphenylhydrazine	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
1,3-Dichlorobenzene	**0.36**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
1,4-Dichlorobenzene	**2.4**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,4,5-Trichlorophenol	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,4,6-Trichlorophenol	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,4-Dichlorophenol	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,4-Dimethylphenol	< 0.57	0.57	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,4-Dinitrophenol	< 1.1	1.1	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,4-Dinitrotoluene	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2,6-Dinitrotoluene	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2-Chloronaphthalene	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2-Chlorophenol	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2-Methylnaphthalene	**4.1**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2-Methylphenol	< 0.57	0.57	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2-Nitroaniline	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
2-Nitrophenol	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
3,3-Dichlorobenzidine	< 1.1	1.1	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
3-/4-Methylphenol	< 0.57	0.57	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
3-Nitroaniline	< 0.57	0.57	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 0.57	0.57	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4-Chloro-3-methylphenol	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4-Chloroaniline	< 0.57	0.57	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4-Nitroaniline	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
4-Nitrophenol	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Acenaphthene	**2.2**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Acenaphthylene	**1.0**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Aniline	< 0.57	0.57	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

OL-STA-60099

0607407-02 (Sediment)

12/6/06 10:45

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	**2.4**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Benz(a)anthracene	**2.6**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Benzo(a)pyrene	**2.0**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Benzo(b)fluoranthene	**1.9**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Benzo(g,h,i)perylene	**0.32**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Benzo(k)fluoranthene	**1.5**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Benzyl alcohol	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	< 1.1	1.1	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Butyl benzyl phthalate	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Carbazole	**0.43**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Chrysene	**2.8**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Dibenz(a,h)anthracene	< 1.1	1.1	mg/kg dry	5	B6L0222	12/13/06	12/15/06	EPA 8270C	
Dibenzofuran	**0.69**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Diethylphthalate	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Dimethyl phthalate	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Di-n-butyl phthalate	< 1.1	1.1	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Di-n-octyl phthalate	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Fluoranthene	**6.2**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Fluorene	**11**	1.1	mg/kg dry	5	B6L0222	12/13/06	12/15/06	EPA 8270C	
Hexachlorobenzene	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Hexachlorobutadiene	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Hexachlorocyclopentadiene	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Hexachloroethane	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Indeno(1,2,3-cd)pyrene	**0.37**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Isophorone	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Naphthalene	**3.1**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Nitrobenzene	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
N-Nitrosodimethylamine	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
N-Nitrosodiphenylamine	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Pentachlorophenol	< 0.57	0.57	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Phenanthrene	**7.3**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	

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Service Engineering Group	Client Ref:	Onondada Parsons 05017	Work Order #:	0607407
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

OL-STA-60099

0607407-02 (Sediment)

12/6/06 10:45

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenol	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Pyrene	**5.8**	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Pyridine	< 0.22	0.22	mg/kg dry	1	B6L0222	12/13/06	12/14/06	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*97.0 %*	*Limits: 30-150%*			*B6L0222*	*12/13/06*	*12/14/06*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl	*41.4 %*	*Limits: 30-104%*			*B6L0222*	*12/13/06*	*12/14/06*	*EPA 8270C*	
Surrogate: 2-Fluorophenol	*61.7 %*	*Limits: 30-106%*			*B6L0222*	*12/13/06*	*12/14/06*	*EPA 8270C*	
Surrogate: Nitrobenzene-d5	*32.4 %*	*Limits: 30-90%*			*B6L0222*	*12/13/06*	*12/14/06*	*EPA 8270C*	
Surrogate: Phenol-d6	*66.9 %*	*Limits: 30-102%*			*B6L0222*	*12/13/06*	*12/14/06*	*EPA 8270C*	
Surrogate: Terphenyl-d14	*42.9 %*	*Limits: 30-115%*			*B6L0222*	*12/13/06*	*12/14/06*	*EPA 8270C*	

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1,1-Trichloroethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1,2-Trichloroethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1-Dichloroethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1-Dichloroethene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,1-Dichloropropene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2,3-Trichloropropane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2-Dibromoethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2-Dichlorobenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2-Dichloroethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,2-Dichloropropane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,3-Dichlorobenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,3-Dichloropropane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
1,4-Dichlorobenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
2,2-Dichloropropane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
2-Butanone (MEK)	< 12	12	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
2-Chlorotoluene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	

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Service Engineering Group	Client Ref: Onondada Parsons 05017	Work Order #: 0607407
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

OL-STA-60099

0607407-02 (Sediment)

12/6/06 10:45

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chlorotoluene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
4-Isopropyltoluene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Acetone	< 23	23	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Allyl Chloride	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Benzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Bromobenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Bromochloromethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Bromodichloromethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Bromoform	< 5.8	5.8	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Bromomethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Carbon Tetrachloride	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Chlorobenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Chlorodibromomethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Chloroethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Chloroform	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Chloromethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
cis-1,2-Dichloroethene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
cis-1,3-Dichloropropene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Dibromomethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Dichlorodifluoromethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Dichlorofluoromethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Ethyl Ether	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Ethylbenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Hexachlorobutadiene	< 2.3	2.3	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Isopropylbenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
m,p-Xylenes	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Methyl Isobutyl Ketone	< 5.8	5.8	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Methylene chloride	< 5.8	5.8	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Methyl-t-butyl ether	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Naphthalene	**2.9**	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
n-Butylbenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
n-Propylbenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
o-Xylene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
sec-Butylbenzene	**1.3**	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Styrene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
tert-Butylbenzene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	

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Service Engineering Group	Client Ref:	Onondada Parsons 05017	Work Order #:	0607407
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

OL-STA-60099

0607407-02 (Sediment)

12/6/06 10:45

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Tetrachloroethene	< 2.3	2.3	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Tetrahydrofuran	< 5.8	5.8	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Toluene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
trans-1,2-Dichloroethene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
trans-1,3-Dichloropropene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Trichloroethene	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Trichlorofluoromethane	< 1.2	1.2	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Vinyl chloride	< 2.9	2.9	mg/kg dry	10	B6L0153	12/8/06	12/8/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*104 %*	*Limits: 80-120%*			*B6L0153*	*12/8/06*	*12/8/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*98.8 %*	*Limits: 80-120%*			*B6L0153*	*12/8/06*	*12/8/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*98.0 %*	*Limits: 80-120%*			*B6L0153*	*12/8/06*	*12/8/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*98.0 %*	*Limits: 80-120%*			*B6L0153*	*12/8/06*	*12/8/06*	*EPA 8260B*	

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675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Classical Chemistry Parameters - Quality Control

Batch B6L0122 - % Solids

Method Blank (B6L0122-BLK1) Prepared: 12/07/06 Analyzed: 12/08/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	<		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B6L0122-SRM1) Prepared: 12/07/06 Analyzed: 12/08/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	90.6		% Wt	88.8	NA	102	90-110	NA	NA	

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675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0222 - EPA 3545

Method Blank (B6L0222-BLK1) Prepared: 12/13/06 Analyzed: 12/14/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Diphenylhydrazine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,4,5-Trichlorophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,4,6-Trichlorophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dichlorophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dimethylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dinitrophenol	< 0.33	0.33	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dinitrotoluene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2,6-Dinitrotoluene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chloronaphthalene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Methylnaphthalene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2-Nitroaniline	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
2-Nitrophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
3,3-Dichlorobenzidine	< 0.33	0.33	mg/kg	NA	NA	NA	NA	NA	NA	
3-/4-Methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
3-Nitroaniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4,6-Dinitro-2-methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4-Bromophenyl phenyl ether	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chloro-3-methylphenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chloroaniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorophenyl phenyl ether	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
4-Nitroaniline	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
4-Nitrophenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthylene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Aniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
Anthracene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benz(a)anthracene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(g,h,i)perylene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Benzyl alcohol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
bis(2-Chloroethoxy)methane	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-Chloroethyl)ether	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-chloroisopropyl)ether	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-Ethylhexyl)phthalate	< 0.33	0.33	mg/kg	NA	NA	NA	NA	NA	NA	
Butyl benzyl phthalate	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Carbazole	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Chrysene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenzofuran	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	

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675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0222 - EPA 3545

Method Blank (B6L0222-BLK1) Prepared: 12/13/06 Analyzed: 12/14/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diethylphthalate	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Dimethyl phthalate	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Di-n-butyl phthalate	< 0.33	0.33	mg/kg	NA	NA	NA	NA	NA	NA	
Di-n-octyl phthalate	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Fluoranthene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Fluorene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobutadiene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorocyclopentadiene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachloroethane	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Isophorone	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Nitrobenzene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodimethylamine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodi-n-propylamine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodiphenylamine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Pentachlorophenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
Phenanthrene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Phenol	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Pyrene	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Pyridine	< 0.067	0.067	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 2,4,6-Tribromophenol	*1.65*		*mg/kg*	*1.66*	*NA*	*99.4*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.796*		*mg/kg*	*0.831*	*NA*	*95.8*	*30-104*			
Surrogate: 2-Fluorophenol	*1.23*		*mg/kg*	*1.66*	*NA*	*74.1*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.653*		*mg/kg*	*0.831*	*NA*	*78.6*	*30-90*			
Surrogate: Phenol-d6	*1.33*		*mg/kg*	*1.66*	*NA*	*80.1*	*30-102*			
Surrogate: Terphenyl-d14	*0.805*		*mg/kg*	*0.831*	*NA*	*96.9*	*30-115*			

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675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0222 - EPA 3545

Laboratory Control Sample (B6L0222-BS1) Prepared: 12/13/06 Analyzed: 12/14/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.22	0.067	mg/kg	1.66	NA	73.5	55-115	NA	NA	
1,4-Dichlorobenzene	1.24	0.067	mg/kg	1.66	NA	74.7	55-115	NA	NA	
2,4-Dinitrotoluene	1.73	0.067	mg/kg	1.66	NA	104	60-130	NA	NA	
2-Chlorophenol	1.32	0.067	mg/kg	1.66	NA	79.5	55-115	NA	NA	
4-Chloro-3-methylphenol	1.48	0.067	mg/kg	1.66	NA	89.2	55-115	NA	NA	
4-Nitrophenol	1.96	0.067	mg/kg	1.66	NA	118	45-130	NA	NA	
Acenaphthene	1.61	0.067	mg/kg	1.66	NA	97.0	50-115	NA	NA	
N-Nitrosodi-n-propylamine	1.55	0.067	mg/kg	1.66	NA	93.4	65-115	NA	NA	
Pentachlorophenol	1.42	0.17	mg/kg	1.66	NA	85.5	30-130	NA	NA	
Phenol	1.37	0.067	mg/kg	1.66	NA	82.5	55-115	NA	NA	
Pyrene	1.47	0.067	mg/kg	1.66	NA	88.6	50-130	NA	NA	
Surrogate: 2,4,6-Tribromophenol	*1.74*		*mg/kg*	*1.66*	*NA*	*105*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.781*		*mg/kg*	*0.832*	*NA*	*93.9*	*30-104*			
Surrogate: 2-Fluorophenol	*1.22*		*mg/kg*	*1.66*	*NA*	*73.5*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.659*		*mg/kg*	*0.832*	*NA*	*79.2*	*30-90*			
Surrogate: Phenol-d6	*1.35*		*mg/kg*	*1.66*	*NA*	*81.3*	*30-102*			
Surrogate: Terphenyl-d14	*0.781*		*mg/kg*	*0.832*	*NA*	*93.9*	*30-115*			

Laboratory Control Sample Duplicate (B6L0222-BSD1) Prepared: 12/13/06 Analyzed: 12/14/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.21	0.067	mg/kg	1.66	NA	72.9	55-115	0.823	25	
1,4-Dichlorobenzene	1.20	0.067	mg/kg	1.66	NA	72.3	55-115	3.28	25	
2,4-Dinitrotoluene	1.75	0.067	mg/kg	1.66	NA	105	60-130	1.15	25	
2-Chlorophenol	1.34	0.067	mg/kg	1.66	NA	80.7	55-115	1.50	25	
4-Chloro-3-methylphenol	1.50	0.067	mg/kg	1.66	NA	90.4	55-115	1.34	25	
4-Nitrophenol	2.00	0.067	mg/kg	1.66	NA	120	45-130	2.02	30	
Acenaphthene	1.63	0.067	mg/kg	1.66	NA	98.2	50-115	1.23	25	
N-Nitrosodi-n-propylamine	1.54	0.067	mg/kg	1.66	NA	92.8	65-115	0.647	25	
Pentachlorophenol	1.44	0.17	mg/kg	1.66	NA	86.7	30-130	1.40	30	
Phenol	1.36	0.067	mg/kg	1.66	NA	81.9	55-115	0.733	25	
Pyrene	1.46	0.067	mg/kg	1.66	NA	88.0	50-130	0.683	25	
Surrogate: 2,4,6-Tribromophenol	*1.78*		*mg/kg*	*1.66*	*NA*	*107*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.789*		*mg/kg*	*0.829*	*NA*	*95.2*	*30-104*			
Surrogate: 2-Fluorophenol	*1.23*		*mg/kg*	*1.66*	*NA*	*74.1*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.657*		*mg/kg*	*0.829*	*NA*	*79.3*	*30-90*			
Surrogate: Phenol-d6	*1.35*		*mg/kg*	*1.66*	*NA*	*81.3*	*30-102*			
Surrogate: Terphenyl-d14	*0.786*		*mg/kg*	*0.829*	*NA*	*94.8*	*30-115*			

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Service Engineering Group	Client Ref:	Onondada Parsons 05017	Work Order #:	0607407
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0153 - EPA 5030B

Laboratory Control Sample (B6L0153-BS1) Prepared & Analyzed: 12/08/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
1,1,1-Trichloroethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
1,1,2,2-Tetrachloroethane	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	NA	NA	
1,1,2-Trichloroethane	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	NA	NA	
1,1,2-Trichlorotrifluoroethane	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,1-Dichloroethane	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
1,1-Dichloroethene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,1-Dichloropropene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,2,3-Trichlorobenzene	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	NA	NA	
1,2,3-Trichloropropane	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	NA	NA	
1,2,4-Trichlorobenzene	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	NA	NA	
1,2,4-Trimethylbenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
1,2-Dibromo-3-chloropropane	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	NA	NA	
1,2-Dibromoethane	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
1,2-Dichlorobenzene	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	NA	NA	
1,2-Dichloroethane	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,2-Dichloropropane	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
1,3,5-Trimethylbenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
1,3-Dichlorobenzene	1.25	0.050	mg/kg	1.25	NA	100	75-125	NA	NA	
1,3-Dichloropropane	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	NA	NA	
1,4-Dichlorobenzene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
2,2-Dichloropropane	1.32	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
2-Butanone (MEK)	1.28	0.50	mg/kg	1.25	NA	102	75-125	NA	NA	
2-Chlorotoluene	1.25	0.050	mg/kg	1.25	NA	100	75-125	NA	NA	
4-Chlorotoluene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
4-Isopropyltoluene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Acetone	1.44	1.0	mg/kg	1.25	NA	115	75-125	NA	NA	
Allyl Chloride	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
Benzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Bromobenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Bromochloromethane	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
Bromodichloromethane	1.33	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
Bromoform	1.20	0.25	mg/kg	1.25	NA	96.0	75-125	NA	NA	
Bromomethane	1.21	0.050	mg/kg	1.25	NA	96.8	70-130	NA	NA	
Carbon Tetrachloride	1.32	0.050	mg/kg	1.25	NA	106	75-125	NA	NA	
Chlorobenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Chlorodibromomethane	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Chloroethane	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Chloroform	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Chloromethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
cis-1,2-Dichloroethene	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	NA	NA	
cis-1,3-Dichloropropene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Dibromomethane	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
Dichlorodifluoromethane	1.34	0.050	mg/kg	1.25	NA	107	70-130	NA	NA	
Dichlorofluoromethane	1.36	0.050	mg/kg	1.25	NA	109	75-125	NA	NA	
Ethyl Ether	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	NA	NA	
Ethylbenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	

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Service Engineering Group	Client Ref:	Onondada Parsons 05017	Work Order #:	0607407
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0153 - EPA 5030B

Laboratory Control Sample (B6L0153-BS1) Prepared & Analyzed: 12/08/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Hexachlorobutadiene	1.24	0.10	mg/kg	1.25	NA	99.2	75-125	NA	NA	
Isopropylbenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
m,p-Xylenes	2.47	0.050	mg/kg	2.50	NA	98.8	75-125	NA	NA	
Methyl Isobutyl Ketone	1.23	0.25	mg/kg	1.25	NA	98.4	75-125	NA	NA	
Methylene chloride	1.23	0.25	mg/kg	1.25	NA	98.4	75-125	NA	NA	
Methyl-t-butyl ether	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	NA	NA	
Naphthalene	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	NA	NA	
n-Butylbenzene	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
n-Propylbenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
o-Xylene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
sec-Butylbenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Styrene	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	NA	NA	
tert-Butylbenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Tetrachloroethene	1.27	0.10	mg/kg	1.25	NA	102	75-125	NA	NA	
Tetrahydrofuran	1.14	0.25	mg/kg	1.25	NA	91.2	75-125	NA	NA	
Toluene	1.25	0.050	mg/kg	1.25	NA	100	75-125	NA	NA	
trans-1,2-Dichloroethene	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	NA	NA	
trans-1,3-Dichloropropene	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
Trichloroethene	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
Trichlorofluoromethane	1.38	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
Vinyl chloride	1.37	0.12	mg/kg	1.25	NA	110	70-130	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*24.7*		*ug/L*	*25.0*	*NA*	*98.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.9*		*ug/L*	*25.0*	*NA*	*99.6*	*80-120*			
Surrogate: Dibromofluoromethane	*25.0*		*ug/L*	*25.0*	*NA*	*100*	*80-120*			
Surrogate: Toluene-d8	*24.7*		*ug/L*	*25.0*	*NA*	*98.8*	*80-120*			

Laboratory Control Sample Duplicate (B6L0153-BSD1) Prepared & Analyzed: 12/08/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	0.00	20	
1,1,1-Trichloroethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	0.00	20	
1,1,2,2-Tetrachloroethane	1.25	0.050	mg/kg	1.25	NA	100	75-125	1.61	20	
1,1,2-Trichloroethane	1.25	0.050	mg/kg	1.25	NA	100	75-125	1.61	20	
1,1,2-Trichlorotrifluoroethane	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.784	20	
1,1-Dichloroethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	2.35	20	
1,1-Dichloroethene	1.30	0.050	mg/kg	1.25	NA	104	75-125	2.33	20	
1,1-Dichloropropene	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.784	20	
1,2,3-Trichlorobenzene	1.25	0.050	mg/kg	1.25	NA	100	75-125	3.25	20	
1,2,3-Trichloropropane	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	4.12	20	
1,2,4-Trichlorobenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	2.41	20	
1,2,4-Trimethylbenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.791	20	
1,2-Dibromo-3-chloropropane	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	2.62	20	
1,2-Dibromoethane	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	0.00	20	
1,2-Dichlorobenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	2.41	20	
1,2-Dichloroethane	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.784	20	

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Service Engineering Group	Client Ref:	Onondada Parsons 05017	Work Order #:	0607407
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0153 - EPA 5030B

Laboratory Control Sample Duplicate (B6L0153-BSD1) Prepared & Analyzed: 12/08/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dichloropropane	1.26	0.050	mg/kg	1.25	NA	101	75-125	1.60	20	
1,3,5-Trimethylbenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.791	20	
1,3-Dichlorobenzene	1.25	0.050	mg/kg	1.25	NA	100	75-125	0.00	20	
1,3-Dichloropropane	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	0.810	20	
1,4-Dichlorobenzene	1.25	0.050	mg/kg	1.25	NA	100	75-125	0.803	20	
2,2-Dichloropropane	1.29	0.050	mg/kg	1.25	NA	103	75-125	2.30	20	
2-Butanone (MEK)	1.26	0.50	mg/kg	1.25	NA	101	75-125	1.57	20	
2-Chlorotoluene	1.27	0.050	mg/kg	1.25	NA	102	75-125	1.59	20	
4-Chlorotoluene	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.784	20	
4-Isopropyltoluene	1.29	0.050	mg/kg	1.25	NA	103	75-125	1.56	20	
Acetone	1.49	1.0	mg/kg	1.25	NA	119	75-125	3.41	20	
Allyl Chloride	1.29	0.050	mg/kg	1.25	NA	103	75-125	2.35	20	
Benzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.784	20	
Bromobenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.00	20	
Bromochloromethane	1.29	0.050	mg/kg	1.25	NA	103	75-125	3.95	20	
Bromodichloromethane	1.32	0.050	mg/kg	1.25	NA	106	75-125	0.755	20	
Bromoform	1.22	0.25	mg/kg	1.25	NA	97.6	75-125	1.65	20	
Bromomethane	1.43	0.050	mg/kg	1.25	NA	114	70-130	16.7	20	
Carbon Tetrachloride	1.32	0.050	mg/kg	1.25	NA	106	75-125	0.00	20	
Chlorobenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	1.57	20	
Chlorodibromomethane	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.00	20	
Chloroethane	1.41	0.050	mg/kg	1.25	NA	113	75-125	9.67	20	
Chloroform	1.29	0.050	mg/kg	1.25	NA	103	75-125	0.778	20	
Chloromethane	1.35	0.050	mg/kg	1.25	NA	108	75-125	4.55	20	
cis-1,2-Dichloroethene	1.25	0.050	mg/kg	1.25	NA	100	75-125	2.43	20	
cis-1,3-Dichloropropene	1.30	0.050	mg/kg	1.25	NA	104	75-125	1.55	20	
Dibromomethane	1.28	0.050	mg/kg	1.25	NA	102	75-125	1.57	20	
Dichlorodifluoromethane	1.40	0.050	mg/kg	1.25	NA	112	70-130	4.38	20	
Dichlorofluoromethane	1.44	0.050	mg/kg	1.25	NA	115	75-125	5.71	20	
Ethyl Ether	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	3.28	20	
Ethylbenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	0.791	20	
Hexachlorobutadiene	1.28	0.10	mg/kg	1.25	NA	102	75-125	3.17	20	
Isopropylbenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.791	20	
m,p-Xylenes	2.50	0.050	mg/kg	2.50	NA	100	75-125	1.21	20	
Methyl Isobutyl Ketone	1.27	0.25	mg/kg	1.25	NA	102	75-125	3.20	20	
Methylene chloride	1.30	0.25	mg/kg	1.25	NA	104	75-125	5.53	20	
Methyl-t-butyl ether	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	0.823	20	
Naphthalene	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	0.00	20	
n-Butylbenzene	1.30	0.050	mg/kg	1.25	NA	104	75-125	0.772	20	
n-Propylbenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.784	20	
o-Xylene	1.25	0.050	mg/kg	1.25	NA	100	75-125	0.797	20	
sec-Butylbenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.784	20	
Styrene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	0.810	20	
tert-Butylbenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	0.784	20	
Tetrachloroethene	1.27	0.10	mg/kg	1.25	NA	102	75-125	0.00	20	
Tetrahydrofuran	1.21	0.25	mg/kg	1.25	NA	96.8	75-125	5.96	20	
Toluene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	0.803	20	

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Service Engineering Group	Client Ref:	Onondada Parsons 05017	Work Order #:	0607407
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0153 - EPA 5030B

Laboratory Control Sample Duplicate (B6L0153-BSD1) Prepared & Analyzed: 12/08/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
trans-1,2-Dichloroethene	1.25	0.050	mg/kg	1.25	NA	100	75-125	3.25	20	
trans-1,3-Dichloropropene	1.31	0.050	mg/kg	1.25	NA	105	75-125	1.54	20	
Trichloroethene	1.28	0.050	mg/kg	1.25	NA	102	75-125	0.778	20	
Trichlorofluoromethane	1.45	0.050	mg/kg	1.25	NA	116	75-125	4.95	20	
Vinyl chloride	1.50	0.12	mg/kg	1.25	NA	120	70-130	9.06	20	
Surrogate: 1,2-Dichloroethane-d4	*25.1*		*ug/L*	*25.0*	*NA*	*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.3*		*ug/L*	*25.0*	*NA*	*101*	*80-120*			
Surrogate: Dibromofluoromethane	*25.1*		*ug/L*	*25.0*	*NA*	*100*	*80-120*			
Surrogate: Toluene-d8	*24.2*		*ug/L*	*25.0*	*NA*	*96.8*	*80-120*			

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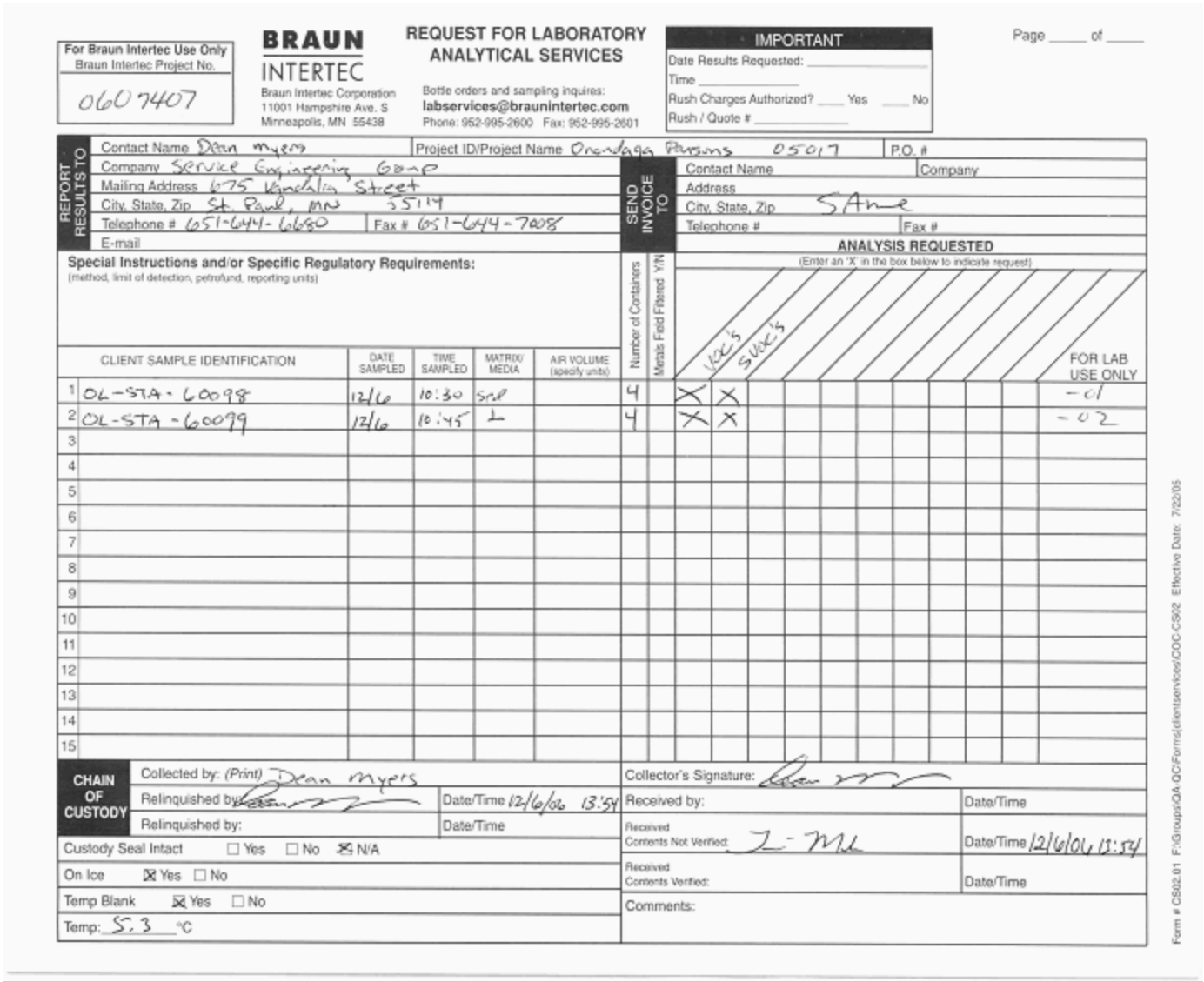
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039



For Braun Intertec Use Only
Braun Intertec Project No.
0607407

BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438

REQUEST FOR LABORATORY ANALYTICAL SERVICES

Bottle orders and sampling inquires:
labservices@braunintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

IMPORTANT
Date Results Requested:
Time
Rush Charges Authorized? ___ Yes ___ No
Rush / Quote #

Page ___ of ___

REPORT RESULTS TO
Contact Name: Dean Myers
Company: Service Engineering Group
Mailing Address: 675 Vandalia Street
City, State, Zip: St. Paul, MN 55114
Telephone #: 651-644-6680 Fax #: 651-644-7008
E-mail:

Project ID/Project Name: Onondaga Parsons 05017
P.O. #

SEND INVOICE TO
Contact Name: Company:
Address:
City, State, Zip: Same
Telephone # Fax #

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petrofund, reporting units)

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request)

	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	VOC's	SVOC's	FOR LAB USE ONLY
1	OL-STA-60098	12/6	10:30	Soil		4		X	X	-01
2	OL-STA-60099	12/6	10:45	L		4		X	X	-02
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

CHAIN OF CUSTODY
Collected by: (Print) Dean Myers
Collector's Signature:
Relinquished by: Date/Time 12/6/06 13:54
Received by: Date/Time
Relinquished by: Date/Time
Received Contents Not Verified: Date/Time 12/6/06 13:54
Custody Seal Intact ☐ Yes ☐ No ☒ N/A
Received Contents Verified: Date/Time
On Ice ☒ Yes ☐ No
Temp Blank ☒ Yes ☐ No
Temp: 5.3 °C
Comments:

Form # CS02.01 F:\Groups\QA.QC\Forms\clientservices\COC-CS02 Effective Date: 7/22/05

EPA Lab ID: MN00063

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BRAUN INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

Mr. Dean Myers
Service Engineering Group
675 Vandalia Street
St. Paul, MN 55114

December 18, 2006

Work Order #: 0607319

RE: Parsons Onodaga 05017

Dear Mr. Dean Myers

Braun Intertec Corporation received samples for the project identified above on 12/04/06 12:00. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Steven J. Albrecht

Steven J. Albrecht
Associate Principal

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 1021234-0 AIHA: 101103

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Service Engineering Group	Client Ref:	Parsons Onodaga 05017	Work Order #:	0607319
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

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Service Engineering Group	Client Ref:	Parsons Onodaga 05017	Work Order #:	0607319
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Qualifiers and Abbreviations

vfa	The method reporting limit (MRL) was raised for one or more analytes; a dilution of the sample was necessary due to high analyte levels and/or matrix interferences.
sk	The surrogate recovery is outside of laboratory control limits due to matrix interference.
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
06-STA-60100	0607319-01	Soil	12/04/06 10:20	12/04/06 12:00
06-STA-10119	0607319-02	Soil	12/04/06 10:30	12/04/06 12:00

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Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	3.6 °C	**Received on Ice:**	No	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	Yes	**Temperature Blank:**	No
Custody Seals Used:	No	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	No	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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06-STA-60100

0607319-01 (Soil)

12/4/06 10:20

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**50**		% Wt	1	B6L0074	12/5/06	12/7/06	SM 2540G	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
1,2-Dichlorobenzene	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
1,2-Diphenylhydrazine	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
1,3-Dichlorobenzene	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
1,4-Dichlorobenzene	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4,5-Trichlorophenol	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4,6-Trichlorophenol	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dichlorophenol	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dimethylphenol	< 0.50	0.50	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dinitrophenol	< 0.50	0.50	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dinitrotoluene	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,6-Dinitrotoluene	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Chloronaphthalene	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Chlorophenol	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Methylnaphthalene	**0.79**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Methylphenol	< 0.50	0.50	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Nitroaniline	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Nitrophenol	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
3,3-Dichlorobenzidine	< 0.98	0.98	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
3-/4-Methylphenol	< 0.50	0.50	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
3-Nitroaniline	< 0.50	0.50	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 0.50	0.50	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Chloro-3-methylphenol	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Chloroaniline	< 0.50	0.50	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Nitroaniline	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Nitrophenol	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Acenaphthene	**1.3**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Acenaphthylene	**0.62**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Aniline	< 0.50	0.50	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Anthracene	**1.9**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

06-STA-60100

0607319-01 (Soil)

12/4/06 10:20

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benz(a)anthracene	**1.9**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(a)pyrene	**1.5**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(b)fluoranthene	**0.89**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(g,h,i)perylene	**0.22**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(k)fluoranthene	**1.1**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzyl alcohol	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	< 0.98	0.98	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Butyl benzyl phthalate	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Carbazole	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Chrysene	**2.2**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Dibenz(a,h)anthracene	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Dibenzofuran	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Diethylphthalate	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Dimethyl phthalate	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Di-n-butyl phthalate	< 0.98	0.98	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Di-n-octyl phthalate	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Fluoranthene	**3.4**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Fluorene	**1.2**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachlorobenzene	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachlorobutadiene	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachlorocyclopentadiene	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachloroethane	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Indeno(1,2,3-cd)pyrene	**0.27**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Isophorone	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Naphthalene	**0.55**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Nitrobenzene	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
N-Nitrosodimethylamine	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
N-Nitrosodiphenylamine	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Pentachlorophenol	< 0.50	0.50	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Phenanthrene	**4.3**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Phenol	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

06-STA-60100

0607319-01 (Soil)

12/4/06 10:20

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Pyrene	**3.6**	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Pyridine	< 0.20	0.20	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*70.7 %*	*Limits: 30-150%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl	*30.0 %*	*Limits: 30-104%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	
Surrogate: 2-Fluorophenol	*48.3 %*	*Limits: 30-106%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	
Surrogate: Nitrobenzene-d5	*30.2 %*	*Limits: 30-90%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	
Surrogate: Phenol-d6	*55.4 %*	*Limits: 30-102%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	
Surrogate: Terphenyl-d14	*41.3 %*	*Limits: 30-115%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,1-Dichloroethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,1-Dichloroethene	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,1-Dichloropropene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,2-Dibromoethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,2-Dichlorobenzene	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,2-Dichloroethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,2-Dichloropropane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,3-Dichloropropane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
1,4-Dichlorobenzene	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
2,2-Dichloropropane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
2-Butanone (MEK)	< 0.99	0.99	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
2-Chlorotoluene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
4-Chlorotoluene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	

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Bloomington, MN 55438
952-995-2000 Phone
952-995-2020 Fax

Service Engineering Group	Client Ref:	Parsons Onodaga 05017	Work Order #:	0607319
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

06-STA-60100

0607319-01 (Soil)

12/4/06 10:20

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Isopropyltoluene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Acetone	< 2.0	2.0	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Allyl Chloride	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Benzene	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Bromobenzene	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Bromochloromethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Bromodichloromethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Bromoform	< 0.50	0.50	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Bromomethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Carbon Tetrachloride	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Chlorobenzene	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Chlorodibromomethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Chloroethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Chloroform	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Chloromethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
cis-1,3-Dichloropropene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Dibromomethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Dichlorodifluoromethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Dichlorofluoromethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Ethyl Ether	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Ethylbenzene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Hexachlorobutadiene	< 0.20	0.20	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Isopropylbenzene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
m,p-Xylenes	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Methyl Isobutyl Ketone	< 0.99	0.99	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Methylene chloride	< 0.50	0.50	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Methyl-t-butyl ether	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Naphthalene	**0.16**	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
n-Butylbenzene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
n-Propylbenzene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
o-Xylene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
sec-Butylbenzene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Styrene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
tert-Butylbenzene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Tetrachloroethene	< 0.20	0.20	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	

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675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

06-STA-60100

0607319-01 (Soil)

12/4/06 10:20

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Tetrahydrofuran	< 0.99	0.99	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Toluene	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
trans-1,3-Dichloropropene	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Trichloroethene	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Trichlorofluoromethane	< 0.099	0.099	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Vinyl chloride	< 0.25	0.25	mg/kg dry	1	B6L0106	12/5/06	12/6/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*112 %*	*Limits: 80-120%*			*B6L0106*	*12/5/06*	*12/6/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*94.4 %*	*Limits: 80-120%*			*B6L0106*	*12/5/06*	*12/6/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*102 %*	*Limits: 80-120%*			*B6L0106*	*12/5/06*	*12/6/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*98.0 %*	*Limits: 80-120%*			*B6L0106*	*12/5/06*	*12/6/06*	*EPA 8260B*	

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

06-STA-10119

0607319-02 (Soil)

12/4/06 10:30

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**34**		% Wt	1	B6L0074	12/5/06	12/7/06	SM 2540G	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	**0.66**	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
1,2-Dichlorobenzene	**23**	1.5	mg/kg dry	5	B6L0175	12/11/06	12/13/06	EPA 8270C	
1,2-Diphenylhydrazine	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
1,3-Dichlorobenzene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
1,4-Dichlorobenzene	**18**	1.5	mg/kg dry	5	B6L0175	12/11/06	12/13/06	EPA 8270C	
2,4,5-Trichlorophenol	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4,6-Trichlorophenol	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dichlorophenol	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dimethylphenol	< 0.75	0.75	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dinitrophenol	< 0.75	0.75	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,4-Dinitrotoluene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2,6-Dinitrotoluene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Chloronaphthalene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Chlorophenol	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Methylnaphthalene	**2.2**	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Methylphenol	< 0.75	0.75	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Nitroaniline	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
2-Nitrophenol	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
3,3-Dichlorobenzidine	< 1.5	1.5	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
3-/4-Methylphenol	< 0.75	0.75	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
3-Nitroaniline	< 0.75	0.75	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 0.75	0.75	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Chloro-3-methylphenol	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Chloroaniline	< 0.75	0.75	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Nitroaniline	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
4-Nitrophenol	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Acenaphthene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Acenaphthylene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Aniline	< 0.75	0.75	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Anthracene	**0.38**	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	

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St. Paul MN, 55114	PO Number:	Account ID: S15039

06-STA-10119

0607319-02 (Soil)

12/4/06 10:30

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benz(a)anthracene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(a)pyrene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(b)fluoranthene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(g,h,i)perylene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzo(k)fluoranthene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Benzyl alcohol	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	< 1.5	1.5	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Butyl benzyl phthalate	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Carbazole	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Chrysene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Dibenz(a,h)anthracene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Dibenzofuran	**0.30**	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Diethylphthalate	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Dimethyl phthalate	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Di-n-butyl phthalate	< 1.5	1.5	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Di-n-octyl phthalate	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Fluoranthene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Fluorene	**6.6**	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachlorobenzene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachlorobutadiene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachlorocyclopentadiene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Hexachloroethane	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Indeno(1,2,3-cd)pyrene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Isophorone	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Naphthalene	**31**	1.5	mg/kg dry	5	B6L0175	12/11/06	12/13/06	EPA 8270C	
Nitrobenzene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
N-Nitrosodimethylamine	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
N-Nitrosodiphenylamine	**0.36**	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Pentachlorophenol	< 0.75	0.75	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Phenanthrene	**0.74**	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Phenol	**2.5**	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	

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06-STA-10119

0607319-02 (Soil)

12/4/06 10:30

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Pyrene	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Pyridine	< 0.30	0.30	mg/kg dry	1	B6L0175	12/11/06	12/12/06	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*6.45 %*	*Limits: 30-150%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	*sk*
Surrogate: 2-Fluorobiphenyl	*20.4 %*	*Limits: 30-104%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	*sk*
Surrogate: 2-Fluorophenol	*4.60 %*	*Limits: 30-106%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	*sk*
Surrogate: Nitrobenzene-d5	*34.4 %*	*Limits: 30-90%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	
Surrogate: Phenol-d6	*26.5 %*	*Limits: 30-102%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	*sk*
Surrogate: Terphenyl-d14	*53.9 %*	*Limits: 30-115%*			*B6L0175*	*12/11/06*	*12/12/06*	*EPA 8270C*	

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,1,1-Trichloroethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,1,2-Trichloroethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,1-Dichloroethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,1-Dichloroethene	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,1-Dichloropropene	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,2,3-Trichloropropane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,2,4-Trichlorobenzene	**1.5**	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,2,4-Trimethylbenzene	**5.1**	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,2-Dibromoethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,2-Dichlorobenzene	**66**	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,2-Dichloroethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,2-Dichloropropane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,3,5-Trimethylbenzene	**3.3**	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,3-Dichlorobenzene	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,3-Dichloropropane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
1,4-Dichlorobenzene	**47**	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
2,2-Dichloropropane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
2-Butanone (MEK)	< 7.4	7.4	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
2-Chlorotoluene	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	

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Service Engineering Group	Client Ref:	Parsons Onodaga 05017	Work Order #:	0607319
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

06-STA-10119

0607319-02 (Soil)

12/4/06 10:30

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chlorotoluene	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
4-Isopropyltoluene	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Acetone	< 15	15	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Allyl Chloride	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Benzene	**1.7**	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Bromobenzene	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Bromochloromethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Bromodichloromethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Bromoform	< 3.7	3.7	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Bromomethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Carbon Tetrachloride	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Chlorobenzene	**29**	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Chlorodibromomethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Chloroethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Chloroform	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Chloromethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
cis-1,2-Dichloroethene	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
cis-1,3-Dichloropropene	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Dibromomethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Dichlorodifluoromethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Dichlorofluoromethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Ethyl Ether	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Ethylbenzene	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Hexachlorobutadiene	< 1.5	1.5	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Isopropylbenzene	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
m,p-Xylenes	**13**	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Methyl Isobutyl Ketone	< 7.4	7.4	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Methylene chloride	< 3.7	3.7	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Methyl-t-butyl ether	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Naphthalene	**70**	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
n-Butylbenzene	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
n-Propylbenzene	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
o-Xylene	**3.4**	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
sec-Butylbenzene	**4.6**	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Styrene	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	

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675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

06-STA-10119

0607319-02 (Soil)

12/4/06 10:30

Volatile Organic Compounds

vfa

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
tert-Butylbenzene	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Tetrachloroethene	< 1.5	1.5	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Tetrahydrofuran	< 7.4	7.4	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Toluene	**2.8**	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
trans-1,2-Dichloroethene	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
trans-1,3-Dichloropropene	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Trichloroethene	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Trichlorofluoromethane	< 0.74	0.74	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Vinyl chloride	< 1.8	1.8	mg/kg dry	5	B6L0106	12/5/06	12/5/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*109 %*	*Limits: 80-120%*			*B6L0106*	*12/5/06*	*12/5/06*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*102 %*	*Limits: 80-120%*			*B6L0106*	*12/5/06*	*12/5/06*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*99.2 %*	*Limits: 80-120%*			*B6L0106*	*12/5/06*	*12/5/06*	*EPA 8260B*	
Surrogate: Toluene-d8	*99.2 %*	*Limits: 80-120%*			*B6L0106*	*12/5/06*	*12/5/06*	*EPA 8260B*	

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Service Engineering Group	Client Ref:	Parsons Onodaga 05017	Work Order #:	0607319
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Classical Chemistry Parameters - Quality Control

Batch B6L0074 - Default Prep GenChem

Method Blank (B6L0074-BLK1) Prepared: 12/05/06 Analyzed: 12/07/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	0.0218		% Wt	NA	NA	NA	NA	NA	NA	

Standard Reference Material (B6L0074-SRM1) Prepared: 12/05/06 Analyzed: 12/07/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	89.9		% Wt	88.8	NA	101	90-110	NA	NA	

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Service Engineering Group	Client Ref:	Parsons Onodaga 05017	Work Order #: 0607319
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0175 - EPA 3545

Method Blank (B6L0175-BLK1) Prepared: 12/11/06 Analyzed: 12/12/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Diphenylhydrazine	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2,4,5-Trichlorophenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2,4,6-Trichlorophenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dichlorophenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dimethylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dinitrophenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dinitrotoluene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2,6-Dinitrotoluene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chloronaphthalene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorophenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2-Methylnaphthalene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2-Methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2-Nitroaniline	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
2-Nitrophenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
3,3-Dichlorobenzidine	< 0.32	0.32	mg/kg	NA	NA	NA	NA	NA	NA	
3-/4-Methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
3-Nitroaniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4,6-Dinitro-2-methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4-Bromophenyl phenyl ether	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chloro-3-methylphenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chloroaniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorophenyl phenyl ether	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
4-Nitroaniline	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
4-Nitrophenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthylene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Aniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
Anthracene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Benz(a)anthracene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(g,h,i)perylene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Benzyl alcohol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
bis(2-Chloroethoxy)methane	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-Chloroethyl)ether	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-chloroisopropyl)ether	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-Ethylhexyl)phthalate	< 0.32	0.32	mg/kg	NA	NA	NA	NA	NA	NA	
Butyl benzyl phthalate	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Carbazole	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Chrysene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenzofuran	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	

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675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0175 - EPA 3545

Method Blank (B6L0175-BLK1) Prepared: 12/11/06 Analyzed: 12/12/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Diethylphthalate	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Dimethyl phthalate	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Di-n-butyl phthalate	< 0.32	0.32	mg/kg	NA	NA	NA	NA	NA	NA	
Di-n-octyl phthalate	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Fluoranthene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Fluorene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobenzene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobutadiene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorocyclopentadiene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachloroethane	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Isophorone	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Nitrobenzene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodimethylamine	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodi-n-propylamine	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodiphenylamine	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Pentachlorophenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
Phenanthrene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Phenol	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Pyrene	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Pyridine	< 0.066	0.066	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 2,4,6-Tribromophenol	*1.47*		*mg/kg*	*1.63*	*NA*	*90.2*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.683*		*mg/kg*	*0.815*	*NA*	*83.8*	*30-104*			
Surrogate: 2-Fluorophenol	*1.15*		*mg/kg*	*1.63*	*NA*	*70.6*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.578*		*mg/kg*	*0.815*	*NA*	*70.9*	*30-90*			
Surrogate: Phenol-d6	*1.22*		*mg/kg*	*1.63*	*NA*	*74.8*	*30-102*			
Surrogate: Terphenyl-d14	*0.722*		*mg/kg*	*0.815*	*NA*	*88.6*	*30-115*			

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St. Paul MN, 55114	PO Number:		Account ID:	S15039

Semivolatile Organic Compounds - Quality Control

Batch B6L0175 - EPA 3545

Laboratory Control Sample (B6L0175-BS1) Prepared: 12/11/06 Analyzed: 12/12/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.01	0.067	mg/kg	1.65	NA	61.2	55-115	NA	NA	
1,4-Dichlorobenzene	1.02	0.067	mg/kg	1.65	NA	61.8	55-115	NA	NA	
2,4-Dinitrotoluene	1.51	0.067	mg/kg	1.65	NA	91.5	60-130	NA	NA	
2-Chlorophenol	1.11	0.067	mg/kg	1.65	NA	67.3	55-115	NA	NA	
4-Chloro-3-methylphenol	1.28	0.067	mg/kg	1.65	NA	77.6	55-115	NA	NA	
4-Nitrophenol	1.66	0.067	mg/kg	1.65	NA	101	45-130	NA	NA	
Acenaphthene	1.29	0.067	mg/kg	1.65	NA	78.2	50-115	NA	NA	
N-Nitrosodi-n-propylamine	1.29	0.067	mg/kg	1.65	NA	78.2	65-115	NA	NA	
Pentachlorophenol	1.27	0.17	mg/kg	1.65	NA	77.0	30-130	NA	NA	
Phenol	1.15	0.067	mg/kg	1.65	NA	69.7	55-115	NA	NA	
Pyrene	1.34	0.067	mg/kg	1.65	NA	81.2	50-130	NA	NA	
Surrogate: 2,4,6-Tribromophenol	*1.54*		*mg/kg*	*1.65*	*NA*	*93.3*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.666*		*mg/kg*	*0.827*	*NA*	*80.5*	*30-104*			
Surrogate: 2-Fluorophenol	*1.06*		*mg/kg*	*1.65*	*NA*	*64.2*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.539*		*mg/kg*	*0.827*	*NA*	*65.2*	*30-90*			
Surrogate: Phenol-d6	*1.13*		*mg/kg*	*1.65*	*NA*	*68.5*	*30-102*			
Surrogate: Terphenyl-d14	*0.708*		*mg/kg*	*0.827*	*NA*	*85.6*	*30-115*			

Laboratory Control Sample Duplicate (B6L0175-BSD1) Prepared: 12/11/06 Analyzed: 12/12/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.19	0.067	mg/kg	1.67	NA	71.3	55-115	16.4	25	
1,4-Dichlorobenzene	1.23	0.067	mg/kg	1.67	NA	73.7	55-115	18.7	25	
2,4-Dinitrotoluene	1.62	0.067	mg/kg	1.67	NA	97.0	60-130	7.03	25	
2-Chlorophenol	1.34	0.067	mg/kg	1.67	NA	80.2	55-115	18.8	25	
4-Chloro-3-methylphenol	1.41	0.067	mg/kg	1.67	NA	84.4	55-115	9.67	25	
4-Nitrophenol	1.75	0.067	mg/kg	1.67	NA	105	45-130	5.28	30	
Acenaphthene	1.49	0.067	mg/kg	1.67	NA	89.2	50-115	14.4	25	
N-Nitrosodi-n-propylamine	1.52	0.067	mg/kg	1.67	NA	91.0	65-115	16.4	25	
Pentachlorophenol	1.34	0.17	mg/kg	1.67	NA	80.2	30-130	5.36	30	
Phenol	1.35	0.067	mg/kg	1.67	NA	80.8	55-115	16.0	25	
Pyrene	1.36	0.067	mg/kg	1.67	NA	81.4	50-130	1.48	25	
Surrogate: 2,4,6-Tribromophenol	*1.66*		*mg/kg*	*1.67*	*NA*	*99.4*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.767*		*mg/kg*	*0.833*	*NA*	*92.1*	*30-104*			
Surrogate: 2-Fluorophenol	*1.27*		*mg/kg*	*1.67*	*NA*	*76.0*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.649*		*mg/kg*	*0.833*	*NA*	*77.9*	*30-90*			
Surrogate: Phenol-d6	*1.36*		*mg/kg*	*1.67*	*NA*	*81.4*	*30-102*			
Surrogate: Terphenyl-d14	*0.726*		*mg/kg*	*0.833*	*NA*	*87.2*	*30-115*			

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Service Engineering Group	Client Ref:	Parsons Onodaga 05017	Work Order #:	0607319
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0106 - EPA 5035

Method Blank (B6L0106-BLK1) Prepared & Analyzed: 12/05/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,1-Trichloroethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichloroethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichlorotrifluoroethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloropropene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichloropropane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trichlorobenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromo-3-chloropropane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromoethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloropropane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,3,5-Trimethylbenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichloropropane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
2,2-Dichloropropane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	< 0.010	0.010	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorotoluene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorotoluene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
4-Isopropyltoluene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Acetone	< 0.020	0.020	mg/kg	NA	NA	NA	NA	NA	NA	
Allyl Chloride	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Benzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Bromobenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Bromochloromethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Bromoform	< 0.0050	0.0050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromomethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Carbon Tetrachloride	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorobenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorodibromomethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroform	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Chloromethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Dibromomethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorodifluoromethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorofluoromethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Ethyl Ether	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	

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Service Engineering Group	Client Ref:	Parsons Onodaga 05017	Work Order #:	0607319
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0106 - EPA 5035

Method Blank (B6L0106-BLK1) Prepared & Analyzed: 12/05/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Hexachlorobutadiene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Isopropylbenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylenes	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl Isobutyl Ketone	< 0.0050	0.0050	mg/kg	NA	NA	NA	NA	NA	NA	
Methylene chloride	< 0.0050	0.0050	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl-t-butyl ether	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
n-Butylbenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
n-Propylbenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
sec-Butylbenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Styrene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
tert-Butylbenzene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrachloroethene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrahydrofuran	< 0.0050	0.0050	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,2-Dichloroethene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Trichloroethene	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Trichlorofluoromethane	< 0.0010	0.0010	mg/kg	NA	NA	NA	NA	NA	NA	
Vinyl chloride	< 0.0025	0.0025	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*26.0*		*ug/L*	*25.0*	*NA*	*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.0*		*ug/L*	*25.0*	*NA*	*92.0*	*80-120*			
Surrogate: Dibromofluoromethane	*25.4*		*ug/L*	*25.0*	*NA*	*102*	*80-120*			
Surrogate: Toluene-d8	*25.7*		*ug/L*	*25.0*	*NA*	*103*	*80-120*			

Laboratory Control Sample (B6L0106-BS1) Prepared & Analyzed: 12/05/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	NA	NA	
1,1,1-Trichloroethane	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	NA	NA	
1,1,2,2-Tetrachloroethane	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	NA	NA	
1,1,2-Trichloroethane	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	NA	NA	
1,1,2-Trichlorotrifluoroethane	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	NA	NA	
1,1-Dichloroethane	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
1,1-Dichloroethene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
1,1-Dichloropropene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
1,2,3-Trichlorobenzene	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	NA	NA	
1,2,3-Trichloropropane	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	NA	NA	
1,2,4-Trichlorobenzene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	NA	NA	
1,2,4-Trimethylbenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
1,2-Dibromo-3-chloropropane	0.996	0.050	mg/kg	1.25	NA	79.7	75-125	NA	NA	
1,2-Dibromoethane	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	NA	NA	
1,2-Dichlorobenzene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
1,2-Dichloroethane	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	NA	NA	

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675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0106 - EPA 5035

Laboratory Control Sample (B6L0106-BS1) Prepared & Analyzed: 12/05/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dichloropropane	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
1,3,5-Trimethylbenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
1,3-Dichlorobenzene	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	NA	NA	
1,3-Dichloropropane	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	NA	NA	
1,4-Dichlorobenzene	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	NA	NA	
2,2-Dichloropropane	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
2-Butanone (MEK)	0.966	0.50	mg/kg	1.25	NA	77.3	75-125	NA	NA	
2-Chlorotoluene	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	NA	NA	
4-Chlorotoluene	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	NA	NA	
4-Isopropyltoluene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
Acetone	1.19	1.0	mg/kg	1.25	NA	95.2	75-125	NA	NA	
Allyl Chloride	1.43	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
Benzene	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
Bromobenzene	1.28	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Bromochloromethane	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	NA	NA	
Bromodichloromethane	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	NA	NA	
Bromoform	1.14	0.25	mg/kg	1.25	NA	91.2	75-125	NA	NA	
Bromomethane	1.31	0.050	mg/kg	1.25	NA	105	70-130	NA	NA	
Carbon Tetrachloride	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	NA	NA	
Chlorobenzene	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	NA	NA	
Chlorodibromomethane	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	NA	NA	
Chloroethane	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
Chloroform	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	NA	NA	
Chloromethane	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	NA	NA	
cis-1,2-Dichloroethene	1.29	0.050	mg/kg	1.25	NA	103	75-125	NA	NA	
cis-1,3-Dichloropropene	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	NA	NA	
Dibromomethane	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	NA	NA	
Dichlorodifluoromethane	1.17	0.050	mg/kg	1.25	NA	93.6	70-130	NA	NA	
Dichlorofluoromethane	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	NA	NA	
Ethyl Ether	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	NA	NA	
Ethylbenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
Hexachlorobutadiene	1.18	0.10	mg/kg	1.25	NA	94.4	75-125	NA	NA	
Isopropylbenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
m,p-Xylenes	2.47	0.050	mg/kg	2.50	NA	98.8	75-125	NA	NA	
Methyl Isobutyl Ketone	1.04	0.25	mg/kg	1.25	NA	83.2	75-125	NA	NA	
Methylene chloride	1.06	0.25	mg/kg	1.25	NA	84.8	75-125	NA	NA	
Methyl-t-butyl ether	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	NA	NA	
Naphthalene	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	NA	NA	
n-Butylbenzene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
n-Propylbenzene	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	NA	NA	
o-Xylene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	NA	NA	
sec-Butylbenzene	1.26	0.050	mg/kg	1.25	NA	101	75-125	NA	NA	
Styrene	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	NA	NA	
tert-Butylbenzene	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
Tetrachloroethene	1.22	0.10	mg/kg	1.25	NA	97.6	75-125	NA	NA	
Tetrahydrofuran	1.06	0.25	mg/kg	1.25	NA	84.8	75-125	NA	NA	
Toluene	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	

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Service Engineering Group	Client Ref:	Parsons Onodaga 05017	Work Order #:	0607319
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0106 - EPA 5035

Laboratory Control Sample (B6L0106-BS1) Prepared & Analyzed: 12/05/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
trans-1,2-Dichloroethene	1.35	0.050	mg/kg	1.25	NA	108	75-125	NA	NA	
trans-1,3-Dichloropropene	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	NA	NA	
Trichloroethene	1.27	0.050	mg/kg	1.25	NA	102	75-125	NA	NA	
Trichlorofluoromethane	1.24	0.050	mg/kg	1.25	NA	99.2	75-125	NA	NA	
Vinyl chloride	1.20	0.12	mg/kg	1.25	NA	96.0	70-130	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*24.6*		*ug/L*	*25.0*	*NA*	*98.4*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.6*		*ug/L*	*25.0*	*NA*	*98.4*	*80-120*			
Surrogate: Dibromofluoromethane	*25.8*		*ug/L*	*25.0*	*NA*	*103*	*80-120*			
Surrogate: Toluene-d8	*24.7*		*ug/L*	*25.0*	*NA*	*98.8*	*80-120*			

Laboratory Control Sample Duplicate (B6L0106-BSD1) Prepared & Analyzed: 12/05/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	6.11	20	
1,1,1-Trichloroethane	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	5.91	20	
1,1,2,2-Tetrachloroethane	1.06	0.050	mg/kg	1.25	NA	84.8	75-125	5.50	20	
1,1,2-Trichloroethane	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	5.31	20	
1,1,2-Trichlorotrifluoroethane	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	5.04	20	
1,1-Dichloroethane	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	4.96	20	
1,1-Dichloroethene	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	3.23	20	
1,1-Dichloropropene	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	4.96	20	
1,2,3-Trichlorobenzene	1.06	0.050	mg/kg	1.25	NA	84.8	75-125	4.61	20	
1,2,3-Trichloropropane	1.06	0.050	mg/kg	1.25	NA	84.8	75-125	4.61	20	
1,2,4-Trichlorobenzene	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	5.13	20	
1,2,4-Trimethylbenzene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	4.88	20	
1,2-Dibromo-3-chloropropane	0.970	0.050	mg/kg	1.25	NA	77.6	75-125	2.64	20	
1,2-Dibromoethane	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	3.45	20	
1,2-Dichlorobenzene	1.17	0.050	mg/kg	1.25	NA	93.6	75-125	5.81	20	
1,2-Dichloroethane	1.11	0.050	mg/kg	1.25	NA	88.8	75-125	6.11	20	
1,2-Dichloropropane	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	5.71	20	
1,3,5-Trimethylbenzene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	5.67	20	
1,3-Dichlorobenzene	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	5.04	20	
1,3-Dichloropropane	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	5.22	20	
1,4-Dichlorobenzene	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	4.37	20	
2,2-Dichloropropane	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	5.67	20	
2-Butanone (MEK)	0.973	0.50	mg/kg	1.25	NA	77.8	75-125	0.722	20	
2-Chlorotoluene	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	5.36	20	
4-Chlorotoluene	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	5.31	20	
4-Isopropyltoluene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	4.88	20	
Acetone	1.02	1.0	mg/kg	1.25	NA	81.6	75-125	15.4	20	
Allyl Chloride	1.36	0.050	mg/kg	1.25	NA	109	75-125	5.02	20	
Benzene	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	6.35	20	
Bromobenzene	1.22	0.050	mg/kg	1.25	NA	97.6	75-125	4.80	20	
Bromochloromethane	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	5.91	20	
Bromodichloromethane	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	6.78	20	

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Bloomington, MN 55438
952-995-2000 Phone
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Service Engineering Group	Client Ref:	Parsons Onodaga 05017	Work Order #:	0607319
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039

Volatile Organic Compounds - Quality Control

Batch B6L0106 - EPA 5035

Laboratory Control Sample Duplicate (B6L0106-BSD1) Prepared & Analyzed: 12/05/06

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bromoform	1.09	0.25	mg/kg	1.25	NA	87.2	75-125	4.48	20	
Bromomethane	1.21	0.050	mg/kg	1.25	NA	96.8	70-130	7.94	20	
Carbon Tetrachloride	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	5.96	20	
Chlorobenzene	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	4.29	20	
Chlorodibromomethane	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	4.33	20	
Chloroethane	1.14	0.050	mg/kg	1.25	NA	91.2	75-125	8.40	20	
Chloroform	1.15	0.050	mg/kg	1.25	NA	92.0	75-125	5.91	20	
Chloromethane	1.09	0.050	mg/kg	1.25	NA	87.2	75-125	7.08	20	
cis-1,2-Dichloroethene	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	6.40	20	
cis-1,3-Dichloropropene	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	5.31	20	
Dibromomethane	1.08	0.050	mg/kg	1.25	NA	86.4	75-125	7.14	20	
Dichlorodifluoromethane	1.09	0.050	mg/kg	1.25	NA	87.2	70-130	7.08	20	
Dichlorofluoromethane	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	6.06	20	
Ethyl Ether	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	6.06	20	
Ethylbenzene	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	5.71	20	
Hexachlorobutadiene	1.12	0.10	mg/kg	1.25	NA	89.6	75-125	5.22	20	
Isopropylbenzene	1.19	0.050	mg/kg	1.25	NA	95.2	75-125	5.71	20	
m,p-Xylenes	2.34	0.050	mg/kg	2.50	NA	93.6	75-125	5.41	20	
Methyl Isobutyl Ketone	0.974	0.25	mg/kg	1.25	NA	77.9	75-125	6.55	20	
Methylene chloride	1.01	0.25	mg/kg	1.25	NA	80.8	75-125	4.83	20	
Methyl-t-butyl ether	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	4.15	20	
Naphthalene	1.13	0.050	mg/kg	1.25	NA	90.4	75-125	4.33	20	
n-Butylbenzene	1.20	0.050	mg/kg	1.25	NA	96.0	75-125	5.67	20	
n-Propylbenzene	1.10	0.050	mg/kg	1.25	NA	88.0	75-125	5.31	20	
o-Xylene	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	6.90	20	
sec-Butylbenzene	1.21	0.050	mg/kg	1.25	NA	96.8	75-125	4.05	20	
Styrene	1.12	0.050	mg/kg	1.25	NA	89.6	75-125	5.22	20	
tert-Butylbenzene	1.23	0.050	mg/kg	1.25	NA	98.4	75-125	5.53	20	
Tetrachloroethene	1.17	0.10	mg/kg	1.25	NA	93.6	75-125	4.18	20	
Tetrahydrofuran	1.04	0.25	mg/kg	1.25	NA	83.2	75-125	1.90	20	
Toluene	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	4.96	20	
trans-1,2-Dichloroethene	1.31	0.050	mg/kg	1.25	NA	105	75-125	3.01	20	
trans-1,3-Dichloropropene	1.07	0.050	mg/kg	1.25	NA	85.6	75-125	5.45	20	
Trichloroethene	1.18	0.050	mg/kg	1.25	NA	94.4	75-125	7.35	20	
Trichlorofluoromethane	1.16	0.050	mg/kg	1.25	NA	92.8	75-125	6.67	20	
Vinyl chloride	1.14	0.12	mg/kg	1.25	NA	91.2	70-130	5.13	20	
Surrogate: 1,2-Dichloroethane-d4	*24.4*		*ug/L*	*25.0*	*NA*	*97.6*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.5*		*ug/L*	*25.0*	*NA*	*98.0*	*80-120*			
Surrogate: Dibromofluoromethane	*26.0*		*ug/L*	*25.0*	*NA*	*104*	*80-120*			
Surrogate: Toluene-d8	*24.9*		*ug/L*	*25.0*	*NA*	*99.6*	*80-120*			

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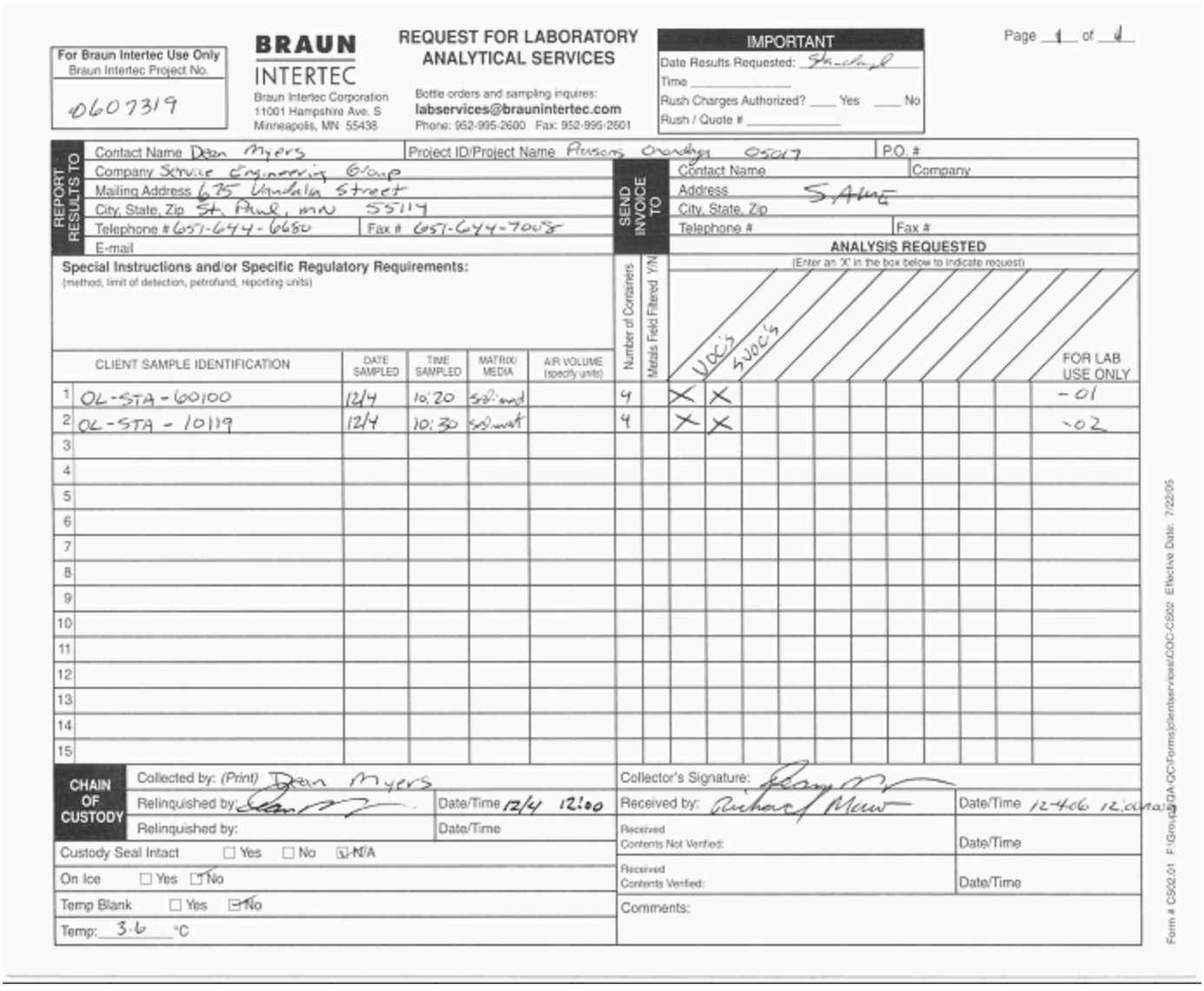
675 Vandalia Street	Client Contact:	Mr. Dean Myers	Project Mgr:	Steven J. Albrecht
St. Paul MN, 55114	PO Number:		Account ID:	S15039



For Braun Intertec Use Only
Braun Intertec Project No.
0607319

BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438

REQUEST FOR LABORATORY ANALYTICAL SERVICES

Bottle orders and sampling inquires:
labservices@braunintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

IMPORTANT
Date Results Requested: Standard
Time
Rush Charges Authorized? ___ Yes ___ No
Rush / Quote #

Page 1 of 1

REPORT RESULTS TO
Contact Name: Dean Myers
Company: Service Engineering Group
Mailing Address: 675 Vandalia Street
City, State, Zip: St. Paul, MN 55114
Telephone #: 651-644-6650
Fax #: 651-644-7005
E-mail

Project ID/Project Name: Parsons Onondaga 05017
P.O. #

SEND INVOICE TO
Contact Name
Company
Address: SAME
City, State, Zip
Telephone #
Fax #

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petrofund, reporting units)

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request)

	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	VOC's	SVOC's	FOR LAB USE ONLY
1	OL-STA-60100	12/4	10:20	Soil/wat		4		X	X	-01
2	OL-STA-10119	12/4	10:30	Soil/wat		4		X	X	-02
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

CHAIN OF CUSTODY
Collected by: (Print) Dean Myers
Collector's Signature:
Relinquished by: Date/Time 12/4 12:00
Received by: Richard Mew Date/Time 12-4-06 12:00
Relinquished by: Date/Time
Received Contents Not Verified: Date/Time
Received Contents Verified: Date/Time
Custody Seal Intact ☐ Yes ☐ No ☑ N/A
On Ice ☐ Yes ☑ No
Temp Blank ☐ Yes ☑ No
Temp: 3.6 °C
Comments:

Form # CS02.01 F:\Groups\QA-QC-Forms\clientservices\COC-CS02 Effective Date: 7/22/05

BRAUN INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S.
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

Mr. Dean Myers
Service Engineering Group
675 Vandalia Street
St. Paul, MN 55114

July 10, 2007

Work Order #: 0703853

RE: Onondaga 05017

Dear Dean Myers:

Braun Intertec Corporation received samples for the project identified above on June 28, 2007. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Steven J. Albrecht
Associate Principal

Certification/Accreditation Numbers

Minnesota Department of Health: 027-053-117 Wisconsin DNR: 999462640 NVLAP: 101234-0 AIHA: 101103

Providing engineering and environmental solutions since 1957

BRAUN INTERTEC

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) is provided. It is important to understand this term. The MRL is a level that has been empirically verified to provide reliable quantification of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." If a result is less than the MRL, the result is given as less than the MRL (e.g. if the MRL = 10 then a less than would be given as "< 10").

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relevant to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Qualifiers and Abbreviations

qn	The spike recovery is outside of laboratory control limits for the matrix spike (MS) and/or the matrix spike duplicate (MSD).
gp	The relative percent difference (RPD) for the laboratory control sample and laboratory control sample duplicate is outside of laboratory control limits.
go	The laboratory control sample recovery is outside of laboratory control limits.
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

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675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OL-STA-60111	0703853-01	Sediment	06/25/07 09:30	06/28/07 14:27
OL-STA-60112	0703853-02	Sediment	06/25/07 09:40	06/28/07 14:27

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St. Paul, MN 55114	PO Number:	Account ID: S15039

Conditions Upon Receipt

Cooler: Cooler #1

Temperature:	7.7 °C	**Received on Ice:**	Yes	**Preservation Confirmed:**	No
COC Included:	Yes	**Hand Delivered by Sampler:**	No	**Temperature Blank:**	No
Custody Seals Used:	No	**Sufficient Sample Provided:**	Yes	**COC Complete:**	Yes
Custody Seals Intact:	No	**Headspace Present (VOC):**	No	**COC & Labels Agree:**	Yes

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675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

OL-STA-60111

0703853-01 (Sediment)

6/25/07 9:30

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**32**	0.050	% Wt	1	B7G0022	7/2/07	7/2/07	EPA 3545 7.2	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
1,2-Dichlorobenzene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
1,2-Diphenylhydrazine	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
1,3-Dichlorobenzene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
1,4-Dichlorobenzene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
2,4,5-Trichlorophenol	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
2,4,6-Trichlorophenol	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
2,4-Dichlorophenol	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
2,4-Dimethylphenol	< 0.54	0.54	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
2,4-Dinitrophenol	< 1.0	1.0	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	gp, qn
2,4-Dinitrotoluene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
2,6-Dinitrotoluene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
2-Chloronaphthalene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
2-Chlorophenol	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
2-Methylnaphthalene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
2-Methylphenol	< 0.54	0.54	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
2-Nitroaniline	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
2-Nitrophenol	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
3,3-Dichlorobenzidine	< 1.0	1.0	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
3-/4-Methylphenol	< 0.54	0.54	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
3-Nitroaniline	< 0.54	0.54	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 0.54	0.54	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
4-Chloro-3-methylphenol	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
4-Chloroaniline	< 0.54	0.54	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
4-Nitroaniline	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
4-Nitrophenol	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	go
Acenaphthene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Acenaphthylene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Aniline	< 0.54	0.54	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Anthracene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	

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St. Paul, MN 55114	PO Number:	Account ID: S15039

OL-STA-60111

0703853-01 (Sediment)

6/25/07 9:30

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benz(a)anthracene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Benzo(a)pyrene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Benzo(b)fluoranthene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Benzo(g,h,i)perylene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Benzo(k)fluoranthene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Benzyl alcohol	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	< 1.0	1.0	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Butyl benzyl phthalate	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Carbazole	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Chrysene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Dibenz(a,h)anthracene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Dibenzofuran	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Diethylphthalate	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Dimethyl phthalate	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Di-n-butyl phthalate	< 1.0	1.0	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Di-n-octyl phthalate	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Fluoranthene	< 1.0	1.0	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Fluorene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Hexachlorobenzene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Hexachlorobutadiene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Hexachlorocyclopentadiene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Hexachloroethane	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Indeno(1,2,3-cd)pyrene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Isophorone	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Naphthalene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Nitrobenzene	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
N-Nitrosodimethylamine	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
N-Nitrosodiphenylamine	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Pentachlorophenol	< 0.54	0.54	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Phenanthrene	< 0.54	0.54	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Phenol	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Pyrene	**0.39**	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

OL-STA-60111

0703853-01 (Sediment)

6/25/07 9:30

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Pyridine	< 0.21	0.21	mg/kg dry	1	B7G0044	7/3/07	7/9/07	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*96.0 %*	*Limits: 30-150%*			*B7G0044*	*7/3/07*	*7/9/07*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl	*89.4 %*	*Limits: 30-104%*			*B7G0044*	*7/3/07*	*7/9/07*	*EPA 8270C*	
Surrogate: 2-Fluorophenol	*81.7 %*	*Limits: 30-106%*			*B7G0044*	*7/3/07*	*7/9/07*	*EPA 8270C*	
Surrogate: Nitrobenzene-d5	*80.6 %*	*Limits: 30-90%*			*B7G0044*	*7/3/07*	*7/9/07*	*EPA 8270C*	
Surrogate: Phenol-d6	*82.5 %*	*Limits: 30-102%*			*B7G0044*	*7/3/07*	*7/9/07*	*EPA 8270C*	
Surrogate: Terphenyl-d14	*75.3 %*	*Limits: 30-115%*			*B7G0044*	*7/3/07*	*7/9/07*	*EPA 8270C*	

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,1,1-Trichloroethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,1,2-Trichloroethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,1-Dichloroethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,1-Dichloroethene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,1-Dichloropropene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,2,3-Trichloropropane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.40	0.40	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,2-Dibromoethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,2-Dichlorobenzene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,2-Dichloroethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,2-Dichloropropane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.40	0.40	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,3-Dichlorobenzene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,3-Dichloropropane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
1,4-Dichlorobenzene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
2,2-Dichloropropane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
2-Butanone (MEK)	< 1.6	1.6	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
2-Chlorotoluene	< 0.40	0.40	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
4-Chlorotoluene	< 0.40	0.40	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
4-Isopropyltoluene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	

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675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

OL-STA-60111

0703853-01 (Sediment)

6/25/07 9:30

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acetone	< 3.2	3.2	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Allyl Chloride	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Benzene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Bromobenzene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Bromochloromethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Bromodichloromethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Bromoform	< 1.6	1.6	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Bromomethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Carbon Tetrachloride	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Chlorobenzene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Chlorodibromomethane	< 0.40	0.40	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Chloroethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Chloroform	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Chloromethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
cis-1,2-Dichloroethene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
cis-1,3-Dichloropropene	< 0.40	0.40	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Dibromomethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Dichlorodifluoromethane	< 0.40	0.40	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Dichlorofluoromethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Ethyl Ether	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Ethylbenzene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Hexachlorobutadiene	< 0.32	0.32	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Isopropylbenzene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
m,p-Xylenes	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Methyl Isobutyl Ketone	< 1.6	1.6	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Methylene chloride	< 0.79	0.79	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Methyl-t-butyl ether	< 0.40	0.40	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Naphthalene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
n-Butylbenzene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
n-Propylbenzene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
o-Xylene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
sec-Butylbenzene	< 0.40	0.40	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Styrene	< 0.40	0.40	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
tert-Butylbenzene	< 0.40	0.40	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Tetrachloroethene	< 0.32	0.32	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Tetrahydrofuran	< 0.79	0.79	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

OL-STA-60111

0703853-01 (Sediment)

6/25/07 9:30

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Toluene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
trans-1,2-Dichloroethene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
trans-1,3-Dichloropropene	< 0.40	0.40	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Trichloroethene	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Trichlorofluoromethane	< 0.16	0.16	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Vinyl chloride	< 0.40	0.40	mg/kg dry	1	B7G0048	7/2/07	7/3/07	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*101 %*	*Limits: 80-120%*			*B7G0048*	*7/2/07*	*7/3/07*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*91.2 %*	*Limits: 80-120%*			*B7G0048*	*7/2/07*	*7/3/07*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*96.4 %*	*Limits: 80-120%*			*B7G0048*	*7/2/07*	*7/3/07*	*EPA 8260B*	
Surrogate: Toluene-d8	*98.8 %*	*Limits: 80-120%*			*B7G0048*	*7/2/07*	*7/3/07*	*EPA 8260B*	

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St. Paul, MN 55114	PO Number:	Account ID: S15039

OL-STA-60112

0703853-02 (Sediment)

6/25/07 9:40

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**60**	0.050	% Wt	1	B7G0022	7/2/07	7/2/07	EPA 3545 7.2	

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
1,2-Dichlorobenzene	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
1,2-Diphenylhydrazine	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
1,3-Dichlorobenzene	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
1,4-Dichlorobenzene	**0.22**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
2,4,5-Trichlorophenol	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
2,4,6-Trichlorophenol	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
2,4-Dichlorophenol	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
2,4-Dimethylphenol	< 0.30	0.30	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
2,4-Dinitrophenol	< 0.58	0.58	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	gp, qn
2,4-Dinitrotoluene	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
2,6-Dinitrotoluene	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
2-Chloronaphthalene	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
2-Chlorophenol	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
2-Methylnaphthalene	**0.34**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
2-Methylphenol	< 0.30	0.30	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
2-Nitroaniline	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
2-Nitrophenol	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
3,3-Dichlorobenzidine	< 0.58	0.58	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
3-/4-Methylphenol	< 0.30	0.30	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
3-Nitroaniline	< 0.30	0.30	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
4,6-Dinitro-2-methylphenol	< 0.30	0.30	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
4-Bromophenyl phenyl ether	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
4-Chloro-3-methylphenol	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
4-Chloroaniline	< 0.30	0.30	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
4-Chlorophenyl phenyl ether	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
4-Nitroaniline	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
4-Nitrophenol	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	go
Acenaphthene	**0.23**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Acenaphthylene	**0.38**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Aniline	< 0.30	0.30	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Anthracene	**0.64**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	

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St. Paul, MN 55114	PO Number:	Account ID: S15039

OL-STA-60112

0703853-02 (Sediment)

6/25/07 9:40

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benz(a)anthracene	**1.5**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Benzo(a)pyrene	**1.8**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Benzo(b)fluoranthene	**1.3**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Benzo(g,h,i)perylene	**0.29**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Benzo(k)fluoranthene	**1.3**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Benzyl alcohol	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
bis(2-Chloroethoxy)methane	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Bis(2-Chloroethyl)ether	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Bis(2-chloroisopropyl)ether	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	< 0.58	0.58	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Butyl benzyl phthalate	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Carbazole	**0.14**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Chrysene	**1.8**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Dibenz(a,h)anthracene	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Dibenzofuran	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Diethylphthalate	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Dimethyl phthalate	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Di-n-butyl phthalate	< 0.58	0.58	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Di-n-octyl phthalate	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Fluoranthene	**3.0**	0.58	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Fluorene	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Hexachlorobenzene	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Hexachlorobutadiene	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Hexachlorocyclopentadiene	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Hexachloroethane	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Indeno(1,2,3-cd)pyrene	**0.38**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Isophorone	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Naphthalene	**0.49**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Nitrobenzene	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
N-Nitrosodimethylamine	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
N-Nitrosodi-n-propylamine	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
N-Nitrosodiphenylamine	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Pentachlorophenol	< 0.30	0.30	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Phenanthrene	**1.7**	0.30	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Phenol	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

OL-STA-60112

0703853-02 (Sediment)

6/25/07 9:40

Semivolatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Pyrene	**2.6**	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Pyridine	< 0.12	0.12	mg/kg dry	1	B7G0044	7/3/07	7/6/07	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	*88.0 %*	*Limits: 30-150%*			*B7G0044*	*7/3/07*	*7/6/07*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl	*82.8 %*	*Limits: 30-104%*			*B7G0044*	*7/3/07*	*7/6/07*	*EPA 8270C*	
Surrogate: 2-Fluorophenol	*68.0 %*	*Limits: 30-106%*			*B7G0044*	*7/3/07*	*7/6/07*	*EPA 8270C*	
Surrogate: Nitrobenzene-d5	*69.7 %*	*Limits: 30-90%*			*B7G0044*	*7/3/07*	*7/6/07*	*EPA 8270C*	
Surrogate: Phenol-d6	*70.8 %*	*Limits: 30-102%*			*B7G0044*	*7/3/07*	*7/6/07*	*EPA 8270C*	
Surrogate: Terphenyl-d14	*80.7 %*	*Limits: 30-115%*			*B7G0044*	*7/3/07*	*7/6/07*	*EPA 8270C*	

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1,1,2-Tetrachloroethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,1,1-Trichloroethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,1,2,2-Tetrachloroethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,1,2-Trichloroethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,1-Dichloroethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,1-Dichloroethene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,1-Dichloropropene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,2,3-Trichlorobenzene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,2,3-Trichloropropane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,2,4-Trichlorobenzene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,2,4-Trimethylbenzene	< 0.21	0.21	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,2-Dibromo-3-chloropropane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,2-Dibromoethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,2-Dichlorobenzene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,2-Dichloroethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,2-Dichloropropane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,3,5-Trimethylbenzene	< 0.21	0.21	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,3-Dichlorobenzene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,3-Dichloropropane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
1,4-Dichlorobenzene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
2,2-Dichloropropane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
2-Butanone (MEK)	< 0.84	0.84	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
2-Chlorotoluene	< 0.21	0.21	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
4-Chlorotoluene	< 0.21	0.21	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	

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675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

OL-STA-60112

0703853-02 (Sediment)

6/25/07 9:40

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Isopropyltoluene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Acetone	< 1.7	1.7	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Allyl Chloride	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Benzene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Bromobenzene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Bromochloromethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Bromodichloromethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Bromoform	< 0.84	0.84	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Bromomethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Carbon Tetrachloride	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Chlorobenzene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Chlorodibromomethane	< 0.21	0.21	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Chloroethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Chloroform	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Chloromethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
cis-1,2-Dichloroethene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
cis-1,3-Dichloropropene	< 0.21	0.21	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Dibromomethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Dichlorodifluoromethane	< 0.21	0.21	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Dichlorofluoromethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Ethyl Ether	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Ethylbenzene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Hexachlorobutadiene	< 0.17	0.17	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Isopropylbenzene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
m,p-Xylenes	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Methyl Isobutyl Ketone	< 0.84	0.84	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Methylene chloride	< 0.42	0.42	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Methyl-t-butyl ether	< 0.21	0.21	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Naphthalene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
n-Butylbenzene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
n-Propylbenzene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
o-Xylene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
sec-Butylbenzene	< 0.21	0.21	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Styrene	< 0.21	0.21	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
tert-Butylbenzene	< 0.21	0.21	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Tetrachloroethene	< 0.17	0.17	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	

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St. Paul, MN 55114	PO Number:	Account ID: S15039

OL-STA-60112

0703853-02 (Sediment)

6/25/07 9:40

Volatile Organic Compounds

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Tetrahydrofuran	< 0.42	0.42	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Toluene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
trans-1,2-Dichloroethene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
trans-1,3-Dichloropropene	< 0.21	0.21	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Trichloroethene	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Trichlorofluoromethane	< 0.084	0.084	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Vinyl chloride	< 0.21	0.21	mg/kg dry	1	B7G0048	7/2/07	7/5/07	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	*99.2 %*	*Limits: 80-120%*			*B7G0048*	*7/2/07*	*7/5/07*	*EPA 8260B*	
Surrogate: 4-Bromofluorobenzene	*95.6 %*	*Limits: 80-120%*			*B7G0048*	*7/2/07*	*7/5/07*	*EPA 8260B*	
Surrogate: Dibromofluoromethane	*95.2 %*	*Limits: 80-120%*			*B7G0048*	*7/2/07*	*7/5/07*	*EPA 8260B*	
Surrogate: Toluene-d8	*99.2 %*	*Limits: 80-120%*			*B7G0048*	*7/2/07*	*7/5/07*	*EPA 8260B*	

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Classical Chemistry Parameters - Quality Control

Batch B7G0022 - % Solids

Method Blank (B7G0022-BLK1) Prepared & Analyzed: 07/02/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	< 0.050	0.050	% Wt	NA	NA	NA	NA	NA	NA	

Duplicate (B7G0022-DUP1) **Source: 0703759-49** Prepared & Analyzed: 07/02/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	85.2	0.050	% Wt	NA	85	NA	NA	0.235	20	

Standard Reference Material (B7G0022-SRM1) Prepared & Analyzed: 07/02/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	87.3		% Wt	88.8	NA	98.3	90-110	NA	NA	

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Semivolatile Organic Compounds - Quality Control

Batch B7G0044 - EPA 3545

Method Blank (B7G0044-BLK1) Prepared: 07/03/07 Analyzed: 07/09/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Diphenylhydrazine	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
2,4,5-Trichlorophenol	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
2,4,6-Trichlorophenol	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dichlorophenol	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dimethylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dinitrophenol	< 0.32	0.32	mg/kg	NA	NA	NA	NA	NA	NA	
2,4-Dinitrotoluene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
2,6-Dinitrotoluene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chloronaphthalene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorophenol	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
2-Methylnaphthalene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
2-Methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
2-Nitroaniline	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
2-Nitrophenol	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
3,3-Dichlorobenzidine	< 0.32	0.32	mg/kg	NA	NA	NA	NA	NA	NA	
3-/4-Methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
3-Nitroaniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4,6-Dinitro-2-methylphenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4-Bromophenyl phenyl ether	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chloro-3-methylphenol	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chloroaniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorophenyl phenyl ether	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
4-Nitroaniline	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
4-Nitrophenol	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthylene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Aniline	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
Anthracene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Benz(a)anthracene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(g,h,i)perylene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Benzyl alcohol	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
bis(2-Chloroethoxy)methane	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B7G0044 - EPA 3545

Method Blank (B7G0044-BLK1) Prepared: 07/03/07 Analyzed: 07/09/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bis(2-Chloroethyl)ether	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-chloroisopropyl)ether	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Bis(2-Ethylhexyl)phthalate	< 0.32	0.32	mg/kg	NA	NA	NA	NA	NA	NA	
Butyl benzyl phthalate	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Carbazole	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Chrysene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenzofuran	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Diethylphthalate	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Dimethyl phthalate	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Di-n-butyl phthalate	< 0.32	0.32	mg/kg	NA	NA	NA	NA	NA	NA	
Di-n-octyl phthalate	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Fluoranthene	< 0.32	0.32	mg/kg	NA	NA	NA	NA	NA	NA	
Fluorene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobenzene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobutadiene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorocyclopentadiene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachloroethane	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Isophorone	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Nitrobenzene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodimethylamine	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodi-n-propylamine	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
N-Nitrosodiphenylamine	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Pentachlorophenol	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
Phenanthrene	< 0.17	0.17	mg/kg	NA	NA	NA	NA	NA	NA	
Phenol	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Pyrene	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Pyridine	< 0.065	0.065	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 2,4,6-Tribromophenol	*1.38*		mg/kg	*1.62*	*NA*	*85.2*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.745*		mg/kg	*0.810*	*NA*	*92.0*	*30-104*			
Surrogate: 2-Fluorophenol	*1.28*		mg/kg	*1.62*	*NA*	*79.0*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.672*		mg/kg	*0.810*	*NA*	*83.0*	*30-90*			
Surrogate: Phenol-d6	*1.23*		mg/kg	*1.62*	*NA*	*75.9*	*30-102*			
Surrogate: Terphenyl-d14	*0.741*		mg/kg	*0.810*	*NA*	*91.5*	*30-115*			

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B7G0044 - EPA 3545

Laboratory Control Sample (B7G0044-BS1) Prepared: 07/03/07 Analyzed: 07/06/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.30	0.065	mg/kg	1.63	NA	79.8	30-120	NA	NA	
1,2-Dichlorobenzene	1.32	0.065	mg/kg	1.63	NA	81.0	30-130	NA	NA	
1,2-Diphenylhydrazine	1.42	0.065	mg/kg	1.63	NA	87.1	30-130	NA	NA	
1,3-Dichlorobenzene	1.26	0.065	mg/kg	1.63	NA	77.3	30-130	NA	NA	
1,4-Dichlorobenzene	1.32	0.065	mg/kg	1.63	NA	81.0	40-110	NA	NA	
2,4,5-Trichlorophenol	1.43	0.065	mg/kg	1.63	NA	87.7	30-130	NA	NA	
2,4,6-Trichlorophenol	1.37	0.065	mg/kg	1.63	NA	84.0	30-130	NA	NA	
2,4-Dichlorophenol	1.32	0.065	mg/kg	1.63	NA	81.0	30-130	NA	NA	
2,4-Dimethylphenol	1.53	0.17	mg/kg	1.63	NA	93.9	30-130	NA	NA	
2,4-Dinitrophenol	0.643	0.32	mg/kg	1.63	NA	39.4	30-130	NA	NA	
2,4-Dinitrotoluene	1.44	0.065	mg/kg	1.63	NA	88.3	60-120	NA	NA	
2,6-Dinitrotoluene	1.42	0.065	mg/kg	1.63	NA	87.1	30-130	NA	NA	
2-Chloronaphthalene	1.36	0.065	mg/kg	1.63	NA	83.4	30-130	NA	NA	
2-Chlorophenol	1.30	0.065	mg/kg	1.63	NA	79.8	40-100	NA	NA	
2-Methylnaphthalene	1.39	0.065	mg/kg	1.63	NA	85.3	30-130	NA	NA	
2-Methylphenol	1.40	0.17	mg/kg	1.63	NA	85.9	30-130	NA	NA	
2-Nitroaniline	1.36	0.065	mg/kg	1.63	NA	83.4	30-130	NA	NA	
2-Nitrophenol	1.30	0.065	mg/kg	1.63	NA	79.8	30-130	NA	NA	
3,3-Dichlorobenzidine	1.46	0.32	mg/kg	1.63	NA	89.6	30-130	NA	NA	
3-/4-Methylphenol	1.32	0.17	mg/kg	1.63	NA	81.0	30-130	NA	NA	
3-Nitroaniline	1.32	0.17	mg/kg	1.63	NA	81.0	30-130	NA	NA	
4,6-Dinitro-2-methylphenol	1.44	0.17	mg/kg	1.63	NA	88.3	30-130	NA	NA	
4-Bromophenyl phenyl ether	1.52	0.065	mg/kg	1.63	NA	93.3	30-130	NA	NA	
4-Chloro-3-methylphenol	1.35	0.065	mg/kg	1.63	NA	82.8	50-110	NA	NA	
4-Chloroaniline	1.27	0.17	mg/kg	1.63	NA	77.9	30-130	NA	NA	
4-Chlorophenyl phenyl ether	1.41	0.065	mg/kg	1.63	NA	86.5	30-130	NA	NA	
4-Nitroaniline	1.34	0.065	mg/kg	1.63	NA	82.2	30-130	NA	NA	
4-Nitrophenol	1.39	0.065	mg/kg	1.63	NA	85.3	30-80	NA	NA	
Acenaphthene	1.34	0.065	mg/kg	1.63	NA	82.2	50-110	NA	NA	
Acenaphthylene	1.23	0.065	mg/kg	1.63	NA	75.5	30-130	NA	NA	
Aniline	1.43	0.17	mg/kg	1.63	NA	87.7	30-130	NA	NA	
Anthracene	1.44	0.065	mg/kg	1.63	NA	88.3	30-130	NA	NA	
Benz(a)anthracene	1.22	0.065	mg/kg	1.63	NA	74.8	30-130	NA	NA	
Benzo(a)pyrene	1.46	0.065	mg/kg	1.63	NA	89.6	30-130	NA	NA	
Benzo(b)fluoranthene	1.38	0.065	mg/kg	1.63	NA	84.7	30-130	NA	NA	
Benzo(g,h,i)perylene	1.71	0.065	mg/kg	1.63	NA	105	30-130	NA	NA	
Benzo(k)fluoranthene	1.48	0.065	mg/kg	1.63	NA	90.8	30-130	NA	NA	
Benzyl alcohol	1.30	0.065	mg/kg	1.63	NA	79.8	30-130	NA	NA	
bis(2-Chloroethoxy)methane	1.29	0.065	mg/kg	1.63	NA	79.1	30-130	NA	NA	

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B7G0044 - EPA 3545

Laboratory Control Sample (B7G0044-BS1) Prepared: 07/03/07 Analyzed: 07/06/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bis(2-Chloroethyl)ether	1.30	0.065	mg/kg	1.63	NA	79.8	30-130	NA	NA	
Bis(2-chloroisopropyl)ether	1.21	0.065	mg/kg	1.63	NA	74.2	30-130	NA	NA	
Bis(2-Ethylhexyl)phthalate	1.35	0.32	mg/kg	1.63	NA	82.8	30-130	NA	NA	
Butyl benzyl phthalate	1.30	0.065	mg/kg	1.63	NA	79.8	30-130	NA	NA	
Carbazole	1.39	0.065	mg/kg	1.63	NA	85.3	30-130	NA	NA	
Chrysene	1.42	0.065	mg/kg	1.63	NA	87.1	30-130	NA	NA	
Dibenz(a,h)anthracene	1.62	0.065	mg/kg	1.63	NA	99.4	30-130	NA	NA	
Dibenzofuran	1.37	0.065	mg/kg	1.63	NA	84.0	30-130	NA	NA	
Diethylphthalate	1.39	0.065	mg/kg	1.63	NA	85.3	30-130	NA	NA	
Dimethyl phthalate	1.35	0.065	mg/kg	1.63	NA	82.8	30-130	NA	NA	
Di-n-butyl phthalate	1.63	0.32	mg/kg	1.63	NA	100	30-130	NA	NA	
Di-n-octyl phthalate	1.39	0.065	mg/kg	1.63	NA	85.3	30-130	NA	NA	
Fluoranthene	1.61	0.32	mg/kg	1.63	NA	98.8	30-130	NA	NA	
Fluorene	1.39	0.065	mg/kg	1.63	NA	85.3	30-130	NA	NA	
Hexachlorobenzene	1.48	0.065	mg/kg	1.63	NA	90.8	30-130	NA	NA	
Hexachlorobutadiene	1.37	0.065	mg/kg	1.63	NA	84.0	30-130	NA	NA	
Hexachlorocyclopentadiene	1.59	0.065	mg/kg	1.63	NA	97.5	30-130	NA	NA	
Hexachloroethane	1.28	0.065	mg/kg	1.63	NA	78.5	30-130	NA	NA	
Indeno(1,2,3-cd)pyrene	1.53	0.065	mg/kg	1.63	NA	93.9	30-130	NA	NA	
Isophorone	1.40	0.065	mg/kg	1.63	NA	85.9	30-130	NA	NA	
Naphthalene	1.30	0.065	mg/kg	1.63	NA	79.8	30-130	NA	NA	
Nitrobenzene	1.30	0.065	mg/kg	1.63	NA	79.8	30-130	NA	NA	
N-Nitrosodimethylamine	1.19	0.065	mg/kg	1.63	NA	73.0	30-130	NA	NA	
N-Nitrosodi-n-propylamine	1.44	0.065	mg/kg	1.63	NA	88.3	45-120	NA	NA	
N-Nitrosodiphenylamine	1.62	0.065	mg/kg	1.63	NA	99.4	30-130	NA	NA	
Pentachlorophenol	1.44	0.17	mg/kg	1.63	NA	88.3	45-115	NA	NA	
Phenanthrene	1.58	0.17	mg/kg	1.63	NA	96.9	30-130	NA	NA	
Phenol	1.30	0.065	mg/kg	1.63	NA	79.8	30-80	NA	NA	
Pyrene	1.53	0.065	mg/kg	1.63	NA	93.9	55-120	NA	NA	
Pyridine	1.09	0.065	mg/kg	1.63	NA	66.9	30-130	NA	NA	
Surrogate: 2,4,6-Tribromophenol	*1.46*		mg/kg	*1.63*	*NA*	*89.6*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.729*		mg/kg	*0.814*	*NA*	*89.6*	*30-104*			
Surrogate: 2-Fluorophenol	*1.31*		mg/kg	*1.63*	*NA*	*80.4*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.641*		mg/kg	*0.814*	*NA*	*78.7*	*30-90*			
Surrogate: Phenol-d6	*1.26*		mg/kg	*1.63*	*NA*	*77.3*	*30-102*			
Surrogate: Terphenyl-d14	*0.693*		mg/kg	*0.814*	*NA*	*85.1*	*30-115*			

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675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B7G0044 - EPA 3545

Laboratory Control Sample Duplicate (B7G0044-BSD1) Prepared: 07/03/07 Analyzed: 07/06/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.28	0.065	mg/kg	1.62	NA	79.0	30-120	1.55	20	
1,2-Dichlorobenzene	1.23	0.065	mg/kg	1.62	NA	75.9	30-130	7.06	20	
1,2-Diphenylhydrazine	1.46	0.065	mg/kg	1.62	NA	90.1	30-130	2.78	20	
1,3-Dichlorobenzene	1.20	0.065	mg/kg	1.62	NA	74.1	30-130	4.88	20	
1,4-Dichlorobenzene	1.23	0.065	mg/kg	1.62	NA	75.9	40-110	7.06	20	
2,4,5-Trichlorophenol	1.49	0.065	mg/kg	1.62	NA	92.0	30-130	4.11	20	
2,4,6-Trichlorophenol	1.39	0.065	mg/kg	1.62	NA	85.8	30-130	1.45	20	
2,4-Dichlorophenol	1.39	0.065	mg/kg	1.62	NA	85.8	30-130	5.17	20	
2,4-Dimethylphenol	1.60	0.17	mg/kg	1.62	NA	98.8	30-130	4.47	20	
2,4-Dinitrophenol	1.03	0.32	mg/kg	1.62	NA	63.6	30-130	46.3	20	
2,4-Dinitrotoluene	1.49	0.065	mg/kg	1.62	NA	92.0	60-120	3.41	20	
2,6-Dinitrotoluene	1.51	0.065	mg/kg	1.62	NA	93.2	30-130	6.14	20	
2-Chloronaphthalene	1.42	0.065	mg/kg	1.62	NA	87.7	30-130	4.32	20	
2-Chlorophenol	1.23	0.065	mg/kg	1.62	NA	75.9	40-100	5.53	20	
2-Methylnaphthalene	1.40	0.065	mg/kg	1.62	NA	86.4	30-130	0.717	20	
2-Methylphenol	1.34	0.17	mg/kg	1.62	NA	82.7	30-130	4.38	20	
2-Nitroaniline	1.40	0.065	mg/kg	1.62	NA	86.4	30-130	2.90	20	
2-Nitrophenol	1.31	0.065	mg/kg	1.62	NA	80.9	30-130	0.766	20	
3,3-Dichlorobenzidine	1.58	0.32	mg/kg	1.62	NA	97.5	30-130	7.89	20	
3-/4-Methylphenol	1.30	0.17	mg/kg	1.62	NA	80.2	30-130	1.53	20	
3-Nitroaniline	1.39	0.17	mg/kg	1.62	NA	85.8	30-130	5.17	20	
4,6-Dinitro-2-methylphenol	1.60	0.17	mg/kg	1.62	NA	98.8	30-130	10.5	20	
4-Bromophenyl phenyl ether	1.55	0.065	mg/kg	1.62	NA	95.7	30-130	1.95	20	
4-Chloro-3-methylphenol	1.40	0.065	mg/kg	1.62	NA	86.4	50-110	3.64	20	
4-Chloroaniline	1.31	0.17	mg/kg	1.62	NA	80.9	30-130	3.10	20	
4-Chlorophenyl phenyl ether	1.45	0.065	mg/kg	1.62	NA	89.5	30-130	2.80	20	
4-Nitroaniline	1.49	0.065	mg/kg	1.62	NA	92.0	30-130	10.6	20	
4-Nitrophenol	1.52	0.065	mg/kg	1.62	NA	93.8	30-80	8.93	20	
Acenaphthene	1.39	0.065	mg/kg	1.62	NA	85.8	50-110	3.66	20	
Acenaphthylene	1.26	0.065	mg/kg	1.62	NA	77.8	30-130	2.41	20	
Aniline	1.35	0.17	mg/kg	1.62	NA	83.3	30-130	5.76	30	
Anthracene	1.53	0.065	mg/kg	1.62	NA	94.4	30-130	6.06	20	
Benz(a)anthracene	1.33	0.065	mg/kg	1.62	NA	82.1	30-130	8.63	20	
Benzo(a)pyrene	1.52	0.065	mg/kg	1.62	NA	93.8	30-130	4.03	20	
Benzo(b)fluoranthene	1.43	0.065	mg/kg	1.62	NA	88.3	30-130	3.56	20	
Benzo(g,h,i)perylene	1.80	0.065	mg/kg	1.62	NA	111	30-130	5.13	20	
Benzo(k)fluoranthene	1.54	0.065	mg/kg	1.62	NA	95.1	30-130	3.97	20	
Benzyl alcohol	1.28	0.065	mg/kg	1.62	NA	79.0	30-130	1.55	20	
bis(2-Chloroethoxy)methane	1.33	0.065	mg/kg	1.62	NA	82.1	30-130	3.05	20	

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St. Paul, MN 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B7G0044 - EPA 3545

Laboratory Control Sample Duplicate (B7G0044-BSD1) Prepared: 07/03/07 Analyzed: 07/06/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bis(2-Chloroethyl)ether	1.21	0.065	mg/kg	1.62	NA	74.7	30-130	7.17	30	
Bis(2-chloroisopropyl)ether	1.12	0.065	mg/kg	1.62	NA	69.1	30-130	7.73	20	
Bis(2-Ethylhexyl)phthalate	1.45	0.32	mg/kg	1.62	NA	89.5	30-130	7.14	20	
Butyl benzyl phthalate	1.41	0.065	mg/kg	1.62	NA	87.0	30-130	8.12	20	
Carbazole	1.48	0.065	mg/kg	1.62	NA	91.4	30-130	6.27	20	
Chrysene	1.51	0.065	mg/kg	1.62	NA	93.2	30-130	6.14	20	
Dibenz(a,h)anthracene	1.71	0.065	mg/kg	1.62	NA	106	30-130	5.41	20	
Dibenzofuran	1.44	0.065	mg/kg	1.62	NA	88.9	30-130	4.98	20	
Diethylphthalate	1.49	0.065	mg/kg	1.62	NA	92.0	30-130	6.94	20	
Dimethyl phthalate	1.44	0.065	mg/kg	1.62	NA	88.9	30-130	6.45	20	
Di-n-butyl phthalate	1.81	0.32	mg/kg	1.62	NA	112	30-130	10.5	20	
Di-n-octyl phthalate	1.45	0.065	mg/kg	1.62	NA	89.5	30-130	4.23	20	
Fluoranthene	1.67	0.32	mg/kg	1.62	NA	103	30-130	3.66	20	
Fluorene	1.47	0.065	mg/kg	1.62	NA	90.7	30-130	5.59	20	
Hexachlorobenzene	1.56	0.065	mg/kg	1.62	NA	96.3	30-130	5.26	20	
Hexachlorobutadiene	1.37	0.065	mg/kg	1.62	NA	84.6	30-130	0.00	20	
Hexachlorocyclopentadiene	1.60	0.065	mg/kg	1.62	NA	98.8	30-130	0.627	20	
Hexachloroethane	1.19	0.065	mg/kg	1.62	NA	73.5	30-130	7.29	20	
Indeno(1,2,3-cd)pyrene	1.64	0.065	mg/kg	1.62	NA	101	30-130	6.94	20	
Isophorone	1.47	0.065	mg/kg	1.62	NA	90.7	30-130	4.88	20	
Naphthalene	1.30	0.065	mg/kg	1.62	NA	80.2	30-130	0.00	20	
Nitrobenzene	1.32	0.065	mg/kg	1.62	NA	81.5	30-130	1.53	20	
N-Nitrosodimethylamine	1.11	0.065	mg/kg	1.62	NA	68.5	30-130	6.96	30	
N-Nitrosodi-n-propylamine	1.41	0.065	mg/kg	1.62	NA	87.0	45-120	2.11	20	
N-Nitrosodiphenylamine	1.71	0.065	mg/kg	1.62	NA	106	30-130	5.41	20	
Pentachlorophenol	1.59	0.17	mg/kg	1.62	NA	98.1	45-115	9.90	20	
Phenanthrene	1.65	0.17	mg/kg	1.62	NA	102	30-130	4.33	20	
Phenol	1.21	0.065	mg/kg	1.62	NA	74.7	30-80	7.17	20	
Pyrene	1.66	0.065	mg/kg	1.62	NA	102	55-120	8.15	20	
Pyridine	1.07	0.065	mg/kg	1.62	NA	66.0	30-130	1.85	30	
Surrogate: 2,4,6-Tribromophenol	*1.46*		mg/kg	*1.62*	*NA*	*90.1*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.771*		mg/kg	*0.810*	*NA*	*95.2*	*30-104*			
Surrogate: 2-Fluorophenol	*1.24*		mg/kg	*1.62*	*NA*	*76.5*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.661*		mg/kg	*0.810*	*NA*	*81.6*	*30-90*			
Surrogate: Phenol-d6	*1.19*		mg/kg	*1.62*	*NA*	*73.5*	*30-102*			
Surrogate: Terphenyl-d14	*0.753*		mg/kg	*0.810*	*NA*	*93.0*	*30-115*			

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B7G0044 - EPA 3545

Matrix Spike (B7G0044-MS1) **Source: 0703812-02** Prepared: 07/03/07 Analyzed: 07/06/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.44	0.072	mg/kg dry	1.77	ND	81.4	30-130	NA	NA	
1,2-Dichlorobenzene	1.46	0.072	mg/kg dry	1.77	ND	82.5	30-130	NA	NA	
1,2-Diphenylhydrazine	1.65	0.072	mg/kg dry	1.77	ND	93.2	30-130	NA	NA	
1,3-Dichlorobenzene	1.39	0.072	mg/kg dry	1.77	ND	78.5	30-130	NA	NA	
1,4-Dichlorobenzene	1.41	0.072	mg/kg dry	1.77	ND	79.7	30-130	NA	NA	
2,4,5-Trichlorophenol	1.59	0.072	mg/kg dry	1.77	ND	89.8	30-130	NA	NA	
2,4,6-Trichlorophenol	1.48	0.072	mg/kg dry	1.77	ND	83.6	30-130	NA	NA	
2,4-Dichlorophenol	1.49	0.072	mg/kg dry	1.77	ND	84.2	30-130	NA	NA	
2,4-Dimethylphenol	1.77	0.18	mg/kg dry	1.77	ND	100	30-130	NA	NA	
2,4-Dinitrophenol	< 0.36	0.36	mg/kg dry	1.77	ND	17.6	30-130	NA	NA	
2,4-Dinitrotoluene	1.62	0.072	mg/kg dry	1.77	ND	91.5	30-130	NA	NA	
2,6-Dinitrotoluene	1.61	0.072	mg/kg dry	1.77	ND	91.0	30-130	NA	NA	
2-Chloronaphthalene	1.51	0.072	mg/kg dry	1.77	ND	85.3	30-130	NA	NA	
2-Chlorophenol	1.44	0.072	mg/kg dry	1.77	ND	81.4	30-130	NA	NA	
2-Methylnaphthalene	1.59	0.072	mg/kg dry	1.77	ND	89.8	30-130	NA	NA	
2-Methylphenol	1.55	0.18	mg/kg dry	1.77	ND	87.6	30-130	NA	NA	
2-Nitroaniline	1.54	0.072	mg/kg dry	1.77	ND	87.0	30-130	NA	NA	
2-Nitrophenol	1.45	0.072	mg/kg dry	1.77	ND	81.9	30-130	NA	NA	
3,3-Dichlorobenzidine	1.70	0.36	mg/kg dry	1.77	ND	96.0	30-130	NA	NA	
3-/4-Methylphenol	1.48	0.18	mg/kg dry	1.77	ND	83.6	30-130	NA	NA	
3-Nitroaniline	1.53	0.18	mg/kg dry	1.77	ND	86.4	30-130	NA	NA	
4,6-Dinitro-2-methylphenol	1.03	0.18	mg/kg dry	1.77	ND	58.2	30-130	NA	NA	
4-Bromophenyl phenyl ether	1.72	0.072	mg/kg dry	1.77	ND	97.2	30-130	NA	NA	
4-Chloro-3-methylphenol	1.60	0.072	mg/kg dry	1.77	ND	90.4	30-130	NA	NA	
4-Chloroaniline	1.41	0.18	mg/kg dry	1.77	ND	79.7	30-130	NA	NA	
4-Chlorophenyl phenyl ether	1.58	0.072	mg/kg dry	1.77	ND	89.3	30-130	NA	NA	
4-Nitroaniline	1.51	0.072	mg/kg dry	1.77	ND	85.3	30-130	NA	NA	
4-Nitrophenol	1.69	0.072	mg/kg dry	1.77	ND	95.5	30-130	NA	NA	
Acenaphthene	1.50	0.072	mg/kg dry	1.77	ND	84.7	30-130	NA	NA	
Acenaphthylene	1.34	0.072	mg/kg dry	1.77	ND	75.7	30-130	NA	NA	
Aniline	1.39	0.18	mg/kg dry	1.77	ND	78.5	30-130	NA	NA	
Anthracene	1.68	0.072	mg/kg dry	1.77	ND	94.9	30-130	NA	NA	
Benz(a)anthracene	1.48	0.072	mg/kg dry	1.77	ND	83.6	30-130	NA	NA	
Benzo(a)pyrene	1.71	0.072	mg/kg dry	1.77	ND	96.6	30-130	NA	NA	
Benzo(b)fluoranthene	1.61	0.072	mg/kg dry	1.77	ND	91.0	30-130	NA	NA	
Benzo(g,h,i)perylene	2.17	0.072	mg/kg dry	1.77	ND	123	30-130	NA	NA	
Benzo(k)fluoranthene	1.68	0.072	mg/kg dry	1.77	ND	94.9	30-130	NA	NA	
Benzyl alcohol	1.42	0.072	mg/kg dry	1.77	0.029	78.6	30-130	NA	NA	
bis(2-Chloroethoxy)methane	1.39	0.072	mg/kg dry	1.77	ND	78.5	30-130	NA	NA	

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B7G0044 - EPA 3545

Matrix Spike (B7G0044-MS1) **Source: 0703812-02** Prepared: 07/03/07 Analyzed: 07/06/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bis(2-Chloroethyl)ether	1.46	0.072	mg/kg dry	1.77	ND	82.5	30-130	NA	NA	
Bis(2-chloroisopropyl)ether	1.29	0.072	mg/kg dry	1.77	ND	72.9	30-130	NA	NA	
Bis(2-Ethylhexyl)phthalate	1.62	0.36	mg/kg dry	1.77	ND	91.5	30-130	NA	NA	
Butyl benzyl phthalate	1.59	0.072	mg/kg dry	1.77	ND	89.8	30-130	NA	NA	
Carbazole	1.66	0.072	mg/kg dry	1.77	ND	93.8	30-130	NA	NA	
Chrysene	1.68	0.072	mg/kg dry	1.77	ND	94.9	30-130	NA	NA	
Dibenz(a,h)anthracene	2.02	0.072	mg/kg dry	1.77	ND	114	30-130	NA	NA	
Dibenzofuran	1.53	0.072	mg/kg dry	1.77	ND	86.4	30-130	NA	NA	
Diethylphthalate	1.66	0.072	mg/kg dry	1.77	ND	93.8	30-130	NA	NA	
Dimethyl phthalate	1.54	0.072	mg/kg dry	1.77	ND	87.0	30-130	NA	NA	
Di-n-butyl phthalate	1.94	0.36	mg/kg dry	1.77	0.024	108	30-130	NA	NA	
Di-n-octyl phthalate	1.61	0.072	mg/kg dry	1.77	ND	91.0	30-130	NA	NA	
Fluoranthene	1.93	0.36	mg/kg dry	1.77	0.022	108	30-130	NA	NA	
Fluorene	1.57	0.072	mg/kg dry	1.77	ND	88.7	30-130	NA	NA	
Hexachlorobenzene	1.75	0.072	mg/kg dry	1.77	ND	98.9	30-130	NA	NA	
Hexachlorobutadiene	1.56	0.072	mg/kg dry	1.77	ND	88.1	30-130	NA	NA	
Hexachlorocyclopentadiene	1.01	0.072	mg/kg dry	1.77	ND	57.1	30-130	NA	NA	
Hexachloroethane	1.33	0.072	mg/kg dry	1.77	ND	75.1	30-130	NA	NA	
Indeno(1,2,3-cd)pyrene	1.96	0.072	mg/kg dry	1.77	ND	111	30-130	NA	NA	
Isophorone	1.59	0.072	mg/kg dry	1.77	ND	89.8	30-130	NA	NA	
Naphthalene	1.44	0.072	mg/kg dry	1.77	ND	81.4	30-130	NA	NA	
Nitrobenzene	1.45	0.072	mg/kg dry	1.77	ND	81.9	30-130	NA	NA	
N-Nitrosodimethylamine	1.21	0.072	mg/kg dry	1.77	ND	68.4	30-130	NA	NA	
N-Nitrosodi-n-propylamine	1.54	0.072	mg/kg dry	1.77	ND	87.0	30-130	NA	NA	
N-Nitrosodiphenylamine	1.92	0.072	mg/kg dry	1.77	ND	108	30-130	NA	NA	
Pentachlorophenol	1.65	0.18	mg/kg dry	1.77	ND	93.2	30-130	NA	NA	
Phenanthrene	1.87	0.18	mg/kg dry	1.77	0.015	105	30-130	NA	NA	
Phenol	1.40	0.072	mg/kg dry	1.77	ND	79.1	30-130	NA	NA	
Pyrene	1.82	0.072	mg/kg dry	1.77	0.018	102	30-130	NA	NA	
Pyridine	0.933	0.072	mg/kg dry	1.77	ND	52.7	30-130	NA	NA	
Surrogate: 2,4,6-Tribromophenol	*1.57*		mg/kg dry	*1.77*	*NA*	*88.7*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.824*		mg/kg dry	*0.886*	*NA*	*93.0*	*30-104*			
Surrogate: 2-Fluorophenol	*1.43*		mg/kg dry	*1.77*	*NA*	*80.8*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.700*		mg/kg dry	*0.886*	*NA*	*79.0*	*30-90*			
Surrogate: Phenol-d6	*1.40*		mg/kg dry	*1.77*	*NA*	*79.1*	*30-102*			
Surrogate: Terphenyl-d14	*0.822*		mg/kg dry	*0.886*	*NA*	*92.8*	*30-115*			

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B7G0044 - EPA 3545

Matrix Spike Duplicate (B7G0044-MSD1) **Source: 0703812-02** Prepared: 07/03/07 Analyzed: 07/06/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	1.43	0.071	mg/kg dry	1.76	ND	81.2	30-130	0.697	30	
1,2-Dichlorobenzene	1.33	0.071	mg/kg dry	1.76	ND	75.6	30-130	9.32	30	
1,2-Diphenylhydrazine	1.61	0.071	mg/kg dry	1.76	ND	91.5	30-130	2.45	30	
1,3-Dichlorobenzene	1.29	0.071	mg/kg dry	1.76	ND	73.3	30-130	7.46	30	
1,4-Dichlorobenzene	1.32	0.071	mg/kg dry	1.76	ND	75.0	30-130	6.59	30	
2,4,5-Trichlorophenol	1.67	0.071	mg/kg dry	1.76	ND	94.9	30-130	4.91	30	
2,4,6-Trichlorophenol	1.52	0.071	mg/kg dry	1.76	ND	86.4	30-130	2.67	30	
2,4-Dichlorophenol	1.52	0.071	mg/kg dry	1.76	ND	86.4	30-130	1.99	30	
2,4-Dimethylphenol	1.78	0.18	mg/kg dry	1.76	ND	101	30-130	0.563	30	
2,4-Dinitrophenol	< 0.35	0.35	mg/kg dry	1.76	ND	15.1	30-130	15.9	30	
2,4-Dinitrotoluene	1.65	0.071	mg/kg dry	1.76	ND	93.8	30-130	1.83	30	
2,6-Dinitrotoluene	1.59	0.071	mg/kg dry	1.76	ND	90.3	30-130	1.25	30	
2-Chloronaphthalene	1.54	0.071	mg/kg dry	1.76	ND	87.5	30-130	1.97	30	
2-Chlorophenol	1.36	0.071	mg/kg dry	1.76	ND	77.3	30-130	5.71	30	
2-Methylnaphthalene	1.55	0.071	mg/kg dry	1.76	ND	88.1	30-130	2.55	30	
2-Methylphenol	1.42	0.18	mg/kg dry	1.76	ND	80.7	30-130	8.75	30	
2-Nitroaniline	1.54	0.071	mg/kg dry	1.76	ND	87.5	30-130	0.00	30	
2-Nitrophenol	1.43	0.071	mg/kg dry	1.76	ND	81.2	30-130	1.39	30	
3,3-Dichlorobenzidine	1.58	0.35	mg/kg dry	1.76	ND	89.8	30-130	7.32	30	
3-/4-Methylphenol	1.40	0.18	mg/kg dry	1.76	ND	79.5	30-130	5.56	30	
3-Nitroaniline	1.54	0.18	mg/kg dry	1.76	ND	87.5	30-130	0.651	30	
4,6-Dinitro-2-methylphenol	1.06	0.18	mg/kg dry	1.76	ND	60.2	30-130	2.87	30	
4-Bromophenyl phenyl ether	1.70	0.071	mg/kg dry	1.76	ND	96.6	30-130	1.17	30	
4-Chloro-3-methylphenol	1.54	0.071	mg/kg dry	1.76	ND	87.5	30-130	3.82	30	
4-Chloroaniline	1.40	0.18	mg/kg dry	1.76	ND	79.5	30-130	0.712	30	
4-Chlorophenyl phenyl ether	1.58	0.071	mg/kg dry	1.76	ND	89.8	30-130	0.00	30	
4-Nitroaniline	1.53	0.071	mg/kg dry	1.76	ND	86.9	30-130	1.32	30	
4-Nitrophenol	1.74	0.071	mg/kg dry	1.76	ND	98.9	30-130	2.92	30	
Acenaphthene	1.53	0.071	mg/kg dry	1.76	ND	86.9	30-130	1.98	30	
Acenaphthylene	1.39	0.071	mg/kg dry	1.76	ND	79.0	30-130	3.66	30	
Aniline	1.32	0.18	mg/kg dry	1.76	ND	75.0	30-130	5.17	30	
Anthracene	1.62	0.071	mg/kg dry	1.76	ND	92.0	30-130	3.64	30	
Benz(a)anthracene	1.42	0.071	mg/kg dry	1.76	ND	80.7	30-130	4.14	30	
Benzo(a)pyrene	1.63	0.071	mg/kg dry	1.76	ND	92.6	30-130	4.79	30	
Benzo(b)fluoranthene	1.57	0.071	mg/kg dry	1.76	ND	89.2	30-130	2.52	30	
Benzo(g,h,i)perylene	2.00	0.071	mg/kg dry	1.76	ND	114	30-130	8.15	30	
Benzo(k)fluoranthene	1.58	0.071	mg/kg dry	1.76	ND	89.8	30-130	6.13	30	
Benzyl alcohol	1.38	0.071	mg/kg dry	1.76	0.029	76.8	30-130	2.86	30	
bis(2-Chloroethoxy)methane	1.43	0.071	mg/kg dry	1.76	ND	81.2	30-130	2.84	30	

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St. Paul, MN 55114	PO Number:	Account ID: S15039

Semivolatile Organic Compounds - Quality Control

Batch B7G0044 - EPA 3545

Matrix Spike Duplicate (B7G0044-MSD1) **Source: 0703812-02** Prepared: 07/03/07 Analyzed: 07/06/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bis(2-Chloroethyl)ether	1.30	0.071	mg/kg dry	1.76	ND	73.9	30-130	11.6	30	
Bis(2-chloroisopropyl)ether	1.25	0.071	mg/kg dry	1.76	ND	71.0	30-130	3.15	30	
Bis(2-Ethylhexyl)phthalate	1.61	0.35	mg/kg dry	1.76	ND	91.5	30-130	0.619	30	
Butyl benzyl phthalate	1.49	0.071	mg/kg dry	1.76	ND	84.7	30-130	6.49	30	
Carbazole	1.58	0.071	mg/kg dry	1.76	ND	89.8	30-130	4.94	30	
Chrysene	1.59	0.071	mg/kg dry	1.76	ND	90.3	30-130	5.50	30	
Dibenz(a,h)anthracene	1.93	0.071	mg/kg dry	1.76	ND	110	30-130	4.56	30	
Dibenzofuran	1.55	0.071	mg/kg dry	1.76	ND	88.1	30-130	1.30	30	
Diethylphthalate	1.63	0.071	mg/kg dry	1.76	ND	92.6	30-130	1.82	30	
Dimethyl phthalate	1.51	0.071	mg/kg dry	1.76	ND	85.8	30-130	1.97	30	
Di-n-butyl phthalate	1.87	0.35	mg/kg dry	1.76	0.024	105	30-130	3.67	30	
Di-n-octyl phthalate	1.54	0.071	mg/kg dry	1.76	ND	87.5	30-130	4.44	30	
Fluoranthene	1.84	0.35	mg/kg dry	1.76	0.022	103	30-130	4.77	30	
Fluorene	1.60	0.071	mg/kg dry	1.76	ND	90.9	30-130	1.89	30	
Hexachlorobenzene	1.71	0.071	mg/kg dry	1.76	ND	97.2	30-130	2.31	30	
Hexachlorobutadiene	1.55	0.071	mg/kg dry	1.76	ND	88.1	30-130	0.643	30	
Hexachlorocyclopentadiene	1.14	0.071	mg/kg dry	1.76	ND	64.8	30-130	12.1	30	
Hexachloroethane	1.27	0.071	mg/kg dry	1.76	ND	72.2	30-130	4.62	30	
Indeno(1,2,3-cd)pyrene	1.82	0.071	mg/kg dry	1.76	ND	103	30-130	7.41	30	
Isophorone	1.55	0.071	mg/kg dry	1.76	ND	88.1	30-130	2.55	30	
Naphthalene	1.42	0.071	mg/kg dry	1.76	ND	80.7	30-130	1.40	30	
Nitrobenzene	1.46	0.071	mg/kg dry	1.76	ND	83.0	30-130	0.687	30	
N-Nitrosodimethylamine	1.20	0.071	mg/kg dry	1.76	ND	68.2	30-130	0.830	30	
N-Nitrosodi-n-propylamine	1.52	0.071	mg/kg dry	1.76	ND	86.4	30-130	1.31	30	
N-Nitrosodiphenylamine	1.85	0.071	mg/kg dry	1.76	ND	105	30-130	3.71	30	
Pentachlorophenol	1.53	0.18	mg/kg dry	1.76	ND	86.9	30-130	7.55	30	
Phenanthrene	1.82	0.18	mg/kg dry	1.76	0.015	103	30-130	2.71	30	
Phenol	1.30	0.071	mg/kg dry	1.76	ND	73.9	30-130	7.41	30	
Pyrene	1.78	0.071	mg/kg dry	1.76	0.018	100	30-130	2.22	30	
Pyridine	0.855	0.071	mg/kg dry	1.76	ND	48.6	30-130	8.72	30	
Surrogate: 2,4,6-Tribromophenol	*1.64*		mg/kg dry	*1.76*	*NA*	*93.2*	*30-150*			
Surrogate: 2-Fluorobiphenyl	*0.855*		mg/kg dry	*0.878*	*NA*	*97.4*	*30-104*			
Surrogate: 2-Fluorophenol	*1.36*		mg/kg dry	*1.76*	*NA*	*77.3*	*30-106*			
Surrogate: Nitrobenzene-d5	*0.706*		mg/kg dry	*0.878*	*NA*	*80.4*	*30-90*			
Surrogate: Phenol-d6	*1.31*		mg/kg dry	*1.76*	*NA*	*74.4*	*30-102*			
Surrogate: Terphenyl-d14	*0.805*		mg/kg dry	*0.878*	*NA*	*91.7*	*30-115*			

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B7G0048 - EPA 5035

Method Blank (B7G0048-BLK1) Prepared: 07/02/07 Analyzed: 07/03/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1,2-Trichlorotrifluoroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,1-Dichloropropene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,3-Trichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromo-3-chloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dibromoethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3,5-Trimethylbenzene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,3-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2,2-Dichloropropane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	< 0.50	0.50	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chlorotoluene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
4-Chlorotoluene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
4-Isopropyltoluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Acetone	< 1.0	1.0	mg/kg	NA	NA	NA	NA	NA	NA	
Allyl Chloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Benzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromochloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Bromoform	< 0.50	0.50	mg/kg	NA	NA	NA	NA	NA	NA	
Bromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Carbon Tetrachloride	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorobenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chlorodibromomethane	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Chloroform	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B7G0048 - EPA 5035

Method Blank (B7G0048-BLK1) Prepared: 07/02/07 Analyzed: 07/03/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Dibromomethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorodifluoromethane	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Dichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethyl Ether	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Ethylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Hexachlorobutadiene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Isopropylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
m,p-Xylenes	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl Isobutyl Ketone	< 0.50	0.50	mg/kg	NA	NA	NA	NA	NA	NA	
Methylene chloride	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Methyl-t-butyl ether	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
n-Butylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
n-Propylbenzene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
o-Xylene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
sec-Butylbenzene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Styrene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
tert-Butylbenzene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrachloroethene	< 0.10	0.10	mg/kg	NA	NA	NA	NA	NA	NA	
Tetrahydrofuran	< 0.25	0.25	mg/kg	NA	NA	NA	NA	NA	NA	
Toluene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,2-Dichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropene	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Trichloroethene	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Trichlorofluoromethane	< 0.050	0.050	mg/kg	NA	NA	NA	NA	NA	NA	
Vinyl chloride	< 0.12	0.12	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*24.6*		ug/L	*25.0*	*NA*	*98.4*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.0*		ug/L	*25.0*	*NA*	*96.0*	*80-120*			
Surrogate: Dibromofluoromethane	*24.2*		ug/L	*25.0*	*NA*	*96.8*	*80-120*			
Surrogate: Toluene-d8	*25.2*		ug/L	*25.0*	*NA*	*101*	*80-120*			

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B7G0048 - EPA 5035

Laboratory Control Sample (B7G0048-BS1) Prepared: 07/02/07 Analyzed: 07/03/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.43	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
1,1,1-Trichloroethane	1.47	0.050	mg/kg	1.25	NA	118	75-125	NA	NA	
1,1,2,2-Tetrachloroethane	1.40	0.050	mg/kg	1.25	NA	112	75-125	NA	NA	
1,1,2-Trichloroethane	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
1,1,2-Trichlorotrifluoroethane	1.48	0.050	mg/kg	1.25	NA	118	75-125	NA	NA	
1,1-Dichloroethane	1.44	0.050	mg/kg	1.25	NA	115	75-125	NA	NA	
1,1-Dichloroethene	1.51	0.050	mg/kg	1.25	NA	121	75-125	NA	NA	
1,1-Dichloropropene	1.41	0.050	mg/kg	1.25	NA	113	75-125	NA	NA	
1,2,3-Trichlorobenzene	1.38	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
1,2,3-Trichloropropane	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
1,2,4-Trichlorobenzene	1.41	0.050	mg/kg	1.25	NA	113	75-125	NA	NA	
1,2,4-Trimethylbenzene	1.45	0.12	mg/kg	1.25	NA	116	75-125	NA	NA	
1,2-Dibromo-3-chloropropane	1.30	0.050	mg/kg	1.25	NA	104	75-125	NA	NA	
1,2-Dibromoethane	1.39	0.050	mg/kg	1.25	NA	111	75-125	NA	NA	
1,2-Dichlorobenzene	1.43	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
1,2-Dichloroethane	1.39	0.050	mg/kg	1.25	NA	111	75-125	NA	NA	
1,2-Dichloropropane	1.46	0.050	mg/kg	1.25	NA	117	75-125	NA	NA	
1,3,5-Trimethylbenzene	1.46	0.12	mg/kg	1.25	NA	117	75-125	NA	NA	
1,3-Dichlorobenzene	1.43	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
1,3-Dichloropropane	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
1,4-Dichlorobenzene	1.42	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
2,2-Dichloropropane	1.40	0.050	mg/kg	1.25	NA	112	75-125	NA	NA	
2-Butanone (MEK)	1.31	0.50	mg/kg	1.25	NA	105	75-125	NA	NA	
2-Chlorotoluene	1.41	0.12	mg/kg	1.25	NA	113	75-125	NA	NA	
4-Chlorotoluene	1.42	0.12	mg/kg	1.25	NA	114	75-125	NA	NA	
4-Isopropyltoluene	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
Acetone	1.40	1.0	mg/kg	1.25	NA	112	75-125	NA	NA	
Allyl Chloride	1.38	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
Benzene	1.43	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
Bromobenzene	1.43	0.050	mg/kg	1.25	NA	114	75-125	NA	NA	
Bromochloromethane	1.41	0.050	mg/kg	1.25	NA	113	75-125	NA	NA	
Bromodichloromethane	1.45	0.050	mg/kg	1.25	NA	116	75-125	NA	NA	
Bromoform	1.22	0.50	mg/kg	1.25	NA	97.6	75-125	NA	NA	
Bromomethane	1.52	0.050	mg/kg	1.25	NA	122	70-130	NA	NA	
Carbon Tetrachloride	1.44	0.050	mg/kg	1.25	NA	115	75-125	NA	NA	
Chlorobenzene	1.44	0.050	mg/kg	1.25	NA	115	75-125	NA	NA	
Chlorodibromomethane	1.28	0.12	mg/kg	1.25	NA	102	75-125	NA	NA	
Chloroethane	1.40	0.050	mg/kg	1.25	NA	112	75-125	NA	NA	
Chloroform	1.45	0.050	mg/kg	1.25	NA	116	75-125	NA	NA	

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B7G0048 - EPA 5035

Laboratory Control Sample (B7G0048-BS1) Prepared: 07/02/07 Analyzed: 07/03/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	1.41	0.050	mg/kg	1.25	NA	113	75-125	NA	NA	
cis-1,2-Dichloroethene	1.45	0.050	mg/kg	1.25	NA	116	75-125	NA	NA	
cis-1,3-Dichloropropene	1.34	0.12	mg/kg	1.25	NA	107	75-125	NA	NA	
Dibromomethane	1.39	0.050	mg/kg	1.25	NA	111	75-125	NA	NA	
Dichlorodifluoromethane	1.38	0.12	mg/kg	1.25	NA	110	70-130	NA	NA	
Dichlorofluoromethane	1.45	0.050	mg/kg	1.25	NA	116	75-125	NA	NA	
Ethyl Ether	1.44	0.050	mg/kg	1.25	NA	115	75-125	NA	NA	
Ethylbenzene	1.38	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
Hexachlorobutadiene	1.43	0.10	mg/kg	1.25	NA	114	75-125	NA	NA	
Isopropylbenzene	1.40	0.050	mg/kg	1.25	NA	112	75-125	NA	NA	
m,p-Xylenes	2.81	0.050	mg/kg	2.50	NA	112	75-125	NA	NA	
Methyl Isobutyl Ketone	1.21	0.50	mg/kg	1.25	NA	96.8	75-125	NA	NA	
Methylene chloride	1.38	0.25	mg/kg	1.25	NA	110	75-125	NA	NA	
Methyl-t-butyl ether	1.30	0.12	mg/kg	1.25	NA	104	75-125	NA	NA	
Naphthalene	1.37	0.050	mg/kg	1.25	NA	110	75-125	NA	NA	
n-Butylbenzene	1.39	0.050	mg/kg	1.25	NA	111	75-125	NA	NA	
n-Propylbenzene	1.40	0.050	mg/kg	1.25	NA	112	75-125	NA	NA	
o-Xylene	1.39	0.050	mg/kg	1.25	NA	111	75-125	NA	NA	
sec-Butylbenzene	1.47	0.12	mg/kg	1.25	NA	118	75-125	NA	NA	
Styrene	1.33	0.12	mg/kg	1.25	NA	106	75-125	NA	NA	
tert-Butylbenzene	1.48	0.12	mg/kg	1.25	NA	118	75-125	NA	NA	
Tetrachloroethene	1.51	0.10	mg/kg	1.25	NA	121	75-125	NA	NA	
Tetrahydrofuran	1.29	0.25	mg/kg	1.25	NA	103	75-125	NA	NA	
Toluene	1.46	0.050	mg/kg	1.25	NA	117	75-125	NA	NA	
trans-1,2-Dichloroethene	1.48	0.050	mg/kg	1.25	NA	118	75-125	NA	NA	
trans-1,3-Dichloropropene	1.31	0.12	mg/kg	1.25	NA	105	75-125	NA	NA	
Trichloroethene	1.49	0.050	mg/kg	1.25	NA	119	75-125	NA	NA	
Trichlorofluoromethane	1.49	0.050	mg/kg	1.25	NA	119	75-125	NA	NA	
Vinyl chloride	1.41	0.12	mg/kg	1.25	NA	113	70-130	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*24.5*		ug/L	*25.0*	*NA*	*98.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.1*		ug/L	*25.0*	*NA*	*100*	*80-120*			
Surrogate: Dibromofluoromethane	*24.9*		ug/L	*25.0*	*NA*	*99.6*	*80-120*			
Surrogate: Toluene-d8	*24.8*		ug/L	*25.0*	*NA*	*99.2*	*80-120*			

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B7G0048 - EPA 5035

Laboratory Control Sample Duplicate (B7G0048-BSD1) Prepared: 07/02/07 Analyzed: 07/03/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.42	0.050	mg/kg	1.25	NA	114	75-125	0.702	20	
1,1,1-Trichloroethane	1.39	0.050	mg/kg	1.25	NA	111	75-125	5.59	20	
1,1,2,2-Tetrachloroethane	1.39	0.050	mg/kg	1.25	NA	111	75-125	0.717	20	
1,1,2-Trichloroethane	1.39	0.050	mg/kg	1.25	NA	111	75-125	1.45	20	
1,1,2-Trichlorotrifluoroethane	1.36	0.050	mg/kg	1.25	NA	109	75-125	8.45	20	
1,1-Dichloroethane	1.43	0.050	mg/kg	1.25	NA	114	75-125	0.697	20	
1,1-Dichloroethene	1.39	0.050	mg/kg	1.25	NA	111	75-125	8.28	20	
1,1-Dichloropropene	1.30	0.050	mg/kg	1.25	NA	104	75-125	8.12	20	
1,2,3-Trichlorobenzene	1.38	0.050	mg/kg	1.25	NA	110	75-125	0.00	20	
1,2,3-Trichloropropane	1.36	0.050	mg/kg	1.25	NA	109	75-125	0.733	20	
1,2,4-Trichlorobenzene	1.38	0.050	mg/kg	1.25	NA	110	75-125	2.15	20	
1,2,4-Trimethylbenzene	1.40	0.12	mg/kg	1.25	NA	112	75-125	3.51	20	
1,2-Dibromo-3-chloropropane	1.29	0.050	mg/kg	1.25	NA	103	75-125	0.772	20	
1,2-Dibromoethane	1.41	0.050	mg/kg	1.25	NA	113	75-125	1.43	20	
1,2-Dichlorobenzene	1.42	0.050	mg/kg	1.25	NA	114	75-125	0.702	20	
1,2-Dichloroethane	1.39	0.050	mg/kg	1.25	NA	111	75-125	0.00	20	
1,2-Dichloropropane	1.43	0.050	mg/kg	1.25	NA	114	75-125	2.08	20	
1,3,5-Trimethylbenzene	1.38	0.12	mg/kg	1.25	NA	110	75-125	5.63	20	
1,3-Dichlorobenzene	1.41	0.050	mg/kg	1.25	NA	113	75-125	1.41	20	
1,3-Dichloropropane	1.38	0.050	mg/kg	1.25	NA	110	75-125	0.727	20	
1,4-Dichlorobenzene	1.40	0.050	mg/kg	1.25	NA	112	75-125	1.42	20	
2,2-Dichloropropane	1.32	0.050	mg/kg	1.25	NA	106	75-125	5.88	20	
2-Butanone (MEK)	1.38	0.50	mg/kg	1.25	NA	110	75-125	5.20	20	
2-Chlorotoluene	1.38	0.12	mg/kg	1.25	NA	110	75-125	2.15	20	
4-Chlorotoluene	1.39	0.12	mg/kg	1.25	NA	111	75-125	2.14	20	
4-Isopropyltoluene	1.33	0.050	mg/kg	1.25	NA	106	75-125	2.96	20	
Acetone	1.34	1.0	mg/kg	1.25	NA	107	75-125	4.38	20	
Allyl Chloride	1.36	0.050	mg/kg	1.25	NA	109	75-125	1.46	20	
Benzene	1.38	0.050	mg/kg	1.25	NA	110	75-125	3.56	20	
Bromobenzene	1.42	0.050	mg/kg	1.25	NA	114	75-125	0.702	20	
Bromochloromethane	1.44	0.050	mg/kg	1.25	NA	115	75-125	2.11	20	
Bromodichloromethane	1.40	0.050	mg/kg	1.25	NA	112	75-125	3.51	20	
Bromoform	1.25	0.50	mg/kg	1.25	NA	100	75-125	2.43	20	
Bromomethane	1.46	0.050	mg/kg	1.25	NA	117	70-130	4.03	20	
Carbon Tetrachloride	1.27	0.050	mg/kg	1.25	NA	102	75-125	12.5	20	
Chlorobenzene	1.41	0.050	mg/kg	1.25	NA	113	75-125	2.11	20	
Chlorodibromomethane	1.29	0.12	mg/kg	1.25	NA	103	75-125	0.778	20	
Chloroethane	1.36	0.050	mg/kg	1.25	NA	109	75-125	2.90	20	
Chloroform	1.43	0.050	mg/kg	1.25	NA	114	75-125	1.39	20	

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B7G0048 - EPA 5035

Laboratory Control Sample Duplicate (B7G0048-BSD1) Prepared: 07/02/07 Analyzed: 07/03/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	1.34	0.050	mg/kg	1.25	NA	107	75-125	5.09	20	
cis-1,2-Dichloroethene	1.45	0.050	mg/kg	1.25	NA	116	75-125	0.00	20	
cis-1,3-Dichloropropene	1.32	0.12	mg/kg	1.25	NA	106	75-125	1.50	20	
Dibromomethane	1.37	0.050	mg/kg	1.25	NA	110	75-125	1.45	20	
Dichlorodifluoromethane	1.25	0.12	mg/kg	1.25	NA	100	70-130	9.89	20	
Dichlorofluoromethane	1.41	0.050	mg/kg	1.25	NA	113	75-125	2.80	20	
Ethyl Ether	1.46	0.050	mg/kg	1.25	NA	117	75-125	1.38	20	
Ethylbenzene	1.34	0.050	mg/kg	1.25	NA	107	75-125	2.94	20	
Hexachlorobutadiene	1.45	0.10	mg/kg	1.25	NA	116	75-125	1.39	20	
Isopropylbenzene	1.34	0.050	mg/kg	1.25	NA	107	75-125	4.38	20	
m,p-Xylenes	2.72	0.050	mg/kg	2.50	NA	109	75-125	3.25	20	
Methyl Isobutyl Ketone	1.21	0.50	mg/kg	1.25	NA	96.8	75-125	0.00	20	
Methylene chloride	1.40	0.25	mg/kg	1.25	NA	112	75-125	1.44	20	
Methyl-t-butyl ether	1.31	0.12	mg/kg	1.25	NA	105	75-125	0.766	20	
Naphthalene	1.37	0.050	mg/kg	1.25	NA	110	75-125	0.00	20	
n-Butylbenzene	1.33	0.050	mg/kg	1.25	NA	106	75-125	4.41	20	
n-Propylbenzene	1.33	0.050	mg/kg	1.25	NA	106	75-125	5.13	20	
o-Xylene	1.36	0.050	mg/kg	1.25	NA	109	75-125	2.18	20	
sec-Butylbenzene	1.40	0.12	mg/kg	1.25	NA	112	75-125	4.88	20	
Styrene	1.32	0.12	mg/kg	1.25	NA	106	75-125	0.755	20	
tert-Butylbenzene	1.41	0.12	mg/kg	1.25	NA	113	75-125	4.84	20	
Tetrachloroethene	1.36	0.10	mg/kg	1.25	NA	109	75-125	10.5	20	
Tetrahydrofuran	1.36	0.25	mg/kg	1.25	NA	109	75-125	5.28	20	
Toluene	1.41	0.050	mg/kg	1.25	NA	113	75-125	3.48	20	
trans-1,2-Dichloroethene	1.42	0.050	mg/kg	1.25	NA	114	75-125	4.14	20	
trans-1,3-Dichloropropene	1.29	0.12	mg/kg	1.25	NA	103	75-125	1.54	20	
Trichloroethene	1.40	0.050	mg/kg	1.25	NA	112	75-125	6.23	20	
Trichlorofluoromethane	1.37	0.050	mg/kg	1.25	NA	110	75-125	8.39	20	
Vinyl chloride	1.29	0.12	mg/kg	1.25	NA	103	70-130	8.89	20	
Surrogate: 1,2-Dichloroethane-d4	*24.7*		ug/L	*25.0*	*NA*	*98.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.4*		ug/L	*25.0*	*NA*	*102*	*80-120*			
Surrogate: Dibromofluoromethane	*25.3*		ug/L	*25.0*	*NA*	*101*	*80-120*			
Surrogate: Toluene-d8	*25.1*		ug/L	*25.0*	*NA*	*100*	*80-120*			

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B7G0048 - EPA 5035

Matrix Spike (B7G0048-MS1) **Source: 0703827-04** Prepared: 07/02/07 Analyzed: 07/03/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.44	0.052	mg/kg dry	1.29	ND	112	75-125	NA	NA	
1,1,1-Trichloroethane	1.41	0.052	mg/kg dry	1.29	ND	109	75-125	NA	NA	
1,1,2,2-Tetrachloroethane	1.34	0.052	mg/kg dry	1.29	ND	104	75-125	NA	NA	
1,1,2-Trichloroethane	1.35	0.052	mg/kg dry	1.29	ND	105	75-125	NA	NA	
1,1,2-Trichlorotrifluoroethane	1.40	0.052	mg/kg dry	1.29	ND	109	75-125	NA	NA	
1,1-Dichloroethane	1.39	0.052	mg/kg dry	1.29	ND	108	75-125	NA	NA	
1,1-Dichloroethene	1.42	0.052	mg/kg dry	1.29	ND	110	75-125	NA	NA	
1,1-Dichloropropene	1.34	0.052	mg/kg dry	1.29	0.025	102	75-125	NA	NA	
1,2,3-Trichlorobenzene	1.39	0.052	mg/kg dry	1.29	ND	108	75-125	NA	NA	
1,2,3-Trichloropropane	1.31	0.052	mg/kg dry	1.29	ND	102	75-125	NA	NA	
1,2,4-Trichlorobenzene	1.39	0.052	mg/kg dry	1.29	ND	108	75-125	NA	NA	
1,2,4-Trimethylbenzene	1.43	0.13	mg/kg dry	1.29	ND	111	75-125	NA	NA	
1,2-Dibromo-3-chloropropane	1.26	0.052	mg/kg dry	1.29	ND	97.7	75-125	NA	NA	
1,2-Dibromoethane	1.38	0.052	mg/kg dry	1.29	ND	107	75-125	NA	NA	
1,2-Dichlorobenzene	1.41	0.052	mg/kg dry	1.29	ND	109	75-125	NA	NA	
1,2-Dichloroethane	1.31	0.052	mg/kg dry	1.29	ND	102	75-125	NA	NA	
1,2-Dichloropropane	1.40	0.052	mg/kg dry	1.29	ND	109	75-125	NA	NA	
1,3,5-Trimethylbenzene	1.43	0.13	mg/kg dry	1.29	ND	111	75-125	NA	NA	
1,3-Dichlorobenzene	1.44	0.052	mg/kg dry	1.29	ND	112	75-125	NA	NA	
1,3-Dichloropropane	1.35	0.052	mg/kg dry	1.29	ND	105	75-125	NA	NA	
1,4-Dichlorobenzene	1.42	0.052	mg/kg dry	1.29	ND	110	75-125	NA	NA	
2,2-Dichloropropane	1.33	0.052	mg/kg dry	1.29	0.024	101	75-125	NA	NA	
2-Butanone (MEK)	1.30	0.52	mg/kg dry	1.29	ND	101	75-125	NA	NA	
2-Chlorotoluene	1.42	0.13	mg/kg dry	1.29	ND	110	75-125	NA	NA	
4-Chlorotoluene	1.43	0.13	mg/kg dry	1.29	ND	111	75-125	NA	NA	
4-Isopropyltoluene	1.35	0.052	mg/kg dry	1.29	0.042	101	75-125	NA	NA	
Acetone	1.21	1.0	mg/kg dry	1.29	ND	93.8	75-125	NA	NA	
Allyl Chloride	1.32	0.052	mg/kg dry	1.29	0.022	101	75-125	NA	NA	
Benzene	1.38	0.052	mg/kg dry	1.29	0.0057	107	75-125	NA	NA	
Bromobenzene	1.46	0.052	mg/kg dry	1.29	ND	113	75-125	NA	NA	
Bromochloromethane	1.37	0.052	mg/kg dry	1.29	ND	106	75-125	NA	NA	
Bromodichloromethane	1.37	0.052	mg/kg dry	1.29	ND	106	75-125	NA	NA	
Bromoform	1.22	0.52	mg/kg dry	1.29	0.15	82.9	75-125	NA	NA	
Bromomethane	1.41	0.052	mg/kg dry	1.29	ND	109	70-130	NA	NA	
Carbon Tetrachloride	1.33	0.052	mg/kg dry	1.29	0.018	102	75-125	NA	NA	
Chlorobenzene	1.44	0.052	mg/kg dry	1.29	ND	112	75-125	NA	NA	
Chlorodibromomethane	1.26	0.13	mg/kg dry	1.29	ND	97.7	75-125	NA	NA	
Chloroethane	1.33	0.052	mg/kg dry	1.29	0.013	102	75-125	NA	NA	
Chloroform	1.39	0.052	mg/kg dry	1.29	ND	108	75-125	NA	NA	

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B7G0048 - EPA 5035

Matrix Spike (B7G0048-MS1) **Source: 0703827-04** Prepared: 07/02/07 Analyzed: 07/03/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	1.30	0.052	mg/kg dry	1.29	ND	101	75-125	NA	NA	
cis-1,2-Dichloroethene	1.41	0.052	mg/kg dry	1.29	ND	109	75-125	NA	NA	
cis-1,3-Dichloropropene	1.29	0.13	mg/kg dry	1.29	0.046	96.4	75-125	NA	NA	
Dibromomethane	1.29	0.052	mg/kg dry	1.29	ND	100	75-125	NA	NA	
Dichlorodifluoromethane	1.30	0.13	mg/kg dry	1.29	ND	101	70-130	NA	NA	
Dichlorofluoromethane	1.39	0.052	mg/kg dry	1.29	ND	108	75-125	NA	NA	
Ethyl Ether	1.41	0.052	mg/kg dry	1.29	ND	109	75-125	NA	NA	
Ethylbenzene	1.38	0.052	mg/kg dry	1.29	0.044	104	75-125	NA	NA	
Hexachlorobutadiene	1.43	0.10	mg/kg dry	1.29	ND	111	75-125	NA	NA	
Isopropylbenzene	1.36	0.052	mg/kg dry	1.29	0.044	102	75-125	NA	NA	
m,p-Xylenes	2.77	0.052	mg/kg dry	2.58	0.038	106	75-125	NA	NA	
Methyl Isobutyl Ketone	1.13	0.52	mg/kg dry	1.29	0.12	78.3	75-125	NA	NA	
Methylene chloride	1.35	0.26	mg/kg dry	1.29	ND	105	75-125	NA	NA	
Methyl-t-butyl ether	1.24	0.13	mg/kg dry	1.29	ND	96.1	75-125	NA	NA	
Naphthalene	1.35	0.052	mg/kg dry	1.29	ND	105	75-125	NA	NA	
n-Butylbenzene	1.35	0.052	mg/kg dry	1.29	0.035	102	75-125	NA	NA	
n-Propylbenzene	1.38	0.052	mg/kg dry	1.29	0.039	104	75-125	NA	NA	
o-Xylene	1.38	0.052	mg/kg dry	1.29	0.021	105	75-125	NA	NA	
sec-Butylbenzene	1.44	0.13	mg/kg dry	1.29	ND	112	75-125	NA	NA	
Styrene	1.32	0.13	mg/kg dry	1.29	ND	102	75-125	NA	NA	
tert-Butylbenzene	1.46	0.13	mg/kg dry	1.29	ND	113	75-125	NA	NA	
Tetrachloroethene	1.45	0.10	mg/kg dry	1.29	ND	112	75-125	NA	NA	
Tetrahydrofuran	1.18	0.26	mg/kg dry	1.29	ND	91.5	75-125	NA	NA	
Toluene	1.45	0.052	mg/kg dry	1.29	ND	112	75-125	NA	NA	
trans-1,2-Dichloroethene	1.42	0.052	mg/kg dry	1.29	ND	110	75-125	NA	NA	
trans-1,3-Dichloropropene	1.25	0.13	mg/kg dry	1.29	ND	96.9	75-125	NA	NA	
Trichloroethene	1.43	0.052	mg/kg dry	1.29	ND	111	75-125	NA	NA	
Trichlorofluoromethane	1.41	0.052	mg/kg dry	1.29	ND	109	75-125	NA	NA	
Vinyl chloride	1.34	0.13	mg/kg dry	1.29	0.012	103	70-130	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	*23.3*		ug/L	*25.0*	*NA*	*93.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.7*		ug/L	*25.0*	*NA*	*103*	*80-120*			
Surrogate: Dibromofluoromethane	*24.4*		ug/L	*25.0*	*NA*	*97.6*	*80-120*			
Surrogate: Toluene-d8	*25.4*		ug/L	*25.0*	*NA*	*102*	*80-120*			

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Service Engineering Group	Client Ref: Onondaga 05017	Work Order #: 0703853
675 Vandalia Street	Client Contact: Mr. Dean Myers	Project Mgr: Steven J. Albrecht
St. Paul, MN 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B7G0048 - EPA 5035

Matrix Spike Duplicate (B7G0048-MSD1) **Source: 0703827-04** Prepared: 07/02/07 Analyzed: 07/03/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	1.43	0.052	mg/kg dry	1.29	ND	111	75-125	0.697	20	
1,1,1-Trichloroethane	1.38	0.052	mg/kg dry	1.29	ND	107	75-125	2.15	20	
1,1,2,2-Tetrachloroethane	1.36	0.052	mg/kg dry	1.29	ND	105	75-125	1.48	20	
1,1,2-Trichloroethane	1.36	0.052	mg/kg dry	1.29	ND	105	75-125	0.738	20	
1,1,2-Trichlorotrifluoroethane	1.41	0.052	mg/kg dry	1.29	ND	109	75-125	0.712	20	
1,1-Dichloroethane	1.35	0.052	mg/kg dry	1.29	ND	105	75-125	2.92	20	
1,1-Dichloroethene	1.40	0.052	mg/kg dry	1.29	ND	109	75-125	1.42	20	
1,1-Dichloropropene	1.33	0.052	mg/kg dry	1.29	0.025	101	75-125	0.749	20	
1,2,3-Trichlorobenzene	1.35	0.052	mg/kg dry	1.29	ND	105	75-125	2.92	20	
1,2,3-Trichloropropane	1.34	0.052	mg/kg dry	1.29	ND	104	75-125	2.26	20	
1,2,4-Trichlorobenzene	1.39	0.052	mg/kg dry	1.29	ND	108	75-125	0.00	20	
1,2,4-Trimethylbenzene	1.42	0.13	mg/kg dry	1.29	ND	110	75-125	0.702	20	
1,2-Dibromo-3-chloropropane	1.31	0.052	mg/kg dry	1.29	ND	102	75-125	3.89	20	
1,2-Dibromoethane	1.38	0.052	mg/kg dry	1.29	ND	107	75-125	0.00	20	
1,2-Dichlorobenzene	1.44	0.052	mg/kg dry	1.29	ND	112	75-125	2.11	20	
1,2-Dichloroethane	1.30	0.052	mg/kg dry	1.29	ND	101	75-125	0.766	20	
1,2-Dichloropropane	1.39	0.052	mg/kg dry	1.29	ND	108	75-125	0.717	20	
1,3,5-Trimethylbenzene	1.44	0.13	mg/kg dry	1.29	ND	112	75-125	0.697	20	
1,3-Dichlorobenzene	1.43	0.052	mg/kg dry	1.29	ND	111	75-125	0.697	20	
1,3-Dichloropropane	1.37	0.052	mg/kg dry	1.29	ND	106	75-125	1.47	20	
1,4-Dichlorobenzene	1.42	0.052	mg/kg dry	1.29	ND	110	75-125	0.00	20	
2,2-Dichloropropane	1.31	0.052	mg/kg dry	1.29	0.024	99.7	75-125	1.52	20	
2-Butanone (MEK)	1.33	0.52	mg/kg dry	1.29	ND	103	75-125	2.28	20	
2-Chlorotoluene	1.42	0.13	mg/kg dry	1.29	ND	110	75-125	0.00	20	
4-Chlorotoluene	1.41	0.13	mg/kg dry	1.29	ND	109	75-125	1.41	20	
4-Isopropyltoluene	1.37	0.052	mg/kg dry	1.29	0.042	103	75-125	1.47	20	
Acetone	1.12	1.0	mg/kg dry	1.29	ND	86.8	75-125	7.73	20	
Allyl Chloride	1.29	0.052	mg/kg dry	1.29	0.022	98.3	75-125	2.30	20	
Benzene	1.38	0.052	mg/kg dry	1.29	0.0057	107	75-125	0.00	20	
Bromobenzene	1.46	0.052	mg/kg dry	1.29	ND	113	75-125	0.00	20	
Bromochloromethane	1.35	0.052	mg/kg dry	1.29	ND	105	75-125	1.47	20	
Bromodichloromethane	1.38	0.052	mg/kg dry	1.29	ND	107	75-125	0.727	20	
Bromoform	1.22	0.52	mg/kg dry	1.29	0.15	82.9	75-125	0.00	20	
Bromomethane	1.36	0.052	mg/kg dry	1.29	ND	105	70-130	3.61	20	
Carbon Tetrachloride	1.33	0.052	mg/kg dry	1.29	0.018	102	75-125	0.00	20	
Chlorobenzene	1.42	0.052	mg/kg dry	1.29	ND	110	75-125	1.40	20	
Chlorodibromomethane	1.28	0.13	mg/kg dry	1.29	ND	99.2	75-125	1.57	20	
Chloroethane	1.32	0.052	mg/kg dry	1.29	0.013	101	75-125	0.755	20	
Chloroform	1.35	0.052	mg/kg dry	1.29	ND	105	75-125	2.92	20	

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St. Paul, MN 55114	PO Number:	Account ID: S15039

Volatile Organic Compounds - Quality Control

Batch B7G0048 - EPA 5035

Matrix Spike Duplicate (B7G0048-MSD1) **Source: 0703827-04** Prepared: 07/02/07 Analyzed: 07/03/07

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloromethane	1.27	0.052	mg/kg dry	1.29	ND	98.4	75-125	2.33	20	
cis-1,2-Dichloroethene	1.39	0.052	mg/kg dry	1.29	ND	108	75-125	1.43	20	
cis-1,3-Dichloropropene	1.31	0.13	mg/kg dry	1.29	0.046	98.0	75-125	1.54	20	
Dibromomethane	1.32	0.052	mg/kg dry	1.29	ND	102	75-125	2.30	20	
Dichlorodifluoromethane	1.27	0.13	mg/kg dry	1.29	ND	98.4	70-130	2.33	20	
Dichlorofluoromethane	1.37	0.052	mg/kg dry	1.29	ND	106	75-125	1.45	20	
Ethyl Ether	1.35	0.052	mg/kg dry	1.29	ND	105	75-125	4.35	20	
Ethylbenzene	1.37	0.052	mg/kg dry	1.29	0.044	103	75-125	0.727	20	
Hexachlorobutadiene	1.48	0.10	mg/kg dry	1.29	ND	115	75-125	3.44	20	
Isopropylbenzene	1.37	0.052	mg/kg dry	1.29	0.044	103	75-125	0.733	20	
m,p-Xylenes	2.77	0.052	mg/kg dry	2.58	0.038	106	75-125	0.00	20	
Methyl Isobutyl Ketone	1.17	0.52	mg/kg dry	1.29	0.12	81.4	75-125	3.48	20	
Methylene chloride	1.33	0.26	mg/kg dry	1.29	ND	103	75-125	1.49	20	
Methyl-t-butyl ether	1.25	0.13	mg/kg dry	1.29	ND	96.9	75-125	0.803	20	
Naphthalene	1.33	0.052	mg/kg dry	1.29	ND	103	75-125	1.49	20	
n-Butylbenzene	1.36	0.052	mg/kg dry	1.29	0.035	103	75-125	0.738	20	
n-Propylbenzene	1.39	0.052	mg/kg dry	1.29	0.039	105	75-125	0.722	20	
o-Xylene	1.37	0.052	mg/kg dry	1.29	0.021	105	75-125	0.727	20	
sec-Butylbenzene	1.44	0.13	mg/kg dry	1.29	ND	112	75-125	0.00	20	
Styrene	1.32	0.13	mg/kg dry	1.29	ND	102	75-125	0.00	20	
tert-Butylbenzene	1.46	0.13	mg/kg dry	1.29	ND	113	75-125	0.00	20	
Tetrachloroethene	1.47	0.10	mg/kg dry	1.29	ND	114	75-125	1.37	20	
Tetrahydrofuran	1.18	0.26	mg/kg dry	1.29	ND	91.5	75-125	0.00	20	
Toluene	1.44	0.052	mg/kg dry	1.29	ND	112	75-125	0.692	20	
trans-1,2-Dichloroethene	1.38	0.052	mg/kg dry	1.29	ND	107	75-125	2.86	20	
trans-1,3-Dichloropropene	1.26	0.13	mg/kg dry	1.29	ND	97.7	75-125	0.797	20	
Trichloroethene	1.43	0.052	mg/kg dry	1.29	ND	111	75-125	0.00	20	
Trichlorofluoromethane	1.36	0.052	mg/kg dry	1.29	ND	105	75-125	3.61	20	
Vinyl chloride	1.25	0.13	mg/kg dry	1.29	0.012	96.0	70-130	6.95	20	
Surrogate: 1,2-Dichloroethane-d4	*23.0*		ug/L	*25.0*	*NA*	*92.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.3*		ug/L	*25.0*	*NA*	*101*	*80-120*			
Surrogate: Dibromofluoromethane	*24.4*		ug/L	*25.0*	*NA*	*97.6*	*80-120*			
Surrogate: Toluene-d8	*25.2*		ug/L	*25.0*	*NA*	*101*	*80-120*			

BRAUN INTERTEC

11001 Hampshire Ave. S.
Minneapolis, MN 55438
952.995.2000 Phone
952.995.2020 Fax

Service Engineering Group 675 Vandalia Street St. Paul, MN 55114	Client Ref: Onondaga 05017 Client Contact: Mr. Dean Myers PO Number:	Work Order #: 0703853 Project Mgr: Steven J. Albrecht Account ID: S15039

For Braun Intertec Use Only
Braun Intertec Project No.

BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438

REQUEST FOR LABORATORY ANALYTICAL SERVICES

Bottle orders and sampling inquires:
labservices@braunintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

IMPORTANT
Date Results Requested: Standard
Time _____
Rush Charges Authorized? ____ Yes ____ No
Rush / Quote # _____

Page ____ of ____

REPORT RESULTS TO
Contact Name Dean Myers
Project ID/Project Name Onondaga 05017
P.O. #
Company Service Engineering Group
Mailing Address 675 Vandalia Street
City, State, Zip St. Paul, MN 55114
Telephone # 651-644-6680
Fax # 651-644-7008
E-mail

SEND INVOICE TO
Contact Name SAME
Company
Address
City, State, Zip
Telephone #
Fax #

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, petrofund, reporting units)

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request)

	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	Metals Field Filtered Y/N	VOCs 8260	SVOCs 8270								FOR LAB USE ONLY
1	OL-STA-60111	6/25	9:30	Sediment		4		X	X								
2	OL-STA-60112	6/25	9:40	Sediment		4		X	X								
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

CHAIN OF CUSTODY
Collected by: (Print) Dean Myers
Collector's Signature: [signature]
Relinquished by: [signature] Date/Time 6/27/07 14:26
Received by: Date/Time
Relinquished by: Date/Time
Received Contents Not Verified: [signature] Date/Time 6/28/07 1427
Custody Seal Intact ☐ Yes ☐ No ☒ N/A
On Ice ☒ Yes ☐ No
Received Contents Verified: [signature] 6/28/07 Date/Time 1540
Temp Blank ☐ Yes ☒ No
Comments:
Temp: 7.7 °C HO

Form # CS02.01 F:\Groups\QA-QC\Forms\clientservices\COC-CS02 Effective Date: 7/22/05

APPENDIX D

ST. CROIX SENSORY PROPRIETARY STATISTICAL DATA FORMAT/FORM (BLANK)

657

Hedonic Tone

☐ ☐

-10 -8 -6 -4 -2 0 2 4 6 8 10

Taste

Salty	☐	☐	☐	☐	☐	☐	Bitter	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5		0	1	2	3	4	5
Sweet	☐	☐	☐	☐	☐	☐	Sour	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5		0	1	2	3	4	5

Sensation

Itching	☐	☐	☐	☐	☐	☐	Pungent	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5		0	1	2	3	4	5
Tingling	☐	☐	☐	☐	☐	☐	Sharp	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5		0	1	2	3	4	5
Warm	☐	☐	☐	☐	☐	☐	Cool	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5		0	1	2	3	4	5
Burning	☐	☐	☐	☐	☐	☐	Metallic	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5		0	1	2	3	4	5

Odor

Vegetable	☐	☐	☐	☐	☐	☐	Chemical	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5		0	1	2	3	4	5
Fruity	☐	☐	☐	☐	☐	☐	Fishy	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5		0	1	2	3	4	5
Floral	☐	☐	☐	☐	☐	☐	Offensive	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5		0	1	2	3	4	5
Medicinal	☐	☐	☐	☐	☐	☐	Earthy	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5		0	1	2	3	4	5

Descriptors

Vegetable ☐	Cucumber ☐	Garlic------ ☐	Nutty ☐
Celery--- ☐	Dill---- ☐	Green pepper ☐	Onion ☐

Fruity ☐	Citrus ☐	Lemon ☐	Minty----- ☐
Apple- ☐	Cloves ☐	Maple ☐	Orange---- ☐
Cherry ☐	Grape- ☐	Melon ☐	Strawberry ☐

Floral-- ☐	Coconut--- ☐	Herbal-- ☐	Rose-like ☐
Almond-- ☐	Eucalyptus ☐	Lavender ☐	Spicy---- ☐
Cinnamon ☐	Fragrant-- ☐	Perfumy- ☐	Vanilla-- ☐

Medicinal ☐	Anesthetic ☐	Disinfectant ☐	Soapy-- ☐
Alcohol-- ☐	Camphor--- ☐	Menthol----- ☐	Vinegar ☐
Ammonia-- ☐	Chlorinous ☐		

Chemical------ ☐	Grease-- ☐	Paint----- ☐	Tar------- ☐
Car exhaust--- ☐	Kerosine ☐	Petroleum- ☐	Turpentine ☐
Cleaning fluid ☐	Molasses ☐	Plastic--- ☐	Varnish--- ☐
Creosote------ ☐	Mothball ☐	Solvent--- ☐	Vinyl----- ☐
Gasoline------ ☐	Oil----- ☐	Sulfur---- ☐	

Fishy ☐	Amine ☐	Dead fish ☐	Perm solution ☐

Offensive ☐	Fecal-- ☐	Rancid----- ☐	Sewer ☐
Blood---- ☐	Garbage ☐	Raw meat--- ☐	Sour- ☐
Burnt---- ☐	Manure- ☐	Rotten eggs ☐	Urine ☐
Decay---- ☐	Putrid- ☐	Septic----- ☐	Vomit ☐

Earthy---- ☐	Mold------ ☐	Musty---- ☐	Stale- ☐
Ashes----- ☐	Mouse-like ☐	Peat-like ☐	Swampy ☐
Chalk-like ☐	Mushroom-- ☐	Pine----- ☐	Woody- ☐
Grassy---- ☐	Musky----- ☐	Smoky---- ☐	Yeast- ☐

other descriptor(s)
-write in the box-