Phase II Environmental Site Assessment 15 Richmond Street City of Rochester, New York 14604



15 Richmond Street City of Rochester, New York

Executive Summary

Stantec Consulting Services Inc. (Stantec) conducted a Phase II Environmental Site Assessment (ESA) at 15 Richmond Street (the Site) in May 2010. The Site is located in the City of Rochester, Monroe County, New York southeast of the intersection of Richmond Street and East Main Street. A map of the site location is presented on Figure 1. As shown on a site plan presented on Figure 2, the site is a 30x120 foot parking lot extending between Richmond Street on the north and Haags Alley on the south.

During a series of previous investigations by others of the block of properties located directly south of the subject property between Haags Alley and Charlotte Street, petroleum contamination was found in soil, groundwater, and bedrock originating from on- and off-site sources. Buildings, underground storage tanks, and underground lifts were removed and 1,900 tons of soil were excavated and disposed of off-site pursuant to a New York State Department of Conservation (NYSDEC) approved Corrective Action Plan. The NYSDEC issued a letter on January 31, 2005 approving the Corrective Action Plan dated October 2001, the Interim Remedial Measure Report dated October 2002, and the Environmental Engineering Control Plan prepared by Day Engineering on behalf of the City of Rochester.

Soil and groundwater analysis done during the previous investigations documented in those reports also detected contamination by dry cleaning solvent related compounds in samples collected in the Haags Alley right of way adjacent to the south end of the subject property. The previous investigation reports identified a dry cleaner located adjacent to the west side of the subject property at 527 East Main Street as a suspected source of the Haags Alley contamination. The previous investigation reports also indicate that the subject property is downgradient of the dry cleaner.

This report describes the Phase II ESA investigation activities, methods and results. The Phase II ESA was performed for Richmond Street LLC, which is interested in purchasing the property. The purpose of the Phase II ESA was to investigate potential contamination from the adjacent dry cleaners, the historical auto repair shops formerly located in the Haags Alley/Charlotte Street block, and an historical auto painting shop reportedly located on the adjacent property to the east.

Four soil test borings, four temporary monitoring wells, and two temporary soil vapor points were installed for the purposes of collecting soil, groundwater, and soil vapor samples on the subject property. The sampling locations included locations near the identified historical features on adjacent properties that represented recognized environmental conditions.

The results of the Phase II ESA indicate the presence of contamination by dry cleaning solvent compounds in soil, groundwater, and soil vapor. Petroleum-based dry cleaning solvent (Stoddard solvent) compounds were detected at relatively high concentrations in all three

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media, and chlorinated dry cleaning solvent compounds were detected at relatively high concentrations in groundwater and soil vapor. Concentrations of volatile organic compounds (VOCs) in soil were above applicable soil cleanup objectives (SCOs) established by the NYSDEC in samples from the B-2 and B-3 test borings. Impacts by aromatic VOCs were detected in groundwater samples from all four sampling locations at concentrations exceeding ambient groundwater quality standards and guidance values established in NYSDEC's Division of Water Technical and Operational Guidance Series (TOGS) Memorandum 1.1.1, and chlorinated VOCs were detected above TOGS standards in the groundwater samples from the B-2 and B-3 locations. Significant levels of aromatic and chlorinated VOCs were detected in both soil vapor samples indicating potential soil vapor intrusion for any future buildings on the subject property, and for the existing occupied buildings on the adjoining properties.

Given the significantly lower impacts in the soil and groundwater samples collected from the B-4 location, which was adjacent to Richmond Street and east (on the down-gradient side) of the former residential building that occupied the northern portion of the subject site until the 1980s, there is no indication that impacts detected at the site are the result of an on-site source or an off-site source located to the north along Richmond Street. Instead, the source of the impacts clearly appears to be the past use of the adjacent property to the west as a dry cleaner.

It is recommended that the NYSDEC be provided with these results. The report to NYSDEC should include a request that NYSDEC initiate efforts to address, or seek to have the responsible parties address, the on-site contamination as well as the off-site source of the contamination identified herein.

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1.0 Introduction

On May 18 and 19, 2010 Stantec Consulting Services Inc. (Stantec) conducted a Phase II Environmental Site Assessment (ESA) at 15 Richmond Street in the City of Rochester, Monroe County, New York (the Site). The Site location is shown on the attached Figure 1.

The Phase II ESA was performed concurrently with a Phase I Environmental Site Assessment (provided under separate cover) to investigate potential contamination from adjacent dry cleaners, historical auto repair shops, and an historical auto painting shop (all located off-site). The Phase II ESA was performed to investigate soil, groundwater, and soil vapor conditions on the property.

2.0 Phase II Investigation

2.1 INVESTIGATION ACTIVITIES

The investigation program involved soil test borings, soil sampling, temporary monitoring well installation, groundwater sampling, temporary soil vapor implant installation, and soil vapor sampling.

Subcontracted drilling services were provided by GeoLogic NY Inc. of Homer, New York (GeoLogic) using direct push and rotary drilling equipment. Stantec personnel performed technical and health & safety monitoring and logging of drilling activities.

Prior to initiating the drilling program, GeoLogic contacted the Underground Facilities Protective Organization (UFPO), to locate publicly owned utilities in the areas to be investigated. Drilling and sampling activities were performed on May 18 and 19, 2010. Four test borings were installed, and temporary monitoring wells were installed in each of these borings. Test boring locations are shown on Figure 2. Previous investigations by others of several properties in the adjacent Haags Street and Charlotte Street block to the south, including in the Haags Alley right of way adjacent to the subject property, indicate that groundwater flow is generally to the east, and borings were installed at locations anticipated to be downgradient of suspected contaminant sources. The borings were drilled to depths ranging from 8.6 to 11 feet below ground surface (ft bgs). Soil conditions for individual borings are described on boring logs provided in Appendix A.

Continuous samples were collected using a 4-foot Macrocore sampler at each soil boring location. Soil samples were screened for the presence of volatile organic vapors using a calibrated photoionization detector (PID) equipped with a 10.6 eV lamp. Portions of each soil

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sample were placed in individual sealed containers, and the volatile organic vapors that accumulated within the headspace of the containers were screened using the PID. A summary of PID headspace readings is provided in Table 1. Soil samples were also visually evaluated for indications of staining, oils, fill, etc. Visual screening results are recorded on the test boring logs presented in Appendix A.

Field screening and soil logging results were used to select one soil sample from each test boring for laboratory analysis. The samples were selected on the basis of the presence of elevated PID readings. The sample intervals selected were those that exhibited the strongest indications of potential contamination. The four soil samples selected are described on Table 2. Samples were submitted to Paradigm Environmental Services Inc. of Rochester, New York (Paradigm) for analysis of United States Environmental Protection Agency (EPA) Target Compound List (TCL) and New York State Department of Environmental Conservation (NYSDEC) Spill Technology and Remediation Series (STARS) volatile organic compounds (VOCs) plus Tentatively Identified Compounds (TICs) by EPA Method 8260, STARS semi-volatile organic compounds (SVOCs) plus TICs by EPA Method 8270, and Resource Conservation and Recovery Act (RCRA) metals by EPA Method SW846 6010 and SW846 7471. The sample from B-2 was also submitted for a Petroleum Hydrocarbon (PHC) scan.

The temporary monitoring wells were constructed with 1-inch or 2-inch PVC. Screen lengths were 5 feet and straddled the apparent water table. Table 3 details the monitoring well construction.

Groundwater sampling was performed at each of the four locations immediately after well installation. The sampling was performed by Stantec personnel using dedicated disposable bailers (see Table 4). One groundwater sample was collected from each of the wells and submitted to Paradigm. As summarized on Table 4, groundwater samples were analyzed for TCL and STARS VOCs plus TICs by EPA Method 8260B.

Following sampling, the wells were abandoned; the well screen was removed, and the borehole was then grouted. At two of the locations, B-2 and B-3, the wells were grouted to 5' bgs and a temporary soil vapor point was installed. Based on soil observations and water level measurements in the wells, the implants were installed at a depth of 5 ft bgs, above the water table. The vapor probes consisted of a stainless steel screen attached to soil gas tubing (i.e. ¼ I.D. laboratory grade HDPE). The borehole annulus was then backfilled around the sample screen with glass beads to form the sampling zone. The sampling zone was sealed with bentonite to near the surface.

On May 19, 2010, soil vapor samples were taken at locations B-2 and B-3. Samples were collected using stainless steel sample canisters and two hour flow controllers and were sent to Paradigm for analysis of VOCs by EPA TO-15. Soil vapor implants were then removed. The pavement was repaired with asphalt cold patch at borings B-1, B-2, and B-3, and was repaired with cement at B-4.

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Soil cuttings were placed in a 55-gallon drum. Drilling equipment was decontaminated prior to use and between borehole locations using an Alconox soap and potable water wash followed by a potable water rinse. Spent decontamination solutions were placed in a 55-gallon drum. The one soil cuttings drum and one purge water and decontamination water drum were placed neatly on-site to await disposal.

2.2 INVESTIGATION RESULTS

Copies of the laboratory analytical reports are provided in Appendix B. Summaries of the analytical results for soil are presented in Tables 5, 6, and 7, groundwater in Table 8, and soil vapor in Table 9. Tables 5, 6, and 7 also present comparison of the concentrations detected in site soil samples to soil cleanup objectives (SCOs) established for assessing health risks at commercial use sites regulated by the New York State Department of Environmental Conservation (NYSDEC). Table 8 presents a comparison of the concentrations of analytes detected in site groundwater samples to groundwater quality standards established by NYSDEC. As there are no established regulatory standards or guidance concentrations available for VOCs in soil vapor, Table 9 presents only the soil vapor concentrations.

2.2.1 Results for Soil Samples

The B-1, B-2, and B-3 locations exhibited elevated PID field screening readings, and the B-4 location exhibited slightly elevated PID readings. Peak PID readings reached 923 parts per million (ppm) in B-1 (7 ft bgs), 1,259 ppm in B-2 (8 ft bgs), 1,155 ppm in B-3 (6 ft bgs), and 62 ppm in B-4 (9 ft bgs). Petroleum odors were noted beginning at around 6-7 ft bgs in B-1, B-2, and B-3. Top of rock was found at approximately 9-11 ft bgs, and groundwater occurred at approximately 8 ft bgs.

1,2,4-Trimethylbenzene was detected in the B-2 soil sample (415,000 micrograms per kilogram (μ g/kg)) at a concentration above the NYSDEC SCO for commercial use (190,000 μ g/kg) at sites subject to 6 NYCRR Part 375 regulations under NYSDEC's Division of Environmental Remediation programs. VOCs were detected below commercial use SCOs at B-1, B-2, and B-3, and VOC TICs were detected at all four locations. The total VOC TICs from samples B-2 (1,929,800 μ g/kg) and B-3 (714,700 μ g/kg) both exceeded the 500,000 μ g/kg cap on petroleum hydrocarbons used by NYSDEC to assess petroleum spill contamination.

Although Table 5 does not list NYSDEC's SCOs for protection of groundwater, most of the detected concentrations of target VOCs in samples from B-1, B-2, and B-3 exceed those SCOs. The potential impact on groundwater conditions represented by the contamination detected in soil is instead reflected by the groundwater sample results discussed in the next section.

The PHC analysis performed on the B-2 soil sample indicated that the sample contained 12,000,000 parts per billion (ppb) of a light weight PHC matching the lab's mineral spirits standard. The lab's mineral spirits standard is a mixture of the several very similar petroleum products included in the mineral spirit category, one of which is Stoddard solvent. Although further distinction was not possible, we conclude from the PHC and the VOC analytical results

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that the source of the aromatic VOCs detected in the site samples is likely to have been a release of Stoddard solvent from the dry cleaning facility on the adjacent property.

Naphthalene (4,670 μ g/kg) and phenanthrene (327 μ g/kg) were detected in the B-2 sample at concentrations below the commercial use SCOs (500,000 μ g/kg each). SVOC TICs were detected at all four locations.

Aluminum, barium, chromium, and lead were detected below commercial use SCOs at each location. Mercury was detected below the commercial use SCO in the B-1 and B-4 samples.

2.2.2 Analytical Results for Water Samples

As shown on the below table, 12 compounds were detected at concentrations above Technical and Operational Guidance Series (TOGS 1.1.1) Groundwater Standards in samples from B-1, B-2, and B-3. The highest concentrations were generally reported in B-1 and B-2 which are adjacent to and immediately downgradient from the former dry cleaner. The B-4 sample only slightly exceeded the benzene standard. VOC TICs were detected in groundwater samples from all four locations.

Compound	Units	TOGS	B-1	B-2	B-3	B-4
Benzene	μg/L	1	ND	ND	ND	1.08
Butylbenzene, n-	μg/L	5	5,290	1,530	902	ND
Cymene (p-Isopropyltoluene)	μg/L	5	2,710	920	521	ND
Ethylbenzene	μg/L	5	314	240	247	ND
Isopropylbenzene	μg/L	5	702	ND	ND	ND
Naphthalene	μg/L	10	1,760	ND	ND	ND
Phenylbutane, 2- (sec-Butylbenzene)	μg/L	5	1,840	618	ND	ND
Propylbenzene, n-	μg/L	5	2,710	935	682	ND
Trimethylbenzene, 1,2,4-	μg/L	5	23,000	12,900	8,650	ND
Trimethylbenzene, 1,3,5-	μg/L	5	3,960	2,360	1,620	ND
Xylene, m & p-	μg/L	5	813	1,240	895	ND
Xylene, o-	μg/L	5	315	848	289	ND
Dichloroethylene, cis-1,2-	μg/L	5	ND	7,330	<i>4</i> 58	ND
Total VOC TICs	μg/L	n/v	135,520	53,740	34,970	323

ND = Not detected

2.2.3 Analytical Results for Soil Vapor Samples

As shown on Table 9, significant levels of aromatic and chlorinated VOCs were detected in the two soil vapor samples submitted. 23,600 micrograms per cubic meter (μ g/m³) cis-1,2-Dichloroethylene and 6,640 μ g/m³ vinyl chloride were reported in the B-2 sample on the east side of the site adjacent to the dry cleaner. Much lower soil vapor concentrations were reported in B-3 on the western downgradient side of the property. While these were not sub-slab soil vapor samples, they indicate that contamination exists in the soil vapor and potential soil vapor intrusion would need to be addressed for any future redevelopment or construction activities at

n/v = No standard/guideline value.

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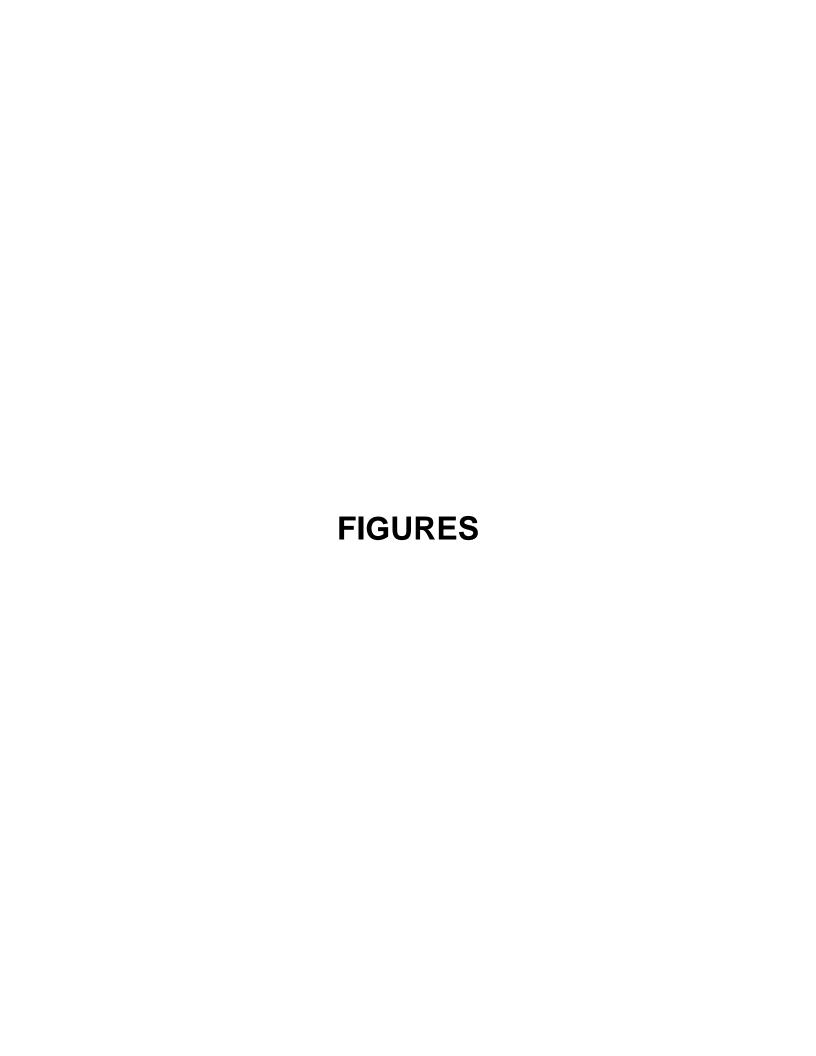
the site. Further, these results suggest potential soil vapor intrusion for the existing occupied buildings on the adjoining properties.

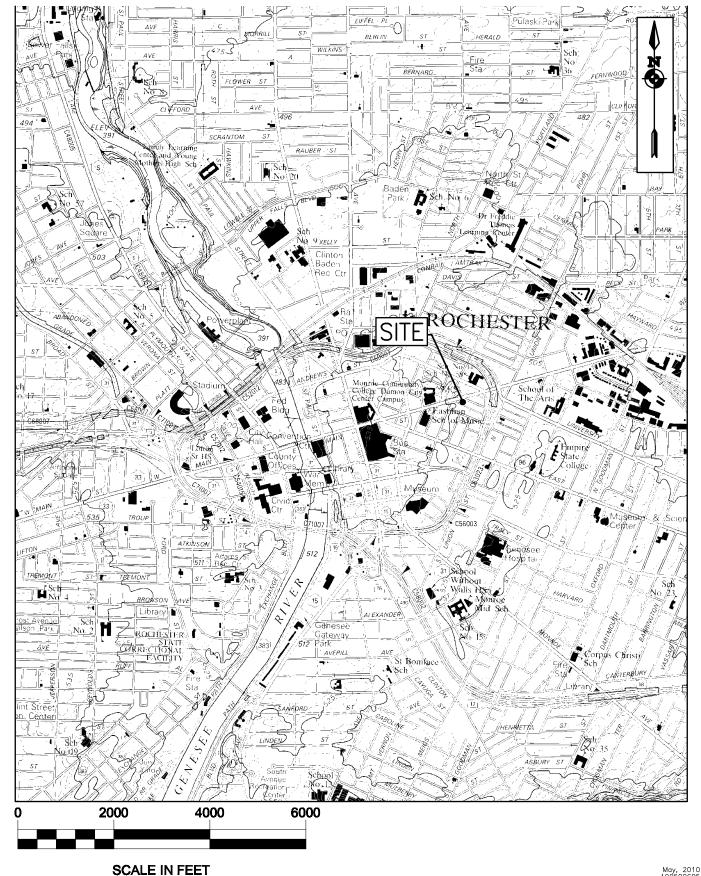
3.0 CONCLUSIONS AND RECOMMENDATIONS

The results of the Phase II ESA indicate the presence of VOC impacts in soil, groundwater, and soil vapor. VOC concentrations in soil were above NYSDEC SCOs for commercial use in the B-2 and B-3 samples. Exceedances of groundwater standards for VOCs were detected in all four locations. Significant amounts of aromatic and chlorinated VOCs were detected in the two soil vapor samples. The greatest concentrations were reported in the sample locations adjacent to the former dry cleaner.

Given the significantly lower impacts in the soil and groundwater samples collected from the B-4 location, which was adjacent to Richmond Street and on the downgradient side of the former location of the residential building that once occupied the northern portion of the site, there is no indication that impacts detected at the site are the result of an onsite source or an off-site source originating along Richmond Street. Instead, the source of the impacts clearly appears to have been the past use of the adjacent property to the west as a dry cleaner. It appears to be considerably less likely that the previously remediated areas of petroleum contamination on the Charlotte Street properties located south of Haags Alley are sources of the Stoddard and chlorinated solvent contamination detected in on-site samples.

It is recommended that the NYSDEC be provided with these results. The report to NYSDEC should include a request that NYSDEC initiate efforts to address, or seek to have the responsible parties address, the on-site contamination as well as the off-site source of the contamination identified herein.





Stantec Counsulting

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Phase II Environmental Site Assessment

15 Richmond Street , City of Rochester

2250 Brighton-Henrietta Townline Rd. Rochester NY U.S.A. 14623-2706

Tel. 585.475.1440 Fax. 585.424.5951

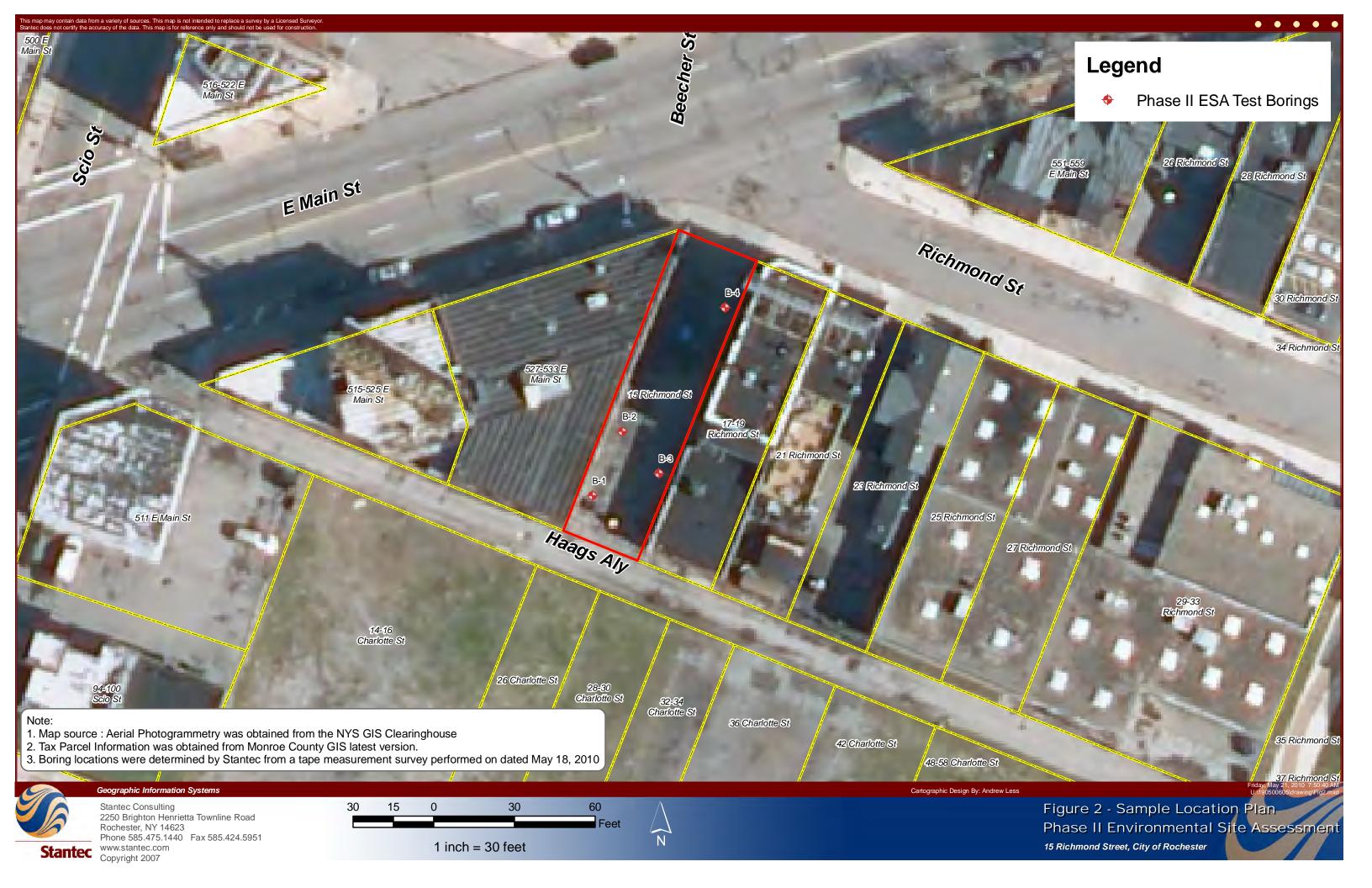
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Site Location Map

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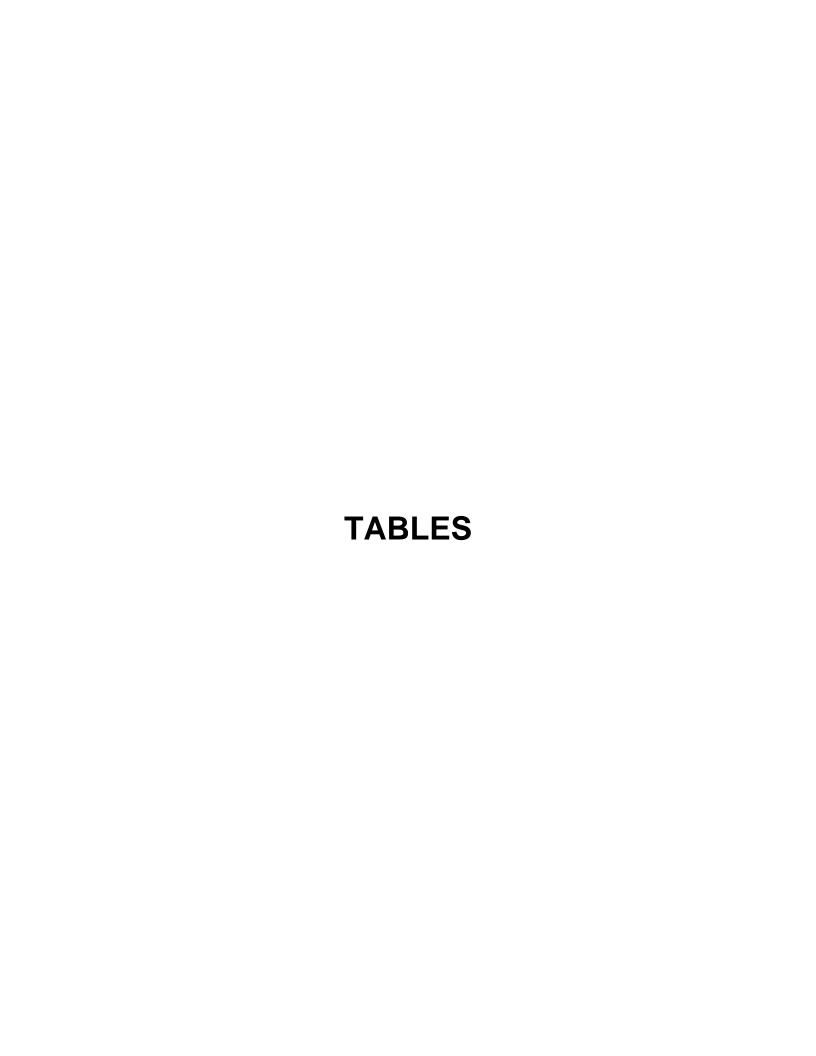


TABLE 1 SUMMARY OF PID HEADSPACE READINGS

Phase II ESA 15 Richmond Street Rochester, New York

			PID Re	adings
Borehole	Date	Depth	Peak	Background
		(ft bgs)	(ppm)	(ppm)
B-1	5/18/2010	0-2	0.6	0.5
		2-4	0.5	0.5
		4-6	0.4	0.5
		6-7	115.0	0.5
		7-8	923.0	0.5
		8.5-11	721.0	0.5
B-2	5/18/2010	0-2	1.9	0.7
	Γ	2-4	20.0	0.7
		4-6	33.4	0.7
		6-7	987	0.7
		7-8	1096	0.7
		8-8.5	1259	0.7
		8.5-8.6	751	0.7
B-3	5/18/2010	0-2	0.9	0.6
	Γ	2-4	0.9	0.6
	Γ	4-6	3.8	0.6
	Γ	6-7	1155.0	0.6
		7-8	986.0	0.6
		8-8.6	712.0	0.6
B-4	5/18/2010	0-2	0.6	0.5
		2-4	1.1	0.5
		4-6	1.0	0.5
		6-8	0.6	0.5
		8-9	1.1	0.5
		9-9.7	62.5	0.5

Key:

ft bgs = Feet below ground surface PID = Photoionization detector

ppm = Parts per million

Note: PID data collected with MiniRAE 2000 equipped with 10.6 eV lamp.

TABLE 2 SOIL SAMPLE SUMMARY

Phase II ESA 15 Richmond Street Rochester, New York

					Parame	eters	
Sample ID	Sample Location	Sample Depth (ft bgs)	Sample Date	TCL/STARS VOCs + TICs by EPA Method 8260B	STARS SVOCs + TICs by EPA Method 8270D	RCRA Metals	PHC Scan
B-1	B-1	7-8	5/18/2010	Х	Х	Х	N/A
B-2	B-2	8-8.5	5/18/2010	Х	Х	Х	Х
B-3	B-3	7-8	5/18/2010	Х	Х	Х	N/A
B-4	B-4	9-9.7	5/18/2010	Х	Х	Х	N/A
soil-waste	drum	NA	5/18/2010	N/A	N/A	N/A	N/A

Key:

EPA = United States Environmental Protection Agency STARS = Spill Technology and Remediation Series VOCs = Volatile Organic Compounds SVOCs = Semivolatile Organic Compounds TICs = Tentatively Identified Compounds

RCRA = Resource Conservation and Recovery Act

PHC = petroleum hydrocarbon

ft bgs = Feet below ground surface

NA = not analyzed

TABLE 3 WELL COMPLETION SUMMARY

Phase II ESA 15 Richmond Street Rochester, New York

Well	Well Diameter (in)	Bentonite Seal (ft bgs)	Sandpack Interval (ft bgs)	Screened Interval (ft bgs)	Total Depth (ft bgs)
B-1	1.0	NA	NA	5-10	10
B-2	1.0	NA	NA	3.6-8.6	8.6
B-3	1.0	NA	NA	3.6-8.6	8.6
B-4	1.0	NA	NA	4-9	9.7

Key:

ft bgs = Feet below ground surface

in = Inches

Soil vapor implants installed at 5' bgs at locations B-2 and B-3. Completed with sand and bentonite.

TABLE 4 GROUNDWATER SAMPLE SUMMARY

Phase II ESA 15 Richmond Street Rochester, New York

				Parameters
Sample ID	Sample Location	Date	Method	TCL STARS VOCs + TICs by EPA Method 8260B
B-1	B-1	05/18/10	Bailer	Х
B-2	B-2	05/18/10	Bailer	Х
B-3	B-3	05/18/10	Bailer	Х
B-4	B-4	05/18/10	Bailer	Х
waste-w	drum	05/18/10	Bailer	N/A

Key:

EPA = United States Environmental Protection Agency STARS = Spill Technology and Remediation Series

VOCs = Volatile Organic Compounds

TCL = Target Compound List

TICs = Tentatively Identified Compounds

NA = not analyzed

TABLE 5 SUMMARY OF SOIL ANLAYTICAL RESULTS - PETROLEUM HYDROCARBONS, VOLATILE ORGANIC COMPOUNDS AND VOC TICS **15 RICHMOND STREET** CITY OF ROCHESTER, NEW YORK

Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order			10-2024	18-May-10 B-2 STANTEC PARAROCH 10-2024	10-2024	10-2024	B-4 18-May-10 B-4 STANTEC PARAROC 10-2024
Laboratory Sample ID Sample Type	Units	6NYCRR	6958	6959	6959R	6960	6961
Aromatics							
Benzene	μg/kg	44000 ^A	590 U	3600 U	-	769 U	6.77 U
Butylbenzene, n-	μg/kg	500000 _c ^A	8730	75100	-	11200	33.8 U
Butylbenzene, tert- Chlorobenzene (Monochlorobenzene)	μg/kg μg/kg	500000 _c ^A 500000 _c ^A	1480 U 590 U	8990 U 3600 U	-	1920 U 769 U	16.9 U 6.77 U
Cymene (p-Isopropyltoluene)	μg/kg μg/kg	500000 _c ^A	4900	40900	-	7600	33.8 U
Dichlorobenzene, 1,2-	μg/kg	500000 _c ^A	1480 U	8990 U	-	1920 U	16.9 U
Dichlorobenzene, 1,3-	μg/kg	280000 ^A	1480 U	8990 U	-	1920 U	16.9 U
Dichlorobenzene, 1,4- Ethylbenzene	μg/kg μg/kg	130000 ^A 390000 ^A	590 U 590 U	3600 U 5920	-	769 U 1450	6.77 U 6.77 U
Isopropylbenzene	μg/kg	500000 A	2950 U	18000 U	-	3840 U	33.8 U
Naphthalene	μg/kg	500000 _c ^A	1480 U	9760	-	1920 U	16.9 U
Phenylbutane, 2- (sec-Butylbenzene)	μg/kg	500000 _c ^A	4440	27000	-	4660	6.77 U
Propylbenzene, n- Styrene	μg/kg μg/kg	500000 _c ^A 500000 _c ^A	5770 1480 U	43100 8990 U	-	8410 1920 U	6.77 U 16.9 U
Toluene	μg/kg	500000 _c ^A	590 U	3600 U	-	769 U	6.77 U
Trimethylbenzene, 1,2,4-	μg/kg	190000 ^A	32800	415000 ^A	-	78600	6.77 U
Trimethylbenzene, 1,3,5-	μg/kg	190000 ^A	2410	119000	-	11200	6.77 U
Xylene, m & p- Xylene, o-	μg/kg μg/kg	500000 _{c,p} ^A 500000 _{c,p} ^A	590 U 590 U	29200 10900	-	1470 769 U	6.77 U 6.77 U
Halocarbons	P9'1.9	300000 _{C,p}	0000			1000	0
Bromodichloromethane	μg/kg	500000 _c ^A	590 U	3600 U	-	769 U	6.77 U
Bromoform	μg/kg	500000 _c ^A	1480 U	8990 U	-	1920 U	16.9 U
Bromomethane	μg/kg	500000 _c ^A	590 U	3600 U	-	769 U	6.77 U
Carbon Tetrachloride (Tetrachloromethane) Chlorinated Fluorocarbon (Freon 113)	μg/kg μg/kg	22000 ^A 500000 _c ^A	1480 U 590 U	8990 U 3600 U	_	1920 U 769 U	16.9 U 6.77 U
Chloroethane	μg/kg	500000 _c ^A	590 U	3600 U	-	769 U	6.77 U
Chloroethyl Vinyl Ether, 2-	μg/kg	n/v	2950 U	18000 U	-	3840 U	33.8 U
Chloromothana	μg/kg	350000 ^A	590 U	3600 U	-	769 U	6.77 U
Chloromethane Dibromochloromethane	μg/kg μg/kg	500000 _c ^A 500000 _c ^A	590 U 590 U	3600 U 3600 U	-	769 U 769 U	6.77 U 6.77 U
Dichloroethane, 1,1-	μg/kg	240000°	590 U	3600 U	-	769 U	6.77 U
Dichloroethane, 1,2-	μg/kg	30000 ^A	590 U	3600 U	-	769 U	6.77 U
Dichloroethylene, 1,1-	μg/kg	500000 _c ^A	590 U	3600 U	-	769 U	6.77 U
Dichloroethylene, cis-1,2- Dichloroethylene, trans-1,2-	μg/kg μg/kg	500000 _c ^A 500000 _c ^A	590 U 590 U	3600 U 3600 U	-	769 U 769 U	6.77 U 6.77 U
Dichloropropane, 1,2-	μg/kg	500000 _c ^A	590 U	3600 U	-	769 U	6.77 U
Dichloropropene, cis-1,3-	μg/kg		590 U	3600 U	-	769 U	6.77 U
Dichloropropene, trans-1,3-	μg/kg	500000 _c ^A	590 U	3600 U	-	769 U	6.77 U
Methylene Chloride (Dichloromethane) Tetrachloroethane, 1,1,2,2-	μg/kg μg/kg	500000 _c ^A 500000 _c ^A	1480 U 590 U	8990 U 3600 U	-	1920 U 769 U	16.9 U 6.77 U
Tetrachloroethylene	μg/kg	150000°	590 U	3600 U	_	769 U	6.77 U
Trichloroethane, 1,1,1-	μg/kg	500000 _c ^A	590 U	3600 U	-	769 U	6.77 U
Trichloroethane, 1,1,2-	μg/kg	500000 _c ^A	590 U	3600 U	-	769 U	6.77 U
Trichloroethylene Trichlorofluoromethane (Freon 11)	μg/kg	200000 ^A	590 U 590 U	3600 U	-	769 U 769 U	6.77 U
Vinyl chloride	μg/kg μg/kg	n/v 13000 ^A	590 U	3600 U 3600 U	-	769 U	6.77 U 6.77 U
Ketones							
Acetone	μg/kg	500000 _c ^A	2950 U	18000 U	-	3840 U	33.8 U
Hexanone, 2- Methyl Ethyl Ketone (MEK)	μg/kg	500000 _c ^A	1480 U 2950 U	8990 U 18000 U	-	1920 U 3840 U	16.9 U 33.8 U
Methyl Isobutyl Ketone (MIBK)	μg/kg μg/kg	500000 _c ^A 500000 _c ^A	1480 U	8990 U	-	1920 U	16.9 U
Miscellaneous	13 3	300000					
Carbon Disulfide	μg/kg	500000 _c ^A	590 U	3600 U	-	769 U	6.77 U
Methyl tert-butyl ether (MTBE)	μg/kg	500000 _c ^A	590 U	3600 U	-	769 U	6.77 U
Vinyl Acetate Volatile Tentatively Identified Compounds	μg/kg	n/v	1480 U	8990 U	-	1920 U	16.9 U
Unknown Alkane 01	μg/kg	n/v	10900	55000	-	20600	97.8
Unknown Alkane 02	μg/kg	n/v	9090	60000	-	13600	43.7
Unknown Alkane 03	μg/kg	n/v	13400	36900	-	25000	55.2
Unknown Alkane 04	μg/kg	n/v	19600	76000	-	86800	321
Unknown Alkane 05 Unknown Alkane 06	μg/kg μg/kg	n/v n/v	50900 40800	188000 214000	-	38800 96500	190 128
Unknown Alkane 07	μg/kg	n/v	52800	69900	-	101000	198
Unknown Alkane 08	μg/kg	n/v	29200	153000	-	12300	116
Unknown Alkane 09	μg/kg	n/v	9650	129000	-	29500	-
Unknown Alkane 10 Unknown Alkane 11	μg/kg μg/kg	n/v n/v	17200 21400	48900	-	24100	_
Unknown Alkane 13	μg/kg	n/v	24600	_	_	_	-
Unknown Alkane 14	μg/kg	n/v	20000	-	-	-	-
Unknown Alkane 15	μg/kg	n/v	10600	-	-	-	-
Unknown Aromatic 01 Unknown Aromatic 02	μg/kg μg/kg	n/v n/v	14600 9410	113000 51200	-	24600 17800	64.0 51.1
Unknown Aromatic 02 Unknown Aromatic 03	μg/kg μg/kg	n/v	9770	173000	-	22500	
Unknown Aromatic 04	μg/kg	n/v	20200	47800	-	-	-
Unknown Aromatic 05	μg/kg	n/v	9380	73300	-	-	-
Unknown Aromatic 06 Unknown Aromatic 07	μg/kg	n/v	-	59300 38600	-	· -	-
Unknown Aromatic 07 Unknown Aromatic 08	μg/kg μg/kg	n/v n/v	-	38600 41200	-	-	-
Unknown Aromatic 09	μg/kg	n/v	-	36700	-	-	-
Unknown TIC 01	μg/kg	n/v	10400	265000	-	42800	102
Unknown TIC 02	μg/kg	n/v	-	-	-	12300	262 236
Unknown TIC 03 Unknown TIC 04	μg/kg μg/kg	n/v n/v			-	54500 32100	236 78.5
Unknown TIC 05	μg/kg	n/v	-	-	-	18800	397
Unknown TIC 06	μg/kg	n/v	-	-	-	28600	107
Unknown TIC 07	μg/kg	n/v	-	-	-	12500	47.0 124
Unknown TIC 08 Unknown TIC 09	μg/kg μg/kg	n/v n/v				-	124 95.1
Unknown TIC 10	μg/kg μg/kg	n/v	-	-	-	-	46.7
Total VOC TICs	μg/kg	500000 _c ^A	403900	1929800 ^A	-	714700 ^A	2760.1
otal Petroleum Hydrocarbons							

6NYCRR NYSDEC 6 NYCRR Part 375

A NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial

Concentration exceeds the indicated standard.

Concentration was detected but did not exceed applicable standards. The analyte was not detected above the laboratory estimated quantitation limit. No standard/guideline value. 0.03 U n/v

Parameter not analyzed / not available.

The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3. The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.

The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.

TABLE 6 SUMMARY OF SOIL ANLAYTICAL RESULTS - SEMI-VOLATILE ORGANIC COMPOUNDS AND TICS 15 RICHMOND STREET CITY OF ROCHESTER, NEW YORK

Sample Location			B-1	B-2	B-3	B-4
Sample Date			18-May-10	18-May-10	18-May-10	18-May-10
Sample ID			B-1	B-2	B-3	B-4
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC
Laboratory Laboratory Work Order			10-2024	PARAROCH 10-2024	10-2024	10-2024
Laboratory Sample ID			6958	6959	6960	6961
Sample Type	Units	6NYCRR	"		"	"
Semi - Volatile Organic Compounds						
Acenaphthene	μg/kg	500000 _c ^A	333 U	323 U	334 U	316 U
Acenaphthylene	μg/kg	500000 _c ^A	333 U	323 U	334 U	316 U
Anthracene	μg/kg	500000 _c ^A	333 U	323 U	334 U	316 U
Benzo(a)anthracene	μg/kg	5600 ^A	333 U	323 U	334 U	316 U
Benzo(a)pyrene	μg/kg	1000 _g ^A	333 U	323 U	334 U	316 U
Benzo(b)fluoranthene	μg/kg	5600 ^A	333 U	323 U	334 U	316 U
Benzo(g,h,i)perylene	μg/kg	500000 _c ^A	333 U	323 U	334 U	316 U
Benzo(k)fluoranthene	μg/kg	56000 ^A	333 U	323 U	334 U	316 U
Chrysene	μg/kg	56000 ^A	333 U	323 U	334 U	316 U
Dibenzo(a,h)anthracene	μg/kg	560 ^A	333 U	323 U	334 U	316 U
Fluoranthene	μg/kg	500000 _c ^A	333 U	323 U	334 U	316 U
Fluorene	μg/kg	500000 _c ^A	333 U	323 U	334 U	316 U
Indeno(1,2,3-cd)pyrene	μg/kg	5600 ^A	333 U	323 U	334 U	316 U
Naphthalene	μg/kg	500000 _c ^A	333 U	4670	334 U	316 U
Phenanthrene	μg/kg	500000 _c ^A	333 U	327	334 U	316 U
Pyrene	μg/kg	500000 _c ^A	333 U	323 U	334 U	316 U
Semi - Volatile Tentatively Identified Co	ompounds					
Cyclic octaatomic sulfur	μg/kg	n/v	10300	-	2490	1650
Unknown Alkane 01	μg/kg	n/v	1190	171000	1520	149
Unknown Alkane 02	μg/kg	n/v	1610	2560	2260	196
Unknown Alkane 03	μg/kg	n/v	2310	5420	2520	250
Unknown Alkane 04	μg/kg	n/v	1180	4380	1790	370
Unknown Alkane 05	μg/kg	n/v	1220	2980	986	228
Unknown Alkane 06	μg/kg	n/v	5690	-	-	-
Unknown Alkane 07	μg/kg	n/v	3460	-	-	-
Unknown Alkane 08	μg/kg	n/v	1510	-	-	-
Unknown Alkane 09	μg/kg	n/v	733	-	-	-
Unknown Alkane 10	μg/kg	n/v	703	-	-	-
Unknown Alkane 11	μg/kg	n/v	773	-	-	-
Unknown Aromatic 01	μg/kg	n/v	1560	37000	3140	168
Unknown Aromatic 02	μg/kg	n/v	2520	4200	6280	-
Unknown Aromatic 03	μg/kg	n/v	2290	4850	1880	-
Unknown Aromatic 04	μg/kg	n/v	1880	6270	1170	-
Unknown Aromatic 05	μg/kg	n/v	740	1330	1730	-
Unknown Aromatic 06	μg/kg	n/v	-	17800	1150	-
Unknown Aromatic 07	μg/kg	n/v	-	7310	2430	-
Unknown Aromatic 08	μg/kg	n/v	-	3050	2260	-
Unknown Aromatic 09	μg/kg	n/v	-	1950	-	-
Unknown Aromatic 10	μg/kg	n/v	-	2420	-	-
Unknown Aromatic 11	μg/kg	n/v	-	2550	-	-
Unknown Aromatic 12	μg/kg	n/v	-	1360	-	-
Unknown Aromatic 13	μg/kg	n/v	-	1710	-	-
Unknown TIC 01	μg/kg	n/v	810	29700	1090	139
Unknown TIC 02	μg/kg	n/v	1040	2650	3180	136
Unknown TIC 03	μg/kg	n/v	686	-	2160	149
Unknown TIC 04	μg/kg	n/v	-	-	1160	-
Unknown TIC 05	μg/kg	n/v	-	-	1290	-
Unknown TIC 06	μg/kg	n/v	-	-	1620	-
Total SVOC TICs	μg/kg	n/v	1	310490	42106	3435

Notes:

NYSDEC 6 NYCRR Part 375

6NYCRR NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial

Concentration exceeds the indicated standard. 15.2

Concentration was detected but did not exceed applicable standards.
The analyte was not detected above the laboratory estimated quantitation limit. 0.03 U

No standard/guideline value. n/v

Parameter not analyzed / not available.

The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.

For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil background concentration is used as the Track 2 SCO value for this use of the site.

TABLE 7 **SUMMARY OF SOIL ANLAYTICAL RESULTS - METALS 15 RICHMOND STREET** CITY OF ROCHESTER, NEW YORK

Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type	Units	6NYCRR	1-Oct-24 6958	B-2 18-May-10 B-2 STANTEC PARAROCH 1-Oct-24 6959	B-3 18-May-10 B-3 STANTEC PARAROCH 1-Oct-24 6960	B-4 18-May-10 B-4 STANTEC PARAROCH 1-Oct-24 6961
Metals						
Aluminum	mg/kg	10000 _e ^A	2.09	1.93	1.49	2.62
Barium	mg/kg	400 ^A	37.2	25.7	39.9	46.2
Cadmium	mg/kg	9.3 ^A	0.319 U	0.336 U	0.369 U	0.485 U
Chromium (Total)	mg/kg	NS,q ^A	5.27	1.47	5.80	5.46
Lead	mg/kg	1000 ^A	7.40	6.38	3.80	8.91
Mercury	mg/kg	2.8 _k ^A	0.0238	0.0083 U	0.0093 U	0.0738
Selenium	mg/kg	1500 ^A	0.319 U	0.336 U	0.369 U	0.485 U
Silver	mg/kg	1500 ^A	0.637 U	0.674 U	0.739 U	0.970 U

Notes:

6NYCRR NYSDEC 6 NYCRR Part 375

NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial

Concentration exceeds the indicated standard.

Concentration was detected but did not exceed applicable standards.

0.50 U Laboratory estimated quantitation limit exceeded standard.

0.03 U The analyte was not detected above the laboratory estimated quantitation limit.

No standard/guideline value.

Parameter not analyzed / not available.

No SCO has been established for this compound. No SCO has been established for total chromium; however, see standards for trivalent and hexavalent chromium. For commercial use, these are 1500 and 400 mg/kg respectively.

- The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
- This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See 6 NYCRR Part 375 TSD Table 5.6-1.

TABLE 8 SUMMARY OF GROUNDWATER ANLAYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS AND TICS **15 RICHMOND STREET** CITY OF ROCHESTER, NEW YORK

Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type	Units	TOGS	B-1 18-May-10 B-1 STANTEC PARAROCH 10-2024 6962	B-2 18-May-10 B-2 STANTEC PARAROCH 10-2024 6963	B-3 18-May-10 B-3 STANTEC PARAROCH 10-2024 6964	B-4 18-May-1 B-4 STANTE PARARO 10-2024 6965
Aromatics			1			
Benzene Butylbenzene, n-	μg/L μg/L	1 ^B 5 ^B	70.0 U 5290 ^B	70.0 U	70.0 U 902 ^B	1.08^B 5 U
Butylbenzene, tert-	μg/L	5 ^B	500 U	500 U	500 U	5 U
Chlorobenzene (Monochlorobenzene)	μg/L	5 ^B	200 U	200 U	200 U	2 U
Cymene (p-Isopropyltoluene)	μg/L	5 ^B	2710 ^B	920 ^B	521 ^B	5 U
Dichlorobenzene, 1,2-	μg/L	3 ^B 3 ^B	500 U 500 U	500 U	500 U 500 U	5 U 5 U
Dichlorobenzene, 1,3- Dichlorobenzene, 1,4-	μg/L μg/L	3 ^B	200 U	500 U 200 U	200 U	2 U
Ethylbenzene	μg/L	5 ^B	314 ^B	240 ^B	247 ^B	2 U
sopropylbenzene	μg/L	5 ^B	702 ^B	500 U	500 U	5 U
Naphthalene	μg/L	10 ^B	1760 ^B	500 U	500 U	5 U
Phenylbutane, 2- (sec-Butylbenzene)	μg/L	5 ^B	1840 ^B	618 ^B	500 U	5 U
Propylbenzene, n- Styrene	μg/L μg/L	5 ^B	2710 ^B 500 U	935 ^B 500 U	682 ^B 500 U	2 U 5 U
Foluene	μg/L	5 ^B	200 U	200 U	200 U	2.19
Γrimethylbenzene, 1,2,4-	μg/L	5 ^B	23000 ^B	12900 ^B	8650 ^B	5 U
Frimethylbenzene, 1,3,5-	μg/L	5 ^B	3960 ^B	2360 ^B	1620 ^B	5 U
Kylene, m & p-	μg/L	5 ^B	813 ^B	1240 ^B	895 ^B	2 U
(ylene, o-	μg/L	5 ^B	315 ^B	848 ^B	289 ^B	2 U
Halocarbons Bromodichloromethane	110/1	50 ^A	200 U	200 U	200 U	2 U
Bromodichloromethane Bromoform	μg/L μg/L	50^ 50 ^A	500 U	500 U	500 U	2 U 5 U
Bromomethane	μg/L	5 ^B	200 U	200 U	200 U	2 U
Carbon Tetrachloride (Tetrachloromethane)	μg/L	5 ^B	500 U	500 U	500 U	5 U
Chlorinated Fluorocarbon (Freon 113)	μg/L	5 ^B	200 U	200 U	200 U	2 U
Chloroethane	μg/L	5 ^B	200 U	200 U	200 U	2 U
Chloroethyl Vinyl Ether, 2-	μg/L	n/v 7 ^B	1000 U	1000 U	1000 U	10 U
Chloroform Chloromethane	μg/L μg/L	5 ^B	200 U 200 U	200 U 200 U	200 U 200 U	2 U 2 U
Dibromochloromethane	μg/L	50 ^A	200 U	200 U	200 U	2 U
Dichloroethane, 1,1-	μg/L	5 ^B	200 U	200 U	200 U	2 U
Dichloroethane, 1,2-	μg/L	0.6 ^B	200 U	200 U	200 U	2 U
Dichloroethylene, 1,1-	μg/L	5 ^B	200 U	200 U	200 U	2 U
Dichloroethylene, cis-1,2-	μg/L	5 ^B	200 U	7330 ^B	458 ^B	2 U
Dichloroethylene, trans-1,2- Dichloropropane, 1,2-	μg/L μg/L	5 ^B	200 U 200 U	200 U 200 U	200 U 200 U	2 U 2 U
Dichloropropene, cis-1,3-	μg/L μg/L	0.4 _p ^B	200 U	200 U	200 U	2 U
Dichloropropene, trans-1,3-	μg/L	0.4 _p ^B	200 U	200 U	200 U	2 U
Methylene Chloride (Dichloromethane)	μg/L	5 ^B	500 U	500 U	500 U	5 U
Γetrachloroethane, 1,1,2,2-	μg/L	5 ^B	200 U	200 U	200 U	2 U
Tetrachloroethylene	μg/L	5 ^B	200 U	200 U	200 U	2 U
Frichloroethane, 1,1,1-	μg/L	5 ^B	200 U	200 U	200 U	2 U
Frichloroethane, 1,1,2- Frichloroethylene	μg/L μg/L	5 ^B	200 U 200 U	200 U 200 U	200 U 200 U	2 U 2 U
Frichlorofluoromethane (Freon 11)	μg/L	5 ^B	200 U	200 U	200 U	2 U
/inyl chloride	μg/L	2 ^B	200 U	200 U	200 U	2 U
Ketones			_			
Acetone	μg/L	50 ^A	1000 U	1000 U	1000 U	13.7
Hexanone, 2-	µg/L	50 ^A	500 U	500 U	500 U	5 U
Methyl Ethyl Ketone (MEK) Methyl Isobutyl Ketone (MIBK)	μg/L μg/L	50 ^A n/v	1000 U 500 U	1000 U 500 U	1000 U 500 U	10 U 5 U
Miscellaneous	P9'-	.,,,	0000	0000	0000	
Carbon Disulfide	μg/L	60 ^A	200 U	200 U	200 U	2 U
Methyl tert-butyl ether (MTBE)	μg/L	10 ^A	200 U	200 U	200 U	2 U
/inyl Acetate	μg/L	n/v	500 U	500 U	500 U	5 U
/olatile Tentatively Identified Compounds			T			
Jnknown Alkane 01 Jnknown Alkane 02	μg/L μg/L	n/v n/v	3340 2890	4240 1830	790 2950	9.10 14.0
Jnknown Alkane 03	μg/L	n/v	3450	4240	2050	29.4
Jnknown Alkane 04	μg/L	n/v	5900	3390	2500	13.4
Jnknown Alkane 05 Jnknown Alkane 06	μg/L μg/L	n/v n/v	22700 11900	1030 5400	2460 2510	29.9 35.4
Jnknown Alkane 07	μg/L	n/v	15500	3340	1150	13.5
Jnknown Alkane 08	μg/L	n/v	18900	1600	1410	16.2
Jnknown Alkane 09 Jnknown Alkane 10	μg/L μg/L	n/v n/v	3190 5540	3330	-	15.4 8.20
Jnknown Alkane 11	μg/L	n/v	2590	-	_	10.4
Jnknown Alkane 12	μg/L	n/v	8940	-	-	13.4
Jnknown Alkane 13 Jnknown Alkane 14	μg/L ug/l	n/v n/v	5590 2540	-	-	-
Jinknown Alkane 14 Jinknown Aromatic 01	μg/L μg/L	n/v n/v	2970	3330	3180	10.8
Jnknown Aromatic 02	μg/L	n/v	8490	2000	2250	-
Johnson Aromatic 03	μg/L	n/v	2970	7800 1530	5490	-
Jnknown Aromatic 04 Jnknown Aromatic 05	μg/L μg/L	n/v n/v	2440 2520	1530 2050	1110 1060	-
Jnknown Aromatic 05	μg/L μg/L	n/v	-	1800	1310	_
Jnknown Aromatic 07	μg/L	n/v	-	1180	870	-
Jnknown Aromatic 08 Jnknown Aromatic 09	μg/L ug/l	n/v n/v	-	1060 1090	730 690	-
Jnknown Aromatic 09 Jnknown Aromatic 10	μg/L μg/L	n/v n/v	-	1090	780	
Jnknown Aromatic 11	μg/L	n/v	-	-	760	-
Jnknown TIC 01	μg/L	n/v	3160	2410	920	8.50
Jnknown TIC 02 Jnknown TIC 03	μg/L μg/L	n/v n/v			-	32.8 12.2
Jnknown TIC 03	μg/L μg/L	n/v	-		-	22.4
Jnknown TIC 05 Jnknown TIC 06	μg/L	n/v	-	-	-	8.60
	μg/L	n/v	1 -	l -	i -	10.0
Jnknown TIC 06 Jnknown TIC 07	μg/L	n/v	_	-	-	9.40

Notes:

TOGS

NYSDEC TOGS 1.1.1 (Reissued June 1998 with errata in January 1999 and addenda in April 2000 and June 2004)
TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Guidance TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Standards

6.5 15.2 Concentration exceeds the indicated standard. Concentration was detected but did not exceed applicable standards.

0.50 U 0.03 U Laboratory estimated quantitation limit exceeded standard. The analyte was not detected above the laboratory estimated quantitation limit.

No standard/guideline value. n/v

Parameter not analyzed / not available. The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in the TOGS table) applies to this substance. Applies to the sum of cis- and trans-1,3-dichloropropene.

TABLE 9
SUMMARY OF SOIL VAPOR ANLAYTICAL RESULTS
15 RICHMOND STREET
CITY OF ROCHESTER, NEW YORK

Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type	Units	B-2 19-May-10 B-2-SV STANTEC PARAROCH 10-2052 7049	B-3 19-May-10 B-3-SV STANTEC PARAROCH 10-2052 7050	Method Blank 19-May-10 Method Blank STANTEC PARAROCH 10-2052 NA Method Blank
	/2	77.2	41.5	0.005.11
Benzene Chlorobenzene (Menechlorobenzene)	μg/m3	8.93 U	9.39 U	0.325 U 0.467 U
Chlorobenzene (Monochlorobenzene)	µg/m3	8.93 U 11.6 U	9.39 U 12.2 U	0.467 U 0.609 U
Dichlorobenzene, 1,2-	µg/m3	11.6 U	12.2 U	0.609 U
Dichlorobenzene, 1,3-	µg/m3	11.6 U	12.2 U	0.609 U
Dichlorobenzene, 1,4-	µg/m3	637 E	290	0.609 U 0.442 U
Ethylbenzene Styrene	μg/m3	8.29 U	290 8.72 U	-
•	μg/m3			0.434 U
Toluene	μg/m3	948 E	250	0.384 U
Xylene, m & p-	μg/m3	1590 E	676	0.442 U
Xylene, o- Halocarbons	µg/m3	763 E	177	0.442 U
Bromodichloromethane	µg/m3	12.9 U	13.6 U	0.676 U
Bromoform	µg/m3	19.9 U	21 U	1.04 U
Bromomethane	µg/m3	7.50 U	7.88 U	0.392 U
Carbon Tetrachloride (Tetrachloromethane)	µg/m3	4.86 U	5.1 U	0.254 U
Chlorinated Fluorocarbon (Freon 113)	µg/m3	14.8 U	15.6 U	0.776 U
Chloroethane	µg/m3	10.2 U	10.7 U	0.534 U
Chloroform	µg/m3	9.41 U	9.89 U	0.492 U
Chloromethane	µg/m3	3.99 U	4.19 U	0.209 U
Dibromochloromethane	µg/m3	16.4 U	17.3 U	0.859 U
Dichloroethane, 1,1-	µg/m3	78.9	8.22 U	0.409 U
Dichloroethane, 1,2-	µg/m3	7.82 U	8.22 U	0.409 U
Dichloroethylene, 1,1-	µg/m3	7.66 U	8.05 U	0.4 U
Dichloroethylene, cis-1,2-	µg/m3	23600 E	183	0.4 U
Dichloroethylene, trans-1,2-	µg/m3	546	8.05 U	0.4 U
Dichloropropane, 1,2-	µg/m3	17.9 U	18.8 U	0.934 U
Dichloropropene, cis-1,3-	µg/m3	8.77 U	9.22 U	0.459 U
Dichloropropene, trans-1,3-	μg/m3	8.77 U	9.22 U	0.459 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/m3	14.8 U	15.6 U	0.776 U
Methylene Chloride (Dichloromethane)	μg/m3	102 B	64.9 B	17.5 E
Tetrachloroethane, 1,1,2,2-	μg/m3	13.2 U	13.9 U	0.693 U
Tetrachloroethylene	µg/m3	71.1	18.0	0.684 U
Trichloroethane, 1,1,1-	µg/m3	10.5 U 10.5 U	11.1 U	0.551 U
Trichloroethylono	µg/m3	10.5 U 42.7	11.1 U 5.13 U	0.551 U
Trichloroethylene	µg/m3	42.7 10.8 U	5.13 U 11.4 U	0.256 U 0.657 U
Trichlorofluoromethane (Freon 11) Vinyl chloride	µg/m3	10.8 U 6640 E	11.4 U 43.1	0.657 U 0.259 U
Ketones	µg/m3	0040 E	43.1	0.239 U
	/	040.55	0F.C.D	4.04.11
Acetone	μg/m3	218 EB	85.6 B	1.21 U
Hexanone, 2-	μg/m3	39.9 U	42.1 U	2.09 U
Methyl Ethyl Ketone (MEK)	μg/m3	105	34.7	23.0 E
Methyl Isobutyl Ketone (MIBK) Miscellanoeus	µg/m3	39.9 U	42.1 U	2.09 U
Carbon Disulfide	µg/m3	228	32 U	1.59 U
Methyl tert-butyl ether (MTBE)	μg/m3	7.02 U	7.38 U	0.367 U
Vinyl Acetate	µg/m3	6.86 U	7.21 U	0.359 U

Notes:

15.2 Concentration was detected.

0.03 U The analyte was not detected above the laboratory estimated quantitation limit.

Parameter not analyzed / not available.

B Indicates analyte was found in associated blank, as well as in the sample.

E Compound was over the calibration range.





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Test Boring No.: B-1

15 Richmond Street Project: **Drill Contractor:** GeoLogic Start Date: 5/18/2010 Project #: 190500605 Driller: D. Lyons 5/18/010 Completion Date: Client: 15 Richmond Street LLC Elevation: Drilling Method: Geoprobe Location: 15 Richmond Street Weather: Cloudy, 50's F Supervisor: D. Bauch-Barker

Rochester NY

		SAN	/IPLE		Soil Information	
0	PID	Rec.	No.	Depth		
	0.1	1.6	1	0-2'	Gray asphalt and dark brown SAND and GRAVEL base, dry.	0
				1		
					Brown medium-coarse SAND, some tan ash, black cinder, red crushed brick,	1
					moist.	
	0	2.7	2	2-6'	Black cinder and red crushed brick, dark brown coarse SAND, little tan ash,	2
]	dry.	
					Tan medium-coarse SAND, some fine-medium GRAVEL, moist.	2.5
	0			1		
_				1	Brown fine-medium SAND, trace dark brown mottling, trace fine GRAVEL,	3.8
5					moist-wet.	
				4		
	445	2.0	2	C 0 F	Drawn modium accres CAND and fine CDAVEL little modium CDAVEL wat	
	115	2.6	3	6-8.5	Brown medium-coarse SAND and fine GRAVEL, little medium GRAVEL, wet.	6
				1	Brown grading to gray-brown fine SAND, some SILT, little fine GRAVEL, black	6.9
	923				smear at 7.4-7.7', odor, wet.	0.9
	323			1	Gray broken rock, moist-wet.	8.3
	721	0.6	4	8.5-11	John Month Control of Month	0.0
		0.0	•	0.0		
10				1		
				1		
				1		
				1	Bottom of boring at 11' bgs.	
				1		
				1		
]		
15]		
				4		
				1		
				1		
				4		
				4		
				4		
00				4		
20						

- 1. PID Model Mini-Rae 2000 with 10.6eV lamp.
- 2. Temporary well installed in boring.



2250 Brighton Henrietta Town L Rochester, NY 14623 (585) 475-1440

Page 1 of 1

Test Boring No.: B-2

Project: 15 Richmond Street **Drill Contractor:** GeoLogic Start Date: 5/18/2010 Project #: 190500605 Driller: D. Lyons 5/18/010 Completion Date: Client: 15 Richmond Street LLC Elevation: Drilling Method: Geoprobe Location: 15 Richmond Street Weather: Cloudy, 50's F Supervisor: D. Bauch-Barker

Rochester NY

	SAMPLE				Soil Information	
0			Depth			
	1.2	2.9	1		Gray asphalt and dark brown base, dry.	0
				1	Brown fine-coarse SAND, some fine-medium GRAVEL, little tan SAND, some	0 0.5
				1	red brick at 0.9-1.2', moist.	
					Brown with dark brown mottling fine SAND, little coarse SAND and fine	1.4
	19.3				GRAVEL, little SILT, trace black cinder, moist.	
				ļ		
_	32.7	2.7	2	4-8'	0 1 5 0000 007 6 00005	4.0
5				ļ	Gray brown fine SAND, some SILT, trace fine GRAVEL, some black mottling,	4.6
	987				moist-wet.	5.7
	967				Brown fine SAND, some SILT, trace fine GRAVEL, moist-wet.	5.7
				•		
	1096					
	1000			1		
	1259	1.6	3	8-8.6'		
		110				
	751				Broken gray rock, wet.	9.3
10					Bottom of boring at 8.6' bgs.	
				1		
				ļ		
15						
10				ļ		
				1		
				1		
				1		
				1		
				1		
20]		

- 1. PID Model Mini-Rae 2000 with 10.6eV lamp.
- 2. Temporary well installed in boring.



2250 Brighton Henrietta Town L Rochester, NY 14623

(585) 475-1440

B-3

Page 1 of 1

Test Boring No.:

15 Richmond Street Project: **Drill Contractor:** GeoLogic Start Date: 5/18/2010 Project #: 190500605 Driller: D. Lyons 5/18/010 Completion Date: Client: 15 Richmond Street LLC Elevation: Drilling Method: Geoprobe Location: 15 Richmond Street Weather: Cloudy, 50's F Supervisor: D. Bauch-Barker

Rochester NY

	SAMPLE				Soil Information	
0	PID	Rec.	No.	Depth		
	0.3	2.7	1	0-4'	Asphalt and base, dry.	0
					Crushed brick.	0.7
					Gray brown with black mottling grading to gray brown fine SAND, some SILT,	1
				ļ	trace fine-coarse GRAVEL, trace tan ash, trace black cinder, moist.	
	0.3					
				•		
	3.2	3	2	4-8'	Brown fine SAND and SILT, trace fine-medium GRAVEL, loose, wet.	4
5	0.2	<u> </u>			I STOWN TIME OATED AND OILT, trace time medican Gravele, 10036, wet.	
				1		
	1155			1	Same with black mottling, odor.	5.9
	986				Same, tight.	6.6
	712	0.5	3	8-8.6'	Same, possible product visible.	8
					Dette and the state of 0.011 are	
10					Bottom of boring at 8.6' bgs.	
10				ł		
				1		
				1		
				1		
15						
				ł		
				1		
				1		
				1		
				1		
				1		
20]		

- 1. PID Model Mini-Rae 2000 with 10.6eV lamp.
- 2. Temporary well installed in boring.



2250 Brighton Henrietta Town L Rochester, NY 14623 (585) 475-1440

Page 1 of 1

Test Boring No.: B-4

15 Richmond Street Project: **Drill Contractor:** GeoLogic Start Date: 5/18/2010 Project #: 190500605 Driller: D. Lyons 5/18/010 Completion Date: Client: 15 Richmond Street LLC Elevation: Drilling Method: Geoprobe Location: 15 Richmond Street Weather: Cloudy, 50's F Supervisor: D. Bauch-Barker

Rochester NY

	SAMPLE				Soil Information	
0			Depth			
	0.1	2.6	1		Asphalt and base, dry.	0
				1	Dark brown fine SAND, little medium-coarse SAND and fine GRAVEL, trace	8.0
					red brick, moist.	
					Brown fine SAND, little SILT, little coarse SAND and fine GRAVEL, trace tan	1.4
	0.6]	ash, moist.	
	0.5	1.7	2	4-8'		
5						4.4
					Brown fine SAND, little SILT, little coarse SAND and fine GRAVEL, broken	4.7
				ļ	black rock at 4.9-5.1', trace gold flecks at 5.3-5.7', wet.	
	0.1					
	0.0	4.0	-	0.40	0	
	0.6	1.8	3	8-12'	Same, with little gold flecks.	8
	60				Black cindery material, gray broken rock, some fine-medium SAND, dry.	8.5
10	62				Brown with gray mottling fine SAND, some SILT, some broken rock and fine-coarse GRAVEL, moist.	8.8
					Bottom of boring at 9.7' bgs.	
				ł		
				1		
				1		
				1		
15				1		
				1		
				1		
				1		
				1		
]		
]		
]		
20						

- 1. PID Model Mini-Rae 2000 with 10.6eV lamp.
- 2. Temporary well installed in boring.





Analytical Report Cover Page

Stantec

For Lab Project # 10-2024
Issued May 25, 2010
This report contains a total of 26 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

[&]quot;ND" = analyzed for but not detected.

[&]quot;E" = Result has been estimated, calibration limit exceeded.

[&]quot;Z" = See case narrative.

[&]quot;D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

[&]quot;M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

[&]quot;B" = Method blank contained trace levels of analyte. Refer to included method blank report.



Client:

Stantec

Lab Project No.:

10-2024

Client Job Site: 15 Richmond St

Lab Sample No.:

6958

Client Job No.: 19500605

Sample Type:

Soil

Date Sampled:

05/18/2010

Field Location: B-1 Field ID No.:

N/A

Date Received:

05/18/2010

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/25/2010	SW846 6010	2.09
Barium	05/25/2010	SW846 6010	37.2
Cadmium	05/25/2010	SW846 6010	<0.319
Chromium	05/25/2010	SW846 6010	5.27
Lead	05/25/2010	SW846 6010	7.40
Mercury	05/19/2010	SW846 7471	0.0238
Selenium	05/25/2010	SW846 6010	<0.319
Silver	05/25/2010	SW846 6010	<0.637

ELAP ID No.:10958

Comments:

Approved By:



Client:

Stantec

Lab Project No.:

10-2024

Client Job Site: 15 Richmond St

Lab Sample No.:

6959

Client Job No.: 19500605

Sample Type:

Soil

Field Location:

B-2

Date Sampled:

05/18/2010

Field ID No.:

N/A

Date Received:

05/18/2010

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/25/2010	SW846 6010	1.93
Barium	05/25/2010	SW846 6010	25.7
Cadmium	05/25/2010	SW846 6010	<0.336
Chromium	05/25/2010	SW846 6010	1.47
Lead	05/25/2010	SW846 6010	6.38
Mercury	05/19/2010	SW846 7471	<0.0083
Selenium	05/25/2010	SW846 6010	<0.336
Silver	05/25/2010	SW846 6010	<0.674

ELAP ID No.:10958

Comments:

Approved By:



Client:

Stantec

Lab Project No.:

10-2024

Client Job Site: 15 Richmond St

Lab Sample No.:

6960

Client Job No.: 19500605

Sample Type:

Soil

Field Location: B-3

Field ID No.:

N/A

Date Sampled:

05/18/2010

Date Received:

05/18/2010

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/25/2010	SW846 6010	1.49
Barium	05/25/2010	SW846 6010	39.9
Cadmium	05/25/2010	SW846 6010	<0.369
Chromium	05/25/2010	SW846 6010	5.80
Lead	05/25/2010	SW846 6010	3.80
Mercury	05/19/2010	SW846 7471	<0.0093
Selenium	05/25/2010	SW846 6010	<0.369
Silver	05/25/2010	SW846 6010	<0.739

ELAP ID No.:10958

Comments:

Approved By:



Client:

Stantec

Lab Project No.:

10-2024

Client Job Site: 15 Richmond St

Lab Sample No.:

6961

Client Job No.:

19500605

Sample Type:

Soil

Field Location:

B-4

Date Sampled:

05/18/2010

Field ID No.:

N/A

Date Received:

05/18/2010

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg	/kg)
Arsenic	05/25/2010	SW846 6010	2.62	D,M
Barium	05/25/2010	SW846 6010	46.2	D,M
Cadmium	05/25/2010	SW846 6010	<0.485	М
Chromium	05/25/2010	SW846 6010	5.46	D,M
Lead	05/25/2010	SW846 6010	8.91	D,M
Mercury	05/19/2010	SW846 7471	0.0738	D,M
Selenium	05/25/2010	SW846 6010	<0.485	М
Silver	05/25/2010	SW846 6010	<0.970	М

ELAP ID No.:10958

Comments:

Approved By:



Semi-Volatile STARS Analysis Report for Soils/Solids/Sludges

Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6958

Client Job Number: 19500605

B-1

Date Sampled:

05/18/2010 05/18/2010

Field Location: Field ID Number:

N/A

Date Received: Date Analyzed:

Sample Type:

Soil

05/21/2010

Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 333
Acenaphthylene	ND< 333
Anthracene	ND< 333
Benzo (a) anthracene	ND< 333
Benzo (a) pyrene	ND< 333
Benzo (b) fluoranthene	ND< 333
Benzo (g,h,i) perylene	ND< 333
Benzo (k) fluoranthene	ND< 333
Chrysene	ND< 333
Dibenz (a,h) anthracene	ND< 333
Fluoranthene	ND< 333
Fluorene	ND< 333
Indeno (1,2,3-cd) pyrene	ND< 333
Naphthalene	ND< 333
Phenanthrene	ND< 333
Pyrene	ND< 333

ELAP Number 10958

Method: EPA 8270C

Data File: S51237.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6958

Client Job Number:

Field Location:

19500605

Date Sampled:

Field ID Number: Sample Type:

B-1 N/A Soil

Date Received:

05/18/2010 05/18/2010

Date Analyzed:

05/21/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / Kg	Percent Fit
Unknown	N/A	5.94	810	N/A
Unknown alkane	N/A	6.09	1,190	N/A
Unknown alkane	N/A	6.17	1,610	N/A
Unknown	N/A	6.27	1,040	N/A
Unknown alkane	N/A	6.54	2,310	N/A
Unknown alkane	N/A	6.68	1,180	N/A
Unknown aromatic	N/A	6.92	1,560	N/A
Unknown alkane	N/A	6.97	1,220	N/A
Unknown alkane	N/A	7.29	5,690	N/A
Unknown alkane	N/A	7.40	3,460	N/A
Unknown alkane	N/A	7.47	1,510	N/A
Unknown aromatic	N/A	7.67	2,520	N/A
Unknown alkane	N/A	8.12	733	N/A
Unknown	N/A	8.40	686	N/A
Unknown aromatic	N/A	8.45	2,290	N/A
Unknown aromatic	N/A	8.68	1,880	N/A
Unknown alkane	N/A	8.72	703	N/A
Unknown aromatic	N/A	8.79	740	N/A
Unknown alkane	N/A	9.24	773	N/A
Cyclic octaatomic sulfur	010544-50-0	15.61	10,300	91
ELAP Number 10958	Method:	EPA 8270C		Data File: S51237.l

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Semi-Volatile STARS Analysis Report for Soils/Solids/Sludges

Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6959

Client Job Number: 19500605

Field Location:

B-2 N/A Date Sampled: Date Received: 05/18/2010 05/18/2010

Field ID Number: Sample Type:

Soil

Date Analyzed:

05/21/2010

Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 323
Acenaphthylene	ND< 323
Anthracene	ND< 323
Benzo (a) anthracene	ND< 323
Benzo (a) pyrene	ND< 323
Benzo (b) fluoranthene	ND< 323
Benzo (g,h,i) perylene	ND< 323
Benzo (k) fluoranthene	ND< 323
Chrysene	ND< 323
Dibenz (a,h) anthracene	ND< 323
Fluoranthene	ND< 323
Fluorene	ND< 323
Indeno (1,2,3-cd) pyrene	ND< 323
Naphthalene	4,670
Phenanthrene	327
Pyrene	ND< 323

ELAP Number 10958

Method: EPA 8270C

Data File: S51238.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6959

Client Job Number:

Field Location:

19500605 B-2

Date Sampled: **Date Received:** 05/18/2010 05/18/2010

Field ID Number: Sample Type:

N/A Soil

Date Analyzed:

05/21/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / Kg	Percent Fit
Unknown alkane	N/A	6.31	171,000	N/A
Unknown aromatic	N/A	8.07	37,000	N/A
Unknown aromatic	N/A	8.12	4,200	N/A
Unknown aromatic	N/A	8.25	4,850	N/A
Unknown aromatic	N/A	8.27	6,270	N/A
Unknown aromatic	N/A	8.30	1,330	N/A
Unknown	N/A	8.35	29,700	N/A
Unknown aromatic	N/A	8.42	17,800	N/A
Unknown alkane	N/A	8.44	2,560	N/A
Unknown aromatic	N/A	8.51	7,310	N/A
Unknown alkane	N/A	8.54	5,420	N/A
Unknown aromatic	N/A	8.79	3,050	N/A
Unknown aromatic	N/A	8.83	1,950	N/A
Unknown alkane	N/A	9.12	4,380	N/A
Unknown alkane	N/A	9.25	2,980	N/A
Unknown aromatic	N/A	9.39	2,420	N/A
Unknown aromatic	N/A	10.99	2,550	N/A
Unknown aromatic	N/A	11.11	1,360	N/A
Unknown aromatic	N/A	11.28	1,710	N/A
Unknown	N/A	12.50	2,650	N/A
ELAP Number 10958	Method: EPA 8270C			Data File: S51238.l

ELAP Number 10958 Method: EPA 8270C

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Semi-Volatile STARS Analysis Report for Soils/Solids/Sludges

Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6960

Client Job Number: 19500605

Field Location:

B-3 N/A Date Sampled: Date Received: 05/18/2010 05/18/2010

Field ID Number: Sample Type:

Soil

Date Analyzed:

05/21/2010

Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 334
Acenaphthylene	ND< 334
Anthracene	ND< 334
Benzo (a) anthracene	ND< 334
Benzo (a) pyrene	ND< 334
Benzo (b) fluoranthene	ND< 334
Benzo (g,h,i) perylene	ND< 334
Benzo (k) fluoranthene	ND< 334
Chrysene	ND< 334
Dibenz (a,h) anthracene	ND< 334
Fluoranthene	ND< 334
Fluorene	ND< 334
Indeno (1,2,3-cd) pyrene	ND< 334
Naphthalene	ND< 334
Phenanthrene	ND< 334
Pyrene	ND< 334

ELAP Number 10958

Method: EPA 8270C

Data File: S51239.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Lab Sample Number: 6960

Client Job Number:

19500605

Date Sampled:

05/18/2010

Field Location: Field ID Number:

B-3 N/A

Date Received:

05/18/2010

Sample Type:

Soil

Date Analyzed:

05/21/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / Kg	Percent Fit
Unknown	N/A	5.94	1,090	N/A
Unknown alkane	N/A	6.10	1,520	N/A
Unknown alkane	N/A	6.17	2,260	N/A
Unknown alkane	N/A	6.27	2,520	N/A
Unknown	N/A	6.55	3,180	N/A
Unknown aromatic	N/A	6.93	3,140	N/A
Unknown aromatic	N/A	7.30	6,280	N/A
Unknown aromatic	N/A	7.41	1,880	N/A
Unknown aromatic	N/A	7.47	1,170	N/A
Unknown aromatic	N/A	7.67	1,730	N/A
Unknown	N/A	8.12	2,160	N/A
Unknown	N/A	8.27	1,160	N/A
Unknown aromatic	N/A	8.30	1,150	N/A
Unknown alkane	N/A	8.35	1,790	N/A
Unknown	N/A	8.40	1,290	N/A
Unknown aromatic	N/A	8.44	2,430	N/A
Unknown alkane	N/A	8.50	986	N/A
Unknown aromatic	N/A	8.68	2,260	N/A
Unknown	N/A	11.71	1,620	N/A
Cyclic octaatomic sulfur	010544-50-0	15.58	2,490	96

ELAP Number 10958

Method: EPA 8270C

Data File: S51239.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:

Bruce Hoogesteger, 1 echnical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.



Semi-Volatile STARS Analysis Report for Soils/Solids/Sludges

Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6961

Client Job Number: 19500605

Field Location:

B-4 N/A Date Sampled: Date Received: 05/18/2010 05/18/2010

Field ID Number: Sample Type:

Soil

Date Analyzed:

05/21/2010

Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 316
Acenaphthylene	ND< 316
Anthracene	ND< 316
Benzo (a) anthracene	ND< 316
Benzo (a) pyrene	ND< 316
Benzo (b) fluoranthene	ND< 316
Benzo (g,h,i) perylene	ND< 316
Benzo (k) fluoranthene	ND< 316
Chrysene	ND< 316
Dibenz (a,h) anthracene	ND< 316
Fluoranthene	ND< 316
Fluorene	ND< 316
Indeno (1,2,3-cd) pyrene	ND< 316
Naphthalene	ND< 316
Phenanthrene	ND< 316
Pyrene	ND< 316

ELAP Number 10958

Method: EPA 8270C

Data File: S51240.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Lab Sample Number: 6961

Client Job Number:

19500605

Date Sampled:

05/18/2010

Field Location: Field ID Number: Sample Type:

B-4 N/A Soil

Date Received:

05/18/2010

Date Analyzed:

05/21/2010

CAS Number	Retention Time	Results in ug / Kg	Percent Fit
N/A	6.08	139	N/A
N/A	6.15	149	N/A
N/A	6.25	136	N/A
N/A	6.43	196	N/A
N/A	6.50	250	N/A
N/A	6.91	168	N/A
	7.26	370	N/A
	7.45	228	N/A
	11.81	149	N/A
010544-50-0	15.58	1,650	94
	N/A N/A N/A N/A N/A N/A N/A N/A	N/A 6.08 N/A 6.15 N/A 6.25 N/A 6.43 N/A 6.50 N/A 6.91 N/A 7.26 N/A 7.45 N/A 11.81	N/A 6.08 139 N/A 6.15 149 N/A 6.25 136 N/A 6.43 196 N/A 6.50 250 N/A 6.91 168 N/A 7.26 370 N/A 7.45 228 N/A 11.81 149

ELAP Number 10958

Method: EPA 8270C

Data File: S51240.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:

requirements upon receipt.

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 102024S4.XLS



PHC Analysis Report for Soils/Solids/Sludges

Client: Stantec

Client Job Site: 15 Richmond St Lab Project Number: 10-2024R

Lab Sample Number: 6959R

Client Job Number: 190500605

 Field Location:
 B-2
 Date Sampled:
 05/18/2010

 Field ID Number:
 N/A
 Date Received:
 05/26/2010

 Sample Type:
 Soil
 Date Analyzed:
 05/27/2010

 Date Re-issued:
 06/03/2010

PHC Classification Results in ug / Kg

Light Weight PHC as:
Mineral Spirits* 12,000,000

ELAP Number 10958 Method: NYSDOH 310.13

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram PHC = Petroleum Hydrocarbon

*The Mineral Spirits hydrocarbon class includes the type designated Stoddard Solvent.

No further differentiation is possible based on the sample chromatogram.

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6958

Client Job Number:

19500605

Date Sampled:

Field Location:

B-1 N/A

Date Received:

05/18/2010

Field ID Number: Sample Type: Soil

Date Analyzed:

05/18/2010 05/25/2010

Date Reissued:

06/01/2010

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 590
Bromomethane	ND< 590
Bromoform	ND< 1,480
Carbon Tetrachloride	ND< 1,480
Chloroethane	ND< 590
Chloromethane	ND< 590
2-Chloroethyl vinyl Ether	ND< 2,950
Chloroform	ND< 590
Dibromochloromethane	ND< 590
1,1-Dichloroethane	ND< 590
1,2-Dichloroethane	ND< 590
1,1-Dichloroethene	ND< 590
cis-1,2-Dichloroethene	ND< 590
trans-1,2-Dichloroethene	ND< 590
1,2-Dichloropropane	ND< 590
cis-1,3-Dichloropropene	ND< 590
trans-1,3-Dichloropropene	ND< 590
Methylene chloride	ND< 1,480
1,1,2,2-Tetrachloroethane	ND< 590
Tetrachloroethene	ND< 590
1,1,1-Trichloroethane	ND< 590
1,1,2-Trichloroethane	ND< 590
Trichloroethene	ND< 590
Trichlorofluoromethane	ND< 590
Vinyl chloride	ND< 590

Aromatics	Results in ug / Kg
Benzene	ND< 590
Chlorobenzene	ND< 590
Ethylbenzene	ND< 590
Toluene	ND< 590
m,p-Xylene	ND< 590
o-Xylene	ND< 590
Styrene	ND< 1,480
1,2-Dichlorobenzene	ND< 1,480
1,3-Dichlorobenzene	ND< 1,480
1,4-Dichlorobenzene	ND< 590

Ketones	Results in ug / Kg
Acetone	ND< 2,950
2-Butanone	ND< 2,950
2-Hexanone	ND< 1,480
4-Methyl-2-pentanone	ND< 1,480

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 590
Vinyl acetate	ND< 1,480
Freon 113	ND< 590

ELAP Number 10958

Method: EPA 8260B

Data File: V75526.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Client Job Number: 19500605

Lab Sample Number: 6958

Field Location: Field ID Number: B-1

Date Sampled:

05/18/2010 05/18/2010

Date Received: N/A

Sample Type:

Soil

Date Analyzed:

05/25/2010

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	8,730	1,2,4-Trimethylbenzene	32,800
sec-Butylbenzene	4,440	1,3,5-Trimethylbenzene	2,410
tert-Butylbenzene	ND< 1,480		
n-Propylbenzene	5,770	Miscellaneous	
Isopropylbenzene	ND< 2,950	Methyl tert-butyl Ether	ND< 590
p-Isopropyltoluene	4,900		
Naphthalene	ND< 1,480		

Method: EPA 8260B Data File: V75526.D ELAP Number 10958

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Lab Sample Number: 6958

Client Job Number:

19500605

Date Sampled:

05/18/2010

Field Location: Field ID Number: B-1 N/A

Date Received:

05/18/2010

Sample Type:

Soil

Date Analyzed:

05/25/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / Kg	Percent Fit
Unknown alkane	N/A	7.75	10,900	N/A
Unknown alkane	N/A	7.90	9,090	N/A
Unknown alkane	N/A	8.35	13,400	N/A
I Inknown alkane	N/A	9.61	19.600	N/A

Unknown alkane Unknown alkane	N/A N/A	7.90 8.35	9,090 13,400	N/A N/A
Unknown alkane	N/A	9.61	19,600	N/A
Unknown alkane	N/A	8.85	50,900	N/A
Unknown alkane	N/A	8.98	40,800	N/A
Unknown alkane	N/A	9.18	52,800	N/A
Unknown	N/A	9.34	10,400	N/A
Unknown alkane	N/A	9.46	29,200	N/A
Unknown alkane	N/A	9.87	9,650	N/A
Unknown alkane	N/A	10.00	17,200	N/A
Unknown alkane	N/A	10.12	21,400	N/A
Unknown alkane	N/A	10.44	24,600	N/A
Unknown aromatic	N/A	10.88	14,600	N/A
Unknown alkane	N/A	11.18	20,000	N/A
Unknown aromatic	N/A	11.29	9,410	N/A
Unknown aromatic	N/A	11.32	9,770	N/A
Unknown alkane	N/A	11.69	10,600	N/A
Unknown aromatic	N/A	11.92	20,200	N/A
Unknown aromatic	N/A	12.36	9,380	N/A

Data File: V75526.D Method: EPA 8260B ELAP Number 10958

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Sample Number: 6959

Lab Project Number: 10-2024

Client Job Number:

19500605

Date Sampled:

05/18/2010

Field Location:

B-2 N/A

Date Received:

05/18/2010

Field ID Number: N Sample Type: S

Date Analyzed:

05/18/2010 05/25/2010

Type: Soil

Date Reissued:

06/01/2010

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 3,600
Bromomethane	ND< 3,600
Bromoform	ND< 8,990
Carbon Tetrachloride	ND< 8,990
Chloroethane	ND< 3,600
Chloromethane	ND< 3,600
2-Chloroethyl vinyl Ether	ND< 18,000
Chloroform	ND< 3,600
Dibromochloromethane	ND< 3,600
1,1-Dichloroethane	ND< 3,600
1,2-Dichloroethane	ND< 3,600
1,1-Dichloroethene	ND< 3,600
cis-1,2-Dichloroethene	ND< 3,600
trans-1,2-Dichloroethene	ND< 3,600
1,2-Dichloropropane	ND< 3,600
cis-1,3-Dichloropropene	ND< 3,600
trans-1,3-Dichloropropene	ND< 3,600
Methylene chloride	ND< 8,990
1,1,2,2-Tetrachloroethane	ND< 3,600
Tetrachloroethene	ND< 3,600
1,1,1-Trichloroethane	ND< 3,600
1,1,2-Trichloroethane	ND< 3,600
Trichloroethene	ND< 3,600
Trichlorofluoromethane	ND< 3,600

[A	Results in ug / Kg
Aromatics	
Benzene	ND< 3,600
Chlorobenzene	ND< 3,600
Ethylbenzene	5,920
Toluene	ND< 3,600
m,p-Xylene	29,200
o-Xylene	10,900
Styrene	ND< 8,990
1,2-Dichlorobenzene	ND< 8,990
1,3-Dichlorobenzene	ND< 8,990
1,4-Dichlorobenzene	ND< 3,600

Ketones	Results in ug / Kg
Acetone	ND< 18,000
2-Butanone	ND< 18,000
2-Hexanone	ND< 8,990
4-Methyl-2-pentanone	ND< 8,990

Miscellaneous	Results in ug / Kg	
Carbon disulfide	ND< 3,600	
Vinyl acetate	ND< 8,990	
Freon 113	ND< 3,600	

ELAP Number 10958

Vinyl chloride

Method: EPA 8260B

ND< 3,600

Data File: V75527.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6959

Client Job Number:

19500605 B-2

Date Sampled:

05/18/2010

Field Location: Field ID Number:

N/A

Date Received:

05/18/2010

Sample Type:

Soil

Date Analyzed:

05/25/2010

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	75,100	1,2,4-Trimethylbenzene	415,000
sec-Butylbenzene	27,000	1,3,5-Trimethylbenzene	119,000
tert-Butylbenzene	ND< 8,990		
n-Propylbenzene	43,100	Miscellaneous	
Isopropylbenzene	ND< 18,000	Methyl tert-butyl Ether	ND< 3,600
p-Isopropyltoluene	40,900		
Naphthalene	9,760		

ELAP Number 10958

Method: EPA 8260B

Data File: V75527.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Client Job Number:

19500605

Lab Sample Number: 6959

Field Location:

B-2

Date Sampled:

05/18/2010 05/18/2010

Field ID Number:

N/A

Date Received:

Sample Type:

Soil

Date Analyzed:

05/25/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / Kg	Percent Fit
Unknown alkane	N/A	7.9	55,000	N/A
Unknown alkane	N/A	8.36	60,000	N/A
Unknown alkane	N/A	8.47	36,900	N/A
Unknown alkane	N/A	8.61	76,000	N/A
Unknown	N/A	8.85	265,000	N/A
Unknown alkane	N/A	8.98	188,000	N/A
Unknown alkane	N/A	9.18	214,000	N/A
Unknown alkane	N/A	9.40	69,900	N/A
Unknown alkane	N/A	9.46	153,000	N/A
Unknown aromatic	N/A	9.99	113,000	N/A
Unknown alkane	N/A	10.44	129,000	N/A
Unknown aromatic	N/A	10.48	51,200	N/A
Unknown aromatic	N/A	10.65	173,000	N/A
Unknown aromatic	N/A	10.87	47,800	N/A
Unknown aromatic	N/A	10.91	73,300	N/A
Unknown alkane	N/A	11.12	48,900	N/A
Unknown aromatic	N/A	11.18	59,300	N/A
Unknown aromatic	N/A	11.28	38,600	N/A
Unknown aromatic	N/A	11.32	41,200	N/A
Unknown aromatic	N/A	11.41	36,700	N/A

ELAP Number 10958

Method: EPA 8260B

Data File: V75527.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6960

Client Job Number: 19500605

Date Sampled:

Field Location:

B-3

Date Received:

05/18/2010

Field ID Number: N/A Sample Type: Soil

Date Analyzed:

05/18/2010

05/25/2010

Date Reissued:

06/01/2010

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 769
Bromomethane	ND< 769
Bromoform	ND< 1,920
Carbon Tetrachloride	ND< 1,920
Chloroethane	ND< 769
Chloromethane	ND< 769
2-Chloroethyl vinyl Ether	ND< 3,840
Chloroform	ND< 769
Dibromochloromethane	ND< 769
1,1-Dichloroethane	ND< 769
1,2-Dichloroethane	ND< 769
1,1-Dichloroethene	ND< 769
cis-1,2-Dichloroethene	ND< 769
trans-1,2-Dichloroethene	ND< 769
1,2-Dichloropropane	ND< 769
cis-1,3-Dichloropropene	ND< 769
trans-1,3-Dichloropropene	ND< 769
Methylene chloride	ND< 1,920
1,1,2,2-Tetrachloroethane	ND< 769
Tetrachloroethene	ND< 769
1,1,1-Trichloroethane	ND< 769
1,1,2-Trichloroethane	ND< 769
Trichloroethene	ND< 769
Trichlorofluoromethane	ND< 769
Vinyl chloride	ND< 769

Aromatics	Results in ug / Kg
Benzene	ND< 769
Chlorobenzene	ND< 769
Ethylbenzene	1,450
Toluene	ND< 769
m,p-Xylene	1,470
o-Xylene	ND< 769
Styrene	ND< 1,920
1,2-Dichlorobenzene	ND< 1,920
1,3-Dichlorobenzene	ND< 1,920
1,4-Dichlorobenzene	ND< 769

Ketones	Results in ug / Kg	
Acetone	ND< 3,840	
2-Butanone	ND< 3,840	
2-Hexanone	ND< 1,920	
4-Methyl-2-pentanone	ND< 1,920	

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 769
Vinyl acetate	ND< 1,920
Freon 113	ND< 769

ELAP Number 10958

Method: EPA 8260B

Data File: V75528.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:

Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Lab Sample Number: 6960

Client Job Number: 19500605 Field Location:

B-3

05/18/2010

Field ID Number: Sample Type:

N/A Soil Date Sampled: **Date Received:**

05/18/2010

Date Analyzed:

05/25/2010

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	11,200	1,2,4-Trimethylbenzene	78,600
sec-Butylbenzene	4,660	1,3,5-Trimethylbenzene	11,200
tert-Butylbenzene	ND< 1,920		
n-Propylbenzene	8,410	Miscellaneous	
Isopropylbenzene	ND< 3,840	Methyl tert-butyl Ether	ND< 769
p-Isopropyltoluene	7,600	•	
Naphthalene	ND< 1,920		

Method: EPA 8260B Data File: V75528.D ELAP Number 10958

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Lab Sample Number: 6960

Client Job Number:

19500605

Field Location: Field ID Number: B-3 N/A Date Sampled: **Date Received:** 05/18/2010 05/18/2010

Sample Type: Soil

Date Analyzed:

05/25/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / Kg	Percent Fit
Unknown alkane	N/A	7.75	20,600	N/A
Unknown alkane	N/A	7.90	13,600	N/A
Unknown alkane	N/A	8.35	25,000	N/A
Unknown	N/A	8.61	42,800	N/A
Unknown	N/A	8.77	12,300	N/A
Unknown alkane	N/A	8.85	86,800	N/A
Jnknown alkane	N/A	8.98	38,800	N/A
Unknown alkane	N/A	9.01	96,500	N/A
Unknown alkane	N/A	9.18	101,000	N/A
Unknown	N/A	9.47	54,500	N/A
Unknown	N/A	9.69	32,100	N/A
Unknown	N/A	9.87	18,800	N/A
Unknown	N/A	10.00	28,600	N/A
Unknown alkane	N/A	10.07	12,300	N/A
Unknown alkane	N/A	10.12	29,500	N/A
Unknown alkane	N/A	10.44	24,100	N/A
Unknown aromatic	N/A	10.65	24,600	N/A
Unknown aromatic	N/A	10.88	17,800	N/A
Unknown aromatic	N/A	11.18	22,500	N/A
Unknown	N/A	11.93	12,500	N/A

Data File: V75528.D Method: EPA 8260B ELAP Number 10958

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6961

Client Job Number:

19500605

Date Sampled:

05/18/2010

Field Location: Field ID Number: B-4 N/A

Date Received:

05/18/2010

Sample Type: Soil

Date Analyzed:

05/21/2010

06/01/2010

Date	Reissued:
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Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 6.77
Bromomethane	ND< 6.77
Bromoform	ND< 16.9
Carbon Tetrachloride	ND< 16.9
Chloroethane	ND< 6.77
Chloromethane	ND< 6.77
2-Chloroethyl vinyl Ether	ND< 33.8
Chloroform	ND< 6.77
Dibromochloromethane	ND< 6.77
1,1-Dichloroethane	ND< 6.77
1,2-Dichloroethane	ND< 6.77
1,1-Dichloroethene	ND< 6.77
cis-1,2-Dichloroethene	ND< 6.77
trans-1,2-Dichloroethene	ND< 6.77
1,2-Dichloropropane	ND< 6.77
cis-1,3-Dichloropropene	ND< 6.77
trans-1,3-Dichloropropene	ND< 6.77
Methylene chloride	ND< 16.9
1,1,2,2-Tetrachloroethane	ND< 6.77
Tetrachloroethene	ND< 6.77
1,1,1-Trichloroethane	ND< 6.77
1,1,2-Trichloroethane	ND< 6.77
Trichloroethene	ND< 6.77
Trichlorofluoromethane	ND< 6.77
Vinyl chloride	ND< 6.77

Aromatics	Results in ug / Kg
Benzene	ND< 6.77
Chlorobenzene	ND< 6.77
Ethylbenzene	ND< 6.77
Toluene	ND< 6.77
m,p-Xylene	ND< 6.77
o-Xylene	ND< 6.77
Styrene	ND< 16.9
1,2-Dichlorobenzene	ND< 16.9
1,3-Dichlorobenzene	ND< 16.9
1,4-Dichlorobenzene	ND< 6.77

Ketones	Results in ug / Kg
Acetone	ND< 33.8
2-Butanone	ND< 33.8
2-Hexanone	ND< 16.9
4-Methyl-2-pentanone	ND< 16.9

Miscellaneous	Results in ug / Kg	
Carbon disulfide	ND< 6.77	
Vinyl acetate	ND< 16.9	
Freon 113	ND< 6.77	

ELAP Number 10958

Method: EPA 8260B

Data File: V75488.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Lab Sample Number: 6961

Client Job Number: Field Location:

19500605 B-4

Field ID Number:

Date Sampled: **Date Received:** 05/18/2010 05/18/2010

Sample Type:

N/A Soil

05/21/2010

Date Analyzed:

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 33.8	1,2,4-Trimethylbenzene	ND< 6.77
sec-Butylbenzene	ND< 6.77	1,3,5-Trimethylbenzene	ND< 6.77
tert-Butylbenzene	ND< 16.9		
n-Propylbenzene	ND< 6.77	Miscellaneous	
Isopropylbenzene	ND< 33.8	Methyl tert-butyl Ether	ND< 6.77
p-Isopropyltoluene	ND< 33.8		
Naphthalene	ND< 16.9		

ELAP Number 10958

Method: EPA 8260B

Data File: V75488.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Client Job Number: 19500605

Lab Sample Number: 6961

Field Location:

B-4 N/A Date Sampled: **Date Received:** 05/18/2010 05/18/2010

Field ID Number: Sample Type:

Soil

Date Analyzed:

05/21/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / Kg	Percent Fit
Unknown alkane	N/A	7.75	97.8	N/A
Unknown alkane	N/A	8.16	43.7	N/A
Unknown alkane	N/A	8.31	55.2	N/A
Unknown alkane	N/A	8.64	321	N/A
Unknown alkane	N/A	8.85	190	N/A
Unknown	N/A	8.89	102	N/A
Unknown	N/A	9.01	262	N/A
Unknown alkane	N/A	9.08	128	N/A
Unknown	N/A	9.17	236	N/A
Unknown	N/A	9.34	78.5	N/A
Unknown	N/A	9.46	397	N/A
Unknown alkane	N/A	9.61	198	N/A
Unknown alkane	N/A	9.80	116	· N/A
Unknown	N/A	9.86	107	N/A
Unknown	N/A	9.97	47.0	N/A
Unknown	N/A	10.00	124	N/A
Unknown aromatic	N/A	10.33	64.0	N/A
Unknown	N/A	11.68	95.1	N/A
Unknown aromatic	N/A	11.81	51.1	N/A
Unknown	N/A	11.92	46.7	N/A

Method: EPA 8260B ELAP Number 10958

Data File: V75488.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6962

Client Job Number:

19500605

6962

Field Location:

B-1 N/A Date Sampled: Date Received:

05/18/2010 05/18/2010

Field ID Number: Sample Type:

Water

Date Received:

Date Analyzed:

05/24/2010

Date Reissued:

06/01/2010

Halocarbons	Results in ug / L
Bromodichloromethane	ND< 200
Bromomethane	ND< 200
Bromoform	ND< 500
Carbon Tetrachloride	ND< 200
Chloroethane	ND< 200
Chloromethane	ND< 200
2-Chloroethyl vinyl Ether	ND< 1,000
Chloroform	ND< 200
Dibromochloromethane	ND< 200
1,1-Dichloroethane	ND< 200
1,2-Dichloroethane	ND< 200
1,1-Dichloroethene	ND< 200
cis-1,2-Dichloroethene	ND< 200
trans-1,2-Dichloroethene	ND< 200
1,2-Dichloropropane	ND< 200
cis-1,3-Dichloropropene	ND< 200
trans-1,3-Dichloropropene	ND< 200
Methylene chloride	ND< 500
1,1,2,2-Tetrachloroethane	ND< 200
Tetrachloroethene	ND< 200
1,1,1-Trichloroethane	ND< 200
1,1,2-Trichloroethane	ND< 200
Trichloroethene	ND< 200
Trichlorofluoromethane	ND< 200
Vinyl chloride	ND< 200

Aromatics	Results in ug / L	
Benzene	ND< 70.0	
Chlorobenzene	ND< 200	
Ethylbenzene	314	
Toluene	ND< 200	
m,p-Xylene	813	
o-Xylene	315	
Styrene	ND< 500	
1,2-Dichlorobenzene	ND< 200	
1,3-Dichlorobenzene	ND< 200	
1,4-Dichlorobenzene	ND< 200	

Ketones	Results in ug / L
Acetone	ND< 1,000
2-Butanone	ND< 1,000
2-Hexanone	ND< 500
4-Methyl-2-pentanone	ND< 500

Miscellaneous	Results in ug / L
Carbon disulfide	ND< 500
Vinyl acetate	ND< 500
Freon 113	ND< 200

ELAP Number 10958

Method: EPA 8260B

Data File: V75511.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Volatile Analysis Report for Non-potable Water (Additional STARS Compounds)

Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Client Job Number:

19500605

Lab Sample Number: 6962

Field Location:

B-1

Date Sampled: **Date Received:** 05/18/2010 05/18/2010

Field ID Number: Sample Type:

N/A Water

05/24/2010

Date Analyzed:

Aromatics	Results in ug / L	Aromatics	Results in ug / L
n-Butylbenzene	5,290	1,2,4-Trimethylbenzene	23,000
sec-Butylbenzene	1,840	1,3,5-Trimethylbenzene	3,960
tert-Butylbenzene	ND< 500		
n-Propylbenzene	2,710	Miscellaneous	
Isopropylbenzene	702	Methyl tert-butyl Ether	ND< 200
p-Isopropyltoluene	2,710		
Naphthalene	1,760		

Data File: V75511.D ELAP Number 10958 Method: EPA 8260B

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Client Job Number: 19500605

Lab Sample Number: 6962

Field Location:

B-1

Date Sampled:

05/18/2010

Field ID Number:

N/A

Date Received:

05/18/2010

Sample Type:

Water

Date Analyzed:

05/24/2010

Data File: V75511.D

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
Unknown alkane	N/A	7.77	3,340	N/A
Unknown alkane	N/A	7.90	2,890	N/A
Unknown alkane	N/A	8.35	3,450	N/A
Unknown alkane	N/A	8.61	5,900	N/A
Unknown	N/A	8.77	3,160	N/A
Unknown alkane	N/A	8.85	22,700	N/A
Unknown alkane	N/A	8.98	11,900	N/A
Unknown alkane	N/A	9.01	15,500	N/A
Unknown alkane	N/A	9.18	18,900	N/A
Unknown alkane	N/A	9.39	3,190	N/A
Unknown alkane	N/A	10.00	5,540	N/A
Unknown alkane	N/A	10.07	2,590	N/A
Unknown alkane	N/A	10.12	8,940	N/A
Unknown alkane	N/A	10.44	5,590	N/A
Unknown aromatic	N/A	10.48	2,970	N/A
Unknown aromatic	N/A	10.65	8,490	N/A
Unknown alkane	N/A	10.76	2,540	N/A
Unknown aromatic	N/A	11.19	2,970	N/A
Unknown aromatic	N/A	11.91	2,440	N/A
Unknown aromatic	N/A	12.37	2,520	N/A
Official distribute		EDA 9360B		Data File: V75511 D

Method: EPA 8260B ELAP Number 10958

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6963

Client Job Number:

19500605

Date Sampled:

Field Location: Field ID Number:

Sample Type:

B-2 N/A

Date Received:

05/18/2010 05/18/2010

Water

Date Analyzed:

05/24/2010

Date Reissued:

06/01/2010

Halocarbons	Results in ug / L
Bromodichloromethane	ND< 200
Bromomethane	ND< 200
Bromoform	ND< 500
Carbon Tetrachloride	ND< 200
Chloroethane	ND< 200
Chloromethane	ND< 200
2-Chloroethyl vinyl Ether	ND< 1,000
Chloroform	ND< 200
Dibromochloromethane	ND< 200
1,1-Dichloroethane	ND< 200
1,2-Dichloroethane	ND< 200
1,1-Dichloroethene	ND< 200
cis-1,2-Dichloroethene	7,330
trans-1,2-Dichloroethene	ND< 200
1,2-Dichloropropane	ND< 200
cis-1,3-Dichloropropene	ND< 200
trans-1,3-Dichloropropene	ND< 200
Methylene chloride	ND< 500
1,1,2,2-Tetrachloroethane	ND< 200
Tetrachloroethene	ND< 200
1,1,1-Trichloroethane	ND< 200
1,1,2-Trichloroethane	ND< 200
Trichloroethene	ND< 200
Trichlorofluoromethane	ND< 200
Vinyl chloride	ND< 200
	\$ 4 · (I

Aromatics	Results in ug / L
Benzene	ND< 70.0
Chlorobenzene	ND< 200
Ethylbenzene	240
Toluene	ND< 200
m,p-Xylene	1,240
o-Xylene	848
Styrene	ND< 500
1,2-Dichlorobenzene	ND< 200
1,3-Dichlorobenzene	ND< 200
1,4-Dichlorobenzene	ND< 200

Ketones Results in ug / I	
Acetone	ND< 1,000
2-Butanone	ND< 1,000
2-Hexanone	ND< 500
4-Methyl-2-pentanone	ND< 500

Miscellaneous	Results in ug / L
Carbon disulfide	ND< 500
Vinyl acetate	ND< 500
Freon 113	ND< 200

ELAP Number 10958

Method: EPA 8260B

Data File: V75512.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Volatile Analysis Report for Non-potable Water (Additional STARS Compounds)

Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Client Job Number: 19500605

Lab Sample Number: 6963

Field Location:

B-2 N/A Date Sampled: **Date Received:** 05/18/2010 05/18/2010

Field ID Number: Sample Type:

Water

Date Analyzed:

05/24/2010

Aromatics	Results in ug / L	Aromatics	Results in ug / L
n-Butylbenzene	1,530	1,2,4-Trimethylbenzene	12,900
sec-Butylbenzene	618	1,3,5-Trimethylbenzene	2,360
tert-Butylbenzene	ND< 500		
n-Propylbenzene	935	Miscellaneous	
Isopropylbenzene	ND< 500	Methyl tert-butyl Ether	ND< 200
p-Isopropyltoluene	920		
Naphthalene	ND< 500		

Data File: V75512.D ELAP Number 10958 Method: EPA 8260B

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Lab Sample Number: 6963

Client Job Number: 19500605

Date Sampled:

05/18/2010

Field Location: Field ID Number: B-2 N/A

Date Received:

05/18/2010

Sample Type:

Water

Date Analyzed:

05/24/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
Unknown alkane	N/A	8.85	4,240	N/A
Unknown alkane	N/A	8.97	1,830	N/A
Unknown alkane	N/A	9.00	4,240	N/A
Unknown alkane	N/A	9.17	3,390	N/A
Unknown	N/A	9.46	2,410	N/A
Unknown aromatic	N/A	9.99	3,330	N/A
Unknown alkane	N/A	10.07	1,030	N/A
Unknown alkane	N/A	10.11	5,400	N/A
Unknown alkane	N/A	10.44	3,340	N/A
Unknown aromatic	N/A	10.48	2,000	N/A
Unknown aromatic	N/A	10.65	7,800	N/A
Unknown alkane	N/A	10.76	1,600	N/A
Unknown aromatic	N/A	10.87	1,530	N/A
Unknown aromatic	N/A	10.90	2,050	N/A
Unknown alkane	N/A	11.12	3,330	N/A
Unknown aromatic	N/A	11.18	1,800	N/A
Unknown aromatic	N/A	11.28	1,180	N/A
Unknown aromatic	N/A	11.40	1,060	N/A
Unknown aromatic	N/A	11.91	1,090	N/A
Unknown aromatic	N/A	12.36	1,090	N/A

Data File: V75512.D ELAP Number 10958 Method: EPA 8260B

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6964

Client Job Number: 19500605

Date Sampled:

05/18/2010

Field Location: Field ID Number:

Sample Type:

B-3 N/A Water

Date Received:

05/18/2010

Date Analyzed:

05/24/2010

Date Reissued:

06/01/2010

Halocarbons Result	ts in ug / L
Bromodichloromethane N	D< 200
Bromomethane N	D< 200
Bromoform N	D< 500
Carbon Tetrachloride N	D< 200
Chloroethane N	D< 200
Chloromethane N	D< 200
2-Chloroethyl vinyl Ether N	D< 1,000
Chloroform N	D< 200
Dibromochloromethane N	D< 200
1,1-Dichloroethane N	D< 200
1,2-Dichloroethane N	D< 200
1,1-Dichloroethene N	D< 200
cis-1,2-Dichloroethene	458
trans-1,2-Dichloroethene N	D< 200
1,2-Dichloropropane N	D< 200
cis-1,3-Dichloropropene N	D< 200
trans-1,3-Dichloropropene N	D< 200
Methylene chloride N	D< 500
1,1,2,2-Tetrachloroethane N	D< 200
Tetrachloroethene N	D< 200
1,1,1-Trichloroethane N	D< 200
1,1,2-Trichloroethane	D< 200
Trichloroethene N	ID< 200
Trichlorofluoromethane N	ID< 200
Vinyl chloride N	D< 200

Aromatics	Results in ug / L
Benzene	ND< 70.0
Chlorobenzene	ND< 200
Ethylbenzene	247
Toluene	ND< 200
m,p-Xylene	895
o-Xylene	289
Styrene	ND< 500
1,2-Dichlorobenzene	ND< 200
1,3-Dichlorobenzene	ND< 200
1,4-Dichlorobenzene	ND< 200

Ketones	Results in ug / L
Acetone	ND< 1,000
2-Butanone	ND< 1,000
2-Hexanone	ND< 500
4-Methyl-2-pentanone	ND< 500

Miscellaneous	Results in ug / L
Carbon disulfide	ND< 500
Vinyl acetate	ND< 500
Freon 113	ND< 200
1	

ELAP Number 10958

Method: EPA 8260B

Data File: V75513.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Volatile Analysis Report for Non-potable Water (Additional STARS Compounds)

Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Client Job Number:

19500605

Lab Sample Number: 6964

Field Location:

B-3 N/A Date Sampled: **Date Received:** 05/18/2010 05/18/2010

Field ID Number: Sample Type:

Water

Date Analyzed:

05/24/2010

Aromatics	Results in ug / L	Aromatics	Results in ug / L
n-Butylbenzene	902	1,2,4-Trimethylbenzene	8,650
sec-Butylbenzene	ND< 500	1,3,5-Trimethylbenzene	1,620
tert-Butylbenzene	ND< 500		
n-Propylbenzene	682	Miscellaneous	
Isopropylbenzene	ND< 500	Methyl tert-butyl Ether	ND< 200
p-Isopropyltoluene	521		
Naphthalene	ND< 500		

Method: EPA 8260B Data File: V75513.D ELAP Number 10958

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Lab Sample Number: 6964

Client Job Number: 19500605

Date Sampled:

05/18/2010

Field Location:

B-3 N/A

Date Received:

05/18/2010

Field ID Number: Sample Type:

Water

Date Analyzed:

05/24/2010

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
Unknown alkane	N/A	8.61	790	N/A
Unknown alkane	N/A	8.85	2,950	N/A
Unknown alkane	N/A	8.98	2,050	N/A
Unknown alkane	N/A	9.01	2,500	N/A
Unknown alkane	N/A	9.18	2,460	N/A
Unknown aromatic	N/A	9.67	3,180	» N/A
Unknown aromatic	N/A	9.99	2,250	N/A
Unknown	N/A	10.07	920	N/A
Unknown alkane	N/A	10.44	2,510	N/A
Unknown aromatic	N/A	10.65	5,490	N/A
Unknown alkane	N/A	10.76	1,150	N/A
Unknown aromatic	N/A	10.87	1,110	N/A
Unknown aromatic	N/A	10.90	1,060	N/A
Unknown alkane	N/A	11.12	1,410	N/A
Unknown aromatic	N/A	11.18	1,310	N/A
Unknown aromatic	N/A	11.28	870	N/A
Unknown aromatic	N/A	11.32	730	N/A
Unknown aromatic	N/A	11.40	690	N/A
Unknown aromatic	N/A	11.91	780	N/A
Unknown aromatic	N/A	12.36	760	N/A
FLAP Number 10958		EPA 8260B		Data File: V75513

Method: EPA 8260B ELAP Number 10958

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Techn

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 102024R7.XLS requirements upon receipt.



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024 Lab Sample Number: 6965

Client Job Number:

19500605

Water

Date Sampled: **Date Received:** 05/18/2010

Field Location: Field ID Number: B-4 N/A

05/18/2010

Sample Type:

Date Analyzed:

05/24/2010

Date Reissued:

06/01/2010

Ī	Halocarbons	Results in ug / L
1	Bromodichloromethane	ND< 2.00
	Bromomethane	ND< 2.00
	Bromoform	ND< 5.00
	Carbon Tetrachloride	ND< 2.00
	Chloroethane	ND< 2.00
	Chloromethane	ND< 2.00
	2-Chloroethyl vinyl Ether	ND< 10.0
	Chloroform	ND< 2.00
	Dibromochloromethane	ND< 2.00
	1,1-Dichloroethane	ND< 2.00
	1,2-Dichloroethane	ND< 2.00
	1,1-Dichloroethene	ND< 2.00
	cis-1,2-Dichloroethene	ND< 2.00
	trans-1,2-Dichloroethene	ND< 2.00
	1,2-Dichloropropane	ND< 2.00
	cis-1,3-Dichloropropene	ND< 2.00
	trans-1,3-Dichloropropene	ND< 2.00
	Methylene chloride	ND< 5.00
	1,1,2,2-Tetrachloroethane	ND< 2.00
	Tetrachloroethene	ND< 2.00
	1,1,1-Trichloroethane	ND< 2.00

Aromatics	Results in ug / L
Benzene	1.08
Chlorobenzene	ND< 2.00
Ethylbenzene	ND< 2.00
Toluene	2.19
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00
Styrene	ND< 5.00
1,2-Dichlorobenzene	ND< 2.00
1,3-Dichlorobenzene	ND< 2.00
1,4-Dichlorobenzene	ND< 2.00

Ketones	Results in ug / L
Acetone	13.7
2-Butanone	ND< 10.0
2-Hexanone	ND< 5.00
4-Methyl-2-pentanone	ND< 5.00

Results in ug / L
ND< 5.00
ND< 5.00
ND< 2.00

ELAP Number 10958

Trichloroethene

Vinyl chloride

1,1,2-Trichloroethane

Trichlorofluoromethane

Method: EPA 8260B

ND< 2.00

ND< 2.00

ND< 2.00 ND< 2.00

Data File: V75514.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Volatile Analysis Report for Non-potable Water (Additional STARS Compounds)

Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Lab Sample Number: 6965

6065

Client Job Number:

19500605

Date Sampled:

05/18/2010

Field Location: Field ID Number:

B-4 N/A

Date Received:

05/18/2010

Sample Type:

Water

Date Analyzed:

05/24/2010

Aromatics	Results in ug / L	Aromatics	Results in ug / L
n-Butylbenzene	ND< 5.00	1,2,4-Trimethylbenzene	ND< 5.00
sec-Butylbenzene	ND< 5.00	1,3,5-Trimethylbenzene	ND< 5.00
tert-Butylbenzene	ND< 5.00		
n-Propylbenzene	ND< 2.00	Miscellaneous	
Isopropylbenzene	ND< 5.00	Methyl tert-butyl Ether	ND< 2.00
p-Isopropyltoluene	ND< 5.00		
Naphthalene	ND< 5.00		

ELAP Number 10958 Method: EPA 8260B Data File: V75514.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: Stantec

Client Job Site:

15 Richmond St.

Lab Project Number: 10-2024

Lab Sample Number: 6965

Client Job Number: 19500605

Date Sampled:

05/18/2010

Field Location: Field ID Number: B-4 N/A

Date Received:

05/18/2010

Sample Type:

Water

Date Analyzed:

05/24/2010

Data File: V75514.D

Tentatively Identified Compounds	CAS Number	Retention Time	Results in ug / L	Percent Fit
Unknown alkane	N/A	7.75	9.10	N/A
Unknown alkane	N/A	8.60	14.0	N/A
Unknown alkane	N/A	8.85	29.4	N/A
Unknown	N/A	8.89	8.50	N/A
Unknown alkane	N/A	8.97	13.4	N/A
Unknown alkane	N/A	8.99	29.9	N/A
Unknown alkane	N/A	9.17	35.4	N/A
Unknown	N/A	9.46	32.8	N/A
Unknown alkane	N/A	9.61	13.5	N/A
Unknown	N/A	9.68	12.2	N/A
Unknown alkane	N/A	9.73	16.2	N/A
Unknown	N/A	9.80	22.4	N/A
Unknown	N/A	9.87	8.60	N/A
Unknown alkane	N/A	10.00	15.4	N/A
Unknown alkane	N/A	10.07	8.20	N/A
Unknown alkane	N/A	10.28	10.4	N/A
Unknown alkane	N/A	10.44	13.4	N/A
Unknown aromatic	N/A	10.87	10.8	N/A
Unknown	N/A	11.12	10.0	N/A
Unknown	N/A	11.19	9.40	N/A

Method: EPA 8260B

ug / L = microgram per Liter

Comments: ND denotes Non Detect

Signature:

ELAP Number 10958



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Analytical Report Cover Page

Stantec

For Lab Project # 10-2052 Issued May 26, 2010 This report contains a total of 6 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

[&]quot;ND" = analyzed for but not detected.

[&]quot;E" = Result has been estimated, calibration limit exceeded.

[&]quot;Z" = See case narrative.

[&]quot;D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

[&]quot;M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

[&]quot;B" = Method blank contained trace levels of analyte. Refer to included method blank report.



Volatile Analysis Report for Air

Client: Stantec

Client Job Site:

15 Richmond St

Lab Project Number: 10-2052 Lab Sample Number: 7049

Client Job Number:

190500605

Date Sampled:

Field Location: Field ID Number: B-2-SV C-1031

Date Received:

05/19/2010 05/19/2010

Sample Type:

Air

Date Analyzed:

05/26/2010

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 1.95	ND< 12.9
Bromoform	ND< 1.95	ND< 19.9
Bromomethane	ND< 1.95	ND< 7.50
Carbon Tetrachloride	ND< 0.781	ND< 4.86
Chloroethane	ND< 3.90	ND< 10.2
Chloroform	ND< 1.95	ND< 9.41
Chloromethane	ND< 1.95	ND< 3.99
Dibromochloromethane	ND< 1.95	ND< 16.4
1,2 Dibromoethane	ND< 1.95	ND< 14.8
1,1-Dichloroethane	ND< 1.95	ND< 7.82
1,1-Dichloroethene	20.1	78.9
1,2-Dichloroethane	ND< 1.95	ND< 7.82
cis-1,2-Dichloroethene	E 6,010	E 23,600
trans-1,2-Dichloroethene	139	546
1,2-Dichloropropane	ND< 3.90	ND< 17.9
cis-1,3-Dichloropropene	ND< 1.95	ND< 8.77
trans-1,3-Dichloropropene	ND< 1.95	ND< 8.77
Methylene Chloride	B 29.7	B 102
1,1,2,2-Tetrachloroethane	ND< 1.95	ND< 13.2
Tetrachloroethene	10.6	71.1
1,1,1-Trichloroethane	ND< 1.95	ND< 10.5
1,1,2-Trichloroethane	ND< 1.95	ND< 10.5
Trichloroethene	8.04	42.7
Trichlorofluoromethane	ND< 1.95	ND< 10.8
Freon 113	ND< 1.95	ND< 14.8

	PPBv	ug / m3
Aromatics		
Benzene	24.2	77.2
Chlorobenzene	ND< 1.95	ND< 8.93
Ethylbenzene	E 147	E 637
Toluene	E 252	E 948
m,p-Xylene	E 367	E 1,590
o-Xylene	E 176	E 763
Styrene	ND< 1.95	ND< 8.29
1,2-Dichlorobenzene	ND< 1.95	ND< 11.6
1,3-Dichlorobenzene	ND< 1.95	ND< 11.6
1,4-Dichlorobenzene	ND< 1.95	ND< 11.6

1/	PPBv	ug / m3
Ketones Acetone	F B 92.0	F B 218
2-Butanone	35.7	105
2-Hexanone	ND< 9.76	ND< 39.9
4-Methyl-2-Pentanone	ND< 9.76	ND< 39.9

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	73.2	228
Methyl-tert-Butyl Ether	ND< 1.95	ND< 7.02
Vinyl Acetate	ND< 1.95	ND< 6.86
·		

ELAP Number 10958

Vinyl Chloride

Method: EPA TO-15

E 6,640

Data File: A4613A.d

Comments: ND denotes Non Detect

PPBv = Parts per Billion volume

ug / m3 - Microgram per cybic meter.

E 2,620

Signature:



Volatile Analysis Report for Air

Client: Stantec

Client Job Site:

15 Richmond St

Lab Project Number: 10-2052 Lab Sample Number: 7050

Client Job Number:

190500605

Field Location:

B-3-SV C-1025 **Date Sampled:**

Date Received:

05/19/2010

Field ID Number: Air Sample Type:

Date Analyzed:

Aromatics

Chlorobenzene

Benzene

05/19/2010 05/26/2010

PPBv

ND< 2.05

13.0

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 2.05	ND< 13.6
Bromoform	ND< 2.05	ND< 21.0
Bromomethane	ND< 2.05	ND< 7.88
Carbon Tetrachloride	ND< 0.820	ND< 5.10
Chloroethane	ND< 4.10	ND< 10.7
011	ND - 2.05	ND < 0.80

Bromomethane	ND< 2.05	ND< 7.88
Carbon Tetrachloride	ND< 0.820	ND< 5.10
Chloroethane	ND< 4.10	ND< 10.7
Chloroform	ND< 2.05	ND< 9.89
Chloromethane	ND< 2.05	ND< 4.19
Dibromochloromethane	ND< 2.05	ND< 17.3
1,2 Dibromoethane	ND< 2.05	ND< 15.6
1,1-Dichloroethane	ND< 2.05	ND< 8.22
1,1-Dichloroethene	ND< 2.05	ND< 8.05
1 2-Dichloroethane	ND< 2.05	ND< 8.22

Dibromochloromethane	ND< 2.05	ND< 17.3
1,2 Dibromoethane	ND< 2.05	ND< 15.6
1,1-Dichloroethane	ND< 2.05	ND< 8.22
1,1-Dichloroethene	ND< 2.05	ND< 8.05
1,2-Dichloroethane	ND< 2.05	ND< 8.22
cis-1,2-Dichloroethene	46.7	183
trans-1,2-Dichloroethene	ND< 2.05	ND< 8.05
1,2-Dichloropropane	ND< 4.10	ND< 18.8
cis-1,3-Dichloropropene	ND< 2.05	ND< 9.22
trans-1,3-Dichloropropene	ND< 2.05	ND< 9.22
Methylene Chloride	B 18.9	B 64.9
1,1,2,2-Tetrachloroethane	ND< 2.05	ND< 13.9
Tetrachloroethene	2.69	18.0

ND< 2.05

ND< 2.05

ND< 0.964

ND< 2.05

ND< 2.05

17.0

0.110.000.110		
Ethylbenzene	67.0	290
Toluene	66.4	250
m,p-Xylene	156	676
o-Xylene	40.8	177
Styrene	ND< 2.05	ND< 8.72
1,2-Dichlorobenzene	ND< 2.05	ND< 12.2
1,3-Dichlorobenzene	ND< 2.05	ND< 12.2
1,4-Dichlorobenzene	ND< 2.05	ND< 12.2
Ketones	PPBv	ug / m3
Acetone	B 36.1	B 85.6

Ketones	PPBv	ug / m3
Acetone	B 36.1	B 85.6
2-Butanone	11.8	34.7
2-Hexanone	ND< 10.3	ND< 42.1
4-Methyl-2-Pentanone	ND< 10.3	ND< 42.1

PPBv	ug / m3
ND< 10.3	ND< 32.0
ND< 2.05	ND< 7.38
ND< 2.05	ND< 7.21
	ND< 10.3 ND< 2.05

ELAP Number 10958

1,1,1-Trichloroethane

1.1.2-Trichloroethane

Trichlorofluoromethane

Trichloroethene

Freon 113

Vinyl Chloride

Method: EPA TO-15

ND< 11.1

ND< 11.1

ND< 5.13

ND< 11.4

ND< 15.6

43.1

Data File: A4614A.d

ug / m3

ND< 9.39

41.5

Comments: ND denotes Non Detect

PPBv = Parts per Billion volume ug / m3 - Microgram per cubic meter.

Signature:



Volatile Analysis Report for Air

Client: Stantec

Client Job Site:

15 Richmond St

Lab Project Number: 10-2052 Lab Sample Number: Method Blank

Client Job Number:

190500605

Date Sampled: Date Received: N/A N/A

Field Location: Field ID Number: N/A N/A

Date Analyzed:

05/25/2010

Sample Type:

Air

Halocarbons	PPBv	ug / m3
Bromodichloromethane	ND< 0.102	ND< 0.676
Bromoform	ND< 0.102	ND< 1.04
Bromomethane	ND< 0.102	ND< 0.392
Carbon Tetrachloride	ND< 0.0409	ND< 0.254
Chloroethane	ND< 0.204	ND< 0.534
Chloroform	ND< 0.102	ND< 0.492
Chloromethane	ND< 0.102	ND< 0.209
Dibromochloromethane	ND< 0.102	ND< 0.859
1,2 Dibromoethane	ND< 0.102	ND< 0.776
1,1-Dichloroethane	ND< 0.102	ND< 0.409
1,1-Dichloroethene	ND< 0.102	ND< 0.400
1,2-Dichloroethane	ND< 0.102	ND< 0.409
cis-1,2-Dichloroethene	ND< 0.102	ND< 0.400
trans-1,2-Dichloroethene	ND< 0.102	ND< 0.400
1,2-Dichloropropane	ND< 0.204	ND< 0.934
cis-1,3-Dichloropropene	ND< 0.102	ND< 0.459
trans-1,3-Dichloropropene	ND< 0.102	ND< 0.459
Methylene Chloride	E 5.10	E 17.5
1,1,2,2-Tetrachloroethane	ND< 0.102	ND< 0.693
Tetrachloroethene	ND< 0.102	ND< 0.684
1,1,1-Trichloroethane	ND< 0.102	ND< 0.551
1,1,2-Trichloroethane	ND< 0.102	ND< 0.551
Trichloroethene	ND< 0.0481	ND< 0.256
Trichlorofluoromethane	ND< 0.102	ND< 0.567
Freon 113	ND< 0.102	ND< 0.776
Vinyl Chloride	ND< 0.102	ND< 0.259

Aromatics	PPBv	ug / m3
Benzene	ND< 0.102	ND< 0.325
Chlorobenzene	ND< 0.102	ND< 0.467
Ethylbenzene	ND< 0.102	ND< 0.442
Toluene	ND< 0.102	ND< 0.384
m,p-Xylene	ND< 0.102	ND< 0.442
o-Xylene	ND< 0.102	ND< 0.442
Styrene	ND< 0.102	ND< 0.434
1,2-Dichlorobenzene	ND< 0.102	ND< 0.609
1,3-Dichlorobenzene	ND< 0.102	ND< 0.609
1,4-Dichlorobenzene	ND< 0.102	ND< 0.609

Ketones	PPBv	ug / m3
Acetone	E 9.71	E 23.0
2-Butanone	ND< 0.511	ND< 1.50
2-Hexanone	ND< 0.511	ND< 2.09
4-Methyl-2-Pentanone	ND< 0.511	ND< 2.09

Miscellaneous	PPBv	ug / m3
Carbon Disulfide	ND< 0.511	ND< 1.59
Methyl-tert-Butyl Ether	ND< 0.102	ND< 0.367
Vinyl Acetate	ND< 0.102	ND< 0.359
•		

ELAP Number 10958

Method: EPA TO-15

Data File: A4612.d

Comments: ND denotes Non Detect PPBv = Parts per Billion volume

ug / m3 - Microgram per cubic meter.

Signature:

OTHER

TO-15 CHAIN OF CUSTODY

PARADIGM

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PARADIGM

TO-15 EQUIPMENT CHAIN OF CUSTODY

Rochester, NY 14608 **Equipment Tracking** 179 Lake Avenue PROJECT NAME/SITE NAME: (585) 647-2530 * (800) 724-1997 SERVICES, INC. **ENVIRONMENTAL** C O C O O O O O C O IS Aithmond St Remarks: CANISTER 0 All equipment returned in good condition. بر く 0 ט ב – סיס חים **Z** C C C > < C O O O റ ဂ O O O O EAH Slig CANISTER comments: Par, wells Ostant x. can, to other, bounthouse of Stanter. com Equipment Tracking COMPANY: 585 13-5635 STANTEC 0 H - 0 - H O **₹** ⊂ C ∩ > < Brank Hariet O O O O C O ဂ O O റ REPORT TO: CANISTER 585-424-5951 0 m v v - I v Picked up By **LAB USE ONLY BELOW THIS LINE** Received @ Lab By /4°623 Showeth Z Z Ŋ Z Z 70 Ø æ IJ IJ IJ REGULATOR :NTTA CITY: ADDRESS: COMPANY: PHONE: a. Honch FLOW 14. 7 IJ æ Ŋ æ 70 æ Ŋ Z æ IJ INVOICE TO: REGULATOR のかか FAX 5/19/10 1605 S(19/1c STATE: Date/Time Date/Time Date/Time FLOW 200 æ æ æ Z) Ø Z IJ Ø X Ŋ REGULATOR ZIP: **Quotation #** TURNAROUND TIME: (WORKING DAYS) LAB PROJECT #: FLOW 10-2052 | X|| 5 | Total Cost: 2005c STD CLIENT PROJECT #: 19000605 OTHER