

# **Limited Phase II Sub Surface Soil Investigation**

## **Location:**

**“The Door Store”  
797 Seneca Street  
Buffalo, New York, 14210**

## **Prepared For:**

**Mr. Bill Jones  
Center View Properties  
726 Exchange Street  
Suite 600  
Buffalo, New York 14210**

## **Prepared By:**

### **AFI Environmental**

**7815 Buffalo Ave.  
Niagara Falls, New York 14304  
716-283-7645  
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**AFI Project No. U1046**

**July 2006**



## AFI Environmental

7815 Buffalo Avenue  
Niagara Falls, New York 14304  
716-283-7645  
Fax: 716-283-2858

July 3, 2006

Mr. Bill Jones  
Center View Properties  
70 west Chippewa Street  
Buffalo, New York 14202

**RE: Investigations for Contaminated Soil  
at 797 Seneca Street, Buffalo NY  
AFI Project No. U-1046**

Dear Mr. Jones:

AFI Environmental (AFI) is please to submit this letter report summarizing information collected on a one (1) day soil probe investigation conducted on Wednesday, June 14, 2006 and a follow-up investigation on Friday, June 23, 2006.

This report does not constitute a full ASTM Phase II Investigation of the property, and is only indicative of the areas sampled. Sampling was limited due to budgetary constraints set by 70 W. Chippewa Corp.

"Limited" Phase II Environmental Consulting Services including Limited Phase II Subsurface Soil Probing and Testing at eighteen (18) locations at 797 Seneca Street, Former 'Door Store', and adjacent residential properties in Buffalo, Erie County, New York. The purpose of this 'Limited' Phase II Investigation was to determine if there are Subsurface Environmental Concerns which are impacting soils, and potentially ground water, at the site, which may be related to previous operations, or disposal of listed waste, handling of hazardous chemicals or petroleum product releases on or near the site. The identification of soil impacts will be used to determine if the site is eligible for the NYSDEC Brown Fields Program. The basis for this investigation was identified in AFI Environmental's report titled: *"Phase I Environmental Site Assessment 797 Seneca Street, Buffalo, Erie County, New York 14210"*, July 13, 2004.

### **GEOPROBE INVESTIGATION**

In order to determine or refute the existence of contamination, AFI Scientist's mobilized a track mounted geoprobe sampling rig to install nine (9) probe holes. Each probe hole was advanced to a depth of 12' -16' or refusal. Continuous split-spoon sampling occurred in 4' increments. Each 4' sample tube was scanned with a PID meter and the highest PID reading zone was collected and archived for future analytical analysis sampling. A photo record of the soil sampling tubes was also made. Locations of the (9) probe holes was with consultation from AFI.

A total of nine (9) soil borings were advanced with the geoprobe at the locations indicated on Figure 1, soil borings were identified by numbers SB1 through SB9. All borings were logged, subsurface conditions



described, and field screened for VOCs with a PID meter using the covered headspace technique. For a summary of logs for these borings see appendix A.

### **LIMITED PHASE II SUBSURFACE SOIL PROBING**

On Friday, June 23, 2006, AFI Scientist's used a hand auger to sample nine (9) locations at the residential locations near 797 Seneca Street. Each probe hole was advanced to a maximum depth of approximately 6" in the areas of the residences.

A total of nine (9) soil borings were advanced with the hand auger at the locations indicated on Figure 1, soil borings were identified by numbers AH1 through AH9. All borings were logged and subsurface conditions described.

### **ANALYTICAL TESTING**

AFI collected one soil sample per soil probe. The samples collected represented the 'worse-case' scenario for each location. The selection procedure included a field evaluation based on PID reading (highest), smell, visual staining, and other field indicators that presented themselves during sampling procedures. In cases where field indicators were absent; but historic operations were noted in this location; the first soil horizon was sampled for metals and PCBs only. The soil samples were sent to a NYS certified analytical lab. Samples SB1 through SB9 were analyzed for the volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), RECRA Metals and PCB's listed in the *Spill Technology and Remediation Series* (STARS) memo #1, published by the New York State Department of Environmental Conservation (NYSDEC). Samples AH1 through AH9 were analyzed for metals only. The samples were submitted to a NYSDEC accepted laboratory, under the proper chain of custody for chemical analysis. The results were compared to NYSDEC TAGM 4046 guidelines.

### **ANALYTICAL RESULTS**

Soil samples were analyzed by Waste Stream Technologies, Buffalo, New York. All sample analysis (see Appendix B) was performed according to the Work Plan and in accordance with the appropriate EPA Method for that specific analysis. (See following tables #1, #2, #3 and #4 attached.).

### **CONCLUSION AND RECOMMENDATIONS**

The principal findings of the Phase II are summarized as follows:

AFI suggests that the Buyer should consider soil treatment, sodding, replacement or paving to address the slightly elevated RECRA metals identified.

There may be residual contamination on all vacant sites resulting from historic operation in the vicinity and the use of fuel oil for heating, etc. No other areas investigated presented soil results that would preclude the Buyer from soil excavation, foundation installation or development based on environmental data or worker exposure.

If you have any questions regarding this submittal, please contact me at 716-283-7645 or 716-940-2725.



Mr. Bill Jones  
Page 3  
July 3, 2006

Sincerely,  
AFI Environmental

William L. Heitzenrater

WLH:smh  
Enclosures  
cc: file  
[afi/q1009/report/0515rpt.wpd](#)



## AFI Environmental

7815 Buffalo Avenue  
Niagara Falls, New York 14304  
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Fax: 716-283-2858

July 17, 2006

Mr. Bill Jones  
Center View Properties  
70 west Chippewa Street  
Buffalo, New York 14202

**RE: Additional Investigations for Contaminated Soil, Addendum No. 1  
at 797 Seneca Street, Buffalo NY  
AFI Project No. U-1046**

Dear Mr. Jones:

AFI Environmental (AFI) is please to submit this letter report summarizes information collected on a one (1) day soil probe investigation conducted on Friday, July 7, 2006.

Neither this addendum nor the original report constitute a full ASTM Phase II Investigation of the property, and is only indicative of the areas sampled. Sampling was limited due to budgetary constraints set by 70 W. Chippewa Corp.

"Limited" Phase II Environmental Consulting Services including Limited Phase II Subsurface Soil Probing and Testing at eight (8) locations inside and immediately next to one of two gasoline tank storage buildings located at 797 Seneca Street, Former 'Door Store', Buffalo, Erie County, New York. The purpose of this additional 'Limited' Phase II Investigation was a continuation of previous studies completed on Wednesday, June 14, 2006 and Friday, June 23, 2006. to determine if there are Subsurface Environmental Concerns which are impacting soils, and potentially ground water, at the site, which may be related to previous operations, or disposal of listed waste, handling of hazardous chemicals or petroleum product releases on or near the site. The identification of soil impacts will be used to determine if the site is eligible for the NYSDEC Brown Fields Program. The basis for this investigation was identified in AFI Environmental's report titled: "*Phase I Environmental Site Assessment 797 Seneca Street, Buffalo, Erie County, New York 14210*", July 13, 2004.

### **GEOPROBE INVESTIGATION**

In order to determine or refute the existence of contamination, AFI Scientist's mobilized a truck mounted geoprobe sampling rig to install eight (8) probe holes. Each probe hole was advanced to a depth of 12' -16' or refusal. Continuous split-spoon sampling occurred in 4' increments. Each 4' sample tube was scanned with a PID meter and a composite sample from each 4' horizon was collected and archived for future analysis. A photo record of the soil sampling tubes was also made. Locations of the eight (8) probe holes was with consultation from AFI.



Mr. Bill Jones  
Page 2  
July 7, 2006

A total of eight (8) soil borings were advanced with the geoprobe at the locations indicated on Figure 1, soil borings were identified by numbers SB10 through SB17. All borings were logged, subsurface conditions described, and field screened for VOCs with a PID meter using the covered headspace technique. For a summary of logs for these borings see appendix A.

### **ANALYTICAL TESTING**

AFI collected one soil sample per soil probe increment of 4'. The samples collected represented the 'worse-case' scenario for each location. The selection procedure included a field evaluation based on PID reading (highest), smell, visual staining, and other field indicators that presented themselves during sampling procedures. In cases where field indicators were absent; but historic operations were noted in this location; the first soil horizon was sampled for metals and PCBs only. The soil samples were sent to a NYS certified analytical lab. Samples were analyzed for the volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), RECRA Metals and PCB's listed in the *Spill Technology and Remediation Series* (STARS) memo #1, published by the New York State Department of Environmental Conservation (NYSDEC). The samples were submitted to a NYSDEC accepted laboratory, under the proper chain of custody for chemical analysis. The results were compared to NYSDEC TAGM 4046 guidelines.

### **ANALYTICAL RESULTS**

Soil samples were analyzed by Waste Stream Technologies, Buffalo, New York. All sample analysis (see Appendix B) were performed according to the Work Plan and in accordance with the appropriate EPA Method for that specific analysis. (See following tables #1, #2, #3 and #4 attached.). Some analytical data is pending.

### **CONCLUSION AND RECOMMENDATIONS**

The principal findings of the Limited Phase II are summarized as follows:

(Waiting for Analytical Data)

AFI suggests that the Buyer should consider soil treatment, sodding, replacement or paving to address the slightly elevated RECRA metals identified.

If you have any questions regarding this submittal, please contact me at 716-283-7645 or 716-940-2725.

Sincerely,  
AFI Environmental

William L. Heitzenrater  
WLH:smh



Mr. Bill Jones  
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July 7, 2006

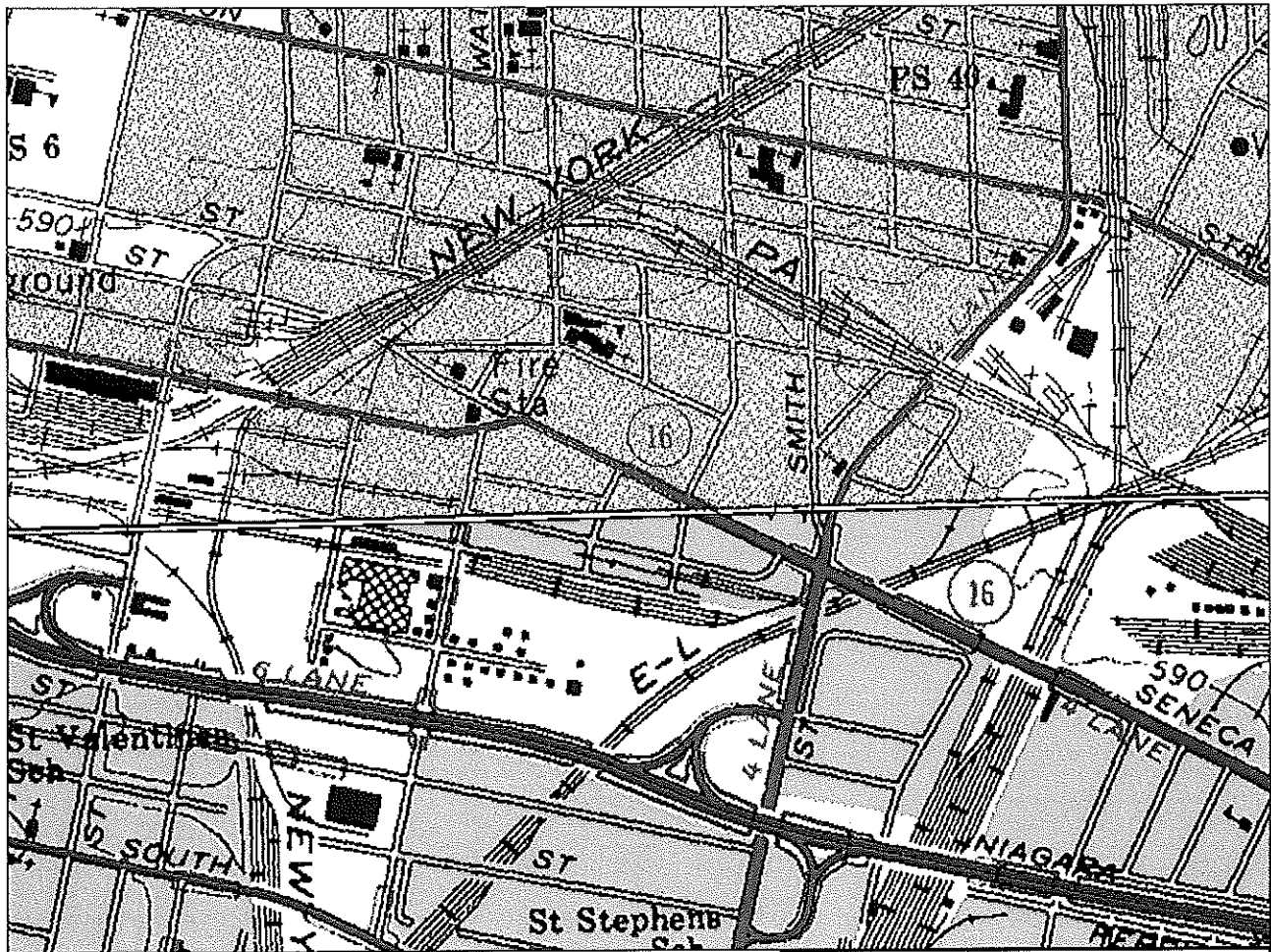
Enclosures  
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af/q1009/report/0515rpt.wpd



# FIGURES



**SITE LOCATION MAP**  
**797 SENECA STREET, BUFFALO, NEW YORK**



	797 Seneca Street	
	Site Location Map	
1	Rev. 1	Figure #1



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2006 SOIL BORING LOCATIONS  
 & CHEMICAL ANALYSIS  
 Project No. U-1046

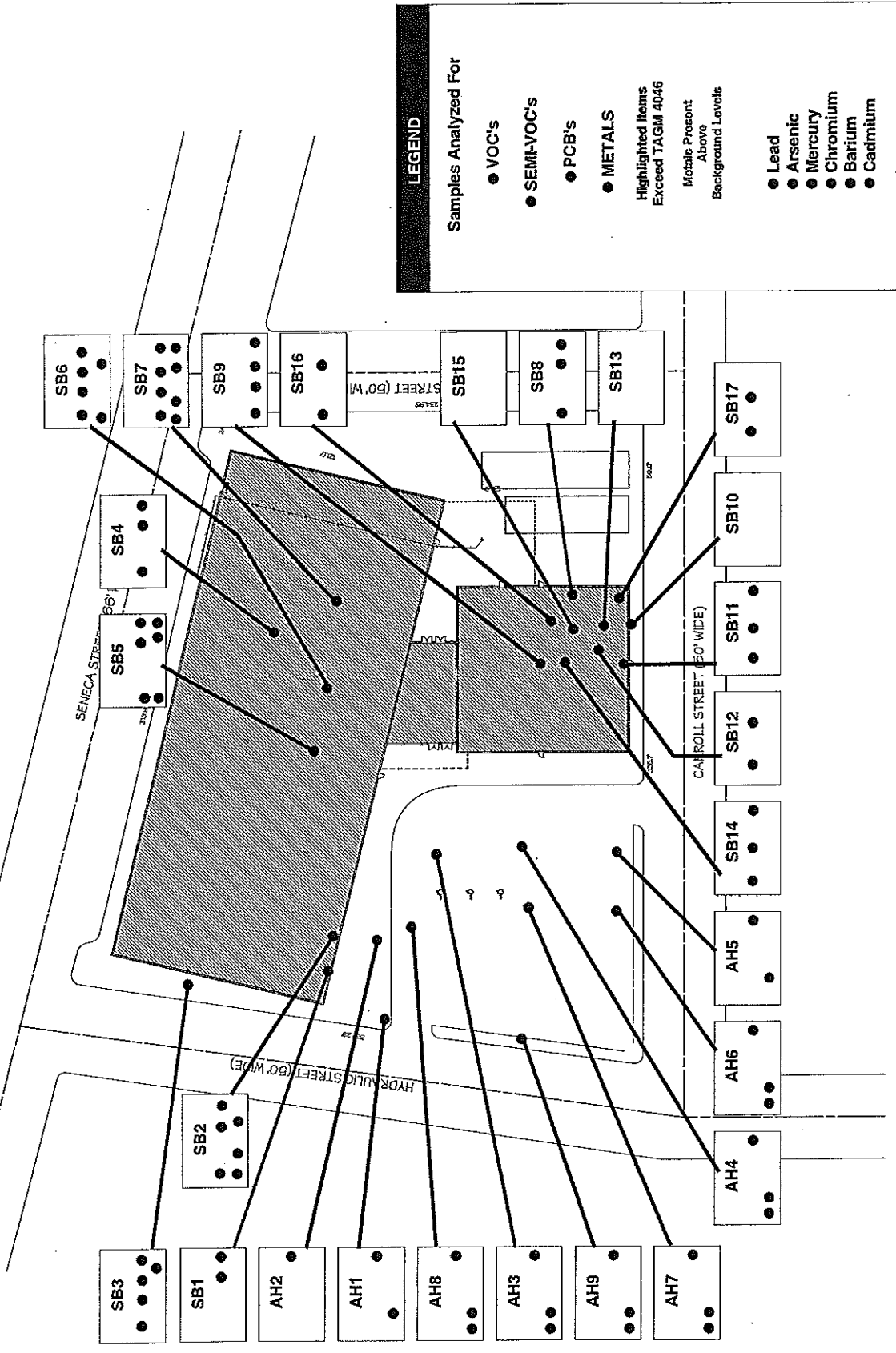


Figure 2



# TABLES



**TABLE #1**  
**VOLATILES ANALYTICAL RESULTS**  
**797 SENECA ST, BUFFALO, NY**  
**Method 8260B**  
**U-1046**  
**JUNE 14, 2006**

<b>Contaminant</b>	<b>SB2 4'-8' (ppm)</b>	<b>SB5 0 "-6" (ppm)</b>	<b>SB6 4'-6' (ppm)</b>	<b>SB7 4'-8' (ppm)</b>	<b>TAGM 4046 Rec. Soil Cleanup Objective (ppm)</b>
Methyl tert-butyl ether	ND	ND	ND	ND	0.12
Benzene	ND	0.02	ND	0.01	0.06
Toluene	0.02	0.08	ND	0.048	1.5
Ethylbenzene	ND	ND	ND	ND	5.5
m,p-Xylene	ND	0.04	ND	0.04	1.2
o-Xylene	ND	0.02	ND	0.03	1.2
Isopropylbenzene	ND	ND	ND	ND	2.3
n-Propylbenzene	ND	ND	ND	ND	3.7
1,3,5-Trimethylbenzene	ND	ND	ND	ND	10.0
1,2,4-Trimethylbenzene	ND	ND	0.52	0.01	10.0
p-Isopropyltoluene	ND	ND	ND	ND	10.0
n-Butylbenzene	ND	ND	ND	ND	10.0
sec-Butylbenzene	ND	ND	ND	ND	10.0
Naphthalene	0.02	0.04	ND	0.03	0.13
tert-butylbenzene	ND	ND	0.52	0.01	10.0

**ND – Non-Detect**



**TABLE #1 (Continued)**  
**VOLATILES ANALYTICAL RESULTS**  
**797 SENECA ST, BUFFALO, NY**  
**Method 8260B**  
**U-1046**  
**JUNE 14, 2006**

<b>Contaminant</b>	<b>SB3 8'-10' (ppm)</b>	<b>SB4 8' (ppm)</b>	<b>SB5 4' (ppm)</b>	<b>SB5 8'-12' (ppm)</b>	<b>TAGM 4046 Rec. Soil Cleanup Objective (ppm)</b>
Methyl tert-butyl ether	ND	ND	0.04	ND	0.12
Benzene	ND	ND	0.03	0.05	0.06
Toluene	ND	0.02	0.05	ND	1.5
Ethylbenzene	ND	ND	ND	ND	5.5
m,p-Xylene	ND	ND	0.05	0.04	1.2
o-Xylene	ND	ND	0.02	0.02	1.2
Isopropylbenzene	ND	ND	ND	0.16	2.3
n-Propylbenzene	ND	ND	0.02	0.08	3.7
1,3,5-Trimethylbenzene	ND	ND	0.02	0.02	10.0
1,2,4-Trimethylbenzene	ND	ND	0.52	19.9	10.0
p-Isopropyltoluene	ND	ND	ND	0.08	10.0
n-Butylbenzene	ND	ND	0.03	0.25	10.0
sec-Butylbenzene	ND	ND	0.07	0.52	10.0
Naphthalene	ND	ND	0.02	.025	0.13
Tert-butylbenzene	ND	ND	ND	0.08	10.0

**ND – Non-Detect**

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**TABLE #1 (Continued)**  
**VOLATILES ANALYTICAL RESULTS**  
**797 SENECA ST, BUFFALO, NY**  
**Method 8260B**  
**U-1046**  
**JUNE 14, 2006**

<b>Contaminant</b>	<b>SB8 4' (ppm)</b>	<b>SB9 1'-2' (ppm)</b>	<b>TAGM 4046 Rec. Soil Cleanup Objective (ppm)</b>
Methyl tert-butyl ether	ND	ND	0.12
Benzene	ND	ND	0.06
Toluene	0.02	0.10	1.5
Ethylbenzene	ND	.02	5.5
m,p-Xylene	ND	0.08	1.2
o-Xylene	ND	0.07	1.2
Isopropylbenzene	ND	ND	2.3
n-Propylbenzene	ND	ND	3.7
1,3,5-Trimethylbenzene	ND	0.74	10.0
1,2,4-Trimethylbenzene	0.03	0.01	10.0
p-Isopropyltoluene	ND	ND	10.0
n-Butylbenzene	ND	0.86	10.0
sec-Butylbenzene	ND	ND	10.0
Naphthalene	0.02	0.04	0.13
tert-butylbenzene	ND	ND	10.0

**ND – Non-Detect**



**TABLE #1 B**  
**WATER VOLATILES ANALYTICAL RESULTS**  
**797 SENECA ST, BUFFALO, NY**  
**Method 8260B**  
**U-1046**  
**JUNE 14, 2006**

<b>Contaminant</b>	<b>SB6 Water Sample (ppm)</b>	<b>TAGM 4046 Rec. Soil Cleanup Objective (ppm)</b>
Methyl tert-butyl ether	0.006	0.12
Benzene	0.003	0.06
Toluene	0.001	1.5
Ethylbenzene	ND	5.5
m,p-Xylene	ND	1.2
o-Xylene	ND	1.2
Isopropylbenzene	ND	2.3
n-Propylbenzene	ND	3.7
1,3,5-Trimethylbenzene	ND	10.0
1,2,4-Trimethylbenzene	0.032	10.0
p-Isopropyltoluene	ND	10.0
n-Butylbenzene	ND	10.0
sec-Butylbenzene	0.002	10.0
Naphthalene	0.001	0.13
tert-butylbenzene	ND	10.0

**ND – Non-Detect**

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**TABLE #2**  
**SOIL SEMI-VOLATILES ANALYTICAL**  
**RESULTS**  
**797 SENECA ST, BUFFALO, NY**  
**Method 8270C**  
**U-1046**  
**JUNE 14, 2006**

Contaminant	TAGM 4046 Rec. Cleanup Objectives ppm**	SB3 8'-10' (ppm)	SB6 4'-6' (ppm)	SB7 4'-8' (ppm)	SB9 1'-2' (ppm)
Acenaphthene	50.0	0.12	ND	ND	ND
Fluorene	50.0	0.16	ND	.153	ND
Acenaphthylene	50.0	ND	ND	.115	ND
Fluoranthene	50.0	1.49	ND	2.040	ND
Anthracene	50.0	0.37	ND	.284	ND
Phenanthrene	50.0	1.29	ND	1.460	0.14
Benzo (a) anthracene	2.8	0.75	ND	.807	ND
Chrysene	0.4	0.66	ND	.901	ND
Pyrene	50.0	1.18	ND	1.440	ND
Benzo (b) fluoranthene	1.1	0.63	ND	1.170	ND
Benzo (k) fluoranthene	1.1	0.56	ND	.278	ND
Benzo (g,h,i) perylene	50.0	0.22	ND	.448	ND
Benzo (a) pyrene	11.0	0.67	ND	.807	ND
Naphthalene	13.0	ND	ND	ND	7.62
Indeno(1,2,3-cd)pyrene	0.032	0.22	ND	.485	ND
Dibenzo(a,h)anthracene	16,500	0.12	ND	.182	ND

\*\* All figures based on December 5, 2001 letter and figures from Greg Sutton, NYSDEC Region 9  
ND-Not Detected



**TABLE #3**  
**PCB ANALYTICAL RESULTS**  
**797 SENECA ST, BUFFALO, NY**  
**Method 8082**  
**U-1046**  
**JUNE 14, 2006**

Contaminant	<b>b **</b> Soil cleanup objectives to protect GW quality (ppm)	<b>SB1</b> 6'-8' (ppm)	<b>SB2</b> 0'-4' (ppm)	<b>SB3</b> MOUND (ppm)	<b>SB3</b> 4'-6' (ppm)	<b>SB4</b> 2'-3' (ppm)	<b>SB5</b> 0''-6'' (ppm)	<b>TAGM</b> <b>4046</b> <b>***</b> Rec. Soil Cleanup Objective (ppm)
Aroclor 1254	10.0	ND	0.049	ND	ND	ND	ND	1.0 (Surface) 10 (sub-surf)
Aroclor 1260		ND	0.034	ND	ND	ND	0.092	

Contaminant	<b>b **</b> Soil cleanup objectives to protect GW quality (ppm)	<b>SB6</b> 0''-6'' (ppm)	<b>SB6</b> 4'-6' (ppm)	<b>SB7</b> MOUND (ppm)	<b>SB8</b> 4' (ppm)	<b>SB9</b> 1'-2' (ppm)	<b>TAGM 4046</b> <b>***</b> Rec. Soil Cleanup Objective (ppm)
Aroclor 1254	10.0	0.084	ND	0.55	ND	.034	1.0 (Surface) 10 (sub-surf)
Aroclor 1260		0.039	ND	0.39	ND	.017	

**b** Soil Cleanup Objective = Cs x Correction Factor (CF)

**\*\*** Correction Factor (CF) of 100 is used as per TAGM #4046

**\*\*\*** As per TAGM #4046, Total VOCs < 10 ppm.

**Note:** Soil cleanup objectives are developed for soil organic carbon content (f) of 1% (5% for PCBs as per PCB Guidance Document), and should be adjusted for the actual soil organic carbon content if it is known.

**ND – Non-Detect**

**AFI Environmental**  
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TABLE # 4  
HEAVY METALS ANALYTICAL RESULTS –  
797 SENECA STREET, BUFFALO, NEW YORK  
U-1046  
Method 6000/7000  
JUNE 14, 2006

Contaminants	Eastern USA Background (ppm)	SB1 6'-8' (ppm)	SB2 0'-4' (ppm)	SB3 Mound (ppm)	SB3 4'-6' (ppm)	SB4 2'-3' (ppm)	SB5 0''-6'' (ppm)	SB6 0''-6'' (ppm)	TAGM 4046 ***** Rec. Soil Cleanup Objective (ppm)
Arsenic	3-12 **	ND	13.7	ND	ND	9.36	8.99	ND	7.5 or SB
Barium	15-600	77.0	263	64.0	96.0	93.0	229	183	300 or SB
Cadmium	0.1-1	ND	ND	ND	ND	ND	17.1	ND	1 or SB
Chromium	1.5 - 40 **	13.9	73.9	149	12.0	13.0	67.9	327	10 or SB
Lead	****	31.1	902	210	261	338	917	1580	SB ****
Mercury	0.001 - 0.2	0.064	0.896	0.126	0.431	3.11	0.640	0.075	0.1
Selenium	0.1 - 3.9	ND	ND	ND	ND	ND	ND	ND	2 or SB
Silver	N/A	ND	ND	ND	ND	ND	ND	ND	SB

**ND – Non-Detect**

**AFI Environmental**

7815 Buffalo Avenue, Niagara Falls New York 14304 716-283-7645



TABLE # 4 (Continued)  
**HEAVY METALS ANALYTICAL RESULTS –**  
**797 SENECA STREET, BUFFALO, NEW YORK**  
**U-1046**  
**Method 6000/7000**  
**JUNE 14, 2006**

Contaminants	Eastern USA Background (ppm)	SB6 4'-6' (ppm)	SB7 Mound (ppm)	SB8 4' (ppm)	SB9 1'-2' (ppm)	TAGM 4046 ***** Rec. Soil Cleanup Objective (ppm)
Arsenic	3-12 **	ND	13.9	ND	ND	7.5 or SB
Barium	15-600	21.9	816	83.2	25.2	300 or SB
Cadmium	0.1-1	ND	ND	ND	ND	1 or SB
Chromium	1.5 - 40 **	ND	620	13.2	7.4	10 or SB
Lead	*****	64.6	1910	158	ND	SB *****
Mercury	0.001 - 0.2	1.85	2.31	2.10	0.062	0.1
Selenium	0.1 - 3.9	ND	ND	ND	ND	2 or SB
Silver	N/A	ND	ND	ND	ND	SB

**ND – Non-Detect**

**AFI Environmental**

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**TABLE # 4 (Continued)**  
**HEAVY METALS ANALYTICAL RESULTS –**  
**797 SENECA STREET, BUFFALO, NEW YORK**  
**U-1046**  
**Method 6000/7000**  
**JUNE 23, 2006**

Contaminants	Eastern USA Background (ppm)	AH1 0"-6" (ppm)	AH2 0"-6" (ppm)	AH3 0"-6" (ppm)	AH4 0"-6" (ppm)	AH5 0"-6" (ppm)	AH6 0"-6" (ppm)	TAGM 4046 ***** Rec. Soil Cleanup Objective (ppm)
Arsenic	3-12 **	12.8	11.7	17.5	27.0	22.6	24.6	7.5 or SB
Barium	15-600	127	129	451	423	284	445	300 or SB
Cadmium	0.1-1	ND	ND	ND	ND	ND	ND	1 or SB
Chromium	1.5 - 40 **	18.3	14.2	34.8	24	27.7	34.4	10 or SB
Lead	*****	373	322	1140	1250	658	3590	SB *****
Mercury	0.001 - 0.2	0.389	1.06	1.18	0.904	.965	1.71	0.1
Selenium	0.1 - 3.9	ND	ND	ND	ND	ND	ND	2 or SB
Silver	N/A	ND	ND	ND	ND	ND	ND	SB

**ND – Non-Detect**

**AFI Environmental**

7815 Buffalo Avenue, Niagara Falls New York 14304 716-283-7645



**TABLE # 4 (Continued)**  
**HEAVY METALS ANALYTICAL RESULTS –**  
**797 SENECA STREET, BUFFALO, NEW YORK**  
**U-1046**  
**Method 6000/7000**  
**JUNE 23, 2006**

<b>Contaminants</b>	<b>Eastern USA Background (ppm)</b>	<b>AH7 0"-6" (ppm)</b>	<b>AH8 0"-6" (ppm)</b>	<b>AH9 0"-6" (ppm)</b>	<b>TAGM 4046 ***** Rec. Soil Cleanup Objective (ppm)</b>
Arsenic	3-12 **	12.7	23.3	14.1	7.5 or SB
Barium	15-600	148	396	180	300 or SB
Cadmium	0.1-1	ND	ND	ND	1 or SB
Chromium	1.5 - 40 **	18.5	32.3	19.4	10 or SB
Lead	*****	553	1950	521	SB *****
Mercury	0.001 - 0.2	0.487	1.57	0.656	0.1
Selenium	0.1 - 3.9	ND	ND	ND	2 or SB
Silver	N/A	ND	ND	ND	SB

**Note:** Some forms of metal salts such as Aluminum Phosphide, Calcium Cyanide, Potassium Cyanide, Copper cyanide, Silver cyanide, Sodium cyanide, Zinc phosphide, Thallium salts, Vanadium pentoxide and Chromium (VI) compounds are more toxic in nature. Please refer to the USEPA HEASTs database to find cleanup objectives if such metals are present in soil. **SB** is site background

**N/A** is not available\*\* New York State background.\*\*\*\*\* Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.

\*\*\*\*\* Recommended soil cleanup objectives are average background concentrations as reported in a 1984 survey of reference material by E. Carol McGovern, NYSDEC.

**ND – Non-Detect**

**AFI Environmental**  
7815 Buffalo Avenue, Niagara Falls New York 14304 716-283-7645



# EXCAVATION LOG

Technician: E. Benton  
 Location: 797 Seneca Street, Buffalo, NY

Project No.: U-1046  
 Page No.: 1

DATE	LOCATION	DEPTH	SOIL DESCRIPTION	COMMENTS	PID READING (ppm)	PHOTO NO.
06/14/ 06	SP1	0-4'	top soil/red brick/mortar		0.00	1
		4-8'	red brick/brown clay		9.8	2
		8-12'	sandy clay		13.3	3
	SP2	0-4'	top soil/gravel/brick/sand/silty clay		13.6	4
		4-8'	sandy clay/gray clay		66.8	5
		8-12'	gray clay/brown clay		3.7	6
	SP16	0-4'	.5' topsoil; 3.5' gravel/brick fill; .5 brown clay	24' west of Griffin; 42' north of Exchange	0.00	7
		4-8'	.5' gravel/brick fill; .5' grey/brown clay; .5' fill; 1' sand/rock; .5' brown clay		0.00	8
		8-12'	Brown clay		0.00	9
	SP17	0-4'	2' gravel/brick fill; 2' brown clay	24' east of Griffin; 45' north of SP16	0.00	10
		4-8'	Brown clay		0.00	11
		8-12'	8" brown clay; 1" gravel brown clay		0.00	12
	SP18	0-4'	.5' topsoil; 3' gravel/fill; .5' brown clay	48' north of Exchange 152' east of Griffin	0.00	13
		4-8'	.5' brown clay; 1' sand; brown clay		0.00	14
		8-12'	sand with gravel; brown clay		0.00	15



# LABORATORY DATA







**WASTE STREAM TECHNOLOGY, INC.**


302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 06/21/06  
Work Order Number: 6F15003

**Prepared For**  
Bill Heitzenrater  
AFI Environmental - NF  
7815 Buffalo Avenue  
Niagara Falls, NY 14304  
Fax: (716) 283-2858  
Site: U-1046

Enclosed are the results of analyses for samples received by the laboratory on 06/14/06. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

  
\_\_\_\_\_  
Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757



Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



API Environmental - NF  
7815 Buffalo Avenue  
Niagara Falls NY, 14304

Project: Environmental Projects / Soils & Solids  
Project Number: U-1046  
Project Manager: Bill Heitzenrater

Reported:  
06/21/06 15:54

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB2 0-4	6F15003-01	Soil	06/14/06 12:00	06/14/06 16:40
SB5 Surface	6F15003-03	Soil	06/14/06 12:50	06/14/06 16:40
SB3 Mound	6F15003-04	Soil	06/14/06 12:50	06/14/06 16:40
SB6 Surface	6F15003-05	Soil	06/14/06 13:30	06/14/06 16:40
SB6 4-6	6F15003-06	Soil	06/14/06 13:35	06/14/06 16:40
SB7 Mound	6F15003-07	Soil	06/14/06 15:30	06/14/06 16:40



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06/21/06 15:54

### Metals by EPA 6000/7000 Series Methods

#### Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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#### SB2 0-4 (6F15003-01) Soil Sampled: 06/14/06 12:00 Received: 06/14/06 16:40

Mercury	0.896	0.014	mg/kg dry	1	AF61513	06/16/06	06/16/06	EPA 7471A	
Silver	ND	2.50	"	5	AF61612	06/16/06	06/21/06	EPA 6010B	
Arsenic	13.7	8.50	"	"	"	"	"	"	
Barium	263	5.00	"	"	"	"	"	"	
Cadmium	ND	5.00	"	"	"	"	"	"	
Chromium	73.9	5.00	"	"	"	"	"	"	
Lead	902	20.5	"	"	"	"	"	"	
Selenium	ND	7.00	"	"	"	"	"	"	

#### SB5 Surface (6F15003-03) Soil Sampled: 06/14/06 12:50 Received: 06/14/06 16:40

Mercury	0.640	0.014	mg/kg dry	1	AF61513	06/16/06	06/16/06	EPA 7471A	
Silver	ND	2.50	"	5	AF61612	06/16/06	06/21/06	EPA 6010B	
Arsenic	8.99	8.50	"	"	"	"	06/21/06	"	
Barium	229	5.00	"	"	"	"	06/21/06	"	
Cadmium	17.1	5.00	"	"	"	"	06/21/06	"	
Chromium	67.9	5.00	"	"	"	"	06/21/06	"	
Lead	917	20.5	"	"	"	"	"	"	
Selenium	ND	7.00	"	"	"	"	06/21/06	"	

#### SB3 Mound (6F15003-04) Soil Sampled: 06/14/06 12:50 Received: 06/14/06 16:40

Mercury	0.126	0.014	mg/kg dry	1	AF61513	06/16/06	06/16/06	EPA 7471A	
Silver	ND	2.50	"	5	AF61612	06/16/06	06/21/06	EPA 6010B	
Arsenic	ND	8.50	"	"	"	"	"	"	
Barium	64.0	5.00	"	"	"	"	"	"	
Cadmium	ND	5.00	"	"	"	"	"	"	
Chromium	149	5.00	"	"	"	"	"	"	
Lead	210	20.5	"	"	"	"	"	"	
Selenium	ND	7.00	"	"	"	"	"	"	



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06/21/06 15:54

**Metals by EPA 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB6 Surface (6F15003-05) Soil Sampled: 06/14/06 13:30 Received: 06/14/06 16:40</b>									
Mercury	0.075	0.014	mg/kg dry	1	AF61513	06/16/06	06/16/06	EPA 7471A	
Silver	ND	2.50	"	5	AF61612	06/16/06	06/21/06	EPA 6010B	
Arsenic	ND	8.50	"	"	"	"	"	"	
Barium	183	5.00	"	"	"	"	"	"	
Cadmium	ND	5.00	"	"	"	"	"	"	
Chromium	327	5.00	"	"	"	"	"	"	
Lead	1580	20.5	"	"	"	"	"	"	
Selenium	ND	7.00	"	"	"	"	"	"	

<b>SB6 4-6 (6F15003-06) Soil Sampled: 06/14/06 13:35 Received: 06/14/06 16:40</b>									
Mercury	1.85	0.070	mg/kg dry	5	AF61513	06/16/06	06/16/06	EPA 7471A	
Silver	ND	2.50	"	"	AF61612	06/16/06	06/21/06	EPA 6010B	
Arsenic	ND	8.50	"	"	"	"	"	"	
Barium	21.9	5.00	"	"	"	"	"	"	
Cadmium	ND	5.00	"	"	"	"	"	"	
Chromium	ND	5.00	"	"	"	"	"	"	
Lead	64.6	20.5	"	"	"	"	"	"	
Selenium	ND	7.00	"	"	"	"	"	"	

<b>SB7 Mound (6F15003-07) Soil Sampled: 06/14/06 15:30 Received: 06/14/06 16:40</b>									
Mercury	2.31	0.014	mg/kg dry	1	AF61513	06/16/06	06/16/06	EPA 7471A	
Silver	ND	2.50	"	5	AF61612	06/16/06	06/21/06	EPA 6010B	
Arsenic	13.9	8.50	"	"	"	"	"	"	
Barium	816	5.00	"	"	"	"	"	"	
Cadmium	ND	5.00	"	"	"	"	"	"	
Chromium	620	5.00	"	"	"	"	"	"	
Lead	1910	20.5	"	"	"	"	"	"	
Selenium	ND	7.00	"	"	"	"	"	"	



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06/21/06 15:54

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference