

October 18, 2005

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Remedial Bureau C  
Division of Environmental Remediation

Mr. Bernie Franklin  
New York State Dept. of Environmental  
Conservation  
625 Broadway  
Albany, NY 12233-7014

**Re: Supplemental Site Characterization Data Summary for Canastota (Canal St.)  
Former Manufactured Gas Plant, Canastota, New York**

Dear Mr. Franklin:

Enclosed please find the Supplemental Site Characterization (SSC) Data Summary Report for the Canastota (Canal St.) Former MGP in Canastota, New York prepared by GEI Consultants. This SSC Data Summary Report includes tables, figures and logs, and is being submitted in accordance National Grid's 2/1/4/05 SSC work plan submittal; the 3/29/05 letter response from NYSDEC approving the work plan; the 4/28/05 clarification letter from National Grid; and the Voluntary Consent Order (VCO) between the New York State Department of Environmental Conservation (NYSDEC) and Niagara Mohawk, dated January 25, 2002.

The Data Usability Summary Report (DUSR), presenting the results of the independent validation of the analytical data for the SSC, is also included in the enclosed submittal.

Data and information obtained during the SSC investigation activities indicate that MGP-related constituents are present at the site. National Grid recommends that a Remedial Investigation (RI) be conducted at this site to further evaluate the nature and extent of the MGP-related constituents and assess whether remedial activities are required to address them. Accordingly, we would like to schedule a meeting with the NYSDEC to discuss the findings of the SSC and potential RI activities. After you have had an opportunity to review the attached SSC Data Summary Report, please let me know when you would like to schedule this meeting.

Mr. Bernie Franklin  
Page 2  
October 18, 2005

I look forward to your reply on this matter.

Sincerely,



Steven P. Stucker, C.P.G.  
Senior Environmental Engineer

pc: William Holzhauer, Esq.-National Grid (w/o report)  
Terry Young-National Grid (w/o report)  
Wendy Kuehner-NYSDOH (w/report)  
Jerry Zak-GEI (w/o report)



SOURCE: Map created with TOPO! © 2001 National Geographic  
 (www.nationalgeographic.com/topo)



CANASTOTA NON-OWNED FORMER MGP SITE  
 CANASTOTA, NEW YORK

NIAGARA MOHAWK – A NATIONAL GRID COMPANY  
 SYRACUSE, NEW YORK

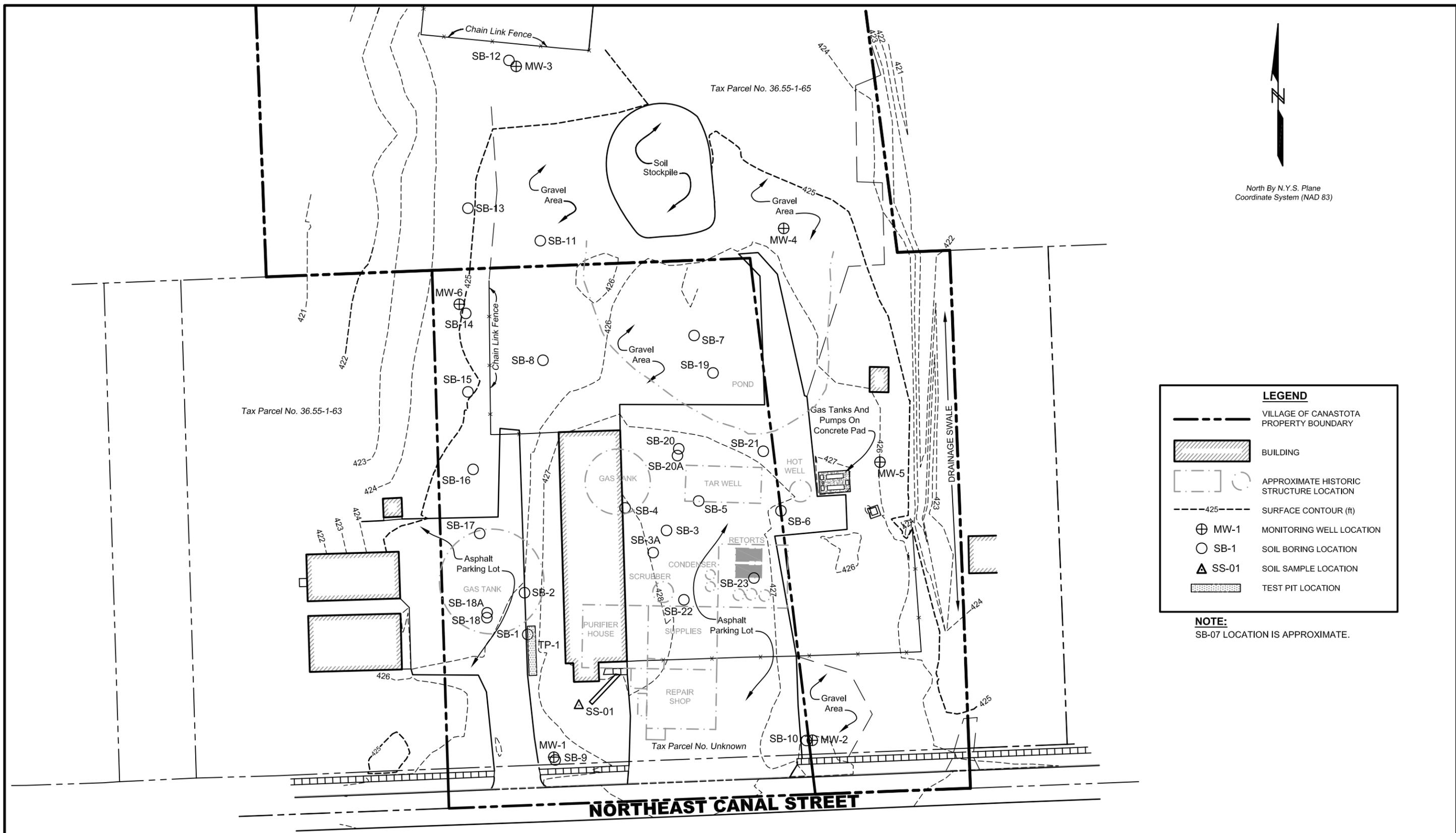


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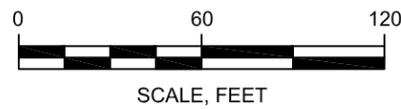
SITE LOCATION MAP

October 2005

Figure 1



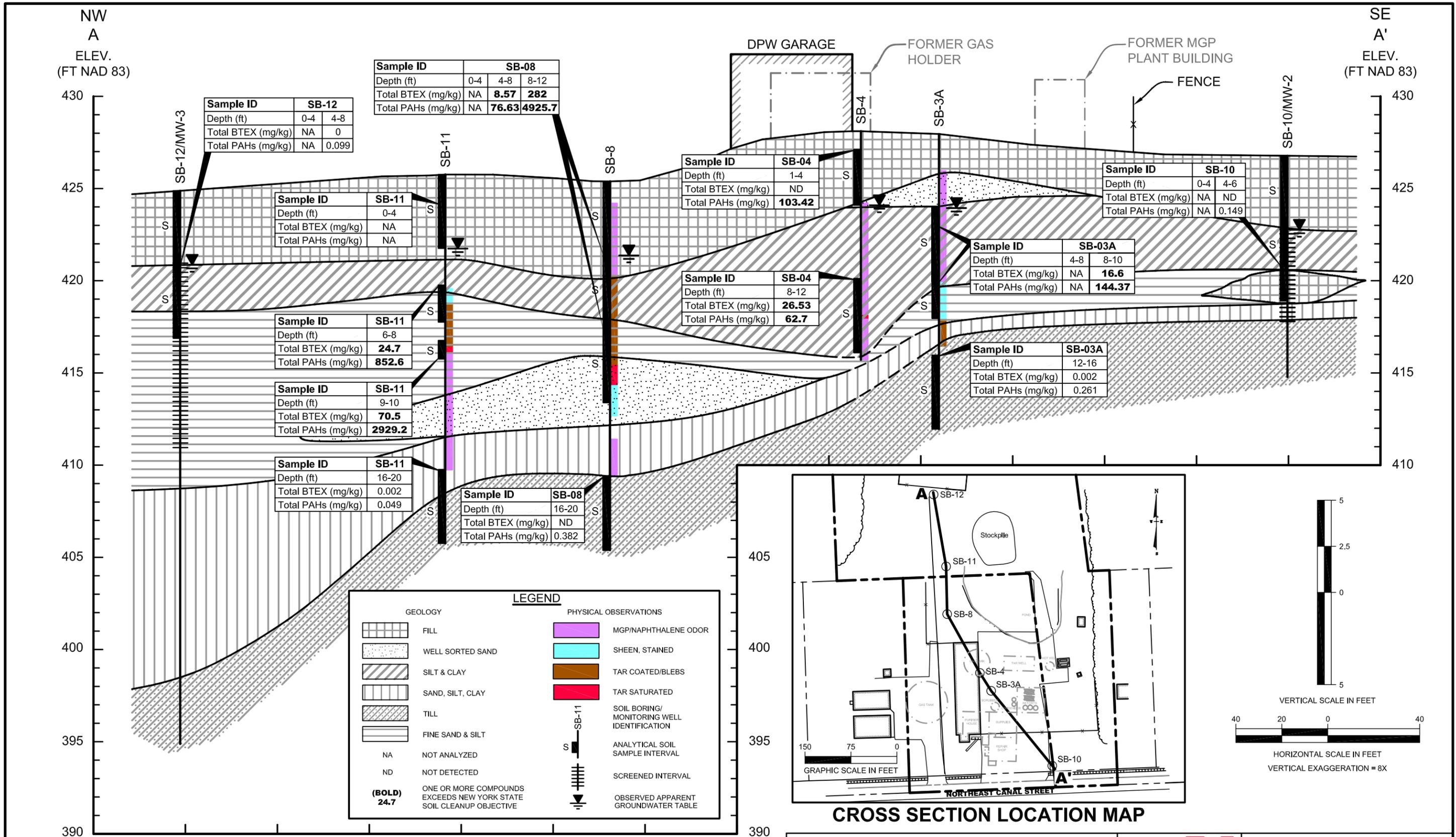
**SOURCE:**  
 SURVEY MAP TITLED "PORTION OF THE LANDS OF VILLAGE OF CANASTOTA  
 NORTHEAST CANAL STREET, VILLAGE OF CANASTOTA - MADISON COUNTY,  
 STATE OF NEW YORK; PREPARED BY SNYDER ENGINEERING & LAND  
 SURVEYING, LLP, 214 CEDAR STREET, ONEIDA, NEW YORK 13421; DATED  
 11/20/2003; SCALE: 1" = 30'.



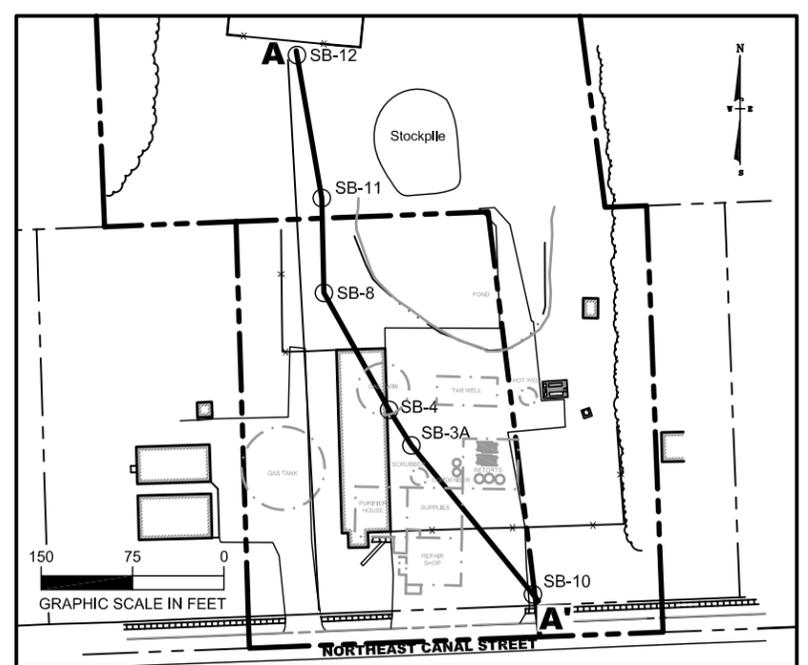
CANASTOTA NON-OWNED FORMER MGP SITE  
 CANASTOTA, NEW YORK  
 NIAGARA MOHAWK - A NATIONAL GRID COMPANY  
 SYRACUSE, NEW YORK

**GEI** Consultants  
 Project 034390-1

**CURRENT SITE  
 CONDITIONS AND  
 SAMPLE LOCATION MAP**  
 October 2005 Figure 2



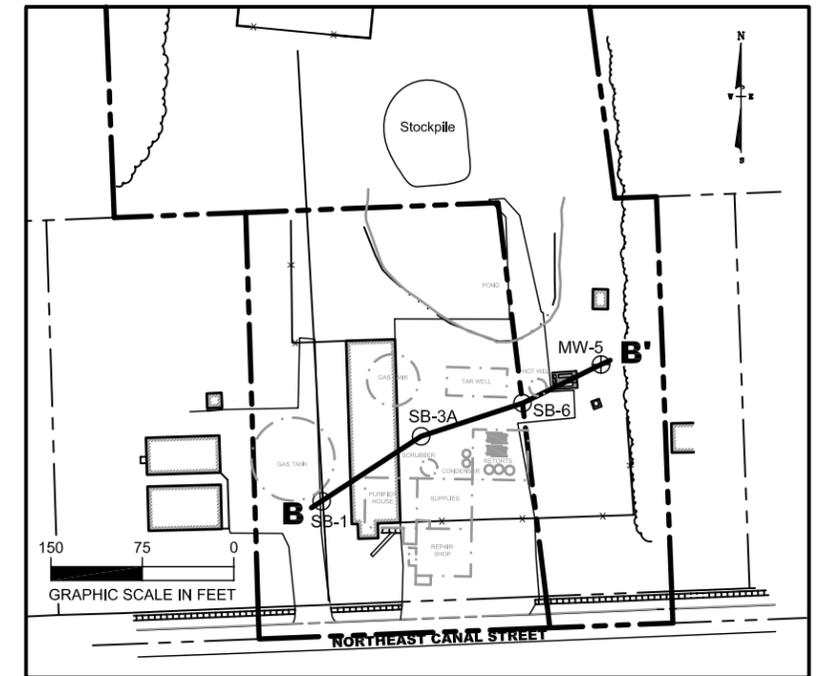
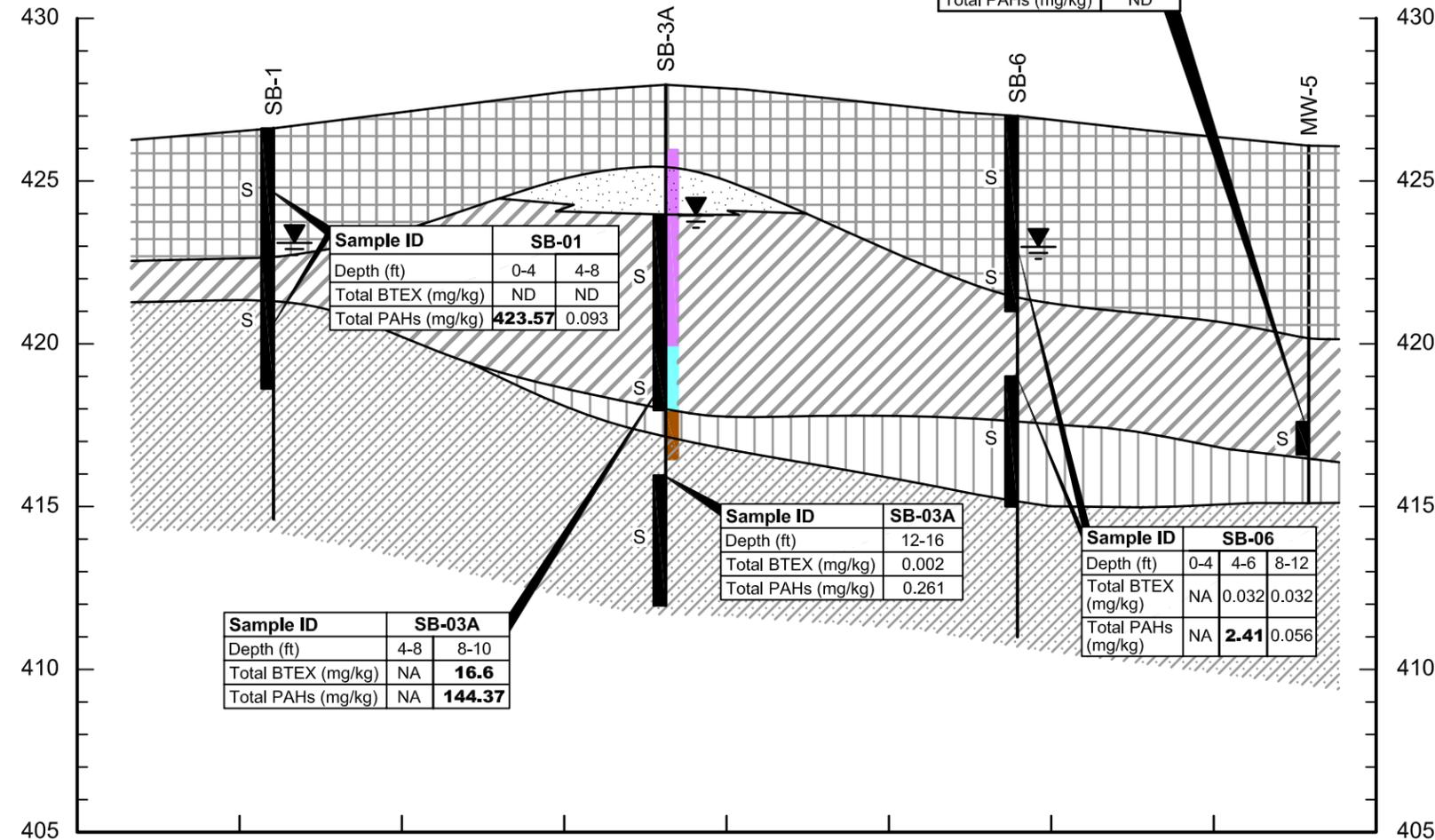
NOTE: ALL SAMPLE LOCATIONS SHOWN AS "S", HOWEVER, NOT ALL ANALYZED FOR BTEX OR PAH.



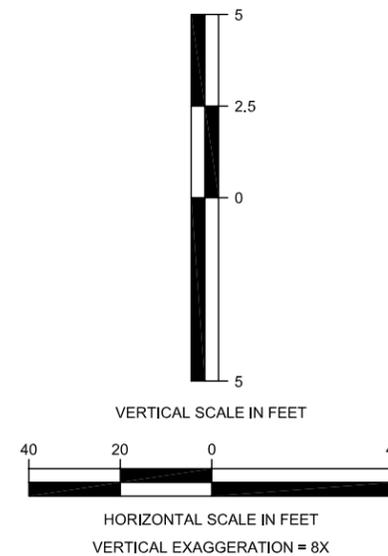
CANASTOTA NON-OWNED FORMER MGP SITE CANASTOTA, NEW YORK  NIAGARA MOHAWK - A NATIONAL GRID COMPANY SYRACUSE, NEW YORK		<b>GEOLOGIC CROSS SECTION A-A'</b>
		Project 034390-1    October 2005    Figure 3

SW  
B  
ELEV.  
(FT NAD 83)

NE  
B'  
ELEV.  
(FT NAD 83)



CROSS SECTION LOCATION MAP



GEOLOGY		PHYSICAL OBSERVATIONS	
	FILL		MGP/NAPHTHALENE ODOR
	WELL SORTED SAND		SHEEN, STAINED
	SILT & CLAY		TAR COATED/BLEBS
	SAND, SILT, CLAY		TAR SATURATED
	TILL		SOIL BORING/ MONITORING WELL IDENTIFICATION
	FINE SAND & SILT		ANALYTICAL SOIL SAMPLE INTERVAL
NA	NOT ANALYZED		OBSERVED APPARENT GROUNDWATER TABLE
ND	NOT DETECTED		
<b>(BOLD)</b> <b>24.7</b>	ONE OR MORE COMPOUNDS EXCEEDS NEW YORK STATE SOIL CLEANUP OBJECTIVE		

NOTE: ALL SAMPLE LOCATIONS SHOWN AS "S",  
HOWEVER, NOT ALL ANALYZED FOR BTEX OR PAH.

CANASTOTA NON-OWNED FORMER MGP SITE  
CANASTOTA, NEW YORK

NIAGARA MOHAWK - A NATIONAL GRID COMPANY  
SYRACUSE, NEW YORK



Project 034390-1

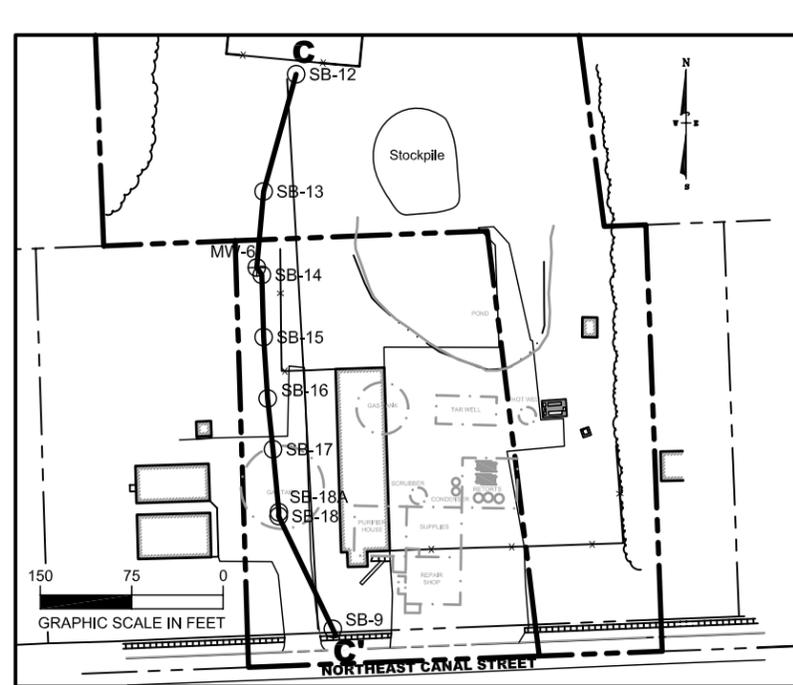
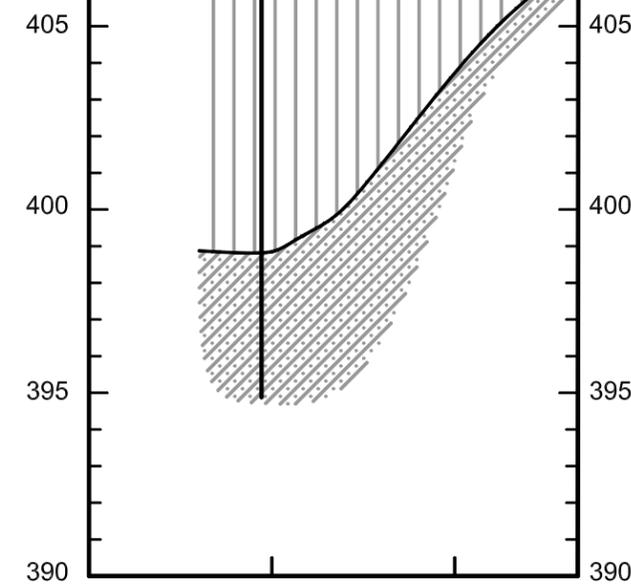
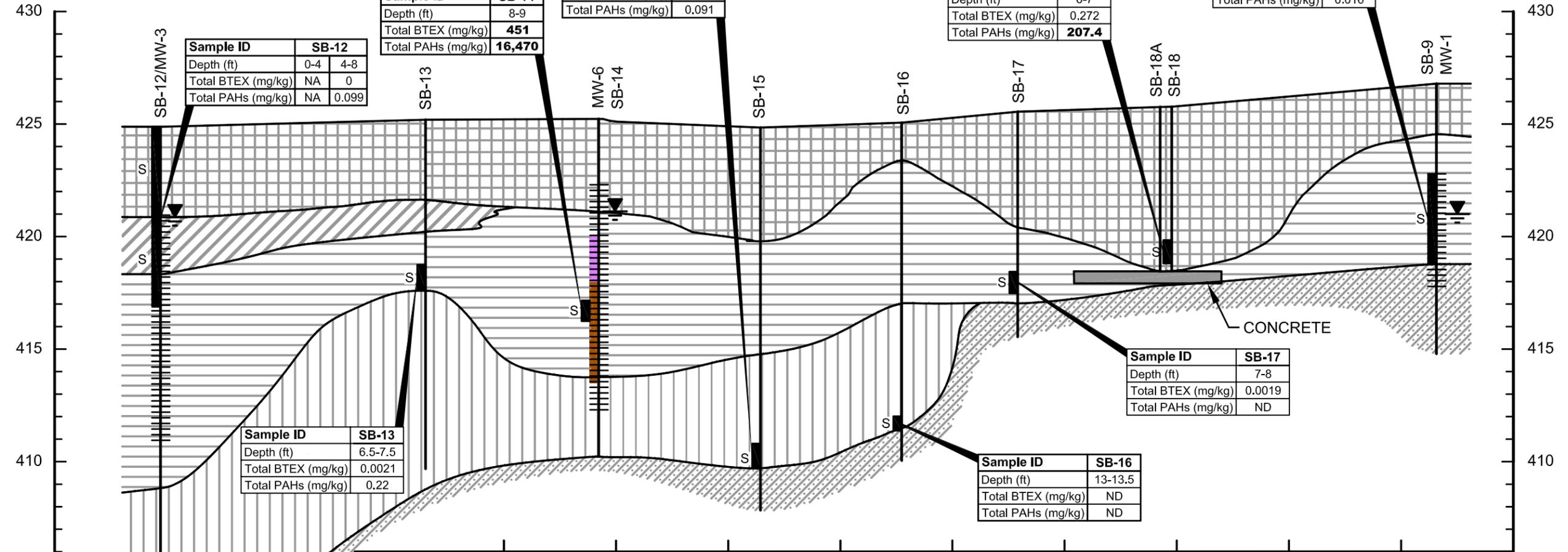
GEOLOGIC CROSS SECTION  
B-B'

October 2005

Figure 4

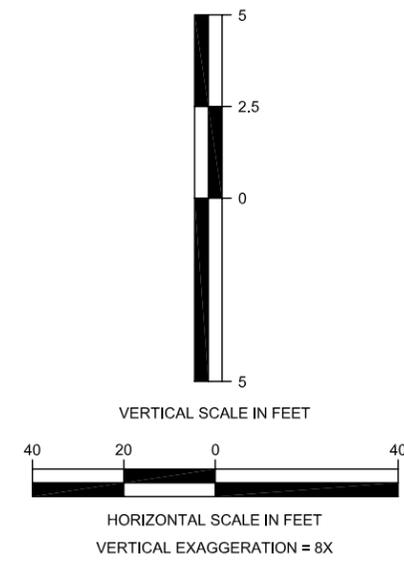
N  
C  
ELEV.  
(FT NAD 83)

S  
C'  
ELEV.  
(FT NAD 83)



**CROSS SECTION LOCATION MAP**

GEOLOGY		PHYSICAL OBSERVATIONS	
[Pattern]	FILL	[Color]	MGP/NAPHTHALENE ODOR
[Pattern]	WELL SORTED SAND	[Color]	SHEEN, STAINED
[Pattern]	SILT & CLAY	[Color]	TAR COATED/BLEBS
[Pattern]	SAND, SILT, CLAY	[Color]	TAR SATURATED
[Pattern]	TILL	[Symbol]	SOIL BORING/ MONITORING WELL IDENTIFICATION
[Pattern]	FINE SAND & SILT	[Symbol]	ANALYTICAL SOIL SAMPLE INTERVAL
NA	NOT ANALYZED	[Symbol]	SCREENED INTERVAL
ND	NOT DETECTED	[Symbol]	OBSERVED APPARENT GROUNDWATER TABLE
<b>(BOLD)</b>	ONE OR MORE COMPOUNDS EXCEEDS NEW YORK STATE SOIL CLEANUP OBJECTIVE		

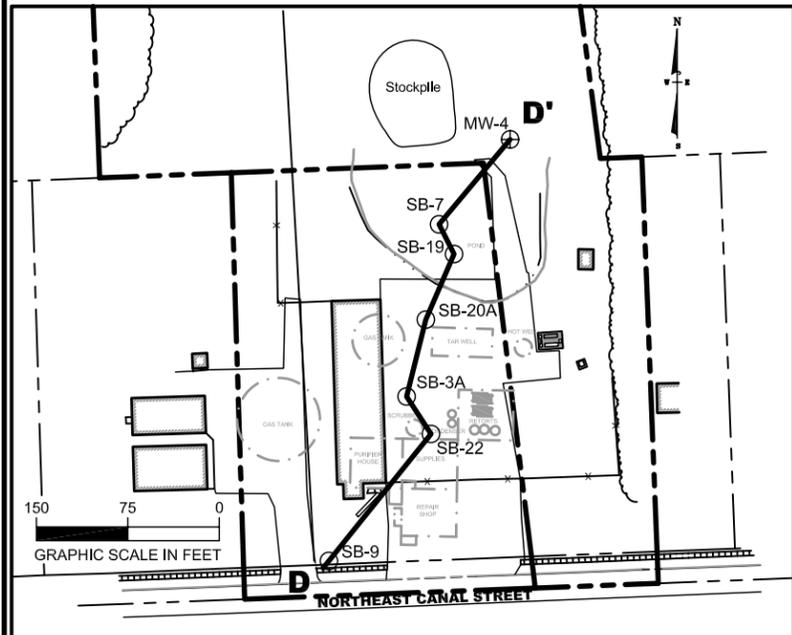
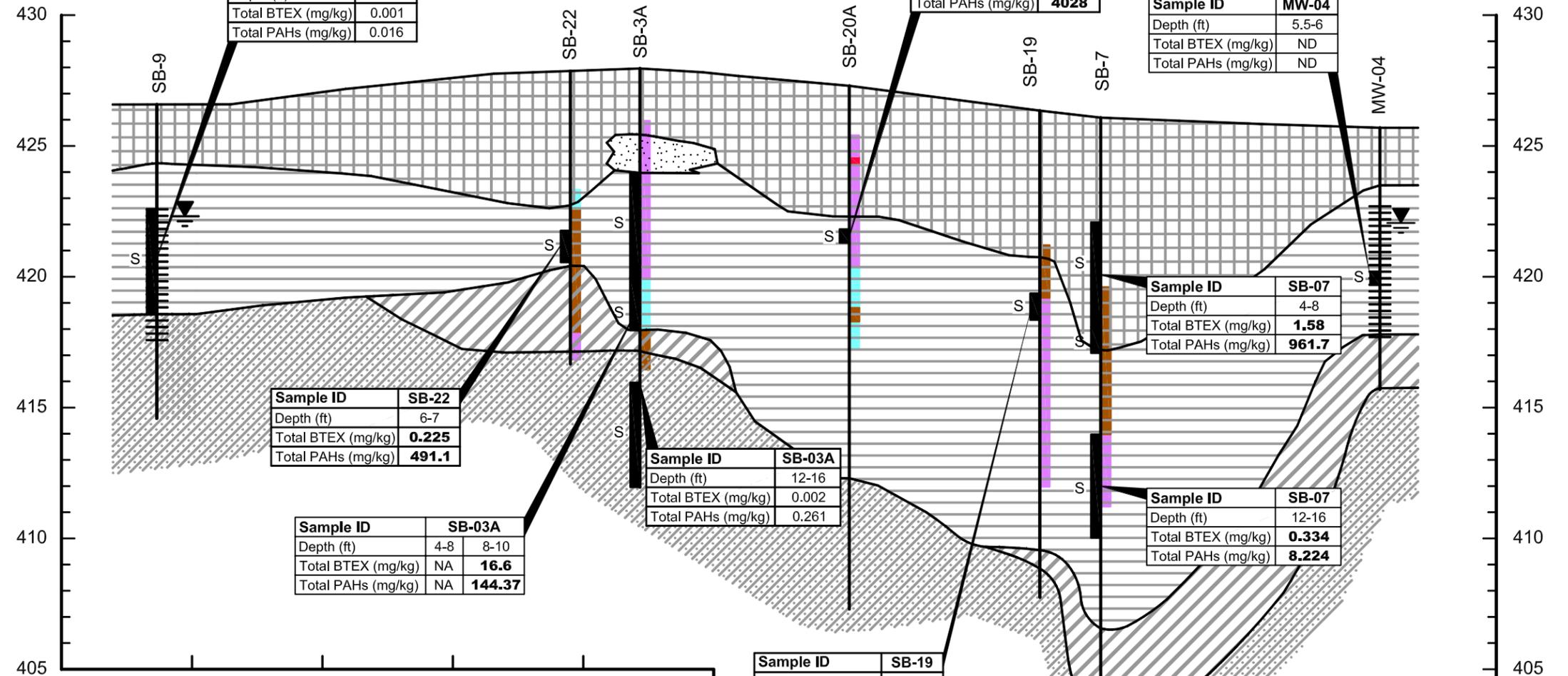
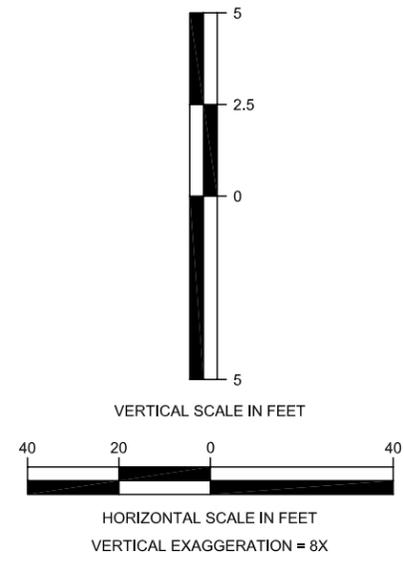


CANASTOTA NON-OWNED FORMER MGP SITE CANASTOTA, NEW YORK			<b>GEOLOGIC CROSS SECTION C-C'</b>	
NIAGARA MOHAWK - A NATIONAL GRID COMPANY SYRACUSE, NEW YORK			Project 034390-1	October 2005

NOTE: ALL SAMPLE LOCATIONS SHOWN AS "S",  
HOWEVER, NOT ALL ANALYZED FOR BTEX OR PAH.

SW  
D  
ELEV.  
(FT NAD 83)

NE  
D'  
ELEV.  
(FT NAD 83)



GEOLOGY		PHYSICAL OBSERVATIONS	
[Pattern]	FILL	[Color]	MGP/NAPHTHALENE ODOR
[Pattern]	WELL SORTED SAND	[Color]	SHEEN, STAINED
[Pattern]	SILT & CLAY	[Color]	TAR COATED/BLEBS
[Pattern]	SAND, SILT, CLAY	[Color]	TAR SATURATED
[Pattern]	TILL	[Symbol]	SOIL BORING/ MONITORING WELL IDENTIFICATION
[Pattern]	FINE SAND & SILT	[Symbol]	ANALYTICAL SOIL SAMPLE INTERVAL
NA	NOT ANALYZED	[Symbol]	OBSERVED APPARENT GROUNDWATER TABLE
ND	NOT DETECTED		
<b>(BOLD)</b> <b>24.7</b>	ONE OR MORE COMPOUNDS EXCEEDS NEW YORK STATE SOIL CLEANUP OBJECTIVE		

NOTE: ALL SAMPLE LOCATIONS SHOWN AS "S",  
HOWEVER, NOT ALL ANALYZED FOR BTEX OR PAH.

CANASTOTA NON-OWNED FORMER MGP SITE  
CANASTOTA, NEW YORK

NIAGARA MOHAWK - A NATIONAL GRID COMPANY  
SYRACUSE, NEW YORK

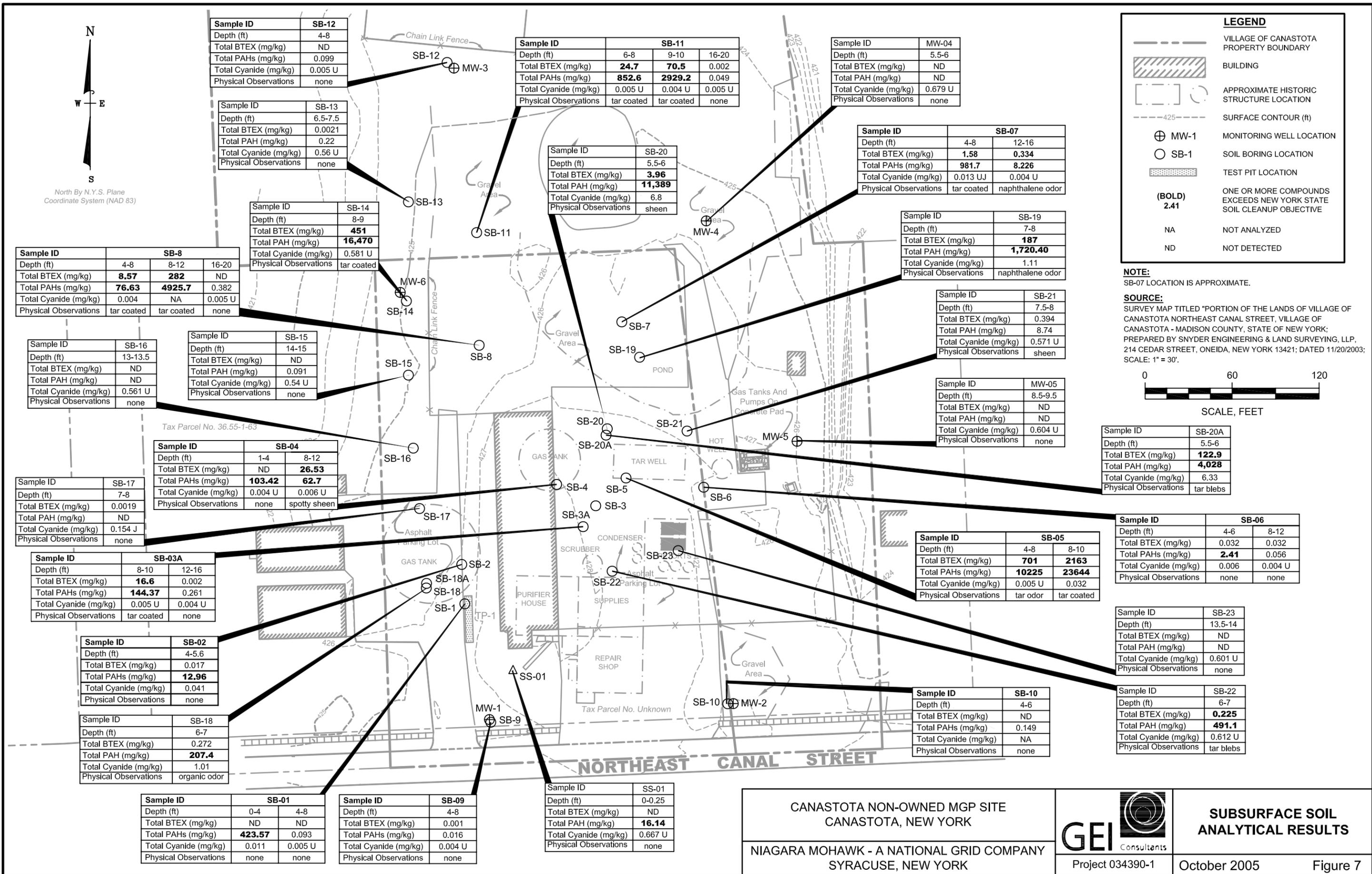


GEOLOGIC CROSS SECTION  
D-D'

Project 034390-1

October 2005

Figure 6



Sample ID	SB-12
Depth (ft)	4-8
Total BTEX (mg/kg)	ND
Total PAHs (mg/kg)	0.099
Total Cyanide (mg/kg)	0.005 U
Physical Observations	none

Sample ID	SB-11		
Depth (ft)	6-8	9-10	16-20
Total BTEX (mg/kg)	<b>24.7</b>	<b>70.5</b>	0.002
Total PAHs (mg/kg)	<b>852.6</b>	<b>2929.2</b>	0.049
Total Cyanide (mg/kg)	0.005 U	0.004 U	0.005 U
Physical Observations	tar coated	tar coated	none

Sample ID	MW-04
Depth (ft)	5.5-6
Total BTEX (mg/kg)	ND
Total PAH (mg/kg)	ND
Total Cyanide (mg/kg)	0.679 U
Physical Observations	none

Sample ID	SB-13
Depth (ft)	6.5-7.5
Total BTEX (mg/kg)	0.0021
Total PAH (mg/kg)	0.22
Total Cyanide (mg/kg)	0.56 U
Physical Observations	none

Sample ID	SB-20
Depth (ft)	5.5-6
Total BTEX (mg/kg)	<b>3.96</b>
Total PAH (mg/kg)	<b>11,389</b>
Total Cyanide (mg/kg)	6.8
Physical Observations	sheen

Sample ID	SB-07	
Depth (ft)	4-8	12-16
Total BTEX (mg/kg)	<b>1.58</b>	<b>0.334</b>
Total PAHs (mg/kg)	<b>981.7</b>	<b>8.226</b>
Total Cyanide (mg/kg)	0.013 UJ	0.004 U
Physical Observations	tar coated	naphthalene odor

Sample ID	SB-14
Depth (ft)	8-9
Total BTEX (mg/kg)	<b>451</b>
Total PAH (mg/kg)	<b>16,470</b>
Total Cyanide (mg/kg)	0.581 U
Physical Observations	tar coated

Sample ID	SB-19
Depth (ft)	7-8
Total BTEX (mg/kg)	<b>187</b>
Total PAH (mg/kg)	<b>1,720.40</b>
Total Cyanide (mg/kg)	1.11
Physical Observations	naphthalene odor

Sample ID	SB-8		
Depth (ft)	4-8	8-12	16-20
Total BTEX (mg/kg)	<b>8.57</b>	<b>282</b>	ND
Total PAHs (mg/kg)	<b>76.63</b>	<b>4925.7</b>	0.382
Total Cyanide (mg/kg)	0.004	NA	0.005 U
Physical Observations	tar coated	tar coated	none

Sample ID	SB-15
Depth (ft)	14-15
Total BTEX (mg/kg)	ND
Total PAH (mg/kg)	0.091
Total Cyanide (mg/kg)	0.54 U
Physical Observations	none

Sample ID	SB-21
Depth (ft)	7.5-8
Total BTEX (mg/kg)	0.394
Total PAH (mg/kg)	8.74
Total Cyanide (mg/kg)	0.571 U
Physical Observations	sheen

Sample ID	SB-16
Depth (ft)	13-13.5
Total BTEX (mg/kg)	ND
Total PAH (mg/kg)	ND
Total Cyanide (mg/kg)	0.561 U
Physical Observations	none

Sample ID	SB-04	
Depth (ft)	1-4	8-12
Total BTEX (mg/kg)	ND	<b>26.53</b>
Total PAHs (mg/kg)	<b>103.42</b>	<b>62.7</b>
Total Cyanide (mg/kg)	0.004 U	0.006 U
Physical Observations	none	spotty sheen

Sample ID	MW-05
Depth (ft)	8.5-9.5
Total BTEX (mg/kg)	ND
Total PAH (mg/kg)	ND
Total Cyanide (mg/kg)	0.604 U
Physical Observations	none

Sample ID	SB-20A
Depth (ft)	5.5-6
Total BTEX (mg/kg)	<b>122.9</b>
Total PAH (mg/kg)	<b>4,028</b>
Total Cyanide (mg/kg)	6.33
Physical Observations	tar blebs

Sample ID	SB-17
Depth (ft)	7-8
Total BTEX (mg/kg)	0.0019
Total PAH (mg/kg)	ND
Total Cyanide (mg/kg)	0.154 J
Physical Observations	none

Sample ID	SB-05	
Depth (ft)	4-8	8-10
Total BTEX (mg/kg)	<b>701</b>	<b>2163</b>
Total PAHs (mg/kg)	<b>10225</b>	<b>23644</b>
Total Cyanide (mg/kg)	0.005 U	0.032
Physical Observations	tar odor	tar coated

Sample ID	SB-06	
Depth (ft)	4-6	8-12
Total BTEX (mg/kg)	0.032	0.032
Total PAHs (mg/kg)	<b>2.41</b>	0.056
Total Cyanide (mg/kg)	0.006	0.004 U
Physical Observations	none	none

Sample ID	SB-03A	
Depth (ft)	8-10	12-16
Total BTEX (mg/kg)	<b>16.6</b>	0.002
Total PAHs (mg/kg)	<b>144.37</b>	0.261
Total Cyanide (mg/kg)	0.005 U	0.004 U
Physical Observations	tar coated	none

Sample ID	SB-23
Depth (ft)	13.5-14
Total BTEX (mg/kg)	ND
Total PAH (mg/kg)	ND
Total Cyanide (mg/kg)	0.601 U
Physical Observations	none

Sample ID	SB-02
Depth (ft)	4-5.6
Total BTEX (mg/kg)	0.017
Total PAHs (mg/kg)	<b>12.96</b>
Total Cyanide (mg/kg)	0.041
Physical Observations	none

Sample ID	SB-10
Depth (ft)	4-6
Total BTEX (mg/kg)	ND
Total PAHs (mg/kg)	0.149
Total Cyanide (mg/kg)	NA
Physical Observations	none

Sample ID	SB-22
Depth (ft)	6-7
Total BTEX (mg/kg)	<b>0.225</b>
Total PAH (mg/kg)	<b>491.1</b>
Total Cyanide (mg/kg)	0.612 U
Physical Observations	tar blebs

Sample ID	SB-18
Depth (ft)	6-7
Total BTEX (mg/kg)	0.272
Total PAH (mg/kg)	<b>207.4</b>
Total Cyanide (mg/kg)	1.01
Physical Observations	organic odor

Sample ID	SB-01	
Depth (ft)	0-4	4-8
Total BTEX (mg/kg)	ND	ND
Total PAHs (mg/kg)	<b>423.57</b>	0.093
Total Cyanide (mg/kg)	0.011	0.005 U
Physical Observations	none	none

Sample ID	SB-09
Depth (ft)	4-8
Total BTEX (mg/kg)	0.001
Total PAHs (mg/kg)	0.016
Total Cyanide (mg/kg)	0.004 U
Physical Observations	none

Sample ID	SS-01
Depth (ft)	0-0.25
Total BTEX (mg/kg)	ND
Total PAH (mg/kg)	<b>16.14</b>
Total Cyanide (mg/kg)	0.667 U
Physical Observations	none

CANASTOTA NON-OWNED MGP SITE CANASTOTA, NEW YORK NIAGARA MOHAWK - A NATIONAL GRID COMPANY SYRACUSE, NEW YORK		<b>SUBSURFACE SOIL ANALYTICAL RESULTS</b>	
		Project 034390-1	October 2005

Sample ID	MW-03	
Sample Date	12/30/2003	8/3/2005
Total BTEX (ug/L)	ND	ND
Total PAH (ug/L)	ND	ND

Sample ID	MW-04	
Sample Date	8/3/2005	
Total BTEX (ug/L)	ND	
Total PAH (ug/L)	9	

Sample ID	MW-06	
Sample Date	8/4/2005	
Total BTEX (ug/L)	2,620	
Total PAH (ug/L)	1,995	

Sample ID	MW-05	
Sample Date	8/4/2005	
Total BTEX (ug/L)	ND	
Total PAH (ug/L)	ND	

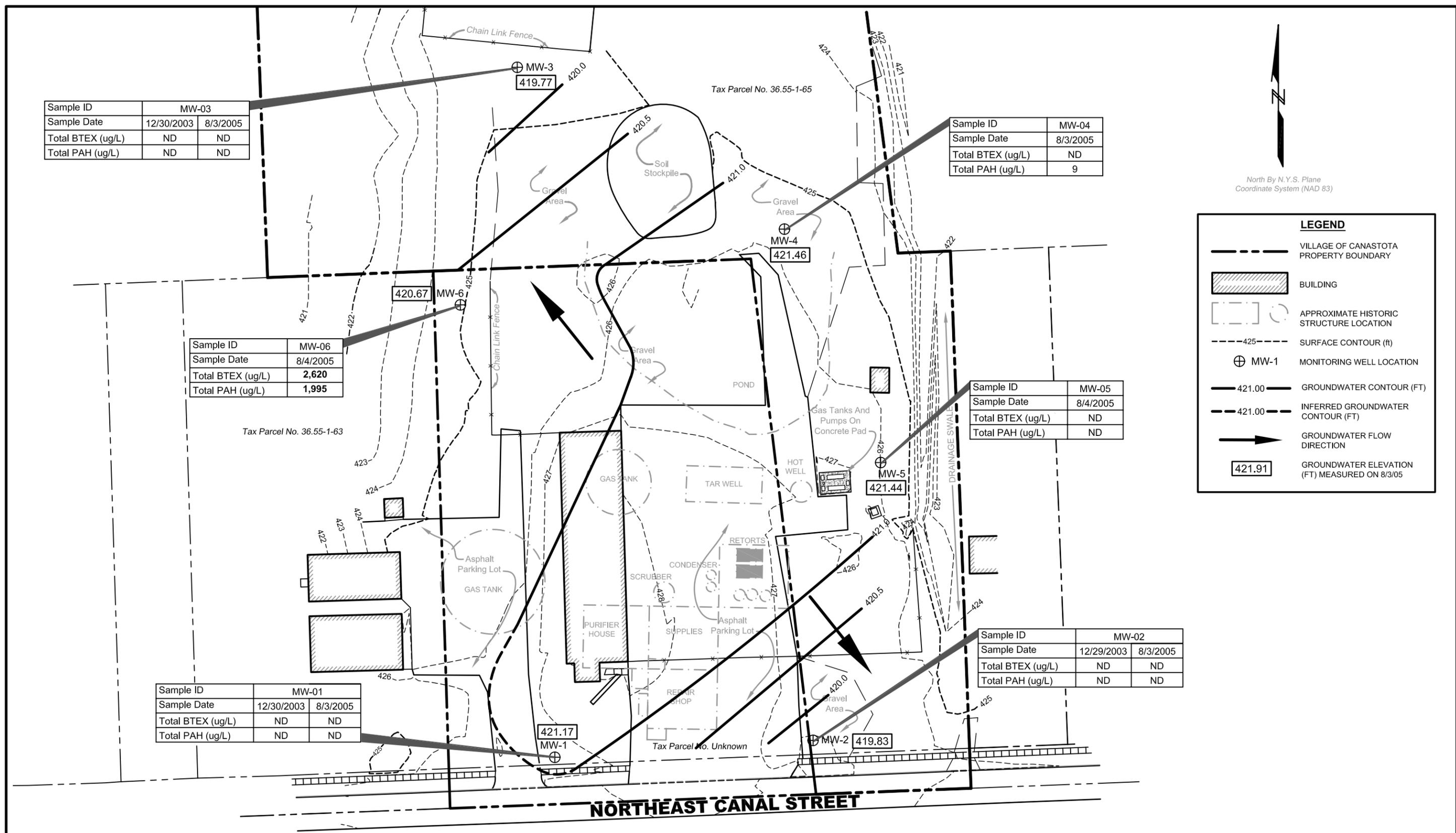
Sample ID	MW-01	
Sample Date	12/30/2003	8/3/2005
Total BTEX (ug/L)	ND	ND
Total PAH (ug/L)	ND	ND

Sample ID	MW-02	
Sample Date	12/29/2003	8/3/2005
Total BTEX (ug/L)	ND	ND
Total PAH (ug/L)	ND	ND

North  
N  
North By N.Y.S. Plane  
Coordinate System (NAD 83)

**LEGEND**

- VILLAGE OF CANASTOTA PROPERTY BOUNDARY
- BUILDING
- APPROXIMATE HISTORIC STRUCTURE LOCATION
- 425 SURFACE CONTOUR (ft)
- MW-1 MONITORING WELL LOCATION
- 421.00 GROUNDWATER CONTOUR (FT)
- 421.00 INFERRED GROUNDWATER CONTOUR (FT)
- GROUNDWATER FLOW DIRECTION
- 421.91 GROUNDWATER ELEVATION (FT) MEASURED ON 8/3/05



**SOURCE:**  
 SURVEY MAP TITLED "PORTION OF THE LANDS OF VILLAGE OF CANASTOTA  
 NORTHEAST CANAL STREET, VILLAGE OF CANASTOTA - MADISON COUNTY,  
 STATE OF NEW YORK; PREPARED BY SNYDER ENGINEERING & LAND  
 SURVEYING, LLP, 214 CEDAR STREET, ONEIDA, NEW YORK 13421; DATED  
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CANASTOTA NON-OWNED FORMER MGP SITE  
 CANASTOTA, NEW YORK  
 NIAGARA MOHAWK - A NATIONAL GRID COMPANY  
 SYRACUSE, NEW YORK



**GROUNDWATER CONTOUR  
 MAP AND GROUNDWATER  
 ANALYTICAL RESULTS**  
 October 2005 Figure 8

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SS-01 (0-0.25) 7/14/2005	MW-04 (5.5-6) 7/13/2005	MW-05 (8.5-9.5) 7/13/2005	SB-01 (0-4) 12/2/2003	SB-01 (4-8) 12/2/2003	SB-02 (0-4) 12/2/2003
<b>BTEX (mg/kg)</b>							
Benzene	0.06	0.0067 U	0.0068 U	0.0061 U	0.013 U	0.012 U	NA
Ethylbenzene	5.5	0.0067 U	0.0068 U	0.0061 U	0.013 U	0.012 U	NA
Toluene	1.5	0.0067 U	0.0068 U	0.0061 U	0.013 U	0.012 U	NA
Total BTEX	NE	ND	ND	ND	ND	ND	NA
Xylene, Total	1.2	0.0067 U	0.0068 U	0.0061 U	0.013 U	0.012 U	NA
<b>Other VOCs (mg/kg)</b>							
Carbon disulfide	2.7	0.0067 U	<b>0.0029 J</b>	NA	NA	NA	NA
Dichlorodifluoromethane	NE	NA	NA	NA	NA	NA	NA
Isopropyl benzene	NE	NA	NA	NA	NA	NA	NA
Trichloroethene	0.7	<b>0.016</b>	<b>0.0054 J</b>	NA	NA	NA	NA
<b>Noncarcinogenic PAHs (mg/kg)</b>							
Acenaphthene	50	0.43 U	0.45 U	0.39 U	<b>0.62 J</b>	<b>0.014 J</b>	NA
Acenaphthylene	41	<b>0.27 J</b>	0.45 U	0.39 U	<b>11</b>	0.4 U	NA
Anthracene	50	<b>0.37 J</b>	0.45 U	0.39 U	<b>7.8</b>	0.4 U	NA
Benzo[g,h,i]perylene	50	<b>1.1 J</b>	0.45 U	0.39 U	<b>17</b>	0.4 U	NA
Fluoranthene	50	<b>2.4</b>	0.45 U	0.39 U	<b>88 D</b>	<b>0.014 J</b>	NA
Fluorene	50	<b>0.1 J</b>	0.45 U	0.39 U	<b>3.2 J</b>	0.4 U	NA
Methylnaphthalene,2-	36.4	0.43 U	0.45 U	0.39 U	<b>0.45 J</b>	<b>0.031 J</b>	NA
Naphthalene	13	<b>0.14 J</b>	0.45 U	0.39 U	7.3 U	0.4 U	NA
Phenanthrene	50	<b>1.5</b>	0.45 U	0.39 U	<b>34</b>	<b>0.021 J</b>	NA
Pyrene	50	<b>2.7</b>	0.45 U	0.39 U	<b>43 J</b>	<b>0.013 J</b>	NA
Total Noncarcinogenic PAHs	NE	<b>8.58</b>	ND	ND	<b>205.07</b>	<b>0.093</b>	NA
<b>Carcinogenic PAHs (mg/kg)</b>							
Benz[a]anthracene	0.224	<b>1.2</b>	0.45 U	0.39 U	<b>46</b>	0.4 U	NA
Benzo[a]pyrene	0.061	<b>1.3</b>	0.45 U	0.39 U	<b>31</b>	0.4 U	NA
Benzo[b]fluoranthene	1.1	<b>1.1</b>	0.45 U	0.39 U	<b>49</b>	0.4 U	NA
Benzo[k]fluoranthene	1.1	<b>1</b>	0.45 U	0.39 U	<b>29</b>	0.4 U	NA
Chrysene	0.4	<b>1.5</b>	0.45 U	0.39 U	<b>36</b>	0.4 U	NA
Dibenz[a,h]anthracene	0.014	<b>0.46 J</b>	0.45 U	0.39 U	<b>8.5</b>	0.4 U	NA
Indeno[1,2,3-cd]pyrene	3.2	<b>1 J</b>	0.45 U	0.39 U	<b>19</b>	0.4 U	NA
Total Carcinogenic PAHs	NE	<b>7.56</b>	ND	ND	<b>218.5</b>	ND	NA
<b>Total PAHs (mg/kg)</b>							
Total PAHs	NE	<b>16.14</b>	ND	ND	<b>423.57</b>	<b>0.093</b>	NA
<b>Other SVOCs (mg/kg)</b>							
Biphenyl, 1,1-	NE	NA	NA	NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	50	0.43 U	0.45 U	NA	NA	NA	NA
Carbazole	NE	<b>0.18 J</b>	0.45 U	NA	NA	NA	NA
Dibenzofuran	6.2	<b>0.083 J</b>	0.45 U	NA	NA	NA	NA
Di-n-butyl phthalate	8.1	0.43 U	0.45 U	NA	NA	NA	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SS-01 (0-0.25) 7/14/2005	MW-04 (5.5-6) 7/13/2005	MW-05 (8.5-9.5) 7/13/2005	SB-01 (0-4) 12/2/2003	SB-01 (4-8) 12/2/2003	SB-02 (0-4) 12/2/2003
<b>PCBs (mg/kg)</b>							
PCBs	Not Compared*	NA	NA	NA	NA	NA	NA
<b>Pesticides (mg/kg)</b>							
Pesticides	Not Compared*	NA	NA	NA	NA	NA	NA
<b>Metals (mg/kg)</b>							
Aluminum	SB	8690	7020	NA	NA	NA	NA
Arsenic	7.5 or SB	7.5	2.1 J	NA	NA	NA	NA
Barium	300 or SB	84.8	42.8 J	NA	NA	NA	NA
Beryllium	0.16 or SB	2.2 U	3.2 U	NA	NA	NA	NA
Calcium	SB	56900	19500	NA	NA	NA	NA
Chromium	10 or SB	15.1	11.3	NA	NA	NA	NA
Cobalt	30 or SB	8.1 J	4.9 J	NA	NA	NA	NA
Copper	25 or SB	41.9	8.6	NA	NA	NA	NA
Iron	2000 or SB	16100	12900	NA	NA	NA	NA
Lead	SB	46	5.2	NA	NA	NA	NA
Magnesium	SB	23800 J	3480 J	NA	NA	NA	NA
Manganese	SB	407	124	NA	NA	NA	NA
Mercury	0.1	0.23	0.022	NA	NA	NA	NA
Nickel	13 or SB	18.1	13.7	NA	NA	NA	NA
Potassium	SB	1430 J	995 J	NA	NA	NA	NA
Selenium	2 or SB	17.4 U	25.6 U	NA	NA	NA	NA
Sodium	SB	109 J	818 J	NA	NA	NA	NA
Thallium	SB	10.9 U	5.7 J	NA	NA	NA	NA
Vanadium	150 or SB	18.2	13.2 J	NA	NA	NA	NA
Zinc	20 or SB	67.4	29.6	NA	NA	NA	NA
<b>Total Cyanide (mg/kg)</b>							
Cyanide, Total	NE	0.667 U	0.679 U	0.604 U	11.3	4.6 U	NA
<b>Other (%)</b>							
Total Organic Carbon	NE	NA	NA	NA	NA	NA	28.0

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-02 (4-5.6) 12/2/2003	SB-03A (4-8) 12/3/2003	SB-03A (8-10) 12/2/2003	SB-03A (12-16) 12/2/2003	SB-04 (1-4) 12/2/2003	SB-04 (8-12) 12/2/2003
<b>BTEX (mg/kg)</b>							
Benzene	0.06	<b>0.014</b>	NA	1.5 UJ	<b>0.002 J</b>	0.011 U	<b>0.17 J</b>
Ethylbenzene	5.5	0.014 U	NA	<b>11 J</b>	0.011 U	0.011 U	<b>16</b>
Toluene	1.5	<b>0.003 J</b>	NA	1.5 UJ	0.011 U	0.011 U	<b>0.36 J</b>
Total BTEX	NE	<b>0.017</b>	NA	<b>16.6</b>	<b>0.002</b>	ND	<b>26.53</b>
Xylene, Total	1.2	0.014 U	NA	<b>5.6 J</b>	0.011 U	0.011 U	<b>10</b>
<b>Other VOCs (mg/kg)</b>							
Carbon disulfide	2.7	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NE	NA	NA	NA	NA	NA	NA
Isopropyl benzene	NE	NA	NA	NA	NA	NA	NA
Trichloroethene	0.7	NA	NA	NA	NA	NA	NA
<b>Noncarcinogenic PAHs (mg/kg)</b>							
Acenaphthene	50	9.4 U	NA	<b>13 J</b>	0.37 U	<b>0.72 J</b>	<b>5.9</b>
Acenaphthylene	41	9.4 U	NA	<b>1.8 J</b>	<b>0.011 J</b>	7.1 U	<b>0.42 J</b>
Anthracene	50	<b>0.34 J</b>	NA	<b>6.7 J</b>	<b>0.01 J</b>	<b>7 J</b>	<b>1.5 J</b>
Benzo[g,h,i]perylene	50	<b>0.46 J</b>	NA	<b>1.2 J</b>	<b>0.01 J</b>	<b>1.7 J</b>	<b>0.59 J</b>
Fluoranthene	50	<b>2.5 J</b>	NA	<b>8.8 J</b>	<b>0.046 J</b>	<b>18</b>	<b>2.7</b>
Fluorene	50	9.4 U	NA	<b>9.1 J</b>	0.37 U	<b>3.1 J</b>	<b>2.3 J</b>
Methylnaphthalene,2-	36.4	9.4 U	NA	<b>10 J</b>	0.37 U	<b>3.1 J</b>	<b>6.4</b>
Naphthalene	13	9.4 U	NA	<b>31 DJ</b>	<b>0.02 J</b>	7.1 U	<b>28 D</b>
Phenanthrene	50	<b>1.6 J</b>	NA	<b>32 DJ</b>	<b>0.032 J</b>	<b>23</b>	<b>6.2</b>
Pyrene	50	<b>2.1 J</b>	NA	<b>12 J</b>	<b>0.042 J</b>	<b>11 J</b>	<b>3.7</b>
Total Noncarcinogenic PAHs	NE	<b>7</b>	NA	<b>125.6</b>	<b>0.171</b>	<b>67.62</b>	<b>57.71</b>
<b>Carcinogenic PAHs (mg/kg)</b>							
Benz[a]anthracene	0.224	<b>1.4 J</b>	NA	<b>4.7 J</b>	<b>0.023 J</b>	<b>8.9</b>	<b>1.1 J</b>
Benzo[a]pyrene	0.061	<b>1.1 J</b>	NA	<b>4.2 J</b>	<b>0.011 J</b>	<b>5.9 J</b>	<b>1.2 J</b>
Benzo[b]fluoranthene	1.1	<b>1.1 J</b>	NA	<b>2.1 J</b>	<b>0.019 J</b>	<b>5 J</b>	<b>0.53 J</b>
Benzo[k]fluoranthene	1.1	<b>0.72 J</b>	NA	<b>2.2 J</b>	<b>0.014 J</b>	<b>6.2 J</b>	<b>0.63 J</b>
Chrysene	0.4	<b>1.2 J</b>	NA	<b>3.9 J</b>	<b>0.023 J</b>	<b>6.7 J</b>	<b>0.96 J</b>
Dibenz[a,h]anthracene	0.014	9.4 U	NA	<b>0.57 J</b>	0.37 U	<b>1.1 J</b>	<b>0.12 J</b>
Indeno[1,2,3-cd]pyrene	3.2	<b>0.44 J</b>	NA	<b>1.1 J</b>	0.37 U	<b>2 J</b>	<b>0.45 J</b>
Total Carcinogenic PAHs	NE	<b>5.96</b>	NA	<b>18.77</b>	<b>0.09</b>	<b>35.8</b>	<b>4.99</b>
<b>Total PAHs (mg/kg)</b>							
Total PAHs	NE	<b>12.96</b>	NA	<b>144.37</b>	<b>0.261</b>	<b>103.42</b>	<b>62.7</b>
<b>Other SVOCs (mg/kg)</b>							
Biphenyl, 1,1-	NE	NA	NA	NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	50	NA	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA	NA
Dibenzofuran	6.2	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	8.1	NA	NA	NA	NA	NA	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-02 (4-5.6) 12/2/2003	SB-03A (4-8) 12/3/2003	SB-03A (8-10) 12/2/2003	SB-03A (12-16) 12/2/2003	SB-04 (1-4) 12/2/2003	SB-04 (8-12) 12/2/2003
<b>PCBs (mg/kg)</b>							
PCBs	Not Compared*	NA	NA	NA	NA	NA	NA
<b>Pesticides (mg/kg)</b>							
Pesticides	Not Compared*	NA	NA	NA	NA	NA	NA
<b>Metals (mg/kg)</b>							
Aluminum	SB	NA	NA	NA	NA	NA	NA
Arsenic	7.5 or SB	NA	NA	NA	NA	NA	NA
Barium	300 or SB	NA	NA	NA	NA	NA	NA
Beryllium	0.16 or SB	NA	NA	NA	NA	NA	NA
Calcium	SB	NA	NA	NA	NA	NA	NA
Chromium	10 or SB	NA	NA	NA	NA	NA	NA
Cobalt	30 or SB	NA	NA	NA	NA	NA	NA
Copper	25 or SB	NA	NA	NA	NA	NA	NA
Iron	2000 or SB	NA	NA	NA	NA	NA	NA
Lead	SB	NA	NA	NA	NA	NA	NA
Magnesium	SB	NA	NA	NA	NA	NA	NA
Manganese	SB	NA	NA	NA	NA	NA	NA
Mercury	0.1	NA	NA	NA	NA	NA	NA
Nickel	13 or SB	NA	NA	NA	NA	NA	NA
Potassium	SB	NA	NA	NA	NA	NA	NA
Selenium	2 or SB	NA	NA	NA	NA	NA	NA
Sodium	SB	NA	NA	NA	NA	NA	NA
Thallium	SB	NA	NA	NA	NA	NA	NA
Vanadium	150 or SB	NA	NA	NA	NA	NA	NA
Zinc	20 or SB	NA	NA	NA	NA	NA	NA
<b>Total Cyanide (mg/kg)</b>							
Cyanide, Total	NE	41.4	NA	4.5 U	4.3 U	4.4 U	6.2 U
<b>Other (%)</b>							
Total Organic Carbon	NE	NA	1.3	NA	NA	NA	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-05 (0-4) 12/1/2003	SB-05 (4-8) 12/1/2003	SB-05 (8-10) 12/1/2003	SB-06 (0-4) 12/1/2003	SB-06 (4-6) 12/3/2003	SB-06 (8-12) 12/1/2003
<b>BTEX (mg/kg)</b>							
Benzene	0.06	NA	180	630	NA	0.021	0.025 J
Ethylbenzene	5.5	NA	21	53 J	NA	0.012 U	0.011 U
Toluene	1.5	NA	220	670	NA	0.011 J	0.007 J
Total BTEX	NE	NA	701	2163	NA	0.032	0.032
Xylene, Total	1.2	NA	280	810	NA	0.012 U	0.011 U
<b>Other VOCs (mg/kg)</b>							
Carbon disulfide	2.7	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NE	NA	NA	NA	NA	NA	NA
Isopropyl benzene	NE	NA	NA	NA	NA	NA	NA
Trichloroethene	0.7	NA	NA	NA	NA	NA	NA
<b>Noncarcinogenic PAHs (mg/kg)</b>							
Acenaphthene	50	NA	100	190	NA	3.9 U	0.36 U
Acenaphthylene	41	NA	600 DJ	1400 DJ	NA	3.9 U	0.019 J
Anthracene	50	NA	230	580	NA	3.9 U	0.36 U
Benzo[g,h,i]perylene	50	NA	94	180	NA	0.22 J	0.36 U
Fluoranthene	50	NA	1200 D	2400 DJ	NA	0.29 J	0.36 U
Fluorene	50	NA	350	990 DJ	NA	3.9 U	0.36 U
Methylnaphthalene,2-	36.4	NA	600 DJ	1500 DJ	NA	3.9 U	0.021 J
Naphthalene	13	NA	3200 D	8000 D	NA	3.9 U	0.36 U
Phenanthrene	50	NA	1800 D	4100 D	NA	0.12 J	0.016 J
Pyrene	50	NA	750 DJ	1500 DJ	NA	0.39 J	0.36 U
Total Noncarcinogenic PAHs	NE	NA	8924	20840	NA	1.02	0.056
<b>Carcinogenic PAHs (mg/kg)</b>							
Benz[a]anthracene	0.224	NA	310	850 DJ	NA	0.24 J	0.36 U
Benzo[a]pyrene	0.061	NA	260	500	NA	0.28 J	0.36 U
Benzo[b]fluoranthene	1.1	NA	260	530	NA	0.31 J	0.36 U
Benzo[k]fluoranthene	1.1	NA	110	160	NA	0.14 J	0.36 U
Chrysene	0.4	NA	200	460	NA	0.24 J	0.36 U
Dibenz[a,h]anthracene	0.014	NA	51	94	NA	3.9 U	0.36 U
Indeno[1,2,3-cd]pyrene	3.2	NA	110	210	NA	0.18 J	0.36 U
Total Carcinogenic PAHs	NE	NA	1301	2804	NA	1.39	ND
<b>Total PAHs (mg/kg)</b>							
Total PAHs	NE	NA	10225	23644	NA	2.41	0.056
<b>Other SVOCs (mg/kg)</b>							
Biphenyl, 1,1-	NE	NA	NA	NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	50	NA	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA	NA
Dibenzofuran	6.2	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	8.1	NA	NA	NA	NA	NA	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-05 (0-4) 12/1/2003	SB-05 (4-8) 12/1/2003	SB-05 (8-10) 12/1/2003	SB-06 (0-4) 12/1/2003	SB-06 (4-6) 12/3/2003	SB-06 (8-12) 12/1/2003
<b>PCBs (mg/kg)</b>							
PCBs	Not Compared*	NA	NA	NA	NA	NA	NA
<b>Pesticides (mg/kg)</b>							
Pesticides	Not Compared*	NA	NA	NA	NA	NA	NA
<b>Metals (mg/kg)</b>							
Aluminum	SB	NA	NA	NA	NA	NA	NA
Arsenic	7.5 or SB	NA	NA	NA	NA	NA	NA
Barium	300 or SB	NA	NA	NA	NA	NA	NA
Beryllium	0.16 or SB	NA	NA	NA	NA	NA	NA
Calcium	SB	NA	NA	NA	NA	NA	NA
Chromium	10 or SB	NA	NA	NA	NA	NA	NA
Cobalt	30 or SB	NA	NA	NA	NA	NA	NA
Copper	25 or SB	NA	NA	NA	NA	NA	NA
Iron	2000 or SB	NA	NA	NA	NA	NA	NA
Lead	SB	NA	NA	NA	NA	NA	NA
Magnesium	SB	NA	NA	NA	NA	NA	NA
Manganese	SB	NA	NA	NA	NA	NA	NA
Mercury	0.1	NA	NA	NA	NA	NA	NA
Nickel	13 or SB	NA	NA	NA	NA	NA	NA
Potassium	SB	NA	NA	NA	NA	NA	NA
Selenium	2 or SB	NA	NA	NA	NA	NA	NA
Sodium	SB	NA	NA	NA	NA	NA	NA
Thallium	SB	NA	NA	NA	NA	NA	NA
Vanadium	150 or SB	NA	NA	NA	NA	NA	NA
Zinc	20 or SB	NA	NA	NA	NA	NA	NA
<b>Total Cyanide (mg/kg)</b>							
Cyanide, Total	NE	NA	4.9 U	31.6	NA	5.9	4.2 U
<b>Other (%)</b>							
Total Organic Carbon	NE	2.2	NA	NA	3.1	NA	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-07 (4-8) 12/1/2003	SB-07 (7-9) 12/1/2003	SB-07 (12-16) 12/1/2003	SB-08 (4-8) 12/3/2003	SB-08 (8-12) 12/3/2003	SB-08 (16-20) 12/3/2003
<b>BTEX (mg/kg)</b>							
Benzene	0.06	0.73	NA	0.31 J	0.22 J	15 J	0.011 U
Ethylbenzene	5.5	0.23	NA	0.004 J	3.4	100 J	0.011 U
Toluene	1.5	0.18	NA	0.01 J	0.65 J	57 J	0.011 U
Total BTEX	NE	1.58	NA	0.334	8.57	282	ND
Xylene, Total	1.2	0.44	NA	0.01 J	4.3	110 J	0.011 U
<b>Other VOCs (mg/kg)</b>							
Carbon disulfide	2.7	NA	NA	NA	NA	16 U	NA
Dichlorodifluoromethane	NE	NA	NA	NA	NA	16 U	NA
Isopropyl benzene	NE	NA	NA	NA	NA	10 J	NA
Trichloroethene	0.7	NA	NA	NA	NA	16 U	NA
<b>Noncarcinogenic PAHs (mg/kg)</b>							
Acenaphthene	50	36 J	NA	0.18 J	6.1	450 DJ	0.037 J
Acenaphthylene	41	41 J	NA	0.51	1.6 J	50 J	0.38 U
Anthracene	50	32 J	NA	0.43	3.3	240 DJ	0.026 J
Benzo[g,h,i]perylene	50	10 J	NA	0.1 J	1.6 J	21 J	0.38 U
Fluoranthene	50	66 J	NA	0.86	6.5	340 DJ	0.042 J
Fluorene	50	48 J	NA	0.48	4	290 DJ	0.02 J
Methylnaphthalene,2-	36.4	62 J	NA	0.44	4.6	530 DJ	0.055 J
Naphthalene	13	280 DJ	NA	1.2	11	1300 DJ	0.38 U
Phenanthrene	50	200 DJ	NA	1.6	11	880 DJ	0.12 J
Pyrene	50	77 J	NA	0.97	9.6	380 DJ	0.042 J
Total Noncarcinogenic PAHs	NE	852	NA	6.77	59.3	4481	0.342
<b>Carcinogenic PAHs (mg/kg)</b>							
Benz[a]anthracene	0.224	31 J	NA	0.35 J	3.9	130 DJ	0.017 J
Benzo[a]pyrene	0.061	27 J	NA	0.31 J	4.1	97 DJ	0.01 J
Benzo[b]fluoranthene	1.1	22 J	NA	0.22 J	2.2 J	54 DJ	0.38 U
Benzo[k]fluoranthene	1.1	12 J	NA	0.17 J	2 J	24	0.38 U
Chrysene	0.4	22 J	NA	0.27 J	3	110 DJ	0.013 J
Dibenz[a,h]anthracene	0.014	4.7 J	NA	0.036 J	0.63 J	9.7	0.38 U
Indeno[1,2,3-cd]pyrene	3.2	11 J	NA	0.1 J	1.5 J	20 J	0.38 U
Total Carcinogenic PAHs	NE	129.7	NA	1.456	17.33	444.7	0.04
<b>Total PAHs (mg/kg)</b>							
Total PAHs	NE	981.7	NA	8.226	76.63	4925.7	0.382
<b>Other SVOCs (mg/kg)</b>							
Biphenyl, 1,1-	NE	NA	NA	NA	NA	94 DJ	NA
Bis(2-ethylhexyl)phthalate	50	NA	NA	NA	NA	7.6 U	NA
Carbazole	NE	NA	NA	NA	NA	18	NA
Dibenzofuran	6.2	NA	NA	NA	NA	39	NA
Di-n-butyl phthalate	8.1	NA	NA	NA	NA	7.6 U	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-07 (4-8) 12/1/2003	SB-07 (7-9) 12/1/2003	SB-07 (12-16) 12/1/2003	SB-08 (4-8) 12/3/2003	SB-08 (8-12) 12/3/2003	SB-08 (16-20) 12/3/2003
<b>PCBs (mg/kg)</b>							
PCBs	Not Compared*	NA	NA	NA	NA	ND	NA
<b>Pesticides (mg/kg)</b>							
Pesticides	Not Compared*	NA	NA	NA	NA	R	NA
<b>Metals (mg/kg)</b>							
Aluminum	SB	NA	NA	NA	NA	<b>3470</b>	NA
Arsenic	7.5 or SB	NA	NA	NA	NA	<b>2.1</b>	NA
Barium	300 or SB	NA	NA	NA	NA	<b>46.3</b>	NA
Beryllium	0.16 or SB	NA	NA	NA	NA	0.19 UJ	NA
Calcium	SB	NA	NA	NA	NA	<b>41900 J</b>	NA
Chromium	10 or SB	NA	NA	NA	NA	<b>5.8 J</b>	NA
Cobalt	30 or SB	NA	NA	NA	NA	<b>3.6</b>	NA
Copper	25 or SB	NA	NA	NA	NA	<b>16.5</b>	NA
Iron	2000 or SB	NA	NA	NA	NA	<b>7860</b>	NA
Lead	SB	NA	NA	NA	NA	<b>4.1 J</b>	NA
Magnesium	SB	NA	NA	NA	NA	<b>13900</b>	NA
Manganese	SB	NA	NA	NA	NA	<b>203</b>	NA
Mercury	0.1	NA	NA	NA	NA	0.0053 U	NA
Nickel	13 or SB	NA	NA	NA	NA	<b>8.4</b>	NA
Potassium	SB	NA	NA	NA	NA	<b>873</b>	NA
Selenium	2 or SB	NA	NA	NA	NA	<b>0.64 J</b>	NA
Sodium	SB	NA	NA	NA	NA	<b>250</b>	NA
Thallium	SB	NA	NA	NA	NA	0.49 UJ	NA
Vanadium	150 or SB	NA	NA	NA	NA	<b>8.7</b>	NA
Zinc	20 or SB	NA	NA	NA	NA	<b>19.1 J</b>	NA
<b>Total Cyanide (mg/kg)</b>							
Cyanide, Total	NE	13.4 UJ	NA	4.3 U	<b>4.1</b>	NA	4.5 U
<b>Other (%)</b>							
Total Organic Carbon	NE	NA	<b>2.1</b>	NA	NA	NA	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-8 (0-4) 12/3/2003	SB-09 (4-8) 12/2/2003	SB-10 (0-4) 12/1/2003	SB-10 (4-6) 12/2/2003	SB-11 (0-4) 12/3/2003	SB-11 (6-8) 12/3/2003
<b>BTEX (mg/kg)</b>							
Benzene	0.06	NA	<b>0.001 J</b>	NA	0.012 U	NA	<b>1.9 J</b>
Ethylbenzene	5.5	NA	0.012 U	NA	0.012 U	NA	<b>4</b>
Toluene	1.5	NA	0.012 U	NA	0.012 U	NA	<b>2.8 J</b>
Total BTEX	NE	NA	<b>0.001</b>	NA	ND	NA	<b>24.7</b>
Xylene, Total	1.2	NA	0.012 U	NA	0.012 U	NA	<b>16</b>
<b>Other VOCs (mg/kg)</b>							
Carbon disulfide	2.7	NA	NA	NA	0.012 U	NA	NA
Dichlorodifluoromethane	NE	NA	NA	NA	<b>0.002 J</b>	NA	NA
Isopropyl benzene	NE	NA	NA	NA	0.012 U	NA	NA
Trichloroethene	0.7	NA	NA	NA	0.012 U	NA	NA
<b>Noncarcinogenic PAHs (mg/kg)</b>							
Acenaphthene	50	NA	0.37 U	NA	0.36 U	NA	<b>88 D</b>
Acenaphthylene	41	NA	0.37 U	NA	0.36 U	NA	<b>9.8</b>
Anthracene	50	NA	0.37 U	NA	0.36 U	NA	<b>29</b>
Benzo[g,h,i]perylene	50	NA	0.37 U	NA	<b>0.013 J</b>	NA	<b>7</b>
Fluoranthene	50	NA	0.37 U	NA	<b>0.016 J</b>	NA	<b>88 D</b>
Fluorene	50	NA	0.37 U	NA	0.36 U	NA	<b>58 D</b>
Methylnaphthalene,2-	36.4	NA	<b>0.016 J</b>	NA	<b>0.014 J</b>	NA	<b>65 D</b>
Naphthalene	13	NA	0.37 U	NA	0.36 U	NA	<b>110 D</b>
Phenanthrene	50	NA	0.37 U	NA	<b>0.01 J</b>	NA	<b>170 D</b>
Pyrene	50	NA	0.37 U	NA	<b>0.016 J</b>	NA	<b>93 DJ</b>
Total Noncarcinogenic PAHs	NE	NA	<b>0.016</b>	NA	<b>0.069</b>	NA	<b>717.8</b>
<b>Carcinogenic PAHs (mg/kg)</b>							
Benz[a]anthracene	0.224	NA	0.37 U	NA	<b>0.012 J</b>	NA	<b>26</b>
Benzo[a]pyrene	0.061	NA	0.37 U	NA	<b>0.017 J</b>	NA	<b>24</b>
Benzo[b]fluoranthene	1.1	NA	0.37 U	NA	<b>0.011 J</b>	NA	<b>27 J</b>
Benzo[k]fluoranthene	1.1	NA	0.37 U	NA	<b>0.016 J</b>	NA	<b>27 J</b>
Chrysene	0.4	NA	0.37 U	NA	<b>0.013 J</b>	NA	<b>21</b>
Dibenz[a,h]anthracene	0.014	NA	0.37 U	NA	0.36 U	NA	<b>3.1 J</b>
Indeno[1,2,3-cd]pyrene	3.2	NA	0.37 U	NA	<b>0.011 J</b>	NA	<b>6.7</b>
Total Carcinogenic PAHs	NE	NA	ND	NA	<b>0.08</b>	NA	<b>134.8</b>
<b>Total PAHs (mg/kg)</b>							
Total PAHs	NE	NA	<b>0.016</b>	NA	<b>0.149</b>	NA	<b>852.6</b>
<b>Other SVOCs (mg/kg)</b>							
Biphenyl, 1,1-	NE	NA	NA	NA	0.36 U	NA	NA
Bis(2-ethylhexyl)phthalate	50	NA	NA	NA	<b>0.011 J</b>	NA	NA
Carbazole	NE	NA	NA	NA	0.36 U	NA	NA
Dibenzofuran	6.2	NA	NA	NA	0.36 U	NA	NA
Di-n-butyl phthalate	8.1	NA	NA	NA	<b>0.034 J</b>	NA	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-8 (0-4) 12/3/2003	SB-09 (4-8) 12/2/2003	SB-10 (0-4) 12/1/2003	SB-10 (4-6) 12/2/2003	SB-11 (0-4) 12/3/2003	SB-11 (6-8) 12/3/2003
<b>PCBs (mg/kg)</b>							
PCBs	Not Compared*	NA	NA	NA	ND	NA	NA
<b>Pesticides (mg/kg)</b>							
Pesticides	Not Compared*	NA	NA	NA	ND	NA	NA
<b>Metals (mg/kg)</b>							
Aluminum	SB	NA	NA	NA	8910	NA	NA
Arsenic	7.5 or SB	NA	NA	NA	3.0	NA	NA
Barium	300 or SB	NA	NA	NA	46.1	NA	NA
Beryllium	0.16 or SB	NA	NA	NA	0.39 J	NA	NA
Calcium	SB	NA	NA	NA	2400 J	NA	NA
Chromium	10 or SB	NA	NA	NA	11.9 J	NA	NA
Cobalt	30 or SB	NA	NA	NA	8.0	NA	NA
Copper	25 or SB	NA	NA	NA	15.4	NA	NA
Iron	2000 or SB	NA	NA	NA	16600	NA	NA
Lead	SB	NA	NA	NA	7.8 J	NA	NA
Magnesium	SB	NA	NA	NA	3970	NA	NA
Manganese	SB	NA	NA	NA	229	NA	NA
Mercury	0.1	NA	NA	NA	0.009	NA	NA
Nickel	13 or SB	NA	NA	NA	17.3	NA	NA
Potassium	SB	NA	NA	NA	1610	NA	NA
Selenium	2 or SB	NA	NA	NA	0.66 J	NA	NA
Sodium	SB	NA	NA	NA	186	NA	NA
Thallium	SB	NA	NA	NA	0.45 UJ	NA	NA
Vanadium	150 or SB	NA	NA	NA	14.4	NA	NA
Zinc	20 or SB	NA	NA	NA	30.2 J	NA	NA
<b>Total Cyanide (mg/kg)</b>							
Cyanide, Total	NE	NA	4.4 U	NA	NA	NA	4.7 U
<b>Other (%)</b>							
Total Organic Carbon	NE	8.0	0.40	2.0	NA	1.8	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-11 (9-10) 12/3/2003	SB-11 (16-20) 12/3/2003	SB-12 (0-4) 12/3/2003	SB-12 (4-8) 12/2/2003	SB-13 (6.5-7.5) 7/12/2005	SB-14 (8-9) 7/11/2005
<b>BTEX (mg/kg)</b>							
Benzene	0.06	7.3	0.002 J	NA	0.012 U	0.0021 J	51
Ethylbenzene	5.5	23	0.011 U	NA	0.012 U	0.006 U	150
Toluene	1.5	5.2 J	0.011 U	NA	0.012 U	0.006 U	100
Total BTEX	NE	70.5	0.002	NA	ND	0.0021	451
Xylene, Total	1.2	35	0.011 U	NA	0.012 U	0.006 U	150
<b>Other VOCs (mg/kg)</b>							
Carbon disulfide	2.7	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NE	NA	NA	NA	NA	NA	NA
Isopropyl benzene	NE	NA	NA	NA	NA	NA	NA
Trichloroethene	0.7	NA	NA	NA	NA	NA	NA
<b>Noncarcinogenic PAHs (mg/kg)</b>							
Acenaphthene	50	130 DJ	0.01 J	NA	3.8 U	0.22 J	1400
Acenaphthylene	41	93 DJ	0.41 U	NA	3.8 U	0.38 U	180 J
Anthracene	50	140 DJ	0.41 U	NA	3.8 U	0.38 U	660
Benzo[g,h,i]perylene	50	19	0.41 U	NA	3.8 U	0.38 U	160 J
Fluoranthene	50	220 DJ	0.41 U	NA	0.099 J	0.38 U	1000
Fluorene	50	160 DJ	0.41 U	NA	3.8 U	0.38 U	720
Methylnaphthalene,2-	36.4	320 DJ	0.019 J	NA	3.8 U	0.38 U	1700
Naphthalene	13	810 D	0.41 U	NA	3.8 U	0.38 U	4800
Phenanthrene	50	580 D	0.02 J	NA	3.8 U	0.38 U	2700
Pyrene	50	230 DJ	0.41 UJ	NA	3.8 UJ	0.38 U	1500
Total Noncarcinogenic PAHs	NE	2702	0.049	NA	0.099	0.22	14820
<b>Carcinogenic PAHs (mg/kg)</b>							
Benz[a]anthracene	0.224	58	0.41 U	NA	3.8 U	0.38 U	410
Benzo[a]pyrene	0.061	48	0.41 U	NA	3.8 U	0.38 U	330
Benzo[b]fluoranthene	1.1	34	0.41 U	NA	3.8 U	0.38 U	260 J
Benzo[k]fluoranthene	1.1	16	0.41 U	NA	3.8 U	0.38 U	120 J
Chrysene	0.4	46	0.41 U	NA	3.8 U	0.38 U	400
Dibenz[a,h]anthracene	0.014	7.2 J	0.41 U	NA	3.8 U	0.38 U	310 U
Indeno[1,2,3-cd]pyrene	3.2	18	0.41 U	NA	3.8 U	0.38 U	130 J
Total Carcinogenic PAHs	NE	227.2	ND	NA	ND	ND	1650
<b>Total PAHs (mg/kg)</b>							
Total PAHs	NE	2929.2	0.049	NA	0.099	0.22	16470
<b>Other SVOCs (mg/kg)</b>							
Biphenyl, 1,1-	NE	NA	NA	NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	50	NA	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA	NA
Dibenzofuran	6.2	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	8.1	NA	NA	NA	NA	NA	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-11 (9-10) 12/3/2003	SB-11 (16-20) 12/3/2003	SB-12 (0-4) 12/3/2003	SB-12 (4-8) 12/2/2003	SB-13 (6.5-7.5) 7/12/2005	SB-14 (8-9) 7/11/2005
<b>PCBs (mg/kg)</b>							
PCBs	Not Compared*	NA	NA	NA	NA	NA	NA
<b>Pesticides (mg/kg)</b>							
Pesticides	Not Compared*	NA	NA	NA	NA	NA	NA
<b>Metals (mg/kg)</b>							
Aluminum	SB	NA	NA	NA	NA	NA	NA
Arsenic	7.5 or SB	NA	NA	NA	NA	NA	NA
Barium	300 or SB	NA	NA	NA	NA	NA	NA
Beryllium	0.16 or SB	NA	NA	NA	NA	NA	NA
Calcium	SB	NA	NA	NA	NA	NA	NA
Chromium	10 or SB	NA	NA	NA	NA	NA	NA
Cobalt	30 or SB	NA	NA	NA	NA	NA	NA
Copper	25 or SB	NA	NA	NA	NA	NA	NA
Iron	2000 or SB	NA	NA	NA	NA	NA	NA
Lead	SB	NA	NA	NA	NA	NA	NA
Magnesium	SB	NA	NA	NA	NA	NA	NA
Manganese	SB	NA	NA	NA	NA	NA	NA
Mercury	0.1	NA	NA	NA	NA	NA	NA
Nickel	13 or SB	NA	NA	NA	NA	NA	NA
Potassium	SB	NA	NA	NA	NA	NA	NA
Selenium	2 or SB	NA	NA	NA	NA	NA	NA
Sodium	SB	NA	NA	NA	NA	NA	NA
Thallium	SB	NA	NA	NA	NA	NA	NA
Vanadium	150 or SB	NA	NA	NA	NA	NA	NA
Zinc	20 or SB	NA	NA	NA	NA	NA	NA
<b>Total Cyanide (mg/kg)</b>							
Cyanide, Total	NE	4.3 U	4.6 U	NA	4.6 U	0.56 U	0.581 U
<b>Other (%)</b>							
Total Organic Carbon	NE	NA	NA	<b>0.58</b>	NA	NA	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-15 (14-15) 7/11/2005	SB-16 (13-13.5) 7/11/2005	SB-17 (7-8) 7/11/2005	SB-18 (6-7) 7/11/2005	SB-19 (7-8) 7/13/2005	SB-20 (5.5-6) 7/12/2005
<b>BTEX (mg/kg)</b>							
Benzene	0.06	0.0057 U	0.0056 U	0.0019 J	0.047 J	31	0.57 J
Ethylbenzene	5.5	0.0057 U	0.0056 U	0.0064 U	0.077 J	40	0.28 J
Toluene	1.5	0.0057 U	0.0056 U	0.0064 U	0.028 J	44	0.51 J
Total BTEX	NE	ND	ND	0.0019	0.272	187	3.96
Xylene, Total	1.2	0.0057 U	0.0056 U	0.0064 U	0.12 J	72	2.6
<b>Other VOCs (mg/kg)</b>							
Carbon disulfide	2.7	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NE	NA	NA	NA	NA	NA	NA
Isopropyl benzene	NE	NA	NA	NA	NA	NA	NA
Trichloroethene	0.7	NA	NA	NA	NA	NA	NA
<b>Noncarcinogenic PAHs (mg/kg)</b>							
Acenaphthene	50	0.37 U	0.37 U	0.41 U	1.7	63	160
Acenaphthylene	41	0.37 U	0.37 U	0.41 U	2.8	67	260
Anthracene	50	0.37 U	0.37 U	0.41 U	11	79	480
Benzo[g,h,i]perylene	50	0.37 U	0.37 U	0.41 U	6.9	23	430
Fluoranthene	50	0.37 U	0.37 U	0.41 U	31	170	1800
Fluorene	50	0.37 U	0.37 U	0.41 U	8.3	79	350
Methylnaphthalene,2-	36.4	0.37 U	0.37 U	0.41 U	2.2	110	160
Naphthalene	13	0.37 U	0.37 U	0.41 U	5.8	390	490
Phenanthrene	50	0.091 J	0.37 U	0.41 U	34	310	1600
Pyrene	50	0.37 U	0.37 U	0.41 U	30	170	1900
Total Noncarcinogenic PAHs	NE	0.091	ND	ND	133.7	1461	7630
<b>Carcinogenic PAHs (mg/kg)</b>							
Benz[a]anthracene	0.224	0.37 U	0.37 U	0.41 U	15	57	720
Benzo[a]pyrene	0.061	0.37 U	0.37 U	0.41 U	13	50	770
Benzo[b]fluoranthene	1.1	0.37 U	0.37 U	0.41 U	16	44	760
Benzo[k]fluoranthene	1.1	0.37 U	0.37 U	0.41 U	7.2	30	340
Chrysene	0.4	0.37 U	0.37 U	0.41 U	14	54	720
Dibenz[a,h]anthracene	0.014	0.37 U	0.37 U	0.41 U	2	4.2 J	79 J
Indeno[1,2,3-cd]pyrene	3.2	0.37 U	0.37 U	0.41 U	6.5	20	370
Total Carcinogenic PAHs	NE	ND	ND	ND	73.7	259.2	3759
<b>Total PAHs (mg/kg)</b>							
Total PAHs	NE	0.091	ND	ND	207.4	1720.2	11389
<b>Other SVOCs (mg/kg)</b>							
Biphenyl, 1,1-	NE	NA	NA	NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	50	NA	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA	NA
Dibenzofuran	6.2	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	8.1	NA	NA	NA	NA	NA	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-15 (14-15) 7/11/2005	SB-16 (13-13.5) 7/11/2005	SB-17 (7-8) 7/11/2005	SB-18 (6-7) 7/11/2005	SB-19 (7-8) 7/13/2005	SB-20 (5.5-6) 7/12/2005
<b>PCBs (mg/kg)</b>							
PCBs	Not Compared*	NA	NA	NA	NA	NA	NA
<b>Pesticides (mg/kg)</b>							
Pesticides	Not Compared*	NA	NA	NA	NA	NA	NA
<b>Metals (mg/kg)</b>							
Aluminum	SB	NA	NA	NA	NA	NA	NA
Arsenic	7.5 or SB	NA	NA	NA	NA	NA	NA
Barium	300 or SB	NA	NA	NA	NA	NA	NA
Beryllium	0.16 or SB	NA	NA	NA	NA	NA	NA
Calcium	SB	NA	NA	NA	NA	NA	NA
Chromium	10 or SB	NA	NA	NA	NA	NA	NA
Cobalt	30 or SB	NA	NA	NA	NA	NA	NA
Copper	25 or SB	NA	NA	NA	NA	NA	NA
Iron	2000 or SB	NA	NA	NA	NA	NA	NA
Lead	SB	NA	NA	NA	NA	NA	NA
Magnesium	SB	NA	NA	NA	NA	NA	NA
Manganese	SB	NA	NA	NA	NA	NA	NA
Mercury	0.1	NA	NA	NA	NA	NA	NA
Nickel	13 or SB	NA	NA	NA	NA	NA	NA
Potassium	SB	NA	NA	NA	NA	NA	NA
Selenium	2 or SB	NA	NA	NA	NA	NA	NA
Sodium	SB	NA	NA	NA	NA	NA	NA
Thallium	SB	NA	NA	NA	NA	NA	NA
Vanadium	150 or SB	NA	NA	NA	NA	NA	NA
Zinc	20 or SB	NA	NA	NA	NA	NA	NA
<b>Total Cyanide (mg/kg)</b>							
Cyanide, Total	NE	0.54 U	0.561 U	<b>0.154 J</b>	<b>1.01</b>	<b>1.11</b>	<b>6.8</b>
<b>Other (%)</b>							
Total Organic Carbon	NE	NA	NA	NA	NA	NA	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-20A (5.5-6) 7/13/2005	SB-21 (7.5-8) 7/12/2005	SB-22 (6-7) 7/13/2005	SB-23 (13.5-14) 7/12/2005
<b>BTEX (mg/kg)</b>					
Benzene	0.06	8.9 J	0.027	0.035	0.0061 U
Ethylbenzene	5.5	10 J	0.17	0.76	0.0061 U
Toluene	1.5	17 J	0.017	0.13	0.0061 U
Total BTEX	NE	122.9	0.374	2.225	ND
Xylene, Total	1.2	87 J	0.16	1.3	0.0061 U
<b>Other VOCs (mg/kg)</b>					
Carbon disulfide	2.7	NA	NA	NA	NA
Dichlorodifluoromethane	NE	NA	NA	NA	NA
Isopropyl benzene	NE	NA	NA	NA	NA
Trichloroethene	0.7	NA	NA	NA	NA
<b>Noncarcinogenic PAHs (mg/kg)</b>					
Acenaphthene	50	73 J	2 J	46	0.39 U
Acenaphthylene	41	130 J	0.1 J	4.3	0.39 U
Anthracene	50	250 J	0.26 J	25	0.39 U
Benzo[g,h,i]perylene	50	89 J	0.38 UJ	4.8	0.39 U
Fluoranthene	50	650 J	0.54 J	34	0.39 U
Fluorene	50	190 J	0.85 J	28	0.39 U
Methylnaphthalene,2-	36.4	170 J	0.38 U	55	0.39 U
Naphthalene	13	590 J	1.8 J	93	0.39 U
Phenanthrene	50	620 J	1.9 J	95	0.39 U
Pyrene	50	370 J	0.55 J	47	0.39 U
Total Noncarcinogenic PAHs	NE	3132	8	432.1	ND
<b>Carcinogenic PAHs (mg/kg)</b>					
Benz[a]anthracene	0.224	190 J	0.16 J	14	0.39 U
Benzo[a]pyrene	0.061	180 J	0.17 J	12	0.39 U
Benzo[b]fluoranthene	1.1	160 J	0.12 J	9.9	0.39 U
Benzo[k]fluoranthene	1.1	95 J	0.12 J	5.2	0.39 U
Chrysene	0.4	170 J	0.17 J	14	0.39 U
Dibenz[a,h]anthracene	0.014	15 J	0.38 U	4.1 U	0.39 U
Indeno[1,2,3-cd]pyrene	3.2	86 J	0.38 UJ	3.9 J	0.39 U
Total Carcinogenic PAHs	NE	896	0.74	59	ND
<b>Total PAHs (mg/kg)</b>					
Total PAHs	NE	4028	8.74	491.1	ND
<b>Other SVOCs (mg/kg)</b>					
Biphenyl, 1,1-	NE	NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	50	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA
Dibenzofuran	6.2	NA	NA	NA	NA
Di-n-butyl phthalate	8.1	NA	NA	NA	NA

**Table 1**  
**Soil Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NY Soil Cleanup Objective (TAGM 4046)	SB-20A (5.5-6) 7/13/2005	SB-21 (7.5-8) 7/12/2005	SB-22 (6-7) 7/13/2005	SB-23 (13.5-14) 7/12/2005
<b>PCBs (mg/kg)</b>					
PCBs	Not Compared*	NA	NA	NA	NA
<b>Pesticides (mg/kg)</b>					
Pesticides	Not Compared*	NA	NA	NA	NA
<b>Metals (mg/kg)</b>					
Aluminum	SB	NA	NA	NA	NA
Arsenic	7.5 or SB	NA	NA	NA	NA
Barium	300 or SB	NA	NA	NA	NA
Beryllium	0.16 or SB	NA	NA	NA	NA
Calcium	SB	NA	NA	NA	NA
Chromium	10 or SB	NA	NA	NA	NA
Cobalt	30 or SB	NA	NA	NA	NA
Copper	25 or SB	NA	NA	NA	NA
Iron	2000 or SB	NA	NA	NA	NA
Lead	SB	NA	NA	NA	NA
Magnesium	SB	NA	NA	NA	NA
Manganese	SB	NA	NA	NA	NA
Mercury	0.1	NA	NA	NA	NA
Nickel	13 or SB	NA	NA	NA	NA
Potassium	SB	NA	NA	NA	NA
Selenium	2 or SB	NA	NA	NA	NA
Sodium	SB	NA	NA	NA	NA
Thallium	SB	NA	NA	NA	NA
Vanadium	150 or SB	NA	NA	NA	NA
Zinc	20 or SB	NA	NA	NA	NA
<b>Total Cyanide (mg/kg)</b>					
Cyanide, Total	NE	<b>6.33</b>	0.571 U	0.612 U	0.601 U
<b>Other (%)</b>					
Total Organic Carbon	NE	NA	NA	NA	NA

**Notes:**

Only detected analytes are shown on the table.  
Other VOCs includes all VOC's except BTEX.  
Other SVOCs includes all SVOC's except PAH's  
NE - not established  
NA - not analyzed  
ND - not detected  
J - estimated value  
U - indicates not detected at or above the reporting limit shown  
UJ - estimated detection limit  
D - indicates that compound concentration was obtained from a diluted sample  
R - rejected value  
Shading/bolding indicates an exceedance of established New York State  
Recommended Soil Cleanup Objectives for residential soils.  
SB - site background (\* - Background levels for lead vary widely)  
Not Compared\* - Pesticides and PCBs were analyzed for in 2 samples only,  
and there were no detected results to compare to criteria  
mg/kg - milligrams/kilogram or parts per million (ppm)

**Table 2**  
**Groundwater Analytical Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	NYS AGWQS	MW-01 8/3/2005	MW-02 8/3/2005	MW-03 8/3/2005	MW-04 8/3/2005	MW-05 8/4/2005	MW-06 8/4/2005	Duplicate of MW-06 8/4/2005
<b>BTEX (ug/L)</b>								
Ethylbenzene	5	5 U	5 U	5 U	5 U	5 U	440	340
Toluene	5	5 U	5 U	5 U	5 U	5 U	780	600
Xylene, Total	NE	5 U	5 U	5 U	5 U	5 U	420	330
Benzene	1	5 U	5 U	5 U	5 U	5 U	980	800
Total BTEX	NE	ND	ND	ND	ND	ND	2620	2070
<b>Noncarcinogenic PAHs (ug/L)</b>								
Anthracene	50*	13 U	11 U	12 U	11 U	11 U	440 U	440 U
Pyrene	50*	13 U	11 U	12 U	11 U	11 U	440 U	440 U
Benzo[g,h,i]perylene	NE	13 U	11 U	12 U	11 U	11 U	440 U	440 U
Fluoranthene	50*	13 U	11 U	12 U	11 U	11 U	440 U	440 U
Acenaphthylene	NE	13 U	11 U	12 U	11 U	11 U	440 U	440 U
Acenaphthene	20*	13 U	11 U	12 U	11 U	11 U	120 J	120 J
Phenanthrene	50*	13 U	11 U	12 U	11 U	11 U	66 J	70 J
Fluorene	50*	13 U	11 U	12 U	11 U	11 U	39 J	42 J
Naphthalene	10*	13 U	11 U	12 U	9 J	11 U	1600	1700
Methylnaphthalene,2-	NE	13 U	11 U	12 U	11 U	11 U	170 J	180 J
Total Noncarcinogenic PAHs	NE	ND	ND	ND	9	ND	1995	2112
<b>Carcinogenic PAHs (ug/L)</b>								
Indeno[1,2,3-cd]pyrene	0.002*	13 U	11 U	12 U	11 U	11 U	440 U	440 U
Benzo[b]fluoranthene	0.002*	13 U	11 U	12 U	11 U	11 U	440 U	440 U
Benzo[k]fluoranthene	0.002*	13 U	11 U	12 U	11 U	11 U	440 U	440 U
Chrysene	0.002*	13 U	11 U	12 U	11 U	11 U	440 U	440 U
Benzo[a]pyrene	NE	13 U	11 U	12 U	11 U	11 U	440 U	440 U
Dibenz[a,h]anthracene	NE	13 U	11 U	12 U	11 U	11 U	440 U	440 U
Benz[a]anthracene	0.002*	13 U	11 U	12 U	11 U	11 U	440 U	440 U
Total Carcinogenic PAHs	NE	ND						
<b>Total PAHs (ug/L)</b>								
Total PAHs	NE	ND	ND	ND	9	ND	1995	2112
<b>Total Cyanide (ug/L)</b>								
Cyanide, Total	200	10 U	10 U	10 U	16.7	14.6	17	14.4

Notes-

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes  
PAHs - Polycyclic Aromatic Hydrocarbons  
NYS AGWQS – New York State Ambient Groundwater Quality Standards  
\* - Indicates a value that is a guidance value and not a standard  
NE - not established  
J - estimated value  
U - not detected at or above the reporting limit shown  
Shading/bolding indicates an exceedance of established NY AGWQS  
ND - not detected; total concentration is listed as ND  
because no compounds were detected in the group  
ug/l - micrograms per liter of parts per billion

**Table 3**  
**Engineering Parameters Test Results**  
**Canastota Non-Owned Former MGP Site**  
**Canastota, NY**

	Sample ID	MW-05
	Depth (ft)	6.0 - 7.6
	Porosity	0.531
	Permeability (cm/sec)	6.0E-08
	Total Bulk Density (pcf)	111.7
Grain Size	Gravel	0.0
	Sand	40.1
	Fines	59.9
Atterberg Limits	Liquid Limit	62
	Plastic Limit	38
	Moisture Content	42.8
	Specific Gravity	2.58

### Data Usability Summary Report

**Project:** Canastota MGP  
**Laboratory:** Severn Trent Laboratories, Shelton, CT  
**Report No.:** 210214  
**Reviewer:** Lisa McDonagh/GEI Consultants  
**Date:** September 14, 2005

#### Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
SB-18(6-7)	210214-01	VOC, SVOC
SB-16(13-13.5)	210214-02	VOC, SVOC
SB-14(8-9)	210214-03	VOC, SVOC
SB-15(14-15)	210214-04	VOC, SVOC
SB-17(7-8)	210214-05	VOC, SVOC
SB-13(6.5-7.5)	210214-06	VOC, SVOC
SB-23(13.5-14)	210214-07	VOC, SVOC
SB-21(7.5-8)	210214-08	VOC, SVOC
SB-DUP(6-6.5)	210214-09	VOC, SVOC
SB-20(5.5-6)	210214-10	VOC, SVOC
SB-22(6-7)	210214-11	VOC, SVOC
SB-19(7-8)	210214-12	VOC, SVOC
MW-05(8.5-9.5)	210214-13	VOC, SVOC
MW-04(5.5-6)	210214-14	VOC, SVOC
SB-20A(5.5-6)	210214-15	MISSING
SS-01(0-0.25)	210214-16	VOC, SVOC
FB071405	210214-17	VOC, SVOC
TB071405	210214-18	VOC

Associated QC Samples: Field/Trip Blanks: FB071405, TB071405  
Field Duplicate pair: SB-21(7.5-8)/SB-DUP(6-6.5)

The above listed samples were collected on July 11, 12, 13 and 14, 2005 were analyzed for volatile organic compounds (VOCs) by SW-846 8260B and semivolatile organic compounds (SVOCs) by SW-846 8270C. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 8260B and 8270C.

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The organic data were evaluated based on the following parameters:

- \* • Data Completeness
- \* • Holding Times and Sample Preservation
- \* • Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- \* • Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Internal Standards
- Laboratory Control Sample (LCS) Results
- Field Duplicate Results
- \* • Moisture Content
- Quantitation Limits and Data Assessment
- \* • Sample Quantitation and Compound Identification
  
- \* - All criteria were met.

All results are usable for project objectives.

Qualifications applied to the data as a result of sampling error are discussed below.

- The following SVOC positive and/or nondetect results were qualified as estimated (J/UJ) due to field duplicate %RPDs which were above the required limits: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(123cd)pyrene and benzo(ghi)perylene in samples SB-21(7.5-8) and SB-DUP(6-6.5).

Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select VOC and SVOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.
- The positive VOC results for acetone and methylene chloride in samples MW-04(5.5-6) and SS-01(0-0.25) were qualified as nondetect due to method blank contamination. The results can be used for project objectives as nondetects. This qualification may have a minor impact

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on the data usability.

- The positive VOC result for methylene chloride in sample TB071405 was qualified as estimated (J) due to initial calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The positive results can be used for project objectives as estimated values. These qualifications may have a minor impact on the data usability.
- The positive and/or nondetect VOC results for 2-butanone in sample TB071405, methylene chloride in samples MW-04(5.5-6) and SS-01(0-0.25) were qualified as estimated (J/UJ) due to continuing calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The positive results can be used for project objectives as estimated values and the nondetects with estimated quantitation limits. These qualifications may have a minor impact on the data usability.
- The positive SVOC results for indeno(123cd)pyrene, dibenz(ah)anthracene and benzo(ghi)perylene in sample SS-01(0-0.25) were qualified as estimated (J) due to initial calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The positive results can be used for project objectives as estimated values. These qualifications may have a minor impact on the data usability.
- The positive VOC results in sample SB-18(6-7) were qualified as estimated (J) due to surrogate recoveries which were above control limits. The positive results can be used for project objectives as estimated values. These qualifications may have a minor impact on the data usability.
- The following positive VOC result was qualified as estimated (J) due to LCS recoveries which were above control limits: carbon disulfide in sample MW-04(5.5-6). The result may be biased high. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.
- The nondetect VOC results for 1,1,2,2-tetrachloroethane in sample SS-01(0-0.25) was qualified as estimated (UJ) due to internal standard recoveries which were below the control limits. The nondetect result can be used for project objectives as an estimated quantitation limit. The qualification may have a minor impact on the data usability.

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The validation findings were based on the following information.

**Data Completeness**

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables for the VOC and SVOC analyses.

**Holding Times and Sample Preservation**

All criteria were met in the VOC and SVOC analyses.

**GC/MS Tunes**

All criteria were met in the VOC and SVOC analyses.

**Initial and Continuing Calibrations**

Compounds that did not meet criteria in the VOC and SVOC continuing calibrations are summarized in the following tables.

<b>Instrument ID MSL Compound</b>	<b>IC 6/22/05</b>	<b>CC 7/25/05</b>	<b>CC 7/26/05</b>
methylene chloride	X(16.1%)		
2-butanone	X(31.3%)		XX(23.3%)
Samples Affected	All listed	SB-14(8-9), SB-20(5.5-6)	SB-19(7-8), FB071405, TB071405

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<b>Instrument ID MSN Compound</b>	<b>IC 7/22/05</b>	<b>CC 7/25/05</b>
acetone	X(31.9%)	
methylene chloride	X(85.7%)	XX(34.7%)
Samples Affected	All listed	MW-05(8.5-9.5), MW-04(5.5-6), SS-01(0-0.25), SB-22(6-7)

<b>Instrument ID MSU Compound</b>	<b>IC 7/24/05</b>	<b>CC 7/24/05</b>	<b>CC 7/25/05</b>
hexachlorocyclopentadiene	X(23.8%)		
2,4-dinitrophenol	X(36.8%)		
4,6-dinitro-2-methylphenol	X(19.6%)		
pentachlorophenol	X(27.1%)		
indeno(123cd)pyrene	X(23.8%)		
dibenz(ah)anthracene	X(23.8%)		
benzo(ghi)perylene	X(24.2%)		
Samples Affected	All listed	QC samples	MW-04(5.5-6), SS-01(0-0.25)

<b>Instrument ID MSU Compound</b>	<b>IC 7/27/05</b>	<b>CC 7/27/05</b>
indeno(123cd)pyrene	X(17.2%)	
dibenz(ah)anthracene	X(17.6%)	
benzo(ghi)perylene	X(19.4%)	
Samples Affected	All listed	FB071405

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- X = Initial calibration (IC) relative standard deviation (%RSD) > 15; estimate (J) positive result.
- XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.
- + = Response factor (RRF) < 0.05; Estimate (J) positive results and reject ( R ) nondetect results.

The following VOC and SVOC positive results were qualified as estimated (J) due to initial calibration nonconformances: methylene chloride in sample TB071405 and indeno(123cd)pyrene, dibenz(ah)anthracene and benzo(ghi)perylene in sample SS-01(0-0.25). The following VOC positive and/or nondetect results were qualified as estimated (J/UJ) due to continuing calibration nonconformances: 2-butanone in sample TB071405, methylene chloride in samples MW-04(5.5-6) and SS-01(0-0.25).

**Blanks**

All criteria were met in the SVOC analyses.

The following table summarizes the VOC method and trip blank contamination.

Compound	Type of Blank	Associated Samples	Maximum Concentration	Blank Action Level
acetone methylene chloride	method blank	MW-05(8.5-9.5) MW-04(5.5-6) SS-01(0-0.25) SB-22(6-7)	10 ug/Kg 5.5 ug/Kg	100 ug/Kg 55 ug/Kg
methylene chloride	method blank	FB071405, TB071405	0.52 ug/L	5.2 ug/L
methylene chloride	trip blank	all samples	7.6 ug/L	76 ug/L

**Blank Actions**

If the sample concentration  $\leq$  RDL and  $\leq$  blank action level, qualify the result as not detected (U) at the RL.

If the sample concentration > RDL and  $\leq$  blank action level, qualify the result as not detected (U) at the reported value.

If the sample concentration > blank action level, report the value unqualified.

Based on the action levels determined, the following results were qualified as nondetect (U) due to method blank contamination: methylene chloride and acetone in samples MW-04(5.5-6) and SS-01(0-0.25).

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### Surrogate Recoveries

The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the VOC analyses:

Sample ID	Percent Recovery				Action
	Tol-d8	BFB 36-133	DCE	DBRFLM	
SB-18(6-7)	-	134%	-	-	Estimate (J) the positive results .

- Within control limits

Tol-d8 - Toluene-d8

BFB - Bromofluorobenzene

DCE - 1,2-Dichloroethane-d4

DBRFLM- Dibromofluoromethane

The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the SVOC analyses:

Sample ID	Percent Recovery					
	2-FP 25-113	Phenol-d5 27-122	TBP 24-150	NBZ 25-120	2-FBP 32-131	TP-d14 35-140
SB-14(8-9)	0D	0D	0D	0D	0D	0D
SB-20(5.5-6)	0D	0D	0D	0D	0D	0D
SB-19(7-8)	-	0D	0D	0D	-	0D

- Within control limits

2-FP - 2-Fluorophenol

TBP - 2,4,6-Tribromophenol

NBZ - Nitrobenzene-d5

2-FBP - 2-Fluorobiphenyl

TP-d14 - Terphenyl-d14

The positive VOC results in sample SB-18(6-7) were qualified as estimated (J) due to surrogate recoveries which were above control limits. The positive results can be used for project objectives as estimated values. These qualifications may have a minor impact on the data usability.

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**MS/MSD Results**

All criteria were met in the VOC and SVOC analyses.

**Internal Standards**

All criteria were met in the SVOC analyses.

The following table lists the internal standard (IS) areas which were outside of the control limits in the VOC analyses.

<b>Sample</b>	<b>Internal Standard</b>	<b>Area (%)</b>	<b>Validation Action</b>
SB-18(6-7)	1,4-dichlorobenzene-d4	48	Qualifications were not required.
SB-15(14-15)	1,4-dichlorobenzene-d4	38	Qualifications were not required.
MW-05(8.5-9.5)	1,4-dichlorobenzene-d4	27	Qualifications were not required.
SS-01(0-0.25)	1,4-dichlorobenzene-d4	34	Estimate (UJ) the nondetect result for 1,1,2,2-tetrachloroethane in sample SS-01(0-0.25).

**LCS Results**

The following table lists the compound recoveries found outside of the laboratory established control limit in the LCS analyses and the resultant actions in the VOC and SVOC analyses.

Compound	Recovery (%)	Control Limits	Affected Samples	Actions
carbon disulfide	226	23-149	MW-04(5.5-6)	Estimate the positive result (J) for carbon disulfide in the associated sample.
benzo(k)fluoranthene	141	59-127	none	Validation action was not required; affected result was nondetect and therefore not affected by potential high bias.
2,4-dinitrophenol 4,6-dinitro-2-methylphenol	111 111	10-36 10-89	none	Validation action was not required; affected result was nondetect and therefore not affected by potential high bias.

**Field Duplicate Results**

Samples SB-DUP(6-6.5) and SB-21(7.5-8) were submitted as the field duplicate pair with this sample group. All criteria were met in the VOC analyses.

The following table summarizes the RPDs of the SVOC detected analytes which were outside of the required limits.

Compound	SB-DUP(6-6.5) (µg/Kg)	SB-21(7.5-8) (µg/Kg)	RPD (%)
naphthalene	4900	1800	92
acenaphthylene	1500	100	175
acenaphthene	5700	2000	96
fluorene	3300	850	118
phenanthrene	13000	1900	149
anthracene	3200	260	170
fluoranthene	9300	540	178

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Compound	SB-DUP(6-6.5) (µg/Kg)	SB-21(7.5-8) (µg/Kg)	RPD (%)
pyrene	11000	550	181
benzo(a)anthracene	3800	160	184
chrysene	3800	170	183
benzo(b)fluoranthene	3400	120	186
benzo(k)fluoranthene	1600	120	172
benzo(a)pyrene	3900	170	183
indeno(123cd)pyrene	1100	ND	200
benzo(ghi)perylene	1400	ND	200

Estimate (J) the positive results for naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene and benzo(a)pyrene in samples SB-DUP(6-6.5) and SB-21(7.5-8) .  
Estimate (J/UJ) the nondetect and/or positive results for indeno(123cd)pyrene and benzo(ghi)perylene in samples SB-DUP(6-6.5) and SB-21(7.5-8) .

**Moisture Content**

All criteria were met.

**Quantitation Limits and Data Assessment**

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the VOC and SVOC analyses. These results were qualified by the laboratory (J). These results were qualified as estimated (J) due to uncertainty at the low end of calibration.

All SVOC samples and SVOC QC analyzed on the MSX instrument were uniformly diluted 1:10 to bring the surrogates and spike compounds into the calibration range. MSX is a newer instrument with a x10 lower curve. Compound reporting limits are not affected by this starting dilution. Any analysis over 1:10 is considered a dilution of the sample used to bring target compounds within the calibration range.

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The following table lists the sample dilutions which were performed and reported. Quantitation limits were elevated accordingly.

<b>Sample</b>	<b>VOC Analysis Reported</b>	<b>SVOC Analysis Reported</b>
SB-18(6-7)	NA	Final extract volume of 2.0 ml and 20-fold dilution performed. QLs elevated by factor of 4.
SB-14(8-9)	A medium level analysis was performed with a 50-fold dilution.	Final extract volume of 2.0 ml and 4000-fold dilution performed. QLs elevated by factor of 800.
SB-20(5.5-6)	A medium level analysis was performed.	Final extract volume of 4.0 ml and 500-fold dilution performed. QLs elevated by factor of 200.
SB-22(6-7)	5X dilution.	Final extract volume of 1.0 ml and 100-fold dilution performed. QLs elevated by factor of 10.
SB-19(7-8)	A medium level analysis was performed with a 20-fold dilution.	Final extract volume of 1.0 ml and 400-fold dilution performed. QLs elevated by factor of 40.

**Sample Quantitation and Compound Identification**

Calculations were spot-checked; no discrepancies were noted.

**Project:** Canastota, Non-Owned Former MGP Site, New York  
**Laboratory:** Severn Trent Laboratories, Shelton, CT  
**Report No.:** 210426  
**Reviewer:** Lorie MacKinnon/GEI Consultants  
**Date:** September 28, 2005

**Samples Reviewed and Evaluation Summary**

FIELD ID	LAB ID	FRACTIONS VALIDATED
SB-20A (5.5-6)	210426-01	BTEX, PAH
Associated QC Samples:	Field/Trip Blanks:	None associated
	Field Duplicate pair:	None associated

The above-listed sample were collected on July 13, 2005 and was analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8260B, SOP No. HW-24, Revision 1, June 1999 and the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8270C, SOP No. HW-22, Revision 2, June 2001.

The organic data were evaluated based on the following parameters:

- \* • Data Completeness
- Holding Times and Sample Preservation
- \* • Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- \* • Blanks
- \* • Surrogate Recoveries
- \* • Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- \* • Internal Standards
- \* • Laboratory Control Sample (LCS) Results
- \* • Field Duplicate Results
- Quantitation Limits and Data Assessment
- \* • Sample Quantitation and Compound Identification
  
- \* - All criteria were met.

All results are usable for project objectives.

Qualifications were not applied to the data as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select VOC and PAH results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.
- The positive and nondetect VOC and PAH results for sample SB-20A (5.5-6) were qualified as estimated (J) due to holding time exceedances. The results may be biased low. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.
- The positive results for indeno(123-cd)pyrene and dibenzo(ah)anthracene in sample SB20A (5.5-6) were qualified as estimated (J) due to initial calibration nonconformances. The direction of the bias cannot be determined from these nonconformances. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

The validation findings were based on the following information.

**Data Completeness**

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables for the VOC and PAH analyses.

**Holding Times and Sample Preservation**

The VOC analysis and PAH extraction took place 13 days outside of the required holding times for sample SB-20A (5.5-6) due to a laboratory login error. The positive and nondetect VOC and PAH results for sample SB-20A (5.5-6) were estimated (J/UJ).

**GC/MS Tunes**

All criteria were met in the VOC and PAH analyses.

**Initial and Continuing Calibrations**

All criteria were met in the VOC initial and continuing calibrations.

Compounds that did not meet criteria in the SVOC initial calibrations are summarized in the following table.

Instrument ID MSX Compound	IC 08/10/05
indeno(123-cd)pyrene	X (15.1%)
dibenzo(ah)anthracene	X (20.2%)
Samples Affected	SB-20A (5.5-6)

- X = Initial calibration (IC) %RSD > 15; estimate (J) positive and (UJ) blank qualified nondetect results.
- XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.
- XXX = IS RSD or CC %D > 90; estimate (J) positive results and reject [R] nondetect results.
- + = Response factor (RRF) < 0.05; Estimate (J) positive results and reject [R] nondetect results.

The positive results for indeno(123-cd)pyrene and dibenzo(ah)anthracene in sample SB-20A (5.5-6) were estimated (J) due to initial calibration nonconformances.

### **Blanks**

Contamination was not detected in the VOC and PAH method blank samples.

### **Surrogate Recoveries**

All criteria were met in the VOC and SVOC samples analyzed without dilution.

### **MS/MSD Results**

An MS/MSD was not associated with this sample. Validation action was not required on this basis.

### **Internal Standards**

All criteria were met in the VOC and PAH analyses.

### **LCS Results**

All criteria were met in the VOC and PAH analyses.

### **Field Duplicate Results**

A field duplicate was not associated with this sample set.

**Quantitation Limits and Data Assessment**

Results were reported which were below the lowest calibration standard level (QL) and above the method detection limit (MDL) in the VOC and PAH analyses. These results were qualified by the laboratory (J). These results were qualified as estimated (J) due to uncertainty at the low end of calibration.

The following table lists the sample dilutions which were performed and reported. Quantitation limits were elevated accordingly.

Sample	VOC Analysis Reported	SVOC Analysis Reported
SB-20A (5.5-6)	NR	The sample was analyzed at a 1000-fold dilution.

NR – Dilution was not required.

**Sample Quantitation and Compound Identification**

Calculations were spot-checked; no discrepancies were noted in the VOC and PAH analyses.

**Project:** Canastota, Non-Owned Former MGP Site, New York  
**Laboratory:** Severn Trent Laboratories, Shelton, CT  
**Report No.:** 210214  
**Reviewer:** Lorie MacKinnon/GEI Consultants  
**Date:** September 28, 2005

**Samples Reviewed and Evaluation Summary**

FIELD ID	LAB ID	FRACTIONS VALIDATED
SB-18 (6-7)	210214-01	Cyanide
SB-16 (13-13.5)	210214-02	Cyanide
SB-14 (8-9)	210214-03	Cyanide
SB-15 (14-15)	210214-04	Cyanide
SB-17 (7-8)	210214-05	Cyanide
SB-13 (6.5-7.5)	210214-06	Cyanide
SB-23 913.5-14)	210214-07	Cyanide
SB-21 (7.5-8)	210214-08	Cyanide
SB-DUP (6-6.5)	210214-09	Cyanide
SB-20 (5.5-6)	210214-10	Cyanide
SB-22 (6-7)	210214-11	Cyanide
SB-19 (7-8)	210214-12	Cyanide
MW-05 (8.5-9.5)	210214-13	Cyanide
MW-04 (5.5-6)	210214-14	Metals, Cyanide
SB-20A (5.5-6)	210214-15	Cyanide
SS-01 (0-0.25)	210214-16	Metals, Cyanide
FB071405	210214-17	Metals, Cyanide

Associated QC Samples: Field Blanks: FB071405  
Field Duplicate pair: SB-21 (7.5-8)/SB-DUP (6-6.5)

The above-listed samples were collected on July 11, 12, 13, and 14, 2005 and were analyzed for select metals by SW-846 methods 6010B/7471A and cyanide by SW-846 method 9012. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Evaluation of Metals Data for the Contract Laboratory Program, SOP No. HW-2, Revision 11, January 1992, modified to accommodate the SW-846 methodologies.

The inorganic data were evaluated based on the following parameters:

- \* • Data Completeness
- \* • Holding Times and Sample Preservation
- Instrument Calibration
- Contract Required Detection Limit (CRDL) Standard Recoveries

Canastota, Project 034390-1-1007

- Blank Analysis Results
- Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Results
- Matrix Spike (MS) Results
- \* • Laboratory Duplicate Results
- \* • Field Duplicate Results
- \* • Laboratory Control Sample (LCS) Results
- ICP Serial Dilution Analysis Results
- Detection Limits Results
- \* • Sample Quantitation Results
  
- \* - All criteria were met for this parameter.

### **Overall Evaluation of Data and Potential Usability Issues**

All results are usable for project objectives with the exception of manganese in sample FB071405 which was rejected due to extremely low recovery in the CRDL standard analysis.

Qualifications were not applied to the data as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- X The positive and nondetect results for potassium in samples FB071405, MW-04 (5.5-6), and SS-01 (0-0.25) and sodium in samples MW-04 (5.5-6) and SS-01 (0-0.25) were qualified as estimated (J/UJ) due to low recoveries in the CRDL standard analyses. The results are usable for project objectives as estimated values and nondetects with estimated quantitation limits and may be biased low. This may have a minor effect on the data usability.
  
- X The nondetect result for manganese in sample FB071405 was rejected (R) due to recovery less than 50 in the CRDL standard analysis. The result is not usable for project objectives. This may have a major effect on the data usability.
  
- X The positive results for magnesium and potassium in samples MW-04 (5.5-6) and SS-01 (0-0.25) were qualified as estimated (J) due to high percent differences (%Ds) in the ICP serial dilution analysis. The direction of the bias cannot be determined from this nonconformance. These results are usable for project objectives as estimated values. This may have a minor effect on the data usability.
  
- X The positive results for arsenic, barium, cobalt, potassium, sodium, thallium, and vanadium in sample MW04 (5.5-6), cobalt and sodium in sample SS01 (0-0.25), arsenic, calcium, and magnesium in sample FB071405, and cyanide in sample SB-17 (7-8) were qualified as estimated (J) as the sample levels were less than the CRDL standard and uncertainty is present at the low end of the calibration. The direction of the bias cannot be determined from this nonconformance. These results are usable for project objectives as estimated values. This may have a minor effect on the data usability.

The validation recommendations listed above were based on the following information.

**Data Completeness**

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables.

**Holding Times and Sample Preservation**

All criteria were met.

**Instrument Calibration**

The following table lists the analytes which exhibited recoveries outside of the control limits in the instrument calibration standards.

Analyte	Standard ID	Recovery (%)	Actions
Mercury	7/22/04 CCV4	122	Validation actions were not required as project samples were not bracketed by this calibration standard.

**CRDL Standard Recoveries**

The following table lists the analytes which exhibited recoveries outside of the control limits in the reporting limit standard and the resulting validation actions. Based on Region II validation guidelines, the affected analyte level range is determined by the true value of the standard  $\pm 2x$  the reporting limit for ICP analytes and the true value of the standard  $\pm 1x$  the reporting limit for mercury.

Analyte	Recovery (%)	Associated Samples	Actions
Manganese	47	FB071405	Reject (R) the nondetect result for manganese in sample FB071405.
Potassium	77	FB071405	Estimate (UJ) the nondetect result for potassium in sample FB071405.
Manganese	35	MW-04 (5.5-6), SS-01 (0-0.25)	Validation actions were not required as the associated results were greater than the affected range.
Potassium	68	MW-04 (5.5-6), SS-01 (0-0.25)	Estimate (J) the positive results for potassium in samples MW-04 (5.5-6) and SS-01 (0-0.25).

Analyte	Recovery (%)	Associated Samples	Actions
Sodium	76	MW-04 (5.5-6), SS-01 (0-0.25)	Estimate (J) the positive results for sodium in samples MW-04 (5.5-6) and SS-01 (0-0.25).

**Blank Analysis Results**

All instrument, method, and field blank results were found to be less than the CRDL or reporting limit (RL) with the following exceptions:

Analyte	Date	Blank ID	Level Detected	Action
Manganese	07/25/05	Method blank	-8.6 ug/L	Validation action was not required as the result for manganese was previously rejected in associated sample, FB071405, due to poor CRDL standard recovery.
Silver	07/27/05	ICB	7.2 ug/L	Validation action was not required as the associated soil samples were not bracketed by this QC sample.
Barium Calcium Iron Magnesium	071405	Field Blank	1.58 ug/L, 0.51 mg/kg 499 ug/L, 160 mg/kg 193 ug/L, 61.8 mg/kg 135 ug/L, 43.3 mg/kg	Validation action was not required as the sample analyte levels were greater than five times those detected in the field blank sample.

**ICP ICS Results**

Thallium (54%) was recovered below the control limits of 80-120 in the ICSAB sample associated with sample FB071405. Validation action was not required as the sample interferences levels were less than those in the ICSAB sample.

Cadmium, lead, and thallium were detected above the reporting limit in the ICSA sample associated with sample FB071405. Silver was detected above the reporting limit in the ICSA sample associated with soil sample analyses. Validation actions were not required as the sample interferences levels were less than those in the ICSAB sample.

**MS Results**

An MS/MSD was performed on a non-project sample (210294-1) for the metals and on sample MW05 (8.5-9.5) for cyanide. Recoveries for antimony (21), beryllium (138), cadmium (55), potassium (53), selenium (55), vanadium (144), and zinc (40) were outside of the control limit of 75-125%. These results were not used to qualify the project samples due to possible difference in matrix type, etc.

**Laboratory Duplicate Results**

A laboratory duplicate was performed on a non-project sample (210294-1) for the metals and on sample MW05 (8.5-9.5) for cyanide. All criteria were met.

**Field Duplicate Results**

The field duplicate pair of SB-21 (7.5-8) and SB-DUP (6-6.5) was identified with this sample set for cyanide. All results were nondetect.

**LCS Results**

All criteria were met.

**ICP Serial Dilution (ISD) Analysis Results**

An ICP serial dilution analysis was performed on sample SS-01 (0-0.25). The following table lists the analyte %D outside of control limits and the resultant actions.

Analyte	%D	Validation Actions
Magnesium	10.6%	Estimate (J) the positive results for magnesium in samples MW04 (5.5-6) and SS-01 (0-0.25).
Potassium	17.7%	Estimate (J) the positive results for potassium in samples MW04 (5.5-6) and SS-01 (0-0.25).

**Detection Limits Results**

The following results were estimated (J) as the sample levels were less than the CRDL standard analyzed: arsenic, barium, cobalt, potassium, sodium, thallium, and vanadium in sample MW04 (5.5-6), cobalt and sodium in sample SS01 (0-0.25), arsenic, calcium, and magnesium in sample FB071405, and cyanide in sample SB-17 (7-8).

**Sample Quantitation Results**

Sample calculations were spot-checked; no discrepancies were noted.

**Project:** Canastota, Non-Owned Former MGP Site, New York  
**Laboratory:** Severn Trent Laboratories, Shelton, CT  
**Report No.:** 210378 and 210401  
**Reviewer:** Lorie MacKinnon/GEI Consultants  
**Date:** September 28, 2005

**Samples Reviewed and Evaluation Summary**

FIELD ID	LAB ID	FRACTIONS VALIDATED
<b>210378</b>		
MW-01	210378-01	BTEX, PAH, Cyanide
MW-02	210378-02	BTEX, PAH, Cyanide
MW-03	210378-03	BTEX, PAH, Cyanide
MW-04	210378-04	BTEX, PAH, Cyanide
FB080305	210378-05	BTEX, PAH, Cyanide
TB080305	210378-06	BTEX

**210401**

MW-05	210401-01	BTEX, PAH, Cyanide
MW-06	210401-02	BTEX, PAH, Cyanide
MW-DUP1	210401-03	BTEX, PAH, Cyanide

Associated QC Samples: Field/Trip Blanks: FB080305, TB080305  
Field Duplicate pair: MW-06/MW-DUP1

The above-listed samples were collected on August 3 and 4, 2005 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B, polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C, and cyanide by SW-846 method 9012. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8260B, SOP No. HW-24, Revision 1, June 1999, the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8270C, SOP No. HW-22, Revision 2, June 2001, and the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Metals Data, HW-2, Revision 11, Jan 1992.

The organic data were evaluated based on the following parameters:

- \* • Data Completeness
- Holding Times and Sample Preservation

Canastota, Project 034390-1-1007

- \* • Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- \* • Blanks
- \* • Surrogate Recoveries
- \* • Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- \* • Internal Standards
- \* • Laboratory Control Sample (LCS) Results
- \* • Field Duplicate Results
- Quantitation Limits and Data Assessment
- \* • Sample Quantitation and Compound Identification
  
- \* - All criteria were met.

All results are usable for project objectives with the exception of acetone and 2-butanone in samples MW-101, MW-102, MW-103, FB080205, and TB080205 which were rejected (R) due to low initial and continuing calibration response factors.

Qualifications were not applied to the data as a result of sampling error.

Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select VOC and PAH results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.
  
- The positive results for acenaphthene, fluorene, and phenanthrene in samples MW-06 and MW-DUP1 were qualified as estimated (J) due to initial calibration nonconformances. The direction of the bias cannot be determined from these nonconformances. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

The validation findings were based on the following information.

**Data Completeness**

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables for the VOC and PAH analyses.

**Holding Times and Sample Preservation**

All holding time criteria were met in the VOC and PAH analyses.

The cooler temperatures upon receipt at the laboratory were noted to be 10.2 and 8.4 degrees Celsius for samples in case number 210378. Validation action was not taken on this basis as the laboratory noted bagged ice and water were present on top of the samples.

### **GC/MS Tunes**

All criteria were met in the VOC and PAH analyses.

### **Initial and Continuing Calibrations**

Compounds that did not meet criteria in the VOC and SVOC continuing calibrations are summarized in the following tables.

<b>Instrument ID MSP Compound</b>	<b>IC 08/11/05</b>
acenaphthylene	X (16.2%)
acenaphthene	X (15.5%)
fluorene	X (18.3%)
phenanthrene	X (20.0%)
anthracene	X (20.1%)
fluoranthene	X (18.0%)
Samples Affected	FB080305, MW05, MW06, MW-DUP1

- X = Initial calibration (IC) %RSD > 15; estimate (J) positive and (UJ) blank qualified nondetect results.
- XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.
- XXX = IS RSD or CC %D > 90; estimate (J) positive results and reject [R] nondetect results.
- + = Response factor (RRF) < 0.05; Estimate (J) positive results and reject [R] nondetect results.

The positive results acenaphthene, fluorene, and phenanthrene in samples MW-06 and MW-DUP1 were estimated (J) due to initial calibration nonconformances.

Validation actions were not required for the analytes in the samples FB080305 and MW05 as affected results were nondetect.

### **Blanks**

Contamination was not detected in the VOC and PAH method, field and trip blank samples.

**Surrogate Recoveries**

All criteria were met in the VOC and SVOC samples analyzed without dilution.

**MS/MSD Results**

An MS/MSD was performed on sample MW-03 for the VOC analyses. All criteria were met.

An MS/MSD was not associated with the PAH analyses. Validation action was not required on this basis.

**Internal Standards**

All criteria were met in the VOC and PAH analyses.

**LCS Results**

All criteria were met in the VOC and PAH analyses.

**Field Duplicate Results**

The field duplicate pair of MW-06 and MW-DUP1 was identified with this sample group. The following table lists the relative percent differences (RPDs) of the detected compounds, all of which met the criteria.

Compound	MW-06 (ug/L)	MW-DUP1 (ug/L)	RPD (%)
benzene	980	800	20.2
ethylbenzene	780	600	26.1
toluene	440	340	25.6
xylene	420	330	24.0
naphthalene	1600	1700	6.1
2-methylnaphthalene	170	180	5.7
acenaphthene	120	120	0
fluorene	39	42	7.4
phenanthrene	66	70	5.9

### **Quantitation Limits and Data Assessment**

Results were reported which were below the lowest calibration standard level (QL) and above the method detection limit (MDL) in the VOC and PAH analyses. These results were qualified by the laboratory (J). These results were qualified as estimated (J) due to uncertainty at the low end of calibration. The laboratory 'J' qualifier was removed from the 2-methylnaphthalene result for sample MW-DUP1 as the result was greater than the lowest calibration standard.

The following table lists the sample dilutions which were performed and reported. Quantitation limits were elevated accordingly.

<b>Sample</b>	<b>VOC Analysis Reported</b>	<b>SVOC Analysis Reported</b>
MW-06	The sample was analyzed at a 5-fold dilution to high compound levels.	The sample was analyzed at a 40-fold dilution to the high level of naphthalene.
MW-DUP1	The sample was analyzed at a 5-fold dilution to high compound levels.	The sample was analyzed at a 40-fold dilution to the high level of naphthalene.

### **Sample Quantitation and Compound Identification**

Calculations were spot-checked; no discrepancies were noted in the VOC and PAH analyses.

### **INORGANIC ANALYSES**

The inorganic data were evaluated based on the following parameters:

- \* • Holding Times and Sample Preservation
- \* • Instrument Calibration
- \* • Blank Analysis Results
- \* • Matrix Spike Results
- \* • Laboratory Duplicate Results
- \* • Field Duplicate Results
- \* • Laboratory Control Sample (LCS) Results
- \* • Detection Limits Results
- \* • Sample Quantitation Results
  
- \* - All criteria were met for this parameter.

All results were found to be usable for project objectives. Qualifications were not required as a result of sampling or analytical error.

**Holding Times and Sample Preservation**

All criteria were met for the cyanide analyses.

**Instrument Calibration**

All criteria were met for the cyanide analyses.

**Matrix Spike Results**

The laboratory performed an MS/MSD analyses on sample MW-03. All criteria were met.

**Laboratory Duplicate Results**

The laboratory performed a duplicate analysis on sample MW-03. All criteria were met.

**LCS Results**

All criteria were met for the cyanide analyses.

**Field Duplicate Results**

The field duplicate pair of MW-06 and MW-DUP1 was identified with this sample group. The following table lists the relative percent difference (RPD) of the detected analyte, which met the criteria.

Analyte	MW-06 (ug/L)	MW-DUP1 (ug/L)	RPD (%)
Cyanide	17	14.4	16.6

**Detection Limits Results**

All criteria were met.

**Sample Quantitation Results**

Sample calculations were spot-checked; there were no errors noted.





### SOIL BORING/WELL LOG (MW-04)

<b>Boring/Well ID:</b>	MW-04	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/13/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	10.0'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	425.70'	<b>Drilling Method:</b>	Geoprobe/Hollow Stem Auger
<b>Elevation (top of riser):</b>	425.39'		
<b>Well Construction:</b>			
<b>Riser (from - to):</b>	0.0' - 3.0'	<b>Bentonite Seal (from - to):</b>	1.0' - 2.0'
<b>Screen (from - to):</b>	3.0' - 8.0'	<b>Annular Fill Type/Depth:</b>	Concrete / 0.0' -1.0'
<b>Screen Type/Size:</b>	PVC / 0.020 Slot	<b>Cement Grout (from - to):</b>	NA
<b>Sand Pack (from - to):</b>	2.0' - 8.0'	<b>Well Cover Type:</b>	Flush Mount Road Box
<b>Notes:</b>	Proportions Used: Trace - 1-10% Little - 10-20%		Some - 20-30% And - 30-50%
	bgs - below ground surface		

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	WELL DIAGRAM
1	0-5	0.0-0.5	5/4.2	0.0' - 2.2': Brown, dry, FINE SAND, some fine to medium gravel, asphalt, and brick fragments, dense, well sorted, non-cohesive. No odor. No visual contamination. (FILL) 2.2' - 4.0': Brown, moist-wet, FINE SAND, dense, poorly sorted, semi-cohesive. No odor. No visual contamination. 4.0' - 4.2': Brown, wet, SILT, some clay, trace fine gravel, dense, poorly sorted, cohesive. No odor. No visual contamination.	
2					
3					
4					
5					
6	5-10	0.0	5/5	0.0' - 0.1': Same as above. 0.1' - 2.9': Brown, moist, SILT and FINE SAND, some clay, dense, poorly sorted, cohesive. No odor. No visual contamination. <b>**Analytical sample MW-04 (5.5-6) collected**</b> 2.9' - 5.0': Red-brown, moist, SILT and CLAY, dense, poorly sorted, cohesive. No odor. No visual contamination.	
7					
8					
9					
10					
11				End of Boring at 10.0' bgs.	
12					
13					
14					
15					
16					
17					
18					
19					
20					



### SOIL BORING/WELL LOG (MW-05)

<b>Boring/Well ID:</b>	MW-05	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/13/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	10.5'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	426.12'	<b>Drilling Method:</b>	Geoprobe/Hollow Stem Auger
<b>Elevation (top of riser):</b>	425.62'		
<b>Well Construction:</b>			
<b>Riser (from - to):</b>	0.0' - 3.0'	<b>Bentonite Seal (from - to):</b>	1.0' - 2.0'
<b>Screen (from - to):</b>	3.0' - 8.0'	<b>Annular Fill Type/Depth:</b>	Concrete / 0.0' -1.0'
<b>Screen Type/Size:</b>	PVC / 0.020 Slotted	<b>Cement Grout (from - to):</b>	NA
<b>Sand Pack (from - to):</b>	2.0' - 8.0'	<b>Well Cover Type:</b>	Flush Mount Road Box
<b>Notes:</b>			
bgs - below ground surface		Proportions Used: Trace - 1-10% Little - 10-20%	Some - 20-30% And - 30-50%

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	WELL DIAGRAM
1	0-5	0.0-0.1	5/3.4	0.0' - 1.7': Brown, dry, FINE SAND, some brick fragments and fine gravel, trace asphalt, well sorted, non-cohesive. No odor. No visual contamination. (FILL) 1.7' - 3.4': Brown, moist, FINE SAND, loose, poorly sorted, non-cohesive. No odor. No visual contamination. (FILL)	
2					
3					
4					
5					
6	5-10	0.0	5/4.4	0.0' - 1.1': Brown, wet, FINE SAND, loose, semi-cohesive. No odor. No visual contamination. 1.1' - 1.5': Brown, wet, FINE to COARSE SAND, well sorted, semi-cohesive. 1.5' - 1.9': Brown-black, moist, SILT and CLAY, dense. 1.9' - 2.3': Red-brown, CLAY and SILT, dense. 2.3' - 3.9': Brown, wet, FINE SAND, dense, semi-cohesive. No odor. No visual contamination. 3.9' - 4.4': Brown, wet, SILT, some clay, dense, cohesive. No odor. No visual contamination. <b>**Analytical sample MW-05 (8.5-9.5) collected**</b>	
7					
8					
9					
10					
11	10-15	0.0	5/0.8	<i>Liner bound up in core barrel.</i> 0.0' - 0.8': Red-brown, moist, CLAY and SILT, very dense, poorly sorted, cohesive. No odor. No visual contamination.  End of boring at 10.8' bgs.	
12					
13					
14					
15					
16					
17					
18					
19					
20					



## SOIL BORING/WELL LOG (SB-14/MW-06)

<b>Boring/Well ID:</b>	SB-14 / MW-06	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/13/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	13.3'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	425.17'	<b>Drilling Method:</b>	Geoprobe/Hollow Stem Auger
<b>Elevation (top of riser):</b>	424.79'		
<b>Well Construction:</b>			
<b>Riser (from - to):</b>	0.0' - 3.0'	<b>Bentonite Seal (from - to):</b>	1.0' - 2.0'
<b>Screen (from - to):</b>	3.0' - 13.0'	<b>Annular Fill Type/Depth:</b>	Concrete / 0.0' - 1.0'
<b>Screen Type/Size:</b>	PVC / 0.020 Slotted	<b>Cement Grout (from - to):</b>	NA
<b>Sand Pack (from - to):</b>	2.0' - 13.0'	<b>Well Cover Type:</b>	Flush Mount Road Box
<b>Notes:</b>	Proportions Used: Trace - 1-10% Little - 10-20%		Some - 20-30% And - 30-50%
	bgs - below ground surface		

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	WELL DIAGRAM
1	0-5	0.0	5/3.9	0.0' - 2.0': Brown, dry, FINE SAND and SILT, little fine gravel, medium dense, non-cohesive. No odor. No visual contamination. (FILL)	
2				2.0' - 2.7': Brown, moist, SILT and CLAY, some fine sand, poorly sorted, cohesive. No odor. No visual contamination. (FILL)	
3				2.7' - 3.9': Brown, moist, FINE SAND and SILT, little fine gravel, trace wood fragment, medium dense, non-cohesive. No odor. No visual contamination. (FILL)	
4					
5	5-10	7.3-335	5/3.8	0.0' - 2.0': Brown, wet, FINE SAND and SILT, dense, semi-cohesive. Slight naphthalene-like odor. No visual contamination.	
6				2.0' - 3.8': Brown, wet, FINE SAND, medium dense, poorly sorted, semi-cohesive. Moderate naphthalene-like odor. Tar coated grains and sheen.	
7				**Analytical sample SB-14 (8-9) collected**	
8					
9	10-15	1.2-186	5/3.3	0.0' - 1.7': Brown, saturated, FINE SAND and SILT, loose, poorly sorted. Moderate naphthalene-like odor. Tar coated grains and sheen.	
10				1.7' - 3.2': Red-brown, moist, CLAY and SILT, dense, poorly sorted, cohesive. No odor. No visual contamination.	
11				3.2' - 3.3': Red brown, dry, SILT, CLAY, and GRAVEL, very dense, cohesive. No odor. No visual contamination. (TILL)	
12					
13				End of Boring at 13.3' bgs.	
14					
15					
16					
17					
18					
19					
20					



### SOIL BORING (SB-13)

<b>Boring/Well ID:</b>	SB-13	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/12/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	15.5'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	425.19'	<b>Drilling Method:</b>	Geoprobe
<b>Notes:</b> bgs - below ground surface		Proportions Used: Trace - 1-10% Little - 10-20%	Some - 20-30% And - 30-50%

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	Geologic Strata
1 2 3 4 5	0-5	0.0	5/4.8	0.0' - 1.4': Brown, dry, FINE SAND, some gravel, trace organic material, loose, well sorted, non-cohesive. No odor. No visual contamination. 1.4' - 3.4': Brown, dry, SILT and CLAY, some fine sand, dense, cohesive. 3.4' - 4.8': Dark brown, moist, SILT and CLAY, organic layers throughout, trace fine gravel, dense, poorly sorted, semi-cohesive. No odor. No visual contamination.	
6 7 8 9 10	5-10	0.0	5/4.6	0.0' - 2.4': Brown, wet, FINE SAND, dense, poorly sorted, semi-cohesive. No odor. No visual contamination. 2.4' - 2.6': Red-brown, moist, SILT and CLAY, dense, poorly sorted, cohesive. No odor. No visual contamination. <b>**Analytical sample SB-13 (6.5-7.5) collected**</b>	
11 12 13 14 15	10-15	0.0	5/3.5	0.0' - 3.5': Red-brown, moist, SILT and CLAY, dense-very dense, poorly-sorted, cohesive. No odor. No visual contamination.	
16 17 18 19 20	15-20	0.0	5/0.5	<i>Liner bound up in core sampler.</i> 0.0' - 0.5': Red-brown, dry-moist, SILT and CLAY, very dense, cohesive. No odor. No visual contamination.  End of Boring at 15.5' bgs.	



### SOIL BORING (SB-15)

<b>Boring/Well ID:</b>	SB-15	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/11/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	17.0'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	424.84'	<b>Drilling Method:</b>	Geoprobe
<b>Notes:</b> bgs - below ground surface		Proportions Used: Trace - 1-10% Little - 10-20% Some - 20-30% And - 30-50%	

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	Geologic Strata
1 2 3 4 5	0-5	0.0	5/3.8	0.0' - 1.7': Brown, dry, FINE SAND and GRAVEL, some organic material, brick fragments, loose, well sorted, non-cohesive. No odor. No visual contamination. (FILL) 1.7' - 2.3': Grey, moist, ROCK FRAGMENTS, some sand and silt.(FILL) 2.3' - 3.8': Dark brown, moist, SILT and FINE SAND, trace clay, dense, semi-cohesive. No odor. No visual contamination. (FILL)	
6 7 8 9 10	5-10	0.0	5/4.1	0.0' - 4.1': Brown, wet, FINE SAND, some silt, poorly sorted, dense, semi-cohesive. No odor. No visual contamination.	
11 12 13 14 15	10-15	0.0	5/2.1	0.0' - 2.1': Brown-red-brown, wet, SILT and CLAY, trace fine sand, dense-very dense, cohesive. No odor. No visual contamination. <b>**Analytical sample SB-15 (14-15) collected**</b>	
16 17 18 19 20	15-17	0.0	2/0.2	0.0' - 0.2': Rock imbedded in red-brown, dry, SILT, CLAY, and GRAVEL, very dense, cohesive. No odor. No visual contamination. (TILL)  End of Boring at 17.0' bgs.	



### SOIL BORING (SB-16)

<b>Boring/Well ID:</b>	SB-16	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/11/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	15.0'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	425.07'	<b>Drilling Method:</b>	Geoprobe
<b>Notes:</b> bgs - below ground surface		Proportions Used: Trace - 1-10% Little - 10-20% Some - 20-30% And - 30-50%	

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	Geologic Strata
1	0-5	0.0	5/3.3	0.0' - 1.5': Brown, dry, FINE SAND, some fine gravel, loose, non-cohesive. No odor. No visual contamination. (FILL)	
2				1.5' - 3.3': Brown, moist to wet, FINE SAND and SILT, some fine to medium gravel with layers of silt and clay, medium dense, non-cohesive. No odor. No visual contamination.	
3					
4					
5					
6	5-10	0.0	5/3.5	0.0' - 3.5': Brown, wet, FINE SAND, some silt, well sorted, medium dense, semi-cohesive. No odor. No visual contamination.	
7					
8					
9					
10					
11	10-15	0.0	5/5	0.0' - 3.5': Brown to grey, moist, SILT and CLAY, trace fine gravel, poorly sorted, dense, cohesive. No odor. No visual contamination. <b>**Analytical sample SB-16 (13-13.5) collected**</b>	
12				3.5' - 5.0': Red-brown, dry, SILT, CLAY, and GRAVEL, very dense, cohesive. No odor. No visual contamination. (TILL)	
13					
14					
15					
16				End of Boring at 15.0' bgs.	
17					
18					
19					
20					



### SOIL BORING (SB-17)

<b>Boring/Well ID:</b>	SB-17	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/11/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	10.0'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	425.55'	<b>Drilling Method:</b>	Geoprobe
<b>Notes:</b> bgs - below ground surface		Proportions Used: Trace - 1-10% Little - 10-20% Some - 20-30% And - 30-50%	

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	Geologic Strata
1	0-5	0.0	5/3.5	0.0' - 0.5': ASPHALT.	
2				0.5' - 2.3': Brown, moist, FINE SAND and SILT, some fine to medium gravel, dense, well-sorted, semi-cohesive. No odor. No visual contamination. (FILL)	
3				2.3' - 2.6': Red, moist, BRICK FRAGMENTS. (FILL)	
4				2.6' - 3.5': Brown, moist, FINE SAND and SILT, some fine gravel, dense, well sorted, semi-cohesive. No odor. No visual contamination. (FILL)	
5					
6	5-10	0.0	5/5	0.0' - 1.3': Brown, wet, FINE SAND, trace fine gravel, medium dense, poorly sorted, semi-cohesive. No odor. No visual contamination.	
7				1.3' - 2.6': Brown, saturated, FINE SAND and SILT, dense, semi-cohesive. No odor. No visual contamination.	
8				2.6' - 3.4': Grey-brown, moist, SILT and FINE SAND, some clay and fine gravel, very dense. No odor. No visual contamination.	
9				3.4' - 5.0': Red-brown, dry, SILT, CLAY, and GRAVEL, very dense, cohesive. No odor. No visual contamination.(TILL)	
10				**Analytical sample SB-17 (7-8) collected**	
11				End of Boring at 10.0' bgs.	
12					
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15					
16					
17					
18					
19					
20					



### SOIL BORING (SB-18)

<b>Boring/Well ID:</b>	SB-13	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/11/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	7.3'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	425.76'	<b>Drilling Method:</b>	Geoprobe
<b>Notes:</b> NA - Not Available bgs - below ground surface		Proportions Used: Trace - 1-10% Little - 10-20%	Some - 20-30% And - 30-50%

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	Geologic Strata
1	0-3	0.1	NA	Hand augered to 3.0' bgs. 0.0' - 0.5': ASPHALT. 0.5' - 3.0': Brown, dry, SAND and GRAVEL, trace silt, loose, non-cohesive. Slight organic-like odor. No visual contamination. (FILL)	
2					
3					
4	3-5	0.1	2/1.2	0.0' - 2.0': Brown, moist, FINE SAND, some silt and organic material (rootlets), trace glass fragments, loose, non-cohesive. Slight organic-like odor. No visual contamination. (FILL)	
5					
6	5-10	2.1-2.6	2.3/1	0.0' - 0.8': Black, wet, FINE SAND and SILT, some organic material, medium dense, non-cohesive. Slight organic-like odor. No visual contamination. <b>**Analytical sample SB-18 (6-7) collected**</b> 0.8' - 1.0': Grey, dry, CONCRETE FRAGMENTS. (FILL)	
7					
8					
9					
10					
11				Refusal at 7.3' bgs. End of Boring.	
12					
13					
14					
15					
16					
17					
18					
19					
20					



### SOIL BORING (SB-18A)

<b>Boring/Well ID:</b>	SB-18A	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/11/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	7.3'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	425.76'	<b>Drilling Method:</b>	Geoprobe
<b>Notes:</b>			
bgs - below ground surface		Proportions Used: Trace - 1-10% Little - 10-20%	Some - 20-30% And - 30-50%

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	Geologic Strata
1	0-5	0.0-0.1	5/3.7	0.0' - 0.5': ASPHALT.	
2				0.5' - 3.7': Brown, dry to moist, FINE SAND, some silt and fine gravel, trace organic material, medium dense, semi-cohesive. Slight organic-like odor. No visual contamination.	
3					
4					
5					
6	5-10	0.0-2.0	2.3/1.6	0.0' - 1.3': Dark brown, wet, FINE SAND, some silt and fine gravel, trace brick and glass fragments, medium dense, semi-cohesive. Slight organic-like odor. No visual contamination.	
7				1.3' - 1.6': Grey, dry, CONCRETE FRAGMENTS. (FILL)	
8					
9					
10					
11				Refusal at 7.3' bgs.	
12				End of Boring.	
13					
14					
15					
16					
17					
18					
19					
20					



### SOIL BORING (SB-19)

<b>Boring/Well ID:</b>	SB-19	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/13/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	18.6'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	426.38'	<b>Drilling Method:</b>	Geoprobe
<b>Notes:</b> bgs - below ground surface		<b>Proportions Used:</b> Trace - 1-10% Little - 10-20%	Some - 20-30% And - 30-50%

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	Geologic Strata
1 2 3 4 5	0-5	0.0-12.5	5/3.1	0.0' - 2.0': Light brown, dry, FINE SAND, loose, well sorted, non-cohesive. No odor. No visual contamination. (FILL) 2.0' - 3.1': Dark brown, dry-moist, FINE SAND, some organic material and glass fragments, well sorted, non-cohesive. Slight fuel oil-like odor. Trace sheen in tip of liner. (FILL)	
6 7 8 9 10	5-10	30-115	5/2.7	0.0' - 0.6': Brown, wet, FINE SAND and GRAVEL, trace organic material and glass, loose. Strong naphthalene-like odor. Tar coated soil grains and sheen. (FILL) 0.6' - 2.2': Brown, wet, FINE SAND, medium dense, poorly sorted, non-cohesive. Moderate naphthalene-like odor. No visual contamination. 2.2' - 2.7': Brown, wet, FINE SAND and SILT, dense, poorly sorted, semi-cohesive. Very slight naphthalene-like odor. No visual contamination. <i>**Analytical sample SB-19 (7-8) collected**</i>	
11 12 13 14 15	10-15	NA	5/3.3	0.0' - 3.3': Brown, wet, FINE SAND, some silt, dense, poorly sorted, semi-cohesive. Slight naphthalene-like odor. Sheen.	
16 17 18 19 20	15-20	0.0-0.1	5/3.6	0.0' - 2.6': Brown, wet, FINE SAND, some silt, dense, poorly sorted, semi-cohesive. No odor. No visual contamination. 2.6' - 3.4': Red-brown, moist, SILT and CLAY, dense, cohesive. No odor. No visual contamination. 3.4' - 3.6': Red-brown, dry, SILT, CLAY, and GRAVEL, very dense, cohesive. No odor. No visual contamination. (TILL)  End of Boring at 18.6' bgs.	



### SOIL BORING (SB-20)

<b>Boring/Well ID:</b>	SB-20	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/12/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	16.8'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	427.20'	<b>Drilling Method:</b>	Geoprobe
<b>Notes:</b> bgs - below ground surface		Proportions Used: Trace - 1-10% Little - 10-20% Some - 20-30% And - 30-50%	

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	Geologic Strata
1 2 3 4 5	0-5	0.0	5/2.7	0.0' - 0.5': ASPHALT. 0.5' - 2.7': CLINKER, ASH, and BRICK FRAGMENTS, some fine to coarse sand and silt, loose, well sorted. No odor. No visual contamination. (FILL)	
6 7 8 9 10	5-10	3.1-137	5/3.7	0.0' - 0.9': Same as above. Moderate naphthalene-like odor. Tar coated. (FILL) 0.9' - 1.5': Brown, moist, SILT and FINE SAND, dense, semi-cohesive. Slight naphthalene-like odor. Sheen. 1.5' - 3.7': Brown, moist-wet, FINE SAND and SILT, dense, poorly sorted, semi-cohesive. Moderate naphthalene-like odor. Sheen. <b>**Analytical sample SB-20 (5.5-6) collected**</b>	
11 12 13 14 15	10-15	1.3-5.3	5/1.8	0.0' - 1.2': Brown, wet, FINE SAND, some silt, dense, poorly sorted, semi-cohesive. Very slight naphthalene-like odor. No visual contamination. 1.2' - 1.8': Red-brown, moist, SILT and CLAY, dense, cohesive. No odor. No visual contamination.	
16 17 18 19 20	15-20	0.0	5/1.8	0.0' - 1.2': Red-brown, moist, SILT and CLAY, trace fine gravel, dense, cohesive. No odor. No visual contamination. 1.2' - 1.8': Red-brown, dry, SILT, CLAY, and GRAVEL, very dense, cohesive. No odor. No visual contamination. (TILL)  Refusal - Rock in tip of sampler. End of Boring at 16.8' bgs.	



### SOIL BORING (SB-20A)

<b>Boring/Well ID:</b>	SB-20A	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/13/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	20.0'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	427.20'	<b>Drilling Method:</b>	Geoprobe
<b>Notes:</b> NA - Not Available bgs - below ground surface		Proportions Used: Trace - 1-10% Little - 10-20% Some - 20-30% And - 30-50%	

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	Geologic Strata
1	0-5	5.4-158	5/3.8	0.0' - 0.05': ASPHALT	
2				0.5' - 3.8': Brown, dry, FINE TO COARSE SAND, some gravel and cobbles, loose, well sorted, non-cohesive. Slight naphthalene-like odor. Tar saturated between 2.7' - 3.0'. (FILL)	
3					
4					
5					
6	5-10	36.1-138	5/4.4	0.0' - 2.3': Black, moist, FINE SAND and SILT, some organic material, very dense, cohesive. Strong naphthalene-like odor. (FILL)	
7				2.3' - 4.4': Brown, wet, FINE SAND, trace silt, dense, poorly sorted, semi-cohesive. Moderate naphthalene-like odor. Tar blebs at 3.5' and sheen throughout.	
8				**Analytical sample SB-20A (5.5-6) collected**	
9					
10					
11	10-15	NA	NA	No Recovery - sample ran out of liner: loose, wet sand.	
12					
13					
14					
15					
16	15-20	0.0	5/1.2	0.0' - 1.2': Red-brown, dry, SILT, CLAY, and GRAVEL, very dense, cohesive. No odor. No visual contamination.	
17				End of Boring at 20' bgs.	
18					
19					
20					



### SOIL BORING (SB-21)

<b>Boring/Well ID:</b>	SB-21	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/12/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	17.0'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	426.51'	<b>Drilling Method:</b>	Geoprobe
<b>Notes:</b> NA - Not Available bgs - below ground surface		Proportions Used: Trace - 1-10% Little - 10-20% Some - 20-30% And - 30-50%	

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	Geologic Strata
1 2 3 4 5	0-5	NA	NA	Hand augered to 5' bgs. 0.0' - 0.5': Brown to black, dry, FINE SAND, some brick fragments, loose, well sorted. No odor. No visual contamination. (FILL)	
6 7 8 9 10	5-10	0.0-11.6	5/2.9	0.0' - 1.1': Brown, moist, FINE SAND, some clinker/ash, loose, well sorted. Moderate naphthalene-like odor. No visual contamination. (FILL) 1.1' - 2.3': Brown, moist, SILT and FINE SAND, 1" gravel vein, well sorted, medium dense, cohesive. Moderate naphthalene-like odor. Gravel vein tar coated. (FILL) 2.3' - 2.9': Brown, wet, FINE SAND, poorly sorted, dense, semi-cohesive. Moderate naphthalene-like odor. Sheen. <b>**Analytical sample SB-21 (7.5-8) collected**</b>	
11 12 13 14 15	10-15	0.0	5/2.1	0.0' - 2.1': Brown-red-brown, wet-moist, SILT and CLAY, poorly sorted, dense-very dense, cohesive. No odor. No visual contamination.	
16 17 18 19 20	15-20	0.0	5/2	0.0' - 2.0': Red-brown, dry, SILT, CLAY, and GRAVEL, very dense, cohesive. No odor. No visual contamination. (TILL)	



**SOIL BORING (SB-22)**

<b>Boring/Well ID:</b>	SB-22	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/13/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	15.0'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	427.87'	<b>Drilling Method:</b>	Geoprobe
<b>Notes:</b> NA- Not Available bgs - below ground surface		Proportions Used: Trace - 1-10% Little - 10-20% Some - 20-30% And - 30-50%	

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	Geologic Strata
1 2	0-2.5	NA	NA	Hand augered to 2.5' bgs.	
3 4	2.5-5	0.0-4.5	2.5/1.8	0.0' - 1.8': Brown, moist, FINE SAND and SILT, dense, poorly sorted, semi-cohesive. Slight naphthalene-like odor. Trace sheen in bottom 0.2' (FILL)	
5 6 7 8	5-10	14.3-63	5/4.4	0.0' - 2.1': Brown, wet, FINE SAND and SILT, loose to medium dense, poorly sorted. Moderate naphthalene-like odor. Some tar coated grains and sheen. 2.1' - 4.4': Red-brown, moist, SILT, some clay, dense, poorly sorted. Slight naphthalene-like odor. Blebs of tar at 4.0'. <b>**Analytical sample SB-22 (6-7) collected**</b>	
9 10 11 12	10-15	0.0-0.3	5/1.2	0.0' - 0.4': Red-brown, moist, SILT and CLAY, dense, poorly sorted. Slight naphthalene-like odor. No visual contamination. 0.4' - 1.2': Red-brown, dry, SILT, CLAY, and GRAVEL, very dense, cohesive. No odor. No visual contamination. (TILL)	
13 14 15 16 17 18 19 20				End of Boring at 11.2' bgs.	



### SOIL BORING (SB-23)

<b>Boring/Well ID:</b>	SB-23	<b>Client:</b>	Niagara-Mohawk
<b>Project Number:</b>	034390	<b>Project Name:</b>	Canastota Non-Owned Fmr. MGP Site
<b>Logged By:</b>	Dan Burke	<b>Site Address:</b>	E.N. Canal Street, Canastota, NY
<b>Date:</b>	7/12/2005	<b>Contractor:</b>	Aquifer Drilling and Testing
<b>Total Depth:</b>	17.0'	<b>Driller:</b>	Roger Buley, Brian Urick
<b>Elevation (ground):</b>	427.21'	<b>Drilling Method:</b>	Geoprobe
<b>Notes:</b> NA- Not Available bgs - below ground surface		Proportions Used: Trace - 1-10% Little - 10-20% Some - 20-30% And - 30-50%	

Depth (ft.)	Sample Interval (feet)	PID Screening (ppm)	Penetration / Recovery (feet)	Soil/Geologic Description	Geologic Strata
1	0-2.5	0.0	NA	<i>Hand augered to 2.5' bgs.</i> 0.0' - 1.5': Brown, dry, FINE SAND, some silt, loose, well sorted, cohesive. No odor. No visual contamination. (FILL)	
2				1.5' - 2.5': Dark brown, moist, SILT, some clay and fine sand, dense, poorly sorted, semi-cohesive. No odor. No visual contamination. (FILL)	
3	2.5-5	0.0	2/1.3	0.0' - 1.3': Brown, moist, SILT, some fine sand and clinker/ash, poorly sorted, semi-cohesive. No odor. No visual contamination. (FILL)	
4					
5					
6	5-10	0.0	5/5	0.0' - 0.7': Brown, wet, SILT and FINE SAND, poorly sorted, semi-cohesive. 0.7' - 1.2': Dark brown, FINE SAND, some organic material. Organic-like odor. No visual contamination. (FILL) 1.2' - 5.0': Brown-red-brown, moist, SILT, some fine sand, trace clay, dense, poorly sorted, cohesive. No odor. No visual contamination.	
7					
8					
9					
10					
11	10-15	0.0	5/2	0.0' - 2.0': Red-brown, moist, SILT and CLAY, very dense, cohesive. No odor. No visual contamination. <b>**Analytical sample SB-23 (13.5-14) collected**</b>	
12					
13					
14					
15					
16	15-20	0.0	5/2	0.0' - 2.0': Red-brown, dry, SILT, CLAY, and GRAVEL, very dense, cohesive. No odor. No visual contamination. (TILL)	
17					
18					
19					
20					