BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & GEOSCIENTISTS
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April 28, 1993

Mr. Tracy L. Blazicek
Project Environmental Specialist
New York State Electric & Gas Corporation
4500 Vestal Parkway East
P.O. Box 3607
Binghamton, New York 13902-3607

Re: Report Focused
Environmental Investigation
Border City Site

File: 130.06 #2

Dear Mr. Blazicek:

The purpose of this letter is to report the results of the focused environmental investigation associated with the former manufactured gas plant (MGP) in Border City, New York. The objectives of the focused environmental investigation were to determine if MGP residues were disposed east of the unnamed creek and install monitoring wells that will be used to assess the ground-water quality along the eastern property line. The investigation was conducted in January and February 1993 and was comprised of two tasks. Work Task 1 consisted of a reconnaissance east of the creek. Work Task 2 consisted of the installation of two monitoring well clusters in the overburden at the site. Each work task is described below.

Work Task 1 - Reconnaissance East of Unnamed Creek

Under Work Task 1, Blasland & Bouck reviewed available aerial photographs and maps from New York State Electric & Gas Corporation (NYSEG) files as well as previous test pit logs from areas west of the unnamed creek and creek sediment analytical results from the area east of the unnamed creek (TRC, 1987). With the information obtained from the above review, a directed reconnaissance of the creek and the area east of the creek was accomplished. The reconnaissance was performed to evaluate the presence of MGP residues east of the creek. This reconnaissance included the excavation of 20 hand dug test pits and the laboratory analysis of soil from three of the test pits.

A pre-field review was conducted to assess the presence of disturbed areas east of the creek near the disposal areas west of the creek identified in the TRC Environmental Consultants, Inc. Task 2 Report, dated October 1, 1987. With the exception of the electrical power line corridors, there were no disturbed areas observed east of the creek on the available aerial photographs from the NYSEG files.

A directed reconnaissance of the creek and the area east of the creek was accomplished on January 12 and February 24, 1993. Dredging piles were observed immediately east and adjacent to the creek discussed in the Task 2 Report (TRC, 1987). There were no apparent dredging piles observed at other locations further east of the creek. Further, there was no debris, or obvious waste observed east of the dredging piles. The vegetation appeared to uniform and consistent throughout the area between the creek and the electrical power line corridor. There are few old growth trees in the area between the creek and the power line corridor. Most of the trees in this area are estimated to be less than 20 years old. The vegetation in the area east of the creek and the power line corridor appears to be older than the area between the creek and the power line corridor, but that area might be more conducive to tree growth. Much of the area between the creek and the power line corridor was wet or under water at the time of the reconnaissance. The wetness of the area could influence vegetative growth.

As part of the reconnaissance, a total of 20 shallow (1 to 2 feet below ground surface) hand dug test pits were excavated between the creek and the power line corridor to delineate the presence of the MGP residues. Because there were no identified potential disposal areas, the 20 test pits were excavated in a series of four lines originating from the creek east to the power line corridor. There were five test pits excavated in each line. No visible MGP residues were evident in any of the test pits. The only disturbances that were noted in the test pits were within the southern-most line. This line was situated in the vicinity of the old railroad spur bed. In some of the test pits within this line, slag or railroad bed cinders were encountered.

From the 20 test pits, three soil samples (TP-93-1, TP-93-2, and TP-93-3) were selected and submitted to Galson Corporation in East Syracuse, New York, for laboratory analysis. One soil sample was selected from each line of test pits that was visually representative of the materials encountered within the 20 test pits. Laboratory analyses included:

- Method 8240 for VOCs;
- Method 8270 for SVOCs; and
- The metals and cyanide detected in the on-site residues.

These soil samples were identified, handled, packaged, and shipped using the chain-of-custody procedure provided in Appendix A of the Remedial Investigation Work Plan, Former Manufactured Gas Plant Site, Auburn, New York, prepared by Blasland & Bouck for NYSEG in August 1992 (Auburn Work Plan). QA/QC for the field procedures is discussed under the appropriate procedure in Appendix A of the Auburn Work Plan and general and laboratory QA/QC procedures are discussed in Appendix C of the Auburn Work Plan.

There were no volatile organic compounds (VOCs) detected in the three soil samples obtained during this investigation. Semivolatile organic compounds (SVOCs) were detected in the soil samples submitted from each test pit. However, the soil samples from TP-93-2 and TP-93-3 contained only estimated concentrations of SVOCs below the method quantitation limits. The metals tested for were detected in all of the soil samples submitted; however, cyanide was only detected at TP-93-1.

The elevated concentrations of SVOCs and cyanide in test pit TP-93-1 may be due to the location of TP 93-1, between the creek dredging piles and the old railroad bed. Because the creek bends around the eastern edge of the identified disposal area, test pit TP-93-1 was excavated east of the creek, but south-southeast of the disposal area. Test pits TP-93-2 and TP-93-3 are further east of test pit TP-93-1. Because elevated concentrations of SVOCs were not detected in TP-93-2 or TP-93-3, it appears that there were no MGP residues disposed, east of TP-93-1 and the creek, toward the eastern property line. The soil sample locations are shown on Figure 1. The results of the analyses are provided in Attachment B.

Work Task 2 - Monitoring Well Installation

Under Work Task 2, Blasland & Bouck observed the installation of two overburden ground-water monitoring well nests at the site. A total of four new monitoring wells were installed at the site, two deep wells and two shallow wells. The monitoring wells were designated as MW-93-4D, MW-93-4S, MW-93-5D, and MW-93-5S. The locations of the monitoring wells were selected by NYSEG based on the configuration of the eastern property line, the location of the identified on-site waste disposal areas, and the direction of ground-water flow reported in the Task 2 Report, (TRC, 1987) and subsequently NYSEG water level monitoring. The locations of the monitoring wells were modified in the field by NYSEG to accomodate the presence of underground and overhead utilities. Underground Utility Protection Organization (UFPO) was contacted by NYSEG to determine the presence of underground utilities. The location of the monitoring well clusters are shown on Figure 1.

Prior to monitoring well installation, soil borings were drilled. Soil samples were obtained continuously via a split spoon sampler, visually classified according to the USCS, and screened with a photoionization detector (PID). At each monitoring well nest, a continuous profile of the subsurface soils was obtained to the depth of the deepest boring. At adjacent borings, the subsurface soils

were sampled every 5 feet. Procedures for the completion of the soil borings, including soil sampling, field and soil screening, and QA/QC procedures followed those provided in Appendix A of the Auburn Work Plan. Health and safety procedures observed during the monitoring well installation generally followed those presented in Appendix B of the Auburn Work Plan, as modified to include site-specific information for the Border City Site. Soils generated during the drilling were staged in 55-gallon drums provided by NYSEG for subsequent disposal by NYSEG.

The monitoring wells were installed in accordance with NYSEG's standard procedures in "Installation Procedures for Monitoring Wells and Piezometers at Former Coal Gasification Plant Sites," Revision 3, June 1989. These procedures are included in Appendix A of the Auburn Work Plan. The well screen of the shallow well in each nest spanned the uppermost 10 feet of saturated soil. The screen at MW-93-4S extended from 3.5 to 13.1 feet, and the screen at MW-93-5S extended from 3.0 to 12.6 feet below ground level. The water table at the site was encountered at approximately 2.5 feet. The well screen in the deeper well of each nest spanned a deeper zone, which was estimated to be 20 to 30 feet below ground level. The deep monitoring wells both extended from 16.0 to 25.6 feet below ground level. The deeper monitoring wells were installed within the most permeable zone encountered. The soils encountered in the boring was comprised of primarily fine sand, silt, and clay. Boring and monitoring well installation logs are provided in Attachment A. A well construction summary is provided in Attachment C.

All drilling and sampling equipment were decontaminated prior to initiating the drilling activities, after each well location, and at the completion of all drilling activities, as set forth in Appendix A of the Auburn Work Plan. Decontamination water was contained within the decontamination pad and transferred to 55-gallon drums provided by NYSEG for subsequent on-site infiltration by NYSEG.

Upon completion of each monitoring well, the well was developed to remove fine grain materials that may have settled in or around the monitoring well during installation, and to optimize the hydraulic communication between the monitoring well and the aquifer. Development water was placed in 55-gallon drums provided by NYSEG for subsequent on-site infiltration by NYSEG. The procedures used for developing the monitoring wells are provide in Appendix A of the Auburn Work Plan.

The locations and elevations of the ground-water monitoring wells were surveyed using standard practices. Survey elevations are provided in Attachment C. A CADD base map of the border City Site was prepared using Weiler Associates survey map (1986). The base map is provided as Figure 1.

Very truly yours,

BLASLAND & BOUCK ENGINEERS, P.C.

Nancy E. Gensky
Manager, Geology

Timothy R. Csier
Project Geologist

TRC/cde
:593T008A
Enclosures

cc: Mr. Edward R. Lynch, Blasland & Bouck Engineers, P.C.

ATTACHMENT A

BLASLAND & BOUCK ENGINEERS, P.C.

DATE STARTED/COMPLETED: 1/6/93-1/7/93
CLASSIFIED BY: TRO
PROJECT: NYSEG
LOCATION: Border City, NY

MW-93-4D

PROJECT NO.: 130.06
PAGE: 1 of 2

DRILLING AND SAMPLING METHOD:
4 1/4-inch ID HSA, split spoon

SUBSURFACE LOG

DEPTH (FT)	SAMPLE	SAMPLE/RUN NO.	SOIL DATA: RECOVERY (FT)	SOIL DATA: BLOWS/6 IN.	SOIL DATA: PID FIELD (ppm)	SOIL DATA: PID HEADSPACE (ppm)	ROCK DATA: % RECOVERY	ROCK DATA: % ROD	ROCK DATA: AVERAGE RATE (MIN./FT)	WELL COLUMN	GEOLOGIC COLUMN	SOIL/ROCK CLASSIFICATION	ROCK FEATURES
5													
0		1	1.1	WH								Dark brown organic CLAY.	
				1									
				2								Brown silty SAND, some clay, soft, moist.	
				4									
		2	1.8	3	0.0	0.0							
				2									
				5									
				6									
-5		3	1.8	4	0.0	0.0						Red-brown CLAY, trace silt, stiff, wet.	
				4									
				9									
				11									
		4	1.8	7	0.0	0.0							
				9									
				11								grades to medium stiff at 8.0 feet.	
				15									
		5	0.9	2	0.0	0.0							
				2									
				3									
-10				3								grades to very soft at 10.0 feet.	
		6	0.8	WH	0.0	0.0							
				WH									
				1									
				1									
		7	1.8	1	0.0	0.0							
				1									
				1								Sand lenses at 13.0 - 13.1 feet.	
				1									
-15		8	2.0	WH	0.0	0.0							
				WH									
				WH									
				WH									
		9	1.8	4	0.0	53.0						Gray brown fine SAND, loose, wet.	
				7									
				10									
				12								grades to trace silt at 18.0 feet.	
		10	1.7	6	0.0	0.0							
				5									
				4									
-20				4									
		11	1.8	1	0.0	0.0							
				1									
				3									
				4									
		12	1.0	4	0.0	0.0							
				5									
				6									
				6									
-25		13	1.5	8	0.0	0.0						Red-brown fine SAND, some silt, loose, wet.	
				9									

BLASLAND & BOUCK ENGINEERS, P.C.

DATE STARTED/COMPLETED: 1/6/93-1/7/93
CLASSIFIED BY: TRD

MW-93-4D

DRILLING AND SAMPLING METHOD: 4 1/4-inch ID HSA, split spoon
PROJECT: NYSEG
LOCATION: Border City, NY
PROJECT NO.: 130.06
PAGE: 2 of 2

DEPTH (FT)	SAMPLES	SAMPLE/RUN NO.	SOIL DATA: RECOVERY (FT)	SOIL DATA: BLOWS/6 IN.	SOIL DATA: PID FIELD (ppm)	SOIL DATA: PID HEADSPACE (ppm)	ROCK DATA: % RECOVERY	ROCK DATA: % ROD	ROCK DATA: AVERAGE RATE (MIN./FT)	WELL COLUMN	GEOLOGIC COLUMN	SUBSURFACE LOG: SOIL/ROCK CLASSIFICATION	ROCK FEATURES
-25				4								Red-brown fine SAND, some silt, loose, wet.	
				2						S			
												Bottom of boring at 26.0 feet.	
-30													
-35													
-40													
-45													
-50													
-55													

WELL CONSTRUCTION DETAILS

2-inch diameter stainless steel (SS) well
26.0' - 2.2' above ground level
well screen 25.6' - 16.0', 0.010 inch slot
well riser 16.0' - 2.2' above ground level
Sump 26.0' - 25.6'
Bottom of well set at 26.0'
Grade 0 silica Sand pack 26.0' - 14.0'
Grade 00 silica Sand pack 14.0' - 13.7'
Bentonite seal 13.7' - 11.5'
Cement/bentonite grout 11.5' - 1.5'
Cement surface pad 1.5' - 0.0'
6-inch diameter outer protective PVC casing with locking cap installed to 2.5' above ground level.

NOTES:

WH - Weight of hammer
NR - No recovery

BLASLAND & BOUCK ENGINEERS, P.C.

DRILLING AND SAMPLING METHOD: 4 1/4-inch ID HSA, split spoon

DATE STARTED/COMPLETED: 1/11/93-1/12/93
CLASSIFIED BY: TRD
PROJECT: NYSEG
LOCATION: Boarder City, NY

MW-93-58

PROJECT NO.: 130.06
PAGE: 1 of 1

SUBSURFACE LOG

SOIL/ROCK CLASSIFICATION

DEPTH (FT)	SAMPLES	SAMPLE/RUN NO.	SOIL DATA: RECOVERY (FT)	SOIL DATA: BLOWS/6 IN.	SOIL DATA: PID FIELD (ppm)	SOIL DATA: PID HEADSPACE (ppm)	ROCK DATA: % RECOVERY	ROCK DATA: % ROD	ROCK DATA: AVERAGE RATE (MIN./FT)	WELL COLUMN	GEOLOGIC COLUMN	SOIL/ROCK CLASSIFICATION	ROCK FEATURES
5													
0		1	1.2	2 2 7 5	0.0	0.0						Brown fine SAND and SILT, loose, wet.	
-5		2	2.0	4 3 2 3	0.0	0.0						Red CLAY, soft, moist, intermixed with thin Silt lenses.	
-10		3	1.8	WH WH WH 1	0.0	0.0						No Silt lenses 12.0 - 14.0 feet.	
-15												Bottom of boring at 14.0 feet.	
-20												WELL CONSTRUCTION DETAILS 2-inch diameter stainless steel (SS) well 13.0' - 2.0' above ground level well screen 12.6' - 3.0', 0.010 inch slot well riser 3.0' - 2.0' above ground level Sump 13.0' - 12.6' Bottom of well set at 13.0' Grade 0 silica Sand pack 13.0' - 2.5' Grade 00 silica Sand pack 2.5' - 2.0' Bentonite seal 2.0' - 1.0' Cement surface pad 1.0' - 0.0' 6-inch diameter outer protective PVC casing with locking cap installed to 2.5' above ground level.	
-25												NOTES: WH - Weight of hammer NR - No recovery	

BLASLAND & BOUCK ENGINEERS, P.C.

DRILLING AND SAMPLING METHOD: 4 1/4-inch ID HSA, split spoon	DATE STARTED/COMPLETED: 1/8/93-1/11/93	MW-93-5D
	CLASSIFIED BY: TRO	
	PROJECT: NYSEG	PROJECT NO.: 130.06
	LOCATION: Border City, NY	PAGE: 1 of 2

DEPTH (FT)	SAMPLES	SAMPLE/RUN NO.	SOIL DATA: RECOVERY (FT)	SOIL DATA: BLOWS/6 IN.	SOIL DATA: PID FIELD (ppm)	SOIL DATA: PID HEADSPACE (ppm)	ROCK DATA: % RECOVERY	ROCK DATA: % RQD	ROCK DATA: AVERAGE RATE (MIN./FT)	WELL COLUMN	GEOLOGIC COLUMN	SUBSURFACE LOG: SOIL/ROCK CLASSIFICATION	ROCK FEATURES
5													
0		1	1.5	WH WH 1 1	0.0	0.0						Brown fine SAND and SILT, little clay, soft, moist.	
		2	1.8	3 4 4 7	0.0	0.0						Brown fine SAND, some silt, loose, wet.	
-5		3	2.0	5 7 9 12	0.0	0.0						Brown CLAY, trace silt, stiff, wet.	
		4	1.6	7 9 7 9	0.0	0.0							
		5	1.1	WH 3 3 3	0.0	0.0							
-10		6	1.8	WH WH 2 1	0.0	0.0						Red-brown CLAY, soft, wet, thin silty-sand lenses 10.0 - 12.0 feet.	
		7	2.0	WH WH WH WH	0.0	0.0							
		8	1.7	WH WH 1 6	0.0	0.0							
-15		9	1.8	6 8 8 8	0.0	53.0						Brown-gray fine SAND and SILT, loose, wet.	
		10	0.5	2 2 2 2	0.0	0.0							
-20		11	1.1	4 4 5 8									
		12	1.6	5 4 7 5									
-25		13	1.3	6 3									

BLASLAND & BOUCK ENGINEERS, P.C.	DATE STARTED/COMPLETED: 1/8/93-1/11/93	MW-93-5D
	CLASSIFIED BY: TRO	
DRILLING AND SAMPLING METHOD: 4 1/4-inch ID HSA, split spoon	PROJECT: NYSEG	PROJECT NO.: 130.06
	LOCATION: Border City, NY	PAGE: 2 of 2

DEPTH (FT)	SAMPLES	SAMPLE/RUN NO.	SOIL DATA: RECOVERY (FT)	SOIL DATA: BLOWS/6 IN.	SOIL DATA: PID FIELD (ppm)	SOIL DATA: PID HEADSPACE (ppm)	ROCK DATA: % RECOVERY	ROCK DATA: % ROD	ROCK DATA: AVERAGE RATE (MIN./FT)	WELL COLUMN	GEOLOGIC COLUMN	SUBSURFACE LOG: SOIL/ROCK CLASSIFICATION	ROCK FEATURES
25				3								Brown-gray fine SAND and SILT, loose, wet.	
				3						S		Bottom of boring at 26.0 feet.	
30													
35													
40													
45													
50													
55													

WELL CONSTRUCTION DETAILS

2-inch diameter stainless steel (SS) well
26.0' - 2.0' above ground level
well screen 25.6' - 16.0', 0.010 inch slot
well riser 16.0' - 2.0' above ground level
Sump 26.0' - 25.6'
Bottom of well set at 26.0'
Grade 0 silica Sand pack 26.0' - 14.5'
Grade 00 silica Sand pack 14.5' - 14.0'
Bentonite seal 14.0' - 11.0'
Cement/bentonite grout 11.0' - 1.5'
Cement surface pad 1.5' - 0.0'
6-inch diameter outer protective PVC casing with locking cap installed to 2.5' above ground level.

NOTES:

WH - Weight of hammer
NR - No recovery

BLASLAND & BOUCK ENGINEERS, P.C.

DRILLING AND SAMPLING METHOD: 4 1/4-inch ID HSA, split spoon

DATE STARTED/COMPLETED: 1/7/93
CLASSIFIED BY: TRO
PROJECT: NYSEG
LOCATION: Boarder City, NY

MW-93-48

PROJECT NO.: 130.06
PAGE: 1 of 1

DEPTH (FT)	SAMPLES	SAMPLE/RUN NO.	SOIL DATA: RECOVERY (FT)	SOIL DATA: BLOWS/6 IN.	SOIL DATA: PID FIELD (ppm)	SOIL DATA: PID HEADSPACE (ppm)	ROCK DATA: % RECOVERY	ROCK DATA: % RQD	ROCK DATA: AVERAGE RATE (MIN./FT)
5									
0									
-5		1	1.5	1 5 7 9	0.0	0.0			
-10		2	2.0	2 1 1 1	0.0	0.0			
		3	1.8	WH WH WH 2	0.0	0.0			
-15		4	2.0	WH WH WH 1	0.0	0.0			
-20									
-25									

WELL COLUMN: 6

GEOLOGIC COLUMN

SUBSURFACE LOG

SOIL/ROCK CLASSIFICATION

Red-brown fine SAND and SILT, loose.

Wet at 5.0 feet.

Red-brown SILT and CLAY, stiff, wet.

Red-brown CLAY, very soft, wet.

SAND lenses at 12.9 - 13.0 feet.

Bottom of boring at 15.0 feet.

ROCK FEATURES

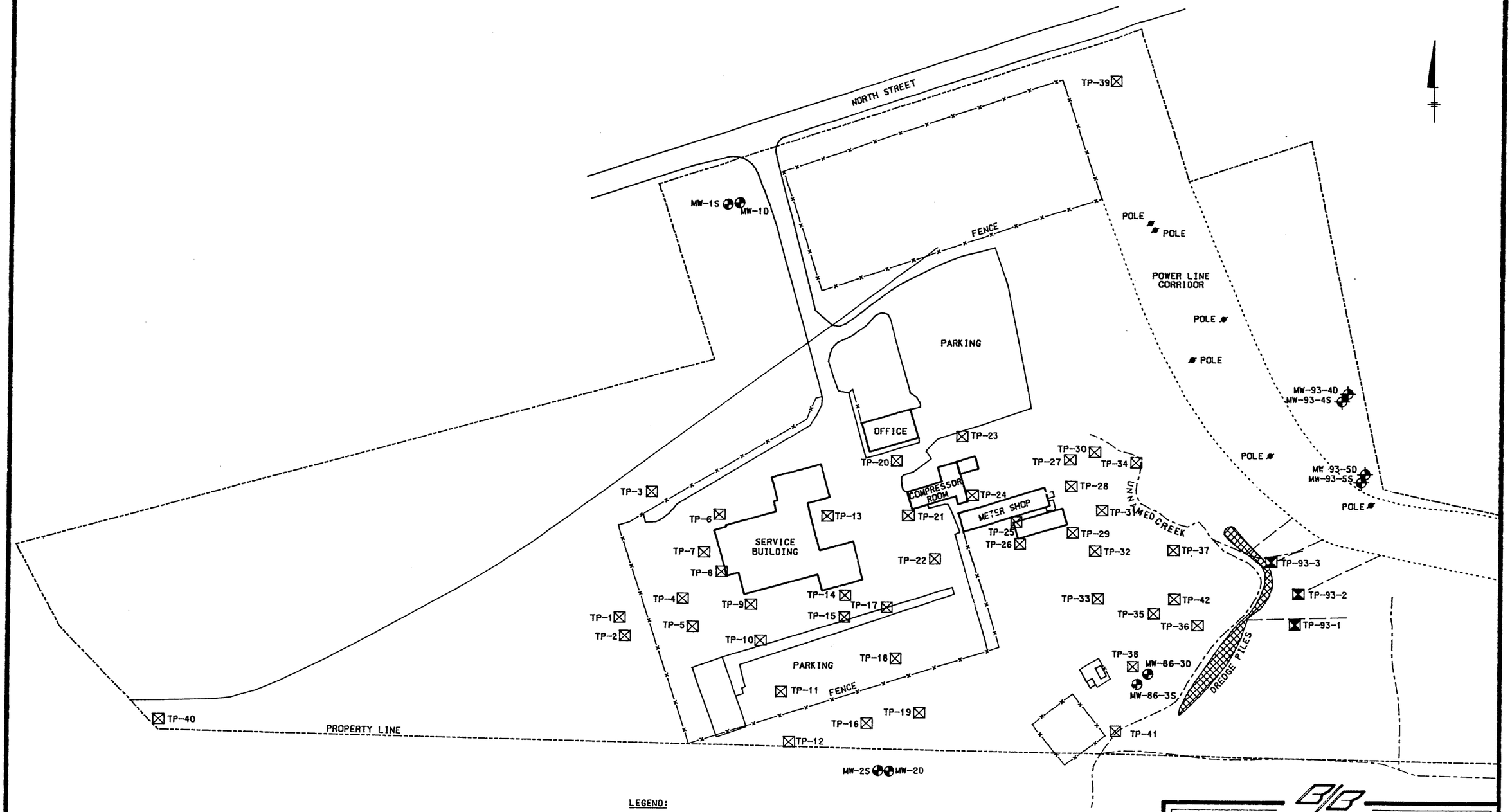
WELL CONSTRUCTION DETAILS

2-inch diameter stainless steel (SS) well
13.5' - 2.2' above ground level
well screen 13.1' - 3.5', 0.010 inch slot
well riser 3.5' - 2.2' above ground level
Sump 13.5' - 13.1'
Bottom of well set at 13.5'
Grade 0 silica Sand pack 15.0' - 3.0'
Grade 00 silica Sand pack 3.0' - 2.5'
Bentonite seal 2.5' - 1.5'
Cement surface pad 1.5' - 0.0'
6-inch diameter outer protective PVC casing with locking cap installed to 2.5' above ground level.

NOTES:

WH - Weight of hammer
NR - No recovery

ATTACHMENT B



NOTE: THIS MAP IS BASED ON A TOPOGRAPHIC MAP DEVELOPED BY WEILER ASSOCIATES, 1986.

2/93 60-PGL
C:\DGN\40612\40612A.DGN

BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & SCIENTISTS

NEW YORK STATE ELECTRIC & GAS CORPORATION
BORDER CITY SITE
SENECA COUNTY, NEW YORK

SITE MAP

FIGURE 1

ATTACHMENT B

TEST PITS ANALYTICAL RESULTS

BORDER CITY MGP SITE

FIELD LOCATION SAMPLE DESIGNATION LABORATORY DESIGNATION	TP-01 BCUDTPXX01C	TP-02 BCUDTPXX02C	TP-3 BCUDTPXX03C	TP-3 Dup. BCUDTPXX04C	FIELD BLANK BCUDFBXX03Q
VOLATILES					
1,1,1-Trichloroethane	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
1,1,2,2-Tetrachloroethane	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
1,1,2-Trichloroethane	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
1,1-Dichloroethane	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
1,1-Dichloroethene	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
1,2-Dichloroethane	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
1,2-Dichloroethene (total)	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
1,2-Dichloropropane	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
2-Butanone	0.016 U	0.013 U	0.016 U	0.013 U	0.01 U
2-Hexanone	0.016 U	0.013 U	0.016 U	0.013 U	0.01 U
4-Methyl-2-Pentanone	0.016 U	0.013 U	0.016 U	0.013 U	0.01 U
Acetone	0.016 U	0.013 U	0.016 U	0.013 U	0.01 U
Benzene	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Bromodichloromethane	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Bromoform	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Bromomethane	0.016 U	0.013 U	0.016 U	0.013 U	0.01 U
Carbon Disulfide	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Carbon Tetrachloride	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Chlorobenzene	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Chloroethane	0.016 U	0.013 U	0.016 U	0.013 U	0.01 U
Chloroform	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Chloromethane	0.016 U	0.013 U	0.016 U	0.013 U	0.01 U
Dibromochloromethane	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Ethylbenzene	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Methyl tertiary butyl ether	–	–	–	–	–
Methylene Chloride	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Styrene	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Tetrachloroethene	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Toluene	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Trichloroethene	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Vinyl Acetate	0.016 U	0.013 U	0.016 U	0.013 U	0.01 U
Vinyl Chloride	0.016 U	0.013 U	0.016 U	0.013 U	0.01 U
Xylene (total)	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
cis-1,3-Dichloropropene	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
trans-1,3-Dichloropropene	0.008 U	0.007 U	0.008 U	0.007 U	0.005 U
Total Volatiles	–	–	–	–	–

See notes on page 4

ATTACHMENT B

TEST PITS ANALYTICAL RESULTS

BORDER CITY MGP SITE

FIELD LOCATION SAMPLE DESIGNATION LABORATORY DESIGNATION	TP-01 BCUDTPXX01C	TP-02 BCUDTPXX02C	TP-3 BCUDTPXX03C	TP-3 Dup. BCUDTPXX04C	FIELD BLANK BCUDFBXX03Q
SEMIVOLATILES					
1,2,4-Trichlorobenzene	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
1,2-Dichlorobenzene	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
1,3-Dichlorobenzene	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
1,4-Dichlorobenzene	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
2,2'-oxybis(1,Chloropropane)	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
2,4,5-Trichlorophenol	2.7 UD	2.1 UD	2.6 UD	2.2 UD	0.052 U
2,4,6-Trichlorophenol	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
2,4-Dichlorophenol	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
2,4-Dimethylphenol	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
2,4-Dinitrophenol	2.7 UD	2.1 UD	2.6 UD	2.2 UD	0.052 U
2,4-Dinitrotoluene	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
2,6-Dinitrotoluene	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
2-Chloronaphthalene	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
2-Chlorophenol	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
2-Methylnaphthalene	0.15 JD	0.43 UD	0.53 UD	0.44 UD	0.01 U
2-Methylphenol	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
2-Nitroaniline	2.7 UD	2.1 UD	2.6 UD	2.2 UD	0.052 U
2-Nitrophenol	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
3,3'-Dichlorobenzidine	1.1 UD	0.43 UD	1.1 UD	0.87 UD	0.02 U
3-Nitroaniline	2.7 UD	2.1 UD	2.6 UD	2.2 UD	0.052 U
4,6-Dinitro-2-methylphenol	2.7 UD	2.1 UD	2.6 UD	2.2 UD	0.052 U
4-Bromophenyl-phenylether	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
4-Chloro-3-methylphenol	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
4-Chloroaniline	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
4-Chlorophenyl-phenylether	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
4-Methylphenol	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
4-Nitroaniline	2.7 UD	2.1 UD	2.6 UD	2.2 UD	0.052 U
4-Nitrophenol	2.7 UD	2.1 UD	2.6 UD	2.2 UD	0.052 U
Acenaphthene	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Acenaphthylene	1.1 ND	0.031 JD	0.53 UD	0.44 UD	0.01 U
Anthracene	1.3 ND	0.43 UD	0.53 UD	0.44 UD	0.01 U
Benzo(a)Anthracene	4.4 ND	0.22 JD	0.53 UD	0.11 JD	0.01 U
Benzo(a)Pyrene	3.7 ND	0.22 JD	0.14 JD	0.11 JD	0.01 U
Benzo(b)Fluoranthene	7.3 ND	0.43 UD	0.17 JD	0.12 JD	0.01 U
Benzo(g,h,i)Perylene	2 ND	0.15 JD	0.53 UD	0.44 UD	0.01 U

See notes on page 4

ATTACHMENT B

TEST PITS ANALYTICAL RESULTS

BORDER CITY MGP SITE

FIELD LOCATION SAMPLE DESIGNATION LABORATORY DESIGNATION	TP-01 BCUDTPXX01C	TP-02 BCUDTPXX02C	TP-3 BCUDTPXX03C	TP-3 Dup. BCUDTPXX04C	FIELD BLANK BCUDFBXX03Q
SEMIVOLATILES (Cont'd.)					
Benzo(k)Fluoranthene	2.1 ND	0.24 JD	0.53 UD	0.44 UD	0.01 U
Benzoic Acid	0.27 JD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Benzyl Alcohol	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Bis(2-Ethylhexyl)Phthalate	0.25 JD	0.28 JD	0.53 UD	0.17 JD	0.01 U
Butylbenzylphthalate	0.043 JD	0.43 UD	0.53 UD	0.44 UD	0.002 J
Chrysene	4.1 ND	0.27 JD	0.19 JD	0.14 JD	0.01 U
Di-n-Butylphthalate	0.55 UD	0.43 UD	0.53 UD	0.054 JD	0.01 U
Di-n-octylphthalate	0.062 JD	0.43 UD	0.53 UD	0.14 JD	0.01 U
Dibenzo(a,h)Anthracene	0.4 JD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Dibenzofuran	0.18 JD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Diethylphthalate	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Dimethylphthalate	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Fluoranthene	5.5 ND	0.36 JD	0.26 JD	0.19 JD	0.01 U
Fluorene	0.22 JD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Hexachlorobenzene	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Hexachlorobutadiene	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Hexachlorocyclopentadiene	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Hexachloroethane	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Indeno(1,2,3-cd)Pyrene	3.4 ND	0.18 JD	0.53 UD	0.44 UD	0.01 U
Isophorone	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
N-Nitroso-Di-n-propylamine	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
N-Nitrosodiphenylamine	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Naphthalene	0.36 JD	0.026 JD	0.028 JD	0.44 UD	0.01 U
Nitrobenzene	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Pentachlorophenol	2.7 UD	0.43 UD	2.6 UD	2.2 UD	0.052 U
Phenanthrene	2.2 ND	0.12 JD	0.11 JD	0.079 JD	0.01 U
Phenol	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Pyrene	4.8 ND	0.33 JD	0.25 JD	0.17 JD	0.01 U
bis(2-Chloroethoxy)methane	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
bis(2-Chloroethyl)ether	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
bis(2-Chloroisopropyl)ether	0.55 UD	0.43 UD	0.53 UD	0.44 UD	0.01 U
Total Semivolatiles	43.835	2	1.148	1	0.002

See notes on page 4

ATTACHMENT B

TEST PITS ANALYTICAL RESULTS

BORDER CITY MGP SITE

FIELD LOCATION SAMPLE DESIGNATION LABORATORY DESIGNATION	TP-01 BCUDTPXX01C	TP-02 BCUDTPXX02C	TP-3 BCUDTPXX03C	TP-3 Dup. BCUDTPXX04C	FIELD BLANK BCUDFBXX03Q
INORGANICS					
Aluminum	6870 N	14000 N	6850 N	6640 N	97 J
Antimony	1.6 J	0.41 J	0.12 U	0.37 J	1.7 J
Arsenic	20.9 N	3.4 N	2.2 N	2.6 N	2 U
Barium	95.4 N	80.6 N	43.4 N	41.5 N	3 J
Cadmium	1.3 N	0.41 J	0.47 U	0.62 N	4 U
Chromium	13.8 N	17.8 N	8.7 N	8.3 N	5 U
Copper	44.1 N	17.6 N	4.7 N	5.2 N	4 U
Iron	21800 N	23000 N	10500 N	9850 N	88 J
Lead	115 N	7.3 N	6.6 N	8.4 N	1 J
Magnesium	–	–	–	–	–
Manganese	262 N	348 N	397 N	296 N	4 J
Mercury	4.9 N	0.06 J	0.08 U	0.12 J	0.1 U
Nickel	14 N	20.9 N	7.9 N	7.3 N	7 U
Selenium	1.5 N	0.2 U	0.19 U	0.37 J	2 U
Silver	0.94 U	0.62 U	0.71 U	0.74 U	6 U
Vanadium	19 N	27.3 N	14.2 N	13 N	10 U
Zinc	91.9 N	51.5 N	27.7 N	25.7 N	22 N
OTHER PARAMETERS					
Cyanide	153 N	1.3 U	1.3 U	1.3 U	10 U
Ammenable Cyanide	21 N	–	–	–	–
Reactive Cyanide	–	–	–	–	–
Reactive Sulfide	–	–	–	–	–
BTU	–	–	–	–	–
Fuel Oil #2	–	–	–	–	–
Gasoline	–	–	–	–	–
TOC	–	–	–	–	–

Notes:

NYSEG Qualifiers:

U – Undetected. The value listed is the detection limit.
The detection limit is defined for organic compounds as the quantitation limit.
The inorganic detection limit is the instrument detection limit.

J – Detected but below the minimum detection limit.

N – Detected concentration.

Concentrations are reported in ppm.

ATTACHMENT C

ATTACHMENT C

WELL CONSTRUCTION SUMMARY

BORDER CITY MGP SITE

Well	Ground Elevation	Top of Well Elevation	Depth of Boring	Grade "0" Sand Filter	Grade "00" Sand Interval	Bentonite Interval	Grout Interval	Screen Interval	Riser Interval
MW9304D	460.0	461.94	434.0	434.0–446.0	446.0–446.3	446.3–448.5	448.5–460.0	434.4–444.0	444.0–461.94
MW9304S	460.2	461.96	446.7	446.7–457.2	457.2–457.7	457.7–458.7	458.7–460.2	447.1–456.7	456.7–461.96
MW9305D	460.4	462.55	434.4	434.4–445.9	445.9–446.4	446.4–449.4	449.4–460.4	434.8–444.4	444.4–462.55
MW9305S	460.2	461.77	447.2	447.2–457.7	457.7–458.2	458.2–459.2	459.2–460.2	447.6–457.2	457.2–461.77

Notes:

Survey conducted by Blasland & Bouck Engineers, P.C.
Elevations based on site data provided by TRC Environmental Consultants, Inc. Task 2 Report Dated October 1, 1987.
Wells are constructed of 2–inch diameter stainless steel with 0.010–inch slot screen.