nationalgrid

James Morgan
Project Manager

December 3, 2012

Mr. Scott Deyette
Project Manager
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7014

Re: Proposed Monitoring Well Decommissioning
Troy (Liberty Street) Non-Owned Former Manufactured Gas Plant (MGP) Site
Troy, New York
NYSDEC Site # is V000482

Dear Mr. Deyette:

Per our meeting with you on November 16, 2012, we are providing this letter proposal for well decommissioning at the Troy (Liberty Street) Non-Owned Former Manufactured Gas Plant (MGP) Site in Troy, New York (Figure 1). Site activities are shifting from investigation to remediation and it's not necessary to retain all of the monitoring wells. Not all monitoring wells at the site will be required in the future.

Figure 2 presents the locations of the twelve monitoring wells and five piezometers at the site. All five piezometers will be decommissioned because they have served their purpose: they generated data that confirms the water table is nearly flat. Additional confirmation is not required. Figure 2 also identifies those wells we propose to decommission. The table below provides our rationale for retaining or decommissioning specific monitoring wells.

Well ID	Description	Retain or Decommission?	Rationale
B/MW-101(05)	Background well	Retain	Monitor upgradient groundwater quality.
B/MW-102(05)	Northwest corner of site.	Retain	Monitor on-site groundwater quality.
B/MW-103(05)	Southwest corner of site, near tar well	Decommission	Well likely to be destroyed during remediation.
B/MW-104(05)	Well near Hill Street and former MGP office	Decommission	Downgradient well B/MW-202(06) is adequate for impact monitoring.
B/MW-201(06)	Off-site, to the south.	Decommission	Well B/MW-404(11) will provide adequate off-site/downgradient monitoring in the future.
B/MW-202(06)	Off site, west side of Hill Street	Retain	Monitor groundwater quality migrating off site.
B/MW-203(06)	Off-site well, corner of Hill and Liberty Street	Retain	Monitor groundwater quality migrating off site from B/MW-102(05).
B/MW-301(10)	Northeast corner of site.	Decommission	Only need one background well.
B/MW-302(10)	Southern portion of site near former retorts.	Decommission	Monitoring not required for future site evaluation.
B/MW-303(10)	Off-site, near corner of Hill and Washington Streets.	Decommission	Well apparently located within a structure with water levels higher than groundwater table. Not useful.
B/MW-324(10)	Southwest corner of site, near tar well	Decommission	Well likely to be destroyed during remediation
B/MW-404(11)	Off-site, west side of Hill street.	Retain	Monitor groundwater quality migrating off site from area of southern tar well.

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Field Procedures

Monitoring wells will be decommissioned using grouting in-place methods in accordance with guidance presented in the *NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy*, dated November 3, 2009.

The drilling contractor (not yet selected) will attempt to pull the monitoring well casings in wells that are 25 feet in depth or shallower, per *NYSDEC CP-43*. Boreholes will be pressure-grouted using a tremie pipe with a bentonite mix or portland cement grout mixture. Excess soil cuttings will be screened with an organic vapor meter and inspected visually and olfactorily. Apparently clean cuttings, PVC material, and concrete will be collected in 55-gallon United States Department of Transportation (US DOT) drums and disposed of as construction and demolition debris by the drilling contractor. Obviously impacted materials will be drummed separately for proper disposal by Clean Harbors, on behalf of National Grid.

If you have any questions or require additional information, please feel free to contact me at (315) 428-3101 or Jerry Zak, (860) 368-5404, at GEI Consultants, Inc.

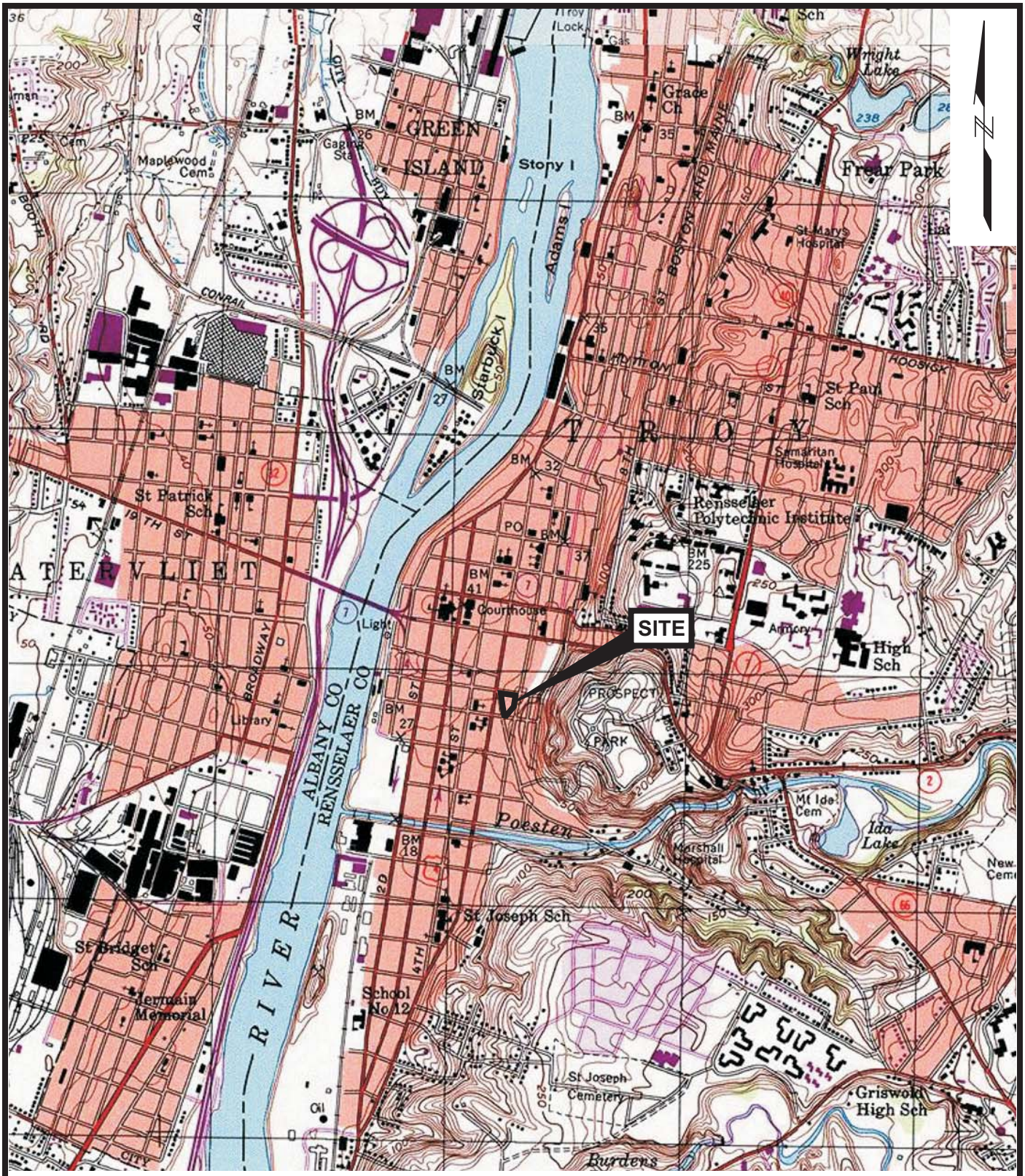
Sincerely,

for

James Morgan
Project Manager

Attachments

JZ/ah H:\WPROC\Project\NationalGrid\NG-Troy-LibertySt093300\Correspondence\Final Well Decom WP.doc



SOURCE: MAP CREATED WITH TOPO! ® ©2001 NATIONAL GEOGRAPHIC (www.nationalgeographic.com/topo)"

WELL DECOMMISSIONING
TROY (LIBERTY ST.) NON-OWNED
FORMER MGP SITE
TROY, NEW YORK

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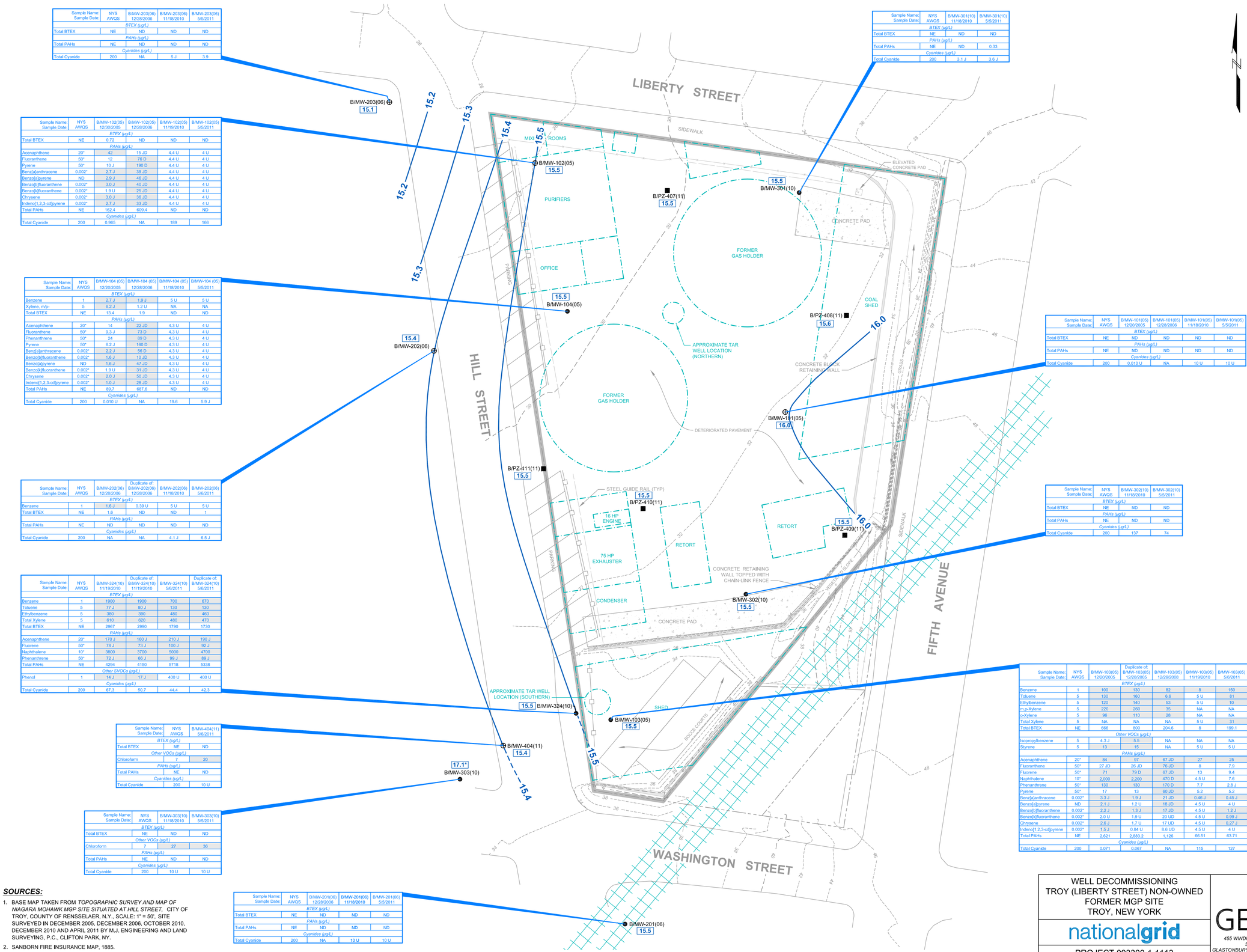
Project 093300-1-1113

SITE LOCATION MAP

December 2012 Figure 1

I:\Project\National Grid\TROY\LIBERTY_ST\Well Decommissioning\Liberty St-Site Location.cdr



Sample Name: / Sample Date:	NYS AWQS	B/MW-203(06) 12/28/2006	B/MW-203(06) 11/18/2010	B/MW-203(06) 5/5/2011
BTEX (µg/L)				
Total BTEX	NE	ND	ND	ND
PAHs (µg/L)				
Total PAHs	NE	ND	ND	ND
Cyanides (µg/L)				
Total Cyanide	200	NA	5 J	3.9

Sample Name: / Sample Date:	NYS AWQS	B/MW-102(05) 12/20/2005	B/MW-102(05) 12/28/2006	B/MW-102(05) 11/18/2010	B/MW-102(05) 5/5/2011
BTEX (µg/L)					
Total BTEX	NE	0.72	ND	ND	ND
PAHs (µg/L)					
Acenaphthene	20*	42	15 JD	4.4 U	4 U
Fluoranthene	50*	12	76 D	4.4 U	4 U
Pyrene	50*	10 J	190 D	4.4 U	4 U
Benz[a]anthracene	0.002*	2.7 J	39 JD	4.4 U	4 U
Benzo[a]pyrene	ND	2.9 J	46 JD	4.4 U	4 U
Benzo[b]fluoranthene	0.002*	3.0 J	40 JD	4.4 U	4 U
Benzo[k]fluoranthene	0.002*	1.9 U	25 JD	4.4 U	4 U
Chrysene	0.002*	3.0 J	36 JD	4.4 U	4 U
Indeno(1,2,3-cd)pyrene	0.002*	2.7 J	33 JD	4.4 U	4 U
Total PAHs	NE	162.4	609.4	ND	ND
Cyanides (µg/L)					
Total Cyanide	200	0.965	NA	189	166

Sample Name: / Sample Date:	NYS AWQS	B/MW-104 (05) 12/20/2005	B/MW-104 (05) 12/28/2006	B/MW-104 (05) 11/18/2010	B/MW-104 (05) 5/5/2011
BTEX (µg/L)					
Benzene	1	2.7 J	1.9 J	5 U	5 U
Xylene, m/p-	5	6.2 J	1.2 U	NA	NA
Total BTEX	NE	13.4	1.9	ND	ND
PAHs (µg/L)					
Acenaphthene	20*	14	22 JD	4.3 U	4 U
Fluoranthene	50*	9.3 J	73 D	4.3 U	4 U
Phenanthrene	50*	24	89 D	4.3 U	4 U
Pyrene	50*	6.2 J	160 D	4.3 U	4 U
Benz[a]anthracene	0.002*	2.2 J	56 D	4.3 U	4 U
Benzo[b]fluoranthene	0.002*	1.6 J	10 JD	4.3 U	4 U
Benzo[a]pyrene	ND	1.6 J	47 JD	4.3 U	4 U
Benzo[k]fluoranthene	0.002*	1.9 U	31 JD	4.3 U	4 U
Chrysene	0.002*	2.0 J	50 JD	4.3 U	4 U
Indeno(1,2,3-cd)pyrene	0.002*	1.0 J	28 JD	4.3 U	4 U
Total PAHs	NE	89.7	687.6	ND	ND
Cyanides (µg/L)					
Total Cyanide	200	0.010 U	NA	19.6	5.9 J

Sample Name: / Sample Date:	NYS AWQS	B/MW-202(06) 12/28/2006	Duplicate of: B/MW-202(06) 12/28/2006	B/MW-202(06) 11/18/2010	B/MW-202(06) 5/6/2011
BTEX (µg/L)					
Benzene	1	1.6 J	0.39 U	5 U	5 U
Total BTEX	NE	1.6	ND	ND	1
PAHs (µg/L)					
Total PAHs	NE	ND	ND	ND	ND
Cyanides (µg/L)					
Total Cyanide	200	NA	NA	4.1 J	6.5 J

Sample Name: / Sample Date:	NYS AWQS	B/MW-324(10) 11/19/2010	Duplicate of: B/MW-324(10) 11/19/2010	B/MW-324(10) 5/6/2011	Duplicate of: B/MW-324(10) 5/6/2011
BTEX (µg/L)					
Benzene	1	1900	1900	700	670
Toluene	5	77 J	80 J	130	130
Ethylbenzene	5	380	390	480	460
Total Xylene	5	610	620	480	470
Total BTEX	NE	2967	2990	1790	1730
PAHs (µg/L)					
Acenaphthene	20*	170 J	160 J	210 J	190 J
Fluorene	50*	78 J	73 J	100 J	92 J
Naphthalene	10*	3800	3700	5000	4700
Phenanthrene	50*	72 J	66 J	99 J	89 J
Total PAHs	NE	4294	4150	5718	5338
Other SVOCs (µg/L)					
Phenol	1	14 J	17 J	400 U	400 U
Cyanides (µg/L)					
Total Cyanide	200	67.3	50.7	44.4	42.3

Sample Name: / Sample Date:	NYS AWQS	B/MW-404(11) 5/6/2011
BTEX (µg/L)		
Total BTEX	NE	ND
Other VOCs (µg/L)		
Chloroform	7	20
PAHs (µg/L)		
Total PAHs	NE	ND
Cyanides (µg/L)		
Total Cyanide	200	10 U

Sample Name: / Sample Date:	NYS AWQS	B/MW-303(10) 11/18/2010	B/MW-303(10) 5/5/2011
BTEX (µg/L)			
Total BTEX	NE	ND	ND
Other VOCs (µg/L)			
Chloroform	7	27	36
PAHs (µg/L)			
Total PAHs	NE	ND	ND
Cyanides (µg/L)			
Total Cyanide	200	10 U	10 U

Sample Name: / Sample Date:	NYS AWQS	B/MW-201(06) 12/28/2006	B/MW-201(06) 11/18/2010	B/MW-201(06) 5/5/2011
BTEX (µg/L)				
Total BTEX	NE	ND	ND	ND
PAHs (µg/L)				
Total PAHs	NE	ND	ND	ND
Cyanides (µg/L)				
Total Cyanide	200	NA	10 U	10 U

Sample Name: / Sample Date:	NYS AWQS	B/MW-301(10) 11/18/2010	B/MW-301(10) 5/5/2011
BTEX (µg/L)			
Total BTEX	NE	ND	ND
PAHs (µg/L)			
Total PAHs	NE	ND	0.33
Cyanides (µg/L)			
Total Cyanide	200	3.1 J	3.6 J

Sample Name: / Sample Date:	NYS AWQS	B/MW-101(05) 12/20/2005	B/MW-101(05) 12/28/2006	B/MW-101(05) 11/18/2010	B/MW-101(05) 5/5/2011
BTEX (µg/L)					
Total BTEX	NE	ND	ND	ND	ND
PAHs (µg/L)					
Total PAHs	NE	ND	ND	ND	ND
Cyanides (µg/L)					
Total Cyanide	200	0.010 U	NA	10 U	10 U

Sample Name: / Sample Date:	NYS AWQS	B/MW-302(10) 11/18/2010	B/MW-302(10) 5/5/2011
BTEX (µg/L)			
Total BTEX	NE	ND	ND
PAHs (µg/L)			
Total PAHs	NE	ND	ND
Cyanides (µg/L)			
Total Cyanide	200	137	74

Sample Name: / Sample Date:	NYS AWQS	B/MW-103(05) 12/20/2005	Duplicate of: B/MW-103(05) 12/20/2005	B/MW-103(05) 12/28/2006	B/MW-103(05) 11/19/2010	B/MW-103(05) 5/6/2011
BTEX (µg/L)						
Benzene	1	100	130	82	8	150
Toluene	5	130	160	6.6	5 U	81
Ethylbenzene	5	120	140	53	5 U	10
m,p-Xylene	5	220	260	35	NA	NA
o-Xylene	5	96	110	28	NA	NA
Total Xylene	5	NA	NA	NA	5 U	31
Total BTEX	NE	666	800	204.6	8	199.1
Other VOCs (µg/L)						
Isopropylbenzene	5	4.3 J	5.5	NA	NA	NA
Styrene	5	13	15	NA	5 U	5 U
PAHs (µg/L)						
Acenaphthene	20*	84	97	67 JD	27	25
Fluoranthene	50*	27 JD	26 JD	76 JD	8	7.9
Fluorene	50*	71	79 D	67 JD	13	9.4
Naphthalene	10*	2,000	2,200	470 D	4.5 U	7.6
Phenanthrene	50*	130	130	170 D	7.7	2.8 J
Pyrene	50*	17	13	60 JD	5.2	5.2
Benz[a]anthracene	0.002*	3.3 J	1.9 J	21 JD	0.46 J	0.45 J
Benzo[a]pyrene	ND	2.1 J	1.2 U	18 JD	4.5 U	4 U
Benzo[b]fluoranthene	0.002*	2.2 J	1.3 J	17 JD	4.5 U	1.2 J
Benzo[k]fluoranthene	0.002*	2.0 U	1.9 U	20 UD	4.5 U	0.99 J
Chrysene	0.002*	2.6 J	1.7 U	17 UD	4.5 U	0.27 J
Indeno(1,2,3-cd)pyrene	0.002*	1.5 J	0.84 U	8.8 UD	4.5 U	4 U
Total PAHs	NE	2,621	2,883.2	1,126	66.51	63.71
Cyanides (µg/L)						
Total Cyanide	200	0.071	0.067	NA	115	127

LEGEND:

- PROPERTY LINE
- SITE BOUNDARY
- 38 — GROUND SURFACE CONTOURS (FROM 1/4/2006 SURVEY, PRIOR TO INSTALLATION OF CONCRETE BLOCK RETAINING WALL)
- CONCRETE BLOCK RETAINING WALL
- CHAIN-LINK FENCE
- METAL FENCE WITH BRICK PILLARS
- GUIDE RAIL
- EDGE OF PAVEMENT
- HISTORICAL RAILROAD TRACKS (APPROXIMATE)
- HISTORICAL STRUCTURE BASED ON 1885 SANBORN FIRE INSURANCE MAP
- FORMER GAS HOLDER/TAR WELL SURVEYED UNLESS NOTED
- CONCRETE PAD
- ⊕ B/MW-101(05) — SOIL BORING/ MONITORING WELL (EA ENGINEERING PC,2005)
- ⊕ B/MW-201(06) — SOIL BORING/ MONITORING WELL (EA ENGINEERING PC, 2006)
- ⊕ B/MW-301(10) — SOIL BORING/ MONITORING WELL (GEI, 2010)
- ⊕ B/MW-404(11) — SOIL BORING/ MONITORING WELL (GEI, 2011)
- ⊞ B/PZ-407(11) — SOIL BORING/PIEZOMETER (GEI, 2011)
- ● B/MW-404(11) — SOIL BORING/ MONITORING WELL (PROPOSED FOR DECOMMISSIOING)
- ■ B/PZ-407(11) — SOIL BORING/PIEZOMETER (PROPOSED FOR DECOMMISSIONING)
- 15.5 — GROUNDWATER CONTOUR (FEET MSL) (2011)
- 15.5 — INFERRED GROUNDWATER CONTOUR (FEET MSL) (2011)
- 15.5 — GROUNDWATER ELEVATION (FEET MSL) (2011)
- 17.0* — GROUNDWATER ELEVATION NOT USED TO GENERATE CONTOURS (FEET MSL) (2011)

ANALYTICAL BOX NOTES

NYS AWQS - New York State Ambient Water Quality Standards

100	COMPOUNDS THAT EXCEED NEW YORK STATE AMBIENT WATER QUALITY STANDARDS (NYS AWQS) AND GUIDANCE VALUES FOR GA GROUNDWATER
NA	NOT AVAILABLE, NOT APPLICABLE, OR NOT ANALYZED
ND	NOT DETECTED
NE	NOT ESTABLISHED
D	RESULTS FOR DILUTION
J	ESTIMATED VALUE
U	NOT DETECTED
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
PAHs	POLYCYCLIC AROMATIC HYDROCARBONS
µg/L	MICROGRAMS PER LITER
*	VALUE IS A GUIDANCE, NOT A STANDARD

NOTES:

1. ELEVATIONS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). HORIZONTAL LOCATIONS REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD 83).
2. BOUNDARIES BASED ON SURVEY BY M.J. ENGINEERING AND LAND SURVEYING, P.C., DATED APRIL 2011.
3. THE CALL-OUT BOXES FOR EACH SAMPLE LOCATION PRESENT THE ANALYTICAL RESULTS FOR SPECIFIC COMPOUNDS WITH CONCENTRATIONS THAT EXCEED THE APPLICABLE STANDARD. IF INDIVIDUAL COMPOUND CONCENTRATIONS DO NOT EXCEED THE STANDARD, THEN THE SUMMARY RESULTS OF THE GROUP ARE LISTED (IE. TOTAL BTEX AND TOTAL PAHS). RESULT VALUES FOR NON-DETECTS ARE ASSIGNED ND.

SOURCES:

1. BASE MAP TAKEN FROM *TOPOGRAPHIC SURVEY AND MAP OF NIAGARA MOHAWK MGP SITE SITUATED AT HILL STREET,* CITY OF TROY, COUNTY OF RENSSELAER, N.Y., SCALE: 1" = 50', SITE SURVEYED IN DECEMBER 2005, DECEMBER 2006, OCTOBER 2010, DECEMBER 2010 AND APRIL 2011 BY M.J. ENGINEERING AND LAND SURVEYING, P.C., CLIFTON PARK, NY.
2. SANBORN FIRE INSURANCE MAP, 1885.

WELL DECOMMISSIONING
TROY (LIBERTY STREET) NON-OWNED
FORMER MGP SITE
TROY, NEW YORK

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PROJECT 093300-1-1113

GEI Consultants
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SUITE 201
GLASTONBURY, CONNECTICUT 06033

GROUNDWATER ANALYTICAL RESULTS AND PROPOSED WELL DECOMMISSIONING

December 2012 — Figure 2

I:\Project\National Grid\TROY\LIBERTY_ST\Well Decommissioning\Troy-Figure 2.dwg