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**Groundwater Monitoring Report
February 2016 (Q1-2016) Baseline Sampling Event**

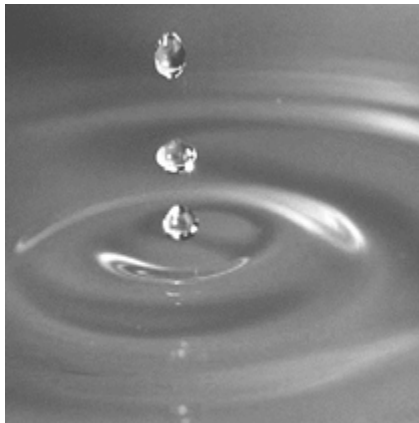
Glen Cove Former MGP Site

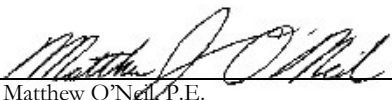
City of Glen Cove
Nassau County, New York
Order on Consent Index No. D1-001-98-11
Site No. 1-30-089P

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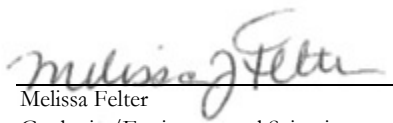

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Table of Contents

1. Introduction and Site Background	1
1.1 Site Description and History	2
1.2 Geology	2
1.3 Hydrogeology	3
1.4 Historical Groundwater Monitoring Event Summary	3
2. Glen Cove Site and Adjacent Off-site Areas	4
2.1 Baseline Groundwater Monitoring Event Summary	4
2.2 Monitoring Program	4
2.2.1 Number of Wells	4
2.2.2 Hydrological Data	4
2.2.3 NAPL Gauging	5
2.2.4 Groundwater Analytical Sampling	6
2.2.5 Analytical Results	6
2.3 Future Plans	9

Tables

Attached

- 1 Water Level Measurements and Calculated Groundwater Elevations
- 2 Summary of Groundwater Analytical Results

Embedded

- 2a Shallow Groundwater Measurements
- 2b Intermediate Groundwater Measurements
- 2c BTEX Detections Above AWQS
- 2d PAH Detections Above AWQS

Figures

- 1 Site Location Map
- 2 Monitoring Well Location Map
- 3 Groundwater Contour Map – Shallow Wells
- 4 Groundwater Contour Map – Intermediate Wells
- 5 Groundwater Analytical Results

1. Introduction and Site Background

This report presents the February 2016 groundwater monitoring results for the Glen Cove Former Manufactured Gas Plant (MGP) site located in Glen Cove, Nassau County, New York (the Site). The frequency of groundwater monitoring was modified to semiannual following the fourth quarter 2010 groundwater monitoring event, with New York State Department of Environmental Conservation (NYSDEC) approval. This report has been prepared in accordance with the requirements of Section 6 of *DER-10* (Division of Environmental Remediation) *Technical Guidance for Site Investigation and Remediation*; the Order on Consent, Index No. D1-0001-98-11 signed by National Grid Corporation (National Grid) and the NYSDEC, and the *Remedial Action Plan* (RAP), *Glen Cove Former Manufactured Gas Plant, Town of Oyster Bay, Nassau County, New York* prepared by GEI Consultants, Inc. (GEI), dated March 2010.

The NYSDEC-approved remedy for the Site included two remedial phases. Phase I includes the excavation of shallow soil and offsite disposal of accessible MGP-related source material (or “hot spots”). Phase II includes groundwater treatment using oxygen injection technology and the installation of recovery wells to remove mobile non-aqueous phase liquids (NAPL). The current property owner, Long Island Power Authority (LIPA), is conducting a facility upgrade which includes the installation of underground utilities, foundation, pilings, and associated electric equipment. LIPA’s upgrade to this substation is necessary to meet the growing energy demand in the Glen Cove region.

Phase I excavation activities were performed from May 5 through 21, 2011 and included the removal and proper disposal of 3,411 tons of material at depths of up to approximately 17 feet below ground surface (ft bgs). An oxygen injection pilot test was conducted on April 27, 2011; the results of which will be incorporated into the Phase II portion of the remedy. Additional excavation of surface soils along the property boundary in the southwest portion of the Site was conducted from July 15 through 18, 2011. Approximately 240 tons of polycyclic aromatic hydrocarbon (PAH)-impacted material was removed to a depth of approximately 2 feet and transported offsite for proper disposal. A summary report of the soil removal was submitted to the NYSDEC on September 12, 2011. Phase II remediation began in February 2012 with the installation of one recovery well. Two additional recovery wells were installed in May 2012. Subsurface construction for the LIPA substation has been completed.

As part of the long-term monitoring of the remedy, National Grid began quarterly monitoring of the groundwater at the Site in Q1 2010. This data will provide a baseline of groundwater analytical results to compare against post-remedy concentrations and evaluate the overall effectiveness of the remedial actions. Groundwater sampling was suspended in 2015 during LIPA substation construction. Monitoring wells which were abandoned to accommodate the LIPA substation construction project were reinstalled following the completion of the majority of the LIPA construction work. Following completion of the Phase II portion of the remedy, quarterly groundwater monitoring will resume.

1.1 Site Description and History

The Glen Cove Former MGP Site is an inverted L-shaped parcel of approximately 1.9 acres presently occupied by an active electrical substation which services Glen Cove and the surrounding area. Topographically, the Site is a flat depression bounded by approximately 20-foot high slopes to the north, south, and east.

To the west, the property slopes downward approximately 20 feet to Glen Cove Creek, a channelized stream, which eventually discharges to Hempstead Bay. Glen Cove Creek flows in a general south to north direction along the western site property line. The creek exits the property boundary at the northwest corner of the Site through a box culvert that directs flow beneath the Long Island Rail Road (LIRR) tracks. The creek eventually discharges to Mosquito Cove (Hempstead Bay). A site location map is included as **Figure 1**.

MGP operations at the Site began in 1905 under the ownership of the Sea Cliff and Glen Cove Gas Company. Facility structures were located on the northern section of the property, and consisted of a 60,000 cubic foot gas holder, boilers, purifiers, retorts, coal shed, engine room, tar and oil tank, and approximately eight gas tanks. In 1929, the Long Island Lighting Company (LILCO) terminated MGP operations and demolished the facility's surface structures sometime thereafter. Site activities following 1929 consisted solely of natural gas storage in a Hortonsphere gas holder through the 1950s. The Hortonsphere was decommissioned and demolished between 1959 and 1966. A major electrical substation was constructed on the Site in the mid-1960s. In 1998, Brooklyn Union Gas (BUG) and LILCO merged to form the KeySpan Corporation, at which time the ownership of the substation was transferred to LIPA. In 2007, National Grid acquired responsibility for the former MGP property through the acquisition of KeySpan. Currently, the Site is owned by LIPA and operated by PSEG-LI under contract to LIPA.

1.2 Geology

The shallow stratigraphy beneath the Site is comprised of heterogeneous fill and glacial outwash of Upper Pleistocene deposits. The stratigraphic sequence consists of outwash deposits overlain by heterogeneous fill. The heterogeneous fill across most of the Site ranges in thickness from approximately 10 feet throughout most of the former site to 30 feet in the offsite area just north of the Site boundary. The fill composition is primarily poorly sorted and highly permeable sand and gravel with varying percentages of gravel, silt, clay, and coal fragments. The glacial outwash deposits consist mainly of inter-bedded layers of permeable sand and gravel, and less permeable silty sand. The top of the glacial unit was encountered from approximately 10 ft bgs on the central portion of the Site to approximately 32 ft bgs from the top of the railroad embankment. The ground surface elevation of the Site is significantly lower than the top of the railroad embankment, and when factoring in the ground surface elevation difference, the glacial deposits are encountered at similar elevations across the Site and beneath the railroad embankment.

Glen Cove Creek originally occupied a natural stream channel just to the west of the Site before it was channelized along its present route. The natural creek bed is indicated by the alluvial deposits consisting of reworked glacial outwash present along the western boundary of the Site. The alluvial

deposits associated with the original stream channel consist of isolated sand and gravelly sand layers encountered in the upper 5 to 10 feet of soils at the western site boundary.

1.3 Hydrogeology

The groundwater beneath the Site is considered part of the regional Upper Glacial aquifer. Regionally, this aquifer is not used for drinking water. Drinking water for Long Island is provided by the deeper Magothy aquifer.

Groundwater elevations of site wells were similar for the shallow and intermediate wells ranging from about 45 to 52 feet above mean sea level (ft-msl). Groundwater elevation contours indicate a consistent groundwater flow direction to the west for the shallow zone wells and, historically, the west-northwest for the intermediate zone.

The water table surface of the shallow groundwater follows the general topography of the Site sloping from east to west. The hydraulic gradient is relatively steep (0.02 feet/foot) in the eastern and western portions of the Site and less steep (0.005 feet/foot) in the western portion of the Site. A uniform hydraulic gradient of about 0.005 feet/foot is present in the intermediate groundwater across the Site. The estimated groundwater seepage flow velocities, assuming an effective porosity of 20 percent, were calculated for the shallow and intermediate aquifer zones as 0.05 and 0.001 feet per day (ft/day), respectively. The potential vertical hydraulic gradients at the well clusters at the Site are less than 0.25 feet.

1.4 Historical Groundwater Monitoring Event Summary

Three groundwater monitoring events were conducted at the Site prior to 2010. Groundwater sample collection and analysis, and NAPL/groundwater measurements were conducted in 2004, 2005, and 2008. Quarterly groundwater sampling was conducted during 2010. Semiannual sampling began in July 2011 after completion of the Phase I remedial excavation. Semiannual sampling was suspended during 2015 during the LIPA substation construction project. The baseline sampling was completed in the first quarter 2016 and quarterly sampling will resume once Phase II field work is complete.

2. Glen Cove Site and Adjacent Off-site Areas

2.1 Baseline Groundwater Monitoring Event Summary

Event Dates: February 23-26, 2016

Site Phase: Quarterly groundwater monitoring

Location: The location of the Glen Cove Former MGP Site is depicted on **Figure 1**.

2.2 Monitoring Program

2.2.1 Number of Wells

A total of 26 monitoring wells, piezometers, and recovery wells are currently located at or adjacent to the Site. Three recovery wells GCRW-01, GCRW-02 and GCRW-03 were installed in Q1 and Q2 2012. Piezometer PZ-03 is believed to have been destroyed in 2007. Monitoring wells GCMW-09S, GCMW-09I, GCMW-10S, GCMW-10I, GCMW-14S and GCMW-14I, as well as piezometers PZ-01A, PZ-02A, PZ-04 and PZ-07 were either destroyed or abandoned as part of the remedial activities conducted between March and May 2011. GCMW-09S-R, GCMW-09I-R, GCMW-10S-R, GCMW-10I-R, GCMW-14S-R, and GCMW-14I-R were reinstalled in summer 2014. Monitoring well GCMW-13S was destroyed during PSEG-LI construction activities in 2015. Monitoring well, recovery well and piezometer locations are depicted on **Figure 2**.

2.2.2 Hydrological Data

Groundwater levels were measured at 26 monitoring wells and piezometers on February 23, 24, 25 & 26. Depth to groundwater and calculated groundwater elevations are provided in **Table 1**. Shallow and intermediate groundwater contours and elevations for the February 2016 sampling event are depicted on **Figures 3** and **4**, respectively. The groundwater flow direction was generally to the west towards Glen Cove Creek in the shallow zone (**Figure 3**). The groundwater flow direction in the intermediate zone is to the southwest (**Figure 4**). Previous water level measurements and analytical sampling results have indicated that the flow in this zone has been to the west historically. The depth to water and water table elevation data for the shallow and intermediate portions of the aquifer are presented below.

Shallow Groundwater Zone

Table 2a – Shallow Groundwater Measurements

Well ID	Depth to Water (feet)	Water Elevation (feet above MSL)
PZ-05	8.20	49.95
PZ-06	4.54	52.40
GCMW-08S	29.91	46.46
GCMW-09S-R	9.82	44.77
GCMW-10S-R	9.37	44.51
GCMW-11S	8.52	45.84
GCMW-12S	12.00	49.65
GCMW-14S-R	9.52	44.98
GCMW-15	6.25	NA*
GCMW-16	5.60	NA*
GCMW-20S	8.41	45.83
GCMW-21I	31.00	45.68
GCRW-01	9.92	44.86
GCRW-02	9.30	44.87
GCRW-03	9.50	45.02

*GCMW-15 and 16 have not been re-surveyed with the on-site well, so were not used to generate contours shown in **Figure 3**.

The average calculated shallow hydraulic gradient was 0.030 feet/foot.

Intermediate/Deep Groundwater Zone

Table 2b – Intermediate/Deep Groundwater Measurements

Well ID	Depth to Water (feet)	Water Elevation (feet above MSL)
GCMW-09I-R	8.64	45.76
GCMW-10I-R	9.17	44.83
GCMW-11I	8.81	46.64
GCMW-13I	9.93	45.61
GCMW-14I-R	9.32	45.08
GCMW-21I2	29.18	47.29
GCMW-22I	9.45	45.23

The calculated intermediate hydraulic gradient was 0.012 feet/foot.

2.2.3 NAPL Gauging

All of the existing wells in the groundwater monitoring network and the three newly installed recovery wells are gauged for the presence of non-aqueous phase liquid (NAPL) during each groundwater monitoring event. The three new recovery wells GCRW-01, GCRW-02 and GCRW-03, were installed in Q1 (GCRW-01) and Q2 2012, in the vicinity of the substation (**Figure 2**). The three

new recovery wells are located downgradient of the substation (**Figure 2**). Recovery well GCRW-01 was installed in Q1 2012 and recovery wells GCRW-02 and GCRW-03 were installed in Q2 2012.

Historically, dense non-aqueous phase liquid (DNAPL) has only been present in MW-13S. DNAPL was measured in MW-13S at a thickness of 0.74 feet in June 2005 and had been steadily decreasing to the thickness of 0.3 feet, in July 2011, prior to the increasing in the two 2012 sampling events. The measured thicknesses during these events were 0.65 and 0.70 feet, respectively. The DNAPL thickness in MW-13S decreased during the January 2013 event to 0.40 feet and decreased again in the July 2013 event to 0.30 feet. Monitoring well GCMW-13S was not gauged during baseline sampling because it was destroyed during PSEG-LI construction activities in 2015. NAPL was not observed in any of the 26 existing wells during the February 2016 gauging event.

2.2.4 Groundwater Analytical Sampling

The 2016 groundwater sampling event was performed on February 23, 24, 25 &- 26, 2016 and included all accessible wells on the quarterly sampling list. If monitoring wells with measurable thicknesses of NAPL were identified during a sampling event they would not be sampled. A total of 26 monitoring wells, recovery wells and piezometers were sampled for the following analytes:

- Volatile organic compounds (VOCs) and methyl tert-butyl ether (MTBE) via Environmental Protection Agency (EPA) Method 8260.
- Semi-volatile organic compounds (SVOCs) via EPA Method 8270.

In addition, 13 monitoring wells were also sampled for the following analytes:

- PCBs,
- TAL Metals, and
- Total Cyanide.

2.2.5 Analytical Results

The discussion below focuses on the analytical results from the current baseline sampling event. A summary of historical groundwater monitoring results are included in **Figure 5**. More in-depth evaluation of the results will be conducted when the planned oxygen injection system is installed and becomes operational.

VOCs

VOC detections above the New York State Technical and Operational Guidance Series (TOGS), 1.1.1 – Ambient Water Quality Standards and Guidance Values (AWQS) for Class GA groundwater were generally limited to benzene, toluene, ethylbenzene and xylene (BTEX). Exceptions include detections of MTBE (35 µg/L), vinyl chloride (4 µg/L), and tetrachloroethene (PCE) (6 µg/L) in wells GCMW-11I, GCMW-15 and GCMW22I1, respectively. Total BTEX concentrations ranged from less than method detection limits (ND) in 19 of the 26 wells sampled, to 394 micrograms per liter (µg/L) in GCMW-11S. Individual BTEX compound concentrations above the AWQS were identified in five of the seven wells with detections. The detections and exceedances of the AWQS are summarized in table below.

Table 2c – BTEX Detections Above NYS AWQS

Sample Name:	GCMW-09SR	GCMW-11S	GCMW-13I	GCMW-20S	GCRW-01
Sample Date:	2/24/16	2/23/16	2/23/16	2/25/16	2/25/16
Benzene	3	36	1 U	2	1 U
Toluene	7	8	1 U	1 U	1
Ethylbenzene	64	180	8	1	4
Xylene, total	67	170	13	1 U	9
Total BTEX	141	394	21	3	14

Notes:

BTEX - benzene, toluene, ethylbenzene, and xylenes (a subset of VOCs)

NYS AWQS - New York State Ambient Water Quality Standards and Guidance Values for GA groundwater

Bolding indicates a detected concentration

Shading and bolding indicates that the detected concentration is above the NYS AWQS

U - not detected to the reporting limit

BTEX detections in the 2016 monitoring event generally remained relatively stable with the majority being at, or near, detections levels. Excluding GCRW-02, where the BTEX concentration remained relatively low (below 100 µg/L), all of the wells with detections above the AWQS remained within their respective historical concentration range, being similar to, or below their respective historical average.

SVOCs

SVOC detections above the AWQS were limited to PAHs. Total PAH concentrations ranged from ND in 15 of the 26 wells sampled to 2,329 µg/L in GCMW-11S. Historically, the highest detection of total PAHs has been detected in monitoring well GCMW-13S. GCMW-13S was destroyed and not sampled. The detections in wells with concentrations above the AWQS are summarized in the table on the following page.

Table 2d – PAH Detections Above AWQS

Sample Name	GCMW-08S	GCMW-09SR	GCMW-09IR	GCMW-11S	GCMW-11I	GCMW-13I
Sample Date	2/24/16	2/24/16	2/24/16	2/23/16	2/23/16	2/23/16
Acenaphthene	15	130 J	7 J	130 J	11 J	10 U
Acenaphthylene	9 J	4 J	1 J	8 J	10 U	10 U
Anthracene	16	11	11	6 J	10 U	10 U
nzo(a)anthracene	4 J	2 J	5 J	10 U	10 U	10 U
Benzo(b)fluoranthene	2 J	2 J	3 J	10 U	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U	1 J	10 U	10 U	10 U
Benzo(g,h,i)perylene	1 J	1 J	2 J	10 U	10 U	10 U
Benzo(a)pyrene	3 J	2 J	3 J	10 U	10 U	10 U
Chrysene	4 J	2 J	4 J	10 U	10 U	10 U
Dibenz(a,h)anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	20	8 J	19	3 J	10 U	2 J
Fluorene	22	55	8 J	40	10 U	10 U
Indeno(1,2,3-cd)pyrene	1 J	10 U	1 J	10 U	10 U	10 U
2-Methylnaphthalene	10 UJ	68 J	1 J	98 J	2 J	10 U
Naphthalene	10 U	1300	10 U	2000	150	61
Phenanthrene	130	74	57	40	4 J	10 U
Pyrene	29	11	25	4 J	10 U	2 J
Total PAHs	256	1670	148	2329	167	65

Sample Name	GCMW-20S	GCMW-20I	GCMW-21I	GCRW-01	GCRW-03
Sample Date	2/25/16	2/25/16	2/24/16	7/18/13	7/16/13
Acenaphthene	22	10 U	17	130	15 J
Acenaphthylene	3 J	9 J	10 U	4 J	10 R
Anthracene	9 J	2 J	5 J	14	6 J
Benzo(a)anthracene	3 J	1 J	10 U	3 J	2 J
Benzo(b)fluoranthene	3 J	10 U	10 U	2 J	10 R
Benzo(k)fluoranthene	1 J	10 U	10 U	10 U	10 R
Benzo(g,h,i)perylene	2 J	10 U	10 U	10 U	10 R
Benzo(a)pyrene	2 J	1 J	10 U	2 J	1 J
Chrysene	5 J	10 U	1 J	3 J	2 J
Dibenz(a,h)anthracene	10 U	10 U	10 U	10 U	10 R
Fluoranthene	11	4 J	6 J	16	8 J
Fluorene	12	3 J	2 J	56	11 J
Indeno(1,2,3-cd)pyrene	1 J	10 U	10 U	10 U	10 R
2-Methylnaphthalene	10 UJ	10 UJ	10 UJ	42 J	1 J
Naphthalene	10 U	14	10 U	170	6 J
Phenanthrene	26	18	24	94 J	21 J
Pyrene	16	6 J	9 J	19	10 J
Total PAHs	116	58	64	555	83

Notes:

PAHs - polycyclic aromatic hydrocarbons

NYS AWQS - New York State Ambient Water Quality Standards and Guidance Values for GA groundwater

Bolding indicates a detected concentration

Shading and bolding indicates that the detected concentration is above the NYS AWQS

J - estimated value

U - not detected to the reporting limit

Concentrations of total PAHs were detected above the AWQS in 11 of the 26 wells. Total PAH concentrations in all of the monitoring wells and recovery wells remained within their respective historical concentration ranges. Total PAH concentrations in wells with detections above the AWQS decreased significantly in GCMW-11S, GCRW-01, and GCRW-02 since sampling began, but increased in GCRW-08S, GCMW-13I, and GCRW-03.

The laboratory analytical results for the February 2016 sampling event are included in **Table 2**.

Other

PCBs, total metals, and total cyanide were analyzed in 13 of the 26 wells sampled during the baseline event. PCB concentrations were not detected in any sample. Total metals detections above the AWQS were limited to antimony, cadmium, chromium, iron, lead, manganese, and sodium, some of which are naturally occurring. Total cyanide was detected in one sample, GCMW-09SR, at a concentration below the AWQS. Samples for PCBs, total metals, and total cyanide were previously only analyzed from two monitoring well locations. Trends will be evaluated after future sampling events.

2.3 Future Plans

- Construct an oxygen injection system as part of the Phase II remedy
- Begin quarterly after startup of the oxygen injection system

Tables

Table 1. Water Level Measurements and Calculated Groundwater Elevations
Baseline Groundwater Monitoring Report - Q1 2016
Glen Cove Former MGP Site
Glen Cove, New York

Well ID	Date of Measurement	Screened Interval (feet bgs)	Time of Measurement	Well Casing Diameter (inches)	Well Elevation ¹ (feet above MSL)	Depth to Water (feet)	Water Elevation (feet above MSL)
PZ-05	2/26/2016	8-18	1240	2	58.15	8.20	49.95
PZ-06	2/26/2016	7-17	1410	2	56.94	4.54	52.40
GCMW-08S	2/24/2016	26-36	810	2	76.37	26.91	49.46
GCMW-08D	2/24/2016	60-70	700	2	76.59	28.90	47.69
GCMW-09S-R	2/24/2016	6-16	1440	2	54.59	9.82	44.77
GCMW-09I-R	2/24/2016	24-34	1340	2	54.40	8.64	45.76
GCMW-10S-R	2/26/2016	15-20	1100	2	53.88	9.37	44.51
GCMW-10I-R	2/26/2016	20-30	1145	2	54.00	9.17	44.83
GCMW-11S	2/23/2016	8-20	1150	2	54.36	8.52	45.84
GCMW-11I	2/23/2016	23-28	1040	2	55.45	8.81	46.64
GCMW-12S	2/26/2016	14-24	1320	2	61.65	12.00	49.65
GCMW-13S ²	NM	12-22	NM	2	NM	NM	NM
GCMW-13I	2/23/2016	25-30	1255	2	55.51	9.90	45.61
GCMW-14S-R	2/24/2016	10-20	1145	2	54.5	9.52	44.98
GCMW-14I-R	2/24/2016	23-28	1240	2	54.40	9.32	45.08
GCMW-15	2/26/2016	6-16	940	2	NM ³	6.25	NM ³
GCMW-16	2/26/2016	6-16	840	2	NM ³	5.60	NM ³
GCMW-20S	2/25/2016	9-19	940	2	54.24	8.41	45.83
GCMW-20I	2/25/2016	35-45	1150	2	53.95	8.52	45.43
GCMW-20I2	2/25/2016	45-55	1055	2	54.52	8.37	46.15
GCMW-21I	2/24/2016	25-35	930	2	76.68	31.00	45.68
GCMW-21I2	2/24/2016	45-55	1040	2	76.47	29.18	47.29
GCMW-22I	2/25/2016	27-37	0840	2	54.68	9.45	45.23
GCMW-22I2	2/25/2016	47-57	0735	2	54.56	9.09	45.47
GCRW-01	2/25/2016	15-25	1250	2	54.78	9.92	44.86
GCRW-02	2/25/2016	15-25	1350	2	54.17	9.30	44.87
GCRW-03	2/25/2016	15-25	1445	2	54.52	9.50	45.02

Notes:

bgs - Below Ground Surface

¹ - Well Elevations Obtained From 2015 Site Survey

² - Destroyed

³ - Well elevation has not been surveyed

MSL - Mean Sea Level

NM - Not Measured

Table 2. Summary of Groundwater Analytical Results
Baseline Groundwater Monitoring Report - Q1 2016
Glen Cove Former MGP Site
Glen Cove, New York

Analyte	Location Name	GCMW-08S	GCMW-08D	GCMW-09SR	GCMW-09IR	GCMW-10SR	GCMW-10IR	GCMW-11S	GCMW-11S	GCMW-11I	GCMW-12S	GCMW-13I	GCMW-14SR	GCMW-14IR	GCMW-15
	Sample Name	GCMW-08S	GCMW-08D	GCMW-09SR	GCMW-09IR	GCMW-10SR	GCMW-10IR	GCMW-11S	GCMW-11S	GCMW-11I	GCMW-12S	GCMW-13I	GCMW-14SR	GCMW-14IR	GCMW-15
	Sample Date	2/24/2016	2/24/2016	2/24/2016	2/24/2016	2/26/2016	2/26/2016	2/23/2016	DUP-01 GC	GCMW-11I	GCMW-12S	GCMW-13I	GCMW-14SR	GCMW-14IR	GCMW-15
Parent Sample Code									GCMW-11S						
NYS AWQS															
BTEX (µg/L)															
Benzene	1	1 U	1 U	3	1 U	1 U	1 U	36	36	1 UJ	1 U	1 U	1 U	1 U	1 U
Toluene	5	1 U	1 U	7	1 U	1 U	1 U	8	8	1 UJ	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	5	1 U	1 U	64	1 U	1 U	1 U	180	180	1 U	1 U	8	1 U	1 U	1 U
Total Xylene	5	1 U	1 U	67	1 U	1 U	1 U	170	170	2	1 U	13	1 U	1 U	1 U
Total BTEX	NE	ND	ND	141	ND	ND	ND	394	394	2	ND	21	ND	ND	ND
Other VOCs (ug/L)															
Acetone	50*	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	5 UJ	5 U	5 UJ	5 UJ	5 UJ	5 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U
Carbon disulfide	60*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	5	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform (Trichloromethane)	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1	1 U	1 U	1 U	1 U	1 U	2
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 UJ
Total 1,2-Dichloroethene	NE	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ	2
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Hexanone	50*	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 UJ
Methyl ethyl ketone (2-Butanone)	50*	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Methyl tert-butyl ether (MTBE)	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	35	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)	NE	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 UJ
Methylene chloride	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene (PCE)	5	1 U	1 U	1 U	2	1 U	1	1 U	1 U	1 U	1 U	2	1 U	1 U	1
1,1,1-Trichloroethane (TCA)	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4
Total VOCs	NE	ND	ND	141	2	ND	1	394	395	37	ND	23	ND	ND	9
NYSDEC PAH 17 (ug/L)															
Acenaphthene	20*	15	10 U	130 J	7 J	10 U	10 U	130 J	130 J	11 J	10 U	10 U	10 U	10 U	2 J
Acenaphthylene	NE	9 J	10 U	4 J	1 J	10 U	10 U	8 J	8 J	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	50*	16	10 U	11	11	10 U	10 U	6 J	6 J	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.002*	4 J	10 U	2 J	5 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002*	2 J	10 U	2 J	3 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002*	10 U	10 U	10 U	1 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	NE	1 J	10 U	1 J	2 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ND	3 J	10 U	2 J	3 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002*	4 J	10 U	2 J	4 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Table 2. Summary of Groundwater Analytical Results
Baseline Groundwater Monitoring Report - Q1 2016
 Glen Cove Former MGP Site
 Glen Cove, New York

[illegible]

Table 2. Summary of Groundwater Analytical Results
Baseline Groundwater Monitoring Report - Q1 2016
Glen Cove Former MGP Site
Glen Cove, New York

Location Name Sample Name Sample Date Parent Sample Code	GCMW-08S GCMW-08S 2/24/2016	GCMW-08D GCMW-08D 2/24/2016	GCMW-09SR GCMW-09SR 2/24/2016	GCMW-09IR GCMW-09IR 2/24/2016	GCMW-10SR GCMW-10SR 2/26/2016	GCMW-10IR GCMW-10IR 2/26/2016	GCMW-11S GCMW-11S 2/23/2016	GCMW-11S DUP-01 GC 2/23/2016 GCMW-11S	GCMW-11I GCMW-11I 2/23/2016	GCMW-12S GCMW-12S 2/26/2016	GCMW-13I GCMW-13I 2/23/2016	GCMW-14SR GCMW-14SR 2/24/2016	GCMW-14IR GCMW-14IR 2/24/2016	GCMW-15 GCMW-15 2/26/2016
Analyte	NYS AWQS													
2-Nitrophenol	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	NE	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine (NDFA)	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine (NDPA)	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total SVOCs	NE	261	ND	1681	152	ND	ND	2360	2241	171	ND	66	ND	5
PCB Aroclors (ug/L)														
Aroclor 1016	NE	NA	NA	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U
Aroclor 1221	NE	NA	NA	2 U	2 U	2 U	2 U	NA	NA	NA	NA	NA	NA	2 U
Aroclor 1232	NE	NA	NA	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U
Aroclor 1242	NE	NA	NA	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U
Aroclor 1248	NE	NA	NA	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U
Aroclor 1254	NE	NA	NA	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U
Aroclor 1260	NE	NA	NA	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA	NA	1 U
Total Metals (ug/L)														
Aluminum	NE	NA	NA	878	69.8 J	129 J	93.6 J	NA	NA	NA	NA	NA	NA	61.8 J
Antimony	3	NA	NA	60 U	60 U	60 U	60 U	NA	NA	NA	NA	NA	NA	60 U
Arsenic	25	NA	NA	4.2 J	10 U	10 U	10 U	NA	NA	NA	NA	NA	NA	10 U
Barium	1000	NA	NA	125 J	84.4 J	85 J	91.2 J	NA	NA	NA	NA	NA	NA	204
Beryllium	3*	NA	NA	5 U	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	5 U
Cadmium	5	NA	NA	1.1 J	2.5 U	2.5 U	2.5 U	NA	NA	NA	NA	NA	NA	3.1
Calcium	NE	NA	NA	72800	46400	82500	46100	NA	NA	NA	NA	NA	NA	83700
Chromium	50	NA	NA	9.3 J	10 U	10 U	10 U	NA	NA	NA	NA	NA	NA	11.9
Cobalt	NE	NA	NA	1.3 J	2 J	50 U	50 U	NA	NA	NA	NA	NA	NA	50 U
Copper	200	NA	NA	14.2 J	0.6 J	0.9 J	0.7 J	NA	NA	NA	NA	NA	NA	27.3
Iron	300	NA	NA	16600	432	143	114	NA	NA	NA	NA	NA	NA	45200
Lead	25	NA	NA	4.3 J	1.8 J	1.2 J	1.1 J	NA	NA	NA	NA	NA	NA	5 U
Magnesium	35000*	NA	NA	12800	22900	20100	17200	NA	NA	NA	NA	NA	NA	15100
Manganese	300	NA	NA	7060	453	20.5	21.7	NA	NA	NA	NA	NA	NA	2040
Mercury	0.7	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	0.2 U
Nickel	100	NA	NA	40 U	40 U	40 U	40 U	NA	NA	NA	NA	NA	NA	40 U
Potassium	NE	NA	NA	4220 J	5410	5870	4630 J	NA	NA	NA	NA	NA	NA	12600
Selenium	10	NA	NA	10 U	10 U	10 R	10 R	NA	NA	NA	NA	NA	NA	10 R
Silver	50	NA	NA	2.3 J	10 U	10 U	10 U	NA	NA	NA	NA	NA	NA	5.3 J
Sodium	20000	NA	NA	15700	34100	90400	48000	NA	NA	NA	NA	NA	NA	403000
Thallium	0.5*	NA	NA	10 U	10 U	10 U	10 U	NA	NA	NA	NA	NA	NA	10 U
Vanadium	NE	NA	NA	50 U	50 U	50 U	50 U	NA	NA	NA	NA	NA	NA	50 U
Zinc	2000*	NA	NA	7.1 J	20 U	20 U	20 U	NA	NA	NA	NA	NA	NA	6.5 J
Total Cyanide (ug/L)														
Total Cyanide	200	NA	NA	49.7	10 U	10 U	10 U	NA	NA	NA	NA	NA	NA	10 U

Table 2. Summary of Groundwater Analytical Results
Baseline Groundwater Monitoring Report - Q1 2016
Glen Cove Former MGP Site
Glen Cove, New York

Location Name Sample Name Sample Date Parent Sample Code		GCMW-16 GCMW-16 2/26/2016	GCMW-16 DUP-02GC 2/26/2016 GCMW-16	GCMW-20S GCMW-20S 2/25/2016	GCMW-20I GCMW-20I 2/25/2016	GCMW-20I2 GCMW-20I2 2/25/2016	GCMW-21I GCMW-21I 2/24/2016	GCMW-21I2 GCMW-21I2 2/24/2016	GCMW-22I GCMW-22I 2/25/2016	GCMW-22I2 GCMW-22I2 2/25/2016	GCRW-01 GCRW-01 2/25/2016	GCRW-02 GCRW-02 2/25/2016	GCRW-03 GCRW-03 2/25/2016	PZ-05 PZ-05 2/26/2016	PZ-06 PZ-06 2/26/2016
Analyte	NYS AWQS														
BTEX (µg/L)															
Benzene	1	1 U	1 U	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1	1 U	1 U	1 U	1 U
Ethylbenzene	5	1 U	1 U	1	1 U	1 U	1 U	1 U	1 U	1 U	4	1 U	5	1 U	1 U
Total Xylene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	9	1 U	1 U	1 U	1 U
Total BTEX	NE	ND	ND	3	ND	ND	ND	ND	ND	ND	14	ND	5	ND	ND
Other VOCs (ug/L)															
Acetone	50*	5 U	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	5 UJ	5 U	5 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U
Carbon disulfide	60*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform (Trichloromethane)	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	1 UJ
Total 1,2-Dichloroethene	NE	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Hexanone	50*	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ	5 UJ
Methyl ethyl ketone (2-Butanone)	50*	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Methyl tert-butyl ether (MTBE)	10*	10 U	10 U	10 U	10 U	10 U	10 U	2 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)	NE	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ	5 UJ
Methylene chloride	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene (PCE)	5	2	2	1 U	3	1	1 U	1 U	3	6	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane (TCA)	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total VOCs	NE	2	2	3	3	1	ND	2	3	6	14	ND	5	ND	ND
NYSDEC PAH 17 (ug/L)															
Acenaphthene	20*	10 U	10 U	22	10 U	10 U	17	2 J	10 U	10 U	130	2 J	15 J	10 U	10 U
Acenaphthylene	NE	10 U	10 U	3 J	9 J	10 U	10 U	10 U	2 J	10 U	4 J	10 U	10 R	10 U	10 U
Anthracene	50*	10 U	10 U	9 J	2 J	10 U	5 J	1 J	1 J	10 U	14	10 U	6 J	10 U	10 U
Benzo(a)anthracene	0.002*	10 U	10 U	3 J	1 J	10 U	10 U	10 U	10 U	10 U	3 J	10 U	2 J	10 U	10 U
Benzo(b)fluoranthene	0.002*	10 U	10 U	3 J	10 U	10 U	10 U	10 U	10 U	10 U	2 J	10 U	10 R	10 U	10 U
Benzo(k)fluoranthene	0.002*	10 U	10 U	1 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Benzo(g,h,i)perylene	NE	10 U	10 U	2 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Benzo(a)pyrene	ND	10 U	10 U	2 J	1 J	10 U	10 U	10 U	10 U	10 U	2 J	10 U	1 J	10 U	10 U
Chrysene	0.002*	10 U	10 U	5 J	10 U	10 U	1 J	10 U	10 U	10 U	3 J	10 U	2 J	10 U	10 U

Table 2. Summary of Groundwater Analytical Results
Baseline Groundwater Monitoring Report - Q1 2016
Glen Cove Former MGP Site
Glen Cove, New York

Location Name Sample Name Sample Date Parent Sample Code		GCMW-16 GCMW-16 2/26/2016	GCMW-16 DUP-02GC 2/26/2016 GCMW-16	GCMW-20S GCMW-20S 2/25/2016	GCMW-20I GCMW-20I 2/25/2016	GCMW-20I2 GCMW-20I2 2/25/2016	GCMW-21I GCMW-21I 2/24/2016	GCMW-21I2 GCMW-21I2 2/24/2016	GCMW-22I GCMW-22I 2/25/2016	GCMW-22I2 GCMW-22I2 2/25/2016	GCRW-01 GCRW-01 2/25/2016	GCRW-02 GCRW-02 2/25/2016	GCRW-03 GCRW-03 2/25/2016	PZ-05 PZ-05 2/26/2016	PZ-06 PZ-06 2/26/2016
Analyte	NYS AWQS														
Dibenz(a,h)anthracene	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Fluoranthene	50*	10 U	10 U	11	4 J	10 U	6 J	2 J	1 J	10 U	16	10 U	8 J	10 U	10 U
Fluorene	50*	10 U	10 U	12	3 J	10 U	2 J	10 U	10 U	10 U	56	10 U	11 J	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	10 U	10 U	1 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
2-Methylnaphthalene		10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	42 J	10 UJ	1 J	10 U	10 U
Naphthalene	10*	10 U	10 U	10 U	14	10 U	10 U	10 U	10 U	10 U	170	10 U	6 J	10 U	10 U
Phenanthrene	50*	10 U	10 U	26	18	10 U	24	2 J	3 J	10 U	94 J	1 J	21 J	10 U	10 U
Pyrene	50*	10 U	10 U	16	6 J	10 U	9 J	3 J	1 J	10 U	19	10 U	10 J	10 U	10 U
Total PAH (17)	NE	ND	ND	116	58	ND	64	10	8	ND	555	3	83	ND	ND
Other SVOCs (ug/L)															
Bis(2-chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Bis(2-chloroethyl)ether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
2,2-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Bis(2-ethylhexyl)phthalate	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
4-Bromophenyl phenyl ether	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Butyl benzyl phthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Carbazole	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2 J	10 U	10 R	10 U	10 U
4-Chloro-3-methylphenol	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
2-Chloronaphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
2-Chlorophenol	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Dibenzofuran	NE	10 U	10 U	2 J	10 U	10 U	1 J	10 U	10 U	10 U	10	10 U	2 J	10 U	10 U
1,2-Dichlorobenzene	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
1,3-Dichlorobenzene	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
1,4-Dichlorobenzene	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
3,3-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
2,4-Dichlorophenol	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl phthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Dimethyl phthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
2,4-Dimethylphenol	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butyl phthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
4,6-Dinitro-2-methylphenol	NE	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2,4-Dinitrophenol	10*	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Di-n-octyl phthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Hexachlorobenzene	0.04	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Hexachlorobutadiene (C-46)	0.5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Isophorone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
2-Methylphenol (o-Cresol)	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol (p-Cresol)	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 R	25 U	25 U
3-Nitroaniline	5	25 U	25 U	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 UJ	25 R	25 U	25 U
4-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 R	25 U	25 U
Nitrobenzene	0.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U

Table 2. Summary of Groundwater Analytical Results
Baseline Groundwater Monitoring Report - Q1 2016
Glen Cove Former MGP Site
Glen Cove, New York

Analyte	Location Name	GCMW-16	GCMW-16	GCMW-20S	GCMW-20I	GCMW-20I2	GCMW-21I	GCMW-21I2	GCMW-22I	GCMW-22I2	GCRW-01	GCRW-02	GCRW-03	PZ-05	PZ-06
	Sample Name	GCMW-16	DUP-02GC	GCMW-20S	GCMW-20I	GCMW-20I2	GCMW-21I	GCMW-21I2	GCMW-22I	GCMW-22I2	GCRW-01	GCRW-02	GCRW-03	PZ-05	PZ-06
	Sample Date	2/26/2016	2/26/2016	2/25/2016	2/25/2016	2/25/2016	2/24/2016	2/24/2016	2/25/2016	2/25/2016	2/25/2016	2/25/2016	2/25/2016	2/26/2016	2/26/2016
Parent Sample Code															
NYS AWQS															
2-Nitrophenol	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	NE	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine (NDFA)	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
N-Nitrosodi-n-propylamine (NDPA)	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
Pentachlorophenol	1	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U
2,4,5-Trichlorophenol	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total SVOCs	NE	ND	ND	118	58	ND	65	10	8	ND	567	3	85	ND	ND
PCB Aroclors (ug/L)															
Aroclor 1016	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA
Aroclor 1221	NE	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	NA	NA	NA
Aroclor 1232	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA
Aroclor 1242	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA
Aroclor 1248	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA
Aroclor 1254	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA
Aroclor 1260	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	NA	NA	NA
Total Metals (ug/L)															
Aluminum	NE	24.6 J	25.5 J	526	52 J	200 U	10700	24000	78.3 J	24.8 J	NA	NA	NA	NA	NA
Antimony	3	60 U	60 U	10.8 J	60 U	15.8 J	60 U	60 U	60 U	60 U	NA	NA	NA	NA	NA
Arsenic	25	10 U	10 U	4.7 J	10 U	10 U	9.1 J	8.9 J	10 U	10 U	NA	NA	NA	NA	NA
Barium	1000	106 J	105 J	244	110 J	94.3 J	191 J	369	110 J	114 J	NA	NA	NA	NA	NA
Beryllium	3*	5 U	5 U	5 U	5 U	5 U	0.4 J	0.7 J	5 U	5 U	NA	NA	NA	NA	NA
Cadmium	5	0.4 J	2.5 U	0.3 J	2.5 U	2.5 U	5.1	2.9	2.5 U	2.5 U	NA	NA	NA	NA	NA
Calcium	NE	38900	38600	174000	46600	42000	37300	55900	57200	51300	NA	NA	NA	NA	NA
Chromium	50	10 U	10 U	3.1 J	10 U	10 U	49.6	84.9	10 U	10 U	NA	NA	NA	NA	NA
Cobalt	NE	50 U	50 U	2.2 J	50 U	50 U	26.5 J	34.3 J	0.6 J	50 U	NA	NA	NA	NA	NA
Copper	200	0.4 J	25 U	4.3 J	25 U	25 U	57.9	73.4	0.4 J	0.3 J	NA	NA	NA	NA	NA
Iron	300	100 U	81.3 J	3780	64.5 J	100 U	72100	29100	93 J	100 U	NA	NA	NA	NA	NA
Lead	25	1.1 J	5 U	2.9 J	1.5 J	5 U	43.6	96.9	1.9 J	1.6 J	NA	NA	NA	NA	NA
Magnesium	35000*	15900	15700	24600	21500	16500	6810	21200	24500	21800	NA	NA	NA	NA	NA
Manganese	300	6.3 J	6.1 J	6650	72.5	2.4 J	3450	4740	1610	7.9 J	NA	NA	NA	NA	NA
Mercury	0.7	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA
Nickel	100	40 U	40 U	6.6 J	40 U	40 U	11.7 J	40.9	2.8 J	40 U	NA	NA	NA	NA	NA
Potassium	NE	3600 J	3220 J	8290	4070 J	3480 J	6790	12400	6620	3680 J	NA	NA	NA	NA	NA
Selenium	10	10 R	10 R	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA	NA	NA	NA
Silver	50	10 U	10 U	10 U	10 U	10 U	7.7 J	3.2 J	10 U	10 U	NA	NA	NA	NA	NA
Sodium	20000	81800	80900	51300	34200	45000	17300	54400	61400	41500	NA	NA	NA	NA	NA
Thallium	0.5*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA	NA	NA	NA
Vanadium	NE	50 U	50 U	50 U	50 U	50 U	25.8 J	53.4	50 U	50 U	NA	NA	NA	NA	NA
Zinc	2000*	7.7 J	5.3 J	11.4 J	20 U	20 U	47.1	112	20 U	20 U	NA	NA	NA	NA	NA
Total Cyanide (ug/L)															
Total Cyanide	200	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA	NA	NA	NA

Table 2. Summary of Groundwater Analytical Results
Baseline Groundwater Monitoring Report - Q1 2016
Glen Cove Former MGP Site
Glen Cove, New York

Notes:

Analytes in blue are not detected in any sample

ug/L = micrograms per liter or parts per billion (ppb)

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

PAH = Polycyclic Aromatic Hydrocarbon

PCB = Polychlorinated Biphenyl

SVOC = Semi-Volatile Organic Compound

VOC = Volatile Organic Compound

Total BTEX and Total PAHs are calculated using detects only.

Total PAH17 is calculated using the EPA16 list of analytes: Acenaphthene, Acenaphthylene, Anthracene, Benz[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[g,h,i]perylene, Benzo[k]fluoranthene, Chrysene, Dibenzo[a,h]anthracene, Fluoranthene, Fluorene, Indeno[1,2,3-cd]pyrene, Naphthalene, Phenanthrene, and Pyrene plus 2-Methylnaphthalene

NYS AWQS = New York State Ambient Water Quality Standards and Guidance Values for GA groundwater

* indicates the value is a guidance value and not a standard

CAS No. = Chemical Abstracts Service Number

MGP = Manufactured Gas Plant

ND = Not Detected

NE = Not Established

NA = Not Analyzed

NYSDEC = New York State Department of Environmental Conservation

Bolding indicates a detected result concentration

Gray shading and boling indicates that the detected result value exceeds the NYS AWQS

Validation Qualifiers:

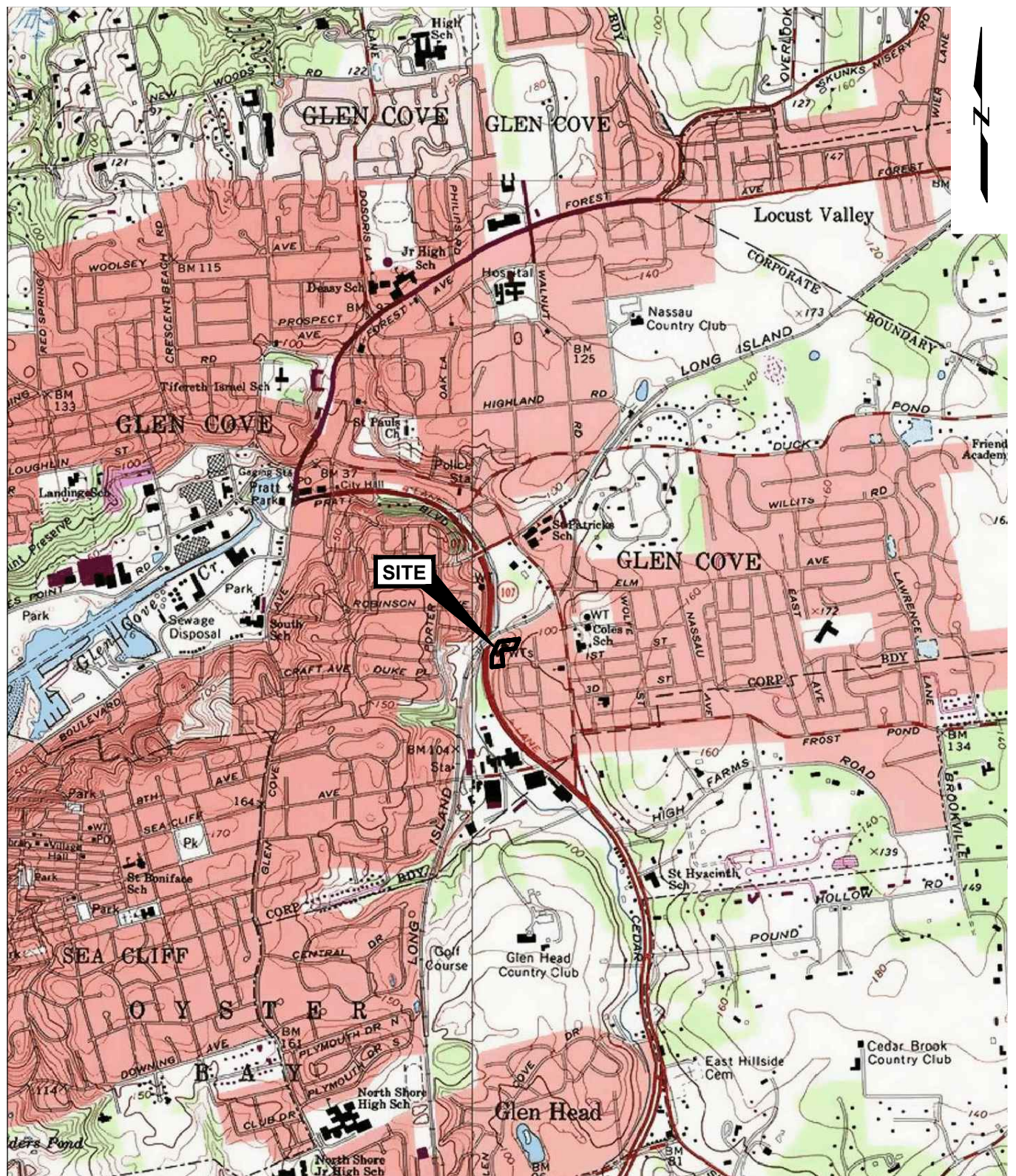
J = The result is an estimated value.

R = The result is rejected.

U = The result was not detected above the reporting limit.

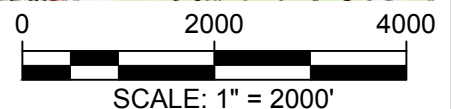
UJ = The results was not detected at or above the reporting limit shown and the reporting limit is estimated.

Figures



NOTES:

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Glen Cover Former MGP Site
Glen Cove, New York

nationalgrid



Project 093270

SITE LOCATION MAP

December 2016

Fig. 1

