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**Groundwater Monitoring Report
December 2018 (Q4-2018) Annual Sampling Event**

Rockaway Park Former MGP Site

Rockaway Park

Queens County, New York

Order on Consent Index No. D1-0002-98-11

Site No. 2-41-029

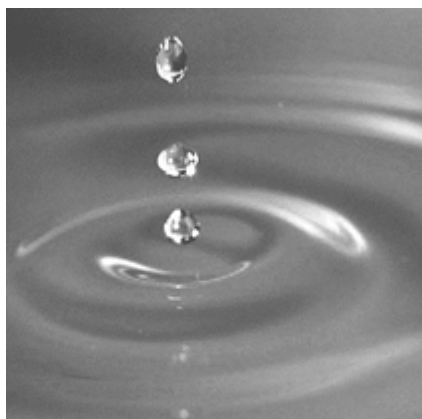
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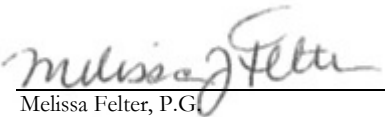
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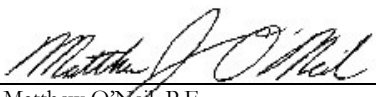
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1. Introduction and Site Background

This report presents the December 2018 groundwater monitoring results for the Rockaway Park Former Manufactured Gas Plant (MGP) site located in Rockaway Park, Queens County, New York (the Site) (**Figure 1**). 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. D1-0002-98-11 signed by National Grid Corporation (National Grid) and the New York State Department of Environmental Conservation (NYSDEC), and the *Draft Site Management Plan (SMP), Rockaway Park Former Manufactured Gas Plant, Rockaway Park, New York* prepared by GEI Consultants, Inc. P.C. (GEI), dated March 2017.

1.1 Site Description

The former MGP and former electric substation are identified as Block 16166 and Lot 155 and the majority of Lot 110 on the Queens Tax Map (herein referred to as the “On-Site Property”). The On-Site Property is an approximately 8.9-acre area and is bounded by Beach Channel Drive to the north, Rockaway Freeway to the south, Beach 108th Street to the east, and Rockaway Freeway to the west (**Figure 2**).

The bulkhead area, which was historically used for off-loading of coal for the former Gas Works, is located North of the On-Site Property. This property, located north of Beach Channel Drive between Rockaway Freeway and Beach 108th Street, is identified as Block 16166 Lot 177 on the Queens Tax Map (herein referred to as the “Off-Site Property”). The Off-Site Property is an approximately 1.0-acre area and is bounded by Jamaica Bay to the north, and Beach Channel Drive to the south (**Figure 2**). National Grid does not own the Off-Site Property.

1.2 Site History

The Rockaway MGP began operations in the late 1870s. The plant was operated by Rockaway Electric Light Co., Town of Hempstead Gas & Electric Company, and later the Queensboro Gas and Electric Company from the late 1870s to 1926. In 1926, Queensboro Gas and Electric Company became a subsidiary of the Long Island Lighting Company (LILCO). LILCO operated the plant from 1926 to approximately 1958, when most of the facilities were demolished. In 1998, KeySpan Corporation acquired the former MGP property through a merger of LILCO and Brooklyn Union Gas Company.

In 1894, the plant consisted of two gas holders, a generator, purifiers and scrubbers. The records indicate that the MGP operated carbureted water gas and coal carbonization processes during early gas production. After 1905, the carbureted water gas process was the only process used during gas production. In 1912, the MGP expanded to the north and east and a portion of the southern property boundary was located beneath the present Rockaway Freeway. The plant now included a half-million cubic foot gas holder, several oxide tanks, generator and boiler buildings, engine room, several oil tanks, and a condenser.

The plant expanded in the mid-1920s to a strip of land to the north of the existing plant. This land was created when Jamaica Bay was filled in during Beach Channel Drive Construction. In 1933, the plant figuration included several additional structures that could allow increased gasification, tar and oil separation and storage, and coke and gas storage. These structures included a 2-million cubic foot gas holder, drip oil tanks, skimming basin, condensers, oxide enclosure, generator ash storage bin, tar separator, tar settling and drying tanks, and tar de-emulsifier. The MGP ceased operations in 1957 and was demolished in 1958.

Five industrial supply wells were formerly located on the MGP property. A mixture of clay, liquid mud, and cement were used to abandon these wells. Three of the wells were abandoned in the 1930s and the abandonment dates of the other two wells are not known.

In October 2002, the NYSDEC approved National Grid's request to reclassify the northwestern portion of the Rockaway Park former MGP site on the Registry of Inactive Hazardous Waste Disposal Sites. This portion of the Site is the current active substation. It was delisted based on investigation results and a risk assessment which concluded that the construction worker subsurface-soil exposure in the proposed substation area did not pose an unacceptable carcinogenic health threat or non-cancer health hazard.

1.3 Site Remedy

The NYSDEC-approved remedy for the Site involved four components. The following is a summary of the Remedial Actions performed at the Site:

- A shallow excavation was completed to the approximate depth of the water table at 8-feet below grade at the Site. Outside of the shallow excavation limits, the upper 2 feet of material was removed to accommodate the installation of the On-Site Soil Cover System. Approximately 165,292 tons of material was excavated and disposed of off site.
- A composite dense non-aqueous phase liquid (DNAPL) migration barrier was constructed at the Site to contain impacted materials at the Site. The location of composite On-Site DNAPL migration barrier is depicted in **Figure 2** and consists of the following components:
 - A 695-foot long Waterloo Barrier® sheet pile barrier was installed. The Waterloo Barrier® sheet piling was installed to depths of 50-feet on the flanks and 60 feet in the center of the wall.
 - Soil-cement jet grout columns were installed to a depth of approximately 120 feet below ground surface (ft bgs) with a continuous 5-foot wall overlap with the 250-foot long center section of the Waterloo Barrier® sheet piles.
- The Off-Site DNAPL migration barrier consists of a 137-foot long Waterloo Barrier® sheet pile barrier. The Waterloo Barrier® sheet piling was installed to depths of 60 to 70 feet bgs.
- A Cover System was installed on both the On-Site and Off-Site Properties.
 - The On-Site Soil Cover System consists of an 18-inch layer of well graded sandy soil material overlain with 6 inches of 2.5-inch crushed stone and underlain with a fabric demarcation barrier between the On-Site Soil Cover System and the subgrade materials.

- The Off-Site Composite Cover System consists of either a 24-inch layer of clean fill meeting the Restricted Residential Use SCOs underlain with a fabric demarcation barrier between the Composite Cover System and the subgrade materials or an asphalt/concrete surface, underlain with 6-inches of clean fill and a fabric demarcation barrier.
- Forty-one passive DNAPL recovery wells were installed. One of the recovery wells was destroyed in 2015 and was not replaced with approval from the NYSDEC. The locations of the remaining 40 recovery wells are depicted in **Figure 2**.

In accordance with the Decision Document and the Draft SMP, National Grid began annual post-remedy monitoring of the groundwater at the Site in the Fourth Quarter of 2016 (Q4 2016). This data provides a baseline of groundwater analytical results following completion of the remedy to evaluate the overall effectiveness of the remedial action.

1.4 Geology

Three major stratigraphic units were identified during the Remedial Investigation (RI) and Final RI drilling program:

- Recent/post glacial fill
- Barrier island deposits
- Glacial outwash deposits

A general description of the three stratigraphic units is provided below.

Fill Material

Fill material is distributed throughout the site investigation areas and was placed in a series of land area expansions from approximately the 1800s to the 1930s. The Sanborn Fire Insurance maps indicate that approximately the northern two-thirds of the site investigation areas were part of Jamaica Bay in 1894. Retaining wall remnants are still present at the Site and mark former bulkheads that supported these filling activities.

Fill material observed at the site consisted primarily of sand with minor amounts of finer and coarser material. The fill material also includes variable amounts of coal, tar coke, clinkers, slag wood, concrete, brick, ash, glass, and crushed shell fragments. Fill materials were encountered to approximately 10 to 15 ft bgs in most of the site areas. Fill was observed to approximately 30 ft bgs in the bulkhead area.

Barrier Island Deposits

Underlying the fill unit throughout much of the Site are sandy, shell-bearing deposits interpreted as recent near-shore, beach, and dune deposits. These are identified as the barrier island deposits. The barrier island deposits contain minor amounts of silt and clay lenses. In addition, shell-bearing layers ranging from approximately 2 feet to 29 feet thick were observed. These layers sometimes contained coarser sand and gravels. The barrier island deposits were observed through the depths of most

borings in the Site investigation areas. The deposits are approximately 55 to 70 feet thick throughout the Site.

Underlying the barrier island deposits at approximately 55 to 70 ft bgs, a distinct color change was observed from gray to brown in borings located throughout the Site. This was interpreted as a transition between the barrier island deposits and the glacial outwash deposits. The transitional zone is approximately 35 to 40 feet thick. Also, a silty sand layer was observed between 65 and 95 ft bgs in this transitional layer.

Glacial Deposits

Underneath the transitional zone, glacial deposits consisting of primarily well-sorted brown outwash sands were encountered. The glacial deposits were encountered at approximately 95 to 105 ft bgs. Some silty sand lenses were observed in the borings at approximately 100 ft bgs in some of the borings.

1.5 Hydrogeology

There is one shallow, unconfined aquifer beneath the Site. Wells were installed at consistent, yet arbitrary, depth intervals in order to evaluate different groundwater zones of the aquifer during the RI. The zones selected are identified as follows: shallow “S” (wells screened at the water table ranging from 2 to 17 feet ft bgs), intermediate “I” (wells screened from 17 to 45 ft bgs), deep “D” (wells screened from 45 to 90 ft bgs), and deep (2) “D2” (wells screened from 90 to 105 ft bgs).

Groundwater depths were collected from all accessible monitoring wells at low and high tides based on the survey tidal mark and tide charts obtained from the National Oceanic and Atmospheric Administration. The water table was observed at approximately 8 ft bgs during monitoring events at the Site.

Three tidal studies have been conducted to confirm the groundwater flow at and adjacent to the Site. In general, groundwater at low tide on the eastern portion of the Site flows northeast towards Jamaica Bay, and shallow groundwater on the western portion of the Site flows northwest towards Jamaica Bay. At high tide, the shallow groundwater contour map depicts the presence of a groundwater divide (or trough) on the Site from the former location of PZ-06 on the southwest corner to the former location of MW-02 on the eastern edge of the Site. This trough is the result of high tidal levels within Jamaica Bay causing shallow groundwater to flow southerly toward the Site during high tide. However, this effect does not “over-ride” the dominant shallow discharge pattern toward Jamaica Bay across the entire Site, thus creating a localized trough. South of the trough, the shallow groundwater still flows north toward Jamaica Bay, even during high tide.

1.6 Historical Groundwater Monitoring Event Summary

Groundwater monitoring events were conducted at the Site in February 2009 and October 2014. The post-remedy baseline sampling was completed in Q4 2016 and annual sampling began in the Fourth Quarter of 2017 (Q4 2017).

2. Rockaway Park Site and Adjacent Off-site Areas

2.1 Annual Groundwater Monitoring Event Summary

Event Dates: December 17-20, 2018

Site Phase: Post Remedial Annual Groundwater Monitoring

Location: Rockaway Park Former MGP Site

2.2 Monitoring Program

2.2.1 Number of Wells

A total of 61 monitoring wells and recovery wells are located at or adjacent to the Site. The monitoring well and recovery well locations are depicted in **Figure 2**. Sixty-three wells are included in the post-remedy annual gauging and sampling plan at the Site described in Section 4.3 of the SMP. Monitoring wells RPMW-02D and RPMW-02D2 were identified as destroyed during the October 2016 baseline groundwater sampling event. A total of 42 monitoring wells and recovery wells were sampled during the annual groundwater sampling event. Monitoring and recovery wells included in Table 6 of the SMP were omitted from annual sampling event due to the presence of non-aqueous phase liquid (NAPL) in the wells.

2.2.2 Hydrological Data

Groundwater levels were measured at 54 monitoring wells and recovery wells on December 17, 2018 at low tide. Groundwater levels were measured at 50 monitoring wells and recovery wells on December 17, 2018 at high tide. Seven monitoring wells, RPMW-04S, RPMW-04I, RPMW-17S, RPMW-17I, RPMW-17D, RPMW-26S, and RW-01C were not accessible for the low tide measurements. Eleven monitoring wells, RPMW-04S, RPMW-04I, RPMW-17S, RPMW-17I, RPMW-17D, RPMW-26S, RW-16A, RW-16B, RW-02C, RW-01C, and RW-20A were not accessible for high tide measurements. Depth to groundwater and calculated groundwater elevations are provided in **Table 1**. Shallow, intermediate, deep, and deep (2) groundwater contours and elevations for the December 2018 sampling event are depicted in **Figures 3 and 4**. The groundwater flow direction in the shallow zone was generally to the northwest during low tide and north during high tide. The groundwater flow direction in the intermediate zone is to the north during low tide and high tide. The groundwater flow direction in the deep zone is to the north during low tide and high tide. The groundwater flow direction in the deep (2) zone is to the northeast during low and to the northwest during high tide. The depth to water and water table elevation data for the shallow, intermediate, deep, and deep (2) portions of the aquifer are presented below in **Tables 2a-2d**.

Table 2a – Shallow Groundwater Measurements

Well ID	Low Tide Depth to Water (feet)	Low Tide Water Elevation (feet above MSL)	High Tide Depth to Water (feet)	High Tide Water Elevation (feet above MSL)
RPMW-01S	5.41	1.46	4.99	1.88
RPMW-02S	9.01	1.03	8.92	1.12
RPMW-03S	4.8	1.42	4.86	1.36
RPMW-04S	Not accessible	-	Not accessible	-
RPMW-11S	6.97	1.21	6.76	1.42
RPMW-14S	10.72	1.65	10.46	1.91
RPMW-17S	Not accessible	-	Not accessible	-
RPMW-19S	5.69	2.56	5.68	2.57
RPMW-26S	Not accessible	-	Not accessible	-
RW-05A	7.83	1.41	7.19	2.05
RW-06A	7.86	1.53	7.38	2.01
RW-13A	7.08	1.67	6.83	1.92

Table 2b – Intermediate Groundwater Measurements

Well ID	Low Tide Depth to Water (feet)	Low Tide Water Elevation (feet above MSL)	High Tide Depth to Water (feet)	High Tide Water Elevation (feet above MSL)
RPMW-01I	5.73	0.96	4.55	2.14
RPMW-02I	10.05	-0.02	8.73	1.3
RPMW-03I	5.62	0.79	4.45	1.96
RPMW-04I	Not accessible	-	Not accessible	-
RPMW-11I	7.38	0.82	6.11	2.09
RPMW-14I	10.04	1.66	9.74	1.96
RPMW-17I	Not accessible	-	Not accessible	-
RW-03	9.78	0.42	8.29	1.91
RW-04A	9.54	0.44	8.1	1.88
RW-05B	8.09	1.34	7.3	2.13
RW-07A	8.36	1.69	8.14	1.91
RW-09	8.82	1.72	8.69	1.85
RW-10	9.02	1.71	8.84	1.89
RW-11	9.59	1.29	8.74	2.14
RW-12A	8.6	2.07	8.57	2.1
RW-12B	9.93	1.17	8.95	2.15
RW-14B	7.16	1.46	6.64	1.98
RW-16A	6.84	1.5	Not accessible	-
RW-17A	6.45	1.45	5.87	2.03
RW-18A	8.85	-0.34	8.49	0.02
RW-02A	9.2	-0.55	8.55	0.1
RW-02B	9.46	-0.5	8.86	0.1
RW-01A	9.12	-0.57	8.56	-0.01
RW-19A	8.49	0	8.57	-0.08
RW-20A	9.72	-1.33	Not accessible	-

Table 2c – Deep Groundwater Measurements

Well ID	Low Tide Depth to Water (feet)	Low Tide Water Elevation (feet above MSL)	High Tide Depth to Water (feet)	High Tide Water Elevation (feet above MSL)
RPMW-03D	5.54	1.58	4.35	2.77
RPMW-11D	7.29	0.83	5.98	2.14
RPMW-14D	11.2	1.82	10.83	2.19
RPMW-17D	Not accessible	-	Not accessible	-
RW-04B	9.59	0.1	8.11	1.58
RW-05C	8.42	1.23	7.53	2.12
RW-06B	8.46	1.31	7.66	2.11
RW-07B	8.97	1.35	8.19	2.13
RW-08B	8.37	1.28	7.59	2.06
RW-13B	6.08	2.96	6.03	3.01
RW-15A	7.47	1.4	6.79	2.08
RW-17B	2.43	6.33	2.39	6.37
RW-18B	9.52	-0.99	8.08	0.45
RW-18C	9.55	-1.05	7.9	0.6
RW-02C	10.16	-1.37	Not accessible	-
RW-01B	9.32	-0.68	7.82	0.82
RW-01C	Not accessible	-	Not accessible	-
RW-19B	9.51	-0.98	7.97	0.56
RW-19C	10.06	-1.53	8.22	0.31
RW-20B	9.55	-1.2	7.74	0.61
RW-20C	8.65	-0.44	8.38	-0.17

Table 2d – Deep (2) Groundwater Measurements

Well ID	Low Tide Depth to Water (feet)	Low Tide Water Elevation (feet above MSL)	High Tide Depth to Water (feet)	High Tide Water Elevation (feet above MSL)
RPMW-14D2	9.44	2.17	9.45	2.16
RW-15B	7.75	0.94	6.92	1.77
RW-16B	6.63	2.61	Not accessible	-

2.2.3 NAPL Gauging

All of the existing wells in the groundwater monitoring network are gauged for the presence of NAPL during each groundwater monitoring event. The thickness measurements recorded during the baseline sampling event are shown in **Table 3**.

Table 3 – DNAPL Gauging Measurements

Well ID	December 2017 DNAPL Thickness (feet)	December 2018 DNAPL Thickness (feet)	Estimated Recovery Rate (feet/day)
RW-03	0.083	0.28	0.0
RW-05B	6.583	5.55	0.0
RW-06A	5.5	5.65	0.0004
RW-06B	1.0	1.15	0.0004
RW-07A	0.667	0.9	0.0006
RW-07B	3.75	4.75	0.0027
RW-13A	0.0	0.0	0.0
RW-15B	0.0	0.0	0.0
RW-16A	0.083	0.0	0.0
RW-16B	5.5	4.51	0.0
RW-17A	0.25	0.7	0.0012

Historically, the recovery rates for DNAPL at recovery wells RW-06A and RW-16B and the recovery rates from former monitoring wells collected in 2003 and 2005 during previous recovery rate evaluations have been approximately 0.04 feet/day. Over the year period between December 2017 and December 2018, recovery rates ranged between 0.0 and 0.0027 feet/day.

2.2.4 Groundwater Analytical Sampling

The 2018 groundwater sampling event was performed from December 17 to 20, 2018 and included all accessible wells on the annual sampling list. If monitoring wells with measurable NAPL thicknesses were identified during the sampling event, they were not be sampled in accordance with the provisions of the SMP. A total of 42 monitoring wells and recovery wells were sampled for the following analytes:

- Volatile organic compounds (VOCs) via Environmental Protection Agency (EPA) Method 8260
- Semi-volatile organic compounds (SVOCs) via EPA Method 8270
- Total Cyanide via EPA Method 9012B
- Free Cyanide via EPA Method 9016

2.2.5 Analytical Results

The discussion below focuses on the analytical results from the current sampling event compared to the baseline sampling event performed in October 2016. The laboratory analytical results for the December 2018 sampling event are included in **Table 4**.

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 concentrations of isopropylbenzene in 14 samples exceeded the AWQS, ranging from 1.4 to 24 times the AWQS value. The maximum detection of isopropylbenzene was approximately 25 percent lower

than the maximum detection in the baseline event. Chloroform (trichloromethane) was detected at a concentration above the AWQS in sample RW-02B at 17 micrograms per liter ($\mu\text{g/L}$). This detection was 23 percent less than the detection of chloroform (trichloromethane) in RW-02B during the baseline sampling efforts. Total BTEX concentrations ranged from less than method detection limits (ND) in 16 of the 42 wells sampled, to 6,027 $\mu\text{g/L}$ in RW-05C, 21% less than the maximum concentration detected in the baseline event. Individual BTEX compound concentrations above the AWQS were identified in 21 of the 26 wells with detections. The detections in wells with exceedances of the AWQS are summarized in **Table 4**.

SVOCs

SVOC detections above the AWQS included both PAHs and other SVOCs. Total PAH concentrations ranged from ND in 16 of the 42 wells sampled to 7,650 $\mu\text{g/L}$ in RW-05C, 1% higher than the maximum detection in the baseline sampling event. Additionally, concentrations of biphenyl (1,1-biphenyl), phenol and pentachlorophenol exceeded the AWQS in three, six, and one of the 42 wells, respectively. Maximum concentrations of biphenyl(1,1-biphenyl) and phenol were approximately 8% lower and 87% lower, respectively, than the maximum concentrations in the baseline event. Pentachlorophenol was not detected during the baseline event. The detections in wells with concentrations above the AWQS are summarized in **Table 4**.

Cyanides

Total and free cyanide were analyzed in each well sampled during the groundwater monitoring event. Free cyanide was detected in 9 samples, the maximum concentration detected was approximately 74% lower than the 2016 baseline sampling event. Total cyanide was detected in 32 of 42 wells with 13 samples exceeding the AWQS. Maximum concentrations of total cyanide were approximately 29% higher than the maximum concentrations observed during the baseline event.

2.3 Future Plans

- Continue annual post-remedy sampling in Q4 2019 as proposed in the SMP.
- Submit future groundwater data in the Periodic Review Report following approval of the SMP.

Tables

Table 1 - Water Level Measurements and Calculated Groundwater Elevations
Groundwater Monitoring Report Q4 -2018
Rockaway Park Former MGP Site
Rockaway Park, New York

Monitoring Well ID	Well Diameter/Type	Screened Interval (ft bgs)	Total Depth (ft bgs)	Top of Casing Elevation (feet NAVD88)	Location	Low Tide				High Tide			
						Depth To Water	Groundwater Elevation (feet NAVD88)	Time of Water Measurement	DNAPL Thickness	Depth To Water	Groundwater Elevation (feet NAVD88)	Time of Water Measurement	DNAPL Thickness
RPMW-01S	2-inch PVC	5-15	17	6.87	Beach Channel Drive	5.41	1.46	741	-	4.99	1.88	1537	0
RPMW-01I	2-inch PVC	35-45	47	6.69	Beach Channel Drive	5.73	0.96	745	0	4.55	2.14	1539	0
RPMW-02S	2-inch PVC	5-15	17	10.04	Beach Channel Drive	9.01	1.03	845	-	8.92	1.12	1601	-
RPMW-02I	2-inch PVC	35-45	47	10.03	Beach Channel Drive	10.05	-0.02	840	0	8.73	1.3	1600	0
RPMW-02D	2-inch PVC	64-74	76	10.01	Beach Channel Drive	Destroyed/CNL	-	-	-	Destroyed/CNL	-	-	-
RPMW-02D2	2-inch PVC	95-105	107	10.07	Beach Channel Drive	Destroyed/CNL	-	-	-	Destroyed/CNL	-	-	-
RPMW-03S	2-inch PVC	5-15	17	6.22	Beach Channel Drive	4.8	1.42	740	0	4.86	1.36	1541	0
RPMW-03I	2-inch PVC	35-45	47	6.41	Beach Channel Drive	5.62	0.79	742	0	4.45	1.96	1543	0
RPMW-03D	2-inch PVC	65-75	77	7.12	Beach Channel Drive	5.54	1.58	743	0	4.35	2.77	1545	0
RPMW-04S	2-inch PVC	5-15	17	11.48	Substation	not accessible	-	-	-	not accessible	-	-	0
RPMW-04I	2-inch PVC	35-45	47	10.7	Substation	not accessible	-	-	-	not accessible	-	-	0
RPMW-11S	2-inch PVC	5-15	17	8.18	Beach Channel Drive	6.97	1.21	751	-	6.76	1.42	1542	-
RPMW-11I	2-inch PVC	35-45	47	8.2	Beach Channel Drive	7.38	0.82	741	-	6.11	2.09	1537	0
RPMW-11D	2-inch PVC	65-75	77	8.12	Beach Channel Drive	7.29	0.83	750	0	5.98	2.14	1535	0
RPMW-14S	2-inch PVC	5-15	17	12.37	On-Site	10.72	1.65	930	0	10.46	1.91	1516	0
RPMW-14I	2-inch PVC	35-45	47	11.7	On-Site	10.04	1.66	930	0	9.74	1.96	1518	0
RPMW-14D	2-inch PVC	66-76	78	13.02	On-Site	11.2	1.82	930	0	10.83	2.19	1519	0
RPMW-14D2	2-inch PVC	95-105	107	11.61	On-Site	9.44	2.17	930	0	9.45	2.16	1518	0
RPMW-17S	2-inch PVC	5-15	17	6.03	Beach 108th Street	not accessible	-	-	-	not accessible	-	-	0
RPMW-17I	2-inch PVC	35-45	47	7.59	Beach 108th Street	not accessible	-	-	-	not accessible	-	-	0
RPMW-17D	2-inch PVC	65-75	77	7.57	Beach 108th Street	not accessible	-	-	-	not accessible	-	-	0
RPMW-19S	1-inch PVC	2.3-12.3	12.3	8.25	Beach Channel Drive	5.69	2.56	758	0	5.68	2.57	1538	0
RPMW-26S	1-inch PVC	3-13	13	7.73	Beach 108th Street	not accessible	-	-	0	not accessible	-	-	-
RW-03	4-inch PVC	15-25	30	10.2	On-Site	9.78	0.42	852	0.28'	8.29	1.91	1511	0.28'
RW-04A	4-inch PVC	30-40	45	9.98	On-Site	9.54	0.44	853	0	8.1	1.88	1511	0
RW-04B	4-inch PVC	40-60	65	9.69	On-Site	9.59	0.1	900	0	8.11	1.58	1509	0
RW-05A	4-inch PVC	10-20	25	9.24	On-Site	7.83	1.41	850	0	7.19	2.05	1505	0
RW-05B	4-inch PVC	25-40	45	9.43	On-Site	8.09	1.34	854	5.5'	7.3	2.13	1507	5.5'
RW-05C	4-inch PVC	40-50	55	9.65	On-Site	8.42	1.23	855	0	7.53	2.12	1503	0
RW-06A	4-inch PVC	10-20	25	9.39	On-Site	7.86	1.53	859	5.65'	7.38	2.01	1512	5.65'
RW-06B	4-inch PVC	50-60	65	9.77	On-Site	8.46	1.31	857	1.15'	7.66	2.11	1513	1.15'
RW-07A	4-inch PVC	10-30	35	10.05	On-Site	8.36	1.69	901	0.9'	8.14	1.91	1507	0.9'
RW-07B	4-inch PVC	40-60	65	10.32	On-Site	8.97	1.35	902	4.75'	8.19	2.13	1506	4.75'
RW-08B	4-inch PVC	40-60	65	9.65	On-Site	8.37	1.28	900	0	7.59	2.06	1505	0
RW-09	4-inch PVC	5-30	35	10.54	On-Site	8.82	1.72	904	0	8.69	1.85	1504	0
RW-10	4-inch PVC	5-30	35	10.73	On-Site	9.02	1.71	904	0	8.84	1.89	1502	0
RW-11	4-inch PVC	20-40	45	10.88	On-Site	9.59	1.29	902	0	8.74	2.14	1501	0
RW-12A	4-inch PVC	20-35	40	10.67	On-Site	8.6	2.07	858	0	8.57	2.1	1458	0
RW-12B	4-inch PVC	35-50	55	11.1	On-Site	9.93	1.17	859	0	8.95	2.15	1459	0
RW-13A	4-inch PVC	5-20	25	8.75	On-Site	7.08	1.67	920	0	6.83	1.92	1525	0
RW-13B	4-inch PVC	55-60	65	9.04	On-Site	6.08	2.96	919	0	6.03	3.01	1526	0
RW-14B	4-inch PVC	10-30	35	8.62	On-Site	7.16	1.46	917	0	6.64	1.98	1524	0
RW-15A	4-inch PVC	40-60	65	8.87	On-Site	7.47	1.4	915	0	6.79	2.08	1527	0
RW-15B	4-inch PVC	80-100	105	8.69	On-Site	7.75	0.94	917	0	6.92	1.77	1538	0
RW-16A	4-inch PVC	10-30	35	8.34	On-Site	6.84	1.5	915	0	not accessible	-	-	0
RW-16B	4-inch PVC	90-110	115	9.24	On-Site	6.63	2.61	913	4.51'	not accessible	-	-	4.51'
RW-17A	4-inch PVC	10-30	35	7.9	On-Site	6.45	1.45	910	0.70'	5.87	2.03	1523	0.70'
RW-17B	4-inch PVC	70-90	95	8.76	On-Site	2.43	6.33	920	0	2.39	6.37	1525	0
RW-18A	4-inch PVC	22-32	37	8.51	Beach Channel Drive	8.85	-0.34	1010	0	8.49	0.02	1550	0
RW-18B	4-inch PVC	42-52	57	8.53	Beach Channel Drive	9.52	-0.99	835	0	8.08	0.45	1553	0
RW-18C	4-inch PVC	62-72	77	8.5	Beach Channel Drive	9.55	-1.05	836	0	7.9	0.6	1547	0
RW-02A*	4-inch PVC	15-25	30	8.65	Beach Channel Drive	9.2	-0.55	849	0	8.55	0.1	1556	0
RW-02B*	4-inch PVC	35-45	50	8.96	Beach Channel Drive	9.46	-0.5	1008	0	8.86	0.1	1556	0
RW-02C*	4-inch PVC	60-70	75	8.79	Beach Channel Drive	10.16	-1.37	1010	0	not accessible	-	-	0
RW-01A*	4-inch PVC	22-32	37	8.55	Beach Channel Drive	9.12	-0.57	830	0	8.56	-0.01	1554	0
RW-01B*	4-inch PVC	41-51	56	8.64	Beach Channel Drive	9.32	-0.68	835	0	7.82	0.82	1550	0
RW-01C*	4-inch PVC	61-71	76	8.62	Beach Channel Drive	not accessible	-	-	-	not accessible	-	-	0
RW-19A*	4-inch PVC	19-29	34	8.49	Beach Channel Drive	8.49	0	830	0	8.57	-0.08	1549	0
RW-19B*	4-inch PVC	41-51	56	8.53	Beach Channel Drive	9.51	-0.98	828	0	7.97	0.56	1547	0
RW-19C*	4-inch PVC	61-71	76	8.53	Beach Channel Drive	10.06	-1.53	1002	0	8.22	0.31	1548	0
RW-20A*	4-inch PVC	22-32	37	8.39	Beach Channel Drive	9.72	-1.33	959	0	not accessible	-	-	0
RW-20B*	4-inch PVC	41-51	56	8.35	Beach Channel Drive	9.55	-1.2	1000	0	7.74	0.61	1545	0
RW-20C*	4-inch PVC	61-71	76	8.21	Beach Channel Drive	8.65	-0.44	1001	0	8.38	-0.17	1546	0

Table 4. Groundwater Analysis Results
Rockaway Park Former MGP Site
National Grid
Rockaway Park, New York

Sample Name Sample Date Parent Sample				RPMW-01S 12/19/2018	RPMW-01I 12/19/2018	RPMW-02S 12/18/2018	RPMW-02I 12/18/2018	RPMW-03S 12/17/2018	RPMW-03I 12/17/2018	RPMW-03D 12/17/2018	RPMW-04S 12/18/2018	RPMW-04I 12/18/2018	RPMW-11S 12/19/2018	RPMW-11I 12/19/2018	RPMW-11D 12/19/2018	RPMW-14S 12/19/2018
Analyte	Units	CAS No.	NYS AWQS													
BTEX																
Benzene	ug/L	71-43-2	1	1 U	0.43 J	1 U	1 U	52	1.5	1 U	1 U	1 U	3.3	38	1 U	16
Toluene		108-88-3	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U	9.7	1 U	4.4
Ethylbenzene		100-41-4	5	1 U	1 U	1 U	1 U	0.37 J	1 U	1 U	1 U	32	1 U	1100	1 U	210
o-Xylene		95-47-6	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	7.7	1 U	250	1 U	200
m/p-Xylene		179601-23-1	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.3	1 U	150	1 U	22
Total BTEX (ND=0)		TBTEX_ND0	NE	ND	0.43	ND	ND	52.37	1.5	ND	ND	41.4	3.3	1547.7	ND	452.4
Other VOCs																
Acetone	ug/L	67-64-1	50*	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U	5 U
Bromochloromethane		74-97-5	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Bromodichloromethane		75-27-4	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Bromoform		75-25-2	50*	1 U	1 U	1 U	1 U	1 U*	1 U*	1 U*	1 U	1 U	1 U	5 U	1 U	1 U
Bromomethane		74-83-9	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 UJ	1 UJ
Carbon disulfide		75-15-0	60*	1 U	1 U	1 U	1 U	1 U	1 U	2	1 U	1 U	1 U	5 U	1 U	1 U
Carbon tetrachloride		56-23-5	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Chlorobenzene		108-90-7	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Chloroethane		75-00-3	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Chloroform (Trichloromethane)		67-66-3	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Chloromethane		74-87-3	5	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	5 UJ	1 UJ	1 UJ
Cyclohexane		110-82-7	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	2.1
1,2-Dibromo-3-chloropropane		96-12-8	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Dibromochloromethane		124-48-1	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
1,2-Dibromoethane (EDB)		106-93-4	0.0006	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
1,2-Dichlorobenzene (o-DCB)		95-50-1	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
1,3-Dichlorobenzene (m-DCB)		541-73-1	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
1,4-Dichlorobenzene (p-DCB)		106-46-7	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Dichlorodifluoromethane (Freon 12)		75-71-8	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 UJ	1 UJ
1,1-Dichloroethane		75-34-3	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
1,2-Dichloroethane		107-06-2	0.6	1 U	1 U	1 U	1 U	1 U*	1 U*	1 U*	1 U	1 U	1 U	5 U	1 U	1 U
1,1-Dichloroethene		75-35-4	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
cis-1,2-Dichloroethene		156-59-2	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.26 J	5 U	1 U	1 U
trans-1,2-Dichloroethene		156-60-5	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
1,2-Dichloropropane		78-87-5	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
cis-1,3-Dichloropropene		10061-01-5	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
trans-1,3-Dichloropropene		10061-02-6	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
1,4-Dioxane		123-91-1	NE	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	250 U	50 U	50 U
2-Hexanone		591-78-6	50*	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U	5 U
Isopropylbenzene		98-82-8	5	1 U	1 U	1 U	1 U	11	7	1 U	1 U	24	0.42 J	40	1 U	64
Methyl acetate		79-20-9	NE	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U	5 U
Methyl ethyl ketone (2-Butanone)		78-93-3	50*	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U	5 U
Methyl tert-butyl ether (MTBE)		1634-04-4	10*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	7.3	1 U	1 U
4-Methyl-2-pentanone (MIBK)		108-10-1	NE	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U	5 U
Methylcyclohexane		108-87-2	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	0.9 J
Methylene chloride		75-09-2	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Styrene		100-42-5	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
1,1,2,2-Tetrachloroethane		79-34-5	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Tetrachloroethene (PCE)		127-18-4	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		76-13-1	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 UJ	1 UJ
1,2,3-Trichlorobenzene		87-61-6	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
1,2,4-Trichlorobenzene		120-82-1	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
1,1,1-Trichloroethane (TCA)		71-55-6	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
1,1,2-Trichloroethane		79-00-5	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Trichloroethene (TCE)		79-01-6	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U
Trichlorofluoromethane (Freon 11)		75-69-4	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 UJ	1 UJ
Vinyl chloride		75-01-4	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U

Table 4. Groundwater Analysis Results
Rockaway Park Former MGP Site
National Grid
Rockaway Park, New York

Sample Name Sample Date Parent Sample				RPMW-01S 12/19/2018	RPMW-01I 12/19/2018	RPMW-02S 12/18/2018	RPMW-02I 12/18/2018	RPMW-03S 12/17/2018	RPMW-03I 12/17/2018	RPMW-03D 12/17/2018	RPMW-04S 12/18/2018	RPMW-04I 12/18/2018	RPMW-11S 12/19/2018	RPMW-11I 12/19/2018	RPMW-11D 12/19/2018	RPMW-14S 12/19/2018
Analyte	Units	CAS No.	NYS AWQS													
NYSDEC PAH17	ug/L															
Acenaphthene		83-32-9	20*	10 U	2.3 J	9 J	10 U	23	25	10 U	10 U	23	10 U	67 J	10 U	1.9 J
Acenaphthylene		208-96-8	NE	10 U	10 U	10 U	3.2 J	10 U	10 U	10 U	10 U	58	10 U	500 U	10 U	9 J
Anthracene		120-12-7	50*	10 U	10 U	0.99 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Benzo(a)anthracene		56-55-3	0.002*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	50 U	1 U	1 U
Benzo(b)fluoranthene		205-99-2	0.002*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	100 U	2 U	2 U
Benzo(k)fluoranthene		207-08-9	0.002*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	50 U	1 U	1 U
Benzo(g,h,i)perylene		191-24-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Benzo(a)pyrene		50-32-8	ND	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	50 U	1 U	1 U
Chrysene		218-01-9	0.002*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	100 U	2 U	2 U
Dibenz(a,h)anthracene		53-70-3	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	50 U	1 U	1 U
Fluoranthene		206-44-0	50*	10 U	10 U	1.6 J	1.5 J	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Fluorene		86-73-7	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1.5 J	10 U	500 U	10 U	10 U
Indeno(1,2,3-cd)pyrene		193-39-5	0.002*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	100 U	2 U	2 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Naphthalene		91-20-3	10*	10 U	11	10 U	10 U	10 U	10 U	10 U	10 U	35	10 U	2400	10 U	32
Phenanthrene		85-01-8	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.87 J	10 U	500 U	10 U	10 U
Pyrene		129-00-0	50*	10 U	10 U	1.8 J	4 J	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Total PAH (17) (ND=0)		TPAH17_ND0	NE	ND	13.3	13.39	8.7	23	25	ND	ND	118.37	ND	2467	ND	42.9
NYSDEC PAH17 Other SVOCs	ug/L															
Acetophenone		98-86-2	NE	10 U	1.1 J	10 U	10 U	10 U	10 U	10 U	10 U	1.2 J	10 U	500 U	10 U	1.2 J
Atrazine		1912-24-9	7.5	2 U	2 U	2 U	2 U	2 U*	2 U*	2 U*	2 U	2 U	2 U	100 U	2 U	2 U
Benzaldehyde		100-52-7	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Biphenyl (1,1-Biphenyl)		92-52-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Bis(2-chloroethoxy)methane		111-91-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Bis(2-chloroethyl)ether		111-44-4	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	50 U	1 U	1 U
2,2-oxybis(1-Chloropropane)		108-60-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Bis(2-ethylhexyl)phthalate		117-81-7	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	100 U	2 U	2 U
4-Bromophenyl phenyl ether		101-55-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Butyl benzyl phthalate		85-68-7	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Caprolactam		105-60-2	NE	10 U	10 U	10 U	10 U	10 U*	10 U*	10 U*	10 U	10 U	10 U	500 U	10 U	10 U
Carbazole		86-74-8	NE	10 U	10 U	10 U	10 U	2.1 J	10 U	10 U	10 U	1.8 J	10 U	500 U	10 U	10 U
4-Chloro-3-methylphenol		59-50-7	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
4-Chloroaniline		106-47-8	5	10 UJ	10 UJ	10 U	10 U	10 U*	10 U*	10 U*	10 U	10 U	10 UJ	500 UJ	10 UJ	10 UJ
2-Chloronaphthalene		91-58-7	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
2-Chlorophenol		95-57-8	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
4-Chlorophenyl phenyl ether		7005-72-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Dibenzofuran		132-64-9	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2.5 J	10 U	500 U	10 U	10 U
3,3-Dichlorobenzidine		91-94-1	5	10 UJ	10 UJ	10 U	10 U	10 U*	10 U*	10 U*	10 U	10 U	10 UJ	500 UJ	10 UJ	10 UJ
2,4-Dichlorophenol		120-83-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Diethyl phthalate		84-66-2	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Dimethyl phthalate		131-11-3	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
2,4-Dimethylphenol		105-67-9	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Di-n-butyl phthalate		84-74-2	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
4,6-Dinitro-2-methylphenol		534-52-1	NE	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1000 U	20 U	20 U
2,4-Dinitrophenol		51-28-5	10*	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1000 U	20 U	20 U
2,4-Dinitrotoluene		121-14-2	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	100 U	2 U	2 U
2,6-Dinitrotoluene		606-20-2	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	100 U	2 U	2 U
Di-n-octyl phthalate		117-84-0	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Hexachlorobenzene		118-74-1	0.04	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	1 UJ	1 U	50 U	1 U	1 U
1,3-Hexachlorobutadiene (C-46)		87-68-3	0.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	50 U	1 U	1 U
Hexachlorocyclopentadiene		77-47-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Hexachloroethane		67-72-1	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	100 U	2 U	2 U
Isophorone		78-59-1	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
2-Methylphenol (o-Cresol)		95-48-7	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
4-Methylphenol (p-Cresol)		106-44-5	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
2-Nitroaniline		88-74-4	5	10 U	10 U	10 U	10 U	10 U*	10 U*	10 U*	10 U	10 U	10 U	500 U	10 U	10 U
3-Nitroaniline		99-09-2	5	10 UJ	10 UJ	10 U	10 U	10 U*	10 U*	10 U*	10 U	10 U	10 UJ	500 UJ	10 UJ	10 UJ

Table 4. Groundwater Analysis Results
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Sample Name Sample Date Parent Sample				RPMW-01S 12/19/2018	RPMW-01I 12/19/2018	RPMW-02S 12/18/2018	RPMW-02I 12/18/2018	RPMW-03S 12/17/2018	RPMW-03I 12/17/2018	RPMW-03D 12/17/2018	RPMW-04S 12/18/2018	RPMW-04I 12/18/2018	RPMW-11S 12/19/2018	RPMW-11I 12/19/2018	RPMW-11D 12/19/2018	RPMW-14S 12/19/2018
Analyte	Units	CAS No.	NYS AWQS													
4-Nitroaniline		100-01-6	5	10 U	10 U	10 U	10 U	10 U*	10 U*	10 U*	10 U	10 U	10 U	500 U	10 U	10 U
Nitrobenzene		98-95-3	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	50 U	1 U	1 U
2-Nitrophenol		88-75-5	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
4-Nitrophenol		100-02-7	NE	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1000 U	20 U	20 U
N-Nitrosodiphenylamine (NDFA)		86-30-6	50*	10 U	10 U	10 U	10 U	10 U*	10 U*	10 U*	10 U	10 U	10 U	500 U	10 U	10 U
N-Nitrosodi-n-propylamine (NDPA)		621-64-7	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	50 U	1 U	1 U
Pentachlorophenol		87-86-5	1	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1000 U	20 U	20 U
Phenol		108-95-2	1	10 U	2.1 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
1,2,4,5-Tetrachlorobenzene		95-94-3	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
2,3,4,6-Tetrachlorophenol		58-90-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
2,4,5-Trichlorophenol		95-95-4	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
2,4,6-Trichlorophenol		88-06-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U	10 U	10 U
Cyanides	ug/L															
Free Cyanide		FREECN	NE	4.9 J	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 UJ	5 UJ
Total Cyanide		57-12-5	200	426 J	68.3 J	373 J	10 UJ	75.3	28.3	10 U	318 J	32 J	188 J	28.1 J	5 J	145 J

Table 4. Groundwater Analysis Results
Rockaway Park Former MGP Site
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Sample Name Sample Date Parent Sample				RPMW-14I 12/19/2018	RPMW-14D 12/19/2018	RPMW-14D2 12/19/2018	RPMW-17I 12/20/2018	RPMW-17D 12/20/2018	DUP-03-122018 12/20/2018 RPMW-17D	RPMW-19S 12/18/2018	RPMW-26A 12/20/2018	RW-01A 12/18/2018	RW-01B 12/18/2018	RW-01C 12/18/2018	RW-02A 12/19/2018	RW-02B 12/19/2018
Analyte	Units	CAS No.	NYS AWQS													
BTEX																
Benzene	ug/L	71-43-2	1	1 U	1 U	0.49 J	16	1 U	1 U	570	1 U	1.9	1 U	1 U	1 U	2
Toluene		108-88-3	5	1 U	1 U	1 U	0.42 J	0.65 J	0.5 J	1.4 J	1 U	1 U	1 U	1 U	1 U	2.4
Ethylbenzene		100-41-4	5	1 U	1 U	1 U	2.7 J	1.8	1.1	7.4	1 U	6.6	1 U	1 U	1 U	2.4
o-Xylene		95-47-6	5	1 U	1 U	1 U	10 J	0.42 J	1 U	15	1 U	1 U	1 U	1 U	1 U	4
m/p-Xylene		179601-23-1	5	0.41 J	1 U	1 U	2 J	1 U	1 U	6.9	1 U	1 U	1 U	1 U	1 U	1.2
Total BTEX (ND=0)		TBTEX_ND0	NE	0.41	ND	0.49	31.12	2.87	1.6	600.7	ND	8.5	ND	ND	ND	12
Other VOCs																
Acetone	ug/L	67-64-1	50*	5 U	5 U	5 U	5 U	5 UJ	5 U	10 U	5 U	31 J	5 U	5 U	5 U	5 U
Bromochloromethane		74-97-5	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane		75-27-4	50*	1 U	1 U	1 U	1 UJ	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform		75-25-2	50*	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	2 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Bromomethane		74-83-9	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 UJ	1 U	1 U
Carbon disulfide		75-15-0	60*	1 U	1 U	0.4 J	1 U	1 U	1 U	2 U	1 U	0.88 J	1 U	1 U	1 U	19
Carbon tetrachloride		56-23-5	5	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	2 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Chlorobenzene		108-90-7	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane		75-00-3	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform (Trichloromethane)		67-66-3	7	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	17
Chloromethane		74-87-3	5	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ
Cyclohexane		110-82-7	NE	1 U	1 U	1 U	3.5	1 U	1 U	0.77 J	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane		96-12-8	0.04	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	2 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane		124-48-1	50*	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	2 U	1 UJ	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane (EDB)		106-93-4	0.0006	1 U	1 U	1 U	1 UJ	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene (o-DCB)		95-50-1	3	1 U	1 U	1 U	1 UJ	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene (m-DCB)		541-73-1	3	1 U	1 U	1 U	1 UJ	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene (p-DCB)		106-46-7	3	1 U	1 U	1 U	1 UJ	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane (Freon 12)		75-71-8	5	1 U	1 U	1 U	1 U	1 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane		75-34-3	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane		107-06-2	0.6	1 U	1 U	1 U	1 UJ	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene		75-35-4	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene		156-59-2	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene		156-60-5	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane		78-87-5	1	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene		10061-01-5	0.4	1 U	1 U	1 U	1 UJ	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene		10061-02-6	0.4	1 U	1 U	1 U	1 UJ	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane		123-91-1	NE	50 U	50 U	50 U	50 UJ	50 UJ	50 UJ	100 U	50 UJ	50 U	50 U	50 U	50 U	50 U
2-Hexanone		591-78-6	50*	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene		98-82-8	5	0.43 J	1 U	1 U	120	1 U	1 U	84	1 U	1 U	1 U	1 U	1.4	1.3
Methyl acetate		79-20-9	NE	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl ethyl ketone (2-Butanone)		78-93-3	50*	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	4.5 J	5 U	5 U	5 U	5 U
Methyl tert-butyl ether (MTBE)		1634-04-4	10*	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone (MIBK)		108-10-1	NE	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane		108-87-2	NE	1 U	1 U	1 U	3.4	1 U	1 U	0.63 J	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride		75-09-2	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene		100-42-5	5	1 U	1 U	1 U	1 UJ	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.44 J
1,1,2,2-Tetrachloroethane		79-34-5	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene (PCE)		127-18-4	5	1 U	1 U	1 U	1 UJ	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		76-13-1	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene		87-61-6	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene		120-82-1	5	1 U	1 U	1 U	1 UJ	1 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane (TCA)		71-55-6	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane		79-00-5	1	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)		79-01-6	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane (Freon 11)		75-69-4	5	1 U	1 U	1 U	1 UJ	1 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride		75-01-4	2	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U

Table 4. Groundwater Analysis Results
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Sample Name Sample Date Parent Sample				RPMW-14I 12/19/2018	RPMW-14D 12/19/2018	RPMW-14D2 12/19/2018	RPMW-17I 12/20/2018	RPMW-17D 12/20/2018	DUP-03-122018 12/20/2018 RPMW-17D	RPMW-19S 12/18/2018	RPMW-26A 12/20/2018	RW-01A 12/18/2018	RW-01B 12/18/2018	RW-01C 12/18/2018	RW-02A 12/19/2018	RW-02B 12/19/2018
Analyte	Units	CAS No.	NYS AWQS													
NYSDEC PAH17																
Acenaphthene	ug/L	83-32-9	20*	1.5 J	10 U	10 U	10 U	10 U	10 U	68	10 U	1.8 J	10 U	10 U	16	6.1 J
Acenaphthylene		208-96-8	NE	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene		120-12-7	50*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	0.72 J
Benzo(a)anthracene		56-55-3	0.002*	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(b)fluoranthene		205-99-2	0.002*	2 U	2 U	2 U	2 UJ	2 U	2 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(k)fluoranthene		207-08-9	0.002*	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(g,h,i)perylene		191-24-2	NE	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	20 U	10 UJ	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene		50-32-8	ND	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Chrysene		218-01-9	0.002*	2 U	2 U	2 U	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibenz(a,h)anthracene		53-70-3	NE	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	2 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Fluoranthene		206-44-0	50*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene		86-73-7	50*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	2.1 J
Indeno(1,2,3-cd)pyrene		193-39-5	0.002*	2 U	2 U	2 U	2 UJ	2 UJ	2 UJ	4 U	2 UJ	2 U	2 U	2 U	2 U	2 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	10 U	10 U	10 U	5 J	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene		91-20-3	10*	10 U	10 U	10 U	1.1 J	10 U	10 U	300	10 U	5.5 J	10 U	10 U	10 U	48 J
Phenanthrene		85-01-8	50*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	0.92 J	10 U	10 U	1.5 J	1.1 J
Pyrene		129-00-0	50*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Total PAH (17) (ND=0)		TPAH17_ND0	NE	1.5	ND	ND	1.1	ND	ND	373	ND	8.22	ND	ND	17.5	58.02
NYSDEC PAH17 Other SVOCs																
Acetophenone	ug/L	98-86-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	1.4 J	10 U	10 U	10 U	10 U
Atrazine		1912-24-9	7.5	2 U	2 U	2 U	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzaldehyde		100-52-7	NE	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Biphenyl (1,1-Biphenyl)		92-52-4	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethoxy)methane		111-91-1	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethyl)ether		111-44-4	1	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
2,2-oxybis(1-Chloropropane)		108-60-1	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-ethylhexyl)phthalate		117-81-7	5	2 U	2 U	2 U	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Bromophenyl phenyl ether		101-55-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Butyl benzyl phthalate		85-68-7	50*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Caprolactam		105-60-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole		86-74-8	NE	1.9 J	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol		59-50-7	NE	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline		106-47-8	5	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	20 U	10 UJ	10 U	10 U	10 U	10 UJ	10 UJ
2-Chloronaphthalene		91-58-7	10*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol		95-57-8	NE	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether		7005-72-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran		132-64-9	NE	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3-Dichlorobenzidine		91-94-1	5	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	20 U	10 UJ	10 U	10 U	10 U	10 UJ	10 UJ
2,4-Dichlorophenol		120-83-2	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl phthalate		84-66-2	50*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate		131-11-3	50*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol		105-67-9	50*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butyl phthalate		84-74-2	50	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol		534-52-1	NE	20 U	20 U	20 U	20 U	20 U	20 U	40 U	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrophenol		51-28-5	10*	20 U	20 U	20 U	20 UJ	20 UJ	20 UJ	40 U	20 UJ	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene		121-14-2	5	2 U	2 U	2 U	2 UJ	2 UJ	2 UJ	4 U	2 UJ	2 U	2 U	2 U	2 U	2 U
2,6-Dinitrotoluene		606-20-2	5	2 U	2 U	2 U	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U
Di-n-octyl phthalate		117-84-0	50*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene		118-74-1	0.04	1 U	1 U	1 U	1 U	1 U	1 U	2 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U
1,3-Hexachlorobutadiene (C-46)		87-68-3	0.5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachlorocyclopentadiene		77-47-4	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane		67-72-1	5	2 U	2 U	2 U	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U
Isophorone		78-59-1	50*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	10 U	10 U	10 U	5 J	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol (o-Cresol)		95-48-7	1	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol (p-Cresol)		106-44-5	1	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	0.97 J	10 U	10 U	10 U	10 U
2-Nitroaniline		88-74-4	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline		99-09-2	5	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	20 U	10 UJ	10 U	10 U	10 U	10 UJ	10 UJ

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Sample Name Sample Date Parent Sample				RPMW-14I 12/19/2018	RPMW-14D 12/19/2018	RPMW-14D2 12/19/2018	RPMW-17I 12/20/2018	RPMW-17D 12/20/2018	DUP-03-122018 12/20/2018 RPMW-17D	RPMW-19S 12/18/2018	RPMW-26A 12/20/2018	RW-01A 12/18/2018	RW-01B 12/18/2018	RW-01C 12/18/2018	RW-02A 12/19/2018	RW-02B 12/19/2018
Analyte	Units	CAS No.	NYS AWQS													
4-Nitroaniline		100-01-6	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene		98-95-3	0.4	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Nitrophenol		88-75-5	NE	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol		100-02-7	NE	20 U	20 U	20 U	20 U	20 U	20 U	40 U	20 U	20 U	20 U	20 U	20 U	20 U
N-Nitrosodiphenylamine (NDFA)		86-30-6	50*	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine (NDPA)		621-64-7	NE	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Pentachlorophenol		87-86-5	1	20 U	20 U	20 U	20 U	20 U	20 U	40 U	20 U	20 U	20 U	20 U	20 U	20 U
Phenol		108-95-2	1	10 U	10 U	10 U	10 U	10 U	10 U	1.7 J	10 U	31	10 U	10 U	10 U	10 U
1,2,4,5-Tetrachlorobenzene		95-94-3	5	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol		58-90-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol		95-95-4	NE	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol		88-06-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U
Cyanides	ug/L															
Free Cyanide		FREECN	NE	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	3.4 J	2.1 J	1.9 J	5 U	3.8 J	5 UJ	5 UJ
Total Cyanide		57-12-5	200	17.5 J	10 UJ	38.7 J	30.9 J	10 UJ	10 UJ	336 J	66.1 J	545	4.8 J	10 UJ	305 J	15.5 J

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Sample Name Sample Date Parent Sample				Dup-2-121918 12/19/2018 RW-02B	RW-04A 12/17/2018	RW-04B 12/17/2018	DUP-01-121718 12/17/2018 RW-04B	RW-05A 12/17/2018	RW-05C 12/17/2018	RW-12A 12/17/2018	RW-12B 12/17/2018	RW-13A 12/19/2018	RW-13B 12/19/2018	RW-18A 12/19/2018	RW-18B 12/19/2018	RW-18C 12/19/2018
Analyte	Units	CAS No.	NYS AWQS													
BTEX																
Benzene	ug/L	71-43-2	1	2	160	9.4	9.4	16	2800	250	5.2	1300	1 U	37	12	1 U
Toluene		108-88-3	5	2.4	3.9	1.8	1.9	0.48 J	17 J	6.8 J	0.45 J	20	1 U	17	1 U	1 U
Ethylbenzene		100-41-4	5	2.3	310	82	82	7.5	2800	3000	270	1900	1 U	5.1	3.9	1 U
o-Xylene		95-47-6	5	4.2	61	31	31	2.6	290	900	110	230	1 U	9.9	1 U	1 U
m/p-Xylene		179601-23-1	5	1.1	6.8	3.2	3.5	1	120	1000	12	59	1 U	14	1 U	1 U
Total BTEX (ND=0)		TBTEX_ND0	NE	12	541.7	127.4	127.8	27.58	6027	5156.8	397.65	3509	ND	83	15.9	ND
Other VOCs																
Acetone	ug/L	67-64-1	50*	5 U	5 U	5 U	5 U	5 U	100 U	50 U	5 U	25 U	5 U	13 U	5 U	5 U
Bromochloromethane		74-97-5	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
Bromodichloromethane		75-27-4	50*	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
Bromoform		75-25-2	50*	1 U	1 U*	1 U*	1 U	1 U*	20 U	10 U*	1 U*	5 UJ	1 U	1 U	1 U	1 U
Bromomethane		74-83-9	5	1 UJ	1 U	1 U	1 UJ	1 U	20 U	10 U	1 U	5 U	1 UJ	1 U	1 U	1 U
Carbon disulfide		75-15-0	60*	20	1.3	1.7	0.37 J	0.25 JB	6 J	7.4 J	0.77 JB	5 U	1 U	0.77 J	0.62 J	0.35 J
Carbon tetrachloride		56-23-5	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 UJ	1 U	1 U	1 U	1 U
Chlorobenzene		108-90-7	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
Chloroethane		75-00-3	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
Chloroform (Trichloromethane)		67-66-3	7	18	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	0.7 J	1 U
Chloromethane		74-87-3	5	1 UJ	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 UJ	1 UJ	1 UJ	1 UJ
Cyclohexane		110-82-7	NE	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	2.2 J	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane		96-12-8	0.04	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 UJ	1 U	1 U	1 U	1 U
Dibromochloromethane		124-48-1	50*	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 UJ	1 U	1 U	1 U	1 U
1,2-Dibromoethane (EDB)		106-93-4	0.0006	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene (o-DCB)		95-50-1	3	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene (m-DCB)		541-73-1	3	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene (p-DCB)		106-46-7	3	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane (Freon 12)		75-71-8	5	1 UJ	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 UJ	1 U	1 U	1 U
1,1-Dichloroethane		75-34-3	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane		107-06-2	0.6	1 U	1 U*	1 U*	1 U	1 U	20 U	10 U*	1 U	5 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene		75-35-4	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene		156-59-2	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene		156-60-5	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane		78-87-5	1	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene		10061-01-5	0.4	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene		10061-02-6	0.4	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
1,4-Dioxane		123-91-1	NE	50 U	50 U	50 U	50 U	50 U	1000 U	500 U	50 U	250 UJ	50 U	50 U	50 U	50 U
2-Hexanone		591-78-6	50*	5 U	5 U	5 U	5 U	5 U	100 U	50 U	5 U	25 U	5 U	5 U	5 U	5 U
Isopropylbenzene		98-82-8	5	1.3	9.5	4.8	4.5	15	75	63	4.3	85	1 U	0.39 J	1.3	1 U
Methyl acetate		79-20-9	NE	5 U	5 U	5 U	5 U	5 U	100 U	50 U	5 U	25 U	5 U	5 U	5 U	5 U
Methyl ethyl ketone (2-Butanone)		78-93-3	50*	5 U	5 U	5 U	5 U	5 U	100 U	50 U	5 U	25 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether (MTBE)		1634-04-4	10*	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	2.7 J	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone (MIBK)		108-10-1	NE	5 U	5 U	5 U	5 U	5 U	100 U	50 U	5 U	25 U	5 U	11	5 U	5 U
Methylcyclohexane		108-87-2	NE	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	2.2 J	1 U	1 U	1 U	1 U
Methylene chloride		75-09-2	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
Styrene		100-42-5	5	0.47 J	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1.8	1 U	1 U
1,1,2,2-Tetrachloroethane		79-34-5	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
Tetrachloroethene (PCE)		127-18-4	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		76-13-1	5	1 UJ	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 UJ	1 U	1 U	1 U
1,2,3-Trichlorobenzene		87-61-6	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene		120-82-1	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane (TCA)		71-55-6	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane		79-00-5	1	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)		79-01-6	5	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane (Freon 11)		75-69-4	5	1 UJ	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 UJ	1 U	1 U	1 U
Vinyl chloride		75-01-4	2	1 U	1 U	1 U	1 U	1 U	20 U	10 U	1 U	5 U	1 U	1 U	1 U	1 U

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Sample Name Sample Date Parent Sample				Dup-2-121918 12/19/2018 RW-02B	RW-04A 12/17/2018	RW-04B 12/17/2018	DUP-01-121718 12/17/2018 RW-04B	RW-05A 12/17/2018	RW-05C 12/17/2018	RW-12A 12/17/2018	RW-12B 12/17/2018	RW-13A 12/19/2018	RW-13B 12/19/2018	RW-18A 12/19/2018	RW-18B 12/19/2018	RW-18C 12/19/2018
Analyte	Units	CAS No.	NYS AWQS													
NYSDEC PAH17																
Acenaphthene	ug/L	83-32-9	20*	1.8 J	5.5 J	5.1 J	5.8 J	240	140 J	150 J	11	49 J	10 U	5.2 J	10 U	10 U
Acenaphthylene		208-96-8	NE	8.4 J	10 U	7.2 J	7.3 J	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Anthracene		120-12-7	50*	10 U	10 U	10 U	10 U	7.7 J	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene		56-55-3	0.002*	1 U	1 U	1 U	1 U	1.5 J	50 U	25 U	1 U	5 U	1 U	1 U	1 U	1 U
Benzo(b)fluoranthene		205-99-2	0.002*	2 U	2 U	2 U	2 U	4 U	100 U	50 U	2 U	10 U	2 U	2 U	2 U	2 U
Benzo(k)fluoranthene		207-08-9	0.002*	1 U	1 U	1 U	1 U	2 U	50 U	25 U	1 U	5 U	1 U	1 U	1 U	1 U
Benzo(g,h,i)perylene		191-24-2	NE	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene		50-32-8	ND	1 U	1 U	1 U	1 U	2 U	50 U	25 U	1 U	5 U	1 U	1 U	1 U	1 U
Chrysene		218-01-9	0.002*	2 U	2 U	2 U	2 U	4 U	100 U	50 U	2 U	10 U	2 U	2 U	2 U	2 U
Dibenz(a,h)anthracene		53-70-3	NE	1 U	1 U	1 U	1 U	2 U	50 U	25 U	1 U	5 U	1 U	1 U	1 U	1 U
Fluoranthene		206-44-0	50*	10 U	10 U	10 U	10 U	10 J	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Fluorene		86-73-7	50*	10 U	10 U	1 J	0.95 J	100	500 U	34 J	1.7 J	21 J	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene		193-39-5	0.002*	2 U	2 U	2 U	2 U	4 U	100 U	50 U	2 U	10 U	2 U	2 U	2 U	2 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	10 U	20 U	510	490	2.9 J	40 J	10 U	10 U	10 U	10 U
Naphthalene		91-20-3	10*	31 J	10 U	71	72	2.7 J	7000	2700	140	580	10 U	10 U	10 U	10 U
Phenanthrene		85-01-8	50*	10 U	10 U	1 J	0.99 J	120	500 U	24 J	0.82 J	21 J	10 U	10 U	10 U	10 U
Pyrene		129-00-0	50*	10 U	10 U	50*	10 U	13 J	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Total PAH (17) (ND=0)		TPAH17_ND0	NE	41.2	5.5	85.3	87.04	494.9	7650	3398	156.42	711	ND	5.2	ND	ND
NYSDEC PAH17 Other SVOCs																
Acetophenone	ug/L	98-86-2	NE	1.1 J	10 U	10 U	10 U	20 U	500 U	250 U	2 J	50 U	10 U	10 U	10 U	10 U
Atrazine		1912-24-9	7.5	2 U	2 U*	2 U*	2 U*	4 U*	100 U*	50 U*	2 U	10 U	2 U	2 U	2 U	2 U
Benzaldehyde		100-52-7	NE	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Biphenyl (1,1-Biphenyl)		92-52-4	5	10 U	10 U	10 U	10 U	28	500 U	35 J	2.3 J	50 U	10 U	10 U	10 U	10 U
Bis(2-chloroethoxy)methane		111-91-1	5	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Bis(2-chloroethyl)ether		111-44-4	1	1 U	1 U	1 U	1 U	2 U	50 U	25 U	1 U	5 U	1 U	1 U	1 U	1 U
2,2-oxybis(1-Chloropropane)		108-60-1	5	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Bis(2-ethylhexyl)phthalate		117-81-7	5	2 U	2 U	2 U	2 U	4 U	100 U	50 U	2 U	10 U	2 U	2 U	2 U	2 U
4-Bromophenyl phenyl ether		101-55-3	NE	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Butyl benzyl phthalate		85-68-7	50*	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Caprolactam		105-60-2	NE	10 U	10 U*	10 U*	10 U*	20 U*	500 U*	250 U*	10 U	50 U	10 U	10 U	10 U	10 U
Carbazole		86-74-8	NE	10 U	0.94 J	14	13	5.5 J	500 U	23 J	10 U	5.6 J	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol		59-50-7	NE	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
4-Chloroaniline		106-47-8	5	10 UJ	10 U*	10 U*	10 U*	20 U*	500 U*	250 U*	10 U	50 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2-Chloronaphthalene		91-58-7	10*	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
2-Chlorophenol		95-57-8	NE	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether		7005-72-3	NE	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Dibenzofuran		132-64-9	NE	10 U	10 U	10 U	10 U	13 J	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
3,3-Dichlorobenzidine		91-94-1	5	10 UJ	10 U*	10 U*	10 U*	20 U*	500 U*	250 U*	10 U	50 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,4-Dichlorophenol		120-83-2	5	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Diethyl phthalate		84-66-2	50*	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Dimethyl phthalate		131-11-3	50*	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol		105-67-9	50*	10 U	4.9 J	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Di-n-butyl phthalate		84-74-2	50	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol		534-52-1	NE	20 U	20 U	20 U	20 U*	40 U	1000 U	500 U*	20 U	100 U	20 U	20 U	20 U	20 U
2,4-Dinitrophenol		51-28-5	10*	20 U	20 U	20 U	20 U	40 U	1000 U	500 U	20 U	100 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene		121-14-2	5	2 U	2 U	2 U	2 U	4 U	100 U	50 U	2 U	10 UJ	2 U	2 U	2 U	2 U
2,6-Dinitrotoluene		606-20-2	5	2 U	2 U	2 U	2 U	4 U	100 U	50 U	2 U	10 U	2 U	2 U	2 U	2 U
Di-n-octyl phthalate		117-84-0	50*	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 UJ	10 U	10 U	10 U	10 U
Hexachlorobenzene		118-74-1	0.04	1 U	1 U	1 U	1 U	2 U	50 U	25 U	1 U	5 U	1 U	1 U	1 U	1 U
1,3-Hexachlorobutadiene (C-46)		87-68-3	0.5	1 U	1 U	1 U	1 U	2 U	50 U	25 U	1 U	5 U	1 U	1 U	1 U	1 U
Hexachlorocyclopentadiene		77-47-4	5	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Hexachloroethane		67-72-1	5	2 U	2 U	2 U	2 U	4 U	100 U	50 U	2 U	10 U	2 U	2 U	2 U	2 U
Isophorone		78-59-1	50*	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene		91-57-6	NE	10 U	10 U	10 U	10 U	20 U	510	490	2.9 J	40 J	10 U	10 U	10 U	10 U
2-Methylphenol (o-Cresol)		95-48-7	1	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
4-Methylphenol (p-Cresol)		106-44-5	1	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
2-Nitroaniline		88-74-4	5	10 U	10 U*	10 U*	10 U	20 U*	500 U*	250 U	10 U	50 U	10 U	10 U	10 U	10 U
3-Nitroaniline		99-09-2	5	10 UJ	10 U*	10 U*	10 U*	20 U*	500 U*	250 U*	10 U	50 UJ	10 UJ	10 UJ	10 UJ	10 UJ

Table 4. Groundwater Analysis Results
Rockaway Park Former MGP Site
National Grid
Rockaway Park, New York

Sample Name Sample Date Parent Sample				Dup-2-121918 12/19/2018 RW-02B	RW-04A 12/17/2018	RW-04B 12/17/2018	DUP-01-121718 12/17/2018 RW-04B	RW-05A 12/17/2018	RW-05C 12/17/2018	RW-12A 12/17/2018	RW-12B 12/17/2018	RW-13A 12/19/2018	RW-13B 12/19/2018	RW-18A 12/19/2018	RW-18B 12/19/2018	RW-18C 12/19/2018
Analyte	Units	CAS No.	NYS AWQS													
4-Nitroaniline		100-01-6	5	10 U	10 U*	10 U*	10 U*	20 U*	500 U*	250 U*	10 U	50 U	10 U	10 U	10 U	10 U
Nitrobenzene		98-95-3	0.4	1 U	1 U	1 U	1 U	2 U	50 U	25 U	1 U	5 U	1 U	1 U	1 U	1 U
2-Nitrophenol		88-75-5	NE	10 U	10 U	10 U	10 U*	20 U	500 U	250 U*	10 U	50 U	10 U	10 U	10 U	10 U
4-Nitrophenol		100-02-7	NE	20 U	20 U	20 U	20 U	40 U	1000 U	500 U	20 U	100 U	20 U	20 U	20 U	20 U
N-Nitrosodiphenylamine (NDFA)		86-30-6	50*	10 U	10 U*	10 U*	10 U	20 U*	500 U*	250 U	10 U	50 U	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine (NDPA)		621-64-7	NE	1 U	1 U	1 U	1 U	2 U	50 U	25 U	1 U	5 U	1 U	1 U	1 U	1 U
Pentachlorophenol		87-86-5	1	20 U	20 U	20 U	20 U*	40 U	1000 U	500 U*	20 U	100 U	20 U	20 U	20 U	20 U
Phenol		108-95-2	1	10 U	5.1 J	10 U	10 U	1.7 J	29 J	250 U	10 U	50 U	10 U	10 U	10 U	10 U
1,2,4,5-Tetrachlorobenzene		95-94-3	5	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol		58-90-2	NE	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol		95-95-4	NE	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol		88-06-2	NE	10 U	10 U	10 U	10 U	20 U	500 U	250 U	10 U	50 U	10 U	10 U	10 U	10 U
Cyanides	ug/L															
Free Cyanide		FREECN	NE	5 UJ	5 U	5 U	5 U	5 U	5 U	1.9 J	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Total Cyanide		57-12-5	200	11 J	252	24	16.5	359	518	104	10 U	197 J	10 UJ	67.2 J	126 J	10 UJ

Table 4. Groundwater Analysis Results
Rockaway Park Former MGP Site
National Grid
Rockaway Park, New York

Sample Name Sample Date Parent Sample				RW-19A 12/18/2018	RW-19B 12/18/2018	RW-19C 12/18/2018	RW-20A 12/18/2018	RW-20B 12/18/2018	RW-20C 12/18/2018
Analyte	Units	CAS No.	NYS AWQS						
BTEX	ug/L								
Benzene		71-43-2	1	1 U	370 J	1 U	1 U	430	1 U
Toluene		108-88-3	5	1 U	5 J	1 U	1 U	4.7 J	1 U
Ethylbenzene		100-41-4	5	1 U	440 J	1 U	1 U	750	1 U
o-Xylene		95-47-6	5	1 U	39 J	1 U	1 U	67	1 U
m/p-Xylene		179601-23-1	5	0.34 J	18 J	1 U	1 U	19	1 U
Total BTEX (ND=0)		TBTEX_ND0	NE	0.34	872	ND	ND	1270.7	ND
Other VOCs	ug/L								
Acetone		67-64-1	50*	7.2 U	25 R	5 U	5 U	25 U	5 U
Bromochloromethane		74-97-5	5	1 U	5 R	1 U	1 U	5 U	1 U
Bromodichloromethane		75-27-4	50*	1 U	5 R	1 U	1 U	5 U	1 U
Bromoform		75-25-2	50*	1 U	5 R	1 U	1 U	5 U	1 U
Bromomethane		74-83-9	5	1 U	5 R	1 U	1 U	5 U	1 U
Carbon disulfide		75-15-0	60*	1 U	5 R	1 U	1 U	5 U	1 U
Carbon tetrachloride		56-23-5	5	1 U	5 R	1 U	1 U	5 U	1 U
Chlorobenzene		108-90-7	5	1 U	5 R	1 U	1 U	5 U	1 U
Chloroethane		75-00-3	5	1 U	5 R	1 U	1 U	5 U	1 U
Chloroform (Trichloromethane)		67-66-3	7	1 U	5 R	1 U	1 U	5 U	1 U
Chloromethane		74-87-3	5	1 U	5 R	1 U	1 U	5 U	1 U
Cyclohexane		110-82-7	NE	1 U	5 R	1 U	1 U	5 U	0.36 J
1,2-Dibromo-3-chloropropane		96-12-8	0.04	1 U	5 R	1 U	1 U	5 U	1 U
Dibromochloromethane		124-48-1	50*	1 U	5 R	1 U	1 U	5 U	1 U
1,2-Dibromoethane (EDB)		106-93-4	0.0006	1 U	5 R	1 U	1 U	5 U	1 U
1,2-Dichlorobenzene (o-DCB)		95-50-1	3	1 U	5 R	1 U	1 U	5 U	1 U
1,3-Dichlorobenzene (m-DCB)		541-73-1	3	1 U	5 R	1 U	1 U	5 U	1 U
1,4-Dichlorobenzene (p-DCB)		106-46-7	3	1 U	5 R	1 U	1 U	5 U	1 U
Dichlorodifluoromethane (Freon 12)		75-71-8	5	1 U	5 R	1 U	1 U	5 U	1 U
1,1-Dichloroethane		75-34-3	5	1 U	5 R	1 U	1 U	5 U	1 U
1,2-Dichloroethane		107-06-2	0.6	1 U	5 R	1 U	1 U	5 U	1 U
1,1-Dichloroethene		75-35-4	5	1 U	5 R	1 U	1 U	5 U	1 U
cis-1,2-Dichloroethene		156-59-2	5	1 U	5 R	1 U	1 U	5 U	1 U
trans-1,2-Dichloroethene		156-60-5	5	1 U	5 R	1 U	1 U	5 U	1 U
1,2-Dichloropropane		78-87-5	1	1 U	5 R	1 U	1 U	5 U	1 U
cis-1,3-Dichloropropene		10061-01-5	0.4	1 U	5 R	1 U	1 U	5 U	1 U
trans-1,3-Dichloropropene		10061-02-6	0.4	1 U	5 R	1 U	1 U	5 U	1 U
1,4-Dioxane		123-91-1	NE	50 U	250 R	50 U	50 U	250 U	50 U
2-Hexanone		591-78-6	50*	5 U	25 R	5 U	5 U	25 U	5 U
Isopropylbenzene		98-82-8	5	1 U	38 J	1 U	1 U	36	0.51 J
Methyl acetate		79-20-9	NE	5 U	25 R	5 U	5 U	25 U	5 U
Methyl ethyl ketone (2-Butanone)		78-93-3	50*	5 U	25 R	5 U	5 U	25 U	5 U
Methyl tert-butyl ether (MTBE)		1634-04-4	10*	1 U	5 R	1 U	1 U	5 U	1 U
4-Methyl-2-pentanone (MIBK)		108-10-1	NE	5 U	25 R	5 U	5 U	25 U	5 U
Methylcyclohexane		108-87-2	NE	1 U	5 R	1 U	1 U	5 U	1 U
Methylene chloride		75-09-2	5	1 U	5 R	1 U	1 U	5 U	1 U
Styrene		100-42-5	5	1 U	5 R	1 U	1 U	5 U	1 U
1,1,2,2-Tetrachloroethane		79-34-5	5	1 U	5 R	1 U	1 U	5 U	1 U
Tetrachloroethene (PCE)		127-18-4	5	1 U	5 R	1 U	1 U	5 U	1 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		76-13-1	5	1 U	5 R	1 U	1 U	5 U	1 U
1,2,3-Trichlorobenzene		87-61-6	5	1 U	5 R	1 U	1 U	5 U	1 U
1,2,4-Trichlorobenzene		120-82-1	5	1 U	5 R	1 U	1 U	5 U	1 U
1,1,1-Trichloroethane (TCA)		71-55-6	5	1 U	5 R	1 U	1 U	5 U	1 U
1,1,2-Trichloroethane		79-00-5	1	1 U	5 R	1 U	1 U	5 U	1 U
Trichloroethene (TCE)		79-01-6	5	1 U	5 R	1 U	1 U	5 U	1 U
Trichlorofluoromethane (Freon 11)		75-69-4	5	1 U	5 R	1 U	1 U	5 U	1 U
Vinyl chloride		75-01-4	2	1 U	5 R	1 U	1 U	5 U	1 U

Table 4. Groundwater Analysis Results
Rockaway Park Former MGP Site
National Grid
Rockaway Park, New York

Sample Name Sample Date Parent Sample				RW-19A 12/18/2018	RW-19B 12/18/2018	RW-19C 12/18/2018	RW-20A 12/18/2018	RW-20B 12/18/2018	RW-20C 12/18/2018
Analyte	Units	CAS No.	NYS AWQS						
NYSDEC PAH17	ug/L								
Acenaphthene		83-32-9	20*	10 U	70 J	10 U	10 U	120	10 U
Acenaphthylene		208-96-8	NE	10 U	200 U	10 U	10 U	20 U	10 U
Anthracene		120-12-7	50*	10 U	200 U	10 U	10 U	4.2 J	10 U
Benzo(a)anthracene		56-55-3	0.002*	1 U	20 U	1 U	1 U	2 U	1 U
Benzo(b)fluoranthene		205-99-2	0.002*	2 U	40 U	2 U	2 U	4 U	2 U
Benzo(k)fluoranthene		207-08-9	0.002*	1 U	20 U	1 U	1 U	2 U	1 U
Benzo(g,h,i)perylene		191-24-2	NE	10 U	200 U	10 U	10 U	20 U	10 U
Benzo(a)pyrene		50-32-8	ND	1 U	20 U	1 U	1 U	2 U	1 U
Chrysene		218-01-9	0.002*	2 U	40 U	2 U	2 U	4 U	2 U
Dibenz(a,h)anthracene		53-70-3	NE	1 U	20 U	1 U	1 U	2 U	1 U
Fluoranthene		206-44-0	50*	10 U	200 U	10 U	10 U	20 U	10 U
Fluorene		86-73-7	50*	10 U	200 U	10 U	10 U	31	10 U
Indeno(1,2,3-cd)pyrene		193-39-5	0.002*	2 U	40 U	2 U	2 U	4 U	2 U
2-Methylnaphthalene		91-57-6	NE	10 U	51 J	10 U	10 U	200	10 U
Naphthalene		91-20-3	10*	10 U	2400	1.2 J	10 U	20 U	10 U
Phenanthrene		85-01-8	50*	10 U	200 U	10 U	10 U	28	10 U
Pyrene		129-00-0	50*	10 U	200 U	10 U	10 U	20 U	2.6 J
Total PAH (17) (ND=0)		TPAH17_ND0	NE	ND	2521	1.2	ND	383.2	2.6
NYSDEC PAH17 Other SVOCs	ug/L								
Acetophenone		98-86-2	NE	2.5 J	200 U	10 U	10 U	20 U	10 U
Atrazine		1912-24-9	7.5	2 U	40 U	2 U	2 U	4 U	2 U
Benzaldehyde		100-52-7	NE	10 U	200 U	10 U	10 U	20 U	10 U
Biphenyl (1,1-Biphenyl)		92-52-4	5	10 U	200 U	10 U	10 U	22	10 U
Bis(2-chloroethoxy)methane		111-91-1	5	10 U	200 U	10 U	10 U	20 U	10 U
Bis(2-chloroethyl)ether		111-44-4	1	1 U	20 U	1 U	1 U	2 U	1 U
2,2-oxybis(1-Chloropropane)		108-60-1	5	10 U	200 U	10 U	10 U	20 U	10 U
Bis(2-ethylhexyl)phthalate		117-81-7	5	2 U	40 U	2 U	2 U	4 U	2 U
4-Bromophenyl phenyl ether		101-55-3	NE	10 U	200 U	10 U	10 U	20 U	10 U
Butyl benzyl phthalate		85-68-7	50*	10 U	200 U	10 U	10 U	20 U	10 U
Caprolactam		105-60-2	NE	10 U	200 U	10 U	10 U	20 U	10 U
Carbazole		86-74-8	NE	10 U	17 J	10 U	10 U	12 J	10 U
4-Chloro-3-methylphenol		59-50-7	NE	10 U	200 U	10 U	10 U	20 U	10 U
4-Chloroaniline		106-47-8	5	10 U	200 U	10 U	10 U	20 U	10 U
2-Chloronaphthalene		91-58-7	10*	10 U	200 U	10 U	10 U	20 U	10 U
2-Chlorophenol		95-57-8	NE	10 U	200 U	10 U	10 U	20 U	10 U
4-Chlorophenyl phenyl ether		7005-72-3	NE	10 U	200 U	10 U	10 U	20 U	10 U
Dibenzofuran		132-64-9	NE	10 U	200 U	10 U	10 U	5.7 J	10 U
3,3-Dichlorobenzidine		91-94-1	5	10 U	200 U	10 U	10 U	20 U	10 U
2,4-Dichlorophenol		120-83-2	5	10 U	200 U	10 U	10 U	20 U	10 U
Diethyl phthalate		84-66-2	50*	10 U	200 U	10 U	10 U	20 U	10 U
Dimethyl phthalate		131-11-3	50*	10 U	200 U	10 U	10 U	20 U	10 U
2,4-Dimethylphenol		105-67-9	50*	10 U	200 U	10 U	10 U	2.2 J	10 U
Di-n-butyl phthalate		84-74-2	50	10 U	200 U	10 U	10 U	20 U	10 U
4,6-Dinitro-2-methylphenol		534-52-1	NE	20 U	400 U	20 U	20 U	40 U	20 U
2,4-Dinitrophenol		51-28-5	10*	20 U	400 U	20 U	20 U	40 U	20 U
2,4-Dinitrotoluene		121-14-2	5	2 U	40 U	2 U	2 U	4 U	2 U
2,6-Dinitrotoluene		606-20-2	5	2 U	40 U	2 U	2 U	4 U	2 U
Di-n-octyl phthalate		117-84-0	50*	10 U	200 U	10 U	10 U	20 U	10 U
Hexachlorobenzene		118-74-1	0.04	1 UJ	20 U	1 UJ	1 UJ	2 UJ	1 UJ
1,3-Hexachlorobutadiene (C-46)		87-68-3	0.5	1 U	20 U	1 U	1 U	2 U	1 U
Hexachlorocyclopentadiene		77-47-4	5	10 U	200 U	10 U	10 U	20 U	10 U
Hexachloroethane		67-72-1	5	2 U	40 U	2 U	2 U	4 U	2 U
Isophorone		78-59-1	50*	10 U	200 U	10 U	10 U	20 U	10 U
2-Methylnaphthalene		91-57-6	NE	10 U	51 J	10 U	10 U	200	10 U
2-Methylphenol (o-Cresol)		95-48-7	1	10 U	200 U	10 U	10 U	20 U	10 U
4-Methylphenol (p-Cresol)		106-44-5	1	10 U	200 U	10 U	10 U	20 U	10 U
2-Nitroaniline		88-74-4	5	10 U	200 U	10 U	10 U	20 U	10 U
3-Nitroaniline		99-09-2	5	10 U	200 U	10 U	10 U	20 U	10 U

Table 4. Groundwater Analysis Results
Rockaway Park Former MGP Site
National Grid
Rockaway Park, New York

Sample Name Sample Date Parent Sample				RW-19A 12/18/2018	RW-19B 12/18/2018	RW-19C 12/18/2018	RW-20A 12/18/2018	RW-20B 12/18/2018	RW-20C 12/18/2018
Analyte	Units	CAS No.	NYS AWQS						
4-Nitroaniline		100-01-6	5	10 U	200 U	10 U	10 U	20 U	10 U
Nitrobenzene		98-95-3	0.4	1 U	20 U	1 U	1 U	2 U	1 U
2-Nitrophenol		88-75-5	NE	10 U	200 U	10 U	10 U	20 U	10 U
4-Nitrophenol		100-02-7	NE	20 U	400 U	20 U	20 U	40 U	20 U
N-Nitrosodiphenylamine (NDFA)		86-30-6	50*	10 U	200 U	10 U	10 U	20 U	10 U
N-Nitrosodi-n-propylamine (NDPA)		621-64-7	NE	1 U	20 U	1 U	1 U	2 U	1 U
Pentachlorophenol		87-86-5	1	2.4 J	400 U	20 U	20 U	40 U	20 U
Phenol		108-95-2	1	10 U	200 U	10 U	10 U	20 U	10 U
1,2,4,5-Tetrachlorobenzene		95-94-3	5	10 U	200 U	10 U	10 U	20 U	10 U
2,3,4,6-Tetrachlorophenol		58-90-2	NE	10 U	200 U	10 U	10 U	20 U	10 U
2,4,5-Trichlorophenol		95-95-4	NE	10 U	200 U	10 U	10 U	20 U	10 U
2,4,6-Trichlorophenol		88-06-2	NE	10 U	200 U	10 U	10 U	20 U	10 U
Cyanides	ug/L								
Free Cyanide		FREECN	NE	9.8	2.4 J	5 U	5 U	2.6 J	5 U
Total Cyanide		57-12-5	200	1340 J	466 J	10 UJ	250 J	580 J	10 UJ

Table 4. Groundwater Analysis Results
Rockaway Park Former MGP Site
National Grid
Rockaway Park, 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

SVOC = Semi-Volatile Organic Compound

VOC = Volatile Organic Compound

Total BTEX and Total PAHs are calculated using detects only.

Total PAH16 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

Total PAH17 is calculated using the EPA16 list of analytes 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

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

Data Qualifiers:

* = The duplicate result was not within control limits.

B = The analyte was detected in the associated method blank.

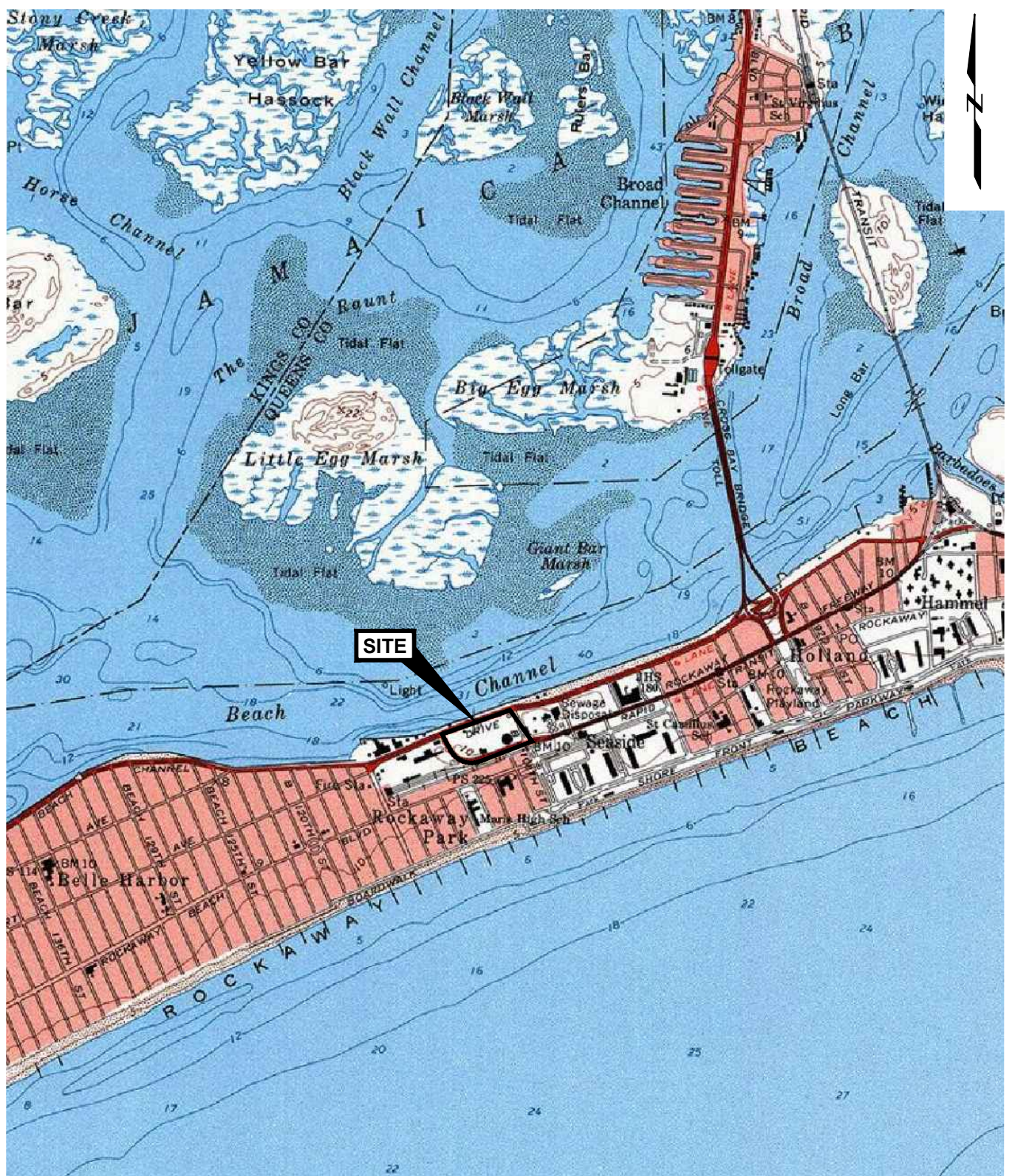
J = The result is an estimated value.

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



SOURCE: Map created with TOPO!® © 2001 National Geographic
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0 2000 4000
SCALE: 1" = 2000'

Groundwater Monitoring Report
Rockaway Park Former MGP Site
Rockaway Park, New York

nationalgrid

GEI Consultants

SITE LOCATION MAP

Project 093150

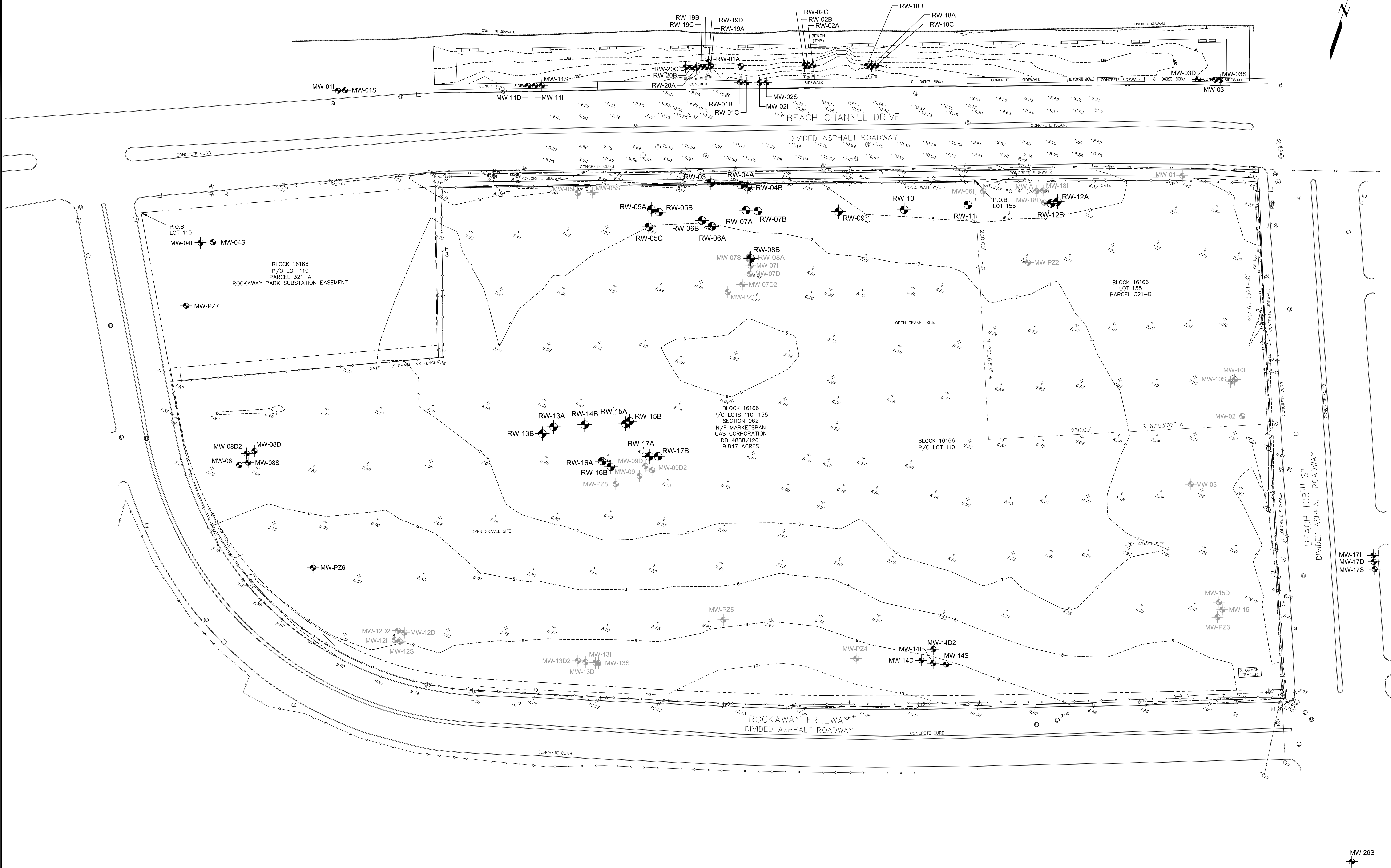
June 2019

Fig. 1

JAMAICA BAY

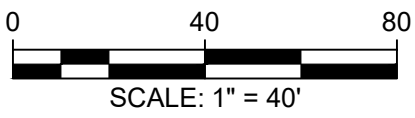
LEGEND:

	RW-15B	DNAPL MONITORING WELL
	MW-08D	EXISTING GROUNDWATER MONITORING WELL
	RW-08A	ABANDONED DESTROYED WELLS
		PROPERTY BOUNDARY
	6	GROUND SURFACE MINOR CONTOUR
	10	GROUND SURFACE MAJOR CONTOUR
		FENCE
		EXISTING STRUCTURE
		HISTORIC STRUCTURE
		SHEET PILE BARRIER WALL
	G	GAS LINE
	E	ELECTRIC LINE
	OH	OVERHEAD ELECTRIC LINE
	OH	OVERHEAD LINE
	STM	STORM SEWER LINE
	W	WATER LINE
	*	LIGHT POLE
	M	MANHOLE
	U	UTILITY POLE
	V	VALVE



NOTE:
1. MONITOR WELL LOCATION AND ELEVATION TAKEN AT NORTH EDGE OF PVC PIPE. ELEVATION DATUM FOR ALL MONITOR WELLS IS BOROUGH OF QUEENS DATUM.

SOURCE:
1. BOUNDARY SURVEY, SECTION 062 - BLOCK 16166 - LOTS 110 & 155, ROCKAWAY PARK, QUEENS COUNTY, NEW YORK, PREPARED BY KENNON SURVEYING SERVICES INC., SCALE: 1" = 40', DATE: NOVEMBER 2016.

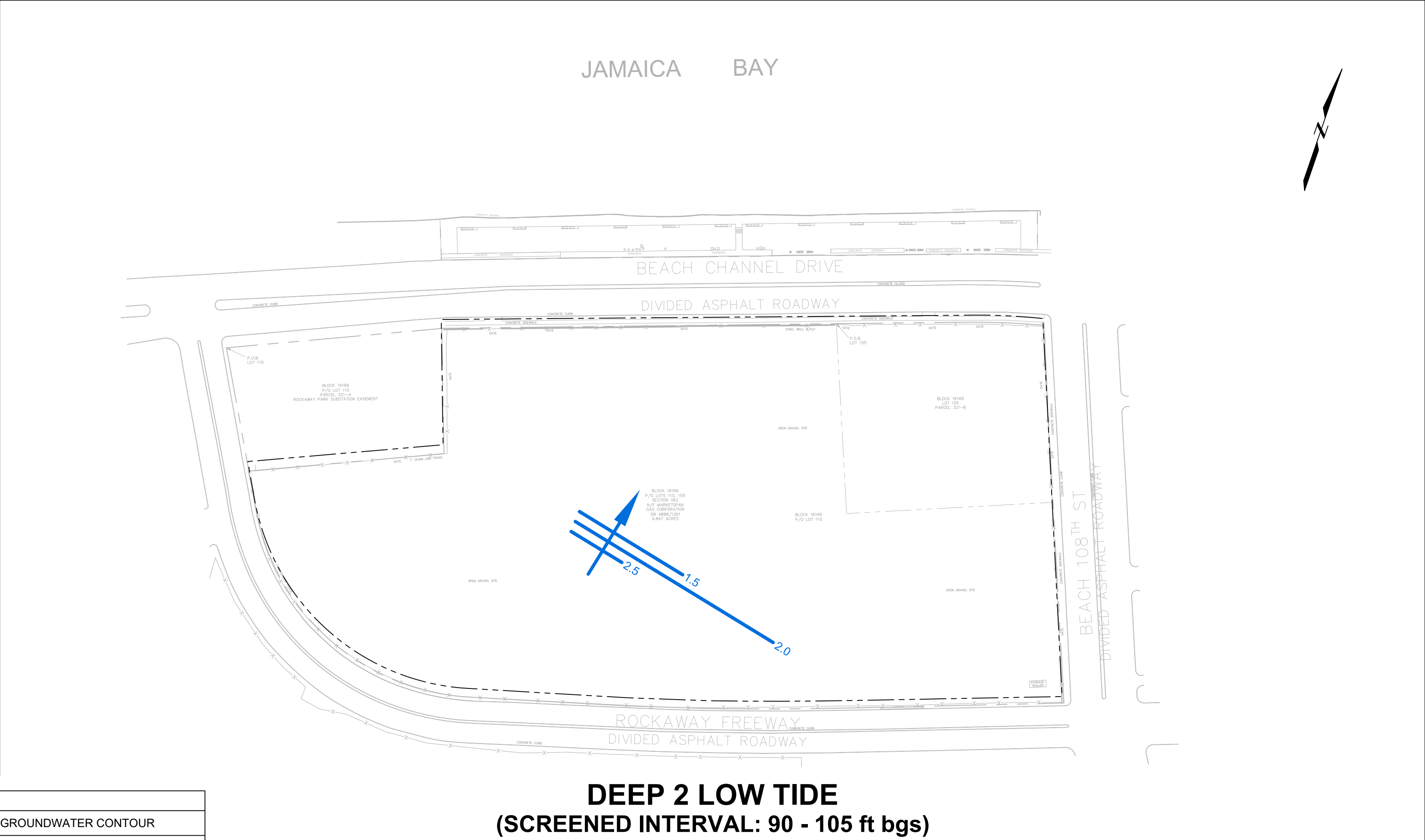
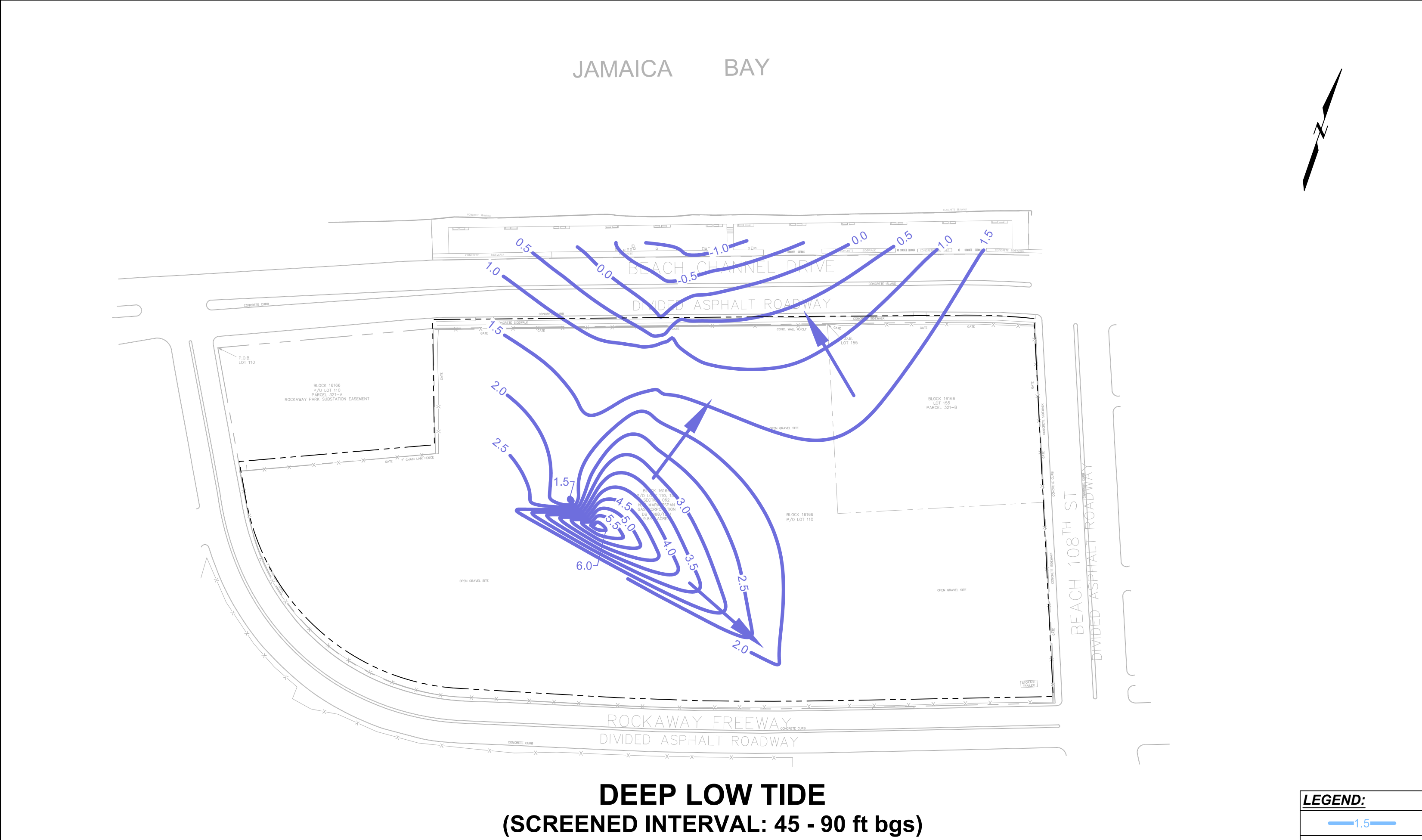
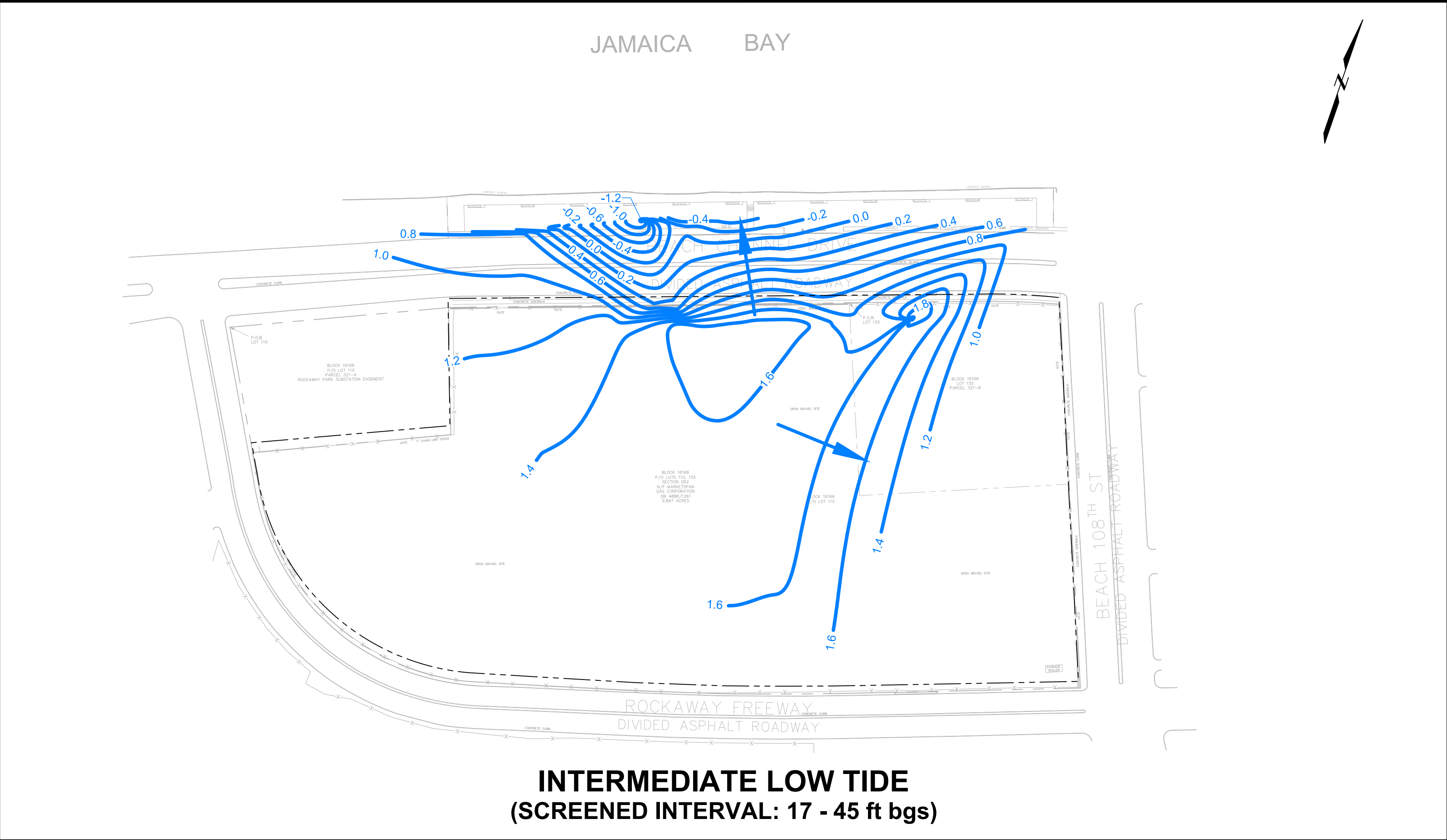
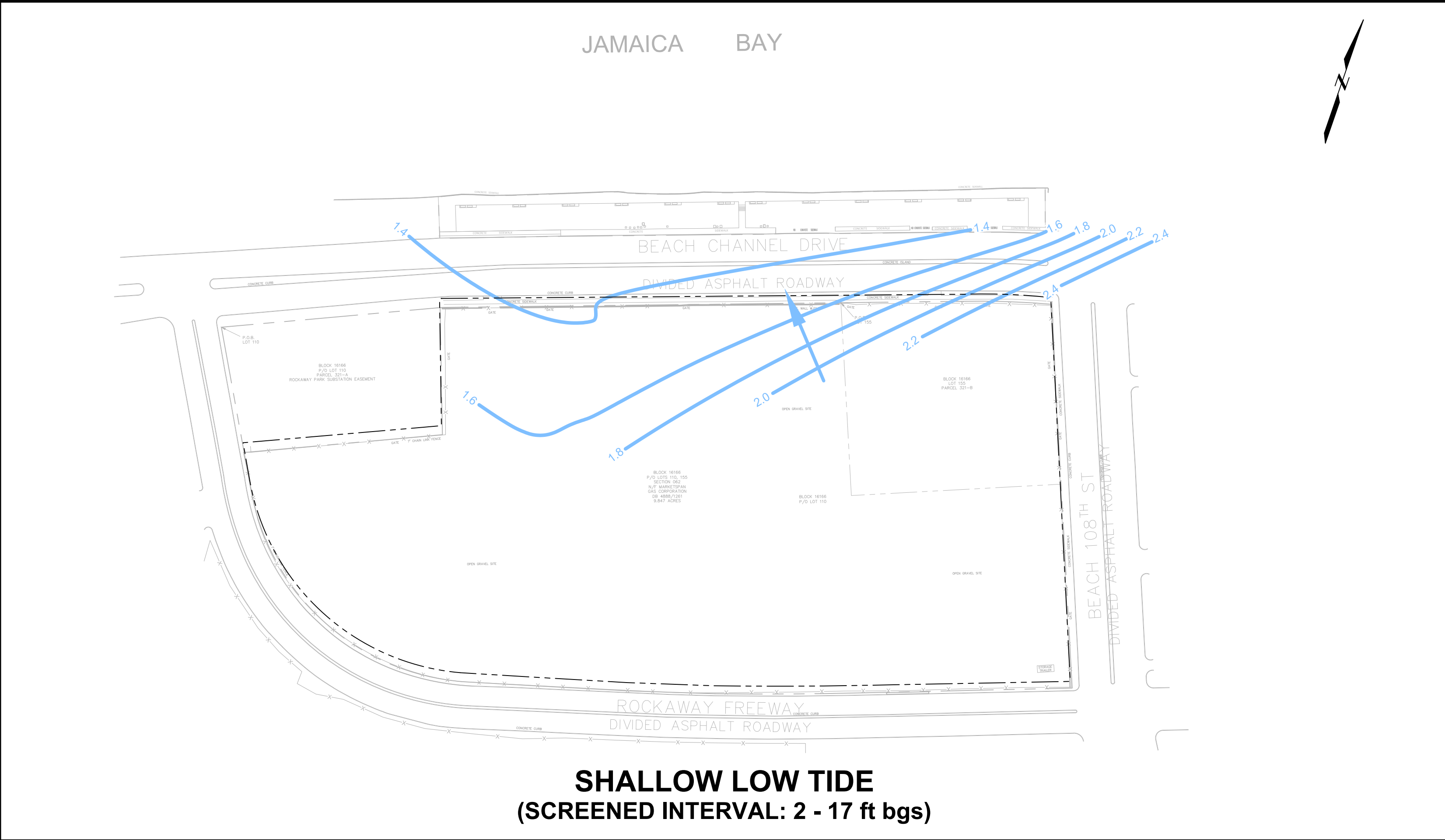


Groundwater Monitoring Report
Rockaway Park Former MGP Site
Rockaway Park, New York

Project 093150

MONITORING WELL
LOCATION MAP

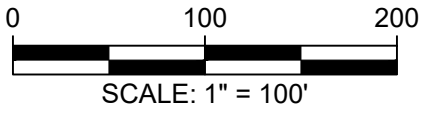
June 2019
Fig. 2



NOTE:
1. CONTOURS ARE BASED ON THE DECEMBER 2018 SAMPLING EVENT.

SOURCE:
1. BOUNDARY SURVEY, SECTION 062 - BLOCK 16166 - LOTS 110 & 155, ROCKAWAY PARK, QUEENS COUNTY, NEW YORK, PREPARED BY KENNON SURVEYING SERVICES INC., SCALE: 1" = 40', DATE: NOVEMBER 2016.

LEGEND:	
	GROUNDWATER CONTOUR
	GROUNDWATER FLOW DIRECTION
	PROPERTY BOUNDARY
	FENCE
	EXISTING STRUCTURE
	HISTORIC STRUCTURE
	SHEET PILE BARRIER WALL
ft bgs	FEET BELOW GROUND SURFACE



Groundwater Monitoring Report
Rockaway Park Former MGP Site
Rockaway Park, New York

nationalgrid

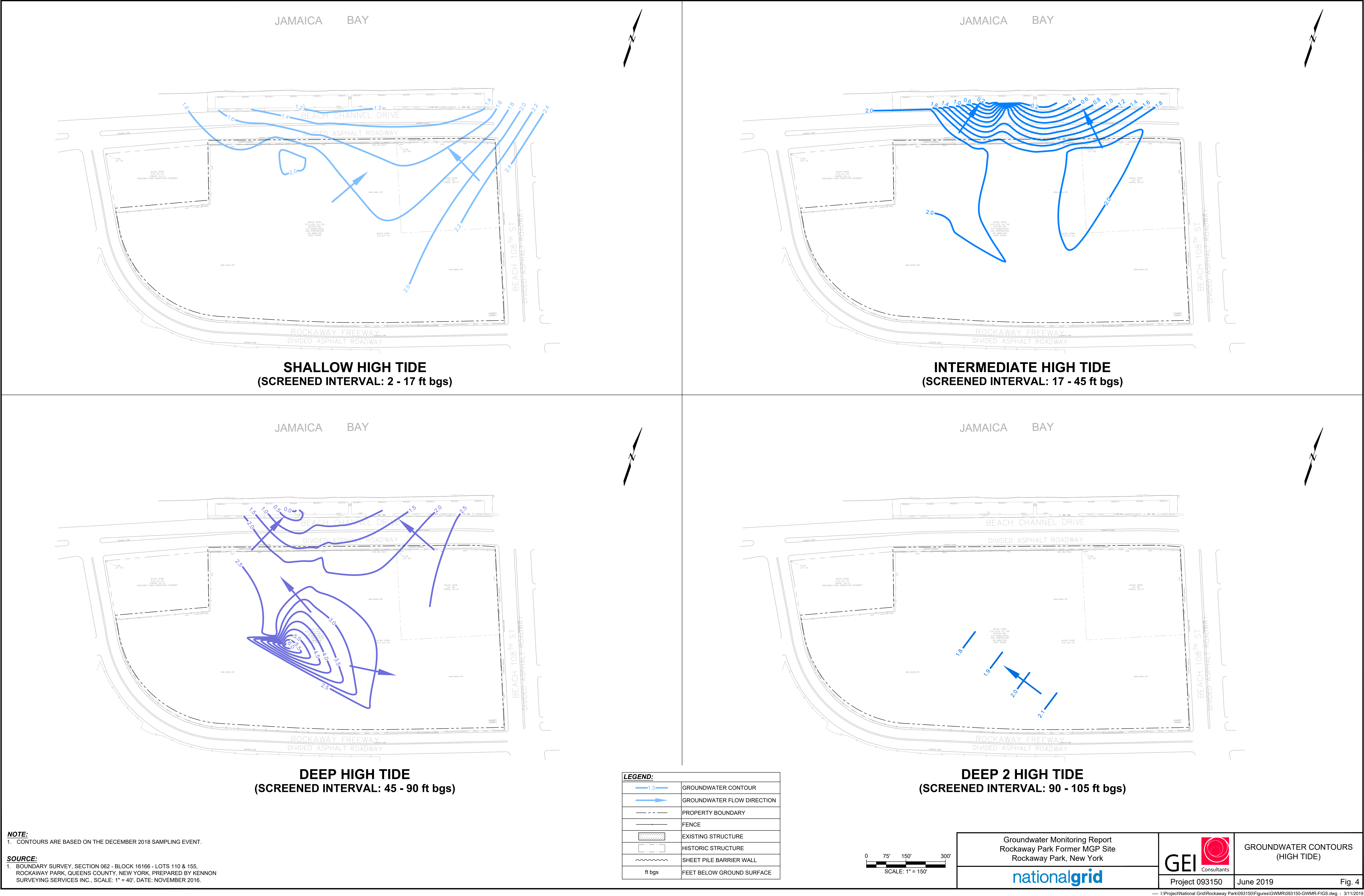
GEI
Consultants

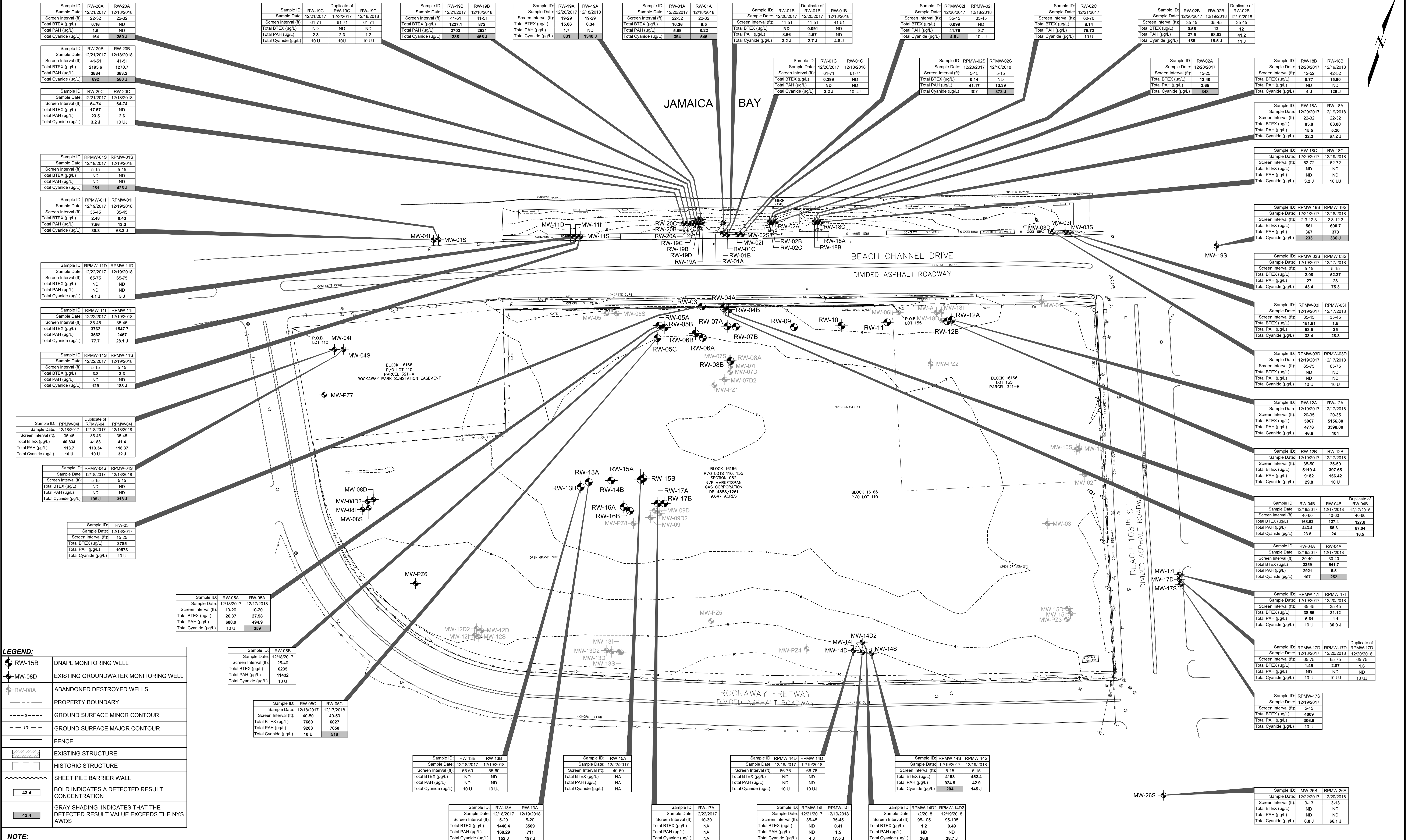
Project 093150

GROUNDWATER CONTOURS
(LOW TIDE)

June 2019

Fig. 3





LEGEND:

	DNAPL MONITORING WELL
	EXISTING GROUNDWATER MONITORING WELL
	ABANDONED DESTROYED WELLS
	PROPERTY BOUNDARY
	GROUND SURFACE MINOR CONTOUR
	GROUND SURFACE MAJOR CONTOUR
	FENCE
	EXISTING STRUCTURE
	HISTORIC STRUCTURE
	SHEET PILE BARRIER WALL
	BOLD INDICATES A DETECTED RESULT CONCENTRATION
	GRAY SHADING INDICATES THAT THE DETECTED RESULT VALUE EXCEEDS THE NYS AWQS

NOTE:
MONITOR WELL LOCATION AND ELEVATION TAKEN AT NORTH EDGE OF PVC PIPE. ELEVATION DATUM FOR ALL MONITOR WELLS IS BOROUGH OF QUEENS DATUM.

SOURCE:
BOUNDARY SURVEY, SECTION 062 - BLOCK 16166 - LOTS 110 & 155, ROCKAWAY PARK, QUEENS COUNTY, NEW YORK, PREPARED BY KENNON SURVEYING SERVICES INC., SCALE: 1" = 40', DATE: NOVEMBER 2016.