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2016 Annual Groundwater Sampling, NAPL Monitoring/ Recovery, and Groundwater Treatment Performance Report for the Hempstead Intersection Street Former Manufactured Gas Plant Site

Villages of Hempstead & Garden City
Nassau County, New York

Prepared for:

National Grid
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AECOM

April 2017

2016 ANNUAL GROUNDWATER SAMPLING, NAPL MONITORING/RECOVERY, AND GROUNDWATER TREATMENT PERFORMANCE REPORT

HEMPSTEAD INTERSECTION STREET
FORMER MANUFACTURED GAS PLANT SITE
VILLAGES OF HEMPSTEAD AND GARDEN CITY
NASSAU COUNTY, NEW YORK 11550

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ACRONYMS AND ABBREVIATIONS

amsl	above mean sea level
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, xylenes
DNAPL	dense non-aqueous phase liquid
DO	dissolved oxygen
DTW	depth to water
DUSR	data usability summary report
ft	foot (feet)
ft/ft	feet per feet
IPR	Intersection (Street) Product Recovery well
ISS	In Situ Solidification
LNAPL	light non-aqueous phase liquid
LOCID	Location Identifier
MGP	manufactured gas plant
µg/L	micrograms per liter
mg/L	milligrams per liter
MP	monitoring points
NA	not accessible
NAPL	non-aqueous phase liquid
ND	not detected
NM	not measured
NYSDEC	New York State Department of Environmental Conservation
PAHs	polycyclic aromatic hydrocarbons
PID	photo ionization detector
POB	Professional Office Building
ppm	parts per million
PZ	piezometer
QC	quality control
TOR	top of riser
USEPA	United States Environmental Protection Agency

EXECUTIVE SUMMARY

This annual report provides a summary of field activities, analytical results, and data interpretations associated with groundwater sampling, gauging, and recovery of non-aqueous phase liquid (NAPL), and with the groundwater treatment systems at the Hempstead Intersection Street Former Manufactured Gas Plant (MGP) site in 2016.

Groundwater monitoring and sampling was conducted on March 7 – 11, June 13 – 20, September 15 – 23, and December 12 – 22, 2016. This included measuring the depth to groundwater and NAPL thickness in 43 to 46 wells. Groundwater samples were collected from 24 wells in the First Quarter, 29 wells in the Second Quarter, 24 wells in the Third Quarter, and 29 wells in the Fourth Quarter and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs).

NAPL monitoring and recovery was conducted during ten events in 2016. For the First Quarter, NAPL monitoring was conducted on January 22 and March 7, for a total of two events. For the Second Quarter, NAPL monitoring was conducted on May 9 and June 13 for a total of two events. For the Third Quarter, NAPL monitoring and recovery was conducted on August 22 and September 23 and monitoring only was conducted on September 15 for a total of three events. For the Fourth Quarter, NAPL monitoring and recovery was conducted on October 26, December 9, and December 12 for a total of three events. NAPL was recovered at the one remaining product recovery well: HIMW-021.

The following results were obtained from the groundwater sampling and NAPL monitoring/recovery events:

- The general direction of groundwater flow during 2016 in shallow, intermediate, and deep water-bearing zones was south at an average gradient of approximately 0.002 feet per feet (ft/ft).
- The downgradient boundary of the plume, which is defined by total BTEX or PAH concentrations greater than 100 μg/L, extends approximately 340 feet south of the site boundary in the Third Quarter and approximately 930 feet south of the site boundary in the Fourth Quarter.

- Dense non-aqueous phase liquid (DNAPL) was detected and recovered from the one remaining product recovery well in 2016. The well (HIMW-021) is located along the west side of Wendell Street, south of the Intersection Street site.
- NAPL monitoring was conducted three times during Third Quarter and three times during Fourth Quarter 2016. No recovery was conducted during the First and Second Quarters. Approximately 2.5 gallons of product was recovered during the Third Quarter and 3.75 gallons were recovered during the Fourth Quarter. A total of 6.25 gallons of NAPL were recovered in 2016. As of December 2016, approximately 847.3 gallons of product have been recovered since product recovery began in April 2007.

The first of two oxygen delivery systems (System No. 2) started operating in October 2010 and continued to promote increased aerobic conditions in the aquifer near the system during the Third and Fourth Quarters of 2016. The second of two oxygen delivery systems (System No. 1) started operating in April 2011 and continued to promote increased aerobic conditions in the aquifer near the system during the Third and Fourth Quarters of 2016.

Monthly headspace and water quality parameters were collected in 2016 from the monitoring points for System No. 1 and No. 2 by Island Pump & Tank Corporation. Both systems were monitored during three events in each of the four quarters of 2016.

1.0 INTRODUCTION

This annual report summarizes field activities, and analytical results associated with groundwater sampling, gauging, and recovery of NAPL, and the monitoring of groundwater treatment systems performed during the First, Second, Third, and Fourth Quarters of 2016 at the Hempstead Intersection Street Former MGP Site (refer to Figures 1, 2, and 3).

Quarterly groundwater monitoring and bimonthly recovery of NAPL was initiated in April 2007. Separate reports are typically provided for the first three quarters of the year and the fourth quarter data typically gets reported as part of the Annual Report. Separate reports have been issued quarterly since 2007 as listed in the References section of this report. During 2016, separate reports were issued for the First and Second Quarters. The Third and Fourth Quarter data are included in this Annual report.

AECOM USA, Inc. (AECOM) performed the following activities in 2016:

- Measured the depth to groundwater and NAPL thickness in all accessible on site and off site monitoring wells (March 7, June 13-14, September 15, and December 12-13, 2016). Depth to groundwater was gauged in 45 monitoring wells on March 7, 44 monitoring wells on June 13-14 and September 15, and 46 monitoring wells on December 12-13. NAPL thickness was measured in 45 wells in First and Fourth Quarters and 43 wells in the Second and Third Quarters, see Tables 1A, 2A and 2B.

- Monitored NAPL in HIMW-021 ten times in 2016 (January 22, March 7, May 9, June 13, August 22, September 15, September 23, October 26, December 9, and December 12). Recovered NAPL from HIMW-021 on five of the nine gauging events (August 22, September 23, October 26, December 9, and December 12), after gauging; see Tables 1B and 3.

- Collected groundwater samples from 24 or 29 monitoring wells for laboratory analysis. There were 24 wells sampled on March 7 – 11; 29 wells sampled on June 14 – 20; 24 wells sampled on September 16 – 23; and 29 wells sampled on December 13 – 22, 2016, see Tables 1A and 4.

Island Pump & Tank Corporation also performed water level measurements, well headspace monitoring with a photoionization detector (PID), and dissolved oxygen (DO) measurements with a DO meter (YSI 55A) on oxygen delivery System No. 1 and No. 2. System No. 1 and No. 2 were monitored during three events in each of the First, Second, Third, and Fourth Quarters in 2016. Monitoring is conducted monthly to assess the performance of groundwater treatment System No. 1 and System No. 2. The data for the Third and Fourth Quarters are presented in Table 5.

2.0 FIELD ACTIVITIES

The field activities performed by AECOM during the First Quarter of 2016 included the measurement of the depth to groundwater and NAPL thickness in 45 monitoring wells, the collection of groundwater samples from 24 monitoring wells, and recovery of NAPL from one recovery well.

The field activities performed by AECOM during the Second Quarter of 2016 included the measurement of the depth to groundwater in 44 monitoring wells, measuring NAPL thickness in 43 monitoring wells, the collection of groundwater samples from 29 monitoring wells, and recovery of NAPL from one recovery well.

The field activities performed by AECOM during the Third Quarter of 2016 included the measurement of the depth to groundwater in 44 monitoring wells, measuring NAPL thickness in 43 monitoring wells, the collection of groundwater samples from 24 monitoring wells, and recovery of NAPL from one recovery well.

The field activities performed by AECOM during the Fourth Quarter of 2016 included the measurement of the depth to groundwater in 46 monitoring wells, measuring NAPL thickness in 45 monitoring wells, the collection of groundwater samples from 29 monitoring wells, and recovery of NAPL from one monitoring well.

Monitoring wells and piezometers used for these activities are listed in Table 1A. A summary of NAPL gauging and recovery activities is found in Table 1B. Groundwater elevations and NAPL thickness values for Third Quarter 2016 are presented in Table 2A and for Fourth Quarter 2016 in Table 2B. NAPL levels and recovery amounts for 2016 are presented in Table 3, and the results of groundwater sampling in 2016 are presented in Table 4.

Island Pump & Tank performed measurements to monitor the performance of oxygen delivery Systems No. 1 and No. 2 monthly during 2016. Island Pump & Tank collected water level measurements with an electronic oil/water interface probe, well headspace monitoring data with a PID, and DO measurements with a YSI 55A DO meter.

Measurements for the First Quarter were collected at System No. 1 on January 28, February 17, and March 18, a total of three events; and were taken for System No. 2 on January 29, February 19, and March 18, for a total of three events.

Measurements for the Second Quarter were collected at System No. 1 on April 27, May 26, and June 28, a total of three events; and were taken for System No. 2 on April 28, May 26, and June 28, for a total of three events.

Measurements for Third Quarter were collected at System No. 1 on July 29, August 26, and October 3, a total of three events; and were taken for System No. 2 on July 28, August 25, and October 3, for a total of three events.

Measurements for Fourth Quarter 2016 were collected at System No. 1 on October 31, November 30, and December 30, a total of three events; and were taken for System No. 2 on November 1, November 29, and December 29, for a total of three events.

The data from Third and Fourth Quarters 2016 are presented in Table 5.

2.1 Groundwater Depth and NAPL Thickness Measurements

An electronic oil/water interface probe was used to measure the depth to groundwater and check for the presence of light non-aqueous phase liquid (LNAPL). DNAPL thickness was measured using a weighted cotton string that absorbs oil. Depths to groundwater and NAPL thickness measurements for Third and Fourth Quarters are listed in Table 2A and 2B, respectively. NAPL thicknesses and recovery amounts for 2016 are listed in Table 3.

There were 44 monitoring wells gauged for water on September 15 during the Third Quarter gauging event and 46 monitoring wells gauged for water on December 12-13 in the Fourth Quarter 2016 gauging event. One monitoring well (HIMW-012I) was successfully gauged for water in the Second through Fourth Quarters, but an obstruction below the water table prevented gauging and sampling below the water table surface inside the well. The obstruction prevented gauging for water during the First Quarter 2016. One monitoring well (HIMW-012D) was not successfully gauged in 2016 because of obstructions inside the well riser. The obstructions in wells 12I and 12D resulted from apparent vandalism as these wells are located in a

public area of Mirshell Park. There were two additional monitoring wells that weren't gauged in each of the Second and Third Quarters because access to them was blocked by cars at the time of the gauging events. These monitoring wells include HIMW-009D and OSMW-03 on June 13-14, 2016 and HIMW-011S and OSMW-03 on September 15, 2016.

2.2 NAPL Recovery

NAPL recovery occurred between 2007 and the Third Quarter of 2011 when the In Situ Solidification (ISS) remediation project began. Approximately 745 gallons of NAPL were recovered between 2007 and 2011 when NAPL recovery ended upon the start of ISS treatment. All, but one, of the recovery wells were decommissioned as part of the ISS work. NAPL recovery is limited to this one well, HIMW-021, which is located on the south of the site in the sidewalk of the Professional Office Building (POB), outside the ISS area.

NAPL levels were monitored and product recovered in well HIMW-021 during the Third Quarter during two events, August 22 and September 23, and was monitored only on September 15, 2016. During the Fourth Quarter monitoring and recovery occurred during three gauging and recovery events: October 26, December 9, and December 12, 2016. During these events, the well was gauged with a weighted cotton string to measure the DNAPL thickness. The DNAPL was recovered using a peristaltic pump. The quantity of recovered DNAPL was estimated based on gallon markings on the side of the bucket used to collect the purged liquids during recovery.

NAPL was gauged during ten events from January to December 2016. NAPL was not recovered in the First and Second Quarters, but was recovered in the Third and Fourth Quarters during five gauging events. The volume of NAPL recovered from HIMW-021 in 2016, during any one gauging event, ranged from approximately 1.0 gallon to 1.5 gallons. Approximately 2.5 gallons of NAPL were recovered during the Third Quarter and approximately 3.75 gallons of NAPL were recovered during the Fourth Quarter, for a total of 6.25 gallons of NAPL recovered in 2016. A total of 847.3 gallons of NAPL have been recovered from all of the Site related recovery wells since product recovery began in April 2007 to December 2016.

Table 3 presents NAPL thicknesses and NAPL recovery amounts at HIMW-021 for 2016.

2.3 Groundwater Sampling

Low-flow groundwater sampling methods were used to sample groundwater, which included purging groundwater at a rate of between 100 and 250 milliliters per minute. The water was pumped through a flow-through cell and monitored for pH, conductivity, turbidity, DO, temperature, and oxidation-reduction potential (ORP). Purging was continued until stable conditions were achieved (defined as three consecutive stable readings [i.e. $\pm$ 10 percent] over a 15 minute period). Groundwater samples were collected afterwards and shipped under chain-of-custody procedures to Pace Analytical for analysis of BTEX (United States Environmental Protection Agency [USEPA] Method 8260C) and PAHs (USEPA Method 8270D). Purge water is stored in an onsite storage tank for subsequent offsite disposal. The Data Usability Summary Reports for Third and Fourth Quarters 2016 are presented in Appendix A.

Groundwater sampling was performed during four events in 2016. There were 24 monitoring wells sampled during the First Quarter March 7 – 11 event, 29 monitoring wells sampled during the Second Quarter June 14 – 20 event, 24 monitoring wells sampled during the Third Quarter September 16 – 23 event, and 29 monitoring wells sampled during the Fourth Quarter December 13 – 22 event. Two monitoring wells from the sampling and analysis plan (HIMW-012I and HIMW-012D) were not sampled during these quarterly events because of obstructions inside the wells risers. Analytical results from the quarterly groundwater sampling events are presented in Table 4. Figures 4 and 14 depict the analytical data for the Third Quarter 2016 and Figures 5 and 15 show the analytical data from the Fourth Quarter 2016.

2.4 Groundwater Treatment System Operation

Two oxygen delivery systems were installed to enhance the groundwater oxygen concentrations in the groundwater plume. "System No. 1" is located along Smith Street, a portion of the Long Island Railroad Right-of-Way, and a portion of Hilton Avenue and began operation in April 2011. "System No. 2" extends from Mirschel Park in the east to Kensington Court in the west and began operation in October 2010. Figure 3 shows the locations of the two systems.

The performance of System No. 1 and System No. 2 was monitored monthly by Island Pump & Tank during 2016 through the measurement of water levels, headspace gas, and water quality parameters in the groundwater, see Table 5. Island Pump & Tank performed water level

measurements with an electronic oil/water interface probe, well headspace monitoring with a PID, and DO measurements with a DO meter (YSI 55A). These measurements were collected during the First Quarter for System No. 1 on January 28, February 17, and March 18, a total of three events; and were taken for System No. 2 on January 29, February 19, and March 18, for a total of three events.

The measurements were collected during the Second Quarter for System No. 1 on April 27, May 26, and June 28, a total of three events; and were taken for System No. 2 on April 28, May 26, and June 28, for a total of three events.

The measurements were collected during the Third Quarter for System No. 1 on July 29, August 26, and October 3, a total of three events; and were taken for System No. 2 on July 28, August 25, and October 3, for a total of three events.

The measurements were also collected during the Fourth Quarter for System No. 1 on October 31, November 30, and December 30, a total of three events; and were taken for System No. 2 on November 1, November 29, and December 29, for a total of three events.

The full groundwater treatment system data from Third and Fourth Quarters are included in Appendix B. Groundwater system treatment data for the First Quarter and Second Quarter are provided in the previous quarterly reports (AECOM, 2017a and 2017b, respectively).

3.0 RESULTS

3.1 Dissolved-Phase Plume

The extent of the dissolved-phase groundwater plume boundary and the data for the Third Quarter 2016 are shown in Figure 4 and for the Fourth Quarter 2016 (and the historical concentration ranges) in Figure 5. The downgradient boundary of the plume, which is defined by total BTEX or PAH concentrations greater than 100 μg/L, extended approximately 340 feet south of the site boundary in the Third Quarter and approximately 930 feet south of the site boundary in the Fourth Quarter.

3.2 Potentiometric Heads and NAPL Thickness

Potentiometric heads and NAPL thickness measurements for Third Quarter and Fourth Quarter 2016 are presented in Table 2A and 2B, respectively. Potentiometric surface maps for shallow, intermediate and deep groundwater zones were developed using this data and are shown in Figures 6, 7, and 8 for the Third Quarter 2016 and in Figures 9, 10, and 11 for the Fourth Quarter. The data for the Third and Fourth Quarters 2016 indicate that the direction of groundwater flow within the well field was south at an average gradient of approximately 0.002 ft/ft for shallow, intermediate, and deep water bearing zones. These values are consistent with historical data. Potentiometric surface maps for the First Quarter and Second Quarter are provided in the previous quarterly reports (AECOM, 2017a and 2017b, respectively).

DNAPL was observed in one well during 2016 (Table 3). The well (HIMW-021) is located along the west side of Wendell Street south of the Site and Intersection Street. All wells in the parking lot of the POB were decommissioned in late June 2013 during ISS work. Wells located within the property boundary of the site were previously decommissioned in Fourth Quarter 2011 with the start of the ISS remediation project.

3.3 Groundwater Analytical Results

Groundwater analytical results for 2016 are provided in Table 4 as well as in Figures 12 through 15. Third Quarter and Fourth Quarter 2016 estimated dissolved phase plume boundaries are illustrated on Figures 4 and 5, respectively.

Data Usability Summary Reports (DUSR) were prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10/ Technical Guidance for Site Investigation and Remediation, Appendix 2B – Guidance for the Development of Data Usability Summary Reports*, May 2010. The review included a review of holding times; completeness of all required deliverables; quality control (QC) results (blanks, instrument tunes, calibration standards, matrix spike recoveries, duplicate analyses, and laboratory control sample recoveries) to determine if the data are within the protocol-required QC limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers. All sample analyses were found to be compliant with the method and validation criteria and the data is useable as reported, except where noted in the DUSRs. Electronic copies of the DUSRs are included as Appendix A.

3.4 NAPL Recovery Volumes

HIMW-021 is the one remaining product recovery well associated with the site. It is located south of the site in the sidewalk along the west side of Wendell Street. The volume of NAPL recovered from this well in the Third Quarter 2016 was approximately 2.5 gallons and in the Fourth Quarter 2016 it was 3.75 gallons. Five recovery events occurred in 2016: on August 22, September 23, October 26, December 9 and December 12, 2016.

A total of approximately 847.3 gallons of NAPL have been recovered from all of the recovery wells for the period of April 2007 through December 2016. Table 3 lists the amount of DNAPL gauged in HIMW-021 and the total amount of product recovered during each event.

3.5 Groundwater Treatment System Performance

Groundwater treatment system performance data for the Third Quarter and Fourth Quarter 2016, as collected and report by Island Pump & Tank, are presented in Table 5. The data for the First and Second Quarters are found in previous reports (AECOM, 2017a and 2017b, respectively).

System No. 1

System No. 1 stopped operating in the Second Quarter due to an equipment breakdown and resumed operation in the Third Quarter after the repair was completed. In the Third Quarter 2016, System No. 1 DO readings ranged from a low of 1.1 milligrams per liter (mg/L) at MP-1-3S on October 3, 2016 to a high of 35.8 mg/L at MP-1-2D on July 29, 2016. The overall average DO reading for System No. 1 in the Third Quarter was 11.3 mg/L.

In the Fourth Quarter 2016, System No. 1 DO readings ranged from a low of 3.9 milligrams per liter (mg/L) at MP-1-8 on November 30, 2016 to a high of 40.4 mg/L at MP-1-2D also on November 30, 2016. The overall average DO reading for System No. 1 in the Fourth Quarter was 15.6 mg/L.

All PID headspace readings were below 1 parts per million (ppm) for System No. 1 in the Third and Fourth Quarter 2016.

During the Third and Fourth Quarters, the system was running and routine maintenance was regularly performed. Based on the data collected during the Third Quarter, decreases in oxygen concentrations were apparent during the October 3 monitoring event due to equipment malfunction. During the Fourth Quarter of 2016 though, System No. 1 was repaired and performed as expected to create an aerobic environment in the aquifer.

System No. 2

System No. 2 was down for most of the Second Quarter due to an equipment malfunction in February. Repairs were completed in June and the system restarted.

System No. 2 DO readings reported in the Third Quarter 2016 ranged from a low of 17.4 mg/L at MP-2-2 on July 28, 2016 to a high of 41.5 mg/L at MP-2-3D on October 3, 2016. The overall average DO reading for System No. 2 in the Third Quarter was 30.5 mg/L.

In the Fourth Quarter 2016, reported System No. 2 DO readings ranged from a low of 19.9 mg/L at MP-2-2 on December 29, 2016 to a high of 40.6 mg/L at MP-2-3D on November 1, 2016. The overall average DO reading for System No. 2 in the Fourth Quarter was 29.8 mg/L.

All PID headspace readings were below 1 parts per million (ppm) for System No. 2 in the Third and Fourth Quarter 2016.

During the Third and Fourth Quarters, the system was running and routine maintenance was regularly performed. Based on the data collected during the Third and Fourth Quarters of 2016, System No. 2 performed as expected to create an aerobic environment in the aquifer.

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TABLES

Table 1A

Summary of 2016 Field Activities:
Water Level Measurements, NAPL Thickness Measurements, and Water Quality Sampling[(1), (2)]
Hempstead Intersection Street Former MGP Site

Well ID	First Quarter (March 7 to 11, 2016)			Second Quarter (June 13 to 20, 2016)			Third Quarter (September 15 to 23, 2016)			Fourth Quarter (December 12 to 22, 2016)		
	Water Level	NAPL Thickness	Water Quality	Water Level	NAPL Thickness	Water Quality	Water Level	NAPL Thickness	Water Quality	Water Level	NAPL Thickness	Water Quality
HIMW-003S	X	X		X	X	X	X	X		X	X	X
HIMW-003I	X	X		X	X	X	X	X		X	X	X
HIMW-003D	X	X		X	X	X	X	X		X	X	X
HIMW-004S	X	X		X	X		X	X		X	X	
HIMW-004I	X	X		X	X		X	X		X	X	
HIMW-004D	X	X		X	X		X	X		X	X	
HIMW-005S	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-005I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-005D	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-008S	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-008I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-008D	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-009S	X	X		X	X		X	X		X	X	
HIMW-009I	X	X		X	X		X	X		X	X	
HIMW-009D	X	X					X	X		X	X	
HIMW-010S	X	X		X	X		X	X		X	X	
HIMW-010I	X	X		X	X		X	X		X	X	
HIMW-011S	X	X		X	X					X	X	
HIMW-011I	X	X		X	X		X	X		X	X	
HIMW-011D	X	X		X	X		X	X		X	X	
HIMW-012S	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-012I				X			X			X		
HIMW-012D												
HIMW-013S	X	X		X	X	X	X	X		X	X	X
HIMW-013I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-013D	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-014I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-014D	X	X		X	X	X	X	X		X	X	X
HIMW-015I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-015D	X	X	X	X	X	X	X	X	X	X	X	X

Table 1A

Summary of 2016 Field Activities:
Water Level Measurements, NAPL Thickness Measurements, and Water Quality Sampling [(1), (2)]
Hempstead Intersection Street Former MGP Site

Well ID	First Quarter (March 7 to 11, 2016)			Second Quarter (June 13 to 20, 2016)			Third Quarter (September 15 to 23, 2016)			Fourth Quarter (December 12 to 22, 2016)		
	Water Level	NAPL Thickness	Water Quality	Water Level	NAPL Thickness	Water Quality	Water Level	NAPL Thickness	Water Quality	Water Level	NAPL Thickness	Water Quality
HIMW-020S	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-020I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-021	X	X		X	X		X	X		X	X	
HIMW-022	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-023	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-024	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-025	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-026I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-026D	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-027S	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-027I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-028S	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-028I	X	X	X	X	X	X	X	X	X	X	X	X
PZ-02	X	X		X	X		X	X		X	X	
PZ-03	X	X		X	X		X	X		X	X	
OSMW-02	X	X		X	X		X	X		X	X	
OSMW-03	X	X								X	X	

Notes:

1 Field marked with "X" indicates that the activity was performed.

2 Blank field indicates that the activity was not performed.

Table 1B

Summary of 2016 Field Activities:
NAPL Gauging and Product Recovery[(1), (2)]
Hempstead Intersection Street Former MGP Site

Well ID: HIMW-021

Quarter	Date	Product Gauged	Product Recovered
First Quarter 2016	1/22/2016	x	
	3/7/2016	x	
Second Quarter 2016	5/9/16	x	
	6/13/16	x	
Third Quarter 2016	8/22/2016	x	x
	9/23/2016	x	x
Fourth Quarter 2016	10/26/2016	x	x
	12/9/2016	x	x
	12/12/2016	x	x

Notes:

1 Field marked with "X" indicates that the activity was performed.

2 Blank field indicates that the activity was not performed.

Table 2A
Groundwater and NAPL Measurements
Third Quarter 2016
Hempstead Intersection Street Former MGP Site

Well ID	Date	Elevation of TOR	Depth to LNAPL	Depth to Water	Depth to DNAPL	Well Depth	Thickness of LNAPL	Thickness of DNAPL	Corrected Potentiometric Head (1)
		[ft bgs]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft amsl]
HIMW-003S	9/15/2016	65.00	ND	22.22	ND	34.44	0	0.00	42.78
HIMW-003I	9/15/2016	64.94	ND	22.68	ND	85.29	0	0.00	42.26
HIMW-003D	9/15/2016	65.26	ND	23.49	ND	143.60	0	0.00	41.77
HIMW-004S	9/15/2016	72.74	ND	30.76	ND	41.69	0	0.00	41.98
HIMW-004I	9/15/2016	72.78	ND	30.98	ND	90.52	0	0.00	41.80
HIMW-004D	9/15/2016	72.65	ND	31.92	ND	177.15	0	0.00	40.73
HIMW-005S	9/15/2016	67.19	ND	24.97	ND	38.93	0	0.00	42.22
HIMW-005I	9/15/2016	67.22	ND	25.22	ND	90.57	0	0.00	42.00
HIMW-005D	9/15/2016	67.22	ND	26.01	ND	137.35	0	0.00	41.21
HIMW-008S	9/15/2016	65.04	ND	23.04	ND	36.96	0	0.00	42.00
HIMW-008I	9/15/2016	65.14	ND	23.32	ND	75.75	0	0.00	41.82
HIMW-008D	9/15/2016	64.93	ND	23.19	ND	114.61	0	0.00	41.74
HIMW-009S	9/15/2016	70.03	ND	27.65	ND	39.69	0	0.00	42.38
HIMW-009I	9/15/2016	69.93	ND	27.63	ND	80.48	0	0.00	42.30
HIMW-009D	9/15/2016	69.96	ND	27.76	ND	122.97	0	0.00	42.20
HIMW-010S	9/15/2016	71.60	ND	28.39	ND	39.48	0	0.00	43.21
HIMW-010I	9/15/2016	71.47	ND	28.13	ND	89.73	0	0.00	43.34
HIMW-011S	9/15/2016	71.62	NM	NM	NM	40.22	NM	NM	NM
HIMW-011I	9/15/2016	71.43	ND	28.59	ND	93.38	0	0.00	42.84
HIMW-011D	9/15/2016	71.39	ND	28.61	ND	122.28	0	0.00	42.78
HIMW-012S	9/15/2016	61.58	ND	20.79	ND	33.11	0	0.00	40.79
HIMW-012I	9/15/2016	61.59	ND	20.71	ND	NM	0	0.00	40.88
HIMW-012D	9/15/2016	61.82	NM	NM	NM	NM	NM	NM	NM
HIMW-013S	9/15/2016	72.83	ND	33.93	ND	48.65	0	0.00	38.90
HIMW-013I	9/15/2016	72.60	ND	33.72	ND	82.24	0	0.00	38.88
HIMW-013D	9/15/2016	72.53	ND	33.63	ND	121.96	0	0.00	38.90
HIMW-014I	9/15/2016	71.71	ND	32.72	ND	95.64	0	0.00	38.99
HIMW-014D	9/15/2016	71.59	ND	35.65	ND	151.89	0	0.00	35.94
HIMW-015I	9/15/2016	64.18	ND	28.01	ND	93.95	0	0.00	36.17
HIMW-015D	9/15/2016	63.96	ND	30.31	ND	152.87	0	0.00	33.65
HIMW-020S	9/15/2016	70.43	ND	29.03	ND	36.77	0	0.00	41.40
HIMW-020I	9/15/2016	70.30	ND	28.98	ND	74.80	0	0.00	41.32

Table 2A
Groundwater and NAPL Measurements
Third Quarter 2016
Hempstead Intersection Street Former MGP Site

Well ID	Date	Elevation of TOR	Depth to LNAPL	Depth to Water	Depth to DNAPL	Well Depth	Thickness of LNAPL	Thickness of DNAPL	Corrected Potentiometric Head (1)
		[ft bgs]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft amsl]
HIMW-021	9/15/2016	NM	ND	23.49	42.10	45.30	0	3.20	NM
HIMW-022	9/15/2016	74.07	ND	33.82	ND	64.44	0	0.00	40.25
HIMW-023	9/15/2016	74.41	ND	34.01	ND	75.25	0	0.00	40.40
HIMW-024	9/15/2016	59.83	ND	18.61	ND	54.91	0	0.00	41.22
HIMW-025	9/15/2016	62.75	ND	21.00	ND	52.15	0	0.00	41.75
HIMW-26I	9/15/2016	68.13	ND	26.94	ND	84.91	0	0.00	41.19
HIMW-26D	9/15/2016	68.02	ND	27.09	ND	138.80	0	0.00	40.93
HIMW-27S	9/15/2016	69.49	ND	27.98	ND	41.39	0	0.00	41.51
HIMW-27I	9/15/2016	68.96	ND	27.33	ND	70.05	0	0.00	41.63
HIMW-28S	9/15/2016	69.87	ND	28.32	ND	41.52	0	0.00	41.55
HIMW-28I	9/15/2016	69.56	ND	27.93	ND	71.58	0	0.00	41.63
PZ-02	9/15/2016	72.96	ND	29.62	ND	35.53	0	0.00	43.34
PZ-03	9/15/2016	64.58	ND	21.57	ND	29.93	0	0.00	43.01
OSMW-02	9/15/2016	71.59	ND	28.91	ND	45.28	0	0.00	42.68
OSMW-03	9/15/2016	71.39	NM	NM	NM	44.66	NM	NM	NM

Notes:

(1) Potentiometric heads in wells containing LNAPL are corrected using a specific gravity = 0.96

TOR top of riser
LNAPL light non-aqueous phase liquid
DNAPL dense non-aqueous phase liquid
ft bgs feet below ground surface
ft amsl feet above mean sea level
ND NAPL not detected
NM not measured

Table 2B
Groundwater and NAPL Measurements
Fourth Quarter 2016
Hempstead Intersection Street Former MGP Site

Well ID	Date	Elevation of TOR	Depth to LNAPL	Depth to Water	Depth to DNAPL	Well Depth	Thickness of LNAPL	Thickness of DNAPL	Corrected Potentiometric Head (1)
		[ft bgs]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft amsl]
HIMW-003S	12/12/2016	65.00	ND	23.03	ND	34.47	0	0.00	41.97
HIMW-003I	12/12/2016	64.94	ND	23.18	ND	85.99	0	0.00	41.76
HIMW-003D	12/12/2016	65.26	ND	23.79	ND	143.65	0	0.00	41.47
HIMW-004S	12/12/2016	72.74	ND	31.36	ND	41.65	0	0.00	41.38
HIMW-004I	12/12/2016	72.78	ND	31.42	ND	90.43	0	0.00	41.36
HIMW-004D	12/12/2016	72.65	ND	31.77	ND	177.05	0	0.00	40.88
HIMW-005S	12/12/2016	67.19	ND	25.67	ND	38.88	0	0.00	41.52
HIMW-005I	12/12/2016	67.22	ND	25.81	ND	90.54	0	0.00	41.41
HIMW-005D	12/12/2016	67.22	ND	26.19	ND	136.02	0	0.00	41.03
HIMW-008S	12/12/2016	65.04	ND	23.83	ND	36.91	0	0.00	41.21
HIMW-008I	12/12/2016	65.14	ND	24.03	ND	74.79	0	0.00	41.11
HIMW-008D	12/12/2016	64.93	ND	23.83	ND	114.54	0	0.00	41.10
HIMW-009S	12/13/2016	70.03	ND	28.38	ND	39.65	0	0.00	41.65
HIMW-009I	12/13/2016	69.93	ND	28.33	ND	80.44	0	0.00	41.60
HIMW-009D	12/13/2016	69.96	ND	28.37	ND	125.17	0	0.00	41.59
HIMW-010S	12/12/2016	71.60	ND	29.03	ND	39.25	0	0.00	42.57
HIMW-010I	12/12/2016	71.47	ND	28.84	ND	89.75	0	0.00	42.63
HIMW-011S	12/12/2016	71.62	ND	29.53	ND	40.21	0.01	0.00	42.10
HIMW-011I	12/12/2016	71.43	ND	29.33	ND	93.28	0	0.00	42.10
HIMW-011D	12/12/2016	71.39	ND	29.30	ND	122.31	0	0.00	42.09
HIMW-012S	12/12/2016	61.58	ND	21.46	ND	33.19	0	0.00	40.12
HIMW-012I	12/12/2016	61.59	ND	21.34	ND	NM	0	0.00	40.25
HIMW-012D	12/12/2016	61.82	NM	NM	NM	NM	NM	NM	NM
HIMW-013S	12/12/2016	72.83	ND	34.55	ND	48.62	0	0.00	38.28
HIMW-013I	12/12/2016	72.60	ND	34.33	ND	81.55	0	0.00	38.27
HIMW-013D	12/12/2016	72.53	ND	34.31	ND	122.04	0	0.00	38.22
HIMW-014I	12/12/2016	71.71	ND	33.39	ND	95.65	0	0.00	38.32
HIMW-014D	12/12/2016	71.59	ND	34.98	ND	151.30	0	0.00	36.61
HIMW-015I	12/12/2016	64.18	ND	28.31	ND	92.53	0	0.00	35.87
HIMW-015D	12/12/2016	63.96	ND	29.53	ND	152.25	0	0.00	34.43
HIMW-020S	12/12/2016	70.43	ND	29.73	ND	36.73	0	0.00	40.70
HIMW-020I	12/12/2016	70.30	ND	29.58	ND	74.84	0	0.00	40.72

Table 2B
Groundwater and NAPL Measurements
Fourth Quarter 2016
Hempstead Intersection Street Former MGP Site

Well ID	Date	Elevation of TOR	Depth to LNAPL	Depth to Water	Depth to DNAPL	Well Depth	Thickness of LNAPL	Thickness of DNAPL	Corrected Potentiometric Head (1)
		[ft bgs]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft amsl]
HIMW-021	12/12/2016	NM	ND	24.09	42.80	45.30	0.01	2.50	NM
HIMW-022	12/12/2016	74.07	ND	34.53	ND	64.35	0	0.00	39.54
HIMW-023	12/12/2016	74.41	ND	34.68	ND	75.22	0	0.00	39.73
HIMW-024	12/12/2016	59.83	ND	19.22	ND	54.91	0	0.00	40.61
HIMW-025	12/12/2016	62.75	ND	21.70	ND	52.14	0	0.00	41.05
HIMW-26I	12/12/2016	68.13	ND	27.81	ND	84.79	0	0.00	40.32
HIMW-26D	12/12/2016	68.02	ND	27.81	ND	137.42	0	0.00	40.21
HIMW-27S	12/12/2016	69.49	ND	28.79	ND	41.28	0.01	0.00	40.71
HIMW-27I	12/13/2016	68.96	ND	28.06	ND	70.65	0	0.00	40.90
HIMW-28S	12/12/2016	69.87	ND	28.97	ND	41.36	0	0.00	40.90
HIMW-28I	12/12/2016	69.56	ND	28.84	ND	71.53	0	0.00	40.72
PZ-02	12/12/2016	72.96	ND	30.30	ND	35.49	0	0.00	42.66
PZ-03	12/12/2016	64.58	ND	22.19	ND	29.76	0	0.00	42.39
OSMW-02	12/12/2016	71.59	ND	29.62	ND	44.76	0	0.00	41.97
OSMW-03	12/12/2016	71.39	NM	29.48	ND	45.12	0	0.00	41.91

Notes:

(1) Potentiometric heads in wells containing LNAPL are corrected using a specific gravity = 0.96

TOR top of riser
LNAPL light non-aqueous phase liquid
DNAPL dense non-aqueous phase liquid
ft bgs feet below ground surface
ft amsl feet above mean sea level
ND NAPL not detected
NM not measured

Table 3
NAPL Gauging and Recovery
Summary of 2016
Hempstead Intersection Street Former MGP Site

Well ID: HIMW-021

Quarter	Date	Thickness of LNAPL (feet)	Thickness of DNAPL (feet)	Volume of NAPL Removed[(1)] (gallons)	Total Quarterly Product Volume Recovered (gallons)
First Quarter	January 22, 2016	NC	1.5	0	0.0
	March 7, 2016	0.1	2.1	0	
Second Quarter	May 9, 2016	NC	2.6	0	0.0
	June 13, 2016	ND	3.4	0	
Third Quarter	August 22, 2016	NC	4.0	1.5	2.5
	September 15, 2016	ND	3.3	0	
	September 23, 2016	0.01	3.2	1.0	
Fourth Quarter	October 26, 2016	0.01	2.9	1	3.75
	December 9, 2016	0.01	3.5	1.25	
	December 12, 2016	0.01	2.5	1.5	

Total Volume of NAPL Recovered in 2016:	**6.25**
Total Volume of NAPL Recovered from April 2007 to Fourth Quarter 2016:	**847.3**

Notes:

(1) Volume of product recovered was estimated by using the markings on a five gallon bucket.

LNAPL Light Non-Aqueous Phase Liquid
DNAPL Dense Non-Aqueous Phase Liquid
ND NAPL Not Detected
NC Not Collected

Table 4

Dissolved-Phase Concentrations of Total BTEX and Total PAH Compounds
Data Collected in 2016
Hempstead Intersection Street Former MGP Site

Well ID	First Quarter 2016 March 7 to 11, 2016		Second Quarter 2016 June 14 to 20, 2016		Third Quarter 2016 September 16 to 23, 2016		Fourth Quarter 2016 December 13 to 22, 2016	
	BTEX [µg/L]	PAH [µg/L]	BTEX [µg/L]	PAH [µg/L]	BTEX [ug/L]	PAH [ug/L]	BTEX [ug/L]	PAH [ug/L]
HIMW-003S			ND	ND			ND	ND
HIMW-003I			ND	ND			ND	ND
HIMW-003D			ND	ND			ND	ND
HIMW-004S								
HIMW-004I								
HIMW-004D								
HIMW-005S	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-005I	62	1,284	64 (DUP=64)	960 (DUP=1,321)	78 (DUP=79)	891 (DUP=1,409)	71 (DUP=71)	1,896 (DUP=1,880)
HIMW-005D	112 (DUP=99)	970 (DUP=1,098)	95	1,018	67	778	56	2,049
HIMW-008S	33	6	12	1	16	1	137	11
HIMW-008I	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-008D	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-009S								
HIMW-009I								
HIMW-009D								
HIMW-010S								
HIMW-010I								
HIMW-011S								
HIMW-011I								
HIMW-011D								
HIMW-012S	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-012I								
HIMW-012D								
HIMW-013S			ND	ND			ND	ND
HIMW-013I	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-013D	2	9	3	18	3	14	3	15
HIMW-014I	6	25	5	30	4	27	4	22
HIMW-014D			ND	ND			ND	ND
HIMW-015I	4	17	2 (DUP=2)	10 (DUP=10)	1	10	1	8
HIMW-015D	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-020S	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-020I	2	1	ND	ND	6	ND	ND	ND
HIMW-021								
HIMW-022	ND	ND	1	ND	ND	ND	ND	ND
HIMW-023	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-024	136	439	ND	1	ND	5	1	125
HIMW-025	ND	ND	ND	ND	4	ND	ND (DUP=ND)	ND (DUP=ND)
HIMW-026I	ND	ND	ND	ND	ND	3	ND	ND
HIMW-026D	42	1,300	24	536	63	398	52	127
HIMW-027S	711	977	1,206	1,752	645	695	447	715
HIMW-027I	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-028S	ND	10	213	738	206	344	79	265
HIMW-028I	ND (DUP=ND)	ND (DUP=ND)	ND	ND	ND	ND	ND	ND
PZ-02								
PZ-03								

Notes:

A blank field is "Not Sampled".

NAPL is periodically identified in this well

BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
PAH	Poly Aromatic Hydrocarbons
ug/L	micrograms per liter
ND	Not Detected
NA	Not Analyzed For

Table 5
Groundwater Treatment Performance Monitoring
Third Quarter 2016
Hempstead Intersection Street Former MGP Site

System #1

	July 29, 2016			August 26, 2016			October 3, 2016		
ID	DTW (ft)	PID (ppm)	DO (mg/L)	DTW (ft)	PID (ppm)	DO (mg/L)	DTW (ft)	PID (ppm)	DO (mg/L)
MP-1-1S	29.38	0.0	12.59	29.81	0.4	20.65	30.62	0.3	14.12
MP-1-1D	29.34	0.0	12.59	29.90	0.0	16.49	30.54	0.2	12.21
MP-1-2S	23.64	0.1	22.44	24.41	0.3	15.66	25.15	0.0	8.52
MP-1-2D	23.47	0.1	35.83	24.34	0.6	14.45	24.91	0.0	1.68
MP-1-3S	21.85	0.0	20.02	22.31	0.0	9.57	23.06	0.2	1.10
MP-1-3D	21.91	0.0	11.01	22.38	0.0	10.11	23.11	0.2	3.55
MP-1-4S	24.66	0.2	13.88	25.17	0.0	3.18	25.89	0.0	2.00
MP-1-4D	24.63	0.0	25.78	25.15	0.0	2.15	25.86	0.0	3.10
MP-1-5	29.13	0.0	20.12	29.61	0.0	21.98	30.34	0.0	15.11
MP-1-6	21.36	0.0	7.23	21.84	0.0	2.05	22.16	0.0	8.20
MP-1-7	24.68	0.0	19.93	25.20	0.0	5.69	25.91	0.0	6.07
MP-1-8	22.17	0.0	2.14	26.74	0.0	4.11	27.42	0.0	1.79

System #2

	July 28, 2016			August 25, 2016			October 3, 2016		
ID	DTW (ft)	PID (ppm)	DO (mg/L) Bottom	DTW (ft)	PID (ppm)	DO (mg/L) Bottom	DTW (ft)	PID (ppm)	DO (mg/L) Bottom
MP-2-1	32.22	0.3	24.29	32.70	20.3	26.78	33.40	0.0	23.47
MP-2-2	33.55	0.1	17.38	34.05	7.0	28.12	34.74	0.2	27.82
MP-2-3S	33.46	0.1	32.22	33.94	2.5	38.32	34.60	0.1	39.11
MP-2-3D	33.31	0.4	36.17	34.08	2.1	39.21	34.76	0.0	41.48
MP-2-4	22.13	0.2	25.12	22.61	6.2	28.27	23.33	0.0	33.91
MP-2-5	20.21	0.0	17.95	20.81	15.4	32.53	21.48	0.0	36.21

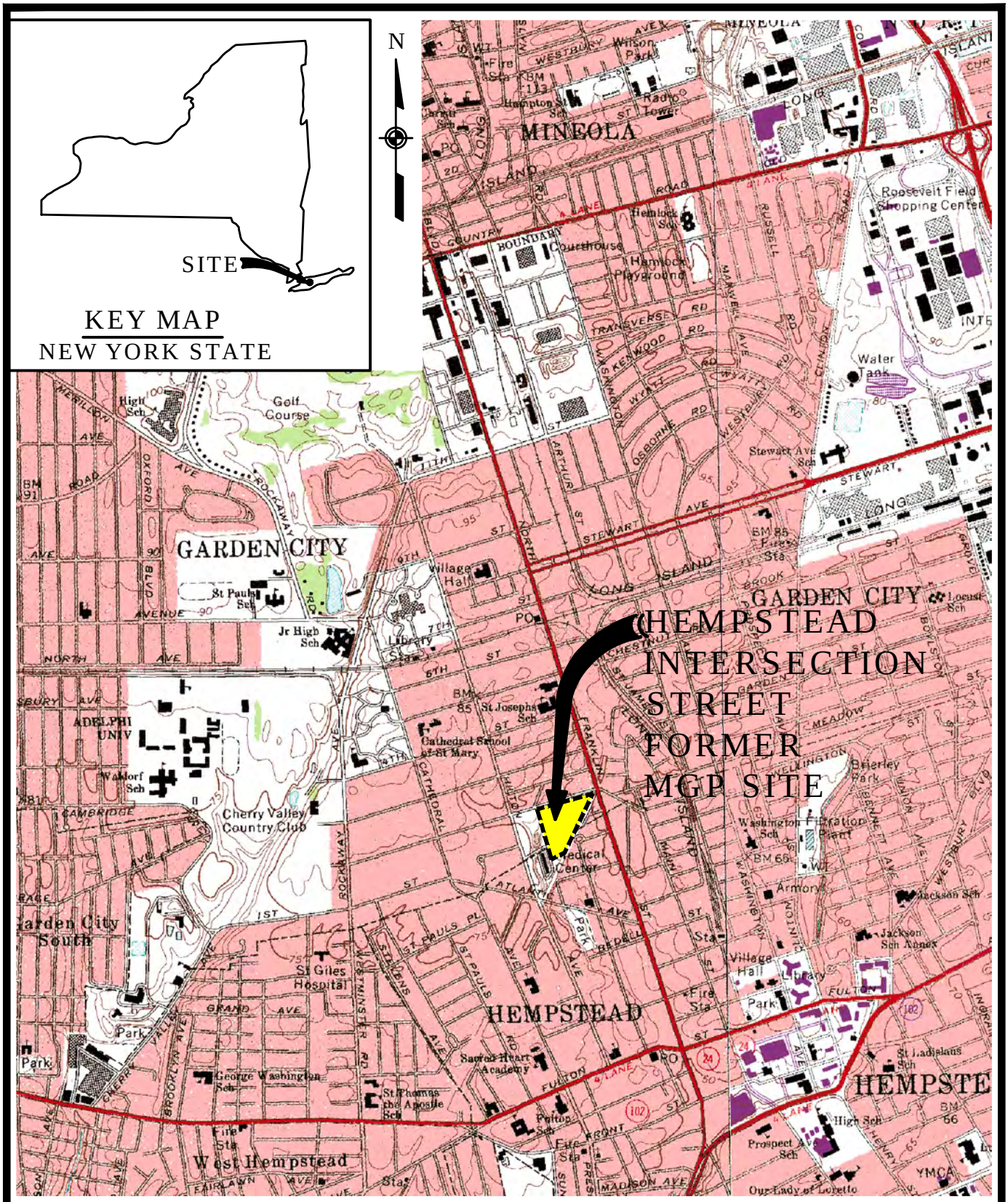
Abbreviations

DTW: Depth to water (feet)
PID: Photoionization Detector measurement of well headspace (parts per million)
DO: Dissolved Oxygen concentration (percent or milligrams per liter)
NA: Not Accessible
NM: Not Measured
ppm: parts per million
mg/L: milligrams per liter
ft: feet

Note

(1) DO Headspace monitor oxygen detection limit is 40.0%; normal oxygen level in air is 20.9%

FIGURES



NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

SOURCE:
USGS 7.5 MINUTE SERIES
TOPOGRAPHICAL QUANDRANGLES:
FREEPORT, NY (1969)
LYNBROOK, NY (1969)

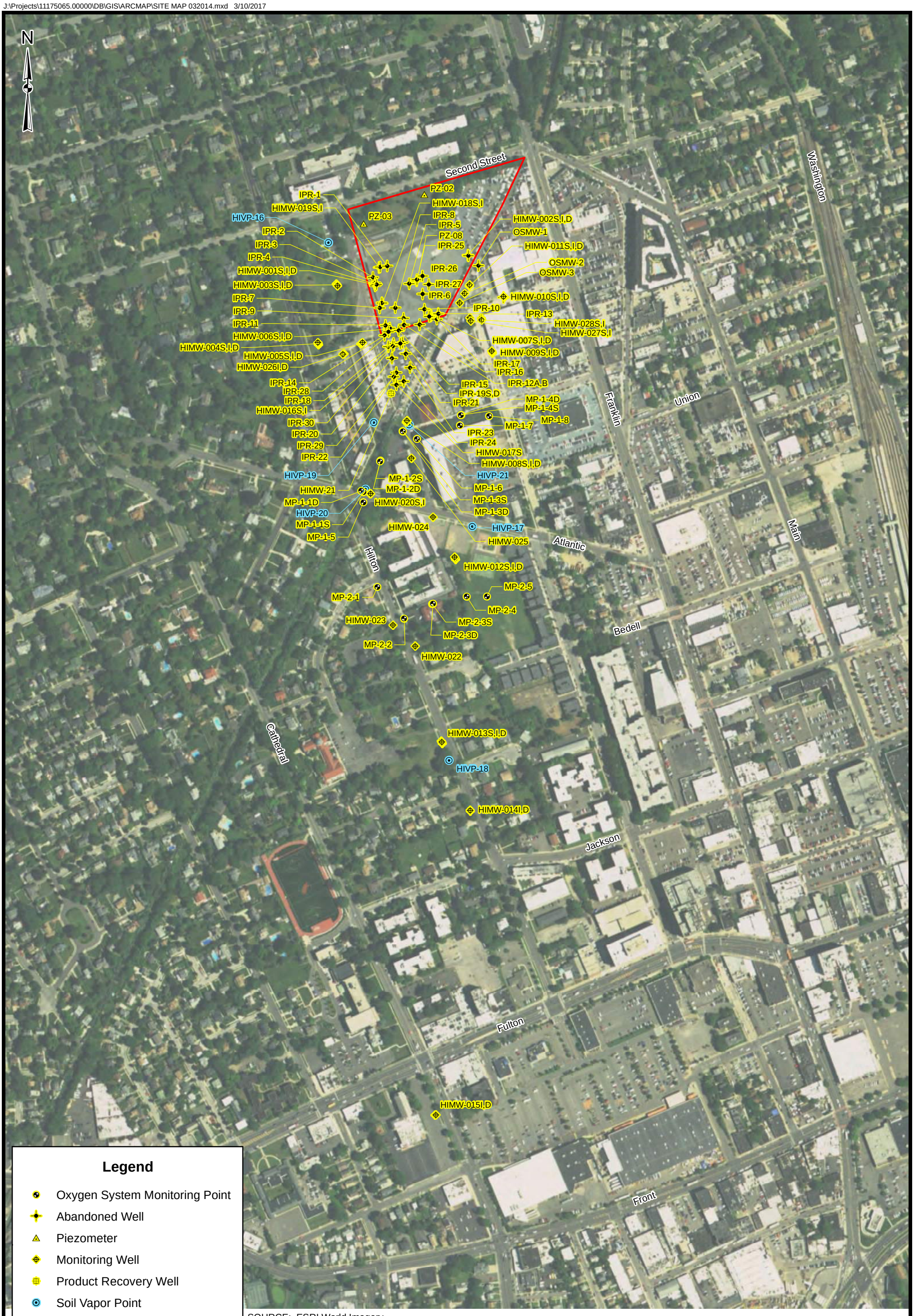
URS Corporation

LOCATION MAP

FIGURE 1

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\GROUNDWATER MONITORING\SECOND QUARTER 2014\FIGURE-1.dwg 6/11/14 - 1 RAL

J:\Projects\11175065.00000\DB\GIS\ARCMAP\SITE MAP 032014.mxd 3/10/2017



Legend

- Oxygen System Monitoring Point
- Abandoned Well
- Piezometer
- Monitoring Well
- Product Recovery Well
- Soil Vapor Point
- Former MGP Site Boundary

SOURCE: ESRI World Imagery

400 0 400 Feet

AECOM

NATIONAL GRID HEMPSTEAD INTERSECTION STREET FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY
SITE MAP - SEPTEMBER-DECEMBER 2016

FIGURE 2

J:\Projects\11175065.00000\DB\GIS\ARCMAP\GROUNDWATER TREATMENT LOCATIONS (4th Qtr 2016).mxd 3/10/2017

N

INSET 1

HISB-114
MP-1-1S,1D
HISB-116
HIMW-020S,I
HISB-105
MP-1-5
HISB-105-2
HIGP-054
HIGP-053
0
200 Feet

INSET 2

HIGP-047
MP-1-4S,4D
HISB-103
HISB-104
MP-1-8
HIGP-051
HIMW-008S,I,D
HISB-102
HISB-102-2
HIGP-052
MP-1-7
MP-1-3S,3D
MP-1-6
HISB-101
HIMW-025
SEALEY
0
200 Feet

NATIONAL GRID
FORMER MGP SITE

HIVP-16
HIMW-003S,I,D
HIMW-010S,I,D
HIMW-028S,I
HIMW-027S,I
HIMW-004S,I,D
HIMW-026I,D
HIMW-009S,I,D
HIGP-050
HIGP-048
HIVP-19
SEE INSET 1
HIGP-047
MP-1-4S,D
HISB-104
MP-1-8
MP-1-6
MP-1-7
HISB-100
MP-1-3S
HISB-101
MP-1-2S,D
HIMW-025
SEE INSET 2
HISB-114
HIGP-057
MP-1-1S,D
MP-1-5
HIGP-053
HISB-106
HIMW-024
HIGP-055
HIVP-17
HIGP-056
HIMW-012S,I,D
MP-2-1
HISB-107
MP-2-5
MP-2-3S,D
MP-2-4
HIGP-068
HISB-115
MP-2-2
HIMW-023
HIGP-049
HIMW-022
HIGP-061
HISB-109
HIGP-064
HIGP-063
HISB-108
HIGP-067
HIGP-062
HIGP-059
HIGP-065
HIMW-013S,I,D
HIVP-18
HIGP-070
HIGP-066
HIMW-014I,D
HIGP-058
HIGP-069
HIGP-072
HIGP-071
HIMW-015I,D

HAMILTON PLACE
SECOND STREET
FRANKLIN AVENUE
L.I.R.R. R.O.W.
HILTON AVENUE
BARNES LANE
MEDICAL PLACE
WENDELL STREET
OLD FRANKLIN STREET
MAIN STREET
SMITH STREET
UNION PLACE
ATLANTIC AVENUE
SEALEY AVENUE
KELLUM PLACE
GARDEN PLACE
SAINT PAULS PLACE
KENSINGTON COURT
TERRACE AVENUE
BEDELL STREET
RUNDLE COURT
NORTH FRANKLIN STREET
CHELSEA PLACE
CATHEDRAL AVENUE
RYAN COURT
HILTON PLACE
CATHEDRAL COURT
JACKSON STREET
MULFORD PLACE
FULTON AVENUE
BELL STREET

Legend

- Monitoring Well/Piezometer/Recovery Well/ Oxygen System Monitoring Point
- Vapor Monitoring Location
- Abandoned Well
- Temporary Groundwater Sample Location (Taken from RI Report, 2006)
- Temporary Groundwater Sample Location (URS, 2008-2009)
- Former MGP Site Boundary
- Planned Groundwater Treatment System
- Installed Groundwater Treatment System

Estimated Extent of Groundwater Plume:

- ≥ 100 µg/L
- ≥ 1,000 µg/L
- ≥ 5,000 µg/L
- In-Situ Solidification Area
- IRM Excavation Area

Source: ESRI World Imagery

300 0 300 Feet

AECOM

NATIONAL GRID HEMPSTEAD INTERSECTION STREET FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NEW YORK
SOIL REMEDIATION AND GROUNDWATER TREATMENT LOCATIONS

FIGURE 3

HIMW–003S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
23–33	ND–36	ND
80.5–90.5	ND–13	ND
133–143	ND–8.2	ND–30

HIMW–008S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–8,240 (16)	ND–3,069 (1)
63–73	ND–457 (ND)	ND–251 (ND)
102–112	ND–16 (ND)	ND–46 (ND)

HIMW–011S,I		
DEPTH	TOT. BTEX	TOT. PAHs
28–38	603–13,920	2,813–13,076
80–90	ND–49	ND–3

HIMW–014 I,D		
DEPTH	TOT. BTEX	TOT. PAHs
85–95	3–273 (4)	25–288 (27)
140–150	ND–15	ND–6

HIMW–022		
DEPTH	TOT. BTEX	TOT. PAHs
54–64	ND–83 (ND)	ND–91 (ND)

HIMW–025		
DEPTH	TOT. BTEX	TOT. PAHs
42–52	ND–1,320 (4)	ND–573 (ND)

HIMW–028S,I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	ND–213 (206)	10–738 (344)
50–70	ND (ND)	ND (ND)

HIMW–004S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
30–40	ND–4	ND–1
80–90	ND–13	ND
167–177	ND–4	ND–1

HIMW–009S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
28–38	ND–16	ND–8
70–80	ND–2	ND
113–123	ND–16	ND–10

HIMW–012S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
22–32	ND–338.8 (ND)	ND–1,391 (ND)
63–73	6–256	65–527
117–127	ND–6	ND–2

HIMW–015 I,D		
DEPTH	TOT. BTEX	TOT. PAHs
80–90	1–111 (1)	ND–273 (10)
141.5–151.5	ND–94 (ND)	ND–1 (ND)

HIMW–023		
DEPTH	TOT. BTEX	TOT. PAHs
66–76	ND–43 (ND)	ND–43 (ND)

HIMW–26 I,D		
DEPTH	TOT. BTEX	TOT. PAHs
65–85	ND (ND)	ND–3 (3)
115–135	24–87 (63)	398–1,749 (398)

OSMW–02		
DEPTH	TOT. BTEX	TOT. PAHs
30–40	2,604	3,517

HIMW–005S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
27–37	ND–232 (ND)	ND–765 (ND)
80–90	50–439 (78)	891–5,337 (891)
130–140	ND–359 (67)	ND–2,698 (778)

HIMW–010S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
28–38	ND–33	1–150
80.5–90.5	ND–13	ND
112.5–132.5	ND–16	ND

HIMW–013S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
38–48	ND–11	ND
70–80	ND–313 (ND)	ND–156 (ND)
110–120	2–30 (3)	ND–28 (14)

HIMW–020S,I		
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–3 (ND)	ND–5 (ND)
63–73	ND–474 (6)	ND–3,968 (ND)

HIMW–024		
DEPTH	TOT. BTEX	TOT. PAHs
44.6–54.6	ND–900 (ND)	ND–1,024 (5)

HIMW–027S, I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	645–1,483 (645)	695–1,807 (695)
50–70	ND–2 (ND)	ND–17 (ND)

OSMW–03		
DEPTH	TOT. BTEX	TOT. PAHs
29–39	4,301	2,911

N

OLD FRANKLIN STREET
MAIN STREET
FRANKLIN AVENUE
INTERSECTION STREET
SMITH STREET
SEALEY AVENUE
MARGARET COURT
BEDELL STREET
TERRACE AVENUE
JACKSON STREET
HILTON AVENUE
FULTON AVENUE
BELL STREET
CATHEDRAL AVENUE
ST. PAUL'S ROAD
MIRSCHEL PARK
ATLANTIC AVENUE
RYAN COURT
RUNDLE COURT
HILTON PLACE
MULFORD PLACE
CATHEDRAL COURT
CHELSEA PLACE
KENSINGTON COURT
WENDELL STREET
WATER PLACE
BARNES PLACE
HAMILTON PLACE
SECOND STREET
GARDEN PLACE
L.I.R.R. R.O.W.
NATIONAL GRID SITE
PZ–02
PZ–03
HIMW–09S
HIMW–09I
HIMW–09S,I,D
HIMW–10S,I,D
HIMW–28I
HIMW–28S
HIMW–11I
HIMW–27S
HIMW–27I
OSMW–2
OSMW–3
HIMW–11S
HIMW–08S
HIMW–21
HIMW–05S
HIMW–05I
HIMW–05D
HIMW–26D
HIMW–26I
HIMW–03D
HIMW–03I
HIMW–03S
HIMW–04I
HIMW–04S
HIMW–04D
MP–1–8
MP–1–4S
MP–1–7
MP–1–4D
MP–1–3S
MP–1–3D
MP–1–6
HIMW–25
HIMW–08D
HIMW–08I
SYSTEM 1
MP–1–2S
MP–1–2D
HIMW–20S
HIMW–20I
MP–1–1S
MP–1–5
MP–1–1D
HIMW–24
MP–2–5
MP–2–4
SYSTEM 2
MP–2–3D
MP–2–3S
MP–2–2
MP–2–1
HIMW–12I
HIMW–12S
HIMW–12D
HIMW–22
HIMW–23
HIMW–13S,I,D
HIMW–14I,D
HIMW–15I,D

HIMW–13 ⊕ MONITORING WELL
PZ–02 △ PIEZOMETER
MP–2–1 ⊕ OXYGEN SYSTEM MONITORING WELL
NA NOT ANALYZED
ND NOT DETECTED

LOCATION ID → HIMW–015 I,D
DEPTH (ft bgs) →

DEPTH	TOT. BTEX	TOT. PAHs
80–90	1–111 (1)	ND–273 (10)
141.5–151.5	ND–94 (ND)	ND–1 (ND)

← CONCENTRATION UNITS ARE ug/L (SEPTEMBER 2016 CONCENTRATION)

* SOME LOCATIONS ON SITE AND ADJACENT TO SITE ARE NOT SHOWN FOR FIGURE CLARITY.

LEGEND:

- EXISTING HOUSE OR BUILDING
- NATIONAL GRID PROPERTY BOUNDARY
- ESTIMATED EXTENT OF GROUNDWATER PLUME AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS EQUAL TO OR GREATER THAN 100 ug/L
- ESTIMATED EXTENT OF GROUNDWATER PLUME AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS. DASHED LINES REPRESENT CONTAMINATION CONCENTRATIONS THAT ARE LIKELY INFLUENCED BY THIRD PARTY SOURCES.
- INSTALLED GROUNDWATER TREATMENT SYSTEM
- LIMIT OF MGP SOURCE MATERIAL TREATMENT

150' 0 150'
SCALE IN FEET

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\GROUNDWATER MONITORING\THIRD QUARTER 2016\FIGURE 4.dwg 3/8/17 – 5 RAL

AECOM

NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

EXTENT OF DISSOLVED-PHASE PLUME AND GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2016

FIGURE 4

HIMW–003S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
23–33	ND–36 (ND)	ND (ND)
80.5–90.5	ND–13 (ND)	ND (ND)
133–143	ND–8.2 (ND)	ND–30 (ND)

HIMW–008S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–8,240 (137)	ND–3,069 (7)
63–73	ND–457 (ND)	ND–251 (ND)
102–112	ND–16 (ND)	ND–46 (ND)

HIMW–011S,I		
DEPTH	TOT. BTEX	TOT. PAHs
28–38	603–13,920	2,813–13,076
80–90	ND–49	ND–3

HIMW–014 I,D		
DEPTH	TOT. BTEX	TOT. PAHs
85–95	3–273 (4)	16–288 (16)
140–150	ND–15 (ND)	ND–6 (ND)

HIMW–022		
DEPTH	TOT. BTEX	TOT. PAHs
54–64	ND–83 (ND)	ND–91 (ND)

HIMW–025		
DEPTH	TOT. BTEX	TOT. PAHs
42–52	ND–1,320 (ND)	ND–573 (ND)

HIMW–028S,I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	ND–213 (79)	10–738 (260)
50–70	ND (ND)	ND (ND)

HIMW–004S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
30–40	ND–4	ND–1
80–90	ND–13	ND
167–177	ND–4	ND–1

HIMW–009S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
28–38	ND–16	ND–8
70–80	ND–2	ND
113–123	ND–16	ND–10

HIMW–012S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
22–32	ND–338.8 (ND)	ND–1,391 (ND)
63–73	6–256	65–527
117–127	ND–6	ND–2

HIMW–015 I,D		
DEPTH	TOT. BTEX	TOT. PAHs
80–90	1–111 (1)	ND–273 (8)
141.5–151.5	ND–94 (ND)	ND–1 (ND)

HIMW–023		
DEPTH	TOT. BTEX	TOT. PAHs
66–76	ND–43 (ND)	ND–43 (ND)

HIMW–26 I, D		
DEPTH	TOT. BTEX	TOT. PAHs
65–85	ND (ND)	ND–3 (3)
115–135	24–87 (52)	118–1,749 (118)

OSMW–02		
DEPTH	TOT. BTEX	TOT. PAHs
30–40	2,604	3,517

HIMW–005S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
27–37	ND–232 (ND)	ND–765 (ND)
80–90	50–439 (71)	891–5,337 (1,893)
130–140	ND–359 (56)	ND–2,698 (2,046)

HIMW–010S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
28–38	ND–33	1–150
80.5–90.5	ND–13	ND
112.5–132.5	ND–16	ND

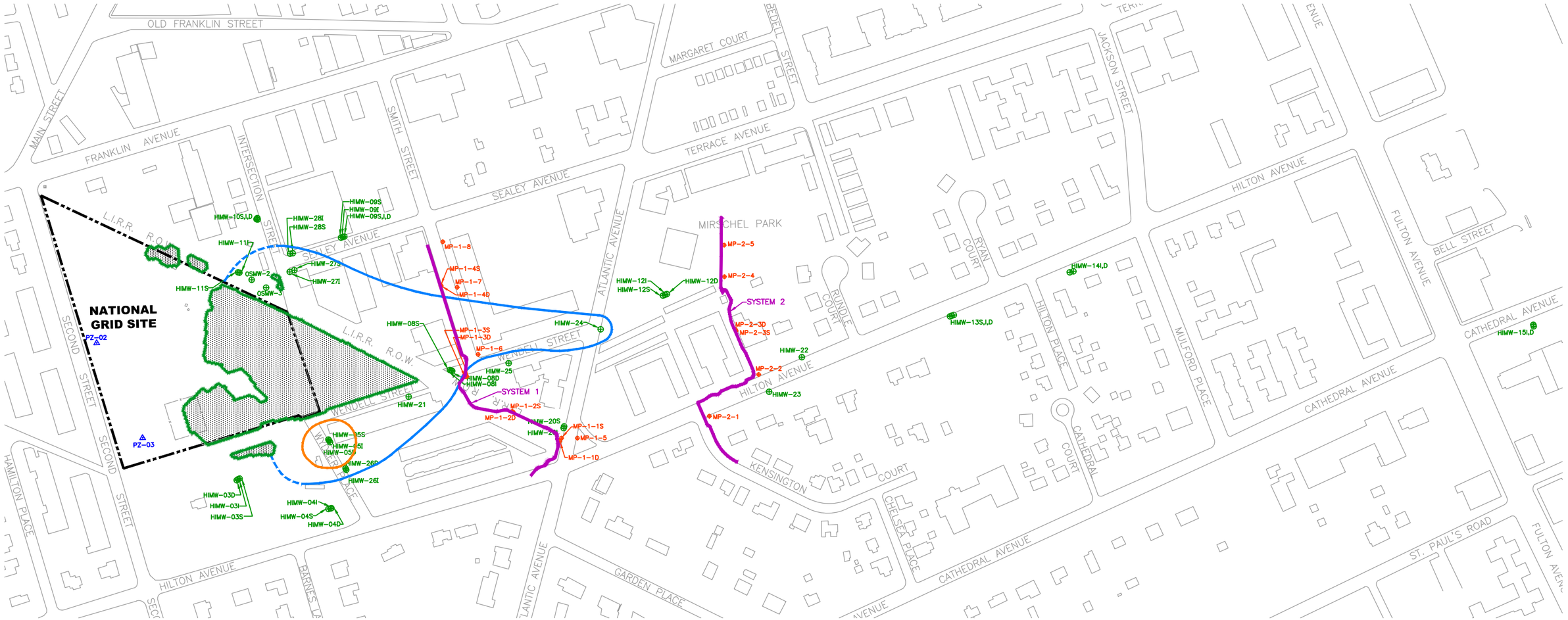
HIMW–013S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
38–48	ND–11 (ND)	ND (ND)
70–80	ND–313 (ND)	ND–156 (ND)
110–120	2–30 (3)	ND–28 (15)

HIMW–020S,I		
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–3 (ND)	ND–5 (ND)
63–73	ND–474 (ND)	ND–3,968 (ND)

HIMW–024		
DEPTH	TOT. BTEX	TOT. PAHs
44.6–54.6	ND–900 (1)	ND–1,024 (120)

HIMW–027S, I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	447–1,483 (447)	695–1,807 (705)
50–70	ND–2 (ND)	ND–17 (ND)

OSMW–03		
DEPTH	TOT. BTEX	TOT. PAHs
29–39	4,301	2,911



HIMW–13 ⊕ MONITORING WELL
PZ–02 △ PIEZOMETER
MP–2–1 ⊕ OXYGEN SYSTEM MONITORING WELL
NA NOT ANALYZED
ND NOT DETECTED

LEGEND:

LOCATION ID → HIMW–015 I,D
DEPTH (ft bgs) →

DEPTH	TOT. BTEX	TOT. PAHs
80–90	1–111 (1)	ND–273 (8)
141.5–151.5	ND–94 (ND)	ND–1 (ND)

← CONCENTRATION UNITS ARE ug/L (DECEMBER 2016 CONCENTRATION)

* SOME LOCATIONS ON SITE AND ADJACENT TO SITE ARE NOT SHOWN FOR FIGURE CLARITY.

EXISTING HOUSE OR BUILDING
NATIONAL GRID PROPERTY BOUNDARY
ESTIMATED EXTENT OF GROUNDWATER PLUME AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS EQUAL TO OR GREATER THAN 1,000 ug/L
ESTIMATED EXTENT OF GROUNDWATER PLUME AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS EQUAL TO OR GREATER THAN 100 ug/L
ESTIMATED EXTENT OF GROUNDWATER PLUME AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS. DASHED LINES REPRESENT CONTAMINATION CONCENTRATIONS THAT ARE LIKELY INFLUENCED BY THIRD PARTY SOURCES.
INSTALLED GROUNDWATER TREATMENT SYSTEM
LIMIT OF MGP SOURCE MATERIAL TREATMENT

150' 0 150'
SCALE IN FEET

AECOM

NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

EXTENT OF DISSOLVED-PHASE PLUME AND GROUNDWATER ANALYTICAL RESULTS - DECEMBER 2016

FIGURE 5

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\GROUNDWATER MONITORING\FOURTH QUARTER 2016\FIGURE 5.dwg 3/8/17 – 5 RAL

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\3rd & 4th QUARTER 2016\FIGURE 6.dwg 2/28/17 - 1 RAL

N

PZ-02, 43.34

NATIONAL GRID
FORMER MGP SITE

PZ-03, 43.01

HIMW-03S, 42.78

OSMW-3, NM

HIMW-11S, NM

HIMW-10S, 43.21

OSMW-2, 42.68

HIMW-28S, 41.55

HIMW-09S, 42.38

HIMW-05S, 42.22

HIMW-04S, 41.98

HIMW-27S, 41.51

HIMW-8S, 42.00

HIMW-20S, 41.40

HIMW-12S, 40.79

HIMW-13S, 38.90

43

42.5

42

41.5

41

40.5

40

39.5

39

L.I.R.R. R.O.W.

SECOND STREET

HAMILTON AVENUE

HILTON AVENUE

BARNES LANE

WYLER PLACE

WENDELL STREET

SEALEY AVENUE

FRANKLIN AVENUE

MAIN STREET

OLD FRANKLIN STREET

MEADOW PLACE

STOWE PLACE

SAMMIS PLACE

MILLER PLACE

UNION PLACE

INTERSECTION STREET

SMITH STREET

ATLANTIC AVENUE

GARDEN PLACE

KENSINGTON COURT

CATHEDRAL AVENUE

CHELSEA PLACE

MIRSCHEL PARK

TERRACE AVENUE

MARGARET COURT

BEDELL STREET

NORTH FRANKLIN STREET

WEST COLUMBIA ST

RUNDLE COURT

RYAN COURT

JACKSON STREET

KELLUM PLACE

CATHEDRAL COURT

HILTON PLACE

MULFORD PLACE

FULTON AVENUE

BELL STREET

ST. PAUL'S

LEGEND:

⊕	MONITORING WELL
⊞	IPR WELL
△	PIEZOMETER
→	GROUNDWATER FLOW DIRECTION
44	POTENTIOMETRIC SURFACE CONTOUR
— - - —	FORMER MGP SITE BOUNDARY
HIMW-8S, 44.10	LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
NM	NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'

SCALE IN FEET

NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR SHALLOW GROUNDWATER
SEPTEMBER 15, 2016

FIGURE 6

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\3rd & 4th QUARTER 2016\FIGURE 7.dwg 2/28/17 - 3 RAL

N

NATIONAL GRID
FORMER MGP SITE

L.I.R.R. R.O.W.

HIMW-11I, 42.84
HIMW-27I, 41.63
HIMW-03I, 42.26
HIMW-05I, 42.00
HIMW-10I, 43.34
HIMW-28I, 41.63
HIMW-04I, 41.80
HIMW-09I, 42.30
HIMW-26I, 41.19
HIMW-08I, 41.82
HIMW-25, 41.75
HIMW-20I, 41.32
HIMW-24, 41.22
HIMW-12I, 40.88
HIMW-23, 40.40
HIMW-22, 40.25
HIMW-13I, 38.88
HIMW-14I, 38.99
HIMW-15I, 36.17

42.5
43
42
41.5
41
40.5
40
39.5
39
38.5
38
37.5
37
36.5

SECOND STREET
HILTON AVENUE
BARNES LANE
WYDLER PLACE
WENDELL STREET
SEALEY AVENUE
FRANKLIN AVENUE
OLD FRANKLIN STREET
MAIN STREET
STOWE PLACE
SAMMIS PLACE
MILLER PLACE
UNION PLACE
SMITH STREET
HEMPSTEAD INTERSECTION STREET
ATLANTIC AVENUE
GARDEN PLACE
KELLUM PLACE
MARGARET COURT
TERRACE AVENUE
BEDELL STREET
MIRSCHEL PARK
KENSINGTON COURT
RUNDLE COURT
CHELSEA PLACE
CATHEDRAL AVENUE
RYAN COURT
CATHEDRAL COURT
HILTON PLACE
JACKSON STREET
NORTH FRANKLIN STREET
WEST COLUMBIA ST
MULFORD PLACE
FULTON AVENUE
BELL STREET
ST. PAUL'S

LEGEND:

⊕	MONITORING WELL
⊞	IPR WELL
→	GROUNDWATER FLOW DIRECTION
44	POTENTIOMETRIC SURFACE CONTOUR
— - - —	FORMER MGP SITE BOUNDARY
HIMW-08I, 44.12	LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
NM	NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'
SCALE IN FEET

NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR INTERMEDIATE GROUNDWATER
SEPTEMBER 15, 2016

FIGURE 7

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\3rd & 4th QUARTER 2016\FIGURE 8.dwg 2/21/17 - 2 RAL

N

NATIONAL GRID
FORMER MGP SITE

L.I.R.R. R.O.W.

HIMW-11D, 42.78

HIMW-03D, 41.77

HIMW-05D, 41.21

HIMW-04D, 40.73

HIMW-09D, 42.20

HIMW-26D, 40.93

HIMW-08D, 41.74

HIMW-12D, NM

HIMW-13D, 38.90

HIMW-14D, 35.94

HIMW-15D, 33.65

43
41
40
39
38
37
36
35
34

SECOND STREET
HILTON AVENUE
BARNES LANE
WYDLER PLACE
WENDELL STREET
INTERSECTION STREET
SEALEY AVENUE
SMITH STREET
FRANKLIN AVENUE
MAIN STREET
OLD FRANKLIN STREET
MEADOW PLACE
STOWE PLACE
SAMMIS PLACE
MILLER PLACE
UNION PLACE
ATLANTIC AVENUE
GARDEN PLACE
KELLUM PLACE
MIRSCHEL PARK
TERRACE AVENUE
MARGARET COURT
BEDELL STREET
KENSINGTON COURT
CHELSEA PLACE
CATHEDRAL AVENUE
RUNDLE COURT
RYAN COURT
NORTH FRANKLIN STREET
WEST COLUMBIA ST
CATHEDRAL COURT
HILTON PLACE
JACKSON STREET
MULFORD PLACE
FULTON AVENUE
BELL STREET
ST. PAUL'S

LEGEND:

⊕	MONITORING WELL
→	GROUNDWATER FLOW DIRECTION
43	POTENTIOMETRIC SURFACE CONTOUR
— - - —	FORMER MGP SITE BOUNDARY
HIMW-14D, 39.35	LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
NM	NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'
SCALE IN FEET

NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR DEEP GROUNDWATER
SEPTEMBER 15, 2016

FIGURE 8

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\3rd & 4th QUARTER 2016\FIGURE 9.dwg 3/10/17 - 1 RAL

N

PZ-02, 42.66

NATIONAL GRID
FORMER MGP SITE

PZ-03, 42.39

HIMW-03S, 41.97

OSMW-3, 41.91

HIMW-11S, 42.10

HIMW-10S, 42.57

OSMW-2, 41.97

HIMW-28S, 40.90

HIMW-09S, 41.65

HIMW-27S, 40.71

HIMW-04S, 41.38

HIMW-05S, 41.52

HIMW-8S, 41.21

HIMW-20S, 40.70

HIMW-12S, 40.12

HIMW-13S, 38.28

42.5

42

41.5

41

40.5

40

39.5

39

38.5

L.I.R.R. R.O.W.

MAIN STREET

SECOND STREET

FRANKLIN AVENUE

MEADOW PLACE

STOWE PLACE

SAMMIS PLACE

OLD FRANKLIN STREET

MILLER PLACE

UNION PLACE

INTERSECTION STREET

HILTON AVENUE

BARNES LANE

WYDLER PLACE

WENDELL STREET

SEALEY AVENUE

SMITH STREET

ATLANTIC AVENUE

GARDEN PLACE

KELLUM PLACE

MARGARET COURT

TERRACE AVENUE

MIRSCHEL PARK

BEDELL STREET

KENSINGTON COURT

CATHEDRAL AVENUE

CHELSEA PLACE

RUNDLE COURT

NORTH FRANKLIN STREET

WEST COLUMBIA ST

RYAN COURT

JACKSON STREET

CATHEDRAL COURT

HILTON PLACE

MULFORD PLACE

FULTON AVENUE

BELL STREET

ST. PAUL'S

LEGEND:

- MONITORING WELL
- IPR WELL
- PIEZOMETER
- GROUNDWATER FLOW DIRECTION
- 44 — POTENTIOMETRIC SURFACE CONTOUR
- FORMER MGP SITE BOUNDARY
- HIMW-8S, 44.10 — LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
- NM — NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'

SCALE IN FEET

NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR SHALLOW GROUNDWATER
DECEMBER 12-13, 2016

FIGURE 9

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\3rd & 4th QUARTER 2016\FIGURE 10.dwg 3/10/17 - 3 RAL

N

NATIONAL GRID
FORMER MGP SITE

HIMW-03I, 41.76
HIMW-27I, 40.90
HIMW-11I, 42.10
HIMW-10I, 42.63
HIMW-28I, 40.72
HIMW-09I, 41.60
HIMW-05I, 41.41
HIMW-04I, 41.36
HIMW-26I, 40.32
HIMW-08I, 41.11
HIMW-25, 41.05
HIMW-20I, 40.72
HIMW-24, 40.61
HIMW-12I, 40.25
HIMW-23, 39.73
HIMW-22, 39.54
HIMW-13I, 38.27
HIMW-14I, 38.32
HIMW-15I, 35.87

42.5
42
41.5
41
40.5
40
39.5
39
38.5
38
37.5
37
36.5
36

SECOND STREET
HILTON AVENUE
BARNES LANE
WYDLER PLACE
WENDELL STREET
L.I.R.R. R.O.W.
FRANKLIN AVENUE
SEALEY AVENUE
INTERSECTION STREET
OLD FRANKLIN STREET
MEADOW PLACE
STOWE PLACE
SAMMIS PLACE
MAIN STREET
MILLER PLACE
UNION PLACE
SMITH STREET
ATLANTIC AVENUE
GARDEN PLACE
KELLUM PLACE
KENSINGTON COURT
CHELSEA PLACE
CATHEDRAL AVENUE
MIRSCHEL PARK
TERRACE AVENUE
MARGARET COURT
BEDELL STREET
RUNDLE COURT
NORTH FRANKLIN STREET
WEST COLUMBIA ST
RYAN COURT
CATHEDRAL COURT
HILTON PLACE
JACKSON STREET
MULFORD PLACE
FULTON AVENUE
BELL STREET
ST. PAUL'S

LEGEND:

- MONITORING WELL
- IPR WELL
- GROUNDWATER FLOW DIRECTION
- 44 POTENTIOMETRIC SURFACE CONTOUR
- FORMER MGP SITE BOUNDARY
- HIMW-08I, 44.12 LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
- NM NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'
SCALE IN FEET

NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR INTERMEDIATE GROUNDWATER
DECEMBER 12-13, 2016

FIGURE 10

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\3rd & 4th QUARTER 2016\FIGURE 11.dwg 3/10/17 - 2 RAL

N

NATIONAL GRID
FORMER MGP SITE

HIMW-03D, 41.47
HIMW-05D, 41.03
HIMW-04D, 40.88
HIMW-26D, 40.21
HIMW-11D, 42.09
HIMW-09D, 41.59
HIMW-08D, 41.10
HIMW-12D, NM
HIMW-13D, 38.22
HIMW-14D, 36.61
HIMW-15D, 34.43

42
41
41
40
39
38
37
36
35

SECOND STREET
HILTON AVENUE
BARNES LANE
WYDLER PLACE
WENDELL STREET
L.I.R.R. R.O.W.
INTERSECTION STREET
FRANKLIN AVENUE
MAIN STREET
MEADOW PLACE
STOWE PLACE
SAMMIS PLACE
OLD FRANKLIN STREET
MILLER PLACE
UNION PLACE
SEALEY AVENUE
SMITH STREET
ATLANTIC AVENUE
GARDEN PLACE
KENSINGTON COURT
CHELSEA PLACE
CATHEDRAL AVENUE
CATHEDRAL COURT
HILTON PLACE
MIRSCHEL PARK
TERRACE AVENUE
MARGARET COURT
RUNDLE COURT
RYAN COURT
BEDELL STREET
NORTH FRANKLIN STREET
WEST COLUMBIA
KELLUM PLACE
JACKSON STREET
MULFORD PLACE
FULTON AVENUE
BELL STREET
ST. PAUL'S

LEGEND:

⊕	MONITORING WELL
→	GROUNDWATER FLOW DIRECTION
43	POTENTIOMETRIC SURFACE CONTOUR
- - -	FORMER MGP SITE BOUNDARY
HIMW-14D, 39.35	LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
NM	NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'
SCALE IN FEET

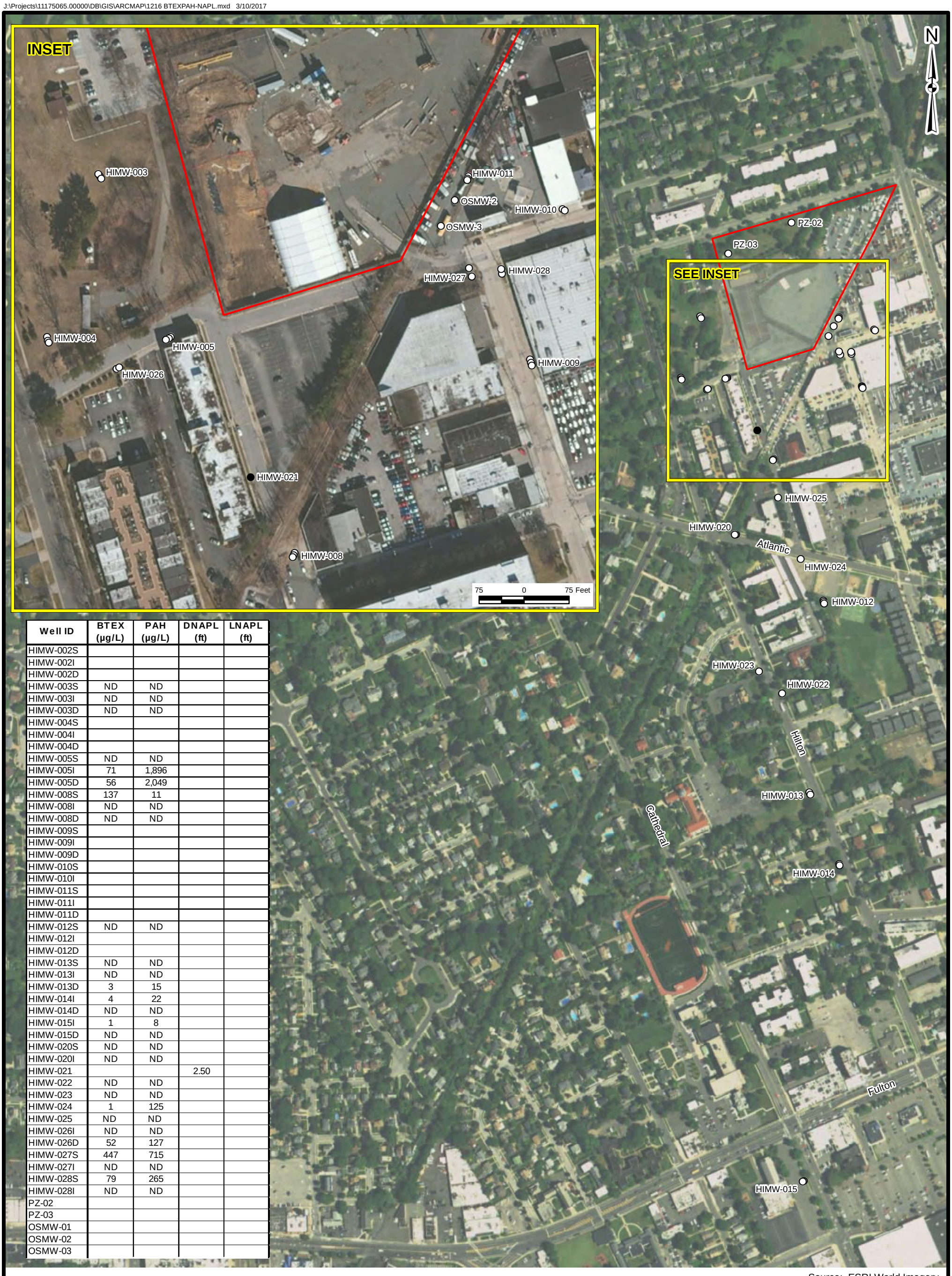
NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR DEEP GROUNDWATER
DECEMBER 12-13, 2016

FIGURE 11

J:\Projects\11175065.00000\DB\GIS\ARCMAP\1216 BTEXPAH-NAPL.mxd 3/10/2017



Well ID	BTEX (µg/L)	PAH (µg/L)	DNAPL (ft)	LNAPL (ft)
HIMW-002S				
HIMW-002I				
HIMW-002D				
HIMW-003S	ND	ND		
HIMW-003I	ND	ND		
HIMW-003D	ND	ND		
HIMW-004S				
HIMW-004I				
HIMW-004D				
HIMW-005S	ND	ND		
HIMW-005I	71	1,896		
HIMW-005D	56	2,049		
HIMW-008S	137	11		
HIMW-008I	ND	ND		
HIMW-008D	ND	ND		
HIMW-009S				
HIMW-009I				
HIMW-009D				
HIMW-010S				
HIMW-010I				
HIMW-011S				
HIMW-011I				
HIMW-011D				
HIMW-012S	ND	ND		
HIMW-012I				
HIMW-012D				
HIMW-013S	ND	ND		
HIMW-013I	ND	ND		
HIMW-013D	3	15		
HIMW-014I	4	22		
HIMW-014D	ND	ND		
HIMW-015I	1	8		
HIMW-015D	ND	ND		
HIMW-020S	ND	ND		
HIMW-020I	ND	ND		
HIMW-021			2.50	
HIMW-022	ND	ND		
HIMW-023	ND	ND		
HIMW-024	1	125		
HIMW-025	ND	ND		
HIMW-026I	ND	ND		
HIMW-026D	52	127		
HIMW-027S	447	715		
HIMW-027I	ND	ND		
HIMW-028S	79	265		
HIMW-028I	ND	ND		
PZ-02				
PZ-03				
OSMW-01				
OSMW-02				
OSMW-03				

Legend

- Monitoring Well - Product Detected
- Monitoring Well - Product Not Detected
- Former MGP Site Boundary

Notes:
LOCID - Location Identifier
BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes
PAH - Polynuclear Aromatic Hydrocarbons
DNAPL - Dense Non-Aqueous Phase Liquid
LNAPL - Light Non-Aqueous Phase Liquid
µg/L - Micrograms per Liter
ft - Feet of Product Thickness
ND - Non Detect

Source: ESRI World Imagery

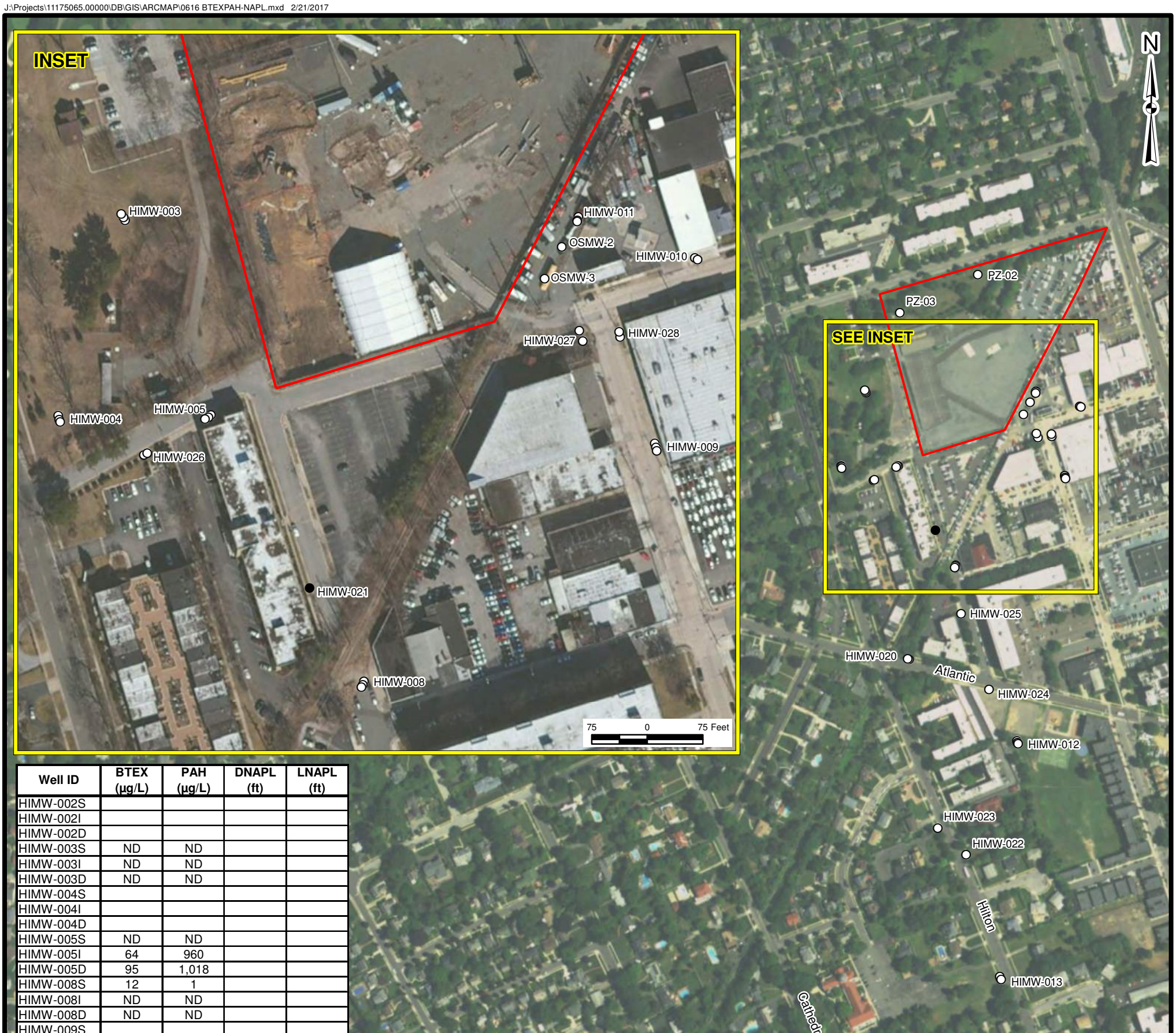
400 0 400 Feet

AECOM

HEMPSTEAD/GARDEN CITY, NY
TOTAL DISSOLVED-PHASE BTEX/PAH CONCENTRATIONS
FOURTH QUARTER 2016

FIGURE 5

J:\Projects\11175065.00000\DB\GIS\ARCMAP\0616 BTEXPAH-NAPL.mxd 2/21/2017



Well ID	BTEX (µg/L)	PAH (µg/L)	DNAPL (ft)	LNAPL (ft)
HIMW-002S				
HIMW-002I				
HIMW-002D				
HIMW-003S	ND	ND		
HIMW-003I	ND	ND		
HIMW-003D	ND	ND		
HIMW-004S				
HIMW-004I				
HIMW-004D				
HIMW-005S	ND	ND		
HIMW-005I	64	960		
HIMW-005D	95	1,018		
HIMW-008S	12	1		
HIMW-008I	ND	ND		
HIMW-008D	ND	ND		
HIMW-009S				
HIMW-009I				
HIMW-009D				
HIMW-010S				
HIMW-010I				
HIMW-011S				
HIMW-011I				
HIMW-011D				
HIMW-012S	ND	ND		
HIMW-012I				
HIMW-012D				
HIMW-013S	ND	ND		
HIMW-013I	ND	ND		
HIMW-013D	3	18		
HIMW-014I	5	30		
HIMW-014D	ND	ND		
HIMW-015I	2	10		
HIMW-015D	ND	ND		
HIMW-020S	ND	ND		
HIMW-020I	ND	ND		
HIMW-021			3.35	
HIMW-022	1	ND		
HIMW-023	ND	ND		
HIMW-024	ND	1		
HIMW-025	ND	ND		
HIMW-026I	ND	ND		
HIMW-026D	24	536		
HIMW-027S	1,206	1,752		
HIMW-027I	ND	ND		
HIMW-028S	213	738		
HIMW-028I	ND	ND		
PZ-02				
PZ-03				
OSMW-02				
OSMW-03				

Legend

- Monitoring Well - Product Detected
- Monitoring Well - Product Not Detected
- Former MGP Site Boundary

Notes:
LOCID - Location Identifier
BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes
PAH - Polynuclear Aromatic Hydrocarbons
DNAPL - Dense Non-Aqueous Phase Liquid
LNAPL - Light Non-Aqueous Phase Liquid
µg/L - Micrograms per Liter
ft - Feet of Product Thickness
ND - Non Detect

Source: ESRI World Imagery

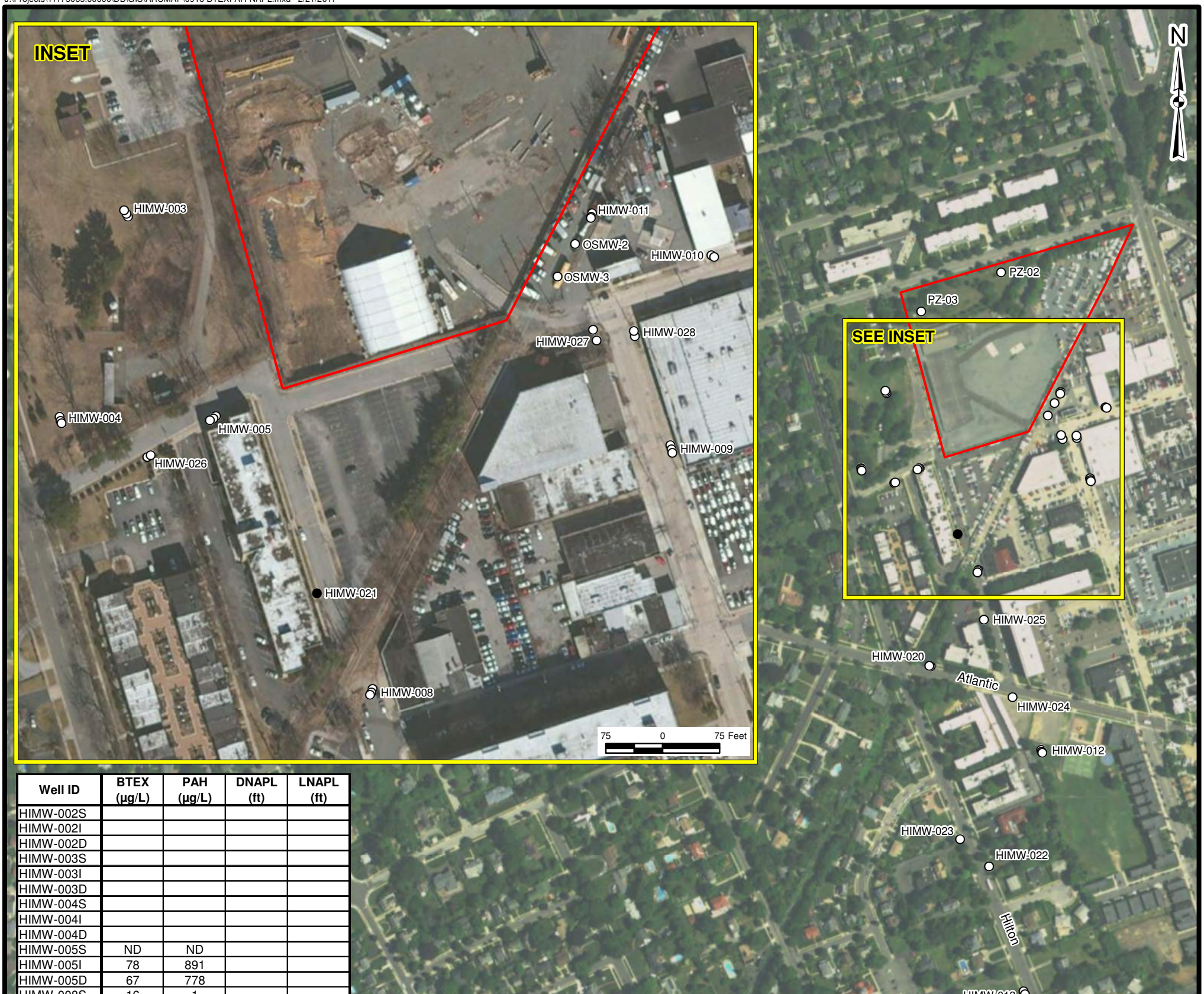
400 0 400 Feet

AECOM

HEMPSTEAD/GARDEN CITY, NY
TOTAL DISSOLVED-PHASE BTEX/PAH CONCENTRATIONS
SECOND QUARTER 2016

FIGURE 13

J:\Projects\11175065.00000\DB\GIS\ARCMAP\0916 BTEXPAH-NAPL.mxd 2/21/2017



Well ID	BTEX (µg/L)	PAH (µg/L)	DNAPL (ft)	LNAPL (ft)
HIMW-002S				
HIMW-002I				
HIMW-002D				
HIMW-003S				
HIMW-003I				
HIMW-003D				
HIMW-004S				
HIMW-004I				
HIMW-004D				
HIMW-005S	ND	ND		
HIMW-005I	78	891		
HIMW-005D	67	778		
HIMW-008S	16	1		
HIMW-008I	ND	ND		
HIMW-008D	ND	ND		
HIMW-009S				
HIMW-009I				
HIMW-009D				
HIMW-010S				
HIMW-010I				
HIMW-011S				
HIMW-011I				
HIMW-011D				
HIMW-012S	ND	ND		
HIMW-012I				
HIMW-012D				
HIMW-013S				
HIMW-013I	ND	ND		
HIMW-013D	3	14		
HIMW-014I	4	27		
HIMW-014D				
HIMW-015I	1	10		
HIMW-015D	ND	ND		
HIMW-020S	ND	ND		
HIMW-020I	6	ND		
HIMW-021			3.20	
HIMW-022	ND	ND		
HIMW-023	ND	ND		
HIMW-024	ND	5		
HIMW-025	4	ND		
HIMW-026I	ND	3		
HIMW-026D	63	398		
HIMW-027S	645	695		
HIMW-027I	ND	ND		
HIMW-028S	206	344		
HIMW-028I	ND	ND		
PZ-02				
PZ-03				
OSMW-01				
OSMW-02				
OSMW-03				

Legend

- Monitoring Well - Product Detected
- Monitoring Well - Product Not Detected
- Former MGP Site Boundary

Notes:

LOCID - Location Identifier
BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes
PAH - Polynuclear Aromatic Hydrocarbons
DNAPL - Dense Non-Aqueous Phase Liquid
LNAPL - Light Non-Aqueous Phase Liquid
µg/L - Micrograms per Liter
ft - Feet of Product Thickness
ND - Non Detect

Source: ESRI World Imagery

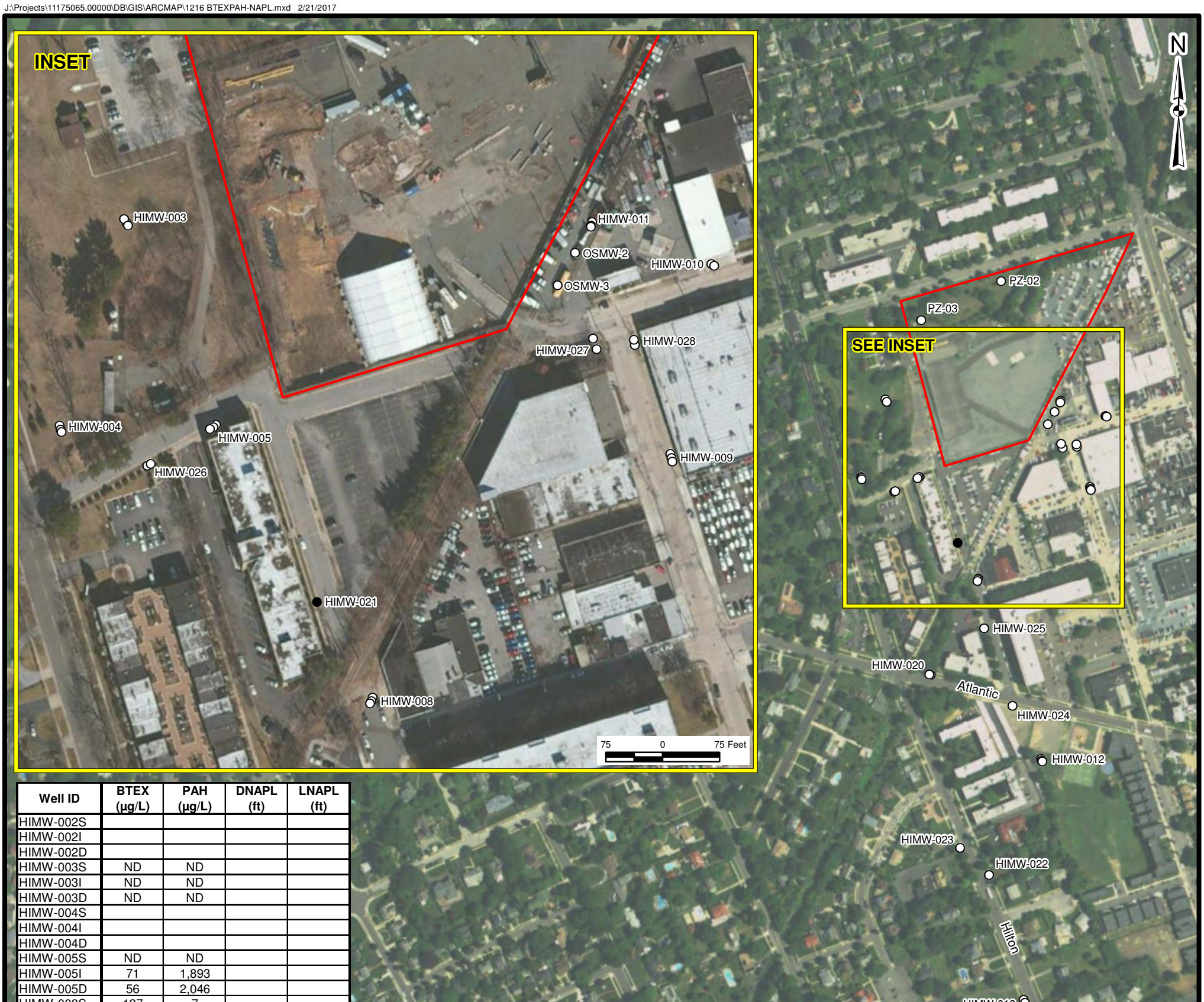
400 0 400 Feet

AECOM

HEMPSTEAD/GARDEN CITY, NY
TOTAL DISSOLVED-PHASE BTEX/PAH CONCENTRATIONS
THIRD QUARTER 2016

FIGURE 14

J:\Projects\11175065.00000\DB\GIS\ARCMAP\1216 BTEXPAH-NAPL.mxd 2/21/2017



Well ID	BTEX (µg/L)	PAH (µg/L)	DNAPL (ft)	LNAPL (ft)
HIMW-002S				
HIMW-002I				
HIMW-002D				
HIMW-003S	ND	ND		
HIMW-003I	ND	ND		
HIMW-003D	ND	ND		
HIMW-004S				
HIMW-004I				
HIMW-004D				
HIMW-005S	ND	ND		
HIMW-005I	71	1,893		
HIMW-005D	56	2,046		
HIMW-008S	137	7		
HIMW-008I	ND	ND		
HIMW-008D	ND	ND		
HIMW-009S				
HIMW-009I				
HIMW-009D				
HIMW-010S				
HIMW-010I				
HIMW-011S				
HIMW-011I				
HIMW-011D				
HIMW-012S	ND	ND		
HIMW-012I				
HIMW-012D				
HIMW-013S	ND	ND		
HIMW-013I	ND	ND		
HIMW-013D	3	15		
HIMW-014I	4	16		
HIMW-014D	ND	ND		
HIMW-015I	1	8		
HIMW-015D	ND	ND		
HIMW-020S	ND	ND		
HIMW-020I	ND	ND		
HIMW-021			2.50	
HIMW-022	ND	ND		
HIMW-023	ND	ND		
HIMW-024	1	120		
HIMW-025	ND	ND		
HIMW-026I	ND	ND		
HIMW-026D	52	118		
HIMW-027S	447	705		
HIMW-027I	ND	ND		
HIMW-028S	79	260		
HIMW-028I	ND	ND		
PZ-02				
PZ-03				
OSMW-01				
OSMW-02				
OSMW-03				

Legend

- Monitoring Well - Product Detected
- Monitoring Well - Product Not Detected
- Former MGP Site Boundary

Notes:
LOCID - Location Identifier
BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes
PAH - Polynuclear Aromatic Hydrocarbons
DNAPL - Dense Non-Aqueous Phase Liquid
LNAPL - Light Non-Aqueous Phase Liquid
µg/L - Micrograms per Liter
ft - Feet of Product Thickness
ND - Non Detect

Source: ESRI World Imagery

AECOM

HEMPSTEAD/GARDEN CITY, NY
TOTAL DISSOLVED-PHASE BTEX/PAH CONCENTRATIONS
FOURTH QUARTER 2016

FIGURE 15

APPENDIX A

DATA USABILITY SUMMARY REPORTS,

THIRD AND FOURTH QUARTERS 2016

(Provided in Electronic Format Only)

APPENDIX A
DATA USABILITY SUMMARY REPORT
THIRD QUARTER 2016

HEMPSTEAD INTERSECTION STREET FORMER MGP SITE
VILLAGES OF GARDEN CITY AND HEMPSTEAD
LONG ISLAND, NEW YORK

Analyses Performed by:
PACE ANALYTICAL

Prepared For:

NATIONAL GRID
175 EAST OLD COUNTRY RD.
HICKSVILLE, NY 11801

Prepared by:

URS CORPORATION
257 WEST GENESEE STREET, SUITE 400
BUFFALO, NY 14202-2657

FEBRUARY 2017

TABLE OF CONTENTS

TABLES
(Following Text)

APPENDICES
(Following Tables)

I. INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B - Guidance for Data Deliverables and Development of Data Usability Summary Reports*, May 2010.

This DUSR discusses the usability of the analytical data for twenty-four (24) groundwater samples, one (1) field duplicate, one (1) matrix spike/matrix spike duplicate (MS/MSD) pair, one (1) field blank, and three (3) trip blanks collected by URS personnel on September 16-23, 2016. Six (6) of the groundwater samples (i.e., HIMW-26I, -26D, -27S, -27I, -28S, and -28I) were collected as part of the oxygen treatment system design evaluation, while the remaining eighteen (18) groundwater samples were collected as part of the 2016 3rd quarter groundwater monitoring event at the Hempstead Intersection Street Former MGP Site.

II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION

The samples were analyzed by Pace Analytical for the following parameters:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) – USEPA Method SW8260C and
- Polynuclear aromatic hydrocarbons (PAHs) – USEPA Method SW8270D.

A limited data validation was performed on the samples in accordance with the guidelines presented in the following USEPA Region II documents:

- *Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C, SOP HW-24, Rev. 4,* October 2014 and

- *Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8270D, SOP HW-22, Rev. 4*, August 2008.

The limited data validation included a review of completeness of all required deliverables; holding times; quality control (QC) results (instrument tunes, calibration standards, blanks, matrix spike recoveries,

field duplicate analyses, laboratory control sample (LCS) recoveries, and surrogate/internal standard recoveries) to determine if the data are within the protocol-required QC limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers.

The validated analytical results are presented in Tables A-1 and A-2. Copies of the validated laboratory results (i.e., Form 1's) are presented in Attachment A. Copies of the chain-of-custodies, case narratives, and documentation supporting the qualification of data are presented in Attachment B. Only problems affecting data usability are discussed in this report.

III. DATA DELIVERABLE COMPLETENESS

Full deliverable data packages (i.e., NYSDEC ASP Category B or equivalent) were provided by the laboratory, and included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results.

IV. SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES

All samples were received by the laboratory intact, properly preserved, and under proper chain-of-custody (COC), except for the following instance.

Trip blank TB20160922 was not received by the laboratory, despite being reference on the COC. Typically, trip blanks have not exhibited BTEX contamination. Therefore, this non-conformance does not significantly impact the usability of the data for the associated samples.

All samples were analyzed/extracted within the required holding times.

V. NON-CONFORMANCES

The PAH continuing calibrations (CCAL) exhibited percent difference exceedances (i.e., >20% D) for indeno(1,2,3-cd)pyrene. The indeno(1,2,3-cd)pyrene results for the affected samples were qualified "UJ". Documentation supporting the qualification of data (i.e., Form 5 and 7) is presented in Attachment B.

VI. SAMPLE RESULTS AND REPORTING

All sample results were reported in accordance with method requirements and were adjusted for sample size and dilution factors. Results detected below the quantitation limits were qualified 'J' by the laboratory, while results reported from secondary dilution analyses were qualified 'D'.

A field duplicate was collected from monitoring well location HIMW-05I, which exhibited good field and analytical precision.

VII. SUMMARY

All sample analyses were found to be compliant with the method and validation criteria, and the data are usable as reported, except for those results qualified 'UJ' during the data validation, which should be considered conditionally usable. URS does not recommend the re-collection of any samples at this time.

Prepared By: Peter R. Fairbanks for Peter R. Fairbanks **Date:** 2/23/17
Peter R. Fairbanks, Senior Chemist

Reviewed By: _____ **Date:** 2/23/17
George E. Kisluk, Senior Chemist

DEFINITIONS OF USEPA REGION II DATA QUALIFIERS

U – The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R – The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

D – The sample results are reported from a separate secondary dilution analysis.

NJ – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
3RD QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-005D	HIMW-005I	HIMW-005I	HIMW-005S	HIMW-008D
Sample ID			HIMW-05D	DUP20180922	HIMW-05I	HIMW-5S	HIMW-08D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/22/16	09/22/16	09/22/16	09/23/16	09/20/16
Parameter	Units	*		Field Duplicate (1-1)			
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1	1	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1	1 U	1 U	1 U
Toluene	UG/L	-	4	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	63	77	77	1 U	1 U
Total BTEX	UG/L	100	67	79	78	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	72	210 D	140 D	10 U	10 U
Acenaphthene	UG/L	-	2 J	10	6 J	10 U	10 U
Acenaphthylene	UG/L	-	30	150 DJ	100 D	10 U	10 U
Anthracene	UG/L	-	10 U	2 J	1 J	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	4 J	23	15	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 UJ	10 UJ	10 UJ	10 UJ	10 U
Naphthalene	UG/L	-	670 D	1,000 D	620 D	10 U	10 U
Phenanthrene	UG/L	-	10 U	14	9 J	10 U	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	778	1,409	891	ND	ND

*- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for tha Hempsteed Intarsection Street Formar MGP Site, Appendix E, Finel, URS 2008.

Flegs assigned during chemistry velidetion ere shown.

Concentretion Exceeds

D - Resulr reported from e secondery dilution enelysis. ND - Not detected.

J - The reported concentretion is en estimeted velue.

U - Not detected ebove the reported quentitetion limit. UJ - Not detected. The reported quentitation limit is en estimeted velue.

Mede By_PRF 12/12/16_; Checked By_AMK 1/9/17

Detection Limits shown are PQL

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
3RD QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-008I	HiMW-008S	HIMW-012S	HIMW-013D	HIMW-013I
Sample ID			HIMW-08I	HIMW-08S	HIMW-012S	HIMW-13D	HIMW-13I
Matrix			Groundweter	Groundweter	Groundweter	Groundweter	Groundweter
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/20/16	09/20/16	09/20/16	09/16/16	09/16/16
Parameter	**Units**	*					
Voletile Orgenic Compounde							
Benzene	UG/L	-	1 U	16	1 U	3	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	ND	16	ND	3	ND
Semivoletile Orgenic Compounde							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	10 U	10 U	5 J	10 U
Acenephthylene	UG/L	-	10 U	1 J	10 U	9 J	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthelene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Phenanthrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	1	ND	14	ND

*- Goundwater Plume Dalineation/Design Criteria, Pre-Design Investigetion Work Plen for In-Situ Solldificatlon for the Hempsteed Intersection Street Formar MGP Site, Appendix E, Finel, URS 2008.

Flegs assigned during chemistry velidation are shown.

Concentration Exceeds

D - Result raported from e secondary dilution enelysis. ND - Not detected.

J - The reportad concentration is en astimatad value.

U - Not detectad ebove the reported quantitation limit. UJ - Not datected. The reported quantitetlon limit is en estimated velue.

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Detection Limits shown are PQL

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
3RD QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-014I	HIMW-015D	HIMW-015I	HIMW-020I	HIMW-020S
Sample ID			HIMW-14I	HIMW-015D	HIMW-015I	HIMW-20I	HIMW-20S
Matrix			Groundweter	Groundweter	Groundwater	Groundweter	Groundweter
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/16/16	09/21/16	09/21/16	09/16/16	09/16/16
Parameter	**Units**	*					
Volatile Orgenic Compounds							
Benzene	UG/L	-	4	1 U	1	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	6	1 U
Total BTEX	UG/L	100	4	ND	1	6	ND
Semivoletile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5 J	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	8 J	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	-	8 J	10 U	10	10 U	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)enthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	3 J	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Phenanthrene	UG/L	-	3 J	10 U	10 U	10 U	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Totel Polynuclear Aromatic Hydrocarbons	UG/L	100	27	ND	10	ND	ND

*- Goundwater Plume Delineetion/Design Criterie, Pre-Design Investigation Work Plen for In-Situ Solidification for the Hempsteed Intersection Street Former MGP Site, Appendix E, Finel, URS 2008.

Flags assignad during chamistry velidation are shown.

Concantration Exceeds

D - Result reported from a secondary dilution enelysis. ND - Not detected.

J - The raported concentretion is en astimated value.

U - Not detected above the reported quantitetion limit. UJ - Not detected. The reportad quentitation limit is an estimated velue.

Made By_PRF 12/12/16_; Checked By_AMK 1/9/17

Detection Limits shown are PQL

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
3RD QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-022	HIMW-023	HIMW-024	HIMW-025	HIMW-026D
Sample ID			HIMW-022	HIMW-023	HIMW-024	HIMW-025	HIMW-026D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/21/16	09/21/16	09/20/16	09/21/16	09/22/16
Parameter	**Units**	*					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	4	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	4
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	59
Total BTEX	UG/L	100	ND	ND	ND	4	63
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	69
Acenaphthene	UG/L	-	10 U	10 U	10 U	10 U	3 J
Acenaphthylene	UG/L	-	10 U	10 U	10 U	10 U	44
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10 U	10 U	10
Indeno(1,2,3-cd)pyrene	UG/L	-	10 UJ	10 UJ	10 U	10 UJ	10 UJ
Naphthalene	UG/L	-	10 U	10 U	5 J	10 U	260 D
Phenanthrene	UG/L	-	10 U	10 U	10 U	10 U	12
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	5	ND	398

*- Goundwater Plume Delineetion/Design Criterie, Pre-Design Investigation Work Plan for In-Situ Solidificetion for the Hempsteed Intersection Street Former MGP Site, Appendix E, Finel, URS 2006.

Flags assigned during chemistry validation are shown.

Concentration Exceeds

D - Result reported from a secondary dilution analysis. ND - Not detected.

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit. UJ - Not detected. The reported quantitation limit is an estimated value.

Made By_PRF 12/12/16_; Checked By_AMK 1/9/17

Detection Limits shown are PQL

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
3RD QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-026I	HIMW-027I	HIMW-027S	HIMW-028I	HIMW-028S
Sample ID			HIMW-026I	HIMW-027I	HIMW-027S	HIMW-028I	HIMW-028S
Matrix			Groundweter	Groundweter	Groundweter	Groundweter	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/22/16	09/21/16	09/22/16	09/22/16	09/22/16
Parameter	**Units**	*					
Voletile Orgenic Compounds							
Benzene	UG/L	-	1 U	1 U	17	1 U	6
Ethylbenzene	UG/L	-	1 U	1 U	290 D	1 U	180
Toluene	UG/L	-	1 U	1 U	8	1 U	2
Xylene (total)	UG/L	-	1 U	1 U	330 D	1 U	18
Total BTEX	UG/L	100	ND	ND	645	ND	206
Semivoletile Orgenic Compounds							
2-Methylnaphthelene	UG/L	-	10 U	10 U	74	10 U	35
Acenaphthene	UG/L	-	10 U	10 U	56	10 U	26
Acenaphthylene	UG/L	-	10 U	10 U	3 J	10 U	1 J
Anthracene	UG/L	-	10 U	10 U	6 J	10 U	3 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)enthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	2 J	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	28	10 U	12
Indeno(1,2,3-cd)pyrene	UG/L	-	10 UJ	10 U	10 UJ	10 UJ	10 UJ
Naphthelene	UG/L	-	3 J	10 U	490 D	10 U	250 D
Phenenthrene	UG/L	-	10 U	10 U	33	10 U	17
Pyrene	UG/L	-	10 U	10 U	3 J	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	3	ND	695	ND	344

*- Goundweter Pluma Dalinaetlon/Design Critaria, Pre-Dasign Investigatlon Work Plen for In-Situ Solidlfication for the Hempstead Intersaction Street Former MGP Site, Appendix E, Final, URS 2008.

Flegs essigned during chamistry velidation ara shown.

Concentration Exceeds

D - Result raported from a secondery dilution enalysis. ND - Not detected.

J - Tha raported concantration is en astimeted valua.

U - Not datacted abova tha raported quantitation limit. UJ - Not detacted. The reported quantitation limit is an estimated valua.

Meda By_PRF 12/12/16_; Checkad By_AMK 1/9/17

Detection Limits shown are PQL

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TABLE A-2
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
3RD QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID			TB091616	TB20160920	TB20160921	FB-092316
Matrix			Weter Quality	Water Quality	Water Quality	Weter Quality
Depth Interval (ft)			-	-	-	-
Date Sampled			09/16/16	09/20/16	09/21/16	09/23/16
Parameter	**Units**	*	Trip Blenk (1-1)	Trip Blenk (1-1)	Trip Blank (1-1)	Field Blank (1-1)
Voletlle Orgenlc Compounds						
Benzene	UG/L	-	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	ND	ND	ND	ND
Semivoletile Organic Compounds						
2-Methylnaphthalene	UG/L	-	NA	NA	NA	10 U
Acenephthene	UG/L	-	NA	NA	NA	10 U
Acenaphthylene	UG/L	-	NA	NA	NA	10 U
Anthracene	UG/L	-	NA	NA	NA	10 U
Benzo(a)anthracene	UG/L	-	NA	NA	NA	10 U
Benzo(a)pyrene	UG/L	-	NA	NA	NA	10 U
Benzo(b)fluoranthene	UG/L	-	NA	NA	NA	10 U
Benzo(g,h,i)perylene	UG/L	-	NA	NA	NA	10 U
Benzo(k)fluoranthene	UG/L	-	NA	NA	NA	10 U
Chrysene	UG/L	-	NA	NA	NA	10 U
Dibenz(a,h)enthracene	UG/L	-	NA	NA	NA	10 U
Fluoranthene	UG/L	-	NA	NA	NA	10 U
Fluorene	UG/L	-	NA	NA	NA	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	NA	NA	NA	10 UJ
Naphthalene	UG/L	-	NA	NA	NA	10 U
Phenanthrene	UG/L	-	NA	NA	NA	10 U
Pyrene	UG/L	-	NA	NA	NA	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	NA	NA	NA	ND

*- Goundwater Plume Delineetion/Design Criterie, Pre-Design Investigetion Work Plen for In-Situ Solidlficetion for the Hempsteed Intersection Street Former MGP Site, Appendlx E, Finel, URS 2008.

Flags essignad during chemistry velidetion ere shown.

Concentration Excaeds

NA - The semple was not enalyzed for this paremeter. ND - Not detactad.

U - Not detected above the reported quentitetion limit.

Made By PRF 12/12/16; Checkad By AMK 1/9/17

Detection Limits shown are PQL

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-5S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609K78-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81362.D

Level: (low/med) LOW Date Received: 09/23/16

% Moisture: not dec. Date Analyzed: 09/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-98

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609K78-001B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36022.D

Level: (low/med) LOW Date Received: 09/23/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U J
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

12/8/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-05I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81356.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	77	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HMW-05I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J34-003B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36016.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	620 ~~230~~	~~X~~ D
91-57-6	2-Methylnaphthalene	140 ~~100~~	~~E~~ D
208-96-8	Acenaphthylene	100 ~~83~~	~~E~~ D
83-32-9	Acenaphthene	6	J
86-73-7	Fluorene	15	
85-01-8	Phenanthrene	9	J
120-12-7	Anthracene	1	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U J
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

12/9/16 JV

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-05IDL

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-003BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36062.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 10/01/16

Injection Volume: 1 (µL) Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	620	D
91-57-6	2-Methylnaphthalene	140	D
208-96-8	Acenaphthylene	100	D
83-32-9	Acenaphthene	100	U
86-73-7	Flucrene	15	DJ
85-01-8	Phenanthrene	100	U
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

12/12/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP20160922 (HMW-05I)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609J97-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81361.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: not dec. Date Analyzed: 09/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	
1330-20-7	Xylene (total)	77	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP20160922 (HEMW-05I)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609J97-001B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36021.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	1000 ~~330~~	~~E~~ D
91-57-6	2-Methylnaphthalene	210 ~~150~~	~~E~~ D
208-96-8	Acenaphthylene	150 ~~110~~	~~E~~ DJ
83-32-9	Acenaphthene	10	
86-73-7	Fluorene	23	
85-01-8	Phenanthrene	14	
120-12-7	Anthracene	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U J
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

12/8/16

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP20160922DL (HIMW-05I)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609J97-001BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36066.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 10/01/16

Injection Volume: 1 (µL) Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	1000	D
91-57-6	2-Methylnaphthalene	210	D
208-96-8	Acenaphthylene	150	DJ
83-32-9	Acenaphthene	200	U
86-73-7	Fluorene	20	DJ
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

12/9/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-05D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81357.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	4	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	63	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-05D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10479 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-C04B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36017.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	670 ~~260~~	~~E~~ D
91-57-6	2-Methylnaphthalene	72	
208-96-8	Acenaphthylene	30	
83-32-9	Acenaphthene	2	J
86-73-7	Fluorene	4	J
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U J
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

12/9/16

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-05DDL

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 16C9J64-004BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36063.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 10/01/16

Injection Volume: 1 (µL) Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	670	D
91-57-6	2-Methylnaphthalene	78	DJ
208-96-8	Acenaphthylene	30	DJ
83-32-9	Acenaphthene	100	U
86-73-7	Fluorene	100	U
85-01-8	Phenanthrene	100	U
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

12/12/16
2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-08S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609H36-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81364.D

Level: (low/med) LOW Date Received: 09/20/16

% Moisture: not dec. Date Analyzed: 09/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	16	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-08S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDC No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609H36-001B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S8510.D

Level: (low/med) LOW Date Received: 09/20/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	1	J
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-08I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609H36-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81368.D

Level: (low/med) LOW Date Received: 09/20/16

% Moisture: not dec. Date Analyzed: 09/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-08I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609H36-003B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S3512.D

Level: (low/med) LOW Date Received: 09/20/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-08D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609H36-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81365.D

Level: (low/med) LOW Date Received: 09/20/16

% Moisture: not dec. Date Analyzed: 09/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HHW-08D

Lab Name: PACE ANALYTICAL Contract:

Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS203

Matrix: (soil/water) WATER Lab Sample ID: 1609436-002B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S8511.D

Level: (low/med) LOW Date Received: 09/20/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-012S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609H36-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81366.D

Level: (low/med) LOW Date Received: 09/20/16

% Moisture: not dec. Date Analyzed: 09/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-0123

Lab Name: PACE ANALYTICAL Contract: ____

Lab Code: 10478 Case No.: KEY-URS SAS No.: ____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609H36-004B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S8515.D

Level: (low/med) LOW Date Received: 09/20/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609E46-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81328.D

Level: (low/med) LOW Date Received: 09/16/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609E46-003B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S8507.D

Level: (low/med) LOW Date Received: 09/16/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609E46-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81339.D

Level: (low/med) LOW Date Received: 09/16/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	3	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 160?E46-002B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S8506.D

Level: (low/med) LOW Date Received: 09/16/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	9	J
83-32-9	Acenaphthene	5	J
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-14I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609E46-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81340.D

Level: (low/med) LOW Date Received: 09/16/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	4	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-14I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609E46-001B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S8505.D

Level: (low/med) LOW Date Received: 09/16/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/22/16

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	5	J
208-96-8	Acenaphthylene	8	J
83-32-9	Acenaphthene	8	J
86-73-7	Fluorene	3	J
85-01-8	Phenanthrene	3	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-015I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81344.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-015I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-003B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S8518.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-015D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81343.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-015D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-002B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S8517.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) ug/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609E46-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81327.D

Level: (low/med) LOW Date Received: 09/16/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10473 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609E46-004B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S8508.D

Level: (low/med) LOW Date Received: 09/16/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609E46-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81326.D

Level: (low/med) LOW Date Received: 09/16/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	6	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609E46-005B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S8509.D

Level: (low/med) LOW Date Received: 09/16/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-022

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81348.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HINW-022

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-007B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36013.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U J
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

12/8/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-023

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81347.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-023

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-006B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36060.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 10/01/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U J
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

12/9/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-024

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81342.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-024

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-UPS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-001B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S8516.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ___ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	5	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-025

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81346.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	4	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-025

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-005B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36011.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ___ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U J
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannct be separated from Diphenylamine

12/8/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-026I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81354.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-026I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-001B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36014.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	3	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U J
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

12/9/16 2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-026D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81355.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	4	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	5	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-026D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-002B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36015.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	260 ~~140~~	~~E~~ D
91-57-6	2-Methylnaphthalene	69	
208-96-8	Acenaphthylene	44	
83-32-9	Acenaphthene	3	J
86-73-7	Fluorene	10	
85-01-8	Phenanthrene	12	
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U J
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

12/9/16

1C

EPA SAMPLE NO.

HIMW-026DDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-002BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36061.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 10/01/16

Injection Volume: 1 (µL) Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	260	D
91-57-6	2-Methylnaphthalene	89	D
208-96-8	Acenaphthylene	51	D
83-32-9	Acenaphthene	50	U
86-73-7	Fluorene	11	DJ
85-01-8	Phenanthrene	12	DJ
120-12-7	Anthracene	50	U
206-44-0	Fluoranthene	50	U
129-00-0	Pyrene	50	U
56-55-3	Benzo(a)anthracene	50	U
218-01-9	Chrysene	50	U
205-99-2	Benzo(b)fluoranthene	50	U
207-08-9	Benzo(k)fluoranthene	50	U
50-32-8	Benzo(a)pyrene	50	U
193-39-5	Indeno(1,2,3-cd)pyrene	50	U
53-70-3	Dibenzo(a,h)anthracene	50	U
191-24-2	Benzo(g,h,i)perylene	50	U

(1) Cannot be separated from Diphenylamine

12/12/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-027S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81360.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: not dec. Date Analyzed: 09/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	17	
108-38-3	Toluene	8	
100-41-4	Ethylbenzene	~~270~~ 290	~~E~~ D
1330-20-7	Xylene (total)	~~300~~ 330	D

12/9/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-027SDL

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-007ADL

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81454.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: not dec. Date Analyzed: 09/29/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 2.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	17	D
108-88-3	Toluene	6	D
100-41-4	Ethylbenzene	290	D
1330-20-7	Xylene (total)	330	D

12/9/16

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-027S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-007B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36020.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	490 ~~210~~	~~E~~ D
91-57-6	2-Methylnaphthalene	74	
208-96-8	Acenaphthylene	3	J
83-32-9	Acenaphthene	56	
86-73-7	Fluorene	28	
85-01-8	Phenanthrene	33	
120-12-7	Anthracene	6	J
206-44-0	Fluoranthene	2	J
129-00-0	Pyrene	3	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U J
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

12/9/16 2

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-027SDL

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-007BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36065.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 10/01/16

Injection Volume: 1 (µL) Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	490	D
91-57-6	2-Methylnaphthalene	80	DJ
208-96-8	Acenaphthylene	200	U
83-32-9	Acenaphthene	49	DJ
86-73-7	Fluorene	24	DJ
85-01-8	Phenanthrene	30	DJ
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

12/12/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-027I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81345.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-027I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-004B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S8519.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/22/16

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-028S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81358.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	6	
108-88-3	Toluene	2	
100-41-4	Ethylbenzene	180	
1330-20-7	Xylene (total)	18	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-028S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-005B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36018.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or ug/Kg) µg/L	Q
91-20-3	Naphthalene	250 ~~130~~	~~E~~ D
91-57-6	2-Methylnaphthalene	35	
208-96-8	Acenaphthylene	1	J
83-32-9	Acenaphthene	26	
86-73-7	Fluorene	12	
85-01-8	Phenanthrene	17	
120-12-7	Anthracene	3	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U J
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

12/9/16

1C

EPA SAMPLE NO.

HIMW-028SDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-005BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36064.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 10/01/16

Injection Volume: 1 (µL) Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	250	D
91-57-6	2-Methylnaphthalene	40	DJ
208-96-8	Acenaphthylene	50	U
83-32-9	Acenaphthene	28	DJ
86-73-7	Fluorene	14	DJ
85-01-8	Phenanthrene	17	DJ
120-12-7	Anthracene	50	U
206-44-0	Fluoranthene	50	U
129-00-0	Pyrene	50	U
56-55-3	Benzo(a)anthracene	50	U
218-01-9	Chrysene	50	U
205-99-2	Benzo(b)fluoranthene	50	U
207-08-9	Benzo(k)fluoranthene	50	U
50-32-8	Benzo(a)pyrene	50	U
193-39-5	Indeno(1,2,3-cd)pyrene	50	U
53-70-3	Dibenzo(a,h)anthracene	50	U
191-24-2	Benzo(g,h,i)perylene	50	U

(1) Cannot be separated from Diphenylamine

10/2/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-028I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81359.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

HIMW-028I

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Matrix: (soil/water) WATER Lab Sample ID: 1609J84-005B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36019.D

Level: (low/med) LOW Date Received: 09/22/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenapnthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U J
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

12/9/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-092316

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609K78-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81363.D

Level: (low/med) LOW Date Received: 09/23/16

% Moisture: not dec. Date Analyzed: 09/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-092316

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609K78-002B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R36023.D

Level: (low/med) LOW Date Received: 09/23/16

% Moisture: Decanted: (Y/N) N Date Extracted: 09/23/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U 5
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

12/8/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB091616

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609E46-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81325.D

Level: (low/med) LOW Date Received: 09/16/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB20160920

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609H36-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81367.D

Level: (low/med) LOW Date Received: 09/20/16

% Moisture: not dec. Date Analyzed: 09/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB20160921

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Matrix: (soil/water) WATER Lab Sample ID: 1609I41-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F81349.D

Level: (low/med) LOW Date Received: 09/21/16

% Moisture: not dec. Date Analyzed: 09/23/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

ATTACHMENT B

SUPPORT DOCUMENTATION

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately

KEY-URS208

Page: 1 of

2082739

Section A Required Client Information:

Company: AECOM
Address:
Email To: Jon.Sundquist@aecom.com
Phone: 716-923-1207 Fax:
Requested Due Date/TAT: Standard

Section B Required Project Information

Report To: Peter Fairbanks
Copy To: Jon Sundquist
Purchase Order No.:
Project Name: National Grid Hempstead
Project Number: 60411920.1117604B.00004

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NY

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB TE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: N	BTEX	PAH	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-14I	WT	G			9/16/16	915	16	4	2			2					X	X	X		16094E46
2	HIMW-13D	"	"			"	1048	18	4	2			2					X	X	X		
3	HIMW-13I	"	"			"	1110	16	4	2			2					X	X	X		
4	HIMW-20S	"	"			"	1335	17	4	2			2					X	X	X		
5	HIMW-20I	"	"			"	1305	17	4	2			2					X	X	X		
7																						
11	TB091616	WT				9/16/16			2				2					X				
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	M Dascoli / AECOM	9/16/16	1410		9/16/16	14:16	2.4 ✓ ✓ ✓
		9/16/16	15:10		9/16/16	15:10	

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: M Dascoli // M Angelo

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 9/16/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

KEY-URS208 S3 of 95

...ay ...yment terms and agreeing to late charges of 1 ... per month for any invoices not paid within 30 days

F-ALL Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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KEY-URS208

Page: 1 of

2082738

Section A Required Client Information:

Company: AECOM
Address:
Email To: JON.SUNDQUIST@AECOM.COM
Phone: 716-923-1207 Fax:
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Jon Sundqvist
Copy To: Peter Fairbanks
Purchase Order No.:
Project Name: National Grid Hempstead
Project Number: 60411920.1117698.00004

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NY

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Analysis Test: BTEX	Analysis Test: PAH	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-08S	WT	G			9/20/16	9:17	18	4	2			2						X	X			
2	HIMW-08D						10:15	18	4	2			2						X	X			
3	HIMW-08I						11:00	18	4	2			2						X	X			
4	HIMW-08I MS/MSD						11:00	18	8	4			4						X	X			
5	HIMW-012S						13:10	18	4	2			2						X	X			
7																							
8																							
9	TB20160920	WT				9/20/16			2				2						X				
10																							
11																							
12																							

Requested Analysis Filtered (Y/N)

609

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Megan Dascoli / AECOM	9/20/16			9/20/16	14:00	1.6
		9/20/16	14:30		9/20/16	1430	↑

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Megan Dascoli & Mike Angelo

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9/20/16

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

KEY-URS208 $5 of 95

Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5 % per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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KEY-URS208 S7 of 95

Page: 1 of

2082737

Section A Required Client Information:

Company: AECOM
Address:
Email To: Jon.Sundquist@aecom.com
Phone: 716-923-1207 Fax:
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Jon Sundquist
Copy To: Peter Fairbanks
Purchase Order No.:
Project Name: National Grid Hempstead
Project Number: 60471920.11176098.00004

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NY

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test ↓ Y/N	BTEX	PAH	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HMW-024	WT	G			9/20/16	1430	18	4	2			2					X	X			16091741
2	HMW-015D					9/24/16	0825	19	4	2			2					X	X			
3	HMW-015I					9/24/16	1030	19	4	2			2					X	X			
4	HMW-027I					9/21/16	955	19	4	2			2					X	X			
5	HMW-025	WT	G			9/21/16	1140	19	4	2			2					X	X			
6	HMW-023	WT	G			9/21/16	1250	18	4	2			2					X	X			
7	HMW-022	WT	G			9/21/16	1320	18	4	2			2					X	X			
8																						
9																						
10																						
11	TB20160921	WT				9/21/16			2				2					X				
12																						

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	M Dascoli/AECOM	9/21/16	1430		9/21/16	1930				
		9/21/16	1530		9/21/16	1530	6.1	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: M Dascoli
SIGNATURE of SAMPLER: M Dascoli
DATE Signed (MM/DD/YY): 9/21/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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KEY-URS208 KEY-URS209

Page: 1 of 1

1921269

KEY-URS208 Sg of 95

Section A Required Client Information:

Company: AECOM
Address:
Email To: JON.SUNDQUIST@AECOM.COM
Phone: 716-923-1207 Fax:
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Jon Sundquist
Copy To: Peter Fairbanks
Purchase Order No.:
Project Name: National Grid Hempstead
Project Number: 60471920.11176098.00004

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NY

Section D Required Client Information

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: BTEX	Analysis Test: PAH	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-026I	WT	G			9/22/16	0810	18	4	2			2					X	X			16094584
2	HIMW-026D	WT	G				0940	18	4	2			2					X	X			16094597 - field dup
3	HIMW-05I	WT	G				0920	18	4	2			2					X	X			
4	HIMW-05D	WT	G				1125	17	4	2			2					X	X			
5	HIMW-028S	WT	G				1330	18	4	2			2					X	X			
6	HIMW-028I	WT	G				1215	18	4	2			2					X	X			
7	HIMW-027S	WT	G				1320	18	4	2			2					X	X			
8	DUP20160922	WT	G			9/22/16	0700	18	4	2			2					X	X			
9																						
10	FB20160922	WT				9/22/16			2				2					X				
11	NOT RECEIVED AT LAB																					
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Megan Dascoli/AECOM	9/22/16	14:36							
		9/22	15:24		9/22/16	15:05	4.9 / 5.1	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Megan Dascoli, Cary Friedman, Mike Angello

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9/22/16

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

KEY-URS208

Page: 1 of 1

1921270

Section A Required Client Information

Company: AECOM
Address:
Email To: JON.SUNDQUIST@AECOM.COM
Phone: 716 923 1207 Fax:
Requested Due Date/TAT: STND

Section B Required Project Information:

Report To: Jon Sundquist
Copy To: Peter Fairbanks
Purchase Order No.:
Project Name: National Grid Hempstead
Project Number: 60411920

Section C Invoice Information:

Attention: Jon Sundquist
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NY

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved (1L Amber)	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: BTEX	Naphs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HJMW-55	WT	G	9/23/16	825	—	—		2	2			2					X	X		16094578
2	FB-092316	WT	G	9/23/16	1111	—	—		2	2			2					X	X		
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Cary Friedman	9/23/16	1126		9/23/16	11:35	1.2 ✓ ✓ ✓
		9/23/16	12:45		9/23/16	12:45	

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cary Friedman / Mike Angelo / Megan Driscoll

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 9/23/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

KEY-URS208 S11 of 95

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days

Pace Long Island

575 Broad Hollow Road
Melville, NY 11747

tel 631.694.3040
fax 631.420.8436

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 9/16/16 - 9/23/16
SDG #: KEY-URS208

For Sample(s):

HIMW-14I	HIMW-08S	HIMW-015D	HIMW-022
HIMW-13D	HIMW-08D	HIMW-015I	TB20160921
HIMW-13I	HIMW-08I	HIMW-027I	DUP20160922
HIMW-20S	HIMW-012S	HIMW-025	HIMW-5S
HIMW-20I	TB20160920	HIMW-023	FB-092316
TB091616	HIMW-024		

The above water sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260C .

All Q. C. data and calibrations met the requirements of the method unless discussed below, and no problems were encountered with sample analysis. The following should be noted:

Sample HIMW-08I was submitted for matrix spike/ matrix spike duplicate (MS/MSD) analysis. All percent recovery and RPD limits were met. Lab fortified blanks were analyzed, and recoveries indicate good method efficiency.

In the initial calibrations, average response factors were employed.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 31, 2016

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* *
* *
****

Ursula Middel
Quality Analyst

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Lab File ID: R36007.D DFTPP Injection Date: 09/26/16

Instrument ID: HP5973R DFTPP Injection Time: 23:30

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	31.2
68	Less than 2% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	33.4
70	Less than 2% of mass 69	0.2 (0.5)1
127	40.0 - 60.0% of mass 198	44.6
197	Less than 1% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	24.0
365	Greater than 1% of mass 198	2.3
441	Present, but less than mass 443	14.1
442	40.0 - 110.0% of mass 198	95.8
443	17.0 - 23.0% of mass 442	19.2 (20.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	R36008.D	09/26/16	23:49
02	MB-58331	MB-58331	R36009.D	09/27/16	0:17
03	LFB-58331	LFB-58331	R36010.D	09/27/16	0:45
04	HIMW-025	1609I41-005B	R36011.D	09/27/16	1:13
05	HIMW-022	1609I41-007B	R36013.D	09/27/16	2:09
06	DUP20160922	1809J97-001B	R36021.D	09/27/16	5:50
07	HIMW-5S	1609K78-001B	R36022.D	09/27/16	6:17
08	FB-092316	1809K78-002B	R36023.D	09/27/16	6:45

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Lab File ID: R36058.D DFTPP Injection Date: 10/01/16

Instrument ID: HP5973R DFTPP Injection Time: 3:25

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	32.8
68	Less than 2% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	34.7
70	Less than 2% of mass 69	0.1 (0.4)1
127	40.0 - 60.0% of mass 198	45.4
197	Less than 1% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	23.6
365	Greater than 1% of mass 198	1.9
441	Present, but less than mass 443	11.5
442	40.0 - 110.0% of mass 198	78.8
443	17.0 - 23.0% of mass 442	16.4 (20.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	R36059.D	10/01/16	3:44
02	HMW-023	1609I41-008B	R36060.D	10/01/16	4:12
03	DUP20160922DL	1609J97-001BDL	R36066.D	10/01/16	6:58

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Instrument ID: HP5973R Calibration Date: 9/26/2016 Time: 23:49

Lab File ID: R36008.D Init. Calib. Date(s): 07/28/16 07/28/16

EPA Sample No.(SSTD050##): SSTD025 Init. Calib. Times: 18:58 21:41

GC Column: Rxi-5SILMS ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Naphthalene	0.926	0.988	0.700	6.7	20.0
2-Methylnaphthalene	0.710	0.740	0.400	4.3	20.0
Acenaphthylene	1.658	1.721	0.900	3.8	20.0
Acenaphthene	1.098	1.147	0.900	4.5	20.0
Fluorene	1.280	1.398	0.900	9.2	20.0
Phenanthrene	1.037	1.106	0.700	6.6	20.0
Anthracene	1.074	1.164	0.700	8.3	20.0
Fluoranthene	1.198	1.282	0.600	7.0	20.0
Pyrene	1.194	1.117	0.600	-6.5	20.0
Benzo(a)anthracene	1.225	1.158	0.800	-5.4	20.0
Chrysene	1.083	0.996	0.700	-8.0	20.0
Benzo(b)fluoranthene	1.389	1.445	0.700	4.0	20.0
Benzo(k)fluoranthene	1.118	1.181	0.700	5.7	20.0
Benzo(a)pyrene	1.180	1.226	0.700	3.9	20.0
Indeno(1,2,3-cd)pyrene	0.850	1.053	0.500	23.9	20.0
Dibenzo(a,h)anthracene	0.781	0.865	0.400	10.7	20.0
Benzo(g,h,i)perylene	0.756	0.789	0.500	4.4	20.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS208

Instrument ID: HP5973R Calibration Date: 10/1/2016 Time: 3:44

Lab File ID: R36059.D Init. Calib. Date(s): 07/28/16 07/28/16

EPA Sample No.(SSTD050##): SSTD025 Init. Calib. Times: 18:58 21:41

GC Column: Rxi-5SILMS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Naphthalene	0.926	1.007	0.700	8.7	20.0
2-Methylnaphthalene	0.710	0.744	0.400	4.9	20.0
Acenaphthylene	1.658	1.728	0.900	4.2	20.0
Acenaphthene	1.098	1.165	0.900	6.1	20.0
Fluorene	1.280	1.400	0.900	9.4	20.0
Phenanthrene	1.037	1.141	0.700	10.0	20.0
Anthracene	1.074	1.166	0.700	8.5	20.0
Fluoranthene	1.198	1.316	0.600	9.9	20.0
Pyrene	1.194	1.109	0.600	-7.1	20.0
Benzo(a)anthracene	1.225	1.146	0.800	-6.4	20.0
Chrysene	1.083	0.986	0.700	-8.9	20.0
Benzo(b)fluoranthene	1.389	1.412	0.700	1.6	20.0
Benzo(k)fluoranthene	1.118	1.213	0.700	8.5	20.0
Benzo(a)pyrene	1.180	1.239	0.700	5.0	20.0
Indeno(1,2,3-cd)pyrene	0.850	1.114	0.500	31.1	20.0
Dibenzo(a,h)anthracene	0.781	0.932	0.400	19.3	20.0
Benzo(g,h,i)perylene	0.756	0.832	0.500	10.1	20.0

All other compounds must meet a minimum RRF of 0.010.

Pace Long Island

575 Broad Hollow Road
Melville, NY 11747

tel 631.694.3040
fax 631.420.8436

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 9/22/16
SDG #: KEY-URS209

For Sample(s):

HIMW-026I	HIMW-028S
HIMW-026D	HIMW-028I
HIMW-05I	HIMW-027S
HIMW-05D	

The above water sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260C .

All Q. C. data and calibrations met the requirements of the method unless discussed below, and no problems were encountered with sample analysis. The following should be noted:

No sample was submitted for matrix spike/ matrix spike duplicate (MS/MSD) analysis. Lab fortified blank(s) was/were analyzed, and recoveries indicate good method efficiency.

Sample(s) was/were reanalyzed at dilutions as required to keep the concentration of targeted analytes within the calibration range. Both sets of data are reported, if dilutions were performed. The dilutions were distinguished with the suffix "DL".

In the initial calibrations, average response factors were employed.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 31, 2016

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*
****

Ursula Middel
Quality Analyst

Pace Long Island

575 Broad Hollow Road
Melville, NY 11747

tel 631.694.3040
fax 631.420.8436

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES
SAMPLES RECEIVED: 9/22/16
SDG #: KEY-URS209

For Samples:

HIMW-026I
HIMW-026D
HIMW-05I
HIMW-05D
HIMW-028S
HIMW-28I
HIMW-027S

The above samples were analyzed for the STARS list of base–neutral extractables by EPA method 8270D and reported with the deliverables of NYSDEC ASP Rev. 2005, Category B.

All Q.C. data and calibrations met the requirements of the method. The following should be noted:

No sample was submitted for matrix spike/matrix spike duplicate (MS/MSD) analysis. Lab fortified blanks (LFB) were analyzed and results indicate good method efficiency.

Sample HIMW-05D had a low surrogate recovery for 2-Fluorobiphenyl in the sample as well as its dilution. .

Five samples were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

In the continuous calibration verifications (CCV), some compounds had variability above 20%. Results for these analytes are regarded estimated and are flagged with the qualifier "Z".

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 6, 2016

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Joann Slavin
General Manager

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Lab File ID: R36007.D DFTPP Injection Date: 09/26/16

Instrument ID: HP5973R DFTPP Injection Time: 23:30

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	31.2
68	Less than 2% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	33.4
70	Less than 2% of mass 69	0.2 (0.5)1
127	40.0 - 60.0% of mass 198	44.6
197	Less than 1% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.2
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443	17.0 - 23.0% of mass 442	19.2 (20.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

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01	SSTD025	SSTD025	R36008.D	09/26/16	23:49
02	MB-58331	MB-58331	R36009.D	09/27/16	0:17
03	LFB-58331	LFB-58331	R36010.D	09/27/16	0:45
04	HIMW-026I	1609J84-001B	R36014.D	09/27/16	2:36
05	HIMW-026D	1609J84-002B	R36015.D	09/27/16	3:04
06	HIMW-05I	1609J84-003B	R36016.D	09/27/16	3:32
07	HIMW-05D	1609J84-004B	R36017.D	09/27/16	3:59
08	HIMW-026S	1609J84-005B	R36018.D	09/27/16	4:27
09	HIMW-026I	1609J84-006B	R36019.D	09/27/16	4:55
10	HIMW-027S	1609J84-007B	R36020.D	09/27/16	5:22

7D

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS209

Instrument ID: HP5973R Calibration Date: 9/26/2016 Time: 23:49

Lab File ID: R36008.D Init. Calib. Date(s): 07/28/16 07/28/16

EPA Sample No.(SSTD050##): SSTD025 Init. Calib. Times: 18:58 21:41

GC Column: Rxi-5SILMS ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Naphthalene	0.926	0.988	0.700	6.7	20.0
2-Methylnaphthalene	0.710	0.740	0.400	4.3	20.0
Acenaphthylene	1.658	1.721	0.900	3.8	20.0
Acenaphthene	1.098	1.147	0.900	4.5	20.0
Fluorene	1.280	1.398	0.900	9.2	20.0
Phenanthrene	1.037	1.106	0.700	6.6	20.0
Anthracene	1.074	1.164	0.700	8.3	20.0
Fluoranthene	1.198	1.282	0.600	7.0	20.0
Pyrene	1.194	1.117	0.600	-6.5	20.0
Benzo(a)anthracene	1.225	1.158	0.800	-5.4	20.0
Chrysene	1.083	0.996	0.700	-8.0	20.0
Benzo(b)fluoranthene	1.389	1.445	0.700	4.0	20.0
Benzo(k)fluoranthene	1.118	1.181	0.700	5.7	20.0
Benzo(a)pyrene	1.180	1.226	0.700	3.9	20.0
Indeno(1,2,3-cd)pyrene	0.850	1.053	0.500	23.9	20.0
Dibenzo(a,h)anthracene	0.781	0.865	0.400	10.7	20.0
Benzo(g,h,i)perylene	0.756	0.789	0.500	4.4	20.0

All other compounds must meet a minimum RRF of 0.010.

APPENDIX A
DATA USABILITY SUMMARY REPORT
FOURTH QUARTER 2016

HEMPSTEAD INTERSECTION STREET FORMER MGP SITE
VILLAGES OF GARDEN CITY AND HEMPSTEAD
LONG ISLAND, NEW YORK

Analyses Performed by:
PACE ANALYTICAL

Prepared For:

NATIONAL GRID
175 EAST OLD COUNTRY RD.
HICKSVILLE, NY 11801

Prepared by:

URS CORPORATION
257 WEST GENESEE STREET, SUITE 400
BUFFALO, NY 14202-2657

FEBRUARY 2017

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TABLES
(Following Text)

APPENDICES
(Following Tables)

I. INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B - Guidance for Data Deliverables and Development of Data Usability Summary Reports*, May 2010.

This DUSR discusses the usability of the analytical data for twenty-nine (29) groundwater samples, two (2) field duplicates, two (2) matrix spike/matrix spike duplicate (MS/MSD) pairs, one (1) field blank, and six (6) trip blanks collected by URS personnel on December 13-22, 2016. Six (6) of the groundwater samples (i.e., HIMW-26I, -26D, -27S, -27I, -28S, and -28I) were collected as part of the oxygen treatment system design evaluation, while the remaining twenty three (23) groundwater samples were collected as part of the 2016 4th quarter groundwater monitoring event at the Hempstead Intersection Street Former MGP Site.

II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION

The samples were analyzed by Pace Analytical for the following parameters:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) – USEPA Method SW8260C and
- Polynuclear aromatic hydrocarbons (PAHs) – USEPA Method SW8270D.

A limited data validation was performed on the samples in accordance with the guidelines presented in the following USEPA Region II documents:

- *Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C, SOP HW-24, Rev. 4,* October 2014 and

- *Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8270D, SOP HW-22, Rev. 4,* August 2008.

The limited data validation included a review of completeness of all required deliverables; holding times; quality control (QC) results (instrument tunes, calibration standards, blanks, matrix spike recoveries,

field duplicate analyses, laboratory control sample (LCS) recoveries, and surrogate/internal standard recoveries) to determine if the data are within the protocol-required QC limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers.

The validated analytical results are presented in Tables A-1 and A-2. Copies of the validated laboratory results (i.e., Form 1's) are presented in Attachment A. Copies of the chain-of-custodies, case narratives, and documentation supporting the qualification of data are presented in Attachment B. Only problems affecting data usability are discussed in this report.

III. DATA DELIVERABLE COMPLETENESS

Full deliverable data packages (i.e., NYSDEC ASP Category B or equivalent) were provided by the laboratory, and included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results.

IV. SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES

All samples were received by the laboratory intact, properly preserved, and under proper chain-of-custody (COC), except for the following instance.

The laboratory incorrectly transcribed the field duplicate ID for DUP20161221 from the COC to their LIMS system (i.e., DUP2016221). The sample ID was manually revised during the data review.

All samples were analyzed/extracted within the required holding times.

V. NON-CONFORMANCES

The PAH continuing calibrations (CCAL) exhibited percent difference exceedances (i.e., >20% D) for benzo(k)fluoranthene, dibenz(a,h,)anthracene, and/or indeno(1,2,3-cd)pyrene. The associated results for

the affected samples were qualified "UJ". Documentation supporting the qualification of data (i.e., Form 5 and 7) is presented in Attachment B.

VI. SAMPLE RESULTS AND REPORTING

All sample results were reported in accordance with method requirements and were adjusted for sample size and dilution factors. Results detected below the quantitation limits were qualified 'J' by the laboratory, while results reported from secondary dilution analyses were qualified 'D' during the data review.

Field duplicates were collected from monitoring well locations HIMW-05I and HIMW-025, which exhibited good field and analytical precision.

VII. SUMMARY

All sample analyses were found to be compliant with the method and validation criteria, and the data are usable as reported, except for those results qualified 'UJ' during the data validation, which should be considered conditionally usable. URS does not recommend the re-collection of any samples at this time.

Prepared By: dpf for Peter R. Fairbanks **Date:** 2/23/17
Peter R. Fairbanks, Senior Chemist

Reviewed By: GEK **Date:** 2/23/17
George E. Kisluk, Senior Chemist

DEFINITIONS OF USEPA REGION II DATA QUALIFIERS

U – The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R – The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

D – The sample results are reported from a separate secondary dilution analysis.

NJ – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-003D	HIMW-003I	HIMW-003S	HIMW-005D	HIMW-005I
Sample ID			HIMW-03D	HIMW-03I	HIMW-03S	HIMW-05D	DUP20161221
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/16/16	12/16/16	12/16/16	12/20/16	12/21/16
Parameter	Units	Criteria*					Field Duplicate (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	2.0
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.8	1.0 U
Xylene (total)	UG/L	-	1.0 U	1.0 U	1.0 U	54.5	69.1
Total BTEX	UG/L	100	ND	ND	ND	56.3	71.1
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	187 D	253 D
Acenaphthene	UG/L	-	5.0 U	5.0 U	5.0 U	3.5 J	12.0
Acenaphthylene	UG/L	-	5.0 U	5.0 U	5.0 U	50.6	214 D
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	2.6 J
Benzo(a)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ
Benzo(k)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	UG/L	-	5.0 U	5.0 U	5.0 U	7.9	28.5
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ
Naphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	1,800 D	1,350 D
Phenanthrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	20.1
Pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	ND	2,049	1,880.2

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value.

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D - Result reported from a secondary dilution analysis.

Made By_PRF 02/23/17; Checked By_AMK 02/23/17

Detection Limits shown are PQL

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-005I	HIMW-005S	HIMW-008D	HIMW-008I	HIMW-008S
Sample ID			HIMW-05I	HIMW-05S	HIMW-08D	HIMW-08I	HIMW-08S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/21/16	12/21/16	12/15/16	12/15/16	12/15/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.7	1.0 U	1.0 U	1.0 U	84.2
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	11.7
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	18.9
Xylene (total)	UG/L	-	69.3	1.0 U	1.0 U	1.0 U	22.1
Total BTEX	UG/L	100	71	ND	ND	ND	136.9
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	245 D	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthene	UG/L	-	12.4	5.0 U	5.0 U	5.0 U	1.5 J
Acenaphthylene	UG/L	-	217 D	5.0 U	5.0 U	5.0 U	2.2 J
Anthracene	UG/L	-	2.8 J	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	UG/L	-	28.8	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U
Naphthalene	UG/L	-	1,370 D	5.0 U	5.0 U	5.0 U	7.4
Phenanthrene	UG/L	-	19.8	5.0 U	5.0 U	5.0 U	5.0 U
Pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	1,895.8	ND	ND	ND	11.1

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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Made By_PRF 02/23/17; Checked By_AMK 02/23/17

Detection Limits shown are PQL

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-012S	HIMW-013D	HIMW-013I	HIMW-013S	HIMW-014D
Sample ID			HIMW-12S	HIMW-13D	HIMW-13I	HIMW-13S	HIMW-14D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/13/16	12/14/16	12/14/16	12/14/16	12/13/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	2.5	1.0 U	1.0 U	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total BTEX	UG/L	100	ND	2.5	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthene	UG/L	-	5.0 U	5.0	5.0 U	5.0 U	5.0 U
Acenaphthylene	UG/L	-	5.0 U	10.3	5.0 U	5.0 U	5.0 U
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ
Benzo(k)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ
Fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ
Naphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	15.3	ND	ND	ND

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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Made By_PRF 02/23/17; Checked By_AMK 02/23/17

Detection Limits shown are PQL

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-014I	HIMW-015D	HIMW-015I	HIMW-020I	HIMW-020S
Sample ID			HIMW-14I	HIMW-15D	HIMW-15I	HIMW-20I	HIMW-20S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/13/16	12/14/16	12/14/16	12/19/16	12/19/16
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	4.1	1.0 U	1.1	1.0 U	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total BTEX	UG/L	100	4.1	ND	1.1	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthene	UG/L	-	7.6	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	UG/L	-	8.8	5.0 U	7.6	5.0 U	5.0 U
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	UG/L	-	2.8 J	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	UG/L	-	2.7 J	5.0 U	5.0 U	5.0 U	5.0 U
Pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	21.9	ND	7.6	ND	ND

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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Made By_PRF 02/23/17; Checked By_AMK 02/23/17

Detection Limits shown are PQL

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-022	HIMW-023	HIMW-024	HIMW-025	HIMW-025
Sample ID			HIMW-22	HIMW-23	HIMW-24	DUP-121916	HIMW-25
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/13/16	12/15/16	12/19/16	12/19/16	12/19/16
Parameter	Units	Criteria*				Field Duplicate (1-1)	
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	-	1.0 U	1.0 U	1.1	1.0 U	1.0 U
Total BTEX	UG/L	100	ND	ND	1.1	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	2.9 J	5.0 U	5.0 U
Acenaphthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	UG/L	-	5.0 U	5.0 U	1.8 J	5.0 U	5.0 U
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Benzo(k)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
Naphthalene	UG/L	-	5.0 U	5.0 U	120 D	5.0 U	5.0 U
Phenanthrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	124.7	ND	ND

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Concentration Exceeds Criteria

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-026D	HIMW-026I	HIMW-027I	HIMW-027S	HIMW-028I
Sample ID			HIMW-26D	HIMW-26I	HIMW-027I	HIMW-027S	HIMW-28I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/20/16	12/20/16	12/22/16	12/22/16	12/21/16
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	14.8	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	219 D	1.0 U
Toluene	UG/L	-	6.0	1.0 U	1.0 U	5.7	1.0 U
Xylene (total)	UG/L	-	46.1	1.0 U	1.0 U	207	1.0 U
Total BTEX	UG/L	100	52.1	ND	ND	446.5	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	33.6	5.0 U	5.0 U	87.1 D	5.0 U
Acenaphthene	UG/L	-	1.1 J	5.0 U	5.0 U	50.4	5.0 U
Acenaphthylene	UG/L	-	3.1 J	5.0 U	5.0 U	3.1 J	5.0 U
Anthracene	UG/L	-	5.0	5.0 U	5.0 U	8.2	5.0 U
Benzo(a)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Benzo(k)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U
Chrysene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	2.9 J	5.0 U
Fluorene	UG/L	-	4.0 J	5.0 U	5.0 U	31.2	5.0 U
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 UJ
Naphthalene	UG/L	-	74.4	5.0 U	5.0 U	484 D	5.0 U
Phenanthrene	UG/L	-	5.3	5.0 U	5.0 U	44.2	5.0 U
Pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	4.0 J	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	126.5	ND	ND	715.1	ND

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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Made By_PRF 02/23/17; Checked By_AMK 02/23/17

Detection Limits shown are PQL

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-028S
Sample ID			HIMW-28S
Matrix			Groundwater
Depth Interval (ft)			-
Date Sampled			12/21/16
Parameter	**Units**	**Criteria***	
Volatile Organic Compounds			
Benzene	UG/L	-	4.9
Ethylbenzene	UG/L	-	70.4
Toluene	UG/L	-	1.0 U
Xylene (total)	UG/L	-	3.7
Total BTEX	UG/L	100	79
Semivolatile Organic Compounds			
2-Methylnaphthalene	UG/L	-	23.7
Acenaphthene	UG/L	-	23.6
Acenaphthylene	UG/L	-	1.6 J
Anthracene	UG/L	-	3.9 J
Benzo(a)anthracene	UG/L	-	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 UJ
Benzo(k)fluoranthene	UG/L	-	5.0 U
Chrysene	UG/L	-	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 U
Fluoranthene	UG/L	-	5.0 U
Fluorene	UG/L	-	16.0
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 UJ
Naphthalene	UG/L	-	175 D
Phenanthrene	UG/L	-	21.5
Pyrene	UG/L	-	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	265.3

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit. UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

Made By_PRF 02/23/17; Checked By_AMK 02/23/17

Detection Limits shown are PQL

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TABLE A-2
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			FIELDQC	FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID			20161213TB	20161215TB	20161216 TB	FB20161221	TB20161220
Matrix			Water Quality	Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/13/16	12/15/16	12/16/16	12/20/16	12/20/16
Parameter	Units	Criteria*	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Field Blank (1-1)	Trip Blank (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total BTEX	UG/L	100	ND	ND	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	NA	NA	NA	5.0 U	NA
Acenaphthene	UG/L	-	NA	NA	NA	5.0 U	NA
Acenaphthylene	UG/L	-	NA	NA	NA	5.0 U	NA
Anthracene	UG/L	-	NA	NA	NA	5.0 U	NA
Benzo(a)anthracene	UG/L	-	NA	NA	NA	5.0 U	NA
Benzo(a)pyrene	UG/L	-	NA	NA	NA	5.0 U	NA
Benzo(b)fluoranthene	UG/L	-	NA	NA	NA	5.0 U	NA
Benzo(g,h,i)perylene	UG/L	-	NA	NA	NA	5.0 UJ	NA
Benzo(k)fluoranthene	UG/L	-	NA	NA	NA	5.0 U	NA
Chrysene	UG/L	-	NA	NA	NA	5.0 U	NA
Dibenz(a,h)anthracene	UG/L	-	NA	NA	NA	5.0 U	NA
Fluoranthene	UG/L	-	NA	NA	NA	5.0 U	NA
Fluorene	UG/L	-	NA	NA	NA	5.0 U	NA
Indeno(1,2,3-cd)pyrene	UG/L	-	NA	NA	NA	5.0 UJ	NA
Naphthalene	UG/L	-	NA	NA	NA	5.0 U	NA
Phenanthrene	UG/L	-	NA	NA	NA	5.0 U	NA
Pyrene	UG/L	-	NA	NA	NA	5.0 U	NA
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	NA	NA	NA	ND	NA

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. UJ - Not detected. The reported quantitation limit is an estimated value.

Made By_PRF 02/23/17; Checked By_AMK 02/23/17

Detection Limits shown are PQL

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[LOGDATE] >= #12/12/2016# AND [MATRIX] = 'WQ'

TABLE A-2
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			FIELDQC	FIELDQC
Sample ID			TB20161221	TB20161222
Matrix			Water Quality	Water Quality
Depth Interval (ft)			-	-
Date Sampled			12/21/16	12/22/16
Parameter	Units	Criteria*	Trip Blank (1-1)	Trip Blank (1-1)
Volatile Organic Compounds				
Benzene	UG/L	-	1.0 U	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U
Xylene (total)	UG/L	-	1.0 U	1.0 U
Total BTEX	UG/L	100	ND	ND
Semivolatile Organic Compounds				
2-Methylnaphthalene	UG/L	-	NA	NA
Acenaphthene	UG/L	-	NA	NA
Acenaphthylene	UG/L	-	NA	NA
Anthracene	UG/L	-	NA	NA
Benzo(a)anthracene	UG/L	-	NA	NA
Benzo(a)pyrene	UG/L	-	NA	NA
Benzo(b)fluoranthene	UG/L	-	NA	NA
Benzo(g,h,i)perylene	UG/L	-	NA	NA
Benzo(k)fluoranthene	UG/L	-	NA	NA
Chrysene	UG/L	-	NA	NA
Dibenz(a,h)anthracene	UG/L	-	NA	NA
Fluoranthene	UG/L	-	NA	NA
Fluorene	UG/L	-	NA	NA
Indeno(1,2,3-cd)pyrene	UG/L	-	NA	NA
Naphthalene	UG/L	-	NA	NA
Phenanthrene	UG/L	-	NA	NA
Pyrene	UG/L	-	NA	NA
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	NA	NA

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. UJ - Not detected. The reported quantitation limit is an estimated value.

Made By_PRF 02/23/17; Checked By_AMK 02/23/17

Detection Limits shown are PQL

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[LOGDATE] >= #12/12/2016# AND [MATRIX] = 'WQ'

ATTACHMENT A

VALIDATED FORM 1'S

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-14D **Lab ID: 706914001** Collected: 12/13/16 09:20 Received: 12/13/16 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L UJ	5.0	1	12/19/16 09:00	12/20/16 18:11	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L UJ	5.0	1	12/19/16 09:00	12/20/16 18:11	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L UJ	5.0	1	12/19/16 09:00	12/20/16 18:11	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:11	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	67	%.	35-114	1	12/19/16 09:00	12/20/16 18:11	4165-60-0	
2-Fluorobiphenyl (S)	64	%.	43-116	1	12/19/16 09:00	12/20/16 18:11	321-60-8	
p-Terphenyl-d14 (S)	78	%.	33-141	1	12/19/16 09:00	12/20/16 18:11	1718-51-0	
Phenol-d5 (S)	25	%.	10-110	1	12/19/16 09:00	12/20/16 18:11	4165-62-2	
2-Fluorophenol (S)	37	%.	21-110	1	12/19/16 09:00	12/20/16 18:11	367-12-4	
2,4,6-Tribromophenol (S)	84	%.	10-123	1	12/19/16 09:00	12/20/16 18:11	118-79-6	
2-Chlorophenol-d4 (S)	66	%.	33-110	1	12/19/16 09:00	12/20/16 18:11	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	51	%.	16-110	1	12/19/16 09:00	12/20/16 18:11	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/19/16 15:39	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/19/16 15:39	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/19/16 15:39	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/19/16 15:39	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	85	%.	68-153	1		12/19/16 15:39	17060-07-0	
4-Bromofluorobenzene (S)	93	%.	79-124	1		12/19/16 15:39	460-00-4	
Toluene-d8 (S)	82	%.	69-124	1		12/19/16 15:39	2037-26-5	

2/23/17

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-14I **Lab ID: 706914002** Collected: 12/13/16 10:30 Received: 12/13/16 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**7.6**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	83-32-9	
Acenaphthylene	**8.8**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L UJ	5.0	1	12/19/16 09:00	12/20/16 18:39	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L UJ	5.0	1	12/19/16 09:00	12/20/16 18:39	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	206-44-0	
Fluorene	**2.8J**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L UJ	5.0	1	12/19/16 09:00	12/20/16 18:39	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	91-20-3	
Phenanthrene	**2.7J**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 18:39	129-00-0	
Surrogates			2/23/17					
Nitrobenzene-d5 (S)	76	%.	35-114	1	12/19/16 09:00	12/20/16 18:39	4165-60-0	
2-Fluorobiphenyl (S)	77	%.	43-116	1	12/19/16 09:00	12/20/16 18:39	321-60-8	
p-Terphenyl-d14 (S)	87	%.	33-141	1	12/19/16 09:00	12/20/16 18:39	1718-51-0	
Phenol-d5 (S)	34	%.	10-110	1	12/19/16 09:00	12/20/16 18:39	4165-62-2	
2-Fluorophenol (S)	55	%.	21-110	1	12/19/16 09:00	12/20/16 18:39	367-12-4	
2,4,6-Tribromophenol (S)	85	%.	10-123	1	12/19/16 09:00	12/20/16 18:39	118-79-6	
2-Chlorophenol-d4 (S)	72	%.	33-110	1	12/19/16 09:00	12/20/16 18:39	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	72	%.	16-110	1	12/19/16 09:00	12/20/16 18:39	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**4.1**	ug/L	1.0	1		12/19/16 15:19	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/19/16 15:19	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/19/16 15:19	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/19/16 15:19	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	79	%.	68-153	1		12/19/16 15:19	17060-07-0	
4-Bromofluorobenzene (S)	89	%.	79-124	1		12/19/16 15:19	460-00-4	
Toluene-d8 (S)	82	%.	69-124	1		12/19/16 15:19	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-12S **Lab ID: 706914003** Collected: 12/13/16 12:10 Received: 12/13/16 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L UJ	5.0	1	12/19/16 09:00	12/20/16 19:08	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L UJ	5.0	1	12/19/16 09:00	12/20/16 19:08	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L UJ	5.0	1	12/19/16 09:00	12/20/16 19:08	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:08	129-00-0	
Surrogates			2/23/17 rr					
Nitrobenzene-d5 (S)	67	%.	35-114	1	12/19/16 09:00	12/20/16 19:08	4165-60-0	
2-Fluorobiphenyl (S)	69	%.	43-116	1	12/19/16 09:00	12/20/16 19:08	321-60-8	
p-Terphenyl-d14 (S)	74	%.	33-141	1	12/19/16 09:00	12/20/16 19:08	1718-51-0	
Phenol-d5 (S)	29	%.	10-110	1	12/19/16 09:00	12/20/16 19:08	4165-62-2	
2-Fluorophenol (S)	43	%.	21-110	1	12/19/16 09:00	12/20/16 19:08	367-12-4	
2,4,6-Tribromophenol (S)	84	%.	10-123	1	12/19/16 09:00	12/20/16 19:08	118-79-6	
2-Chlorophenol-d4 (S)	72	%.	33-110	1	12/19/16 09:00	12/20/16 19:08	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	58	%.	16-110	1	12/19/16 09:00	12/20/16 19:08	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/19/16 14:59	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/19/16 14:59	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/19/16 14:59	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/19/16 14:59	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	85	%.	68-153	1		12/19/16 14:59	17060-07-0	
4-Bromofluorobenzene (S)	88	%.	79-124	1		12/19/16 14:59	460-00-4	
Toluene-d8 (S)	87	%.	69-124	1		12/19/16 14:59	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-22 **Lab ID: 706914004** Collected: 12/13/16 13:30 Received: 12/13/16 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/19/16 09:00	12/20/16 19:37	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	72	%.	35-114	1	12/19/16 09:00	12/20/16 19:37	4165-60-0	
2-Fluorobiphenyl (S)	60	%.	43-116	1	12/19/16 09:00	12/20/16 19:37	321-60-8	
p-Terphenyl-d14 (S)	71	%.	33-141	1	12/19/16 09:00	12/20/16 19:37	1718-51-0	
Phenol-d5 (S)	30	%.	10-110	1	12/19/16 09:00	12/20/16 19:37	4165-62-2	
2-Fluorophenol (S)	45	%.	21-110	1	12/19/16 09:00	12/20/16 19:37	367-12-4	
2,4,6-Tribromophenol (S)	70	%.	10-123	1	12/19/16 09:00	12/20/16 19:37	118-79-6	
2-Chlorophenol-d4 (S)	71	%.	33-110	1	12/19/16 09:00	12/20/16 19:37	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	60	%.	16-110	1	12/19/16 09:00	12/20/16 19:37	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/19/16 14:38	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/19/16 14:38	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/19/16 14:38	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/19/16 14:38	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	86	%.	68-153	1		12/19/16 14:38	17060-07-0	
4-Bromofluorobenzene (S)	88	%.	79-124	1		12/19/16 14:38	460-00-4	
Toluene-d8 (S)	78	%.	69-124	1		12/19/16 14:38	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: 20161213TB **Lab ID: 706914005** Collected: 12/12/16 13:30 Received: 12/13/16 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/19/16 14:18	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/19/16 14:18	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/19/16 14:18	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/19/16 14:18	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	85	%.	68-153	1		12/19/16 14:18	17060-07-0	
4-Bromofluorobenzene (S)	88	%.	79-124	1		12/19/16 14:18	460-00-4	
Toluene-d8 (S)	80	%.	69-124	1		12/19/16 14:18	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-15D **Lab ID: 706914006** Collected: 12/14/16 08:10 Received: 12/15/16 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:30	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	67	%.	35-114	1	12/20/16 09:18	12/20/16 23:30	4165-60-0	
2-Fluorobiphenyl (S)	64	%.	43-116	1	12/20/16 09:18	12/20/16 23:30	321-60-8	
p-Terphenyl-d14 (S)	83	%.	33-141	1	12/20/16 09:18	12/20/16 23:30	1718-51-0	
Phenol-d5 (S)	30	%.	10-110	1	12/20/16 09:18	12/20/16 23:30	4165-62-2	
2-Fluorophenol (S)	45	%.	21-110	1	12/20/16 09:18	12/20/16 23:30	367-12-4	
2,4,6-Tribromophenol (S)	93	%.	10-123	1	12/20/16 09:18	12/20/16 23:30	118-79-6	
2-Chlorophenol-d4 (S)	65	%.	33-110	1	12/20/16 09:18	12/20/16 23:30	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	48	%.	16-110	1	12/20/16 09:18	12/20/16 23:30	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 18:54	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 18:54	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 18:54	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 18:54	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	84	%.	68-153	1		12/21/16 18:54	17060-07-0	
4-Bromofluorobenzene (S)	90	%.	79-124	1		12/21/16 18:54	460-00-4	
Toluene-d8 (S)	82	%.	69-124	1		12/21/16 18:54	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-15I **Lab ID: 706914007** Collected: 12/14/16 09:45 Received: 12/15/16 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	83-32-9	
Acenaphthylene	**7.6**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/20/16 23:59	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	76	%.	35-114	1	12/20/16 09:18	12/20/16 23:59	4165-60-0	
2-Fluorobiphenyl (S)	70	%.	43-116	1	12/20/16 09:18	12/20/16 23:59	321-60-8	
p-Terphenyl-d14 (S)	91	%.	33-141	1	12/20/16 09:18	12/20/16 23:59	1718-51-0	
Phenol-d5 (S)	34	%.	10-110	1	12/20/16 09:18	12/20/16 23:59	4165-62-2	
2-Fluorophenol (S)	50	%.	21-110	1	12/20/16 09:18	12/20/16 23:59	367-12-4	
2,4,6-Tribromophenol (S)	108	%.	10-123	1	12/20/16 09:18	12/20/16 23:59	118-79-6	
2-Chlorophenol-d4 (S)	73	%.	33-110	1	12/20/16 09:18	12/20/16 23:59	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	53	%.	16-110	1	12/20/16 09:18	12/20/16 23:59	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**1.1**	ug/L	1.0	1		12/21/16 18:34	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 18:34	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 18:34	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 18:34	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	81	%.	68-153	1		12/21/16 18:34	17060-07-0	
4-Bromofluorobenzene (S)	90	%.	79-124	1		12/21/16 18:34	460-00-4	
Toluene-d8 (S)	83	%.	69-124	1		12/21/16 18:34	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-13D **Lab ID: 706914008** Collected: 12/14/16 12:40 Received: 12/15/16 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	83-32-9	
Acenaphthylene	**10.3**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:28	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	78	%.	35-114	1	12/20/16 09:18	12/21/16 00:28	4165-60-0	
2-Fluorobiphenyl (S)	68	%.	43-116	1	12/20/16 09:18	12/21/16 00:28	321-60-8	
p-Terphenyl-d14 (S)	93	%.	33-141	1	12/20/16 09:18	12/21/16 00:28	1718-51-0	
Phenol-d5 (S)	34	%.	10-110	1	12/20/16 09:18	12/21/16 00:28	4165-62-2	
2-Fluorophenol (S)	52	%.	21-110	1	12/20/16 09:18	12/21/16 00:28	367-12-4	
2,4,6-Tribromophenol (S)	110	%.	10-123	1	12/20/16 09:18	12/21/16 00:28	118-79-6	
2-Chlorophenol-d4 (S)	75	%.	33-110	1	12/20/16 09:18	12/21/16 00:28	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	51	%.	16-110	1	12/20/16 09:18	12/21/16 00:28	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**2.5**	ug/L	1.0	1		12/21/16 18:14	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 18:14	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 18:14	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 18:14	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	83	%.	68-153	1		12/21/16 18:14	17060-07-0	
4-Bromofluorobenzene (S)	92	%.	79-124	1		12/21/16 18:14	460-00-4	
Toluene-d8 (S)	80	%.	69-124	1		12/21/16 18:14	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-13I **Lab ID: 706914009** Collected: 12/14/16 13:40 Received: 12/15/16 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 00:57	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	80	%.	35-114	1	12/20/16 09:18	12/21/16 00:57	4165-60-0	
2-Fluorobiphenyl (S)	72	%.	43-116	1	12/20/16 09:18	12/21/16 00:57	321-60-8	
p-Terphenyl-d14 (S)	94	%.	33-141	1	12/20/16 09:18	12/21/16 00:57	1718-51-0	
Phenol-d5 (S)	38	%.	10-110	1	12/20/16 09:18	12/21/16 00:57	4165-62-2	
2-Fluorophenol (S)	56	%.	21-110	1	12/20/16 09:18	12/21/16 00:57	367-12-4	
2,4,6-Tribromophenol (S)	107	%.	10-123	1	12/20/16 09:18	12/21/16 00:57	118-79-6	
2-Chlorophenol-d4 (S)	79	%.	33-110	1	12/20/16 09:18	12/21/16 00:57	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	57	%.	16-110	1	12/20/16 09:18	12/21/16 00:57	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 17:54	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 17:54	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 17:54	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 17:54	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	84	%.	68-153	1		12/21/16 17:54	17060-07-0	
4-Bromofluorobenzene (S)	92	%.	79-124	1		12/21/16 17:54	460-00-4	
Toluene-d8 (S)	84	%.	69-124	1		12/21/16 17:54	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-13S **Lab ID: 706914010** Collected: 12/14/16 14:40 Received: 12/15/16 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/20/16 09:18	12/21/16 01:25	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	71	%.	35-114	1	12/20/16 09:18	12/21/16 01:25	4165-60-0	
2-Fluorobiphenyl (S)	68	%.	43-116	1	12/20/16 09:18	12/21/16 01:25	321-60-8	
p-Terphenyl-d14 (S)	93	%.	33-141	1	12/20/16 09:18	12/21/16 01:25	1718-51-0	
Phenol-d5 (S)	33	%.	10-110	1	12/20/16 09:18	12/21/16 01:25	4165-62-2	
2-Fluorophenol (S)	49	%.	21-110	1	12/20/16 09:18	12/21/16 01:25	367-12-4	
2,4,6-Tribromophenol (S)	101	%.	10-123	1	12/20/16 09:18	12/21/16 01:25	118-79-6	
2-Chlorophenol-d4 (S)	70	%.	33-110	1	12/20/16 09:18	12/21/16 01:25	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	51	%.	16-110	1	12/20/16 09:18	12/21/16 01:25	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 17:33	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 17:33	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 17:33	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 17:33	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	83	%.	68-153	1		12/21/16 17:33	17060-07-0	
4-Bromofluorobenzene (S)	94	%.	79-124	1		12/21/16 17:33	460-00-4	
Toluene-d8 (S)	83	%.	69-124	1		12/21/16 17:33	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-08D **Lab ID: 706914011** Collected: 12/15/16 08:30 Received: 12/15/16 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:22	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	71	%.	35-114	1	12/21/16 09:26	12/22/16 23:22	4165-60-0	
2-Fluorobiphenyl (S)	67	%.	43-116	1	12/21/16 09:26	12/22/16 23:22	321-60-8	
p-Terphenyl-d14 (S)	103	%.	33-141	1	12/21/16 09:26	12/22/16 23:22	1718-51-0	
Phenol-d5 (S)	34	%.	10-110	1	12/21/16 09:26	12/22/16 23:22	4165-62-2	
2-Fluorophenol (S)	49	%.	21-110	1	12/21/16 09:26	12/22/16 23:22	367-12-4	
2,4,6-Tribromophenol (S)	100	%.	10-123	1	12/21/16 09:26	12/22/16 23:22	118-79-6	
2-Chlorophenol-d4 (S)	71	%.	33-110	1	12/21/16 09:26	12/22/16 23:22	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	54	%.	16-110	1	12/21/16 09:26	12/22/16 23:22	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 17:13	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 17:13	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 17:13	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 17:13	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	88	%.	68-153	1		12/21/16 17:13	17060-07-0	
4-Bromofluorobenzene (S)	91	%.	79-124	1		12/21/16 17:13	460-00-4	
Toluene-d8 (S)	82	%.	69-124	1		12/21/16 17:13	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-08I **Lab ID: 706914012** Collected: 12/15/16 09:45 Received: 12/15/16 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/22/16 23:51	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	72	%.	35-114	1	12/21/16 09:26	12/22/16 23:51	4165-60-0	
2-Fluorobiphenyl (S)	67	%.	43-116	1	12/21/16 09:26	12/22/16 23:51	321-60-8	
p-Terphenyl-d14 (S)	103	%.	33-141	1	12/21/16 09:26	12/22/16 23:51	1718-51-0	
Phenol-d5 (S)	35	%.	10-110	1	12/21/16 09:26	12/22/16 23:51	4165-62-2	
2-Fluorophenol (S)	49	%.	21-110	1	12/21/16 09:26	12/22/16 23:51	367-12-4	
2,4,6-Tribromophenol (S)	96	%.	10-123	1	12/21/16 09:26	12/22/16 23:51	118-79-6	
2-Chlorophenol-d4 (S)	70	%.	33-110	1	12/21/16 09:26	12/22/16 23:51	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	54	%.	16-110	1	12/21/16 09:26	12/22/16 23:51	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 16:53	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 16:53	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 16:53	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 16:53	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	84	%.	68-153	1		12/21/16 16:53	17060-07-0	
4-Bromofluorobenzene (S)	90	%.	79-124	1		12/21/16 16:53	460-00-4	
Toluene-d8 (S)	82	%.	69-124	1		12/21/16 16:53	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-08S **Lab ID: 706914013** Collected: 12/15/16 11:10 Received: 12/15/16 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**1.5J**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	83-32-9	
Acenaphthylene	**2.2J**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	91-57-6	
Naphthalene	**7.4**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:20	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	81	%.	35-114	1	12/21/16 09:26	12/23/16 00:20	4165-60-0	
2-Fluorobiphenyl (S)	77	%.	43-116	1	12/21/16 09:26	12/23/16 00:20	321-60-8	
p-Terphenyl-d14 (S)	103	%.	33-141	1	12/21/16 09:26	12/23/16 00:20	1718-51-0	
Phenol-d5 (S)	41	%.	10-110	1	12/21/16 09:26	12/23/16 00:20	4165-62-2	
2-Fluorophenol (S)	56	%.	21-110	1	12/21/16 09:26	12/23/16 00:20	367-12-4	
2,4,6-Tribromophenol (S)	119	%.	10-123	1	12/21/16 09:26	12/23/16 00:20	118-79-6	
2-Chlorophenol-d4 (S)	78	%.	33-110	1	12/21/16 09:26	12/23/16 00:20	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	57	%.	16-110	1	12/21/16 09:26	12/23/16 00:20	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**84.2**	ug/L	1.0	1		12/21/16 16:33	71-43-2	
Ethylbenzene	**11.7**	ug/L	1.0	1		12/21/16 16:33	100-41-4	
Toluene	**18.9**	ug/L	1.0	1		12/21/16 16:33	108-88-3	
Xylene (Total)	**22.1**	ug/L	1.0	1		12/21/16 16:33	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	81	%.	68-153	1		12/21/16 16:33	17060-07-0	
4-Bromofluorobenzene (S)	95	%.	79-124	1		12/21/16 16:33	460-00-4	
Toluene-d8 (S)	82	%.	69-124	1		12/21/16 16:33	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-23 **Lab ID: 706914014** Collected: 12/15/16 13:20 Received: 12/15/16 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 00:49	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	80	%.	35-114	1	12/21/16 09:26	12/23/16 00:49	4165-60-0	
2-Fluorobiphenyl (S)	73	%.	43-116	1	12/21/16 09:26	12/23/16 00:49	321-60-8	
p-Terphenyl-d14 (S)	100	%.	33-141	1	12/21/16 09:26	12/23/16 00:49	1718-51-0	
Phenol-d5 (S)	32	%.	10-110	1	12/21/16 09:26	12/23/16 00:49	4165-62-2	
2-Fluorophenol (S)	49	%.	21-110	1	12/21/16 09:26	12/23/16 00:49	367-12-4	
2,4,6-Tribromophenol (S)	103	%.	10-123	1	12/21/16 09:26	12/23/16 00:49	118-79-6	
2-Chlorophenol-d4 (S)	76	%.	33-110	1	12/21/16 09:26	12/23/16 00:49	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	60	%.	16-110	1	12/21/16 09:26	12/23/16 00:49	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 16:12	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 16:12	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 16:12	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 16:12	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	82	%.	68-153	1		12/21/16 16:12	17060-07-0	
4-Bromofluorobenzene (S)	89	%.	79-124	1		12/21/16 16:12	460-00-4	
Toluene-d8 (S)	81	%.	69-124	1		12/21/16 16:12	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: 20161215TB **Lab ID: 706914015** Collected: 12/15/16 13:00 Received: 12/15/16 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 15:52	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 15:52	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 15:52	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 15:52	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	85	%.	68-153	1		12/21/16 15:52	17060-07-0	
4-Bromofluorobenzene (S)	93	%.	79-124	1		12/21/16 15:52	460-00-4	
Toluene-d8 (S)	81	%.	69-124	1		12/21/16 15:52	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-027S **Lab ID: 707551001** Collected: 12/22/16 08:55 Received: 12/22/16 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**50.4**	ug/L	5.0	1	12/27/16 09:21	12/28/16 21:02	83-32-9	
Acenaphthylene	**3.1J**	ug/L	5.0	1	12/27/16 09:21	12/28/16 21:02	208-96-8	
Anthracene	**8.2**	ug/L	5.0	1	12/27/16 09:21	12/28/16 21:02	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 21:02	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 21:02	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 21:02	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L UJ	5.0	1	12/27/16 09:21	12/28/16 21:02	191-24-2	CC
Benzo(k)fluoranthene	**<5.0**	ug/L UJ	5.0	1	12/27/16 09:21	12/28/16 21:02	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 21:02	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 21:02	53-70-3	
Fluoranthene	**2.9J**	ug/L	5.0	1	12/27/16 09:21	12/28/16 21:02	206-44-0	
Fluorene	**31.2**	ug/L	5.0	1	12/27/16 09:21	12/28/16 21:02	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 21:02	193-39-5	
2-Methylnaphthalene	**87.1**	ug/L D	50.0	10	12/27/16 09:21	12/29/16 18:58	91-57-6	
Naphthalene	**484**	ug/L D	50.0	10	12/27/16 09:21	12/29/16 18:58	91-20-3	
Phenanthrene	**44.2**	ug/L	5.0	1	12/27/16 09:21	12/28/16 21:02	85-01-8	
Pyrene	**4.0J**	ug/L	5.0	1	12/27/16 09:21	12/28/16 21:02	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	77	%.	35-114	1	12/27/16 09:21	12/28/16 21:02	4165-60-0	
2-Fluorobiphenyl (S)	63	%.	43-116	1	12/27/16 09:21	12/28/16 21:02	321-60-8	
p-Terphenyl-d14 (S)	79	%.	33-141	1	12/27/16 09:21	12/28/16 21:02	1718-51-0	
Phenol-d5 (S)	33	%.	10-110	1	12/27/16 09:21	12/28/16 21:02	4165-62-2	
2-Fluorophenol (S)	50	%.	21-110	1	12/27/16 09:21	12/28/16 21:02	367-12-4	
2,4,6-Tribromophenol (S)	90	%.	10-123	1	12/27/16 09:21	12/28/16 21:02	118-79-6	
2-Chlorophenol-d4 (S)	76	%.	33-110	1	12/27/16 09:21	12/28/16 21:02	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	47	%.	16-110	1	12/27/16 09:21	12/28/16 21:02	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**14.8**	ug/L	1.0	1		12/23/16 16:50	71-43-2	
Ethylbenzene	**219**	ug/L D	2.0	2		12/23/16 20:33	100-41-4	
Toluene	**5.7**	ug/L	1.0	1		12/23/16 16:50	108-88-3	
Xylene (Total)	**207**	ug/L	1.0	1		12/23/16 16:50	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%.	68-153	1		12/23/16 16:50	17060-07-0	
4-Bromofluorobenzene (S)	99	%.	79-124	1		12/23/16 16:50	460-00-4	
Toluene-d8 (S)	96	%.	69-124	1		12/23/16 16:50	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: HIMW-027I **Lab ID: 707551003** Collected: 12/22/16 10:20 Received: 12/22/16 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	191-24-2	CC
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/27/16 09:21	12/28/16 23:03	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	66	%.	35-114	1	12/27/16 09:21	12/28/16 23:03	4165-60-0	
2-Fluorobiphenyl (S)	64	%.	43-116	1	12/27/16 09:21	12/28/16 23:03	321-60-8	
p-Terphenyl-d14 (S)	64	%.	33-141	1	12/27/16 09:21	12/28/16 23:03	1718-51-0	
Phenol-d5 (S)	31	%.	10-110	1	12/27/16 09:21	12/28/16 23:03	4165-62-2	
2-Fluorophenol (S)	47	%.	21-110	1	12/27/16 09:21	12/28/16 23:03	367-12-4	
2,4,6-Tribromophenol (S)	73	%.	10-123	1	12/27/16 09:21	12/28/16 23:03	118-79-6	
2-Chlorophenol-d4 (S)	74	%.	33-110	1	12/27/16 09:21	12/28/16 23:03	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	46	%.	16-110	1	12/27/16 09:21	12/28/16 23:03	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/23/16 17:08	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/23/16 17:08	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/23/16 17:08	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/23/16 17:08	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%.	68-153	1		12/23/16 17:08	17060-07-0	
4-Bromofluorobenzene (S)	102	%.	79-124	1		12/23/16 17:08	460-00-4	
Toluene-d8 (S)	98	%.	69-124	1		12/23/16 17:08	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 706914

Sample: TB20161222 **Lab ID: 707551004** Collected: 12/22/16 10:20 Received: 12/22/16 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/23/16 16:32	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/23/16 16:32	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/23/16 16:32	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/23/16 16:32	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%.	68-153	1		12/23/16 16:32	17060-07-0	
4-Bromofluorobenzene (S)	99	%.	79-124	1		12/23/16 16:32	460-00-4	
Toluene-d8 (S)	99	%.	69-124	1		12/23/16 16:32	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078

Sample: HIMW-03S **Lab ID: 707078001** Collected: 12/16/16 10:50 Received: 12/16/16 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:18	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	88	%.	35-114	1	12/21/16 09:26	12/23/16 01:18	4165-60-0	
2-Fluorobiphenyl (S)	78	%.	43-116	1	12/21/16 09:26	12/23/16 01:18	321-60-8	
p-Terphenyl-d14 (S)	90	%.	33-141	1	12/21/16 09:26	12/23/16 01:18	1718-51-0	
Phenol-d5 (S)	38	%.	10-110	1	12/21/16 09:26	12/23/16 01:18	4165-62-2	
2-Fluorophenol (S)	61	%.	21-110	1	12/21/16 09:26	12/23/16 01:18	367-12-4	
2,4,6-Tribromophenol (S)	113	%.	10-123	1	12/21/16 09:26	12/23/16 01:18	118-79-6	
2-Chlorophenol-d4 (S)	86	%.	33-110	1	12/21/16 09:26	12/23/16 01:18	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	66	%.	16-110	1	12/21/16 09:26	12/23/16 01:18	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/20/16 18:53	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/20/16 18:53	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/20/16 18:53	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/20/16 18:53	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	84	%.	68-153	1		12/20/16 18:53	17060-07-0	
4-Bromofluorobenzene (S)	91	%.	79-124	1		12/20/16 18:53	460-00-4	
Toluene-d8 (S)	81	%.	69-124	1		12/20/16 18:53	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078

Sample: HIMW-03I **Lab ID: 707078002** Collected: 12/16/16 09:55 Received: 12/16/16 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 01:47	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	85	%.	35-114	1	12/21/16 09:26	12/23/16 01:47	4165-60-0	
2-Fluorobiphenyl (S)	77	%.	43-116	1	12/21/16 09:26	12/23/16 01:47	321-60-8	
p-Terphenyl-d14 (S)	90	%.	33-141	1	12/21/16 09:26	12/23/16 01:47	1718-51-0	
Phenol-d5 (S)	36	%.	10-110	1	12/21/16 09:26	12/23/16 01:47	4165-62-2	
2-Fluorophenol (S)	58	%.	21-110	1	12/21/16 09:26	12/23/16 01:47	367-12-4	
2,4,6-Tribromophenol (S)	109	%.	10-123	1	12/21/16 09:26	12/23/16 01:47	118-79-6	
2-Chlorophenol-d4 (S)	84	%.	33-110	1	12/21/16 09:26	12/23/16 01:47	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	69	%.	16-110	1	12/21/16 09:26	12/23/16 01:47	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/20/16 19:13	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/20/16 19:13	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/20/16 19:13	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/20/16 19:13	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	83	%.	68-153	1		12/20/16 19:13	17060-07-0	
4-Bromofluorobenzene (S)	93	%.	79-124	1		12/20/16 19:13	460-00-4	
Toluene-d8 (S)	86	%.	69-124	1		12/20/16 19:13	2037-26-5	

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(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078

Sample: HIMW-03D **Lab ID: 707078003** Collected: 12/16/16 08:45 Received: 12/16/16 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:15	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	86	%.	35-114	1	12/21/16 09:26	12/23/16 02:15	4165-60-0	
2-Fluorobiphenyl (S)	76	%.	43-116	1	12/21/16 09:26	12/23/16 02:15	321-60-8	
p-Terphenyl-d14 (S)	91	%.	33-141	1	12/21/16 09:26	12/23/16 02:15	1718-51-0	
Phenol-d5 (S)	36	%.	10-110	1	12/21/16 09:26	12/23/16 02:15	4165-62-2	
2-Fluorophenol (S)	57	%.	21-110	1	12/21/16 09:26	12/23/16 02:15	367-12-4	
2,4,6-Tribromophenol (S)	111	%.	10-123	1	12/21/16 09:26	12/23/16 02:15	118-79-6	
2-Chlorophenol-d4 (S)	83	%.	33-110	1	12/21/16 09:26	12/23/16 02:15	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	67	%.	16-110	1	12/21/16 09:26	12/23/16 02:15	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/20/16 19:33	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/20/16 19:33	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/20/16 19:33	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/20/16 19:33	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	83	%.	68-153	1		12/20/16 19:33	17060-07-0	
4-Bromofluorobenzene (S)	95	%.	79-124	1		12/20/16 19:33	460-00-4	
Toluene-d8 (S)	84	%.	69-124	1		12/20/16 19:33	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078

Sample: 20161216 TB **Lab ID: 707078004** Collected: 12/16/16 11:00 Received: 12/16/16 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/20/16 19:53	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/20/16 19:53	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/20/16 19:53	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/20/16 19:53	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	84	%.	68-153	1		12/20/16 19:53	17060-07-0	
4-Bromofluorobenzene (S)	91	%.	79-124	1		12/20/16 19:53	460-00-4	
Toluene-d8 (S)	82	%.	69-124	1		12/20/16 19:53	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078

Sample: HIMW-24 **Lab ID: 707078005** Collected: 12/19/16 08:25 Received: 12/20/16 14:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	83-32-9	
Acenaphthylene	**1.8J**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	193-39-5	
2-Methylnaphthalene	**2.9J**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	91-57-6	
Naphthalene	**120**	ug/L D	10.0	2	12/21/16 09:26	01/04/17 21:45	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 02:44	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	85	%.	35-114	1	12/21/16 09:26	12/23/16 02:44	4165-60-0	
2-Fluorobiphenyl (S)	78	%.	43-116	1	12/21/16 09:26	12/23/16 02:44	321-60-8	
p-Terphenyl-d14 (S)	105	%.	33-141	1	12/21/16 09:26	12/23/16 02:44	1718-51-0	
Phenol-d5 (S)	34	%.	10-110	1	12/21/16 09:26	12/23/16 02:44	4165-62-2	
2-Fluorophenol (S)	54	%.	21-110	1	12/21/16 09:26	12/23/16 02:44	367-12-4	
2,4,6-Tribromophenol (S)	114	%.	10-123	1	12/21/16 09:26	12/23/16 02:44	118-79-6	
2-Chlorophenol-d4 (S)	80	%.	33-110	1	12/21/16 09:26	12/23/16 02:44	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	65	%.	16-110	1	12/21/16 09:26	12/23/16 02:44	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 19:35	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 19:35	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 19:35	108-88-3	
Xylene (Total)	**1.1**	ug/L	1.0	1		12/21/16 19:35	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	84	%.	68-153	1		12/21/16 19:35	17060-07-0	
4-Bromofluorobenzene (S)	88	%.	79-124	1		12/21/16 19:35	460-00-4	
Toluene-d8 (S)	83	%.	69-124	1		12/21/16 19:35	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078

Sample: HIMW-25 **Lab ID: 707078006** Collected: 12/19/16 10:50 Received: 12/20/16 14:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:13	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	79	%.	35-114	1	12/21/16 09:26	12/23/16 03:13	4165-60-0	
2-Fluorobiphenyl (S)	71	%.	43-116	1	12/21/16 09:26	12/23/16 03:13	321-60-8	
p-Terphenyl-d14 (S)	95	%.	33-141	1	12/21/16 09:26	12/23/16 03:13	1718-51-0	
Phenol-d5 (S)	37	%.	10-110	1	12/21/16 09:26	12/23/16 03:13	4165-62-2	
2-Fluorophenol (S)	57	%.	21-110	1	12/21/16 09:26	12/23/16 03:13	367-12-4	
2,4,6-Tribromophenol (S)	101	%.	10-123	1	12/21/16 09:26	12/23/16 03:13	118-79-6	
2-Chlorophenol-d4 (S)	79	%.	33-110	1	12/21/16 09:26	12/23/16 03:13	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	63	%.	16-110	1	12/21/16 09:26	12/23/16 03:13	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 19:55	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 19:55	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 19:55	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 19:55	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	80	%.	68-153	1		12/21/16 19:55	17060-07-0	
4-Bromofluorobenzene (S)	91	%.	79-124	1		12/21/16 19:55	460-00-4	
Toluene-d8 (S)	83	%.	69-124	1		12/21/16 19:55	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078

Sample: HIMW-20S **Lab ID: 707078007** Collected: 12/19/16 12:15 Received: 12/20/16 14:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 03:42	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	79	%.	35-114	1	12/21/16 09:26	12/23/16 03:42	4165-60-0	
2-Fluorobiphenyl (S)	70	%.	43-116	1	12/21/16 09:26	12/23/16 03:42	321-60-8	
p-Terphenyl-d14 (S)	89	%.	33-141	1	12/21/16 09:26	12/23/16 03:42	1718-51-0	
Phenol-d5 (S)	37	%.	10-110	1	12/21/16 09:26	12/23/16 03:42	4165-62-2	
2-Fluorophenol (S)	57	%.	21-110	1	12/21/16 09:26	12/23/16 03:42	367-12-4	
2,4,6-Tribromophenol (S)	105	%.	10-123	1	12/21/16 09:26	12/23/16 03:42	118-79-6	
2-Chlorophenol-d4 (S)	77	%.	33-110	1	12/21/16 09:26	12/23/16 03:42	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	62	%.	16-110	1	12/21/16 09:26	12/23/16 03:42	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 20:15	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 20:15	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 20:15	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 20:15	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	81	%.	68-153	1		12/21/16 20:15	17060-07-0	
4-Bromofluorobenzene (S)	90	%.	79-124	1		12/21/16 20:15	460-00-4	
Toluene-d8 (S)	83	%.	69-124	1		12/21/16 20:15	2037-26-5	

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078

Sample: HIMW-20I **Lab ID: 707078008** Collected: 12/19/16 13:25 Received: 12/20/16 14:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/21/16 09:26	12/23/16 04:11	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	86	%.	35-114	1	12/21/16 09:26	12/23/16 04:11	4165-60-0	
2-Fluorobiphenyl (S)	79	%.	43-116	1	12/21/16 09:26	12/23/16 04:11	321-60-8	
p-Terphenyl-d14 (S)	102	%.	33-141	1	12/21/16 09:26	12/23/16 04:11	1718-51-0	
Phenol-d5 (S)	40	%.	10-110	1	12/21/16 09:26	12/23/16 04:11	4165-62-2	
2-Fluorophenol (S)	61	%.	21-110	1	12/21/16 09:26	12/23/16 04:11	367-12-4	
2,4,6-Tribromophenol (S)	115	%.	10-123	1	12/21/16 09:26	12/23/16 04:11	118-79-6	
2-Chlorophenol-d4 (S)	84	%.	33-110	1	12/21/16 09:26	12/23/16 04:11	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	70	%.	16-110	1	12/21/16 09:26	12/23/16 04:11	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 20:36	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 20:36	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 20:36	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 20:36	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	81	%.	68-153	1		12/21/16 20:36	17060-07-0	
4-Bromofluorobenzene (S)	91	%.	79-124	1		12/21/16 20:36	460-00-4	
Toluene-d8 (S)	81	%.	69-124	1		12/21/16 20:36	2037-26-5	

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078

Sample: HIMW-05D **Lab ID: 707078009** Collected: 12/20/16 09:20 Received: 12/20/16 14:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**3.5J**	ug/L	5.0	1	12/22/16 09:04	12/30/16 13:26	83-32-9	
Acenaphthylene	**50.6**	ug/L	5.0	1	12/22/16 09:04	12/30/16 13:26	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 13:26	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 13:26	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 13:26	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 13:26	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L UJ	5.0	1	12/22/16 09:04	12/30/16 13:26	191-24-2	CC
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 13:26	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 13:26	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 13:26	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 13:26	206-44-0	
Fluorene	**7.9**	ug/L	5.0	1	12/22/16 09:04	12/30/16 13:26	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L UJ	5.0	1	12/22/16 09:04	12/30/16 13:26	193-39-5	
2-Methylnaphthalene	**187** D	ug/L	125	25	12/22/16 09:04	01/04/17 22:14	91-57-6	M1
Naphthalene	**1800** D	ug/L	125	25	12/22/16 09:04	01/04/17 22:14	91-20-3	M1
Phenanthrene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 13:26	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 13:26	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	104	%.	2/23/17 35-114	1	12/22/16 09:04	12/30/16 13:26	4165-60-0	
2-Fluorobiphenyl (S)	78	%.	43-116	1	12/22/16 09:04	12/30/16 13:26	321-60-8	
p-Terphenyl-d14 (S)	75	%.	33-141	1	12/22/16 09:04	12/30/16 13:26	1718-51-0	
Phenol-d5 (S)	34	%.	10-110	1	12/22/16 09:04	12/30/16 13:26	4165-62-2	
2-Fluorophenol (S)	52	%.	21-110	1	12/22/16 09:04	12/30/16 13:26	367-12-4	
2,4,6-Tribromophenol (S)	122	%.	10-123	1	12/22/16 09:04	12/30/16 13:26	118-79-6	
2-Chlorophenol-d4 (S)	72	%.	33-110	1	12/22/16 09:04	12/30/16 13:26	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	60	%.	16-110	1	12/22/16 09:04	12/30/16 13:26	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 20:56	71-43-2	M1
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 20:56	100-41-4	
Toluene	**1.8**	ug/L	1.0	1		12/21/16 20:56	108-88-3	
Xylene (Total)	**54.5**	ug/L	1.0	1		12/21/16 20:56	1330-20-7	MS
Surrogates								
1,2-Dichloroethane-d4 (S)	84	%.	68-153	1		12/21/16 20:56	17060-07-0	
4-Bromofluorobenzene (S)	95	%.	79-124	1		12/21/16 20:56	460-00-4	
Toluene-d8 (S)	83	%.	69-124	1		12/21/16 20:56	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078

Sample: HIMW-26D **Lab ID: 707078010** Collected: 12/20/16 11:50 Received: 12/20/16 14:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**1.1J**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	83-32-9	
Acenaphthylene	**3.1J**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	208-96-8	
Anthracene	**5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L UJ	5.0	1	12/22/16 09:04	12/30/16 14:51	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	206-44-0	
Fluorene	**4.0J**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L UJ	5.0	1	12/22/16 09:04	12/30/16 14:51	193-39-5	
2-Methylnaphthalene	**33.6**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	91-57-6	
Naphthalene	**74.4**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	91-20-3	
Phenanthrene	**5.3**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 14:51	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	82	%. 2/23/17	35-114	1	12/22/16 09:04	12/30/16 14:51	4165-60-0	
2-Fluorobiphenyl (S)	84	%.	43-116	1	12/22/16 09:04	12/30/16 14:51	321-60-8	
p-Terphenyl-d14 (S)	73	%.	33-141	1	12/22/16 09:04	12/30/16 14:51	1718-51-0	
Phenol-d5 (S)	16	%.	10-110	1	12/22/16 09:04	12/30/16 14:51	4165-62-2	
2-Fluorophenol (S)	55	%.	21-110	1	12/22/16 09:04	12/30/16 14:51	367-12-4	
2,4,6-Tribromophenol (S)	125	%.	10-123	1	12/22/16 09:04	12/30/16 14:51	118-79-6	S0
2-Chlorophenol-d4 (S)	75	%.	33-110	1	12/22/16 09:04	12/30/16 14:51	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	66	%.	16-110	1	12/22/16 09:04	12/30/16 14:51	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 21:56	71-43-2	
Ethylbenzene	**0.77J**	ug/L	1.0	1		12/21/16 21:56	100-41-4	
Toluene	**6.0**	ug/L	1.0	1		12/21/16 21:56	108-88-3	
Xylene (Total)	**46.1**	ug/L	1.0	1		12/21/16 21:56	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	77	%.	68-153	1		12/21/16 21:56	17060-07-0	
4-Bromofluorobenzene (S)	84	%.	79-124	1		12/21/16 21:56	460-00-4	
Toluene-d8 (S)	78	%.	69-124	1		12/21/16 21:56	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078

Sample: HIMW-26I **Lab ID: 707078011** Collected: 12/20/16 13:15 Received: 12/20/16 14:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L UJ	5.0	1	12/22/16 09:04	12/30/16 15:20	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L UJ	5.0	1	12/22/16 09:04	12/30/16 15:20	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:20	85-01-8	
Pyrene	**<5.0**	ug/L 2/23/17	5.0	1	12/22/16 09:04	12/30/16 15:20	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	78	%.	35-114	1	12/22/16 09:04	12/30/16 15:20	4165-60-0	
2-Fluorobiphenyl (S)	78	%.	43-116	1	12/22/16 09:04	12/30/16 15:20	321-60-8	
p-Terphenyl-d14 (S)	72	%.	33-141	1	12/22/16 09:04	12/30/16 15:20	1718-51-0	
Phenol-d5 (S)	33	%.	10-110	1	12/22/16 09:04	12/30/16 15:20	4165-62-2	
2-Fluorophenol (S)	51	%.	21-110	1	12/22/16 09:04	12/30/16 15:20	367-12-4	
2,4,6-Tribromophenol (S)	122	%.	10-123	1	12/22/16 09:04	12/30/16 15:20	118-79-6	
2-Chlorophenol-d4 (S)	71	%.	33-110	1	12/22/16 09:04	12/30/16 15:20	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	67	%.	16-110	1	12/22/16 09:04	12/30/16 15:20	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 22:17	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 22:17	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 22:17	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 22:17	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	86	%.	68-153	1		12/21/16 22:17	17060-07-0	
4-Bromofluorobenzene (S)	89	%.	79-124	1		12/21/16 22:17	460-00-4	
Toluene-d8 (S)	79	%.	69-124	1		12/21/16 22:17	2037-26-5	

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078 HIMW-25

Sample: DUP-121916 **Lab ID: 707078012** Collected: 12/19/16 07:00 Received: 12/20/16 14:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L UJ	5.0	1	12/22/16 09:04	12/30/16 15:48	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L UJ	5.0	1	12/22/16 09:04	12/30/16 15:48	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 15:48	129-00-0	
Surrogates			2/23/17					
Nitrobenzene-d5 (S)	81	%.	35-114	1	12/22/16 09:04	12/30/16 15:48	4165-60-0	
2-Fluorobiphenyl (S)	79	%.	43-116	1	12/22/16 09:04	12/30/16 15:48	321-60-8	
p-Terphenyl-d14 (S)	85	%.	33-141	1	12/22/16 09:04	12/30/16 15:48	1718-51-0	
Phenol-d5 (S)	35	%.	10-110	1	12/22/16 09:04	12/30/16 15:48	4165-62-2	
2-Fluorophenol (S)	55	%.	21-110	1	12/22/16 09:04	12/30/16 15:48	367-12-4	
2,4,6-Tribromophenol (S)	119	%.	10-123	1	12/22/16 09:04	12/30/16 15:48	118-79-6	
2-Chlorophenol-d4 (S)	74	%.	33-110	1	12/22/16 09:04	12/30/16 15:48	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	70	%.	16-110	1	12/22/16 09:04	12/30/16 15:48	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 22:37	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 22:37	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 22:37	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 22:37	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	84	%.	68-153	1		12/21/16 22:37	17060-07-0	
4-Bromofluorobenzene (S)	93	%.	79-124	1		12/21/16 22:37	460-00-4	
Toluene-d8 (S)	83	%.	69-124	1		12/21/16 22:37	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078

Sample: TB20161220 **Lab ID: 707078013** Collected: 12/20/16 14:00 Received: 12/20/16 14:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/21/16 22:57	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/21/16 22:57	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/21/16 22:57	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/21/16 22:57	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	84	%.	68-153	1		12/21/16 22:57	17060-07-0	
4-Bromofluorobenzene (S)	92	%.	79-124	1		12/21/16 22:57	460-00-4	
Toluene-d8 (S)	81	%.	69-124	1		12/21/16 22:57	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707078

Sample: FB20161221 **Lab ID: 707078014** Collected: 12/20/16 14:00 Received: 12/20/16 14:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L UJ	5.0	1	12/22/16 09:04	12/30/16 16:16	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L UJ	5.0	1	12/22/16 09:04	12/30/16 16:16	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/22/16 09:04	12/30/16 16:16	85-01-8	
Pyrene	**<5.0**	ug/L 2/23/17	5.0	1	12/22/16 09:04	12/30/16 16:16	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	72	%.	35-114	1	12/22/16 09:04	12/30/16 16:16	4165-60-0	
2-Fluorobiphenyl (S)	70	%.	43-116	1	12/22/16 09:04	12/30/16 16:16	321-60-8	
p-Terphenyl-d14 (S)	89	%.	33-141	1	12/22/16 09:04	12/30/16 16:16	1718-51-0	
Phenol-d5 (S)	33	%.	10-110	1	12/22/16 09:04	12/30/16 16:16	4165-62-2	
2-Fluorophenol (S)	50	%.	21-110	1	12/22/16 09:04	12/30/16 16:16	367-12-4	
2,4,6-Tribromophenol (S)	114	%.	10-123	1	12/22/16 09:04	12/30/16 16:16	118-79-6	
2-Chlorophenol-d4 (S)	67	%.	33-110	1	12/22/16 09:04	12/30/16 16:16	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	60	%.	16-110	1	12/22/16 09:04	12/30/16 16:16	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/23/16 13:51	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/23/16 13:51	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/23/16 13:51	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/23/16 13:51	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%.	68-153	1		12/23/16 13:51	17060-07-0	
4-Bromofluorobenzene (S)	101	%.	79-124	1		12/23/16 13:51	460-00-4	
Toluene-d8 (S)	98	%.	69-124	1		12/23/16 13:51	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707460

Sample: HIMW-05I **Lab ID: 707460001** Collected: 12/21/16 08:40 Received: 12/21/16 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**12.4**	ug/L	5.0	1	12/23/16 09:38	12/28/16 14:36	83-32-9	
Acenaphthylene	**217**	ug/L D	125	25	12/23/16 09:38	01/04/17 19:23	208-96-8	
Anthracene	**2.8J**	ug/L	5.0	1	12/23/16 09:38	12/28/16 14:36	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 14:36	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 14:36	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 14:36	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L UJ	5.0	1	12/23/16 09:38	12/28/16 14:36	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 14:36	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 14:36	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 14:36	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 14:36	206-44-0	
Fluorene	**28.8**	ug/L	5.0	1	12/23/16 09:38	12/28/16 14:36	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L UJ	5.0	1	12/23/16 09:38	12/28/16 14:36	193-39-5	
2-Methylnaphthalene	**245**	ug/L D	125	25	12/23/16 09:38	01/04/17 19:23	91-57-6	
Naphthalene	**1370**	ug/L D	125	25	12/23/16 09:38	01/04/17 19:23	91-20-3	
Phenanthrene	**19.8**	ug/L	5.0	1	12/23/16 09:38	12/28/16 14:36	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 14:36	129-00-0	
Surrogates			2/23/17					
Nitrobenzene-d5 (S)	92	%.	35-114	1	12/23/16 09:38	12/28/16 14:36	4165-60-0	
2-Fluorobiphenyl (S)	78	%.	43-116	1	12/23/16 09:38	12/28/16 14:36	321-60-8	
p-Terphenyl-d14 (S)	84	%.	33-141	1	12/23/16 09:38	12/28/16 14:36	1718-51-0	
Phenol-d5 (S)	32	%.	10-110	1	12/23/16 09:38	12/28/16 14:36	4165-62-2	
2-Fluorophenol (S)	52	%.	21-110	1	12/23/16 09:38	12/28/16 14:36	367-12-4	
2,4,6-Tribromophenol (S)	124	%.	10-123	1	12/23/16 09:38	12/28/16 14:36	118-79-6	S0
2-Chlorophenol-d4 (S)	71	%.	33-110	1	12/23/16 09:38	12/28/16 14:36	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	55	%.	16-110	1	12/23/16 09:38	12/28/16 14:36	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**1.7**	ug/L	1.0	1		12/23/16 14:27	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/23/16 14:27	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/23/16 14:27	108-88-3	
Xylene (Total)	**69.3**	ug/L	1.0	1		12/23/16 14:27	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	68-153	1		12/23/16 14:27	17060-07-0	
4-Bromofluorobenzene (S)	105	%.	79-124	1		12/23/16 14:27	460-00-4	
Toluene-d8 (S)	99	%.	69-124	1		12/23/16 14:27	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707460

Sample: HIMW-05S **Lab ID: 707460002** Collected: 12/21/16 10:05 Received: 12/21/16 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L UJ	5.0	1	12/23/16 09:38	12/28/16 15:04	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L UJ	5.0	1	12/23/16 09:38	12/28/16 15:04	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:04	129-00-0	
Surrogates			2/23/17 JL					
Nitrobenzene-d5 (S)	81	%.	35-114	1	12/23/16 09:38	12/28/16 15:04	4165-60-0	
2-Fluorobiphenyl (S)	76	%.	43-116	1	12/23/16 09:38	12/28/16 15:04	321-60-8	
p-Terphenyl-d14 (S)	80	%.	33-141	1	12/23/16 09:38	12/28/16 15:04	1718-51-0	
Phenol-d5 (S)	33	%.	10-110	1	12/23/16 09:38	12/28/16 15:04	4165-62-2	
2-Fluorophenol (S)	52	%.	21-110	1	12/23/16 09:38	12/28/16 15:04	367-12-4	
2,4,6-Tribromophenol (S)	130	%.	10-123	1	12/23/16 09:38	12/28/16 15:04	118-79-6	S3
2-Chlorophenol-d4 (S)	75	%.	33-110	1	12/23/16 09:38	12/28/16 15:04	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	56	%.	16-110	1	12/23/16 09:38	12/28/16 15:04	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/23/16 14:45	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/23/16 14:45	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/23/16 14:45	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/23/16 14:45	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	68-153	1		12/23/16 14:45	17060-07-0	
4-Bromofluorobenzene (S)	102	%.	79-124	1		12/23/16 14:45	460-00-4	
Toluene-d8 (S)	99	%.	69-124	1		12/23/16 14:45	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707460

Sample: HIMW-28I **Lab ID: 707460003** Collected: 12/21/16 11:50 Received: 12/21/16 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L UJ	5.0	1	12/23/16 09:38	12/28/16 15:32	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L UJ	5.0	1	12/23/16 09:38	12/28/16 15:32	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 15:32	85-01-8	
Pyrene	**<5.0**	ug/L 2/23/17 2	5.0	1	12/23/16 09:38	12/28/16 15:32	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	77	%.	35-114	1	12/23/16 09:38	12/28/16 15:32	4165-60-0	
2-Fluorobiphenyl (S)	74	%.	43-116	1	12/23/16 09:38	12/28/16 15:32	321-60-8	
p-Terphenyl-d14 (S)	83	%.	33-141	1	12/23/16 09:38	12/28/16 15:32	1718-51-0	
Phenol-d5 (S)	31	%.	10-110	1	12/23/16 09:38	12/28/16 15:32	4165-62-2	
2-Fluorophenol (S)	49	%.	21-110	1	12/23/16 09:38	12/28/16 15:32	367-12-4	
2,4,6-Tribromophenol (S)	127	%.	10-123	1	12/23/16 09:38	12/28/16 15:32	118-79-6	S3
2-Chlorophenol-d4 (S)	73	%.	33-110	1	12/23/16 09:38	12/28/16 15:32	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	54	%.	16-110	1	12/23/16 09:38	12/28/16 15:32	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/23/16 15:02	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/23/16 15:02	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/23/16 15:02	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/23/16 15:02	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%.	68-153	1		12/23/16 15:02	17060-07-0	
4-Bromofluorobenzene (S)	101	%.	79-124	1		12/23/16 15:02	460-00-4	
Toluene-d8 (S)	99	%.	69-124	1		12/23/16 15:02	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707460

Sample: HIMW-28S **Lab ID: 707460004** Collected: 12/21/16 13:25 Received: 12/21/16 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**23.6**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	83-32-9	
Acenaphthylene	**1.6J**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	208-96-8	
Anthracene	**3.9J**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	206-44-0	
Fluorene	**16.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	193-39-5	
2-Methylnaphthalene	**23.7**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	91-57-6	
Naphthalene	**175** D	ug/L	20.0	4	12/23/16 09:38	01/04/17 20:20	91-20-3	
Phenanthrene	**21.5**	ug/L	5.0	1	12/23/16 09:38	12/28/16 17:54	85-01-8	
Pyrene	**<5.0**	ug/L 2/23/17	5.0	1	12/23/16 09:38	12/28/16 17:54	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	82	%.	35-114	1	12/23/16 09:38	12/28/16 17:54	4165-60-0	
2-Fluorobiphenyl (S)	80	%.	43-116	1	12/23/16 09:38	12/28/16 17:54	321-60-8	
p-Terphenyl-d14 (S)	91	%.	33-141	1	12/23/16 09:38	12/28/16 17:54	1718-51-0	
Phenol-d5 (S)	35	%.	10-110	1	12/23/16 09:38	12/28/16 17:54	4165-62-2	
2-Fluorophenol (S)	54	%.	21-110	1	12/23/16 09:38	12/28/16 17:54	367-12-4	
2,4,6-Tribromophenol (S)	116	%.	10-123	1	12/23/16 09:38	12/28/16 17:54	118-79-6	
2-Chlorophenol-d4 (S)	78	%.	33-110	1	12/23/16 09:38	12/28/16 17:54	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	59	%.	16-110	1	12/23/16 09:38	12/28/16 17:54	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**4.9**	ug/L	1.0	1		12/23/16 15:20	71-43-2	
Ethylbenzene	**70.4**	ug/L	1.0	1		12/23/16 15:20	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/23/16 15:20	108-88-3	
Xylene (Total)	**3.7**	ug/L	1.0	1		12/23/16 15:20	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	68-153	1		12/23/16 15:20	17060-07-0	
4-Bromofluorobenzene (S)	101	%.	79-124	1		12/23/16 15:20	460-00-4	
Toluene-d8 (S)	97	%.	69-124	1		12/23/16 15:20	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707460

HMW-05I

Sample: DUP2016221 **Lab ID: 707460005** Collected: 12/21/16 07:00 Received: 12/21/16 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**12.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	83-32-9	
Acenaphthylene	**214** D	ug/L	125	25	12/23/16 09:38	01/04/17 19:51	208-96-8	
Anthracene	**2.6J**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	206-44-0	
Fluorene	**28.5**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	193-39-5	
2-Methylnaphthalene	**253** D	ug/L	125	25	12/23/16 09:38	01/04/17 19:51	91-57-6	
Naphthalene	**1350** D	ug/L	125	25	12/23/16 09:38	01/04/17 19:51	91-20-3	
Phenanthrene	**20.1**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	12/23/16 09:38	12/28/16 16:00	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	87	%.	35-114	1	12/23/16 09:38	12/28/16 16:00	4165-60-0	
2-Fluorobiphenyl (S)	77	%.	43-116	1	12/23/16 09:38	12/28/16 16:00	321-60-8	
p-Terphenyl-d14 (S)	80	%.	33-141	1	12/23/16 09:38	12/28/16 16:00	1718-51-0	
Phenol-d5 (S)	29	%.	10-110	1	12/23/16 09:38	12/28/16 16:00	4165-62-2	
2-Fluorophenol (S)	47	%.	21-110	1	12/23/16 09:38	12/28/16 16:00	367-12-4	
2,4,6-Tribromophenol (S)	127	%.	10-123	1	12/23/16 09:38	12/28/16 16:00	118-79-6	S0
2-Chlorophenol-d4 (S)	67	%.	33-110	1	12/23/16 09:38	12/28/16 16:00	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	54	%.	16-110	1	12/23/16 09:38	12/28/16 16:00	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**2.0**	ug/L	1.0	1		12/23/16 15:38	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/23/16 15:38	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/23/16 15:38	108-88-3	
Xylene (Total)	**69.1**	ug/L	1.0	1		12/23/16 15:38	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	68-153	1		12/23/16 15:38	17060-07-0	
4-Bromofluorobenzene (S)	103	%.	79-124	1		12/23/16 15:38	460-00-4	
Toluene-d8 (S)	99	%.	69-124	1		12/23/16 15:38	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 707460

Sample: TB20161221 **Lab ID: 707460006** Collected: 12/21/16 13:25 Received: 12/21/16 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		12/23/16 14:09	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		12/23/16 14:09	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		12/23/16 14:09	108-88-3	
Xylene (Total)	**<1.0**	ug/L	1.0	1		12/23/16 14:09	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%.	68-153	1		12/23/16 14:09	17060-07-0	
4-Bromofluorobenzene (S)	102	%.	79-124	1		12/23/16 14:09	460-00-4	
Toluene-d8 (S)	99	%.	69-124	1		12/23/16 14:09	2037-26-5	

ATTACHMENT B

SUPPORT DOCUMENTATION

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL

WO#:706914

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1923147

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice
Company: AECOM - B	Report To: Peter Fairbanks	Attention:
Address: W Genesee St Buffalo, NY	Copy To: Jodi Sundquist	Company Name: AECOM
Email To: peter.fairbanks@AECOM.com	Purchase Order No.:	Address:
Phone: 716-856-2636 Fax:	Project Name: National Grid Hempstead	Pace Quote Reference:
Requested Due Date/TAT: Standard	Project Number:	Pace Project Manager:
		Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NY

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE)

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test: BTEX (8260)	Analysis Test: PAH (8270)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		N	N				706914
1	HIMW-14D	WT	G			12/13/16	920	14	4	2			2					X	X				-01
2	HIMW-14I	WT	G			12/13/16	1030	14	4	2			2					X	X				02
3	HIMW-12S	WT	G			12/13/16	1210	14	4	2			2					X	X				03
4	HIMW-22	WT	G			12/13/16	1330	14	4	2			2					X	X				04
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12	20161213 TB	WT	G			12/12/16	1330		2				2					X					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature] / AECOM	12/13/16	1438	[signature] / PACE	12/13/16	1438				
	[signature]	12/13/16	15:15	[signature]	12/13/16	1515	4.2	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Gary Friedman

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 12/13/16

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for [illegible] not paid within 30 days

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical

Sample Condition Upon Receipt

WO#:706914

PM: JSA Due Date: 12/28/16
CLIENT: AECOM-B

Client Name: AECOM

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used: (TH077) TH078 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 4.2°C

Date and Initials of person examining contents: 12/13/16 LSD

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1
Chain of Custody Filled Out.	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished	☒Yes ☐No ☐N/A	3
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used	☒Yes ☐No ☐N/A	
Containers Intact	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12
-Includes date/time/ID/Analysis Matrix SL (WT) OIL		
All containers needing preservation have been checked	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	Initial when completed: / Lot # of added preservative:
Exceptions: (VOA), micro, TOC, O&G		Date and Time preservative added
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm)	☐Yes ☒No ☐N/A	15
Trip Blank Present:	☒Yes ☐No ☐N/A	16
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

* PM (Project Manager) review is documented electronically in LIMS.

F-LI-C-002-rev.00

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT All relevant fields must be completed accurately

Page 1 of 1

1923148

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AECOM	Report To: Peter Fairbanks	Attention: AECOM
Address: W. Genesee St Buffalo, NY	Copy To: Jon Sundquist	Company Name:
Email To: peter.fairbanks@aecom.com	Purchase Order No	Address:
Phone: Fax:	Project Name: National Grid Hempstead	Pace Quote Reference:
Requested Due Date/TAT: Standard	Project Number:	Pace Project Manager:
		Pace Profile #:

REGULATORY AGENCY

NPDES Y GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: NY

706914

Requested Analysis Filtered (Y/N)

WO#: 706914

PM: JSA Due Date: 12/28/16

CLIENT: AECOM-B

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX 8260 Y	BTEX 8260 N	1,4-D 8270 Y	1,4-D 8270 N	Residual Chlorine	Pace Project No./ Lab I.D.
1	H1MW-15D	WT	G			12/14/16	0810	15	4	2			2					X	X				006
2	H1MW-15I	WT	G			12/14/16	0945	15	4	2			2					X	X				8
3	H1MW-13D	WT	G			12/14/16	1240	15	4	2			2					X	X				9
4	H1MW-13I	WT	G			12/14/16	1340	15	4	2			2					X	X				10
5	H1MW-13S	WT	G			12/14/16	1440	15	4	2			2					X	X				11
6	H1MW-08D	WT	G			12/15/16	0830	14	4	2			2					X	X				12
7	H1MW-08I	WT	G			12/15/16	0945	13	4	2			2					X	X				13
8	H1MW-08S	WT	G			12/15/16	1110	13	4	2			2					X	X				14
9	H1MW-23	WT	G			12/15/16	1320	13	4	2			2					X	X				15
10																							
11	20161215TB	WT				12/15/16	1300		2				2					X					
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		12/15/16	1405			14:10				
		12/15/16	15:00		12/15/16	15:00	3.2	~	~	~

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cary Friedman

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 12/15/16

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical

Sample Condition Upon Receipt

WO#:706914

PM: JSA Due Date: 12/28/16
CLIENT: AECOM-B

Client Name: AECOM

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other _____

Optional
Proj. Due Date:
Proj. Name

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used: TH077 TH078 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 3.2

Date and Initials of person examining contents: ED 12/15/16

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☐Yes ☐No ☐N/A	1.	
Chain of Custody Filled Out:	☐Yes ☐No ☐N/A	2	
Chain of Custody Relinquished	☐Yes ☐No ☐N/A	3.	
Sampler Name & Signature on COC	☐Yes ☐No ☐N/A	4.	
Samples Arrived within Hold Time	☐Yes ☐No ☐N/A	5.	
Short Hold Time Analysis (<72hr):	☐Yes ☐No ☐N/A	6.	
Rush Turn Around Time Requested:	☐Yes ☐No ☐N/A	7	
Sufficient Volume	☐Yes ☐No ☐N/A	8	
Correct Containers Used:	☐Yes ☐No ☐N/A	9	
-Pace Containers Used.	☐Yes ☐No ☐N/A		
Containers Intact:	☐Yes ☐No ☐N/A	10.	
Filtered volume received for Dissolved tests	☐Yes ☐No ☐N/A	11	
Sample Labels match COC:	☐Yes ☐No ☐N/A	12	
-Includes date/time/ID/Analysis Matrix SL WT OIL			
All containers needing preservation have been checked	☐Yes ☐No ☐N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation	☐Yes ☐No ☐N/A	Initial when completed:	Lot # of added preservative:
Exceptions: VOA, micro, TOC, O&G			Date and Time preservative added
Samples checked for dechlorination	☐Yes ☐No ☐N/A	14.	
Headspace in VOA Vials (>6mm)	☐Yes ☐No ☐N/A	15.	
Trip Blank Present:	☐Yes ☐No ☐N/A	16	
Trip Blank Custody Seals Present	☐Yes ☐No ☐N/A		
Pace Trip Blank Lot # (if purchased): _____			

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time _____

Comments/ Resolution: _____

* PM (Project Manager) review is documented electronically in LIMS.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT All relevant fields must be completed accurately.

WO#: 706914

PM: JSA Due Date: 01/09/17
CLIENT: AECOM-B

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information
Company: AECOM	Report To: Peter Fairbanks	Attention:
Address: Buffalo, NY	Copy To: Jon Sundquist	Company Name: AECOM
Email: peter.fairbanks@aecom.com	Purchase Order No	Address: Pace Quote Reference:
Phone: 716-856-5636 Fax:	Project Name: National Grid Hempstead	Pace Project Manager:
Requested Due Date/TAT: standard	Project Number: 60411920.117618.0004	Pace Profile #:

NPDES X GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: NY

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX	PAH	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HMW-127S	WT	G			12/22/16	0855	14	4	2			2					X	X		016
2	HMW-127S MS/MSD	WT	G			12/22/16	0905	14	8	4			4					X	X		017
3	HMW-127I	WT	G			12/22/16	1020	14	4	2			2					X	X		018
4																					
5																					
6	TB 20161222	WT	G			12/22/16	1020	12	2				2					X			019
7																					
8																					
9																					
10																					
11																					
12																					

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Myan Dascoli	12/22/16	1230		12/22/16	1230				
		12/22/16	1410		12-22-16	1400	4.2	Y	Y	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Myan Dascoli
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 12/22/16

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days

F-ALL-Q-020rev.07, 15-May-2007

WO#:707551

PM: JSA Due Date: 01/09/17
CLIENT: AECOM-B

Sample Condition Upon Receipt

Pace Analytical

Client Name: AECOM Project #

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other

Optional
Proj. Due Date:
Proj. Name:

Tracking #:

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used: TH077 (TH078) Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 4.2°C

Date and Initials of person examining contents: 12-22-16 JR

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present	☑Yes ☐No ☐N/A	1
Chain of Custody Filled Out	☑Yes ☐No ☐N/A	2
Chain of Custody Relinquished	☑Yes ☐No ☐N/A	3
Sampler Name & Signature on COC	☑Yes ☐No ☐N/A	4
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7
Sufficient Volume	☑Yes ☐No ☐N/A	8
Correct Containers Used	☑Yes ☐No ☐N/A	9
-Pace Containers Used	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11
Sample Labels match COC	☑Yes ☐No ☐N/A	12
-Includes date/time/ID/Analysis Matrix SL (WT) OIL		
All containers needing preservation have been checked	☐Yes ☐No ☑N/A	13
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	Initial when completed: / Lot # of added preservative:
Exceptions: VOA, micro, TOC, O&G		Date and Time preservative added:
Samples checked for dechlorination	☐Yes ☐No ☑N/A	14
Headspace in VOA Vials (>6mm)	☐Yes ☑No ☐N/A	15
Trip Blank Present:	☑Yes ☐No ☐N/A	16
Trip Blank Custody Seals Present	☐Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased)		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted Date/Time

Comments/ Resolution

* PM (Project Manager) review is documented electronically in LIMS.

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Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 706914

Method: EPA 8270D
Description: 8270 MSSV
Client: AECOM
Date: February 17, 2017

General Information:
16 samples were analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 7684

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.
- LCS (Lab ID: 38697)
  - Benzo(g,h,i)perylene
  - Dibenz(a,h)anthracene
  - Fluoranthene
  - Indeno(1,2,3-cd)pyrene

QC Batch: 7762

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.
- BLANK (Lab ID: 38890)
  - 2,4,6-Tribromophenol (S)
- LCS (Lab ID: 38891)
  - 2,4,6-Tribromophenol (S)

QC Batch: 8535

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.
- BLANK (Lab ID: 43137)
  - Benzo(g,h,i)perylene
- HIMW-027I (Lab ID: 707551003)
  - Benzo(g,h,i)perylene
- HIMW-027S (Lab ID: 707551001)
  - Benzo(g,h,i)perylene
- HIMW-027S MS/MSD (Lab ID: 707551002)
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene
- LCS (Lab ID: 43138)
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 706914

Method: **EPA 8270D**
Description: 8270 MSSV
Client: AECOM
Date: February 17, 2017

QC Batch: 8535

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.

- MS (Lab ID: 43139)
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene
- MSD (Lab ID: 43140)
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 8535

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 707551002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 43139)
  - Naphthalene
- MSD (Lab ID: 43140)
  - 2-Methylnaphthalene
  - Naphthalene

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 706914

Method: EPA 8260C/5030C
Description: 8260C Volatile Organics
Client: AECOM
Date: February 17, 2017

General Information:
19 samples were analyzed for EPA 8260C/5030C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 8043

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 707078009

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 40433)
  - Benzene

QC Batch: 8250

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 707381002,707551002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 43638)
  - Ethylbenzene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 706914

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: AECOM
Date: February 17, 2017

This data package has been reviewed for quality and completeness and is approved for release.

MSSV Full Scan - FORM V SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - New York SDG No.: 706914 Contract: National Grid Hempstead Site

Lab File ID: 8270-122016.B\S9372.D DFTPP Injection Date: 12/20/2016

Instrument ID: 70MSS4 DFTPP Injection Time: 09:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	31.69	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Base Peak, 100.00% relative abundance	32.12	
70	Less than 2.00% of mass 69	0.08	(0.24)[1]
127	40.00 - 60.00% of mass 198	43.43	
197	Less than 1.00% of mass 198	0.00	
198	Base Peak, 100.00% relative abundance	100.00	
199	5.00 - 9.00% of mass 198	6.40	
275	10.00 - 30.00% of mass 198	25.01	
365	1.00 - 100.00% of mass 198	2.52	
441	0.10 - 100.00% of mass 442	10.64	
442	40.00 - 110.00% of mass 198	73.50	
443	17.00 - 23.00% of mass 442	14.31	(19.47)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
8305731CCV	8305731CCV	8270-122016.B\S9373.D	12/20/2016	10:01
38696BLANK	38696BLANK	8270-122016.B\S9375.D	12/20/2016	10:58
38697LCS	38697LCS	8270-122016.B\S9376.D	12/20/2016	11:27
HIMW-14D	706914001	8270-122016.B\S9390.D	12/20/2016	18:11
HIMW-14I	706914002	8270-122016.B\S9391.D	12/20/2016	18:39
HIMW-12S	706914003	8270-122016.B\S9392.D	12/20/2016	19:08
HIMW-22	706914004	8270-122016.B\S9393.D	12/20/2016	19:37

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - New York SDG No.: 706914 Contract: National Grid Hempstead Site
Lab File ID: 8270-122816.B\S9526.D DFTPP Injection Date: 12/28/2016
Instrument ID: 70MSS4 DFTPP Injection Time: 17:03

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	31.01	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Base Peak, 100.00% relative abundance	32.21	
70	Less than 2.00% of mass 69	0.16	(0.51)[1]
127	40.00 - 60.00% of mass 198	43.43	
197	Less than 1.00% of mass 198	0.00	
198	Base Peak, 100.00% relative abundance	100.00	
199	5.00 - 9.00% of mass 198	6.91	
275	10.00 - 30.00% of mass 198	24.62	
365	1.00 - 100.00% of mass 198	2.23	
441	0.10 - 100.00% of mass 442	9.35	
442	40.00 - 110.00% of mass 198	61.24	
443	17.00 - 23.00% of mass 442	11.94	(19.50)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
8337502CCV	8337502CCV	8270-122816.B\S9527.D	12/28/2016	17:21
43137BLANK	43137BLANK	8270-122816.B\S9530.D	12/28/2016	19:05
43138LCS	43138LCS	8270-122816.B\S9531.D	12/28/2016	19:35
HIMW-027S	707551001	8270-122816.B\S9534.D	12/28/2016	21:02
HIMW-027S MS/MSD	707551002	8270-122816.B\S9535.D	12/28/2016	21:32
43139MS	43139MS	8270-122816.B\S9536.D	12/28/2016	22:02
43140MSD	43140MSD	8270-122816.B\S9537.D	12/28/2016	22:32
HIMW-027I	707551003	8270-122816.B\S9538.D	12/28/2016	23:03

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - New York SDG No.: 706914 Contract: National Grid Hempstead Site
Lab File ID: 8270-122916.B\S9549.D DFTPP Injection Date: 12/29/2016
Instrument ID: 70MSS4 DFTPP Injection Time: 11:13

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	32.01	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Base Peak, 100.00% relative abundance	33.74	
70	Less than 2.00% of mass 69	0.16	(0.49)[1]
127	40.00 - 60.00% of mass 198	43.36	
197	Less than 1.00% of mass 198	0.00	
198	Base Peak, 100.00% relative abundance	100.00	
199	5.00 - 9.00% of mass 198	6.66	
275	10.00 - 30.00% of mass 198	23.10	
365	1.00 - 100.00% of mass 198	2.37	
441	0.10 - 100.00% of mass 442	9.18	
442	40.00 - 110.00% of mass 198	61.46	
443	17.00 - 23.00% of mass 442	11.90	(19.36)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
8341910CCV	8341910CCV	8270-122916.B\S9550.D	12/29/2016	11:33
HIMW-027S	707551001	8270-122916.B\S9565.D	12/29/2016	18:58
HIMW-027S MS/MSD	707551002	8270-122916.B\S9566.D	12/29/2016	19:27

SAMPLE NO.

8305731CCV

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - New York
Calibration Date: 12/20/2016 Time: 10:01

Instrument ID: 70MSS4 GC Column: Col 1
Init. Calib. Date(s): 11/10/2016 11/10/2016

Lab File ID: 8270-122016.B\S9373.D
Init. Calib. Time(s): 07:53 10:40

SDG No.: 706914

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthene	Averaged	1.19049	1.21588	0.9000	2.1321	20.0000
Acenaphthylene	Averaged	1.85784	2.01561	0.9000	8.4920	20.0000
Anthracene	Averaged	1.10821	1.24028	0.7000	11.9180	20.0000
Benzo(a)anthracene	Averaged	1.20894	1.27914	0.8000	5.8061	20.0000
Benzo(a)pyrene	Averaged	1.16955	1.31814	0.7000	12.7046	20.0000
Benzo(b)fluoranthene	Averaged	1.37640	1.46722	0.7000	6.5981	20.0000
Benzo(g,h,i)perylene	Averaged	0.87909	1.13385	0.5000	28.9796	20.0000
Benzo(k)fluoranthene	Averaged	1.17449	1.37050	0.7000	16.6888	20.0000
Chrysene	Averaged	1.05913	1.20909	0.7000	14.1584	20.0000
Dibenz(a,h)anthracene	Averaged	0.90939	1.09388	0.4000	20.2866	20.0000
Fluoranthene	Averaged	1.19220	1.38439	0.6000	16.1205	20.0000
Fluorene	Averaged	1.31327	1.40292	0.9000	6.8268	20.0000
Indeno(1,2,3-cd)pyrene	Averaged	0.96729	1.34991	0.5000	39.5556	20.0000
2-Methylnaphthalene	Averaged	0.69989	0.74090	0.4000	5.8593	20.0000
Naphthalene	Averaged	1.00068	1.08921	0.7000	8.8464	20.0000
Phenanthrene	Averaged	1.04332	1.12264	0.7000	7.6023	20.0000
Pyrene	Averaged	1.26393	1.35011	0.6000	6.8186	20.0000
2-Chlorophenol-d4 (S)	Averaged	1.34942	1.43344	0.0100	6.2262	20.0000
1,2-Dichlorobenzene-d4 (S)	Averaged	0.95217	0.93270	0.0100	-2.0445	20.0000
2-Fluorobiphenyl (S)	Averaged	1.34038	1.38753	0.0100	3.5177	20.0000
2-Fluorophenol (S)	Averaged	1.21914	1.38813	0.0100	13.8612	20.0000
Nitrobenzene-d5 (S)	Averaged	0.33943	0.33469	0.0100	-1.3962	20.0000
Phenol-d5 (S)	Averaged	1.47724	1.68505	0.0100	14.0672	20.0000
p-Terphenyl-d14 (S)	Averaged	0.93804	0.90497	0.0100	-3.5257	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.19375	0.18668	0.0100	-3.6512	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

02/09/2017 1:16

SAMPLE NO.

8337502CCV

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - New York Calibration Date: 12/28/2016 Time: 17:21

Instrument ID: 70MSS4 GC Column: Col 1 Init. Calib. Date(s): 11/10/2016 11/10/2016

Lab File ID: 8270-122816.B\S9527.D Init. Calib. Time(s): 07:53 10:40

SDG No.: 706914

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthene	Averaged	1.19049	1.15443	0.9000	-3.0290	20.0000
Acenaphthylene	Averaged	1.85784	1.94542	0.9000	4.7139	20.0000
Anthracene	Averaged	1.10821	1.25897	0.7000	13.6041	20.0000
Benzo(a)anthracene	Averaged	1.20894	1.33539	0.8000	10.4591	20.0000
Benzo(a)pyrene	Averaged	1.16955	1.30864	0.7000	11.8928	20.0000
Benzo(b)fluoranthene	Averaged	1.37640	1.40022	0.7000	1.7308	20.0000
Benzo(g,h,i)perylene	Averaged	0.87909	0.66782	0.5000	-24.0330	20.0000
Benzo(k)fluoranthene	Averaged	1.17449	1.74055	0.7000	48.1959	20.0000
Chrysene	Averaged	1.05913	1.12476	0.7000	6.1965	20.0000
Dibenz(a,h)anthracene	Averaged	0.90939	0.76881	0.4000	-15.4592	20.0000
Fluoranthene	Averaged	1.19220	1.42433	0.6000	19.4706	20.0000
Fluorene	Averaged	1.31327	1.29459	0.9000	-1.4222	20.0000
Indeno(1,2,3-cd)pyrene	Averaged	0.96729	0.88537	0.5000	-8.4694	20.0000
2-Methylnaphthalene	Averaged	0.69989	0.70529	0.4000	0.7713	20.0000
Naphthalene	Averaged	1.00068	1.10927	0.7000	10.8517	20.0000
Phenanthrene	Averaged	1.04332	1.12940	0.7000	8.2504	20.0000
Pyrene	Averaged	1.26393	1.38186	0.6000	9.3304	20.0000
2-Chlorophenol-d4 (S)	Averaged	1.34942	1.17170	0.0100	-13.1705	20.0000
1,2-Dichlorobenzene-d4 (S)	Averaged	0.95217	0.90669	0.0100	-4.7760	20.0000
2-Fluorobiphenyl (S)	Averaged	1.34038	1.36595	0.0100	1.9079	20.0000
2-Fluorophenol (S)	Averaged	1.21914	0.98204	0.0100	-19.4487	20.0000
Nitrobenzene-d5 (S)	Averaged	0.33943	0.31984	0.0100	-5.7707	20.0000
Phenol-d5 (S)	Averaged	1.47724	1.36683	0.0100	-7.4738	20.0000
p-Terphenyl-d14 (S)	Averaged	0.93804	0.96498	0.0100	2.8719	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.19375	0.15411	0.0100	-20.4609	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

02/09/2017 1:16

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Reque

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be

WO#: 707078

1923149

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AECOM	Report To: Peter Fairbanks	Attention:
Address: Buffalo, NY	Copy To: Jon Sundquist	Company Name:
Email To: peter.fairbanks@aecom.com	Purchase Order No.:	Address:
Phone: 716-856-5636 Fax:	Project Name: National Grid Hempstead	Pace Quote: Pace Project Manager:
Requested Due Date/TAT: standard	Project Number:	Pace Profile:

REGULATORY AGENCY

NPDES ☒ GROUND WATER ☐ DRINKING WATER

UST ☐ RCRA OTHER _____

Location STATE: NY

Req

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test ↓	Y/N	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HMW-03S	WT	G			12/16/16	1050	12	4	2			2					8151	X		
2	HMW-03I	WT	G			12/16/16	0955	12	4	2			2						X		
3	HMW-03D	WT	G			12/16/16	0845	12	4	2			2						X		
4																					
5	20161216 TB	WT				12/16/16	1100		2				2						X		
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILI
	Mayan Dascoli / Aecom	12/16/16	1245	
		12/16/16	1735	

DATE	TIME	SAMPLE CONDITIONS			
12/16/16	1245				
12/16/16	1735	2.1	Y	N	Y
16/16		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Mayan Dascoli

SIGNATURE of SAMPLER: Mayan Dascoli DATE (MM/

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any [illegible] not paid within 30 days

ORIGINAL

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical

Sample Condition Upon Rec

WO#: 707078

Client Name: AECOM

PM: JSA Due Date: 01/03/17
CLIENT: AECOM-8

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Optional
Proj. Due Date:
Proj. Name:

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used: TH077 TH078 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 2.1 C

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: _____

Chain of Custody Relinquished	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix SL WT OIL		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☐N/A	Initial when completed: / Lot # of added preservative:
Exceptions VOA, micro, TOC, O&G		Date and Time preservative added:
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm)	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased). _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time. _____

Comments/ Resolution: _____

* PM (Project Manager) review is documented electronically in LIMS.

F-LI-C-002-rev.00

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Reque ...nent

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be ...rately

Page: 1 of 1

1923150

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AECOM	Report To: Peter Fairbanks	Attention: AECOM
Address: Buffalo, NY	Copy To: Jon Sundquist	Company Name:
Email To: peter.fairbanks@aecom.com	Purchase Order No.:	Address: Quote Reference:
Phone: 716-856-5636 Fax:	Project Name: National Grid Hempstead	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number:	Pace Profile #:

REGULATORY AGENCY

NPDES ✓ GROUND WATER DRINKING WATER

UST RCRA OTHER

Location STATE: NY

Filtered (Y/N)

707078

WO#:707078

PM: JSA Due Date: 01/03/17

CLIENT: AECOM-B

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX	DAI	Resid	Pace Project No./ Lab I.D.
1	HIMW-24	WT	G			12/19/16	0835	13	4	2			2					X	X	X		-005
2	HIMW-25	WT	G			12/19/16	1050	13	4	2			2					X	X	X		6
3	HIMW-20S	WT	G			12/19/16	1215	13	4	2			2					X	X	X		7
4	HIMW-20I	WT	G			12/19/16	1325	13	4	2			2					X	X	X		8
5	HIMW-05D	WT	G			12/20/16	0920	12	4	2			2					X	X	X		9
6	HIMW-05D MS/MSD	WT	G			12/20/16	0930	12	8	4			4					X	X	X		10
7	HIMW-026D	WT	G			12/20/16	1150	12	4	2			2					X	X	X		11
8	HIMW-026I	WT	G			12/20/16	1315	12	4	2			2					X	X	X		12
9	DUP-121916	WT	G			12/19/16	0700	13	4	2			2					X	X	X		13
10	TB20161220	WT	G			12/20/16	1400	12	2				2					X				14
11	FB 20161220	WT	G			12/20/16	1400	12	4	2			2					X	X	X		
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFIL	DATE	TIME	SAMPLE CONDITIONS
	Meghan Dascoli / AECOM	12/20/16	1410		12/20	1410	
		12/20/16	1445		12/20/16	1445	1.0 Y Y Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Meghan Dascoli

SIGNATURE of SAMPLER: Meghan Dascoli DATE (MM/

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

12/21/16

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any ... not paid within 30 days

ORIGINAL

F-ALL-Q-020rev.07, 15-May-2007

WO#:707078

PM: JSA Due Date: 01/03/17
CLIENT: AECOM-B

Pace Analytical

Sample Condition Upon Receipt

Client Name: AECOM

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Optional
Proj. Due Date:
Proj. Name:

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used: TH077 (TH078) Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 1.0°C

Date and Initials of person examining contents: 12/21/16 SD

Chain of Custody Relinquished	☒Yes ☐No ☐N/A	3	
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4	
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5	
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.	
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.	
Sufficient Volume.	☒Yes ☐No ☐N/A	8.	
Correct Containers Used:	☒Yes ☐No ☐N/A	9.	
-Pace Containers Used:	☒Yes ☐No ☐N/A		
Containers Intact:	☒Yes ☐No ☐N/A	10.	
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.	
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.	
-Includes date/time/ID/Analysis Matrix: SL WT OIL			
All containers needing preservation have been checked	☐Yes ☐No ☒N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	Initial when completed:	Lot # of added preservative:
Exceptions: VOA, micro, TOC, O&G			Date and Time preservative added:
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.	
Headspace in VOA Vials (>6mm):	☐Yes ☒No ☐N/A	15.	
Trip Blank Present:	☒Yes ☐No ☐N/A	16.	
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A		
Pace Trip Blank Lot # (if purchased) _____			

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

*** PM (Project Manager) review is documented electronically in LIMS.**

F-LI-C-002-rev.00

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 707078

Method: EPA 8270D
Description: 8270 MSSV
Client: AECOM
Date: February 17, 2017

General Information:
12 samples were analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (Including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 8057

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.

- HIMW-05D (Lab ID: 707078009)
  - Benzo(g,h,i)perylene
- LCS (Lab ID: 40457)
  - 2,4,6-Tribromophenol (S)
  - Benzo(g,h,i)perylene
  - Indeno(1,2,3-cd)pyrene
- MS (Lab ID: 40459)
  - Benzo(g,h,i)perylene
  - Indeno(1,2,3-cd)pyrene
- MSD (Lab ID: 40460)
  - Benzo(g,h,i)perylene
  - Indeno(1,2,3-cd)pyrene

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 8057

S0: Surrogate recovery outside laboratory control limits.

- HIMW-26D (Lab ID: 707078010)
  - 2,4,6-Tribromophenol (S)
- LCS (Lab ID: 40457)
  - 2,4,6-Tribromophenol (S)

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 707078

Method: **EPA 8270D**
Description: 8270 MSSV
Client: AECOM
Date: February 17, 2017

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 8057

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 707078009

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 40459)
  - 2-Methylnaphthalene
  - Naphthalene
- MSD (Lab ID: 40460)
  - 2-Methylnaphthalene
  - Naphthalene

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 707078

Method: EPA 8260C/5030C
Description: 8260C Volatile Organics
Client: AECOM
Date: February 17, 2017

General Information:
14 samples were analyzed for EPA 8260C/5030C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (Including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 8043

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 707078009

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 40433)
  - Benzene

QC Batch: 8250

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 707381002,707551002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 43638)
  - Ethylbenzene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 707078

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: AECOM
Date: February 17, 2017

This data package has been reviewed for quality and completeness and is approved for release.

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - New York SDG No.: 707078 Contract: National Grid Hempstead Site
Lab File ID: 8270-123016.B\R37337.D DFTPP Injection Date: 12/30/2016
Instrument ID: 70MSS3 DFTPP Injection Time: 11:11

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	38.97	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Base Peak, 100.00% relative abundance	38.46	
70	Less than 2.00% of mass 69	0.29	(0.75)[1]
127	40.00 - 60.00% of mass 198	42.64	
197	Less than 1.00% of mass 198	0.00	
198	Base Peak, 100.00% relative abundance	100.00	
199	5.00 - 9.00% of mass 198	6.88	
275	10.00 - 30.00% of mass 198	26.89	
365	1.00 - 100.00% of mass 198	3.03	
441	0.10 - 100.00% of mass 442	16.51	
442	40.00 - 110.00% of mass 198	115.97	
443	17.00 - 23.00% of mass 442	22.84	(19.70)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
8368338CCV	8368338CCV	8270-123016.B\R37338.D	12/30/2016	11:32
40456BLANK	40456BLANK	8270-123016.B\R37340.D	12/30/2016	12:29
40457LCS	40457LCS	8270-123016.B\R37341.D	12/30/2016	12:57
HIMW-05D	707078009	8270-123016.B\R37342.D	12/30/2016	13:26
40459MS	40459MS	8270-123016.B\R37343.D	12/30/2016	13:55
40460MSD	40460MSD	8270-123016.B\R37344.D	12/30/2016	14:23
HIMW-26D	707078010	8270-123016.B\R37345.D	12/30/2016	14:51
HIMW-26I	707078011	8270-123016.B\R37346.D	12/30/2016	15:20
DUP-121916	707078012	8270-123016.B\R37347.D	12/30/2016	15:48
FB20161221	707078014	8270-123016.B\R37348.D	12/30/2016	16:16

SAMPLE NO.

8368338CCV

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - New York
Calibration Date: 12/30/2016 Time: 11:32

Instrument ID: 70MSS3 GC Column: Col 1
Init. Calib. Date(s): 12/07/2016 12/07/2016

Lab File ID: 8270-123016.B\R37338.D
Init. Calib. Time(s): 01:01 07:11

SDG No.: 707078

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthene	Averaged	1.12705	1.08354	0.9000	-3.8603	20.0000
Acenaphthylene	Averaged	1.70029	1.64174	0.9000	-3.4437	20.0000
Anthracene	Averaged	1.00637	1.06468	0.7000	5.7941	20.0000
Benzo(a)anthracene	Averaged	1.15119	1.18063	0.8000	2.5575	20.0000
Benzo(a)pyrene	Averaged	1.12757	1.15834	0.7000	2.7284	20.0000
Benzo(b)fluoranthene	Averaged	1.40893	1.25693	0.7000	-10.7881	20.0000
Benzo(g,h,i)perylene	Averaged	0.63889	0.83881	0.5000	31.2932	20.0000
Benzo(k)fluoranthene	Averaged	1.20903	1.15926	0.7000	-4.1165	20.0000
Chrysene	Averaged	1.03298	0.94146	0.7000	-8.8601	20.0000
Dibenz(a,h)anthracene	Linear	25	25.54219	0.4000	2.1688	20.0000
Fluoranthene	Averaged	1.11617	1.24977	0.6000	11.9690	20.0000
Fluorene	Averaged	1.31666	1.19598	0.9000	-9.1661	20.0000
Indeno(1,2,3-cd)pyrene	Averaged	0.85388	1.09843	0.5000	28.6391	20.0000
2-Methylnaphthalene	Averaged	0.71064	0.69587	0.4000	-2.0778	20.0000
Naphthalene	Averaged	0.95727	0.95583	0.7000	-0.1508	20.0000
Phenanthrene	Averaged	0.96582	0.99971	0.7000	3.5088	20.0000
Pyrene	Averaged	1.18360	1.19669	0.6000	1.1060	20.0000
2-Chlorophenol-d4 (S)	Averaged	1.29102	1.29546	0.0100	0.3437	20.0000
1,2-Dichlorobenzene-d4 (S)	Averaged	0.90201	0.85740	0.0100	-4.9453	20.0000
2-Fluorobiphenyl (S)	Averaged	1.24617	1.23443	0.0100	-0.9422	20.0000
2-Fluorophenol (S)	Averaged	1.17213	1.23011	0.0100	4.9467	20.0000
Nitrobenzene-d5 (S)	Averaged	0.37163	0.37624	0.0100	1.2393	20.0000
Phenol-d5 (S)	Averaged	1.51253	1.40716	0.0100	-6.9667	20.0000
p-Terphenyl-d14 (S)	Averaged	0.78352	0.81463	0.0100	3.9711	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.11640	0.17104	0.0100	46.9458	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT All relevant fields must be com

WO#: 707460

707460

Section A Required Client Information	Section B Required Project Information:	Section C Invoice Information
Company: AECOM	Report To: Peter Fairbanks	Attention:
Address: Buffalo, NY	Copy To: Jon Sundquist	Company Name: AECOM
Email To: peter.fairbanks@aecom.com	Purchase Order No.:	Address:
Phone: 716-856-5635 Fax:	Project Name: National Grid Hempstead	Pace Quote Reference:
Requested Due Date/TAT: standard	Project Number:	Pace Project Manager:
		Pace Profile #:

REGULATORY AGENCY

NPDES ☑ GROUND WATER DRINKING WATER

UST RCRA OTHER _____

Site Location STATE: NY

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END GRAB DATE	COMPOSITE END GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): BTEX	PAH	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-05I	WT	G			12/21/16	0840	13	4	2			2						X	X		
2	HIMW-05S	WT	G			12/21/16	1005	13	4	2			2						X	X		
3	HIMW-28I	WT	G			12/21/16	1150	13	4	2			2						X	X		
4	HIMW-28S	WT	G			12/21/16	1325	13	4	2			2						X	X		
5																						
6																						
7																						
8	DUP20161221	WT	G			12/21/16	0700	13	4	2			2						X	X		
9	TB20161221	WT	G			12/21/16	1325	13	2				2						X			
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Megan Dascol	12/21/16	1350	[illegible]	12/21/16	1550	
	[illegible]	12/21/16	1440	[illegible]	12/21/16	1440	1.0 Y Y Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Megan Dascol

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 12/21/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days

F-ALL-Q-020rev.07, 15-May-2007

WO#:707460

PM: JSA Due Date: 01/06/17
CLIENT: AECOM-B

Pace Analytical

Sample Condition Upon Rece

Client Name: AECOM

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other _____

Optional
Proj. Due Date:
Proj. Name:

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other _____

Thermometer Used: TH077 (TH078) Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 1.0 °C

Date and Initials of person examining contents: _____

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2
Chain of Custody Relinquished	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used	☒Yes ☐No ☐N/A	9
-Pace Containers Used	☒Yes ☐No ☐N/A	
Containers Intact	☒Yes ☐No ☐N/A	10
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix SL WT OIL		
All containers needing preservation have been checked	☐Yes ☐No ☒N/A	13
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	Initial when completed: / Lot # of added preservative:
Exceptions: VOA, micro, TOC, O&G		Date and Time preservative added
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☒No ☐N/A	15
Trip Blank Present:	☒Yes ☐No ☐N/A	16
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted _____ Date/Time _____

Comments/ Resolution _____

*** PM (Project Manager) review is documented electronically in LIMS.**

F-LI-C-002-rev.00

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 707460

Method: EPA 8270D
Description: 8270 MSSV
Client: AECOM
Date: February 17, 2017

General Information:
5 samples were analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 8322

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.
- LCS (Lab ID: 41752)
  - 2,4,6-Tribromophenol (S)
  - Benzo(g,h,i)perylene
  - Indeno(1,2,3-cd)pyrene

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 8322

S0: Surrogate recovery outside laboratory control limits.
- DUP2016221 (Lab ID: 707460005)
  - 2,4,6-Tribromophenol (S)
- HIMW-05I (Lab ID: 707460001)
  - 2,4,6-Tribromophenol (S)

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples.
- HIMW-05S (Lab ID: 707460002)
  - 2,4,6-Tribromophenol (S)
- HIMW-28I (Lab ID: 707460003)
  - 2,4,6-Tribromophenol (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 707460

Method: EPA 8270D
Description: 8270 MSSV
Client: AECOM
Date: February 17, 2017

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical®
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575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 707460

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: AECOM
Date: February 17, 2017

General Information:
6 samples were analyzed for EPA 8260C/5030C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 8250

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 707381002,707551002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 43638)
  - Ethylbenzene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - New York SDG No.: 707460 Contract: National Grid Hempstead Site
Lab File ID: 8270-122816.B\R37313.D DFTPP Injection Date: 12/28/2016
Instrument ID: 70MSS3 DFTPP Injection Time: 10:29

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	41.31	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Base Peak, 100.00% relative abundance	40.48	
70	Less than 2.00% of mass 69	0.19	(0.47)[1]
127	40.00 - 60.00% of mass 198	43.58	
197	Less than 1.00% of mass 198	0.00	
198	Base Peak, 100.00% relative abundance	100.00	
199	5.00 - 9.00% of mass 198	6.89	
275	10.00 - 30.00% of mass 198	26.22	
365	1.00 - 100.00% of mass 198	3.08	
441	0.10 - 100.00% of mass 442	14.77	
442	40.00 - 110.00% of mass 198	100.71	
443	17.00 - 23.00% of mass 442	19.97	(19.83)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
8368411CCV	8368411CCV	8270-122816.B\R37314.D	12/28/2016	10:48
41751BLANK	41751BLANK	8270-122816.B\R37316.D	12/28/2016	11:45
41752LCS	41752LCS	8270-122816.B\R37317.D	12/28/2016	12:13
HIMW-05I	707460001	8270-122816.B\R37322.D	12/28/2016	14:36
HIMW-05S	707460002	8270-122816.B\R37323.D	12/28/2016	15:04
HIMW-28I	707460003	8270-122816.B\R37324.D	12/28/2016	15:32
DUP2016221	707460005	8270-122816.B\R37325.D	12/28/2016	16:00
HIMW-28S	707460004	8270-122816.B\R37329.D	12/28/2016	17:54

SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN CONTINUING CALIBRATION DATA

8368411CCV

Lab Name: Pace Analytical - New York Calibration Date: 12/28/2016 Time: 10:48

Instrument ID: 70MSS3 GC Column: Col 1 Init. Calib. Date(s): 12/07/2016 12/07/2016

Lab File ID: 8270-122816.B\R37314.D Init. Calib. Time(s): 01:01 07:11

SDG No.: 707460

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthene	Averaged	1.12705	1.11039	0.9000	-1.4774	20.0000
Acenaphthylene	Averaged	1.70029	1.64812	0.9000	-3.0681	20.0000
Anthracene	Averaged	1.00637	1.06065	0.7000	5.3944	20.0000
Benzo(a)anthracene	Averaged	1.15119	1.17705	0.8000	2.2463	20.0000
Benzo(a)pyrene	Averaged	1.12757	1.18010	0.7000	4.6589	20.0000
Benzo(b)fluoranthene	Averaged	1.40893	1.36772	0.7000	-2.9250	20.0000
Benzo(g,h,i)perylene	Averaged	0.63889	0.81437	0.5000	27.4676	20.0000
Benzo(k)fluoranthene	Averaged	1.20903	1.10501	0.7000	-8.6039	20.0000
Chrysene	Averaged	1.03298	0.94035	0.7000	-8.9677	20.0000
Dibenz(a,h)anthracene	Linear	25	24.80001	0.4000	-0.7999	20.0000
Fluoranthene	Averaged	1.11617	1.25673	0.6000	12.5929	20.0000
Fluorene	Averaged	1.31666	1.22258	0.9000	-7.1456	20.0000
Indeno(1,2,3-cd)pyrene	Averaged	0.85388	1.05851	0.5000	23.9646	20.0000
2-Methylnaphthalene	Averaged	0.71064	0.70711	0.4000	-0.4963	20.0000
Naphthalene	Averaged	0.95727	0.96217	0.7000	0.5118	20.0000
Phenanthrene	Averaged	0.96582	1.01584	0.7000	5.1794	20.0000
Pyrene	Averaged	1.18360	1.19147	0.6000	0.6650	20.0000
2-Chlorophenol-d4 (S)	Averaged	1.29102	1.24684	0.0100	-3.4220	20.0000
1,2-Dichlorobenzene-d4 (S)	Averaged	0.90201	0.86332	0.0100	-4.2899	20.0000
2-Fluorobiphenyl (S)	Averaged	1.24617	1.28041	0.0100	2.7481	20.0000
2-Fluorophenol (S)	Averaged	1.17213	1.16250	0.0100	-0.8217	20.0000
Nitrobenzene-d5 (S)	Averaged	0.37163	0.37835	0.0100	1.8069	20.0000
Phenol-d5 (S)	Averaged	1.51253	1.39916	0.0100	-7.4952	20.0000
p-Terphenyl-d14 (S)	Averaged	0.78352	0.80943	0.0100	3.3069	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.11640	0.16209	0.0100	39.2486	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

APPENDIX B

OXYGEN SYSTEM OPERATION & MAINTENANCE MEASUREMENTS,

THIRD AND FOURTH QUARTERS

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	7/29/2016
Time:	11:45
Weather:	Rain
Outdoor Temperature:	~87° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	16,743.0	
Feed Air Pressure *	90	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	110	(psi)
Oxygen Purity	82.0	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	100	(psi)
(readings below are made from control panel)		
Delivery Air	115	(psi)
Element Outlet Temperature	192	(oF)
Running Hours	19,578	(hours)
Loading Hours	12,639	(hours)

* maximum reading during loading cycle

O_2 Injection System #1

Injection Bank 1				Injection Bank 2				Injection Bank 3			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-1	95.5	30	31	OW-1-5S	67.3	30	18	OW-1-9D	88.5	30	30
OW-1-2	96.5	35	19	OW-1-6S	67.0	30	19	OW-1-10D	87.2	30	25
OW-1-3	96.3	35	30	OW-1-7S	66.9	30	19	OW-1-11D	86.1	30	31
OW-1-4	95.0	30	31	OW-1-8S	66.7	25	18	OW-1-12D	85.3	30	30
OW-1-5D	93.9	40	31	OW-1-9S	66.0	35	18	OW-1-13D	84.7	35	29
OW-1-6D	92.4	30	30	OW-1-10S	54.6	30	12	OW-1-14D	84.1	35	29
OW-1-7D	91.1	30	30	OW-1-11S	54.1	30	14	OW-1-15D	83.3	40	28
OW-1-8D	89.6	30	31	OW-1-12S	53.6	30	15	OW-1-16D	82.5	45	15

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #1 and Bank #3 were set at 3 minutes.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 7/29/2016

O_2 Injection System #1

Injection Bank 4				Injection Bank 5				Injection Bank 6			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-13S	53.1	30	15	OW-1-17D	79.5	25	14	OW-1-21S	49.3	35	13
OW-1-14S	52.7	30	14	OW-1-18D	78.3	25	27	OW-1-22S	49.3	30	13
OW-1-15S	52.2	30	13	OW-1-19D	78.9	25	27	OW-1-23S	48.8	30	13
OW-1-16SR	51.8	30	28	OW-1-20D	79.5	30	28	OW-1-24S	48.4	30	13
OW-1-17S	50.7	30	25	OW-1-21D	79.5	35	26	OW-1-25S	48.8	45	13
OW-1-18S	50.2	30	12	OW-1-22D	79.5	30	26	OW-1-26SR	48.3	40	13
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	30	27	OW-1-27S	48.3	30	13
OW-1-20S	49.3	30	10	OW-1-24D	78.2	30	29	OW-1-28S	48.3	30	13

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #5 were set at 3 minutes.

O_2 Injection System #1

Injection Bank 7				Injection Bank 8				Injection Bank 9			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-25D	78.1	30	28	OW-1-29S	48.5	30	13	OW-1-33D	83.2	35	29
OW-1-26D	78.1	30	27	OW-1-30S	48.8	30	14	OW-1-34D	84.5	30	30
OW-1-27D	77.9	30	28	OW-1-31S	49.3	30	13	OW-1-35D	85.0	30	30
OW-1-28D	78.0	30	27	OW-1-32S	49.3	30	13	OW-1-36D	85.0	30	29
OW-1-29D	78.4	30	28	OW-1-33S	49.7	45	14	OW-1-37D	84.0	30	29
OW-1-30D	79.0	30	37	OW-1-34S	50.1	50	13	OW-1-38D	82.0	30	28
OW-1-31D	80.5	30	20	OW-1-35S	50.3	40	14	OW-1-39D	78.0	30	27
OW-1-32D	81.6	30	29	OW-1-36S	50.3	35	13	OW-1-40D	76.0	30	27

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

Date: 7/29/2016

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

O_2 Injection System #1

Injection Bank 10				Injection Bank 11				Injection Bank 12			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-37S	50.5	30	13	OW-1-41D	73.6	35	23	OW-1-43	67.4	30	20
OW-1-38S	50.6	30	13	OW-1-42D	71.0	45	22	OW-1-44	66.6	30	19
OW-1-39S	50.7	30	14	OW-1-45	65.7	30	20	OW-1-51R	60.6	30	17
OW-1-40S	51.1	40	14	OW-1-46	64.3	30	20	OW-1-52	59.3	30	17
OW-1-41S	51.5	30	14	OW-1-47	63.4	30	18	OW-1-53	60.0	30	17
OW-1-42S	51.3	30	14	OW-1-48	62.5	40	18	OW-1-54	60.0	30	17
				OW-1-49	61.5	30	18				
				OW-1-50	61.0	20	17				

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection time at Bank #11 was set at 6 minutes.

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	29.34		0	MP-1-5	29.13	20.12	0	MP-1-1D	12.59
MP-1-1S	29.38	12.59	0	MP-1-6	21.36	7.23	0	MP-1-2D	35.83
MP-1-2D	23.47		0.1	MP-1-7	24.68	19.93	0	MP-1-3D	11.01
MP-1-2S	23.64	22.44	0.1	MP-1-8	22.17	2.14	0	MP-1-4D	25.78
MP-1-3D	21.91		0						
MP-1-3S	21.85	20.02	0						
MP-1-4D	24.63		0						
MP-1-4S	24.66	13.88	0.2						

Comments: DO readings were collected at the following depths: MP-1-1S (66 feet), MP-1-1D (~45 feet), MP-1-2S (46 feet), MP-1-2D (~41 feet), MP-1-3S (49 feet), MP-1-3D (~40 feet), MP-1-4S (53 feet), MP-1-4D (~35 feet), MP-1-5 (78 feet), MP-1-6 (61 feet), MP-1-7 (64 feet) and MP-1-8 (58 feet).

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 7/29/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) Normal (green) X High (orange)
3) Oil added Yes No X
4) Oil changed Yes No X
5) Oil filter changed Yes No X
6) Air filter Changed Yes No X
7) Oil separator changed Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Profiler changed Yes No X
2) Coalescing changed Yes No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No
2) Abnormal conditions observed (e.g. vandalism)
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

7-19-16 Removed existing wiring feeding computer in control panel, along with all control wiring and phone lines. Installed new computer on existing racks and connected to all terminal contacts along with control wires and phone lines. Tested and found no response on control pad. Spoke to Matrix and made some minor adjustments to wiring and system operated on automatic. Restarted system and let pressure build. Tested each bank and made minor adjustments to controls and valves. Left system running at end of day. Cut down heavy brush and vines wrapping around shed.

7-29-16 Found system running. Soaked up small amount of oil and water from separator unit for disposal. Tightened belts on booster pump and compressor. Repaired tubing in separator that pulled out of cap. Replaced auto drain float in 2nd knock out bowl as float was stuck open. Adjusted AC unit as shed was found too hot. Wiped down all equipment and cleaned up all garbage and leaves from around fence areas. Cleaned up water on floor of shed due to leaking roof.

OW-1-19S remains off due to leaking line.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-934-323 tied into Pole #4

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	8/26/2016
Time:	12:45
Weather:	Sunny
Outdoor Temperature:	~96° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	16,897.0	
Feed Air Pressure *	70	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	75	(psi)
Oxygen Purity	67.5	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	110	(psi)
(readings below are made from control panel)		
Delivery Air	115	(psi)
Element Outlet Temperature	162	(oF)
Running Hours	19,834	(hours)
Loading Hours	12,766	(hours)

* maximum reading during loading cycle

O_2 Injection System #1

Injection Bank 1				Injection Bank 2				Injection Bank 3			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-1	95.5	35	31	OW-1-5S	67.3	35	18	OW-1-9D	88.5	30	30
OW-1-2	96.5	35	20	OW-1-6S	67.0	40	19	OW-1-10D	87.2	40	26
OW-1-3	96.3	35	30	OW-1-7S	66.9	30	19	OW-1-11D	86.1	30	31
OW-1-4	95.0	30	30	OW-1-8S	66.7	30	18	OW-1-12D	85.3	30	29
OW-1-5D	93.9	30	30	OW-1-9S	66.0	35	18	OW-1-13D	84.7	30	29
OW-1-6D	92.4	30	31	OW-1-10S	54.6	35	12	OW-1-14D	84.1	35	30
OW-1-7D	91.1	30	31	OW-1-11S	54.1	45	14	OW-1-15D	83.3	45	30
OW-1-8D	89.6	30	30	OW-1-12S	53.6	30	10	OW-1-16D	82.5	30	14

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #1 and Bank #3 were set at 3 minutes.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 8/26/2016

O_2 Injection System #1

Injection Bank 4				Injection Bank 5				Injection Bank 6			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-13S	53.1	30	15	OW-1-17D	79.5	45	15	OW-1-21S	49.3	30	13
OW-1-14S	52.7	30	14	OW-1-18D	78.3	45	26	OW-1-22S	49.3	35	13
OW-1-15S	52.2	40	12	OW-1-19D	78.9	40	26	OW-1-23S	48.8	40	13
OW-1-16SR	51.8	45	28	OW-1-20D	79.5	35	28	OW-1-24S	48.4	35	13
OW-1-17S	50.7	35	26	OW-1-21D	79.5	35	26	OW-1-25S	48.8	40	13
OW-1-18S	50.2	30	12	OW-1-22D	79.5	25	27	OW-1-26SR	48.3	40	13
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	30	26	OW-1-27S	48.3	25	13
OW-1-20S	49.3	40	10	OW-1-24D	78.2	30	26	OW-1-28S	48.3	30	13

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #5 were set at 3 minutes.

O_2 Injection System #1

Injection Bank 7				Injection Bank 8				Injection Bank 9			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-25D	78.1	30	28	OW-1-29S	48.5	25	13	OW-1-33D	83.2	30	29
OW-1-26D	78.1	30	27	OW-1-30S	48.8	30	14	OW-1-34D	84.5	30	29
OW-1-27D	77.9	30	28	OW-1-31S	49.3	25	13	OW-1-35D	85.0	30	29
OW-1-28D	78.0	40	27	OW-1-32S	49.3	30	13	OW-1-36D	85.0	30	30
OW-1-29D	78.4	45	27	OW-1-33S	49.7	30	14	OW-1-37D	84.0	35	28
OW-1-30D	79.0	30	36	OW-1-34S	50.1	25	12	OW-1-38D	82.0	30	28
OW-1-31D	80.5	30	20	OW-1-35S	50.3	35	13	OW-1-39D	78.0	30	28
OW-1-32D	81.6	30	29	OW-1-36S	50.3	35	13	OW-1-40D	76.0	30	27

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

Date: 8/26/2016

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

O_2 Injection System #1

Injection Bank 10				Injection Bank 11				Injection Bank 12			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-37S	50.5	30	13	OW-1-41D	73.6	30	23	OW-1-43	67.4	30	20
OW-1-38S	50.6	30	13	OW-1-42D	71.0	30	22	OW-1-44	66.6	30	19
OW-1-39S	50.7	40	13	OW-1-45	65.7	35	20	OW-1-51R	60.6	40	17
OW-1-40S	51.1	45	14	OW-1-46	64.3	35	17	OW-1-52	59.3	35	17
OW-1-41S	51.5	40	14	OW-1-47	63.4	30	17	OW-1-53	60.0	30	17
OW-1-42S	51.3	40	13	OW-1-48	62.5	30	18	OW-1-54	60.0	30	17
				OW-1-49	61.5	30	17				
				OW-1-50	61.0	30	17				

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection time at Bank #11 was set at 6 minutes.

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	29.90		0	MP-1-5	29.61	21.98	0	MP-1-1D	16.49
MP-1-1S	29.81	20.65	0.4	MP-1-6	21.84	2.05	0	MP-1-2D	14.45
MP-1-2D	24.34		0.6	MP-1-7	25.20	5.69	0	MP-1-3D	10.11
MP-1-2S	24.41	15.66	0.3	MP-1-8	26.74	4.11	0	MP-1-4D	2.15
MP-1-3D	22.38		0						
MP-1-3S	22.31	9.57	0						
MP-1-4D	25.15		0						
MP-1-4S	25.17	3.18	0						

Comments: DO readings were collected at the following depths: MP-1-1S (66 feet), MP-1-1D (~45 feet), MP-1-2S (46 feet), MP-1-2D (~41 feet), MP-1-3S (49 feet), MP-1-3D (~40 feet), MP-1-4S (53 feet), MP-1-4D (~35 feet), MP-1-5 (78 feet), MP-1-6 (61 feet), MP-1-7 (64 feet) and MP-1-8 (58 feet).

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 8/26/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) Normal (green) X High (orange)
3) Oil added Yes No X
4) Oil changed Yes No X
5) Oil filter changed Yes No X
6) Air filter Changed Yes No X
7) Oil separator changed Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Profiler changed Yes No X
2) Coalescing changed Yes No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No
2) Abnormal conditions observed (e.g. vandalism)
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

8-26-16 Found system running. Soaked up small amount of oil and water from separator unit for disposal. Found booster pump not working. Reset breaker and tested unit. Pump motor started smoking and burning. Show down booster pump and system.

8-30-16 Removed booster pump from system and delivered to D&D Electric Motors for pricing to either rebuild the pump if possible or to provide a replacement. System remains off until pump can be repaired.

OW-1-19S remains off due to leaking line.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-934-323 tied into Pole #4

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	10/3/2016
Time:	12:55
Weather:	Cloudy
Outdoor Temperature:	~73° F
Inside Trailer Temperature:	~70° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours _____

Feed Air Pressure * _____ (psi)

Cycle Pressure * _____ (psi)

Oxygen Receiver Pressure * _____ (psi)

Oxygen Purity _____ (percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank * _____ (psi)

(readings below are made from control panel)

Delivery Air _____ (psi)

Element Outlet Temperature _____ (oF)

Running Hours _____ (hours)

Loading Hours _____ (hours)

* maximum reading during loading cycle

O_2 Injection System #1

Injection Bank 1				Injection Bank 2				Injection Bank 3			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-1	95.5			OW-1-5S	67.3			OW-1-9D	88.5		
OW-1-2	96.5			OW-1-6S	67.0			OW-1-10D	87.2		
OW-1-3	96.3			OW-1-7S	66.9			OW-1-11D	86.1		
OW-1-4	95.0			OW-1-8S	66.7			OW-1-12D	85.3		
OW-1-5D	93.9			OW-1-9S	66.0			OW-1-13D	84.7		
OW-1-6D	92.4			OW-1-10S	54.6			OW-1-14D	84.1		
OW-1-7D	91.1			OW-1-11S	54.1			OW-1-15D	83.3		
OW-1-8D	89.6			OW-1-12S	53.6			OW-1-16D	82.5		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #1 and Bank #3 were set at 3 minutes.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 10/3/2016

O_2 Injection System #1

Injection Bank 4				Injection Bank 5				Injection Bank 6			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-13S	53.1			OW-1-17D	79.5			OW-1-21S	49.3		
OW-1-14S	52.7			OW-1-18D	78.3			OW-1-22S	49.3		
OW-1-15S	52.2			OW-1-19D	78.9			OW-1-23S	48.8		
OW-1-16SR	51.8			OW-1-20D	79.5			OW-1-24S	48.4		
OW-1-17S	50.7			OW-1-21D	79.5			OW-1-25S	48.8		
OW-1-18S	50.2			OW-1-22D	79.5			OW-1-26SR	48.3		
OW-1-19S	49.7			OW-1-23D	78.7			OW-1-27S	48.3		
OW-1-20S	49.3			OW-1-24D	78.2			OW-1-28S	48.3		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #5 were set at 3 minutes.

O_2 Injection System #1

Injection Bank 7				Injection Bank 8				Injection Bank 9			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-25D	78.1	30	28	OW-1-29S	48.5	25	13	OW-1-33D	83.2	30	29
OW-1-26D	78.1	30	27	OW-1-30S	48.8	30	14	OW-1-34D	84.5	30	29
OW-1-27D	77.9	30	28	OW-1-31S	49.3	25	13	OW-1-35D	85.0	30	29
OW-1-28D	78.0	40	27	OW-1-32S	49.3	30	13	OW-1-36D	85.0	30	30
OW-1-29D	78.4	45	27	OW-1-33S	49.7	30	14	OW-1-37D	84.0	35	28
OW-1-30D	79.0	30	36	OW-1-34S	50.1	25	12	OW-1-38D	82.0	30	28
OW-1-31D	80.5	30	20	OW-1-35S	50.3	35	13	OW-1-39D	78.0	30	28
OW-1-32D	81.6	30	29	OW-1-36S	50.3	35	13	OW-1-40D	76.0	30	27

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

Date: 10/3/2016

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

O_2 Injection System #1

Injection Bank 10				Injection Bank 11				Injection Bank 12			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-37S	50.5			OW-1-41D	73.6			OW-1-43	67.4		
OW-1-38S	50.6			OW-1-42D	71.0			OW-1-44	66.6		
OW-1-39S	50.7			OW-1-45	65.7			OW-1-51R	60.6		
OW-1-40S	51.1			OW-1-46	64.3			OW-1-52	59.3		
OW-1-41S	51.5			OW-1-47	63.4			OW-1-53	60.0		
OW-1-42S	51.3			OW-1-48	62.5			OW-1-54	60.0		
				OW-1-49	61.5						
				OW-1-50	61.0						

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection time at Bank #11 was set at 6 minutes.

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	30.54		0.2	MP-1-5	30.34	15.11	0	MP-1-1D	12.21
MP-1-1S	30.62	14.12	0.3	MP-1-6	22.16	8.20	0	MP-1-2D	1.68
MP-1-2D	24.91		0	MP-1-7	25.91	6.07	0	MP-1-3D	3.55
MP-1-2S	25.15	8.52	0	MP-1-8	27.42	1.79	0	MP-1-4D	3.10
MP-1-3D	23.11		0						
MP-1-3S	23.06	1.10	0.2						
MP-1-4D	25.86		0.2						
MP-1-4S	25.89	2.00	0						

Comments: DO readings were collected at the following depths: MP-1-1S (66 feet), MP-1-1D (~45 feet), MP-1-2S (46 feet), MP-1-2D (~41 feet), MP-1-3S (49 feet), MP-1-3D (~40 feet), MP-1-4S (53 feet), MP-1-4D (~35 feet), MP-1-5 (78 feet), MP-1-6 (61 feet), MP-1-7 (64 feet) and MP-1-8 (58 feet).

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 10/3/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes ____ No X
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) ____ Normal (green) X High (orange) ____
3) Oil added Yes ____ No X
4) Oil changed Yes ____ No X
5) Oil filter changed Yes ____ No X
6) Air filter Changed Yes ____ No X
7) Oil separator changed Yes ____ No X
8) Terminal strips checked Yes ____ No X

AS-80 O_2 Generator

1) Profiler changed Yes ____ No X
2) Coalescing changed Yes ____ No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No ____
2) Abnormal conditions observed (e.g. vandalism) ____
3) Other major activities completed ____
4) Supplies needed ____
5) Visitors ____

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

SYSTEM OFF PENDING RESOLUTION OF BOOSTER PUMP

9-9-16 Measured damaged areas of roof and pickup supplies to make repairs. Made all repairs and sealed all seams with silicone.

9-22&23-16 Painted exterior of shed and all trim. Sealed seams with silicone as needed.

10-3-16 Took monitoring point readings with system off. Cut down brush around shed.

OW-1-19S remains off due to leaking line.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-934-323 tied into Pole #4

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	10/31/2016
Time:	9:45
Weather:	Sunny
Outdoor Temperature:	~45° F
Inside Trailer Temperature:	~60° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	17,008.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	85	(psi)
Oxygen Receiver Pressure *	100	(psi)
Oxygen Purity	75.0	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	110	(psi)
(readings below are made from control panel)		
Delivery Air	115	(psi)
Element Outlet Temperature	185	(oF)
Running Hours	19,977	(hours)
Loading Hours	12,863	(hours)

* maximum reading during loading cycle

O_2 Injection System #1

Injection Bank 1				Injection Bank 2				Injection Bank 3			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-1	95.5	30	31	OW-1-5S	67.3	30	18	OW-1-9D	88.5	30	30
OW-1-2	96.5	35	19	OW-1-6S	67.0	40	19	OW-1-10D	87.2	35	25
OW-1-3	96.3	30	32	OW-1-7S	66.9	40	20	OW-1-11D	86.1	35	32
OW-1-4	95.0	30	31	OW-1-8S	66.7	45	18	OW-1-12D	85.3	30	30
OW-1-5D	93.9	30	31	OW-1-9S	66.0	30	19	OW-1-13D	84.7	30	29
OW-1-6D	92.4	30	30	OW-1-10S	54.6	30	14	OW-1-14D	84.1	40	30
OW-1-7D	91.1	30	30	OW-1-11S	54.1	30	15	OW-1-15D	83.3	30	29
OW-1-8D	89.6	30	31	OW-1-12S	53.6	35	15	OW-1-16D	82.5	30	14

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #1 and Bank #3 were set at 3 minutes.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 10/31/2016

O_2 Injection System #1

Injection Bank 4				Injection Bank 5				Injection Bank 6			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-13S	53.1	30	14	OW-1-17D	79.5	30	15	OW-1-21S	49.3	30	13
OW-1-14S	52.7	40	15	OW-1-18D	78.3	30	25	OW-1-22S	49.3	40	13
OW-1-15S	52.2	45	13	OW-1-19D	78.9	30	26	OW-1-23S	48.8	40	14
OW-1-16SR	51.8	40	30	OW-1-20D	79.5	30	29	OW-1-24S	48.4	30	13
OW-1-17S	50.7	35	25	OW-1-21D	79.5	30	26	OW-1-25S	48.8	30	14
OW-1-18S	50.2	30	13	OW-1-22D	79.5	30	26	OW-1-26SR	48.3	40	14
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	30	27	OW-1-27S	48.3	30	13
OW-1-20S	49.3	30	10	OW-1-24D	78.2	30	28	OW-1-28S	48.3	40	13

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #5 were set at 3 minutes.

O_2 Injection System #1

Injection Bank 7				Injection Bank 8				Injection Bank 9			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-25D	78.1	30	28	OW-1-29S	48.5	30	13	OW-1-33D	83.2	30	30
OW-1-26D	78.1	45	27	OW-1-30S	48.8	30	13	OW-1-34D	84.5	25	29
OW-1-27D	77.9	30	28	OW-1-31S	49.3	30	14	OW-1-35D	85.0	30	29
OW-1-28D	78.0	35	28	OW-1-32S	49.3	30	13	OW-1-36D	85.0	35	28
OW-1-29D	78.4	30	29	OW-1-33S	49.7	30	14	OW-1-37D	84.0	30	28
OW-1-30D	79.0	30	37	OW-1-34S	50.1	30	12	OW-1-38D	82.0	30	29
OW-1-31D	80.5	30	20	OW-1-35S	50.3	30	13	OW-1-39D	78.0	30	27
OW-1-32D	81.6	30	29	OW-1-36S	50.3	30	13	OW-1-40D	76.0	30	28

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

Date: 10/31/2016

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

O_2 Injection System #1

Injection Bank 10				Injection Bank 11				Injection Bank 12			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-37S	50.5	30	12	OW-1-41D	73.6	30	23	OW-1-43	67.4	30	20
OW-1-38S	50.6	30	13	OW-1-42D	71.0	30	22	OW-1-44	66.6	30	20
OW-1-39S	50.7	30	14	OW-1-45	65.7	30	20	OW-1-51R	60.6	30	19
OW-1-40S	51.1	30	14	OW-1-46	64.3	30	18	OW-1-52	59.3	30	17
OW-1-41S	51.5	25	14	OW-1-47	63.4	20	17	OW-1-53	60.0	30	17
OW-1-42S	51.3	30	14	OW-1-48	62.5	35	17	OW-1-54	60.0	30	18
				OW-1-49	61.5	25	17				
				OW-1-50	61.0	20	17				

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection time at Bank #11 was set at 6 minutes.

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	30.81		0.3	MP-1-5	30.62	14.95	0	MP-1-1D	14.55
MP-1-1S	30.93	15.00	0	MP-1-6	22.80	10.61	0	MP-1-2D	5.55
MP-1-2D	25.44		0	MP-1-7	26.18	8.95	0	MP-1-3D	9.29
MP-1-2S	25.42	9.98	0.1	MP-1-8	27.70	3.95	0	MP-1-4D	9.11
MP-1-3D	23.43		0						
MP-1-3S	23.40	5.14	0.4						
MP-1-4D	26.22		0.3						
MP-1-4S	26.20	9.98	0.1						

Comments: DO readings were collected at the following depths: MP-1-1S (66 feet), MP-1-1D (~45 feet), MP-1-2S (46 feet), MP-1-2D (~41 feet), MP-1-3S (49 feet), MP-1-3D (~40 feet), MP-1-4S (53 feet), MP-1-4D (~35 feet), MP-1-5 (78 feet), MP-1-6 (61 feet), MP-1-7 (64 feet) and MP-1-8 (58 feet).

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 10/31/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) Normal (green) X High (orange)
3) Oil added Yes X No
4) Oil changed Yes X No
5) Oil filter changed Yes X No
6) Air filter Changed Yes X No
7) Oil separator changed Yes X No
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Profiler changed Yes X No
2) Coalescing changed Yes X No

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.) Yes X No
2) Abnormal conditions observed (e.g. vandalism)
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

10-19,21,24&2516 Conducted semi-annual routine maintenance on the system. Found solenoid valve on the exhaust site not holding and needed to be replaced. Removed all inline check valves to clean out silt build up. Took apart air compressor and drained all oil and removed filter. Took apart cooling canister and cleaned out silt buildup. Installed new oil filters and filled with new oil. Flushed out all drain lines of sludge build up. Rebuilt auto drain at base of Air Sep unit. Replaced two bad solenoid valves in the Air Sep unit. Installed rebuilt booster pump and reconnected to system. Restarted system and left running.

10-31-16 Found system running upon arrival. Adjusted control panel timers to make sure each bank was cycling properly. Replaced auto drain float in water knock out tank. Found and repaired small cooling oil leak. Wiped down all equipment and cleaned up debris and leaves around shed. Left system running.

OW-1-19S remains off due to leaking line.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-934-323 tied into Pole #4

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	11/30/2016
Time:	12:30
Weather:	Rain
Outdoor Temperature:	~59° F
Inside Trailer Temperature:	~65° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	17,522.0	
Feed Air Pressure *	115	(psi)
Cycle Pressure *	75	(psi)
Oxygen Receiver Pressure *	100	(psi)
Oxygen Purity	71.9	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	115	(psi)
(readings below are made from control panel)		
Delivery Air	111	(psi)
Element Outlet Temperature	186	(oF)
Running Hours	20,603	(hours)
Loading Hours	13,334	(hours)

* maximum reading during loading cycle

O_2 Injection System #1

Injection Bank 1				Injection Bank 2				Injection Bank 3			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-1	95.5	35	30	OW-1-5S	67.3	40	18	OW-1-9D	88.5	30	30
OW-1-2	96.5	30	19	OW-1-6S	67.0	45	19	OW-1-10D	87.2	30	24
OW-1-3	96.3	30	31	OW-1-7S	66.9	40	19	OW-1-11D	86.1	30	29
OW-1-4	95.0	40	30	OW-1-8S	66.7	35	18	OW-1-12D	85.3	40	28
OW-1-5D	93.9	30	30	OW-1-9S	66.0	30	19	OW-1-13D	84.7	30	29
OW-1-6D	92.4	30	31	OW-1-10S	54.6	25	13	OW-1-14D	84.1	40	31
OW-1-7D	91.1	30	31	OW-1-11S	54.1	40	15	OW-1-15D	83.3	40	28
OW-1-8D	89.6	35	30	OW-1-12S	53.6	30	14	OW-1-16D	82.5	40	14

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #1 and Bank #3 were set at 3 minutes.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 11/30/2016

O_2 Injection System #1

Injection Bank 4				Injection Bank 5				Injection Bank 6			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-13S	53.1	35	15	OW-1-17D	79.5	35	14	OW-1-21S	49.3	30	13
OW-1-14S	52.7	30	15	OW-1-18D	78.3	35	26	OW-1-22S	49.3	30	13
OW-1-15S	52.2	30	13	OW-1-19D	78.9	35	26	OW-1-23S	48.8	30	13
OW-1-16SR	51.8	40	29	OW-1-20D	79.5	40	28	OW-1-24S	48.4	35	13
OW-1-17S	50.7	45	25	OW-1-21D	79.5	30	26	OW-1-25S	48.8	25	13
OW-1-18S	50.2	35	13	OW-1-22D	79.5	30	27	OW-1-26SR	48.3	25	13
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	30	27	OW-1-27S	48.3	30	13
OW-1-20S	49.3	30	10	OW-1-24D	78.2	30	29	OW-1-28S	48.3	30	13

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #5 were set at 3 minutes.

O_2 Injection System #1

Injection Bank 7				Injection Bank 8				Injection Bank 9			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-25D	78.1	30	27	OW-1-29S	48.5	40	13	OW-1-33D	83.2	40	30
OW-1-26D	78.1	30	28	OW-1-30S	48.8	45	13	OW-1-34D	84.5	40	30
OW-1-27D	77.9	30	28	OW-1-31S	49.3	40	14	OW-1-35D	85.0	30	29
OW-1-28D	78.0	35	27	OW-1-32S	49.3	30	13	OW-1-36D	85.0	30	29
OW-1-29D	78.4	35	28	OW-1-33S	49.7	30	14	OW-1-37D	84.0	30	29
OW-1-30D	79.0	30	37	OW-1-34S	50.1	30	13	OW-1-38D	82.0	30	28
OW-1-31D	80.5	30	20	OW-1-35S	50.3	40	14	OW-1-39D	78.0	30	28
OW-1-32D	81.6	40	30	OW-1-36S	50.3	30	14	OW-1-40D	76.0	30	27

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

Date: 11/30/2016

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

O_2 Injection System #1

Injection Bank 10				Injection Bank 11				Injection Bank 12			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-37S	50.5	30	12	OW-1-41D	73.6	35	25	OW-1-43	67.4	30	21
OW-1-38S	50.6	30	14	OW-1-42D	71.0	35	22	OW-1-44	66.6	30	20
OW-1-39S	50.7	35	15	OW-1-45	65.7	30	20	OW-1-51R	60.6	30	17
OW-1-40S	51.1	30	13	OW-1-46	64.3	25	18	OW-1-52	59.3	35	18
OW-1-41S	51.5	30	14	OW-1-47	63.4	25	18	OW-1-53	60.0	35	17
OW-1-42S	51.3	25	14	OW-1-48	62.5	30	18	OW-1-54	60.0	35	17
				OW-1-49	61.5	25	17				
				OW-1-50	61.0	35	18				

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection time at Bank #11 was set at 6 minutes.

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	31.08		0.4	MP-1-5	30.80	13.75	0	MP-1-1D	24.71
MP-1-1S	31.00	22.21	0.2	MP-1-6	22.92	9.10	0	MP-1-2D	40.37
MP-1-2D	25.52		0	MP-1-7	26.20	5.51	0	MP-1-3D	13.38
MP-1-2S	25.56	17.95	0	MP-1-8	27.71	3.94	0	MP-1-4D	23.07
MP-1-3D	23.47		0						
MP-1-3S	23.44	12.05	0.2						
MP-1-4D	26.16		0.3						
MP-1-4S	26.28	15.69	0.5						

Comments: DO readings were collected at the following depths: MP-1-1S (66 feet), MP-1-1D (~45 feet), MP-1-2S (46 feet), MP-1-2D (~41 feet), MP-1-3S (49 feet), MP-1-3D (~40 feet), MP-1-4S (53 feet), MP-1-4D (~35 feet), MP-1-5 (78 feet), MP-1-6 (61 feet), MP-1-7 (64 feet) and MP-1-8 (58 feet).

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 11/30/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) X Normal (green) High (orange)
3) Oil added Yes X No
4) Oil changed Yes No X
5) Oil filter changed Yes No X
6) Air filter Changed Yes No X
7) Oil separator changed Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Profiler changed Yes No X
2) Coalescing changed Yes No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.) Yes X No
2) Abnormal conditions observed (e.g. vandalism)
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

11-30-16 Found system running upon arrival. Checked equipment and found oil leak in compressor. Cleaned up cooling oil from motor components and traced leak to flange on canister. Wiped down canister and reset all gaskets and O-rings to ensure proper seal. Filled unit with oil and restarted system to check for leaks. No leaks found. Wiped down all equipment and cleaned up debris and leaves around shed. Left system running.

OW-1-19S remains off due to leaking line.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-934-323 tied into Pole #4

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	12/30/2016
Time:	13:00
Weather:	Rain
Outdoor Temperature:	~47° F
Inside Trailer Temperature:	~65° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	18,079.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	105	(psi)
Oxygen Purity	78.0	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	100	(psi)
(readings below are made from control panel)		
Delivery Air	124	(psi)
Element Outlet Temperature	185	(oF)
Running Hours	21,205	(hours)
Loading Hours	13,798	(hours)

* maximum reading during loading cycle

O_2 Injection System #1

Injection Bank 1				Injection Bank 2				Injection Bank 3			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-1	95.5	30	30	OW-1-5S	67.3	30	18	OW-1-9D	88.5	30	30
OW-1-2	96.5	40	19	OW-1-6S	67.0	25	19	OW-1-10D	87.2	25	25
OW-1-3	96.3	30	30	OW-1-7S	66.9	30	18	OW-1-11D	86.1	25	30
OW-1-4	95.0	30	30	OW-1-8S	66.7	35	18	OW-1-12D	85.3	25	30
OW-1-5D	93.9	30	30	OW-1-9S	66.0	30	19	OW-1-13D	84.7	25	30
OW-1-6D	92.4	45	30	OW-1-10S	54.6	30	13	OW-1-14D	84.1	20	30
OW-1-7D	91.1	40	32	OW-1-11S	54.1	30	14	OW-1-15D	83.3	30	29
OW-1-8D	89.6	40	32	OW-1-12S	53.6	30	14	OW-1-16D	82.5	35	14

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #1 and Bank #3 were set at 3 minutes.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 12/30/2016

O_2 Injection System #1

Injection Bank 4				Injection Bank 5				Injection Bank 6			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-13S	53.1	30	14	OW-1-17D	79.5	30	15	OW-1-21S	49.3	30	13
OW-1-14S	52.7	30	15	OW-1-18D	78.3	30	26	OW-1-22S	49.3	30	13
OW-1-15S	52.2	40	13	OW-1-19D	78.9	30	26	OW-1-23S	48.8	30	13
OW-1-16SR	51.8	30	30	OW-1-20D	79.5	40	29	OW-1-24S	48.4	30	13
OW-1-17S	50.7	25	25	OW-1-21D	79.5	30	26	OW-1-25S	48.8	30	13
OW-1-18S	50.2	35	13	OW-1-22D	79.5	30	26	OW-1-26SR	48.3	30	13
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	45	26	OW-1-27S	48.3	25	13
OW-1-20S	49.3	30	10	OW-1-24D	78.2	40	28	OW-1-28S	48.3	25	13

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #5 were set at 3 minutes.

O_2 Injection System #1

Injection Bank 7				Injection Bank 8				Injection Bank 9			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-25D	78.1	20	27	OW-1-29S	48.5	30	13	OW-1-33D	83.2	40	30
OW-1-26D	78.1	30	28	OW-1-30S	48.8	30	13	OW-1-34D	84.5	40	30
OW-1-27D	77.9	35	28	OW-1-31S	49.3	35	13	OW-1-35D	85.0	30	31
OW-1-28D	78.0	45	28	OW-1-32S	49.3	30	14	OW-1-36D	85.0	35	29
OW-1-29D	78.4	40	29	OW-1-33S	49.7	30	14	OW-1-37D	84.0	35	28
OW-1-30D	79.0	40	36	OW-1-34S	50.1	30	12	OW-1-38D	82.0	35	28
OW-1-31D	80.5	30	20	OW-1-35S	50.3	35	13	OW-1-39D	78.0	35	28
OW-1-32D	81.6	30	30	OW-1-36S	50.3	30	13	OW-1-40D	76.0	35	27

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

Date: 12/30/2016

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

O_2 Injection System #1

Injection Bank 10				Injection Bank 11				Injection Bank 12			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-37S	50.5	40	13	OW-1-41D	73.6	30	24	OW-1-43	67.4	25	20
OW-1-38S	50.6	30	13	OW-1-42D	71.0	40	22	OW-1-44	66.6	35	20
OW-1-39S	50.7	30	13	OW-1-45	65.7	40	20	OW-1-51R	60.6	45	18
OW-1-40S	51.1	30	13	OW-1-46	64.3	45	19	OW-1-52	59.3	40	17
OW-1-41S	51.5	30	14	OW-1-47	63.4	45	18	OW-1-53	60.0	30	17
OW-1-42S	51.3	30	13	OW-1-48	62.5	35	18	OW-1-54	60.0	30	17
				OW-1-49	61.5	30	17				
				OW-1-50	61.0	35	17				

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection time at Bank #11 was set at 6 minutes.

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	31.02		0	MP-1-5	30.77	22.45	0	MP-1-1D	18.92
MP-1-1S	30.93	14.41	0	MP-1-6	22.96	9.81	0	MP-1-2D	36.12
MP-1-2D	25.07		0.4	MP-1-7	26.32	16.51	0	MP-1-3D	16.99
MP-1-2S	25.26	25.26	0.2	MP-1-8	27.84	6.62	0	MP-1-4D	25.42
MP-1-3D	23.55		0.2						
MP-1-3S	23.53	23.53	0.5						
MP-1-4D	26.27		0						
MP-1-4S	26.30	26.30	0						

Comments: DO readings were collected at the following depths: MP-1-1S (66 feet), MP-1-1D (~45 feet), MP-1-2S (46 feet), MP-1-2D (~41 feet), MP-1-3S (49 feet), MP-1-3D (~40 feet), MP-1-4S (53 feet), MP-1-4D (~35 feet), MP-1-5 (78 feet), MP-1-6 (61 feet), MP-1-7 (64 feet) and MP-1-8 (58 feet).

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 12/30/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) Normal (green) X High (orange)
3) Oil added Yes No X
4) Oil changed Yes No X
5) Oil filter changed Yes No X
6) Air filter Changed Yes No X
7) Oil separator changed Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Profiler changed Yes No X
2) Coalescing changed Yes No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No
2) Abnormal conditions observed (e.g. vandalism)
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

12-30-16 Found system running upon arrival. Found problem with water knock out bowl blowing out steady flow of air and water. Took apart and found float soaked with cooling oil. Cleaned all components and put back together. Found problem with exhaust valve on oxygen generator not working correctly. Took apart and found small vent holes clogged up. Cleaned up unit and reinstalled. Wiped down all equipment and cleaned up debris and leaves around shed. Left system running. Installed orange snow fence on top of hill to prevent cars from being parked close to system gates.

OW-1-19S remains off due to leaking line.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-934-323 tied into Pole #4

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	7/28/2016
Time:	12:45
Weather:	Sunny
Outdoor Temperature:	~90° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	33,180	
Feed Air Pressure *	95	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	120	(psi)
Oxygen Purity	80.2	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	95	(psi)
(readings below are made from control panel)		
Delivery Air	105	(psi)
Element Outlet Temperature	162	(^{o}F)
	33319	
Running Hours	34,017	(hours)
Loading Hours	32,647	(hours)

* maximum reading during loading cycle

O_2 Injection System #2

Injection Bank A				Injection Bank B				Injection Bank C			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-2	90.2'	30	31	OW-2-9S	75'	40	19	OW-2-10D	97.2'	35	28
OW-2-3	94.3'	30	30	OW-2-10S	75'	40	30	OW-2-11D	100.8'	30	33
OW-2-4	94.7'	30	33	OW-2-11S	76.5'	40	23	OW-2-12	94'	30	20
OW-2-5	95.3'	35	29	OW-2-13S	75'	30	21	OW-2-13D	97'	35	36
OW-2-6	95.7'	30	31	OW-2-15S	75'	30	20	OW-2-14	96.4'	30	29
OW-2-7	96'	35	30	OW-2-16S	75.5'	30	20	OW-2-15D	94.6'	30	28
OW-2-8	96.3'	30	30	OW-2-18S	74.5'	30	30	OW-2-16D	94.1'	30	28
OW-2-9D	96.7'	30	31	OW-2-20S	79'	30	31	OW-2-17	95'	30	30

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 7/28/2016

O_2 Injection System #2

Injection Bank D				Injection Bank E				Injection Bank F			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-18D	95.5'	30	32	OW-2-22S	76'	30	20	OW-2-26D	95'	30	28
OW-2-19	96.1'	30	31	OW-2-24S	77.8'	30	25	OW-2-27	93.5'	30	29
OW-2-20D	96.6'	25	31	OW-2-26S	74'	30	21	OW-2-28D	92.1'	30	28
OW-2-21	96.6'	35	30	OW-2-28S	76'	25	21	OW-2-29	92.2'	30	28
OW-2-22D	96.3'	30	30	OW-2-30S	67.8'	35	18	OW-2-30D	88'	30	27
OW-2-23	97.2'	30	29	OW-2-34	71'	35	21	OW-2-31	86'	30	27
OW-2-24D	97'	40	30	OW-2-35	69.2'	35	21	OW-2-32	84'	30	31
OW-2-25	96'	45	29	OW-2-36	64.8'	30	20	OW-2-33	82'	35	33

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection banks D & E are turned off.

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	30	21	OW-2-45	61.1'	30	20	MP-2-1	32.22	24.29	0.3
OW-2-38	62.1'	30	21	OW-2-46	61'	30	22	MP-2-2	33.55	17.38	0.1
OW-2-39	60'	30	20	OW-2-47	60.5'	30	20	MP-2-3S	33.46	32.22	0.1
OW-2-40	61.7'	35	20					MP-2-3D	33.31	36.17	0.4
OW-2-41	61.7'	35	21					MP-2-4	22.13	25.12	0.2
OW-2-42	61.6'	30	19					MP-2-5	20.21	17.95	0
OW-2-43	61.4'	30	22								
OW-2-44R	60.6'	25	22								

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 7/28/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) Normal (green) X High (orange)
3) Oil added Yes No X
4) Oil changed Yes No X
5) Oil filter changed Yes No X
6) Air filter Changed Yes No X
7) Oil separator cleaned Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Prefilter changed Yes No X
2) Coalescing changed Yes No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No
2) Abnormal conditions observed (e.g. vandalism
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

7-28-16 Found system running upon arrival. Soaked up small amount of oil and water from separator unit. Changed fresh air filter on shed due to heavy dust buildup. Wiped down all equipment and cleaned up debris around shed. Left system running.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-929-544 tied into Pole #3

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	8/25/2016
Time:	13:30
Weather:	Sunny
Outdoor Temperature:	~88° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	33,679	
Feed Air Pressure *	70	(psi)
Cycle Pressure *	60	(psi)
Oxygen Receiver Pressure *	125	(psi)
Oxygen Purity	89	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	100	(psi)
(readings below are made from control panel)		
Delivery Air	105	(psi)
Element Outlet Temperature	172	(^{o}F)
Running Hours	34,676	(hours)
Loading Hours	33,151	(hours)

* maximum reading during loading cycle

O_2 Injection System #2

Injection Bank A				Injection Bank B				Injection Bank C			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-2	90.2'	40	31	OW-2-9S	75'	30	18	OW-2-10D	97.2'	30	27
OW-2-3	94.3'	45	30	OW-2-10S	75'	35	30	OW-2-11D	100.8'	35	31
OW-2-4	94.7'	35	32	OW-2-11S	76.5'	25	23	OW-2-12	94'	35	20
OW-2-5	95.3'	30	30	OW-2-13S	75'	30	20	OW-2-13D	97'	45	36
OW-2-6	95.7'	20	30	OW-2-15S	75'	30	20	OW-2-14	96.4'	30	29
OW-2-7	96'	35	30	OW-2-16S	75.5'	30	20	OW-2-15D	94.6'	30	29
OW-2-8	96.3'	30	30	OW-2-18S	74.5'	40	19	OW-2-16D	94.1'	30	27
OW-2-9D	96.7'	30	30	OW-2-20S	79'	50	22	OW-2-17	95'	30	29

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 8/25/2016

O_2 Injection System #2

Injection Bank D				Injection Bank E				Injection Bank F			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-18D	95.5'	30	31	OW-2-22S	76'	30	20	OW-2-26D	95'	30	28
OW-2-19	96.1'	30	30	OW-2-24S	77.8'	35	25	OW-2-27	93.5'	30	29
OW-2-20D	96.6'	25	31	OW-2-26S	74'	40	21	OW-2-28D	92.1'	25	27
OW-2-21	96.6'	30	30	OW-2-28S	76'	40	20	OW-2-29	92.2'	25	28
OW-2-22D	96.3'	35	29	OW-2-30S	67.8'	30	18	OW-2-30D	88'	30	28
OW-2-23	97.2'	30	31	OW-2-34	71'	30	22	OW-2-31	86'	30	27
OW-2-24D	97'	30	30	OW-2-35	69.2'	30	22	OW-2-32	84'	30	30
OW-2-25	96'	40	30	OW-2-36	64.8'	30	34	OW-2-33	82'	35	33

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection banks D & E are turned off.

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	40	22	OW-2-45	61.1'	30	21	MP-2-1	32.70	26.78	20.3
OW-2-38	62.1'	25	22	OW-2-46	61'	35	21	MP-2-2	34.05	28.12	7.0
OW-2-39	60'	35	20	OW-2-47	60.5'	35	20	MP-2-3S	33.94	38.32	2.5
OW-2-40	61.7'	40	20					MP-2-3D	34.08	39.21	2.1
OW-2-41	61.7'	40	20					MP-2-4	22.61	28.27	6.2
OW-2-42	61.6'	30	18					MP-2-5	20.81	32.53	15.4
OW-2-43	61.4'	30	21								
OW-2-44R	60.6'	30	20								

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 8/25/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) X Normal (green) High (orange)
3) Oil added Yes X No
4) Oil changed Yes No X
5) Oil filter changed Yes No X
6) Air filter Changed Yes No X
7) Oil separator cleaned Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Prefilter changed Yes No X
2) Coalescing changed Yes No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No
2) Abnormal conditions observed (e.g. vandalism
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

8-25-16 Found system running upon arrival. Soaked up small amount of oil and water from separator unit. Added small amount of oi lot compressor unit. Repaired small leak in auto drain. Wiped down all equipment and cleaned up debris around shed. Left system running.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-929-544 tied into Pole #3

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	10/3/2016
Time:	11:15
Weather:	Cloudy
Outdoor Temperature:	~69° F
Inside Trailer Temperature:	~70° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	34,480	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	120	(psi)
Oxygen Purity	80.1	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	105	(psi)
(readings below are made from control panel)		
Delivery Air	110	(psi)
Element Outlet Temperature	172	(^{o}F)
Running Hours	35,610	(hours)
Loading Hours	33,954	(hours)

* maximum reading during loading cycle

O_2 Injection System #2

Injection Bank A				Injection Bank B				Injection Bank C			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-2	90.2'	30	31	OW-2-9S	75'	35	18	OW-2-10D	97.2'	30	27
OW-2-3	94.3'	40	29	OW-2-10S	75'	30	30	OW-2-11D	100.8'	30	33
OW-2-4	94.7'	30	33	OW-2-11S	76.5'	30	20	OW-2-12	94'	30	21
OW-2-5	95.3'	30	32	OW-2-13S	75'	30	21	OW-2-13D	97'	25	36
OW-2-6	95.7'	30	30	OW-2-15S	75'	30	20	OW-2-14	96.4'	30	28
OW-2-7	96'	35	29	OW-2-16S	75.5'	40	20	OW-2-15D	94.6'	35	28
OW-2-8	96.3'	35	31	OW-2-18S	74.5'	40	20	OW-2-16D	94.1'	35	29
OW-2-9D	96.7'	30	30	OW-2-20S	79'	45	22	OW-2-17	95'	30	30

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 10/3/2016

O_2 Injection System #2

Injection Bank D				Injection Bank E				Injection Bank F			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-18D	95.5'	30	31	OW-2-22S	76'	30	28	OW-2-26D	95'	30	28
OW-2-19	96.1'	30	30	OW-2-24S	77.8'	30	30	OW-2-27	93.5'	40	29
OW-2-20D	96.6'	30	32	OW-2-26S	74'	30	29	OW-2-28D	92.1'	45	27
OW-2-21	96.6'	35	30	OW-2-28S	76'	30	28	OW-2-29	92.2'	40	28
OW-2-22D	96.3'	40	28	OW-2-30S	67.8'	35	28	OW-2-30D	88'	30	27
OW-2-23	97.2'	40	30	OW-2-34	71'	35	27	OW-2-31	86'	30	27
OW-2-24D	97'	25	30	OW-2-35	69.2'	30	30	OW-2-32	84'	30	30
OW-2-25	96'	25	28	OW-2-36	64.8'	35	33	OW-2-33	82'	30	33

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection banks D & E are turned off.

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	40	20	OW-2-45	61.1'	30	21	MP-2-1	33.40	23.47	0
OW-2-38	62.1'	40	21	OW-2-46	61'	30	21	MP-2-2	34.74	27.82	0.2
OW-2-39	60'	40	19	OW-2-47	60.5'	30	20	MP-2-3S	34.60	39.11	0.1
OW-2-40	61.7'	30	21					MP-2-3D	34.76	41.48	0
OW-2-41	61.7'	30	20					MP-2-4	23.33	33.91	0
OW-2-42	61.6'	30	19					MP-2-5	21.48	36.21	0
OW-2-43	61.4'	30	22								
OW-2-44R	60.6'	30	20								

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 10/3/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) X Normal (green) High (orange)
3) Oil added Yes X No
4) Oil changed Yes No X
5) Oil filter changed Yes No X
6) Air filter Changed Yes No X
7) Oil separator cleaned Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Prefilter changed Yes No X
2) Coalescing changed Yes No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No
2) Abnormal conditions observed (e.g. vandalism
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

9-23-16 Started painting exterior of shed. Sealed areas around electric panel with silicone.

10-3-16 Found system running upon arrival. Soaked up small amount of oil and water from separator unit. Added small amount of oil to compressor unit. Repaired small leak in hose of manifold. Wiped down all equipment and cleaned up debris around shed. Finished painting exterior of shed. Left system running.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-929-544 tied into Pole #3

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	11/1/2016
Time:	10:30
Weather:	Sunny
Outdoor Temperature:	~59° F
Inside Trailer Temperature:	~65° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	34,796	
Feed Air Pressure *	105	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	120	(psi)
Oxygen Purity	78	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	110	(psi)
(readings below are made from control panel)		
Delivery Air	112	(psi)
Element Outlet Temperature	159	(^{o}F)
Running Hours	36,001	(hours)
Loading Hours	34,271	(hours)

* maximum reading during loading cycle

O_2 Injection System #2

Injection Bank A				Injection Bank B				Injection Bank C			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-2	90.2'	30	31	OW-2-9S	75'	25	18	OW-2-10D	97.2'	30	27
OW-2-3	94.3'	35	30	OW-2-10S	75'	30	30	OW-2-11D	100.8'	40	22
OW-2-4	94.7'	35	32	OW-2-11S	76.5'	35	23	OW-2-12	94'	40	20
OW-2-5	95.3'	35	30	OW-2-13S	75'	30	21	OW-2-13D	97'	35	36
OW-2-6	95.7'	40	30	OW-2-15S	75'	30	20	OW-2-14	96.4'	40	29
OW-2-7	96'	30	30	OW-2-16S	75.5'	30	20	OW-2-15D	94.6'	30	28
OW-2-8	96.3'	30	31	OW-2-18S	74.5'	30	20	OW-2-16D	94.1'	35	20
OW-2-9D	96.7'	30	30	OW-2-20S	79'	30	22	OW-2-17	95'	30	22

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 11/1/2016

O_2 Injection System #2

Injection Bank D				Injection Bank E				Injection Bank F			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-18D	95.5'	30	31	OW-2-22S	76'	30	20	OW-2-26D	95'	30	28
OW-2-19	96.1'	30	29	OW-2-24S	77.8'	25	25	OW-2-27	93.5'	30	30
OW-2-20D	96.6'	30	31	OW-2-26S	74'	25	19	OW-2-28D	92.1'	30	27
OW-2-21	96.6'	35	29	OW-2-28S	76'	30	20	OW-2-29	92.2'	30	27
OW-2-22D	96.3'	25	27	OW-2-30S	67.8'	30	17	OW-2-30D	88'	30	27
OW-2-23	97.2'	30	30	OW-2-34	71'	30	20	OW-2-31	86'	30	27
OW-2-24D	97'	30	30	OW-2-35	69.2'	40	20	OW-2-32	84'	30	30
OW-2-25	96'	30	30	OW-2-36	64.8'	30	20	OW-2-33	82'	30	21

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection banks D & E are turned off.

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	30	20	OW-2-45	61.1'	30	20	MP-2-1	33.54	23.99	0
OW-2-38	62.1'	20	21	OW-2-46	61'	25	20	MP-2-2	34.87	29.21	0.1
OW-2-39	60'	25	19	OW-2-47	60.5'	30	20	MP-2-3S	34.75	38.05	0
OW-2-40	61.7'	30	20					MP-2-3D	34.89	40.55	0
OW-2-41	61.7'	30	20					MP-2-4	23.47	35.11	0
OW-2-42	61.6'	30	19					MP-2-5	36.41	37.85	0
OW-2-43	61.4'	40	21								
OW-2-44R	60.6'	30	20								

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 11/1/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) X Normal (green) High (orange)
3) Oil added Yes X No
4) Oil changed Yes X No
5) Oil filter changed Yes X No
6) Air filter Changed Yes X No
7) Oil separator cleaned Yes X No
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Prefilter changed Yes X No
2) Coalescing changed Yes X No

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No
2) Abnormal conditions observed (e.g. vandalism
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

10-27&28-16 Shut down system to conduct semi-annual routine maintenance on system. Took apart air compressor and drained all cooling oil and removed filers. Removed cooling canister and cleaned out sludge buildup in base. Disconnect all cooling lines and auto drain lines and flushed out sludge buildup. Repaired melted wire on senor in air compressor. Wiped down motor compartment, changed air filters, and replaced screens at check valves. Installed new oil filter and filled unit with new oil. Rebuilt two auto drains that were clogged. Checked out Air Sep unit and replaced both filters. Repaired small leak in check valve. Restarted system and left running.

11-1-16 Found system running upon arrival. Reset pressure reading on Air Sep unit at regulator. Repaired leak on stainless steel hoe connector. Wiped down all equipment and cleaned up debris around shed. Left system running.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-929-544 tied into Pole #3

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	11/29/2016
Time:	11:50
Weather:	Rain
Outdoor Temperature:	~55° F
Inside Trailer Temperature:	~60° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	34,796	
Feed Air Pressure *	110	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	95	(psi)
Oxygen Purity	21.5	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	110	(psi)
(readings below are made from control panel)		
Delivery Air	112	(psi)
Element Outlet Temperature	162	(^{o}F)
Running Hours	36,637	(hours)
Loading Hours	34,345	(hours)

* maximum reading during loading cycle

O_2 Injection System #2

Injection Bank A				Injection Bank B				Injection Bank C			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-2	90.2'	30	31	OW-2-9S	75'	30	19	OW-2-10D	97.2'	30	27
OW-2-3	94.3'	35	30	OW-2-10S	75'	30	30	OW-2-11D	100.8'	35	33
OW-2-4	94.7'	45	32	OW-2-11S	76.5'	30	23	OW-2-12	94'	35	20
OW-2-5	95.3'	40	30	OW-2-13S	75'	35	20	OW-2-13D	97'	35	36
OW-2-6	95.7'	30	30	OW-2-15S	75'	40	20	OW-2-14	96.4'	30	28
OW-2-7	96'	25	29	OW-2-16S	75.5'	30	20	OW-2-15D	94.6'	30	29
OW-2-8	96.3'	30	30	OW-2-18S	74.5'	30	19	OW-2-16D	94.1'	30	28
OW-2-9D	96.7'	30	31	OW-2-20S	79'	40	22	OW-2-17	95'	30	30

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 11/29/2016

O_2 Injection System #2

Injection Bank D				Injection Bank E				Injection Bank F			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-18D	95.5'	30	32	OW-2-22S	76'	30	20	OW-2-26D	95'	30	29
OW-2-19	96.1'	40	30	OW-2-24S	77.8'	30	25	OW-2-27	93.5'	35	30
OW-2-20D	96.6'	40	31	OW-2-26S	74'	30	21	OW-2-28D	92.1'	45	27
OW-2-21	96.6'	40	28	OW-2-28S	76'	35	22	OW-2-29	92.2'	40	28
OW-2-22D	96.3'	30	29	OW-2-30S	67.8'	30	18	OW-2-30D	88'	40	28
OW-2-23	97.2'	30	31	OW-2-34	71'	30	19	OW-2-31	86'	30	28
OW-2-24D	97'	30	30	OW-2-35	69.2'	35	21	OW-2-32	84'	35	30
OW-2-25	96'	30	30	OW-2-36	64.8'	35	20	OW-2-33	82'	30	34

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection banks D & E are turned off.

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	30	20	OW-2-45	61.1'	30	20	MP-2-1	33.98	24.86	0
OW-2-38	62.1'	30	21	OW-2-46	61'	30	21	MP-2-2	35.33	21.12	0
OW-2-39	60'	30	21	OW-2-47	60.5'	35	21	MP-2-3S	35.21	30.07	0
OW-2-40	61.7'	30	20					MP-2-3D	35.34	28.00	0
OW-2-41	61.7'	30	20					MP-2-4	23.91	35.34	0
OW-2-42	61.6'	20	18					MP-2-5	22.07	33.04	0
OW-2-43	61.4'	30	21								
OW-2-44R	60.6'	35	21								

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 11/29/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) Normal (green) X High (orange)
3) Oil added Yes No X
4) Oil changed Yes No X
5) Oil filter changed Yes No X
6) Air filter Changed Yes No X
7) Oil separator cleaned Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Prefilter changed Yes No X
2) Coalescing changed Yes No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No
2) Abnormal conditions observed (e.g. vandalism
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

11-29-16 Found system running upon arrival. Found oxygen level extremely low. Traced out problem to a blown fuse in the air sep control panel. Replaced fuse as needed. Drain oxygen tanks and restarted system. Wiped down all equipment and cleaned up debris and leaves around shed. Left system running.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-929-544 tied into Pole #3

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	12/29/2016
Time:	11:30
Weather:	Rain
Outdoor Temperature:	~50° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	35,279	
Feed Air Pressure *	105	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	100	(psi)
Oxygen Purity	79	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	115	(psi)
(readings below are made from control panel)		
Delivery Air	115	(psi)
Element Outlet Temperature	163	(^{o}F)
Running Hours	37,309	(hours)
Loading Hours	34,834	(hours)

* maximum reading during loading cycle

O_2 Injection System #2

Injection Bank A				Injection Bank B				Injection Bank C			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-2	90.2'	30	30	OW-2-9S	75'	25	20	OW-2-10D	97.2'	30	28
OW-2-3	94.3'	35	30	OW-2-10S	75'	35	30	OW-2-11D	100.8'	30	33
OW-2-4	94.7'	35	33	OW-2-11S	76.5'	30	24	OW-2-12	94'	20	20
OW-2-5	95.3'	35	32	OW-2-13S	75'	30	22	OW-2-13D	97'	30	36
OW-2-6	95.7'	40	30	OW-2-15S	75'	30	20	OW-2-14	96.4'	30	28
OW-2-7	96'	25	30	OW-2-16S	75.5'	35	20	OW-2-15D	94.6'	30	28
OW-2-8	96.3'	30	30	OW-2-18S	74.5'	45	20	OW-2-16D	94.1'	25	28
OW-2-9D	96.7'	30	31	OW-2-20S	79'	30	22	OW-2-17	95'	30	30

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 12/29/2016

O_2 Injection System #2

Injection Bank D				Injection Bank E				Injection Bank F			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-18D	95.5'	30	31	OW-2-22S	76'	40	20	OW-2-26D	95'	35	28
OW-2-19	96.1'	30	30	OW-2-24S	77.8'	30	25	OW-2-27	93.5'	30	29
OW-2-20D	96.6'	30	31	OW-2-26S	74'	30	20	OW-2-28D	92.1'	30	27
OW-2-21	96.6'	40	34	OW-2-28S	76'	30	22	OW-2-29	92.2'	30	28
OW-2-22D	96.3'	40	28	OW-2-30S	67.8'	30	18	OW-2-30D	88'	35	28
OW-2-23	97.2'	45	30	OW-2-34	71'	35	20	OW-2-31	86'	35	28
OW-2-24D	97'	40	28	OW-2-35	69.2'	30	21	OW-2-32	84'	35	30
OW-2-25	96'	35	28	OW-2-36	64.8'	30	20	OW-2-33	82'	35	34

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection banks D & E are turned off.

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	40	20	OW-2-45	61.1'	30	20	MP-2-1	33.85	22.18	0.2
OW-2-38	62.1'	40	22	OW-2-46	61'	35	21	MP-2-2	37.18	19.88	0
OW-2-39	60'	30	20	OW-2-47	60.5'	35	21	MP-2-3S	35.03	31.28	0.4
OW-2-40	61.7'	30	20					MP-2-3D	34.98	33.00	0.6
OW-2-41	61.7'	35	20					MP-2-4	23.73	27.25	0
OW-2-42	61.6'	30	18					MP-2-5	21.88	25.57	0
OW-2-43	61.4'	40	22								
OW-2-44R	60.6'	30	22								

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 12/29/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) Normal (green) X High (orange)
3) Oil added Yes No X
4) Oil changed Yes No X
5) Oil filter changed Yes No X
6) Air filter Changed Yes No X
7) Oil separator cleaned Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Prefilter changed Yes No X
2) Coalescing changed Yes No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No
2) Abnormal conditions observed (e.g. vandalism
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

12-29-16 Found system running upon arrival. Found puddle of water on floor around separator canister. Found small crack in plastic water bowl. Repaired unit with silicone and tested with no leaks. Wiped down all equipment and cleaned up debris and leaves around shed. Left system running.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-929-544 tied into Pole #3

Action Items: