Third Semiannual Monitoring (SA3) Report (January – June 2017) and First Annual Periodic Review Report (PRR1)

Site Management Plan Monitoring

Former Clifton Manufactured Gas Plant
Staten Island, New York
NYSDEC Site No.: 2-43-023
Order on Consent Index #: D2-0001-98-04

Prepared for:
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February 2018

First Annual Periodic Review Report Certification

Former Clifton Manufactured Gas Plant
Staten Island, New York
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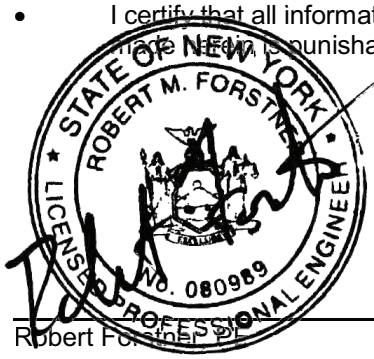
For each Engineering/Institutional Control identified for the site and off-site areas, I certify that all of the following statements are true, with the exception of the 53 Lynhurst Avenue property (for which site access was not provided by the property owner):

- The inspection of the site and off-site areas to confirm the effectiveness of the Engineering/Institutional Controls required by the remedial program was performed under my direction;
- The Engineering/Institutional Controls employed at this site and off-site areas are unchanged from the date the control was put in place, or last approved by the NYSDEC;
- Nothing has occurred that would impair the ability of the control to protect human health and the environment;
- Nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for the Engineering/Institutional Controls;
- Access is available to the site and off-site areas by the NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of the Engineering/Institutional Controls;
- Use of the site and off-site areas is compliant with the environmental easement;
- The Engineering Controls systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices;
- The information presented in this report is accurate and complete; and
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable



Robert Forstner, PE	080989	2/16/2018
	NYS Professional Engineer #	Date

February 2018

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List of Acronyms

DNAPL	Dense Non-Aqueous Phase Liquid
DUSR	Data Usability Summary Report
EC	Engineering Control
ECL	Environmental Conservation Law
IC	Institutional Control
MGP	Manufactured Gas Plant
MNA	Monitored Natural Attenuation
NYSDEC	New York State Department of Environmental Conservation
PRR	Periodic Review Report
Report	Third Semiannual Monitoring (SA3) Report and First Periodic Review Report
SA	Semi-Annual
Site	Former Clifton Manufactured Gas Plant located in Staten Island, New York
SMP	Site Management Plan
SPDES	State Pollutant Discharge Elimination System

1.0 Introduction

This Third Semiannual Monitoring Report (SA3) and First Annual Periodic Review Report (PRR1) has been prepared by AECOM, on behalf of National Grid, to evaluate the on-going performance and effectiveness of the engineering and institutional controls at the Former Clifton Manufactured Gas Plant (the Site, Figure 1), located in Staten Island, New York. This Report summarizes and documents the results of monitoring activities completed at the Site from January 2017 through June 2017. Activities were completed in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (AECOM, 2016d; SMP). This is the third Semiannual Monitoring Report since the SMP was finalized in January 2016. Interim monitoring activities were completed from 2014 through 2015, and were reported upon separately.

The Site was remediated in accordance with the NYSDEC Records of Decision (NYSDEC, 2004 and NYSDEC, 2006) and as documented in the SMP. Manufactured Gas Plant (MGP)-related residuals remaining in Site soils and groundwater are being managed in accordance with the SMP. The SMP provides details of institutional controls (ICs) and engineering controls (ECs) that restrict exposure to the MGP-related residuals. The SMP will include Environmental Easements (currently pending finalization), when they are executed in accordance with New York State Environmental Conservation Law (ECL) Article 71, Title 36.

This SA3 and Annual PRR includes details on the following activities completed at the Site during the reporting period:

- Dense Non-Aqueous Phase Liquid (DNAPL) gauging and recovery;
- Depressurization pump and treat system operation and maintenance, and State Pollutant Discharge Elimination System (SPDES) permit equivalent-required sampling;
- Details of ground-intrusive activities within the SMP limits; and
- An Annual Periodic Inspection completed on Site and off-Site areas to ensure the ECs and ICs are effective and in compliance with the requirements of the SMP.

2.0 Background

The Site is located in Staten Island, New York. The Site, as defined in the SMP, includes all or portions of 25 Willow Avenue and 40 Willow Avenue (Figure 2). The off-Site areas, as defined in the SMP, include all or portions of One Edgewater Street, 89 Willow Avenue (owned by National Grid but outside of the Operable Unit boundaries and considered off-Site for purposes of the SMP), 53 Lynhurst Avenue, properties east of 25 Willow Avenue (Block 2822, Lots 21, 22, 23, 24, and 26), and New York City rights-of-way along Willow Avenue, Bay Street, and Edgewater Street (Figure 2).

The SMP, approved by the NYSDEC in January 2016, concludes the remedy implementation at the Site. The SMP outlines a number of ECs and ICs required to manage the remaining MGP-related impacts at the Site. In particular, these ECs include:

- Subsurface vertical DNAPL barrier walls;
- A subsurface vertical containment cell;
- A containment cell depressurization system;
- Soil cover systems;
- Composite cover systems;
- Passive DNAPL collection systems; and
- Monitored natural attenuation (MNA).

ICs place restrictions on certain Site activities and require periodic monitoring to evaluate the performance and effectiveness of the Site remedy for reducing and mitigating remaining impacts at the Site and off-Site areas.

An interim monitoring program of similar scope was in place for approximately two years, from 2014 through 2015, prior to approval of the SMP.

3.0 Activities

3.1 Containment Cell Depressurization System

A depressurization pump and treatment system (system) was installed in 2015 and 2016 on the 40 Willow Avenue property to maintain the integrity of the containment cell that was constructed on that property. The system removes groundwater from the containment cell so that pressure does not build up within it and potentially cause a failure. The system is comprised of a groundwater extraction pump, wastewater treatment plant (WWTP), and discharge to New York Harbor via a storm sewer line under a SPDES permit equivalent. The Containment Pad Depressurization System – Final Construction Completion Report (AECOM, 2016a) provides details of the construction of the system. Start-up of the system, and routine operation, began in January 2016.

As required by the SPDES permit equivalent, effluent from the system was sampled on a monthly basis during the monitoring period. Effluent sample results for January through June 2017 are summarized in Table 1. A Data Usability Summary Report (DUSR) is included as Appendix A. Monthly effluent sample results demonstrate that the system has been operating in accordance with the terms of the SPDES permit equivalent during the period of this Report.

Throughout the period of this Report, the system operated as intended with intermittent, short-term shutdowns due to various causes:

- Between January 13, 2017 and January 18, 2017 the groundwater extraction pump faulted due to a lubrication issue; it resumed normal operation on January 18, 2017.
- On May 19, 2017, an overflow from an ISCO^{TM} automated sampler during the routine monthly sampling event into the containment sump triggered an alarm condition that temporarily halted system operation; the overflow water was collected from the containment sump and the system resumed operation the same day.
- From May 27, 2017 through June 16, 2017 the groundwater extraction ceased automatic operation, but no alarm conditions were registered and the system remained capable of operation in a manual bypass mode. The groundwater extraction pump was temporarily set to operate in manual mode beginning June 6, 2017 while the control issue was investigated. The cause of the interruption of automatic operation was determined to be an open-loop set point issue; this issue was cleared and the system resumed routine automatic operation on June 16, 2017.

The intermittent, short-term shutdowns of the depressurization system did not result in any impacts to the effectiveness of the containment cell.

3.2 DNAPL Collection System

The Site DNAPL collection system is being monitored and DNAPL recovery is occurring in accordance with the SMP. Previous Interim Status and Semiannual Reports (AECOM, 2014b, AECOM, 2015a, AECOM, 2015b, AECOM, 2016b, AECOM, 2016c and AECOM, 2017) described in detail the initial testing and results, and gauging and removal program that has been implemented to date.

3.2.1 DNAPL Recovery Well Network

There are currently 25 passive DNAPL recovery wells at the Site for gauging of DNAPL levels, if any, and recovery of DNAPL, if present. One well was removed from the network during the NYSDEC-approved abandonment in May 2017 (see Section 3.5.1 below). Well construction details are summarized in Table 2, and details including construction logs and development logs are provided in the Construction Completion Report (AECOM, 2014a) and SMP (AECOM, 2016d). Three DNAPL recovery

wells were initially installed in 2009 within the containment cell on the 40 Willow Avenue property and twenty-three DNAPL recovery wells were installed in 2013 adjacent to the vertical subsurface DNAPL barrier wall (slurry wall) along Willow Avenue and Bay Street. One of the 40 Willow Avenue recovery wells was abandoned in May 2017, in accordance with the SMP, reducing the total number of wells in the network to 25. The DNAPL recovery well network along Willow Avenue, including the containment cell and along Bay Street, is shown in Figures 3 and 4, respectively.

3.2.2 DNAPL Gauging

As called for in the SMP, the DNAPL recovery wells are gauged on a bi-weekly, monthly, quarterly or annual basis to check for the presence of DNAPL. The most recent round of gauging that included all DNAPL recovery wells (including wells scheduled for bi-weekly, monthly, quarterly and annual inspection) was completed on June 1, 2017. The recovery wells are gauged using a weighted stainless steel measuring tape as well as an Oil/Water Interface probe. Observations of blebs and sheens on the interface probe measuring tape are noted but not used to calculate DNAPL thickness. Observations from the weighted measuring tape are used to determine DNAPL thickness because the wire of the Oil/Water Interface probe can become thickly coated with DNAPL and not sink fully, providing inaccurate data. The results from the gauging events during the period of this Report are included in Table 3.

3.2.3 DNAPL Removal and Disposal

As called for in the SMP and Record of Decision, DNAPL is removed from wells where present and removable. Since completion of a Baildown Test (AECOM, 2014b), DNAPL accumulated within the recovery wells has been removed as appropriate to the rate of DNAPL accumulation in each recovery well. Following gauging, recoverable DNAPL is removed from the wells. DNAPL is removed using the AECOM air lift™ (compressed air vacuum), peristaltic pumps or steel bailers as appropriate, based on the rate of accumulation and viscosity of the DNAPL at each recovery well. DNAPL removed from the recovery wells is containerized in 55-gallon drums, which are staged on-site on drum containment pads or in drum containment sheds until transported for off-site disposal.

The volume of DNAPL and water (fluid mixture) recovered from each recovery well between January 2010 and June 2017, and for each recovery event in 2017 – through June – is provided in Table 4. In summary, through the end of June 2017, the following cumulative volumes have been removed from ten (10) recovery wells:

- RW-201I – 554 gallons since 2010, 47 gallons from January through June 2017;
- RW-205D – 358 gallons since 2010, 40 gallons from January through June 2017;
- RW-206IA – 15 gallons since 2010, none from January through June 2017;
- RW-206IB – 94 gallons since 2010, 3 gallons from January through June 2017;
- RW-207I – 250 gallons since 2010, 51 gallons from January through June 2017;
- RW-208I – 1,305 gallons since 2010, 116 gallons from January through June 2017;
- RW-209S – 63 gallons since 2010, 2 gallons from January through June 2017;
- RW-211I – 92 gallons since 2010, 14 gallons from January through June 2017;
- NRW-02I – 48 gallons since 2010, none from January through June 2017; and
- NRW-03D – 39 gallons since 2010, 15 gallons removed in May 2017 in preparation for well abandonment.

Disposal of the recovered DNAPL and water mixture stored on-site occurred on a regular basis. Manifests for DNAPL/water mixture disposal are included in Appendix B.

In accordance with the requirements of the SMP and revisions to the recovery well monitoring program approved as part of the Fourth Semi-Annual Interim Monitoring Report, National Grid will continue DNAPL recovery efforts according to the following schedule:

- RW-208I on a bi-weekly basis;
- RW-201I and RW-205D on a monthly basis;
- RW-206IB, RW-207I, RW-209S, and RW-211I on a quarterly basis; and
- The remaining eighteen (18) recovery wells on an annual basis (if DNAPL is present).

3.3 Cover System Monitoring

As described in the SMP, there are two cover systems installed at the Site and off-Site areas (Figure 5):

- A soil cover system comprised of a minimum of 24-inches of clean fill placed over a portion of the Site (25 Willow Avenue) and off-Site areas (89 Willow Avenue); and
- A composite cover system comprised of a minimum of 6-inches of concrete cap, concrete foundations, soil, and/or asphalt placed on the Site (40 Willow Avenue) and off-Site areas (One Edgewater Street, 89 Willow Avenue, 53 Lyndhurst Avenue, properties east of 25 Willow Avenue, and New York City rights-of-way).

There were no activities during the report period causing disturbance to the cover systems other than the monitoring well and piezometer abandonments completed in May 2017, after which the covers were patched in a manner appropriate to each location.

3.4 DNAPL Barrier Monitoring

There has been no activity or event on-Site that is known to have impacted the subsurface remedial infrastructure (vertical barrier walls and the containment cell) from January through June 2017.

3.5 Groundwater Flow and Monitoring

The monitoring well network is to be initially monitored annually for a period of three years, and biannually thereafter. The first round of annual groundwater sampling was conducted in December, 2016; results from that sampling event are discussed in the Second Semiannual Monitoring Report (SA2, AECOM 2017). Groundwater monitoring may be discontinued in monitoring wells if concentrations decrease below New York State Ambient Water Quality Standards for two consecutive sampling events, and approved by the NYSDEC. The sampling frequency may also be modified with the approval of the NYSDEC. The SMP will be modified to reflect changes in sampling plans approved by the NYSDEC. Annual groundwater sampling for 2017 is currently scheduled for December 20-21, 2017.

3.5.1 Well Abandonment

The Post-Remediation Groundwater Monitoring Work Plan (AECOM, 2014c) called for the abandonment of 12 wells and piezometers. Between May 22, 2017 and May 24, 2017 six of these locations – NRW-03D, RW-04, RW-12, and three former vibrating wire piezometer locations within the containment cell – were decommissioned in accordance with the Post-Remediation Groundwater Monitoring Work Plan (AECOM, 2014c). Five other locations (PZ-19, PZ-20, PZ-21 and two unnumbered piezometers) are planned for abandonment, pending granting of property access. The twelfth location scheduled for abandonment pursuant to the Work Plan, RW-21, could not be located during multiple site reconnaissance efforts and is presumed destroyed. Abandonments completed to date include the following:

- RW-12 was initially tremie grouted on May 22, 2017, and then topped off with grout and concreted flush with the surrounding grade the following day (May 23). The PVC riser at RW-12 could not be removed, and was instead cut down as far as possible prior to concreting.
- NRW-03D was decommissioned on May 22, 2017 through the application of bentonite chips inside the sump to immobilize remaining DNAPL which could not be recovered and to reduce artesian well conditions, and then tremie grouted. The manhole was concreted flush with the surrounding grade on the following day (May 23).
- The three vibratory wire piezometer locations (PZ1, PZ3 and PZ4) were grouted and cut down on May 23, 2017. Their respective manholes were then filled with approximately one foot of a sand and gravel mixture, and concreted flush with the surrounding grade with approximately five inches of concrete.
- RW-04 was decommissioned on May 24, 2017. A nine-foot PVC extension was attached to the riser to relieve artesian pressure, and then the screened interval (located from 79 to 90 feet below ground surface) was sealed with bentonite chips. After the bentonite was hydrated – stopping the artesian pressure – the well was tremie grouted. The PVC extension was then removed, grout in the riser was topped off, the top one foot of the PVC riser and the road box were removed, and the area was concreted flush with the surrounding grade.

A photo log summary documenting the abandonment of the monitoring wells is included in Appendix C.

3.6 Site Inspection

The Site-wide annual inspection was completed on June 27, 2017 in accordance with Sections 2, 3 and 5 of the SMP. During the Site inspection, AECOM personnel visually inspected the Site and off-Site areas (except for 53 Lynhurst Avenue) covered by the SMP. The Site inspection form, photo log and photo log key are included in Appendix D. The inspection was conducted to confirm that the ECs and the ICs, to the extent observable, are in place and effective. The inspection evaluated the condition of the composite cover systems (as shown on Figure 5) and confirmed that:

- the Site continues to be used for commercial purposes;
- the off-Site properties continue to be used for commercial purposes, except for 53 Lynhurst Avenue, which continues to be used as residential property;
- groundwater is not used for any purpose (no wells were observed other than the Site monitoring wells);
- no Site modifications and excavations have occurred at the Site without proper notification to NYSDEC and National Grid in between approval of the SMP and the end of the period covered by this report; and
- no modifications and excavations have occurred off-Site without proper notification to NYSDEC and National Grid in between approval of the SMP and the end of the period covered by this report.

The inspection indicated that the ECs and ICs are consistent with the SMP, and remain in place and are effective. All ECs and ICs are functioning as designed, for both the Site and off-Site areas. Across the off-Site area, asphalt and concrete patches were observed in areas where disturbances of the cover systems occurred as the result of planned investigations or repairs, or for the abandonment of monitoring wells as described above. Across the Site, the only disturbances of the cover systems that occurred during the current monitoring period were due to the abandonment of monitoring wells, as described above. Planned disturbances of the cover systems that occurred since the approval of the SMP in January 2016 and prior to the current monitoring period include:

- A geotechnical boring program for redevelopment of the One Edgewater Street property, conducted in July and August 2016;
- Repairs to Site fencing around Operable Unit 1 following an on-street vehicular accident in August 2016; and
- Emergency repairs of a short section of a sewer located along Willow Avenue in December 2016.

These three disturbances of the cover systems and subsequent repairs occurred during the period covered by, and are described in, SA2 (AECOM 2017).

3.7 Property Owner Certification

In accordance with Section 5.2.1 of the SMP, National Grid has requested the other property owners of parcels within the SMP boundary complete a certification that to their knowledge the ECs and ICs are in place at the off-Site areas and no changes have occurred for which National Grid and the NYSDEC have not been notified. The certification forms requests owners identify any changes to the composite cap system (including construction of buildings or utility lines), zoning or groundwater use on their parcel(s), whether there were any subsurface disturbances (and if so, that they were made in accordance with SMP requirements), and to confirm that vapor intrusion/indoor air quality evaluations were completed for any new buildings. This certification by the other property owners is in addition to National Grid's site inspection documented in Section 3.6 of this report.

Certification forms were mailed on January 9, 2018 to the four ownership entities that own the seven parcels within the SMP boundary not owned by National Grid:

- Edgewater Plaza Loft, LLC, owner of 1 Edgewater Street (Block 2820, Lot 95);
- Sovereign Realty Associates, Inc., owner of four parcels east of 25 Willow Avenue (Block 2822, Lots 22, 23, 24 and 26);
- Techline Construction, LLC, owner of one parcel east of 25 Willow Avenue (Block 2822, Lot 21); and
- Mr. Nadil Gjeloshi, owner of 53 Lynhurst Avenue (Block 2842, Lot 79).

Responses (attached as Appendix E) were received by the requested response date of February 2, 2018 from Edgewater Plaza Loft, LLC, Sovereign Realty Associates, Inc. and Techline Construction, LLC, representing six of the subject parcels. A response from the 53 Lynhurst Avenue parcel owner was not received.

Based on overall context (including responses to other questions on the certifications, a lack of further comment, and/or direct observation), the three responses indicate that there were no site activities not in compliance with the SMP. In some cases, although a "Yes" response would nominally be appropriate to confirm no change, a "No" response was provided on the certification form. It is appears such responses were due to a misinterpretation of the wording of the questions by the respondents, because based on direct observation, the ECs and ICs remain in place and functioning at the six parcels.

4.0 Conclusions and Findings

National Grid has conducted Site management activities in accordance with the SMP since it was approved in January 2016. As previously described, Site management activities occurring during the period January through June 2017 included:

- DNAPL gauging and recovery, including recovery of 272 gallons of DNAPL/water fluid mixture from January through June 2017 and a total of 2,802 gallons removed since 2010;
- Depressurization pump and treat system operation and maintenance, and SPDES permit equivalent-required sampling; and
- Abandonment of monitoring wells in accordance with the approved Post-Remediation Groundwater Monitoring Work Plan.
- ECs and ICs remain in place and functional where required.

5.0 Future Activities

In accordance with the SMP, the remaining 2017 Site Management actions will include:

- Annual groundwater monitoring,
- On-going DNAPL gauging and recovery,
- On-going SPDES permit-required sampling,
- Operation of the Containment Cell Depressurization System, and
- Oversight, as necessary, of any planned subsurface disturbances within the limits of the SMP.

6.0 References

AECOM, 2014a. *Construction Completion Report, Former Clifton MGP Site Operable Unit 2*, February 2014.

AECOM, 2014b. *Interim Status Report – Interim Monitoring Program, Former Clifton Manufactured Gas Plant*, July 25, 2014.

AECOM, 2014c. *Post-Remediation Groundwater Monitoring Work Plan,* August 15, 2014.

AECOM, 2015a. *Second Semi-Annual 2014 Interim Status Report – Interim Monitoring Program, Former Clifton Manufactured Gas Plant*, February 17, 2015.

AECOM, 2015b. *Third Semi-Annual Interim Status Report (Jan-June, 2015) – Interim Monitoring Program, Former Clifton Manufactured Gas Plant*, August 3, 2015.

AECOM, 2016a. *Containment Pad Depressurization System Construction Completion Report*. December, 2016.

AECOM, 2016b. *First Semiannual Monitoring Report (January-June 2016)*, November 2016.

AECOM, 2016c. *Fourth Semi-Annual Interim Status Report (July-December 2015) – Interim Monitoring Program*, July 7, 2016.

AECOM, 2016d. *Site Management Plan, Former Clifton Manufactured Gas Plant Site*, January 2016.

AECOM, 2017. *Second Semiannual Monitoring Report (July-December 2016)*, December 2017.

NYSDEC, 2004. *Record of Decision, Former Clifton MGP Site, Operable Unit No. 1, Staten Island, Richmond County New York, Site Number: 2-43-023*, March 2004

NYSDEC, 2006. *Record of Decision, Former Clifton MGP Site, Operable Unit No. 2, Richmond County New York, Site Number: 2-43-023*, December 2006

Tables

Table 1
Containment Pad Depressurization System
SPDES Equivalent Monitoring Results
National Grid Former Clifton MGP Site
Staten Island, New York

Sample ID	SPDES Permit Equivalent					WWTP-012717		WWTP-021717		WWTP-032217		WWTP-042117		WWTP-051917		WWTP-061617	
Date Sampled	Discharge Limitations			Minimum Monitoring Requirements [1]		1/27/2017		2/17/2017		3/22/2017		4/21/2017		5/19/2017		6/16/2017	
Parameter	Monthly Avg.	Daily Max	Units	Measurement Frequency	Sample Type	4601274641		4601285841		4601301181		4601320381		4601337401		4601354471	
pH																	
pH	Monitor	6.5 - 8.5	pH units	Monthly	Grab	**8.3**	**J**	**8.4**	**J**	**7.8**	**J**	**8.1**	**J**	**8.5**	**J**	**8.1**	**J**
Total Suspended Solids																	
Total Suspended Solids	Monitor	20	mg/l	Continuous	Meter	**2.2**		**9.3**		**3.6**		**2**		**2.7**		**1.9**	
BTEX																	
Benzene	Monitor	5	µg/l	Monthly	Grab	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	**2.1**	
Ethylbenzene	Monitor	5	µg/l	Monthly	Grab	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
m/p-Xylenes	Monitor	10	µg/l	Monthly	Grab	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
o-Xylene	Monitor	5	µg/l	Monthly	Grab	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Toluene	Monitor	5	µg/l	Monthly	Grab	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Xylenes (total)	Monitor		µg/l	Monthly	Grab	< 2	U	< 2	U	< 2	U	< 2	U	< 2	U	< 2	U
SVOCs																	
Acenaphthene	Monitor	10	µg/l	Monthly	Grab	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U
Acenaphthylene	Monitor	10	µg/l	Monthly	Grab	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U
Anthracene	Monitor	10	µg/l	Monthly	Grab	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U
Benzo(a)anthracene	Monitor	10	µg/l	Monthly	Grab	< 0.052	U	< 0.052	U	< 0.052	U	< 0.05	U	< 0.05	U	< 0.05	U
Benzo(a)pyrene	Monitor	0.09	µg/l	Monthly	Grab	< 0.052	U	< 0.052	U	< 0.052	U	< 0.05	U	< 0.05	U	< 0.05	U
Benzo(b)fluoranthene	Monitor	10	µg/l	Monthly	Grab	< 0.052	U	< 0.052	U	**0.013**	**J**	**0.013**	**J**	< 0.05	UJ	< 0.05	U
Benzo(ghi)perylene	Monitor	10	µg/l	Monthly	Grab	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U
Chrysene	Monitor	10	µg/l	Monthly	Grab	< 2.1	U	< 2.1	U	< 2.1	U	< 2	U	< 2	U	< 2	U
Fluoranthene	Monitor	10	µg/l	Monthly	Grab	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U
Fluorene	Monitor	10	µg/l	Monthly	Grab	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U
Hexachlorobenzene	Monitor		µg/l	Monthly	Grab	< 0.021	U	< 0.021	U	< 0.021	U	< 0.02	U	< 0.02	U	< 0.02	U
Indeno(1,2,3-cd)pyrene	Monitor	10	µg/l	Monthly	Grab	< 0.052	UJ	< 0.052	U	< 0.052	U	< 0.05	U	< 0.05	U	< 0.05	U
Naphthalene	Monitor	50	µg/l	Monthly	Grab	< 10	U	< 10	U	< 10	U	**1.4**	**J**	< 10	U	< 10	U
Phenanthrene	Monitor	10	µg/l	Monthly	Grab	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U
Pyrene	Monitor	10	µg/l	Monthly	Grab	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U
Metals																	
Arsenic	Monitor	10	µg/l	Monthly	Grab	< 2	U	< 2	U	< 2	U	< 2	U	**0.65**	**J**	< 2	U
Nickel	Monitor	80	µg/l	Monthly	Grab	< 4	U	< 4	U	< 4	U	< 4	U	**1.4**	**J**	< 4	U
Cyanide																	
Cyanide, Total	Monitor	Monitor	mg/l	Monthly	Grab	< 0.01	U	< 0.01	U	< 0.01	U	< 0.01	U	< 0.01	U	< 0.01	U
Available Cyanide	Monitor	0.01	mg/l	Monthly	Grab	< 0.002	U	< 0.002	U	< 0.002	U	< 0.002	U	< 0.002	U	< 0.002	U
Turbidity																	
Turbidity	No increase that will cause a substantial visible contrast to Natural Conditions		NTU	Monthly	Grab	**7.08**		**7.74**		**7.33**		**3.4**		**2.93**		**2.08**	

Notes:

Qualifiers

Bold indicates compound was detected

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

U - The material was analyzed for, but not detected above the level of the reported sample quantitation limit.

UJ - The analyte was analyzed for, but was not detected. The reported quantitation limit is approximated and may be inaccurate or imprecise.

1 Monitor these parameters daily for 7 consecutive days. If the sampling results for all parameters comply with the limits, the monitoring frequency becomes MONTHLY. If monthly sampling results do not comply with the limit for any parameter, the monitoring frequency becomes DAILY again until the sampling results for all parameters comply with the limits. Thereafter the monitoring frequency changes to MONTHLY.

Table 2
DNAPL Recovery Well Construction Details
National Grid Former Clifton MGP Site
Staten Island, New York

DNAPL Recovery Well I.D.	Ground Surface Elevation [1]	Top of Vault Elevation	Top of Riser Pipe Elevation	Depth of Well (feet bgs)	Screen Interval	Top of Screen (feet bgs)	Bottom of Screen (feet bgs)	Diameter (inches)	Top of Screen Elevation	Bottom of Screen Elevation	Protective Casing	Riser Type	Screen Type	Screen Slotted size/diameter (inches)	Sump Type	Sump Length (feet)
RW-200S	9.2	9.57	9.32	23	10.0 - 20.0	10	20	4.0	-0.8	-10.8	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-200I	9.2	9.58	9.33	37	24.0 - 34.0	24	34	4.0	-14.8	-24.8	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-201S	9.2	9.57	8.77	29	14.0 - 24.0	14	24	6.0	-4.8	-14.8	Flush-Mount	PVC	Wire Wrap SS	0.02/6.0	SS	5.0
RW-201I	8.9	9.37	8.6	37.5	22.5-32.5	22.5	32.5	6.0	-13.6	-23.6	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	5.0
RW-202S	9.85	9.94	9.64	25	10.0 - 20.0	10	20	6.0	-0.2	-10.2	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	5.0
RW-202I	9.85	9.85	9.48	42	27.0 - 37.0	27	37	6.0	-17.2	-27.2	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	5.0
RW-203S	9.3	9.16	8.67	27	14.0 - 24.0	14	24	4.0	-4.7	-14.7	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-203I	9.3	9.14	8.54	37	24.0 - 34.0	24	34	4.0	-14.7	-24.7	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-204I	9.12	9.35	8.6	43	30.0 - 40.0	30	40	4.0	-20.9	-30.9	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-205D	8.75	8.82	8.18	77	64.0 - 74.0	64	74	4.0	-55.3	-65.3	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-206S	8.6	9.02	8.26	28	15.0 - 25.0	15	25	4.0	-6.4	-16.4	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-206IA	8.6	9.05	8.15	48	35.0 - 45.0	35	45	4.0	-26.4	-36.4	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-206IB	8.55	9.13	7.63	58	45.0 - 55.0	45	55	4.0	-36.5	-46.5	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-207S	8.5	8.8	8.15	23	10.0 - 20.0	10	20	4.0	-1.5	-11.5	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-207I	8.5	8.77	8.23	33	20.0 - 30.0	20	30	4.0	-11.5	-21.5	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-208S	8.27	8.53	7.81	23	10.0 - 20.0	10	20	4.0	-1.7	-11.7	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-208I	8.27	8.52	7.23	42	29.0 - 39.0	29	39	4.0	-20.7	-30.7	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-209S	8	8.48	7.63	30	15.0 - 25.0	15	25	6.0	-7.0	-17.0	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	5.0
RW-209I	8	8.28	7.69	40	25.0 - 35.0	25	35	6.0	-17.0	-27.0	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	5.0
RW-210S	7.6	7.85	7.3	28	15.0 - 25.0	15	25	4.0	-7.4	-17.4	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-210I	7.6	7.93	7.32	38	25.0 - 35.0	25	35	4.0	-17.4	-27.4	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-211S	8.5	8.74	7.15	29	6.0 - 26.0	6	26	4.0	2.5	-17.5	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
RW-211I	8.5	8.76	7.23	43	30.0 - 40.0	30	40	4.0	-21.5	-31.5	Flush-Mount	PVC	Wire Wrap SS	0.02/4.0	SS	3.0
NRW-01S [2]	14.18	15.28	14.86	19	9.0 - 19.0	9	19	4.0	5.2	-4.8	Flush-Mount	SS	SS	0.02/4.0	--	--
NRW-02I [2]	14.27	--	--	49	34.0 - 44.0	34	44	4.0	-19.7	-29.7	Stick Up	SS	SS	0.02/4.0	SS	5.0
NRW-03D [2,3]	14.28	--	--	84	69.0 - 79.0	69	79	4.0	-54.7	-64.7	Stick Up	SS	SS	0.02/4.0	SS	5.0

Notes:

1 - Derived from the nearest surface elevation from final as-built survey

2 - Containment Pad Surface

3 - Well abandoned as of May 22, 2017

NM - Not measured

ft bgs - feet below ground surface

DNAPL - Dense Non-Aqueous Phase Liquid

MGP - Manufactured Gas Plant

SS - stainless steel

RW-200**S** = Shallow recovery wells

RW-200**I** = Intermediate recovery wells

RW-205**D** = Deep recovery wells

Table 3
DNAPL Thickness During Gauging Events
National Grid Former Clifton MGP Site
Staten Island, New York

Parcel	Bay Street	Willow Avenue							Containment Cell		
Well ID	RW-201I	RW-205D	RW-206IA	RW-206IB	RW-207I	RW-208I	RW-209S	RW-211I	NRW-01S	NRW-02I	NRW-03D
Date	feet	feet	feet	feet	feet	feet	feet	feet	feet	feet	feet
Data prior to January 2017 omitted for clarity											
1/12/2017	3.10	2.90	NM	0.80	2.20	9.80	1.70	1.20	NM	0.00	7.65
1/26/2017	1.60	1.30	0.00	0.80	2.10	8.00	1.90	1.30	0.00	0.00	5.70
2/16/2017	3.80	2.80	NM	0.00	2.40	8.50	1.80	1.80	0.00	0.00	7.50
3/2/2017	2.10	NM[1]	0.00	0.00	1.30	9.00	2.20	0.30	0.00	0.00	7.00
3/22/2017	1.70	NM[1]	NM	0.00	2.70	8.00	1.80	0.40	0.00	0.00	6.50
4/6/2017	2.70	NM[1]	0.50	1.00	1.85	8.00	1.95	0.60	0.00	0.00	7.20
4/20/2017	5.00	4.80	NM	0.50	1.00	11.00	2.20	1.00	0.00	0.00	7.30
5/4/2017	1.40	0.00	1.70	3.00	1.80	7.80	2.20	1.10	NM	NM	7.20
5/18/2017	3.50	1.00	NM	0.20	2.20	7.20	2.10	1.20	0.00	NM	5.00
6/1/2017	1.50	1.20	0.00	0.00	1.25	8.00	0.00	1.80	0.10	0.70	ABD
6/15/2017	2.80	1.60	NM	0.00	1.70	7.40	1.90	0.70	NM	0.90	ABD
Min Thickness (ft)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Max Thickness (ft)	8.80	11.80	3.90	3.50	6.00	21.30	7.50	4.40	0.50	13.00	9.05
Avg Thickness (ft)	3.42	2.04	0.80	0.89	1.56	9.09	2.15	1.07	0.05	0.45	5.54

Notes:

ft - feet

ABD - Abandoned (Well NRW-03D abandoned as of May 22, 2017)

DNAPL - Dense Nonaqueous Phase Liquid

NM - Not Measured / Not Accessible

Only recovery wells with measurable DNAPL thickness have been included.

DNAPL was gauged using a weighted steel tape and using interface probe. The thickness listed in this table is based on weighted steel tape measurement.

[1] Well vault cover was damaged and could not be opened.

Table 4
Summary of DNAPL Removal
National Grid Former Clifton MGP Site
Staten Island, New York

Parcel	Bay Street	Willow Avenue							Containment Cell			Event
Well ID	RW-201I	RW-205D	RW-206IA	RW-206IB	RW-207I	RW-208I	RW-209S	RW-211I	NRW-01S	NRW-02I	NRW-03D	Volume
Date	Gallons	Gallons	Gallons	Gallons	Gallons	Gallons	Gallons	Gallons	Gallons	Gallons	Gallons	Gallons
Data prior to January 2017 omitted for clarity												
1/12/2017	8	10	--	--	7	10	--	--	--	--	--	35
2/16/2017	13	8	--	--	5	14	--	9	--	--	--	35
3/2/2017	6	NM	--	--	--	15	--	--	--	--	--	21
3/22/2017	--	NM	--	--	9	11	--	--	--	--	--	20
4/6/2017	--	NM	--	--	12	9	--		--	--	--	21
4/20/2017	14	14	--	--	--	16	--	--	--	--	--	44
5/4/2017	--	--	--	3	8	12	--	--	--	--	15	38
5/18/2017	--	--	--	--	10	8	--	--	--	--	--	17
6/1/2017	--	--	--	--	--	6	2	5	--	--	--	13
6/15/2017	7	7	--	--	--	16	--	--	--	--	--	29
Total Gallons To Date	554	358	15	94	250	1,305	63	92	0	48	39	2,802
Percent of Total	20%	13%	1%	3%	9%	47%	2%	3%	0%	2%	1%	101%

Note:
NM - Not Measured / Not Accessible
-- DNAPL was not pumped as the DNAPL level was below the screen
Volumes recorded consist of DNAPL and water mixture
* AECOM Air Lift systems were installed on 4/17/2014

Figures

UNITED STATES GEOLOGIC SURVEY
THE NARROWS QUADRANGLE
NEW YORK - NEW JERSEY
7.5 MINUTE SERIES (TOPOGRAPHY)

THE NARROWS, NY. - NJ.
1966
PHOTOREVISED 1981

SCALE 1:24000

1 1/2 0 1 MILE

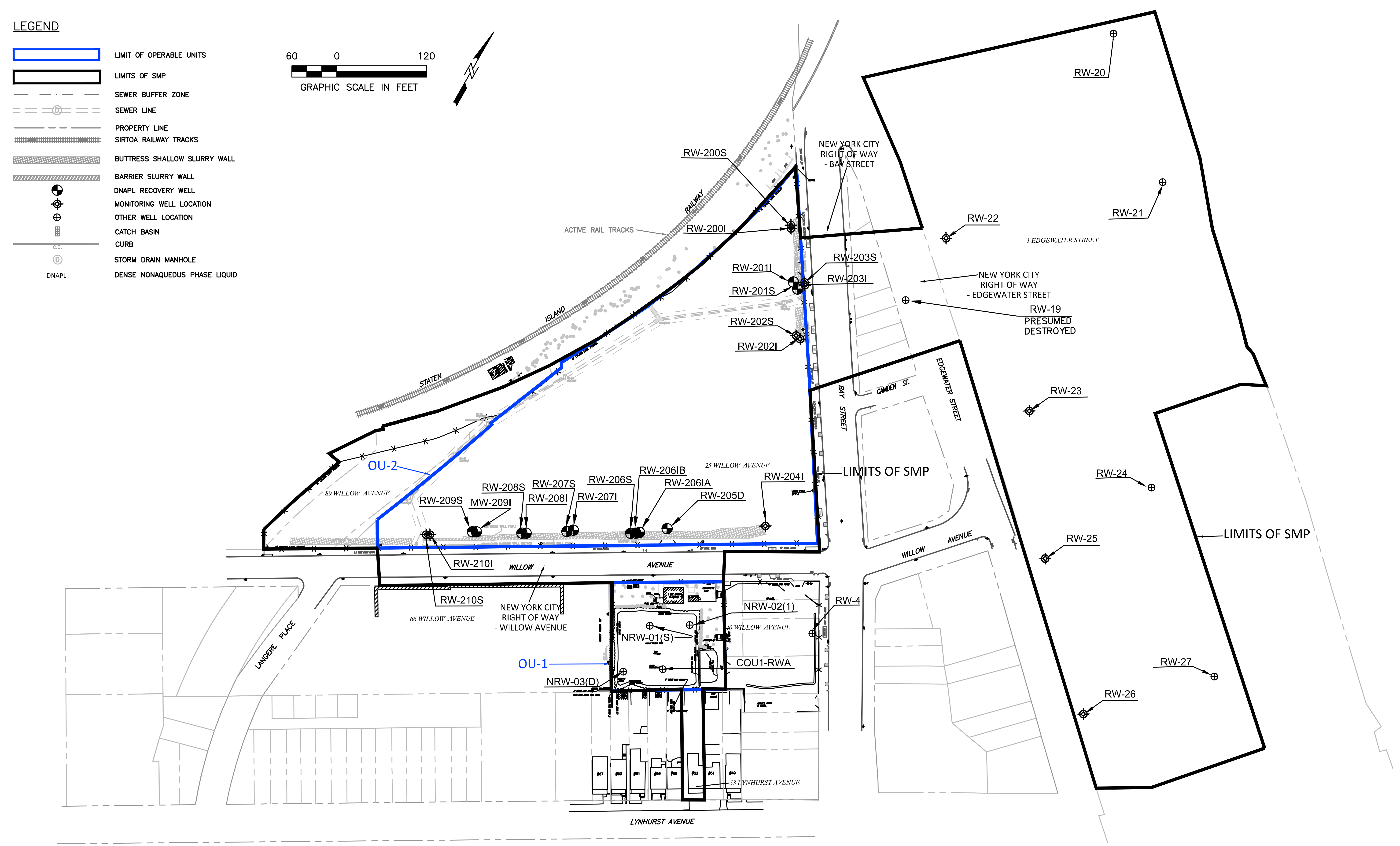
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

AECOM

NATIONAL GRID FORMER CLIFTON MANUFACTURED GAS PLANT SEMIANNUAL MONITORING REPORT			SITE LOCATION MAP
DATE: 07/25/14	DRWN: RCW	JOB NO.: 60137363-540	FIGURE 1

File: \\usnycs01\Environment\National Grid\Clifton\60137363\CADD\OM&M\Site Location Map.dwg Layout: ANSI_AVI-LJ User: warrenr Plotted: Jul 23, 2014 - 3:26pm Xref's:

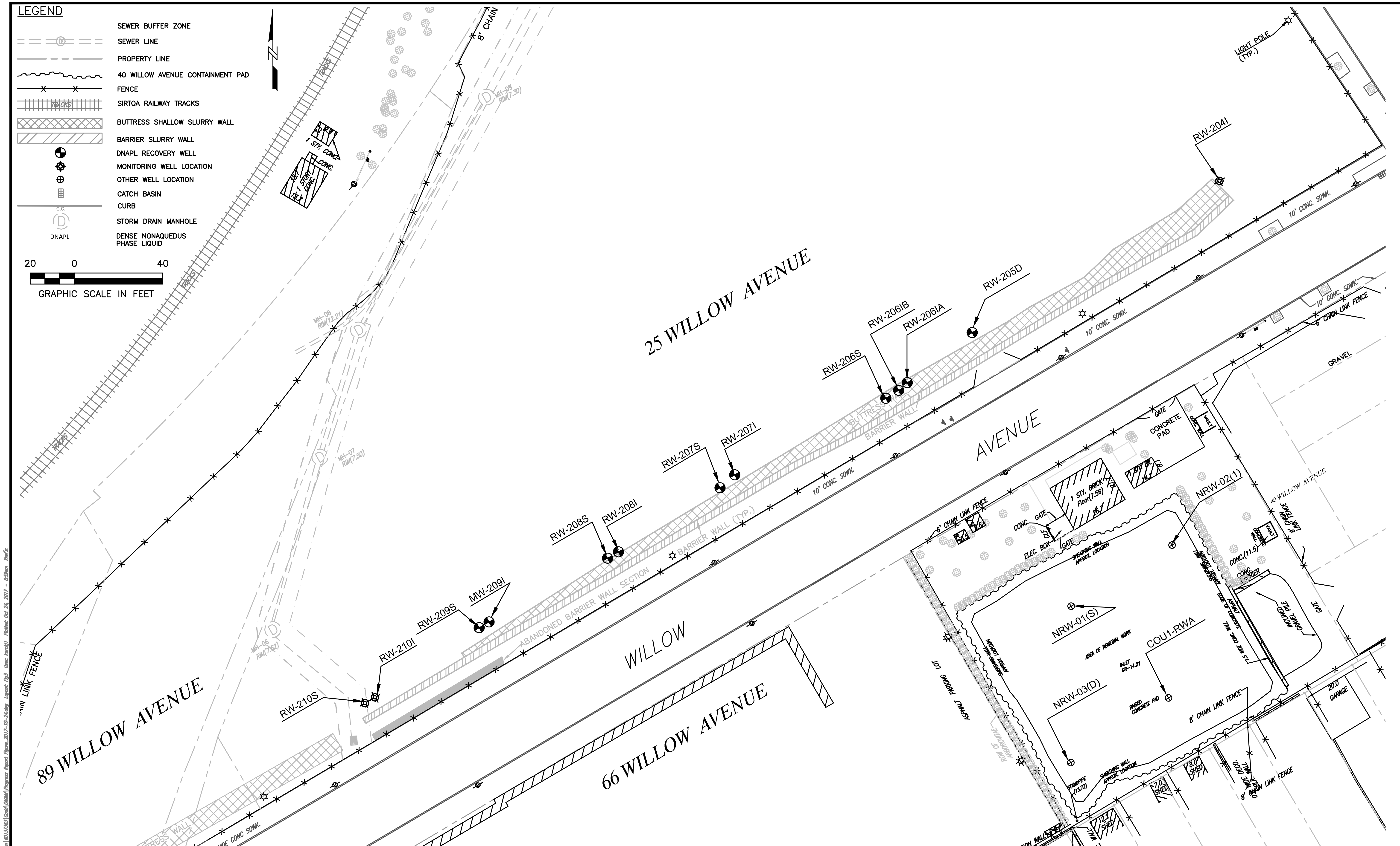


AECOM

NATIONAL GRID
FORMER CLIFTON MANUFACTURED GAS PLANT
ANNUAL STATUS REPORT

SITE LAYOUT

DATE: 10/16/2017 | DRWN: RCW/jk | JOB NO.: 60137363-620 | **FIGURE 2**


LEGEND
SEWER BUFFER ZONE
SEWER LINE
PROPERTY LINE
40 WILLOW AVENUE CONTAINMENT PAD
FENCE
SIRTOA RAILWAY TRACKS
BUTTRESS SHALLOW SLURRY WALL
BARRIER SLURRY WALL
DNAPL RECOVERY WELL
MONITORING WELL LOCATION
OTHER WELL LOCATION
CATCH BASIN
CURB
STORM DRAIN MANHOLE
DNAPL
DENSE NONAQUEDUS PHASE LIQUID
20 0 40
GRAPHIC SCALE IN FEET
25 WILLOW AVENUE
89 WILLOW AVENUE
66 WILLOW AVENUE
WILLOW
AVENUE
RW-204I
RW-205D
RW-206S
RW-206IB
RW-206IA
RW-207S
RW-207I
RW-208S
RW-208I
RW-209S
MW-209I
RW-210I
RW-210S
NRW-01(S)
NRW-02(1)
NRW-03(D)
COU1-RWA
LIGHT POLE (TYP.)
CONCRETE PAD
GRAVEL
10' CONC. SDWK.
BARRIER WALL (TYP.)
ABANDONED BARRIER WALL SECTION
8' CHAIN LINK FENCE
6' CHAIN LINK FENCE
AREA OF REMEDIAL WORK
RAISED CONCRETE PAD
ASPHALT PARKING LOT
GARAGE
1 STY. BRICK Floor(7.56)
40 WILLOW AVENUE

AECOM

NATIONAL GRID
FORMER CLIFTON MANUFACTURED GAS PLANT
ANNUAL STATUS REPORT

DNAPL RECOVERY WELL LOCATIONS ALONG WILLOW AVENUE

DATE: 10/24/2017	DRWN: XW/jk	JOB NO.: 60137363-620	FIGURE 3

LEGEND

- SEWER BUFFER ZONE
- SEWER LINE
- PROPERTY LINE
- 40 WILLOW AVENUE CONTAINMENT PAD
- FENCE
- SIRTOA RAILWAY TRACKS
- BUTTRESS SHALLOW SLURRY WALL
- BARRIER SLURRY WALL
- DNAPL RECOVERY WELL
- MONITORING WELL LOCATION
- OTHER WELL LOCATION
- CATCH BASIN
- CURB
- STORM DRAIN MANHOLE
- DENSE NONAQUEDUS PHASE LIQUID

20 0 40

GRAPHIC SCALE IN FEET

N

BAY STREET

25 WILLOW AVE

CAMDEN ST.

ACTIVE RAIL TRACKS

RAILWAY TRACKS

8' CHAIN LINK FENCE

12" CONC. SEWER

CONCRETE SIDEWALK

BARRIER WALL

SIGN

RW-200S

RW-200I

RW-203S

RW-203I

RW-201I

RW-201S

RW-202S

RW-202I

MH-11
RIM(9.06)

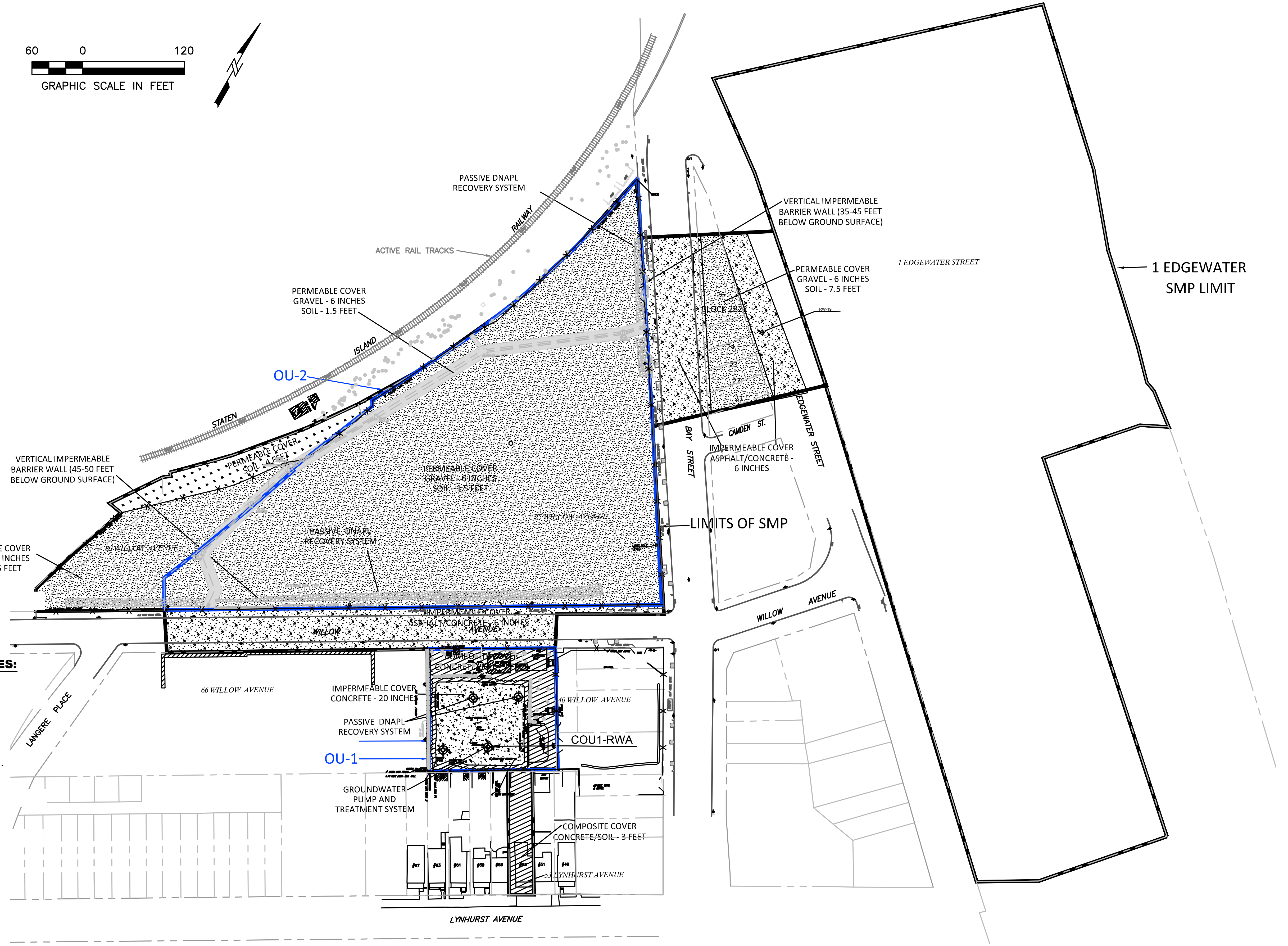
GRATE(6.29)

AECOM

NATIONAL GRID FORMER CLIFTON MANUFACTURED GAS PLANT ANNUAL STATUS REPORT			**DNAPL RECOVERY WELL LOCATIONS ALONG BAY STREET**
DATE: 10/24/2017	DRWN: XW/jk	JOB NO.: 60137363-620	**FIGURE 4**

LEGEND

- LIMIT OF OPERABLE UNIT (OU)
- LIMITS OF SITE MANAGEMENT PLAN (SMP)
- PERMEABLE COVER, GRAVEL/SOIL
- IMPERMEABLE COVER, ASPHALT/CONCRETE
- PERMEABLE COVER, SOIL
- COMPOSITE CONCRETE/SOIL
- IMPERMEABLE COVER, CONCRETE
- SEWER BUFFER ZONE
- PROPERTY LINE
- FENCE
- SIRTOA RAILWAY TRACKS
- BUTTRESS SHALLOW SLURRY WALL
- BARRIER SLURRY WALL
- MONITORING WELL
- CATCH BASIN
- C.C. CURB
- STORM DRAIN MANHOLE
- DNAPL DENSE NONAQUEDUS PHASE LIQUID



ENGINEERING CONTROL

CITY OF NEW RIGHT OF WAY AREAS:

1. 6-INCH ASPHALT/CONCRETE COVER.
2. DNAPL RECOVERY SYSTEM.

BLOCK 2822 LOTS 20-24 AND 25 PROPERTIES:

1. 8-FEET GRAVEL/SOIL COVER.

40 WILLOW AVENUE PROPERTY

1. 20-INCH CONCRETE COVER.
2. 2-FEET CONCRETE/SOIL COVER.
3. DNAPL RECOVERY SYSTEM.
4. GROUNDWATER PUMP AND TREATMENT SYSTEM.
5. 125-FEET CONTAINMENT CELL.

53 LYNHURST AVENUE PROPERTY:

1. 3-FEET CONCRETE/SOIL COVER.

25 WILLOW AVENUE PROPERTY:

1. 2-FEET GRAVEL/SOIL COVER.
2. 30-50-FEET VERTICAL BARRIER WALL.
3. DNAPL RECOVERY SYSTEM.

89 WILLOW AVENUE PROPERTY:

1. 2-FEET GRAVEL/SOIL COVER.
1. 4-FEET SOIL COVER.

AECOM

NATIONAL GRID
FORMER CLIFTON MANUFACTURED GAS PLANT
ANNUAL STATUS REPORT

ENGINEERING CONTROL LOCATIONS

DATE: 10/23/2017 | DRWN: XW/jk | JOB NO.: 60137363-620 | FIGURE 5

Appendix A

Data Usability Summary and Analytical Reports (on CD Only)

AECOM

Prepared for:
National Grid
Brooklyn, NY

Prepared by:
AECOM
Pittsburgh, PA
60137363-600
July 2017

July 11, 2017

Data Usability Summary Report

National Grid/Clifton Former MGP Site
WWTP Effluent Sampling Events
TestAmerica-Edison Laboratory
January-June 2017
Final

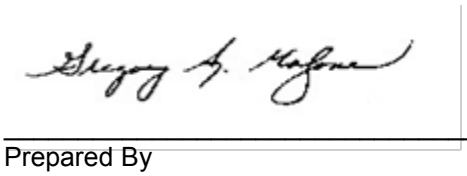
AECOM

Prepared for:
National Grid
Brooklyn, NY

Prepared by:
AECOM
Pittsburgh, PA
60137363-600
July 2017

Data Usability Summary Report

National Grid/Clifton Former MGP Site
WWTP Effluent Sampling Events
January-June 2016
Final



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Contents

List of Appendices

Executive Summary

Overview

A data assessment was performed by Gregory A. Malzone of AECOM Pittsburgh on six data packages from TestAmerica Laboratories, Inc., 777 New Durham Road, Edison, NJ 08817 (TAL-Edison) for the analysis of aqueous effluent samples collected on January –June 2017 at the Clifton former manufactured gas plant (MGP) site.

The following analytical methods were requested on the chain-of-custody (CoC) records:

- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) by USEPA Method 8260C,
- Polynuclear Aromatic Hydrocarbons (PAHs) by USEPA Method 8270D, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Hexachlorobenzene and Indeno(1,2,3-cd)pyrene were determined using GC/MS in Selected Ion Monitoring (SIM) Mode,
- Arsenic and Nickel by USEPA Method 6020A,
- Total Cyanide by USEPA Method 335.4,
- Available Cyanide by USEPA Method OIA-1677,
- Total Suspended Solids (TSS) by Standard Method 2540D,
- Turbidity by USEPA Method 180.1, and
- pH by Standard Method 4500-H+ B.

The samples for available cyanide (OIA-1677) analysis were subcontracted to the TestAmerica Laboratories, Inc., Pittsburgh facility.

The data were evaluated for conformance to method specifications and qualifiers were applied using the USEPA Region II SOPs and the validation criteria set forth in the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Superfund Organic Methods Data Review*, EPA-540-R-014-002, August 2014 and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*, EPA-540-R-013-001, August 2014, as they apply to the analytical methods employed.

Table 1 below provides a sample submittal list with the field IDs cross-referenced with the laboratory IDs.

Table 1 - Sample Submittals
National Grid / Clifton Effluent Samples

Field ID	TestAmerica ID	Matrix	Date Sampled
WWTP-012717	460-127464-1	Groundwater	1/27/2017
WWTP-021717	460-128584-1	Groundwater	2/17/2017
WWTP-032217	460-130118-1	Groundwater	3/22/2017
WWTP-042117	460-132038-1	Groundwater	04/21/2017
BFF-042117	460-132038-2	Groundwater	04/21/2017
GAC1-042117	460-132038-3	Groundwater	04/21/2017
GAC2-042117	460-132038-4	Groundwater	04/21/2017
WWTP-051917	460-133740-1	Groundwater	05/19/2017
WWTP-061617	460-135447-1	Groundwater	0616/2017

Summary

Data quality for the organic analyses was evaluated by reviewing the following parameters: holding times, initial and continuing calibrations, daily GC/MS hardware tunes and performance checks, internal standard area counts, surrogate recoveries, laboratory control standards (LCSs), laboratory blanks, laboratory duplicates, and reporting limits.

Inorganic data quality was evaluated by reviewing the following parameters: holding times, initial and continuing calibrations, ICP-MS internal standards, matrix spikes, laboratory control samples, laboratory duplicates, laboratory blanks, and reporting limits.

All data have been determined to be useable for the purpose of assessing the presence/absence and quantitative concentrations of the compounds and analytes in the media tested (i.e. effluent) with the qualifications described below. Several data points were qualified as estimates because of low method and instrument bias and lapsed holding times. Completeness of 100% was achieved for this data set. This is within the goal of 90-100% and is acceptable.

A glossary of data qualifier definitions is included in Appendix A of this report. The data qualifier summaries are attached as Appendix B of this report. Each noncompliance with specific data usability criteria is discussed below. Support documentation for the data qualifications discussed is provided in Appendix C of this report.

1.0 Volatile Organic Compounds

460-127464-1

No data quality issues were noted. No data qualifications were required.

460-128584-1

No data quality issues were noted. No data qualifications were required.

460-130118-1

No data quality issues were noted. No data qualifications were required.

460-132038-1

Calibrations: The percent difference for dichlorofluoromethane was less than the method specification limit of -20% on 04/25/17 at 08:16 on instrument CVOAMS8. The dichlorofluoromethane result for associated sample GAC2-042117 was non-detect and was qualified “UJ,” as an estimate, because of low instrument bias.

Laboratory Control Sample: The LCS/LCSD (LCS 460-432799/3 & 4) and LCS 460-432948/3 recoveries for 1,4-dioxane were greater than the upper quality control limit. All samples were affected. 1,4-Dioxane was not detected in any of the project samples. No data qualifications were required.

460-133740-1

No data quality issues were noted. No data qualifications were required.

460-135447-1

No data quality issues were noted. No data qualifications were required.

2.0 Polycyclic Aromatic Hydrocarbons

460-127464-1

Calibrations: The percent difference for indeno(1,2,3cd)pyrene was less than the lower method specification limit of -20%, at -31.1% on 01/31/17 at 07:20 on instrument CBNAMS4. The indeno(1,2,3cd)pyrene result for associated sample WWTP-012717 was non-detect and was qualified "UJ," as an estimate, because of low instrument bias.

460-128584-1

Surrogate Recovery: The nitrobenzene-d5 surrogate recovery for sample WWTP-021717 was greater than the upper quality control limit. All PAH results were non-detect for sample WWTP-021717. No data qualification was required in response to the high method bias.

460-130118-1

No data quality issues were noted. No data qualifications were required.

460-132038-1

Surrogate Recoveries: The nitrobenzene-d5 surrogate recovery for sample GAC1-042117 was less than the lower quality control limit, but greater than 10%. The *USEPA National Functional Guidelines* permit one nonconforming surrogate recovery per fraction (i.e., acid or base/neutral) provided the recovery is greater than 10%. No data qualification was required.

Laboratory Control Sample: The LCS/LCSD (LCS 460-432799/3 & 4) and LCS 460-432948/3 recoveries for 1,4-dioxane were greater than the upper quality control limit. All samples were affected. 1,4-Dioxane was not detected in any of the project samples. No data qualifications were required.

460-133740-1

Calibrations: The percent difference for benzo(b)fluoranthene was less than the lower method specification limit of -20%, at -31.1% on 01/31/17 at 07:20 on instrument CBNAMS4. The benzo(b)fluoranthene result for associated sample WWTP-051917 was non-detect and was qualified "UJ," as an estimate, because of low instrument bias.

460-135447-1

No data quality issues were noted. No data qualifications were required.

3.0 Total Metals

460-127464-1

No data quality issues were noted. No data qualifications were required.

460-128584-1

No data quality issues were noted. No data qualifications were required.

460-130118-1

No data quality issues were noted. No data qualifications were required.

460-132038-1

No data quality issues were noted. No data qualifications were required.

460-133740-1

No data quality issues were noted. No data qualifications were required.

460-135447-1

No data quality issues were noted. No data qualifications were required.

4.0 Total and Available Cyanide

460-127464-1

No data quality issues were noted. No data qualifications were required.

460-128584-1

No data quality issues were noted. No data qualifications were required.

460-130118-1

No data quality issues were noted. No data qualifications were required.

460-132038-1

No data quality issues were noted. No data qualifications were required.

460-133740-1

No data quality issues were noted. No data qualifications were required.

460-135447-1

Blank Contamination: Available cyanide was detected in the method blank associated with batch 214650 (06/19/17) at a concentration of 0.000495 J mg/L. The available cyanide result for associated sample WWTP-061617 was non-detect. No data qualification was required in response to the blank contamination.

5.0 General Chemistry

460-127464-1

Holding Times: The pH analysis was performed outside the USEPA method holding time. A pH sample must be analyzed immediately upon sample collection, that is, as a field test. The pH result for sample WWTP-012717 was positive and was qualified "J," as an estimated value, because the "analyze immediately" holding time was exceeded.

460-128584-1

Holding Times: The pH analysis was performed outside the USEPA method holding time. A pH sample must be analyzed immediately upon sample collection, that is, as a field test. The pH result for sample WWTP-021717 was positive and was qualified "J," as an estimated value, because the "analyze immediately" holding time was exceeded.

460-130118-1

Holding Times: The pH analysis was performed outside the USEPA method holding time. A pH sample must be analyzed immediately upon sample collection, that is, as a field test. The pH result for sample WWTP-032217 was positive and was qualified "J," as an estimated value, because the "analyze immediately" holding time was exceeded.

460-132038-1

Holding Times: The pH analysis was performed outside the USEPA method holding time. A pH sample must be analyzed immediately upon sample collection, that is, as a field test. The pH result for sample WWTP-042117 was positive and was qualified "J," as an estimated value, because the "analyze immediately" holding time was exceeded.

460-133740-1

Holding Times: The pH analysis was performed outside the USEPA method holding time. A pH sample must be analyzed immediately upon sample collection, that is, as a field test. The pH result for sample WWTP-051917 was positive and was qualified "J," as an estimated value, because the "analyze immediately" holding time was exceeded.

460-135447-1

Holding Times: The pH analysis was performed outside the USEPA method holding time. A pH sample must be analyzed immediately upon sample collection, that is, as a field test. The pH result for sample WWTP-061617 was positive and was qualified "J," as an estimated value, because the "analyze immediately" holding time was exceeded.

6.0 Notes

Positive organic and inorganic results less than the reporting limit, but greater than the method detection limit (MDL) were qualified “J,” as estimated concentrations, due to increased uncertainty near the detection limit. The “J” qualifiers were maintained in the data validation.

Matrix spike and matrix spike duplicates, laboratory duplicates, and ICP serial dilutions that were performed on non-project samples were not evaluated because matrix similarity to project samples could not be assumed.

Appendix A

Glossary of Data Qualifier Codes

Glossary of Data Qualifier Codes

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

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximated and may be inaccurate or imprecise.

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

J+ The result is an estimated quantity, likely to be biased high. The associated numerical value is the approximate concentration of the analyte in the sample.

J- The result is an estimated quantity, likely to be biased low. The associated numerical value is the approximate concentration of the analyte in the sample.

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

N (Organics) The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.

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

Appendix B

Data Qualification Summaries

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-127464-1

SDG No.:

Client Sample ID: WWTP-012717 Lab Sample ID: 460-127464-1

Matrix: Water Lab File ID: A33766.D

Analysis Method: 8260C Date Collected: 01/27/2017 12:00

Sample wt/vol: 5(mL) Date Analyzed: 01/30/2017 15:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 417017 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	0.090	U	1.0	0.090
100-41-4	Ethylbenzene	0.30	U	1.0	0.30
179601-23-1	m-Xylene & p-Xylene	0.28	U	1.0	0.28
95-47-6	o-Xylene	0.32	U	1.0	0.32
108-88-3	Toluene	0.25	U	1.0	0.25
1330-20-7	Xylenes, Total	0.28	U	2.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		74-132
460-00-4	4-Bromofluorobenzene	99		77-124
1868-53-7	Dibromofluoromethane (Surr)	101		72-131
2037-26-5	Toluene-d8 (Surr)	101		80-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-127464-1

SDG No.:

Client Sample ID: WWTP-012717 | Lab Sample ID: 460-127464-1

Matrix: Water | Lab File ID: U332019.D

Analysis Method: 8270D | Date Collected: 01/27/2017 12:00

Extract. Method: 3510C | Date Extracted: 01/28/2017 11:43

Sample wt/vol: 240(mL) | Date Analyzed: 01/30/2017 06:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 416991 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.92	U	10	0.92
208-96-8	Acenaphthylene	0.68	U	10	0.68
120-12-7	Anthracene	0.59	U	10	0.59
191-24-2	Benzo[g,h,i]perylene	0.78	U	10	0.78
218-01-9	Chrysene	0.70	U	2.1	0.70
206-44-0	Fluoranthene	0.75	U	10	0.75
86-73-7	Fluorene	0.83	U	10	0.83
91-20-3	Naphthalene	0.83	U	10	0.83
85-01-8	Phenanthrene	0.68	U	10	0.68
129-00-0	Pyrene	0.86	U	10	0.86

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	87		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	78		51-108
1718-51-0	Terphenyl-d14 (Surr)	132		40-148

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-127464-1

SDG No.:

Client Sample ID: WWTP-012717 | Lab Sample ID: 460-127464-1

Matrix: Water | Lab File ID: U332085.D

Analysis Method: 8270D SIM | Date Collected: 01/27/2017 12:00

Extract. Method: 3510C | Date Extracted: 01/28/2017 11:43

Sample wt/vol: 240(mL) | Date Analyzed: 01/31/2017 17:58

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 417204 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-55-3	Benzo[a]anthracene	0.039	U	0.052	0.039
50-32-8	Benzo[a]pyrene	0.027	U	0.052	0.027
205-99-2	Benzo[b]fluoranthene	0.013	U	0.052	0.013
118-74-1	Hexachlorobenzene	0.0094	U	0.021	0.0094
193-39-5	Indeno[1,2,3-cd]pyrene	0.028	UJ	0.052	0.028

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1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: WWTP-012717 Lab Sample ID: 460-127464-1

Lab Name: TestAmerica Edison Job No.: 460-127464-1

SDG ID.:

Matrix: Water Date Sampled: 01/27/2017 12:00

Reporting Basis: WET Date Received: 01/27/2017 12:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.64	2.0	0.64	ug/L	U		2	6020A
7440-02-0	Nickel	1.4	4.0	1.4	ug/L	U		2	6020A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WWTP-012717 Lab Sample ID: 460-127464-1

Lab Name: TestAmerica Edison Job No.: 460-127464-1

SDG ID.:

Matrix: Water Date Sampled: 01/27/2017 12:00

Reporting Basis: WET Date Received: 01/27/2017 12:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.0020	0.010	0.0020	mg/L	U		1	335.4
	Turbidity	7.08	0.500	0.160	NTU			1	180.1
	Total Suspended Solids	2.2	1.0	1.0	mg/L			1	SM 2540D
	pH	8.3			SU		~~HF~~ J	1	SM 4500 H+ B

h

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WWTP-012717 Lab Sample ID: 460-127464-1

Lab Name: TestAmerica Pittsburgh Job No.: 460-127464-1

SDG ID.:

Matrix: Water Date Sampled: 01/27/2017 12:00

Reporting Basis: WET Date Received: 01/27/2017 12:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Cyanide, Available	0.00036	0.0020	0.00036	mg/L	U		1	OIA-1677

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-128584-1

SDG No.:

Client Sample ID: WWTP-021717 | Lab Sample ID: 460-128584-1

Matrix: Water | Lab File ID: J51606.D

Analysis Method: 8260C | Date Collected: 02/17/2017 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 02/21/2017 06:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 420568 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	0.090	U	1.0	0.090
100-41-4	Ethylbenzene	0.30	U	1.0	0.30
179601-23-1	m-Xylene & p-Xylene	0.28	U	1.0	0.28
95-47-6	o-Xylene	0.32	U	1.0	0.32
108-88-3	Toluene	0.25	U	1.0	0.25
1330-20-7	Xylenes, Total	0.28	U	2.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		74-132
460-00-4	4-Bromofluorobenzene	102		77-124
1868-53-7	Dibromofluoromethane (Surr)	106		72-131
2037-26-5	Toluene-d8 (Surr)	97		80-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-128584-1

SDG No.:

Client Sample ID: WWTP-021717 | Lab Sample ID: 460-128584-1

Matrix: Water | Lab File ID: U332638.D

Analysis Method: 8270D | Date Collected: 02/17/2017 11:40

Extract. Method: 3510C | Date Extracted: 02/21/2017 08:10

Sample wt/vol: 240(mL) | Date Analyzed: 02/21/2017 20:18

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 420728 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.92	U	10	0.92
208-96-8	Acenaphthylene	0.68	U	10	0.68
120-12-7	Anthracene	0.59	U	10	0.59
191-24-2	Benzo[g,h,i]perylene	0.78	U	10	0.78
218-01-9	Chrysene	0.70	U	2.1	0.70
206-44-0	Fluoranthene	0.75	U	10	0.75
86-73-7	Fluorene	0.83	U	10	0.83
91-20-3	Naphthalene	0.83	U	10	0.83
85-01-8	Phenanthrene	0.68	U	10	0.68
129-00-0	Pyrene	0.86	U	10	0.86

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	106		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	115	X	51-108
1718-51-0	Terphenyl-d14 (Surr)	130		40-148

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-128584-1

SDG No.:

Client Sample ID: WWTP-021717 | Lab Sample ID: 460-128584-1

Matrix: Water | Lab File ID: h179795.D

Analysis Method: 8270D SIM | Date Collected: 02/17/2017 11:40

Extract. Method: 3510C | Date Extracted: 02/21/2017 08:10

Sample wt/vol: 240(mL) | Date Analyzed: 02/22/2017 16:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 420890 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-55-3	Benzo[a]anthracene	0.039	U	0.052	0.039
50-32-8	Benzo[a]pyrene	0.027	U	0.052	0.027
205-99-2	Benzo[b]fluoranthene	0.013	U	0.052	0.013
118-74-1	Hexachlorobenzene	0.0094	U	0.021	0.0094
193-39-5	Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: WWTP-021717 | Lab Sample ID: 460-128584-1

Lab Name: TestAmerica Edison | Job No.: 460-128584-1

SDG ID.:

Matrix: Water | Date Sampled: 02/17/2017 11:40

Reporting Basis: WET | Date Received: 02/17/2017 12:55

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.64	2.0	0.64	ug/L	U		2	6020A
7440-02-0	Nickel	1.4	4.0	1.4	ug/L	U		2	6020A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WWTP-021717 Lab Sample ID: 460-128584-1

Lab Name: TestAmerica Edison Job No.: 460-128584-1

SDG ID.:

Matrix: Water Date Sampled: 02/17/2017 11:40

Reporting Basis: WET Date Received: 02/17/2017 12:55

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.0020	0.010	0.0020	mg/L	U		1	335.4
	Turbidity	7.74	0.500	0.160	NTU			1	180.1
	Total Suspended Solids	9.3	1.3	1.3	mg/L			1	SM 2540D
	pH	8.4			SU		~~HF~~ J	1	SM 4500 H+ B

h

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WWTP-021717 | Lab Sample ID: 460-128584-1

Lab Name: TestAmerica Pittsburgh | Job No.: 460-128584-1

SDG ID.:

Matrix: Water | Date Sampled: 02/17/2017 11:40

Reporting Basis: WET | Date Received: 02/17/2017 12:55

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Cyanide, Available	0.00036	0.0020	0.00036	mg/L	U		1	OIA-1677

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-130118-1

SDG No.:

Client Sample ID: WWTP-032217 | Lab Sample ID: 460-130118-1

Matrix: Water | Lab File ID: P25331.D

Analysis Method: 8260C | Date Collected: 03/22/2017 12:50

Sample wt/vol: 5(mL) | Date Analyzed: 03/24/2017 00:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 425996 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	0.090	U	1.0	0.090
100-41-4	Ethylbenzene	0.30	U	1.0	0.30
179601-23-1	m-Xylene & p-Xylene	0.28	U	1.0	0.28
95-47-6	o-Xylene	0.32	U	1.0	0.32
108-88-3	Toluene	0.25	U	1.0	0.25
1330-20-7	Xylenes, Total	0.28	U	2.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		74-132
460-00-4	4-Bromofluorobenzene	94		77-124
1868-53-7	Dibromofluoromethane (Surr)	94		72-131
2037-26-5	Toluene-d8 (Surr)	93		80-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-130118-1

SDG No.:

Client Sample ID: WWTP-032217 | Lab Sample ID: 460-130118-1

Matrix: Water | Lab File ID: M239714.D

Analysis Method: 8270D | Date Collected: 03/22/2017 12:50

Extract. Method: 3510C | Date Extracted: 03/23/2017 09:49

Sample wt/vol: 239(mL) | Date Analyzed: 03/24/2017 08:12

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 426074 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.92	U	10	0.92
208-96-8	Acenaphthylene	0.68	U	10	0.68
120-12-7	Anthracene	0.60	U	10	0.60
191-24-2	Benzo[g,h,i]perylene	0.78	U	10	0.78
218-01-9	Chrysene	0.70	U	2.1	0.70
206-44-0	Fluoranthene	0.75	U	10	0.75
86-73-7	Fluorene	0.84	U	10	0.84
91-20-3	Naphthalene	0.84	U	10	0.84
85-01-8	Phenanthrene	0.68	U	10	0.68
129-00-0	Pyrene	0.87	U	10	0.87

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	98		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	92		51-108
1718-51-0	Terphenyl-d14 (Surr)	101		40-148

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-130118-1

SDG No.:

Client Sample ID: WWTP-032217 | Lab Sample ID: 460-130118-1

Matrix: Water | Lab File ID: h18453.D

Analysis Method: 8270D SIM | Date Collected: 03/22/2017 12:50

Extract. Method: 3510C | Date Extracted: 03/23/2017 09:49

Sample wt/vol: 239(mL) | Date Analyzed: 03/24/2017 11:15

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 426137 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-55-3	Benzo[a]anthracene	0.039	U	0.052	0.039
50-32-8	Benzo[a]pyrene	0.027	U	0.052	0.027
205-99-2	Benzo[b]fluoranthene	0.013	J	0.052	0.013
118-74-1	Hexachlorobenzene	0.0094	U	0.021	0.0094
193-39-5	Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: WWTP-032217 Lab Sample ID: 460-130118-1

Lab Name: TestAmerica Edison Job No.: 460-130118-1

SDG ID.:

Matrix: Water Date Sampled: 03/22/2017 12:50

Reporting Basis: WET Date Received: 03/22/2017 14:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.64	2.0	0.64	ug/L	U		2	6020A
7440-02-0	Nickel	1.4	4.0	1.4	ug/L	U		2	6020A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WWTP-032217 | Lab Sample ID: 460-130118-1

Lab Name: TestAmerica Edison | Job No.: 460-130118-1

SDG ID.:

Matrix: Water | Date Sampled: 03/22/2017 12:50

Reporting Basis: WET | Date Received: 03/22/2017 14:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.0020	0.010	0.0020	mg/L	U		1	335.4
	Turbidity	7.33	0.500	0.160	NTU			1	180.1
	Total Suspended Solids	3.6	1.0	1.0	mg/L			1	SM 2540D
	pH	7.8			SU		~~HF~~ J	1	SM 4500 H+ B

h

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WWTP-032217 Lab Sample ID: 460-130118-1

Lab Name: TestAmerica Pittsburgh Job No.: 460-130118-1

SDG ID.:

Matrix: Water Date Sampled: 03/22/2017 12:50

Reporting Basis: WET Date Received: 03/22/2017 14:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Cyanide, Available	0.00036	0.0020	0.00036	mg/L	U		1	OIA-1677

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: WWTP-042117 | Lab Sample ID: 460-132038-1

Matrix: Water | Lab File ID: J54483.D

Analysis Method: 8260C | Date Collected: 04/21/2017 13:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 19:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 432799 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	0.090	U	1.0	0.090
100-41-4	Ethylbenzene	0.30	U	1.0	0.30
179601-23-1	m-Xylene & p-Xylene	0.28	U	1.0	0.28
95-47-6	o-Xylene	0.32	U	1.0	0.32
108-88-3	Toluene	0.25	U	1.0	0.25
1330-20-7	Xylenes, Total	0.28	U	2.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		74-132
460-00-4	4-Bromofluorobenzene	99		77-124
1868-53-7	Dibromofluoromethane (Surr)	98		72-131
2037-26-5	Toluene-d8 (Surr)	89		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: BFF-042117 | Lab Sample ID: 460-132038-2

Matrix: Water | Lab File ID: J54499.D

Analysis Method: 8260C | Date Collected: 04/21/2017 13:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2017 02:15

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 432948 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	14	U	50	14
79-34-5	1,1,2,2-Tetrachloroethane	9.5	U	50	9.5
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	17	U	50	17
79-00-5	1,1,2-Trichloroethane	4.0	U	50	4.0
75-34-3	1,1-Dichloroethane	12	U	50	12
75-35-4	1,1-Dichloroethene	17	U	50	17
87-61-6	1,2,3-Trichlorobenzene	18	U	50	18
120-82-1	1,2,4-Trichlorobenzene	14	U	50	14
96-12-8	1,2-Dibromo-3-Chloropropane	12	U	50	12
95-50-1	1,2-Dichlorobenzene	11	U	50	11
107-06-2	1,2-Dichloroethane	13	U	50	13
78-87-5	1,2-Dichloropropane	9.0	U	50	9.0
541-73-1	1,3-Dichlorobenzene	17	U	50	17
106-46-7	1,4-Dichlorobenzene	17	U	50	17
123-91-1	1,4-Dioxane	440	U	2500	440
78-93-3	2-Butanone (MEK)	110	U	250	110
591-78-6	2-Hexanone	36	U	250	36
108-10-1	4-Methyl-2-pentanone (MIBK)	32	U	250	32
67-64-1	Acetone	54	U	250	54
71-43-2	Benzene	15000		50	4.5
75-25-2	Bromoform	9.0	U	50	9.0
74-83-9	Bromomethane	9.0	U	50	9.0
75-15-0	Carbon disulfide	11	U	50	11
56-23-5	Carbon tetrachloride	17	U	50	17
108-90-7	Chlorobenzene	12	U	50	12
74-97-5	Chlorobromomethane	15	U	50	15
124-48-1	Chlorodibromomethane	11	U	50	11
75-00-3	Chloroethane	19	U	50	19
67-66-3	Chloroform	11	U	50	11
74-87-3	Chloromethane	11	U	50	11
156-59-2	cis-1,2-Dichloroethene	13	U	50	13
10061-01-5	cis-1,3-Dichloropropene	8.0	U	50	8.0
110-82-7	Cyclohexane	13	U	50	13
75-27-4	Dichlorobromomethane	7.5	U	50	7.5
75-71-8	Dichlorodifluoromethane	7.0	U	50	7.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: BFF-042117 | Lab Sample ID: 460-132038-2

Matrix: Water | Lab File ID: J54499.D

Analysis Method: 8260C | Date Collected: 04/21/2017 13:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2017 02:15

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 432948 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-41-4	Ethylbenzene	640		50	15
106-93-4	Ethylene Dibromide	9.5	U	50	9.5
98-82-8	Isopropylbenzene	19	J	50	16
79-20-9	Methyl acetate	29	U	250	29
1634-04-4	Methyl tert-butyl ether	6.5	U	50	6.5
108-87-2	Methylcyclohexane	11	U	50	11
75-09-2	Methylene Chloride	11	U	50	11
179601-23-1	m-Xylene & p-Xylene	230		50	14
95-47-6	o-Xylene	200		50	16
100-42-5	Styrene	8.8	J	50	8.5
127-18-4	Tetrachloroethene	6.0	U	50	6.0
108-88-3	Toluene	190		50	13
156-60-5	trans-1,2-Dichloroethene	9.0	U	50	9.0
10061-02-6	trans-1,3-Dichloropropene	9.5	U	50	9.5
79-01-6	Trichloroethene	11	U	50	11
75-69-4	Trichlorofluoromethane	7.5	U	50	7.5
75-01-4	Vinyl chloride	3.0	U	50	3.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		74-132
460-00-4	4-Bromofluorobenzene	103		77-124
1868-53-7	Dibromofluoromethane (Surr)	94		72-131
2037-26-5	Toluene-d8 (Surr)	90		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: BFF-042117 | Lab Sample ID: 460-132038-2

Matrix: Water | Lab File ID: J54499.D

Analysis Method: 8260C | Date Collected: 04/21/2017 13:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2017 02:15

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 432948 | Units: ug/L

Number TICs Found: 2 | TIC Result Total: 4800

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
496-11-7	Indane	11.43	1800	J N	91%
91-20-3	Naphthalene	12.78	3000	J N	97%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: GAC1-042117 | Lab Sample ID: 460-132038-3

Matrix: Water | Lab File ID: J54498.D

Analysis Method: 8260C | Date Collected: 04/21/2017 13:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2017 01:48

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 432948 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	14	U	50	14
79-34-5	1,1,2,2-Tetrachloroethane	9.5	U	50	9.5
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	17	U	50	17
79-00-5	1,1,2-Trichloroethane	4.0	U	50	4.0
75-34-3	1,1-Dichloroethane	12	U	50	12
75-35-4	1,1-Dichloroethene	17	U	50	17
87-61-6	1,2,3-Trichlorobenzene	18	U	50	18
120-82-1	1,2,4-Trichlorobenzene	14	U	50	14
96-12-8	1,2-Dibromo-3-Chloropropane	12	U	50	12
95-50-1	1,2-Dichlorobenzene	11	U	50	11
107-06-2	1,2-Dichloroethane	13	U	50	13
78-87-5	1,2-Dichloropropane	9.0	U	50	9.0
541-73-1	1,3-Dichlorobenzene	17	U	50	17
106-46-7	1,4-Dichlorobenzene	17	U	50	17
123-91-1	1,4-Dioxane	440	U X	2500	440
78-93-3	2-Butanone (MEK)	110	U	250	110
591-78-6	2-Hexanone	36	U	250	36
108-10-1	4-Methyl-2-pentanone (MIBK)	32	U	250	32
67-64-1	Acetone	54	U	250	54
71-43-2	Benzene	20000		50	4.5
75-25-2	Bromoform	9.0	U	50	9.0
74-83-9	Bromomethane	9.0	U	50	9.0
75-15-0	Carbon disulfide	11	U	50	11
56-23-5	Carbon tetrachloride	17	U	50	17
108-90-7	Chlorobenzene	12	U	50	12
74-97-5	Chlorobromomethane	15	U	50	15
124-48-1	Chlorodibromomethane	11	U	50	11
75-00-3	Chloroethane	19	U	50	19
67-66-3	Chloroform	11	U	50	11
74-87-3	Chloromethane	11	U	50	11
156-59-2	cis-1,2-Dichloroethene	13	U	50	13
10061-01-5	cis-1,3-Dichloropropene	8.0	U	50	8.0
110-82-7	Cyclohexane	13	U	50	13
75-27-4	Dichlorobromomethane	7.5	U	50	7.5
75-71-8	Dichlorodifluoromethane	7.0	U	50	7.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: GAC1-042117 | Lab Sample ID: 460-132038-3

Matrix: Water | Lab File ID: J54498.D

Analysis Method: 8260C | Date Collected: 04/21/2017 13:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2017 01:48

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 432948 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-41-4	Ethylbenzene	19	J	50	15
106-93-4	Ethylene Dibromide	9.5	U	50	9.5
98-82-8	Isopropylbenzene	16	U	50	16
79-20-9	Methyl acetate	29	U	250	29
1634-04-4	Methyl tert-butyl ether	6.5	U	50	6.5
108-87-2	Methylcyclohexane	11	U	50	11
75-09-2	Methylene Chloride	11	U	50	11
179601-23-1	m-Xylene & p-Xylene	14	U	50	14
95-47-6	o-Xylene	16	U	50	16
100-42-5	Styrene	8.5	U	50	8.5
127-18-4	Tetrachloroethene	6.0	U	50	6.0
108-88-3	Toluene	23	J	50	13
156-60-5	trans-1,2-Dichloroethene	9.0	U	50	9.0
10061-02-6	trans-1,3-Dichloropropene	9.5	U	50	9.5
79-01-6	Trichloroethene	11	U	50	11
75-69-4	Trichlorofluoromethane	7.5	U	50	7.5
75-01-4	Vinyl chloride	3.0	U	50	3.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		74-132
460-00-4	4-Bromofluorobenzene	101		77-124
1868-53-7	Dibromofluoromethane (Surr)	95		72-131
2037-26-5	Toluene-d8 (Surr)	92		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: GAC1-042117 | Lab Sample ID: 460-132038-3

Matrix: Water | Lab File ID: J54498.D

Analysis Method: 8260C | Date Collected: 04/21/2017 13:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2017 01:48

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 432948 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: GAC2-042117 | Lab Sample ID: 460-132038-4

Matrix: Water | Lab File ID: J54475.D

Analysis Method: 8260C | Date Collected: 04/21/2017 13:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 15:54

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 432799 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	7.0	U	25	7.0
79-34-5	1,1,2,2-Tetrachloroethane	4.8	U	25	4.8
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	8.5	U	25	8.5
79-00-5	1,1,2-Trichloroethane	2.0	U	25	2.0
75-34-3	1,1-Dichloroethane	6.0	U	25	6.0
75-35-4	1,1-Dichloroethene	8.5	U	25	8.5
87-61-6	1,2,3-Trichlorobenzene	8.8	U	25	8.8
120-82-1	1,2,4-Trichlorobenzene	6.8	U	25	6.8
96-12-8	1,2-Dibromo-3-Chloropropane	5.8	U	25	5.8
95-50-1	1,2-Dichlorobenzene	5.5	U	25	5.5
107-06-2	1,2-Dichloroethane	6.3	U	25	6.3
78-87-5	1,2-Dichloropropane	4.5	U	25	4.5
541-73-1	1,3-Dichlorobenzene	8.3	U	25	8.3
106-46-7	1,4-Dichlorobenzene	8.3	U	25	8.3
123-91-1	1,4-Dioxane	220	U	1300	220
78-93-3	2-Butanone (MEK)	55	U	130	55
591-78-6	2-Hexanone	18	U	130	18
108-10-1	4-Methyl-2-pentanone (MIBK)	16	U	130	16
67-64-1	Acetone	27	U	130	27
71-43-2	Benzene	12000		25	2.3
75-25-2	Bromoform	4.5	U	25	4.5
74-83-9	Bromomethane	4.5	U	25	4.5
75-15-0	Carbon disulfide	5.5	U	25	5.5
56-23-5	Carbon tetrachloride	8.3	U	25	8.3
108-90-7	Chlorobenzene	6.0	U	25	6.0
74-97-5	Chlorobromomethane	7.5	U	25	7.5
124-48-1	Chlorodibromomethane	5.5	U	25	5.5
75-00-3	Chloroethane	9.3	U	25	9.3
67-66-3	Chloroform	5.5	U	25	5.5
74-87-3	Chloromethane	5.5	U	25	5.5
156-59-2	cis-1,2-Dichloroethene	6.5	U	25	6.5
10061-01-5	cis-1,3-Dichloropropene	4.0	U	25	4.0
110-82-7	Cyclohexane	6.5	U	25	6.5
75-27-4	Dichlorobromomethane	3.8	U	25	3.8
75-71-8	Dichlorodifluoromethane	3.5	UJ	25	3.5

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: GAC2-042117 | Lab Sample ID: 460-132038-4

Matrix: Water | Lab File ID: J54475.D

Analysis Method: 8260C | Date Collected: 04/21/2017 13:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 15:54

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 432799 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-41-4	Ethylbenzene	7.5	U	25	7.5
106-93-4	Ethylene Dibromide	4.8	U	25	4.8
98-82-8	Isopropylbenzene	8.0	U	25	8.0
79-20-9	Methyl acetate	15	U	130	15
1634-04-4	Methyl tert-butyl ether	3.3	U	25	3.3
108-87-2	Methylcyclohexane	5.5	U	25	5.5
75-09-2	Methylene Chloride	5.3	U	25	5.3
179601-23-1	m-Xylene & p-Xylene	7.0	U	25	7.0
95-47-6	o-Xylene	8.0	U	25	8.0
100-42-5	Styrene	4.3	U	25	4.3
127-18-4	Tetrachloroethene	3.0	U	25	3.0
108-88-3	Toluene	6.3	U	25	6.3
156-60-5	trans-1,2-Dichloroethene	4.5	U	25	4.5
10061-02-6	trans-1,3-Dichloropropene	4.8	U	25	4.8
79-01-6	Trichloroethene	5.5	U	25	5.5
75-69-4	Trichlorofluoromethane	3.8	U	25	3.8
75-01-4	Vinyl chloride	1.5	U	25	1.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		74-132
460-00-4	4-Bromofluorobenzene	99		77-124
1868-53-7	Dibromofluoromethane (Surr)	92		72-131
2037-26-5	Toluene-d8 (Surr)	88		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG No.:

Client Sample ID: GAC2-042117 Lab Sample ID: 460-132038-4

Matrix: Water Lab File ID: J54475.D

Analysis Method: 8260C Date Collected: 04/21/2017 13:40

Sample wt/vol: 5(mL) Date Analyzed: 04/25/2017 15:54

Soil Aliquot Vol: Dilution Factor: 25

Soil Extract Vol.: GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 432799 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: WWTP-042117 | Lab Sample ID: 460-132038-1

Matrix: Water | Lab File ID: M2404862.D

Analysis Method: 8270D | Date Collected: 04/21/2017 13:10

Extract. Method: 3510C | Date Extracted: 04/23/2017 07:11

Sample wt/vol: 250(mL) | Date Analyzed: 04/24/2017 08:35

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 432499 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	10	0.88
208-96-8	Acenaphthylene	0.65	U	10	0.65
120-12-7	Anthracene	0.57	U	10	0.57
191-24-2	Benzo[g,h,i]perylene	0.75	U	10	0.75
218-01-9	Chrysene	0.67	U	2.0	0.67
206-44-0	Fluoranthene	0.72	U	10	0.72
86-73-7	Fluorene	0.80	U	10	0.80
91-20-3	Naphthalene	1.4	J	10	0.80
85-01-8	Phenanthrene	0.65	U	10	0.65
129-00-0	Pyrene	0.83	U	10	0.83

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	66		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	75		51-108
1718-51-0	Terphenyl-d14 (Surr)	69		40-148

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: BFF-042117 | Lab Sample ID: 460-132038-2

Matrix: Water | Lab File ID: M2404863.D

Analysis Method: 8270D | Date Collected: 04/21/2017 13:25

Extract. Method: 3510C | Date Extracted: 04/23/2017 07:11

Sample wt/vol: 240(mL) | Date Analyzed: 04/24/2017 08:56

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 432499 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	57		10	0.92
208-96-8	Acenaphthylene	10		10	0.68
120-12-7	Anthracene	4.6	J	10	0.59
191-24-2	Benzo[g,h,i]perylene	0.78	U	10	0.78
218-01-9	Chrysene	0.70	U	2.1	0.70
206-44-0	Fluoranthene	2.7	J	10	0.75
86-73-7	Fluorene	31		10	0.83
91-20-3	Naphthalene	19		10	0.83
85-01-8	Phenanthrene	36		10	0.68
129-00-0	Pyrene	3.6	J	10	0.86

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	63		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	53		51-108
1718-51-0	Terphenyl-d14 (Surr)	46		40-148

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: GAC1-042117 | Lab Sample ID: 460-132038-3

Matrix: Water | Lab File ID: M2404929.D

Analysis Method: 8270D | Date Collected: 04/21/2017 13:30

Extract. Method: 3510C | Date Extracted: 04/23/2017 07:11

Sample wt/vol: 241(mL) | Date Analyzed: 04/25/2017 10:11

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 432775 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	1.8	U	21	1.8
208-96-8	Acenaphthylene	1.3	U	21	1.3
120-12-7	Anthracene	1.2	U	21	1.2
191-24-2	Benzo[g,h,i]perylene	1.6	U	21	1.6
218-01-9	Chrysene	1.4	U	4.1	1.4
206-44-0	Fluoranthene	1.5	U	21	1.5
86-73-7	Fluorene	1.7	U	21	1.7
91-20-3	Naphthalene	1.7	U	21	1.7
85-01-8	Phenanthrene	1.3	U	21	1.3
129-00-0	Pyrene	1.7	U	21	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	55		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	50	X	51-108
1718-51-0	Terphenyl-d14 (Surr)	56		40-148

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: GAC2-042117 | Lab Sample ID: 460-132038-4

Matrix: Water | Lab File ID: M2404865.D

Analysis Method: 8270D | Date Collected: 04/21/2017 13:40

Extract. Method: 3510C | Date Extracted: 04/23/2017 07:11

Sample wt/vol: 246(mL) | Date Analyzed: 04/24/2017 09:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 432499 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.89	U	10	0.89
208-96-8	Acenaphthylene	0.66	U	10	0.66
120-12-7	Anthracene	0.58	U	10	0.58
191-24-2	Benzo[g,h,i]perylene	0.76	U	10	0.76
218-01-9	Chrysene	0.68	U	2.0	0.68
206-44-0	Fluoranthene	0.73	U	10	0.73
86-73-7	Fluorene	0.81	U	10	0.81
91-20-3	Naphthalene	0.81	U	10	0.81
85-01-8	Phenanthrene	0.66	U	10	0.66
129-00-0	Pyrene	0.84	U	10	0.84

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	47		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	54		51-108
1718-51-0	Terphenyl-d14 (Surr)	54		40-148

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: WWTP-042117 | Lab Sample ID: 460-132038-1

Matrix: Water | Lab File ID: h19225.D

Analysis Method: 8270D SIM | Date Collected: 04/21/2017 13:10

Extract. Method: 3510C | Date Extracted: 04/23/2017 07:11

Sample wt/vol: 250(mL) | Date Analyzed: 04/24/2017 13:05

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 432504 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-55-3	Benzo[a]anthracene	0.037	U	0.050	0.037
50-32-8	Benzo[a]pyrene	0.026	U	0.050	0.026
205-99-2	Benzo[b]fluoranthene	0.013	J	0.050	0.012
118-74-1	Hexachlorobenzene	0.0090	U	0.020	0.0090
193-39-5	Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: BFF-042117 DL | Lab Sample ID: 460-132038-2 DL

Matrix: Water | Lab File ID: h19235.D

Analysis Method: 8270D SIM | Date Collected: 04/21/2017 13:25

Extract. Method: 3510C | Date Extracted: 04/23/2017 07:11

Sample wt/vol: 240(mL) | Date Analyzed: 04/24/2017 18:42

Con. Extract Vol.: 2(mL) | Dilution Factor: 5

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 432654 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-55-3	Benzo[a]anthracene	0.32	~~D~~	0.26	0.19
50-32-8	Benzo[a]pyrene	0.14	U	0.26	0.14
205-99-2	Benzo[b]fluoranthene	0.063	U	0.26	0.063
118-74-1	Hexachlorobenzene	0.047	U	0.10	0.047
193-39-5	Indeno[1,2,3-cd]pyrene	0.14	U	0.26	0.14

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: GAC1-042117 | Lab Sample ID: 460-132038-3

Matrix: Water | Lab File ID: h19236.D

Analysis Method: 8270D SIM | Date Collected: 04/21/2017 13:30

Extract. Method: 3510C | Date Extracted: 04/23/2017 07:11

Sample wt/vol: 241(mL) | Date Analyzed: 04/24/2017 19:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 2

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 432654 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-55-3	Benzo[a]anthracene	0.077	U	0.10	0.077
50-32-8	Benzo[a]pyrene	0.054	U	0.10	0.054
205-99-2	Benzo[b]fluoranthene	0.025	U	0.10	0.025
118-74-1	Hexachlorobenzene	0.019	U	0.041	0.019
193-39-5	Indeno[1,2,3-cd]pyrene	0.056	U	0.10	0.056

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-132038-1

SDG No.:

Client Sample ID: GAC2-042117 | Lab Sample ID: 460-132038-4

Matrix: Water | Lab File ID: h19237.D

Analysis Method: 8270D SIM | Date Collected: 04/21/2017 13:40

Extract. Method: 3510C | Date Extracted: 04/23/2017 07:11

Sample wt/vol: 246(mL) | Date Analyzed: 04/24/2017 19:29

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 432654 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-55-3	Benzo[a]anthracene	0.038	U	0.051	0.038
50-32-8	Benzo[a]pyrene	0.026	U	0.051	0.026
205-99-2	Benzo[b]fluoranthene	0.012	U	0.051	0.012
118-74-1	Hexachlorobenzene	0.0091	U	0.020	0.0091
193-39-5	Indeno[1,2,3-cd]pyrene	0.027	U	0.051	0.027

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: WWTP-042117 Lab Sample ID: 460-132038-1

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2017 13:10

Reporting Basis: WET Date Received: 04/21/2017 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.64	2.0	0.64	ug/L	U		2	6020A
7440-02-0	Nickel	1.4	4.0	1.4	ug/L	U		2	6020A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WWTP-042117 Lab Sample ID: 460-132038-1

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2017 13:10

Reporting Basis: WET Date Received: 04/21/2017 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.0020	0.010	0.0020	mg/L	U		1	335.4
	Turbidity	3.40	0.500	0.160	NTU			1	180.1
	Total Suspended Solids	2.0	1.0	1.0	mg/L			1	SM 2540D
	pH	8.1			SU		~~HF~~ J	1	SM 4500 H+ B

h

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WWTP-042117 Lab Sample ID: 460-132038-1

Lab Name: TestAmerica Pittsburgh Job No.: 460-132038-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2017 13:10

Reporting Basis: WET Date Received: 04/21/2017 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Cyanide, Available	0.00036	0.0020	0.00036	mg/L	U		1	OIA-1677

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-133740-1

SDG No.:

Client Sample ID: WWTP-051917 Lab Sample ID: 460-133740-1

Matrix: Water Lab File ID: P28260.D

Analysis Method: 8260C Date Collected: 05/19/2017 12:15

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2017 12:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 438508 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	0.090	U	1.0	0.090
100-41-4	Ethylbenzene	0.30	U	1.0	0.30
179601-23-1	m-Xylene & p-Xylene	0.28	U	1.0	0.28
95-47-6	o-Xylene	0.32	U	1.0	0.32
108-88-3	Toluene	0.25	U	1.0	0.25
1330-20-7	Xylenes, Total	0.28	U	2.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		74-132
460-00-4	4-Bromofluorobenzene	98		77-124
1868-53-7	Dibromofluoromethane (Surr)	112		72-131
2037-26-5	Toluene-d8 (Surr)	103		80-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-133740-1

SDG No.:

Client Sample ID: WWTP-051917 | Lab Sample ID: 460-133740-1

Matrix: Water | Lab File ID: U3846.D

Analysis Method: 8270D | Date Collected: 05/19/2017 12:15

Extract. Method: 3510C | Date Extracted: 05/21/2017 14:03

Sample wt/vol: 250(mL) | Date Analyzed: 05/24/2017 11:55

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 439004 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	10	0.88
208-96-8	Acenaphthylene	0.65	U	10	0.65
120-12-7	Anthracene	0.57	U	10	0.57
191-24-2	Benzo[g,h,i]perylene	0.75	U	10	0.75
218-01-9	Chrysene	0.67	U	2.0	0.67
206-44-0	Fluoranthene	0.72	U	10	0.72
86-73-7	Fluorene	0.80	U	10	0.80
91-20-3	Naphthalene	0.80	U	10	0.80
85-01-8	Phenanthrene	0.65	U	10	0.65
129-00-0	Pyrene	0.83	U	10	0.83

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	70		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	79		51-108
1718-51-0	Terphenyl-d14 (Surr)	100		40-148

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-133740-1

SDG No.:

Client Sample ID: WWTP-051917 | Lab Sample ID: 460-133740-1

Matrix: Water | Lab File ID: h19995.D

Analysis Method: 8270D SIM | Date Collected: 05/19/2017 12:15

Extract. Method: 3510C | Date Extracted: 05/21/2017 14:03

Sample wt/vol: 250(mL) | Date Analyzed: 05/22/2017 11:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 438482 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-55-3	Benzo[a]anthracene	0.037	U	0.050	0.037
50-32-8	Benzo[a]pyrene	0.026	U	0.050	0.026
205-99-2	Benzo[b]fluoranthene	0.012	UJ	0.050	0.012
118-74-1	Hexachlorobenzene	0.0090	U	0.020	0.0090
193-39-5	Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: WWTP-051917 Lab Sample ID: 460-133740-1

Lab Name: TestAmerica Edison Job No.: 460-133740-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2017 12:15

Reporting Basis: WET Date Received: 05/19/2017 14:51

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.65	2.0	0.64	ug/L	J		2	6020A
7440-02-0	Nickel	1.4	4.0	1.4	ug/L	J		2	6020A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WWTP-051917 Lab Sample ID: 460-133740-1

Lab Name: TestAmerica Edison Job No.: 460-133740-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2017 12:15

Reporting Basis: WET Date Received: 05/19/2017 14:51

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.0020	0.010	0.0020	mg/L	U		1	335.4
	Turbidity	2.93	0.500	0.160	NTU			1	180.1
	Total Suspended Solids	2.7	1.0	1.0	mg/L			1	SM 2540D
	pH	8.5			SU		~~HF~~ J	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WWTP-051917 Lab Sample ID: 460-133740-1

Lab Name: TestAmerica Pittsburgh Job No.: 460-133740-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2017 12:15

Reporting Basis: WET Date Received: 05/19/2017 14:51

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Cyanide, Available	0.00036	0.0020	0.00036	mg/L	U		1	OIA-1677

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-135447-1

SDG No.:

Client Sample ID: WWTP-061617 | Lab Sample ID: 460-135447-1

Matrix: Water | Lab File ID: F49076.D

Analysis Method: 8260C | Date Collected: 06/16/2017 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/20/2017 12:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 444547 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	2.1		1.0	0.090
100-41-4	Ethylbenzene	0.30	U	1.0	0.30
179601-23-1	m-Xylene & p-Xylene	0.28	U	1.0	0.28
95-47-6	o-Xylene	0.32	U	1.0	0.32
108-88-3	Toluene	0.25	U	1.0	0.25
1330-20-7	Xylenes, Total	0.28	U	2.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		74-132
460-00-4	4-Bromofluorobenzene	94		77-124
1868-53-7	Dibromofluoromethane (Surr)	93		72-131
2037-26-5	Toluene-d8 (Surr)	80		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-135447-1

SDG No.:

Client Sample ID: WWTP-061617 RA | Lab Sample ID: 460-135447-1 RA

Matrix: Water | Lab File ID: F49379.D

Analysis Method: 8260C | Date Collected: 06/16/2017 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2017 18:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 445924 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	*Benzene*	*2.3*		*1.0*	*0.090*
100-41-4	*Ethylbenzene*	*0.30*	*U*	*1.0*	*0.30*
179601-23-1	*m-Xylene & p-Xylene*	*0.28*	*U*	*1.0*	*0.28*
95-47-6	*o-Xylene*	*0.32*	*U*	*1.0*	*0.32*
108-88-3	*Toluene*	*0.25*	*U*	*1.0*	*0.25*
1330-20-7	*Xylenes, Total*	*0.28*	*U*	*2.0*	*0.28*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		74-132
460-00-4	4-Bromofluorobenzene	97		77-124
1868-53-7	Dibromofluoromethane (Surr)	100		72-131
2037-26-5	Toluene-d8 (Surr)	105		80-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-135447-1

SDG No.:

Client Sample ID: WWTP-061617 | Lab Sample ID: 460-135447-1

Matrix: Water | Lab File ID: U49261.D

Analysis Method: 8270D | Date Collected: 06/16/2017 11:00

Extract. Method: 3510C | Date Extracted: 06/18/2017 07:08

Sample wt/vol: 250(mL) | Date Analyzed: 06/21/2017 13:36

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 444895 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.88	U	10	0.88
208-96-8	Acenaphthylene	0.65	U	10	0.65
120-12-7	Anthracene	0.57	U	10	0.57
191-24-2	Benzo[g,h,i]perylene	0.75	U	10	0.75
218-01-9	Chrysene	0.67	U	2.0	0.67
206-44-0	Fluoranthene	0.72	U	10	0.72
86-73-7	Fluorene	0.80	U	10	0.80
91-20-3	Naphthalene	0.80	U	10	0.80
85-01-8	Phenanthrene	0.65	U	10	0.65
129-00-0	Pyrene	0.83	U	10	0.83

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	88		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	91		51-108
1718-51-0	Terphenyl-d14 (Surr)	76		40-148

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-135447-1

SDG No.:

Client Sample ID: WWTP-061617 | Lab Sample ID: 460-135447-1

Matrix: Water | Lab File ID: h20989.D

Analysis Method: 8270D SIM | Date Collected: 06/16/2017 11:00

Extract. Method: 3510C | Date Extracted: 06/18/2017 07:08

Sample wt/vol: 250(mL) | Date Analyzed: 06/21/2017 13:55

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 444799 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-55-3	Benzo[a]anthracene	0.037	U	0.050	0.037
50-32-8	Benzo[a]pyrene	0.026	U	0.050	0.026
205-99-2	Benzo[b]fluoranthene	0.012	U	0.050	0.012
118-74-1	Hexachlorobenzene	0.0090	U	0.020	0.0090
193-39-5	Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: WWTP-061617 Lab Sample ID: 460-135447-1

Lab Name: TestAmerica Edison Job No.: 460-135447-1

SDG ID.:

Matrix: Water Date Sampled: 06/16/2017 11:00

Reporting Basis: WET Date Received: 06/16/2017 13:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.64	2.0	0.64	ug/L	U		2	6020A
7440-02-0	Nickel	1.4	4.0	1.4	ug/L	U		2	6020A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WWTP-061617 Lab Sample ID: 460-135447-1

Lab Name: TestAmerica Edison Job No.: 460-135447-1

SDG ID.:

Matrix: Water Date Sampled: 06/16/2017 11:00

Reporting Basis: WET Date Received: 06/16/2017 13:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
57-12-5	Cyanide, Total	0.0020	0.010	0.0020	mg/L	U		1	335.4
	Turbidity	2.08	0.500	0.160	NTU			1	180.1
	Total Suspended Solids	1.9	1.0	1.0	mg/L			1	SM 2540D
	pH	8.1			SU		~~HF~~ J	1	SM 4500 H+ B

h

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WWTP-061617 Lab Sample ID: 460-135447-1

Lab Name: TestAmerica Pittsburgh Job No.: 460-135447-1

SDG ID.:

Matrix: Water Date Sampled: 06/16/2017 11:00

Reporting Basis: WET Date Received: 06/16/2017 13:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Cyanide, Available	0.00036	0.0020	0.00036	mg/L	U		1	OIA-1677

Appendix C

Support Documentation

SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 460-127464-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-127464-1	WWTP-012717	Water	01/27/2017 1200	01/27/2017 1200

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY

460-127464 Chain of Custody

Name (for report and invoice) Robert Fostner	Samplers Name (Printed) Brian Tate	Site/Project Identification National Grid Former Clifton MGP
Company AECOM	P. O. # 60137363.600	State (Location of site): NJ: ☐ NY: ☑ Other:
		Regulatory Program: NYSDEC, SPDES DKQP: ☐
Address 125 Broad Street	Analysis Turnaround Time: Standard ☐	
City New York State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☒ 3 day	
Phone 212 377-8724 Fax		

Sample Identification	Date	Time	Matrix	No. of Cont.	1677 Available CN	335.4 Total CN	8270 OP PAH + SIM	2540D TSS	pH + turbidity	8260C BTEX	6020 As + Ni					LAB USE ONLY Sample Numbers
WWTP-012717	1/27/17	1200	GW	10	X	X	X	X	X	X	X					1
SHORT HOLD																
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH Soil:					D	C	D	D	D	D	D					
6 = Other _____, 7 = Other _____ Water:					1	1	2	1	1	3	1					

Special Instructions Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1)	AECOM	1/27/17 1243	1)	
Relinquished by 2)	Company	Date / Time	Received by 2)	Company 1/27/17 1243
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company 2.9-48

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 127464

Number of Coolers: 1 IR Gun #: 8

Cooler Temperatures

	Temp 1	Temp 2		Temp 1	Temp 2		Temp 1	Temp 2
Cooler #1:	1.4 °C	°C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-8)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
1				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: NA

Preservative Name/Conc.: NA Volume of Preservative used (ml): NA

Lot # of Preservative(s): NA Expiration Date: NA

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: [illegible] Date: 1/27/17

TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Phone (732) 549-3900 Fax (732) 549-3679

Chain of Custody Record

460-127464 Chain of Custody

stAmerica
LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: DeGraw, Kristin B	7628.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: kristin.degraw@testamericainc.com	New York: 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York	Job #: 460-127464-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 2/2/2017		
City: Pittsburgh	TAT Requested (days):		
State, Zip: PA, 15238			
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:		
Email:	WO #:		
Project Name: National Grid - Former Clifton MGP	Project #: 46018542		
Site: AECOM - Former Clifton MGP	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677/ (MOD) Cyanide, Available (Flow Injection	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
WWTP-012717 (460-127464-1)	1/27/17	12:00 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 1/30/17 1800	Company: FedEx	Received by: [signature] Walton	Date/Time: 1-31-17	Company: TAL
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: 8:50	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No:	Cooler Temperature(s) °C and Other Remarks:

02/03/2017

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 460-127464-1

Login Number: 127464
List Number: 1
Creator: Rivera, Kenneth

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4°C, IR #8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

SIM

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-127464-1

SDG No.:

Lab Sample ID: CCVIS 460-417204/2 Calibration Date: 01/31/2017 07:20

Instrument ID: CBNAMS4 Calib Start Date: 01/24/2017 10:55

GC Column: Rtxi-5Sil MS ID: 0.25(mm) Calib End Date: 01/24/2017 14:41

Lab File ID: U332065.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	3.325	3.955		242	200	19.0	20.0
N-Nitrosodimethylamine	Ave	0.9601	1.329		136	100	38.4*	20.0
Bis(2-chloroethyl)ether	QuaF		1.382	0.7000	25.1	20.0	25.4*	20.0
Naphthalene	Ave	2.259	2.091	0.7000	18.6	20.0	-7.5	20.0
Acenaphthylene	Ave	5.942	5.679	0.9000	19.1	20.0	-4.4	20.0
Acenaphthene	Ave	1.734	1.637	0.9000	19.0	20.0	-5.6	20.0
Fluorene	Ave	1.950	1.783	0.9000	18.1	20.0	-8.6	20.0
4,6-Dinitro-2-methylphenol	Qua		0.0310	0.0100	149	400	-62.7*	20.0
Hexachlorobenzene	Ave	0.6081	0.5942	0.1000	19.6	20.0	-2.3	20.0
Pentachlorophenol	Ave	0.3096	0.3430	0.0500	108	100	10.8	20.0
Phenanthrene	Ave	1.201	1.143	0.7000	19.1	20.0	-4.8	20.0
Anthracene	Ave	1.190	1.138	0.7000	19.0	20.0	-4.4	20.0
Fluoranthene	Ave	2.729	2.571	0.6000	18.9	20.0	-5.8	20.0
Pyrene	Ave	4.445	4.274	0.6000	19.3	20.0	-3.9	20.0
Benzo[a]anthracene	Ave	1.538	1.369	0.8000	17.8	20.0	-11.0	20.0
Chrysene	Ave	1.552	1.498	0.7000	19.4	20.0	-3.5	20.0
Benzo[b]fluoranthene	Ave	1.588	1.416		17.6	20.0	-10.8	20.0
Benzo[k]fluoranthene	Ave	1.688	2.006	0.7000	23.5	20.0	18.8	20.0
Benzo[a]pyrene	Ave	1.412	1.180	0.7000	16.9	20.0	-16.4	20.0
Indeno[1,2,3-cd]pyrene	Ave	0.9685	0.6677	0.5000	13.6	20.0	-31.1*	20.0
Dibenz(a,h)anthracene	Ave	0.9264	0.5719	0.4000	12.1	20.0	-38.3*	20.0
Benzo[g,h,i]perylene	Ave	1.197	0.8384	0.5000	13.9	20.0	-30.0*	20.0
Nitrobenzene-d5	Ave	0.3757	0.3744		402	400	-0.4	20.0
2-Fluorobiphenyl	Ave	2.181	2.058		372	400	-5.7	20.0
Terphenyl-d14	Ave	0.7957	0.7537		379	400	-5.3	20.0

SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 460-128584-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-128584-1	WWTP-021717	Water	02/17/2017 1140	02/17/2017 1255

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

02/23/2017

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Robert Forstner	Samplers Name (Printed) Brian Tate	Site/Project Identification National Grid Former Clifton MGP
Company AECOM	P. O. # 60137363.600	State (Location of site): NJ: ☐ NY: ☐ Other:
		Regulatory Program: DKQP: ☐
Address 125 Broad Street 16th Fl	Analysis Turnaround Time: Standard ☐	
City New York State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☒ 3 day	
Phone 212-377-8121 Fax		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

LAB USE ONLY
Project No:
Job No: 128584

Sample Identification	Date	Time	Matrix	No. of Cont.	1671 Available CN	335.4 Total CN	82300 PP pH	2540D TSS	8260C BTEX	6020A As, Ni	pH Turbidity	Sample Numbers
MWTP-021717	2/17/17	1140	GW	10	X	X	X	X	X	X	X	1

460-128584 Chain of Custody

SHORT HOLD

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil:													
Water:	1	1	2	1	3	1	1						

Special Instructions _____ Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
	AECOM	2/17/17 1245	1)	TT Edi
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578) IRS-0.2 NOCs

TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Phone (732) 549-3900 Fax (732) 549-3679

Chain of Custody Record

460-128584 Chain of Custody

merica
IRONMENTAL TESTING

10 PP

Client Information (Sub Contract Lab)	Sampler:	Lab PM: DeGraw, Kristin B
Client Contact: Shipping/Receiving	Phone:	E-Mail: kristin.degraw@testamericainc.com
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 2/22/2017	
City: Pittsburgh	TAT Requested (days):	
State, Zip: PA, 15238		
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:	
Email:	WO #:	
Project Name: National Grid - Former Clifton MGP	Project #: 46018542	
Site: AECOM - Former Clifton MGP	SSOW#:	

Job #: 460-128584-1

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677/ Cyanide, Available (Flow Injection)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
WWTP-021717 (460-128584-1)	2/17/17	11:40 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 2/17/17 1800	Company: STL	Received by: D Wasser	Date/Time: 2-18-17 850	Company: TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

02/23/2017

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 460-128584-1

Login Number: 128584
List Number: 2
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh
List Creation: 02/18/17 02:54 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

SAMPLE SUMMARY

Client: AECOM, Inc. Job Number: 460-130118-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-130118-1	WWTP-032217	Water	03/22/2017 1250	03/22/2017 1435

TestAmerica Pittsburgh

301 Alpha Drive

Pittsburgh, PA 15238
Phone: 412.963.7058 Fax: 412.963. 0

Chain of Custody Record

100278

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Rob Forsner	Site Contact:	Date:	COC No:
Company Name: ABCOM	Tel/Fax:	Lab Contact:	Carrier:	1 of 1 COCs
Address: 125 Broad Street	Analysis Turnaround Time			Sampler:
City/State/Zip: New York, NY	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 212 377-8721	TAT if different from Below 3 days			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Natur Grid Perms, MOP	☐ 1 week			Job / SDG No.: 130118
Site: Clifton MOP	☐ 2 days			
PO# 8013763600	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	1677 Ammonia as N	335.4 Total CN	8270D PAH	2540D TSS	4500 pH, Fluoride	8260 MTBE	6020A Ni, As	Sample Specific Notes:
WWTP-032217	3/22/17	1250	G	GW	10			X	X	X	X	X	X	X	

460-130118 Chain of Custody

3-Day RUSH

Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
NYSDEC, SPDES

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	ABCOM	3/22/17/1435		TestA	3/22/17/1435
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

2.9 #RH 8

TestAmerica Edison
Receipt Temperature and pH Log

Page ____ of ____

Job Number: 130118

Number of Coolers: 1 IR Gun #: 8

Cooler Temperatures

	Raw	Corrected		Raw	Corrected		Raw	Corrected
Cooler #1:	2.7 °C	°C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
1				Z2								712			

If pH adjustments are required record the information below:

Sample No(s). adjusted: NA

Preservative Name/Conc.: NA Volume of Preservative used (ml): NA

Lot # of Preservative(s): NA Expiration Date: NA

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: KL Date: 3/22/17

TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Phone (732) 549-3900 Fax (732) 549-3679

Chain of Custody Record

460-130118 Chain of Custody

TestAmerica — LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: DeGraw, Kristin B	37.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: kristin.degraw@testamericainc.com	New York — Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York	Job #: 460-130118-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 3/27/2017		
City: Pittsburgh	TAT Requested (days):		
State, Zip: PA, 15238			
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:		
Email:	WO #:		
Project Name: National Grid - Former Clifton MGP	Project #: 46018542		
Site: AECOM - Former Clifton MGP	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677/ Cyanide, Available (Flow Injection)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
WWTP-032217 (460-130118-1)	3/22/17	12:50 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification — *Unconfirmed*	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* — ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 1	Special Instructions/QC Requirements:
Empty Kit Relinquished by: — Date: — Time:	Method of Shipment:

Relinquished by:	Date/Time: 3/22/17 1800	Company: TAL	Received by:	Date/Time: 3-23-17 700	Company: TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No — Custody Seal No.: — Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 460-130118-1

Login Number: 130118
List Number: 1
Creator: Rivera, Kenneth

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.9°C, IR #8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 460-130118-1

Login Number: 130118
List Number: 2
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh
List Creation: 03/23/17 10:54 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

SAMPLE SUMMARY

Client: AECOM, Inc. Job Number: 460-132038-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-132038-1	WWTP-042117	Water	04/21/2017 1310	04/21/2017 1700
460-132038-2	BFF-042117	Water	04/21/2017 1325	04/21/2017 1700
460-132038-3	GAC1-042117	Water	04/21/2017 1330	04/21/2017 1700
460-132038-4	GAC2-042117	Water	04/21/2017 1340	04/21/2017 1700

TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
Phone: 412.963.7058 Fax: 412.963. 0

Chain of Custody Record

100277

TestAmerica
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TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Rob Forstner	Site Contact:	Date: 4/21/17	COC No:
Company Name: AECOM	Tel/Fax:	Lab Contact:	Carrier:	1 of 1 COCs
Address: 125 Broad Street 16th Flr	Analysis Turnaround Time			Sampler:
City/State/Zip: NY, NY	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below 3 days			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Natural Gas	☐ 1 week			
Site: Former Clinton MGP	☐ 2 days			Job / SDG No.: 132038
PO# equote: 4600018503	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	1677 Aq/CN	335.4 CN	2270D PAH+SIM	2540D TSS	pH 4500, turbidity	8260C, BTEX	6020A Hg, Ni	Full 8260C, VOC	Sample Specific Notes:
WW TP-042117	4/21/17	1310	G	GW	10			X	X	X	X	X	X	X		
BFE-042117	4/21/17	1325	G	GW	5					X					X	Sample for full VOC - 2
GAC1-042117	4/21/17	1330	G	GW	5					X					X	Sample for full VOC - 3
GAC2-042117	4/21/17	1340	G	GW	5					X					X	Sample for Full VOC - 1

460-132038 Chain of Custody

SHORT HOLD

Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	AECOM	4/21/17		TAEDT	1700 4/21/17
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

1.8°C IR#8

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 132038

Number of Coolers: _____ IR Gun #: 5

Cooler Temperatures

	Corrected		Corrected		Corrected
Cooler #1:	°C	°C	Cooler #4: °C	°C	Cooler #7: °C	°C
Cooler #2:	°C	°C	Cooler #5: °C	°C	Cooler #8: °C	°C
Cooler #3:	°C	°C	Cooler #6: °C	°C	Cooler #9: °C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
1				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

**Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: KW **Date:** 4/21/17

460-152038 Waybill

ORIGIN ID:LDJA (732) 549-3900
SAMPLE CONTROL - BRIAN BORDIER
TESTAMERICA INC.
777 NEW DURHAM ROAD
EDISON, NJ 08817
UNITED STATES US

SHIP DATE: 24APR17
ACTWGT: 13.05 LB
CAD: 0358159/CAFE3611

BILL RECIPIENT

TO SAMPLE CUSTODY
TEST AMERICA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 152382907
(412) 963-7058
REF: S400-83421

FedEx Express

TUE - 25 APR 10:30A
PRIORITY OVERNIGHT

TRK# 0201 6116 6279 3196

15238
PIT
PA-US

EV AGCA

Uncorrected temp 3.4 °C
Thermometer ID 12
CF 0 Initials TS

PT-WI-SR-001 effective 7/26/13

TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Phone (732) 549-3900 Fax (732) 549-3679

Chain of Custody Record

460-132038 Chain of Custody

America
THE ENVIRONMENTAL TESTING

1

4 1BB

Client Information (Sub Contract Lab)	Sampler:	Lab PM: DeGraw, Kristin B	
Client Contact: Shipping/Receiving	Phone:	E-Mail: kristin.degraw@testamericainc.com	New York / Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York	Job #: 460-132038-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 4/26/2017		
City: Pittsburgh	TAT Requested (days):		
State, Zip: PA, 15238			
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:		
Email:	WO #:		
Project Name: National Grid - Former Clifton MGP	Project #: 46018542		
Site: AECOM - Former Clifton MGP	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677/ Cyanide, Available (Flow injection)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
WWTP-042117 (460-132038-1)	4/21/17	13:10 Eastern		Water			X	1	

Page 800 of 803

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) / Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 4/24/17 1800	Company: TAL	Received by: D Watson	Date/Time: 4-25-17 920	Company: TAL
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 460-132038-1

Login Number: 132038
List Number: 1
Creator: Wisnewski, Kelly R

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8°C, IR#8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 460-132038-1

Login Number: 132038
List Number: 2
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh
List Creation: 04/25/17 11:07 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG No.:

Lab Sample ID: CCVIS 460-432799/2 Calibration Date: 04/25/2017 08:16

Instrument ID: CVOAMS8 Calib Start Date: 03/12/2017 12:56

GC Column: Rtx-624 ID: 0.25(mm) Calib End Date: 03/12/2017 21:10

Lab File ID: J54458.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorotrifluoroethene	Ave	0.0325	0.0262		16.1	20.0	-19.5	20.0
Dichlorodifluoromethane	Ave	0.2472	0.1965	0.1000	15.9	20.0	-20.5*	20.0
Chloromethane	Ave	0.3101	0.3050	0.1000	19.7	20.0	-1.6	20.0
Vinyl chloride	Ave	0.2818	0.2637	0.1000	18.7	20.0	-6.4	20.0
Butadiene	Ave	0.2756	0.2306		16.7	20.0	-16.4	20.0
Bromomethane	Ave	0.1480	0.1528	0.1000	20.7	20.0	3.3	50.0
Chloroethane	Ave	0.1593	0.1743	0.1000	21.9	20.0	9.4	50.0
Dichlorofluoromethane	Ave	0.4393	0.4328		19.7	20.0	-1.5	20.0
Trichlorofluoromethane	Ave	0.2936	0.3147	0.1000	21.4	20.0	7.2	20.0
Pentane	Ave	2.135	1.595		29.9	40.0	-25.3*	20.0
Ethanol	QuaF		0.0731		1810	800	126.2*	50.0
Ethyl ether	Ave	0.1931	0.1994		20.7	20.0	3.3	20.0
2-Methyl-1,3-butadiene	Ave	0.1950	0.1927		19.8	20.0	-1.1	20.0
1,2-Dichloro-1,1,2-trifluoro ethane	Ave	0.1899	0.1862		19.6	20.0	-1.9	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.2250	0.1987	0.1000	17.7	20.0	-11.7	20.0
Acrolein	Ave	0.9151	1.124		49.1	40.0	22.9	50.0
1,1-Dichloroethene	Ave	0.2246	0.2009	0.1000	17.9	20.0	-10.5	20.0
Acetone	Ave	0.7396	0.6962	0.0500	94.1	100	-5.9	50.0
Iodomethane	Ave	0.2900	0.2862		19.7	20.0	-1.3	20.0
Carbon disulfide	Ave	0.7957	0.7717	0.1000	19.4	20.0	-3.0	50.0
Isopropyl alcohol	Ave	0.5052	0.7353		291	200	45.6	50.0
Allyl chloride	Ave	0.1495	0.1432		19.2	20.0	-4.2	20.0
Cyclopentene	Ave	0.5706	0.5683		19.9	20.0	-0.4	20.0
Methyl acetate	Ave	0.1675	0.1986	0.1000	119	100	18.6	20.0
Acetonitrile	Ave	1.707	2.314		271	200	35.5*	20.0
Methylene Chloride	Ave	0.2803	0.2831	0.1000	20.2	20.0	1.0	20.0
2-Methyl-2-propanol	Ave	0.8541	1.192		279	200	39.6	50.0
Methyl tert-butyl ether	Ave	0.6646	0.6645	0.1000	20.0	20.0	-0.0	20.0
trans-1,2-Dichloroethene	Ave	0.2602	0.2518	0.1000	19.4	20.0	-3.2	20.0
Acrylonitrile	Ave	5.096	5.740		225	200	12.6	20.0
Hexane	Ave	0.2844	0.2437		17.1	20.0	-14.3	20.0
Isopropyl ether	Ave	0.7856	0.7975		20.3	20.0	1.5	20.0
1,1-Dichloroethane	Ave	0.4523	0.4594	0.2000	20.3	20.0	1.6	20.0
Vinyl acetate	Ave	0.4390	0.5114		46.6	40.0	16.5	20.0
2-Chloro-1,3-butadiene	Ave	0.2240	0.2187		19.5	20.0	-2.4	20.0
Tert-butyl ethyl ether	Ave	0.7558	0.7524		19.9	20.0	-0.4	20.0
2,2-Dichloropropane	Ave	0.1265	0.1152		18.2	20.0	-9.0	20.0
cis-1,2-Dichloroethene	Ave	0.2981	0.2887	0.1000	19.4	20.0	-3.2	20.0
2-Butanone (MEK)	Ave	0.2992	0.3087	0.0500	103	100	3.2	50.0
Ethyl acetate	Ave	0.3512	0.2862		32.6	40.0	-18.5	20.0

NOT TARGET

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG No.:

Lab Sample ID: CCVIS 460-432799/2 Calibration Date: 04/25/2017 08:16

Instrument ID: CVOAMS8 Calib Start Date: 03/12/2017 12:56

GC Column: Rtx-624 ID: 0.25(mm) Calib End Date: 03/12/2017 21:10

Lab File ID: J54458.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methyl acrylate	Ave	0.2276	0.2377		20.9	20.0	4.4	20.0
Propionitrile	Ave	1.767	2.101		238	200	18.9	20.0
Tetrahydrofuran	Ave	0.3229	0.3284		40.7	40.0	1.7	20.0
Chlorobromomethane	Ave	0.1423	0.1526		21.5	20.0	7.3	20.0
Methacrylonitrile	Ave	0.1001	0.1164		233	200	16.3	20.0
Chloroform	Ave	0.4225	0.4484	0.2000	21.2	20.0	6.1	20.0
Cyclohexane	Ave	0.4029	0.3598	0.1000	17.9	20.0	-10.7	50.0
1,1,1-Trichloroethane	Ave	0.3569	0.3750	0.1000	21.0	20.0	5.1	20.0
Carbon tetrachloride	Ave	0.2981	0.3152	0.1000	21.2	20.0	5.8	20.0
1,1-Dichloropropene	Ave	0.3352	0.3106		18.5	20.0	-7.3	20.0
2,2,4-Trimethylpentane	Ave	0.5974	0.5365		18.0	20.0	-10.2	20.0
Isobutyl alcohol	Ave	0.6371	0.7624		598	500	19.7	50.0
Benzene	Ave	1.253	1.323	0.5000	21.1	20.0	5.6	20.0
Tert-amyl methyl ether	Ave	0.7751	0.8337		21.5	20.0	7.6	20.0
Isopropyl acetate	Ave	0.6619	0.7302		22.1	20.0	10.3	20.0
1,2-Dichloroethane	Ave	0.3178	0.3423	0.1000	21.5	20.0	7.7	20.0
n-Heptane	Ave	0.1363	0.1125		16.5	20.0	-17.5	20.0
n-Butanol	Ave	0.2495	0.3169		635	500	27.0	50.0
Trichloroethene	Ave	0.2848	0.2777	0.2000	19.5	20.0	-2.5	20.0
Methylcyclohexane	Ave	0.3698	0.3310	0.1000	17.9	20.0	-10.5	50.0
Ethyl acrylate	Ave	0.6044	0.5883		19.5	20.0	-2.7	20.0
1,2-Dichloropropane	Ave	0.2757	0.2755	0.1000	20.0	20.0	-0.0	20.0
Methyl methacrylate	Ave	0.0737	0.0768		41.7	40.0	4.2	20.0
1,4-Dioxane	QuaF		1.197		757	400	89.2*	50.0
Dibromomethane	Ave	0.1662	0.1775		21.4	20.0	6.8	20.0
n-Propyl acetate	Ave	0.3392	0.3864		22.8	20.0	13.9	20.0
Dichlorobromomethane	Ave	0.3401	0.3563	0.2000	21.0	20.0	4.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1836	0.1779		19.4	20.0	-3.1	20.0
2-Nitropropane	Ave	0.0618	0.0636		41.2	40.0	2.9	20.0
Epichlorohydrin	Ave	0.2670	0.2860		429	400	7.1	20.0
cis-1,3-Dichloropropene	Ave	0.5586	0.5677	0.2000	20.3	20.0	1.6	50.0
4-Methyl-2-pentanone (MIBK)	Ave	2.395	2.536	0.0500	106	100	5.9	50.0
Toluene	Ave	1.371	1.446	0.4000	21.1	20.0	5.5	20.0
trans-1,3-Dichloropropene	Ave	0.5270	0.5121	0.1000	19.4	20.0	-2.8	50.0
Ethyl methacrylate	Ave	0.3488	0.3306		19.0	20.0	-5.2	20.0
1,1,2-Trichloroethane	Ave	0.2800	0.2877	0.1000	20.6	20.0	2.8	20.0
Tetrachloroethene	Ave	0.3788	0.4111	0.2000	21.7	20.0	8.5	20.0
1,3-Dichloropropane	Ave	0.5253	0.5521		21.0	20.0	5.1	20.0
2-Hexanone	Ave	1.001	0.9830	0.0500	98.2	100	-1.8	50.0
n-Butyl acetate	Ave	0.4769	0.5089		21.3	20.0	6.7	20.0
Chlorodibromomethane	Ave	0.3525	0.3778	0.1000	21.4	20.0	7.2	50.0

ND

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG No.:

Lab Sample ID: CCVIS 460-432799/2 Calibration Date: 04/25/2017 08:16

Instrument ID: CVOAMS8 Calib Start Date: 03/12/2017 12:56

GC Column: Rtx-624 ID: 0.25(mm) Calib End Date: 03/12/2017 21:10

Lab File ID: J54458.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethylene Dibromide	Ave	0.3249	0.3461	0.1000	21.3	20.0	6.5	20.0
Chlorobenzene	Ave	0.9637	1.001	0.5000	20.8	20.0	3.9	20.0
Ethylbenzene	Ave	0.5007	0.5083	0.1000	20.3	20.0	1.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3390	0.3851		22.7	20.0	13.6	20.0
m-Xylene & p-Xylene	Ave	0.6314	0.6126	0.1000	19.4	20.0	-3.0	20.0
n-Butyl acrylate	Ave	0.2615	0.2462		18.8	20.0	-5.8	20.0
o-Xylene	Ave	0.6277	0.6593	0.3000	21.0	20.0	5.0	20.0
Styrene	Ave	1.071	1.068	0.3000	19.9	20.0	-0.3	20.0
Amyl acetate (mixed isomers)	Ave	0.9854	1.109		22.5	20.0	12.5	20.0
Bromoform	Ave	0.2443	0.2864	0.1000	23.4	20.0	17.2	20.0
Isopropylbenzene	Ave	1.466	1.600	0.1000	21.8	20.0	9.1	20.0
Bromobenzene	Ave	0.8114	0.8799		21.7	20.0	8.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7199	0.7521	0.3000	20.9	20.0	4.5	20.0
N-Propylbenzene	Ave	2.929	3.206		21.9	20.0	9.4	20.0
1,2,3-Trichloropropane	Ave	0.2196	0.2361		21.5	20.0	7.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2077	0.2103		20.2	20.0	1.2	20.0
2-Chlorotoluene	Ave	2.160	2.339		21.7	20.0	8.3	20.0
4-Ethyltoluene	Ave	2.636	2.937		22.3	20.0	11.4	20.0
1,3,5-Trimethylbenzene	Ave	2.298	2.454		21.4	20.0	6.8	20.0
4-Chlorotoluene	Ave	1.967	2.034		20.7	20.0	3.4	20.0
Butyl Methacrylate	Ave	0.8547	0.8571		20.1	20.0	0.3	20.0
tert-Butylbenzene	Ave	1.966	2.032		20.7	20.0	3.4	20.0
1,2,4-Trimethylbenzene	Ave	2.392	2.521		21.1	20.0	5.4	20.0
sec-Butylbenzene	Ave	2.650	2.875		21.7	20.0	8.5	20.0
4-Isopropyltoluene	Ave	2.349	2.497		21.3	20.0	6.3	20.0
1,3-Dichlorobenzene	Ave	1.351	1.488	0.6000	22.0	20.0	10.2	20.0
1,4-Dichlorobenzene	Ave	1.360	1.506	0.5000	22.1	20.0	10.7	20.0
1,2,3-Trimethylbenzene	Ave	2.453	2.663		21.7	20.0	8.6	20.0
Benzyl chloride	Ave	1.339	1.428		21.3	20.0	6.7	50.0
Indan	Ave	2.506	2.707		21.6	20.0	8.0	20.0
p-Diethylbenzene	Ave	1.312	1.431		21.8	20.0	9.1	20.0
n-Butylbenzene	Ave	2.209	2.415		21.9	20.0	9.3	20.0
1,2-Dichlorobenzene	Ave	1.330	1.465	0.4000	22.0	20.0	10.2	20.0
1,2,4,5-Tetramethylbenzene	Ave	2.307	2.298		19.9	20.0	-0.4	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1232	0.1430	0.0500	23.2	20.0	16.1	50.0
1,3,5-Trichlorobenzene	Ave	0.9851	1.156		23.5	20.0	17.4	20.0
1,2,4-Trichlorobenzene	Ave	0.8536	0.9758	0.2000	22.9	20.0	14.3	20.0
Hexachlorobutadiene	QuaF		0.4368		21.2	20.0	5.8	20.0
Naphthalene	Ave	1.989	2.150		21.6	20.0	8.1	50.0
1,2,3-Trichlorobenzene	Ave	0.6101	0.7636		25.0	20.0	25.2*	20.0
Dibromofluoromethane (Surr)	Ave	0.2179	0.2080		47.7	50.0	-4.6	20.0

ND.

FORM VII 8260C

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG No.:

Lab Sample ID: CCVIS 460-432799/2 Calibration Date: 04/25/2017 08:16

Instrument ID: CVOAMS8 Calib Start Date: 03/12/2017 12:56

GC Column: Rtx-624 ID: 0.25(mm) Calib End Date: 03/12/2017 21:10

Lab File ID: J54458.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethane-d4 (Surr)	Ave	0.2399	0.2282		47.6	50.0	-4.9	20.0
Toluene-d8 (Surr)	Ave	1.144	1.029		45.0	50.0	-10.1	20.0
4-Bromofluorobenzene	Ave	0.3943	0.3975		50.4	50.0	0.8	20.0

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: J54459.D

Lab ID: LCS 460-432799/3 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	21.6	108	75-125	
1,1,2,2-Tetrachloroethane	20.0	20.5	103	74-120	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	18.6	93	59-150	
1,1,2-Trichloroethane	20.0	20.5	102	78-120	
1,1-Dichloroethane	20.0	21.2	106	77-123	
1,1-Dichloroethene	20.0	19.0	95	74-123	
1,2,3-Trichlorobenzene	20.0	25.0	125	78-131	
1,2,4-Trichlorobenzene	20.0	22.8	114	80-124	
1,2-Dibromo-3-Chloropropane	20.0	21.2	106	55-134	
1,2-Dichlorobenzene	20.0	22.1	111	80-120	
Xylenes, Total	40.0	40.5	101	80-120	
1,2-Dichloroethane	20.0	22.0	110	76-121	
1,2-Dichloropropane	20.0	20.8	104	77-123	
1,3-Dichlorobenzene	20.0	22.5	113	80-120	
1,4-Dichlorobenzene	20.0	22.3	112	80-120	
1,4-Dioxane	400	862	216	10-150	*
2-Butanone (MEK)	100	107	107	64-120	
2-Hexanone	100	102	102	71-125	
4-Methyl-2-pentanone (MIBK)	100	109	109	78-124	
Acetone	100	105	105	39-150	
Benzene	20.0	21.4	107	77-121	
Bromoform	20.0	23.9	120	53-120	
Bromomethane	20.0	17.9	89	10-150	
Carbon disulfide	20.0	20.0	100	69-133	
Carbon tetrachloride	20.0	21.8	109	70-132	
Chlorobenzene	20.0	20.7	103	80-120	
Chlorobromomethane	20.0	21.2	106	77-127	
Chlorodibromomethane	20.0	21.7	109	73-120	
Chloroethane	20.0	22.3	112	52-150	
Chloroform	20.0	22.6	113	80-120	
Chloromethane	20.0	19.7	99	56-131	
cis-1,2-Dichloroethene	20.0	20.0	100	80-120	
cis-1,3-Dichloropropene	20.0	20.4	102	77-120	
Cyclohexane	20.0	18.1	90	56-150	
Dichlorobromomethane	20.0	21.3	107	76-120	
Dichlorodifluoromethane	20.0	15.7	79	50-131	
Ethylbenzene	20.0	20.1	100	80-120	
Ethylene Dibromide	20.0	20.7	104	80-120	
Isopropylbenzene	20.0	22.3	111	80-123	
Methyl acetate	100	118	118	66-144	
Methyl tert-butyl ether	20.0	20.8	104	79-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: J54459.D

Lab ID: LCS 460-432799/3 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methylcyclohexane	20.0	18.2	91	61-145	
Methylene Chloride	20.0	20.1	101	77-123	
m-Xylene & p-Xylene	20.0	19.5	97	80-120	
o-Xylene	20.0	21.0	105	80-120	
Styrene	20.0	20.7	104	80-120	
Tetrachloroethene	20.0	21.6	108	78-122	
Toluene	20.0	21.5	108	80-120	
trans-1,2-Dichloroethene	20.0	20.3	101	79-120	
trans-1,3-Dichloropropene	20.0	19.4	97	76-120	
Trichloroethene	20.0	19.7	98	77-120	
Trichlorofluoromethane	20.0	23.1	115	71-143	
Vinyl chloride	20.0	20.4	102	62-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: J54460.D

Lab ID: LCSD 460-432799/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	20.6	103	5	30	75-125	
1,1,2,2-Tetrachloroethane	20.0	20.7	104	1	30	74-120	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.8	89	4	30	59-150	
1,1,2-Trichloroethane	20.0	20.5	102	0	30	78-120	
1,1-Dichloroethane	20.0	19.8	99	7	30	77-123	
1,1-Dichloroethene	20.0	18.8	94	1	30	74-123	
1,2,3-Trichlorobenzene	20.0	23.6	118	6	30	78-131	
1,2,4-Trichlorobenzene	20.0	22.7	113	1	30	80-124	
1,2-Dibromo-3-Chloropropane	20.0	24.2	121	13	30	55-134	
1,2-Dichlorobenzene	20.0	21.6	108	3	30	80-120	
Xylenes, Total	40.0	40.2	100	1	30	80-120	
1,2-Dichloroethane	20.0	21.4	107	3	30	76-121	
1,2-Dichloropropane	20.0	20.7	103	1	30	77-123	
1,3-Dichlorobenzene	20.0	21.7	109	4	30	80-120	
1,4-Dichlorobenzene	20.0	22.1	110	1	30	80-120	
1,4-Dioxane	400	855	214	1	30	10-150	*
2-Butanone (MEK)	100	102	102	5	30	64-120	
2-Hexanone	100	101	101	1	30	71-125	
4-Methyl-2-pentanone (MIBK)	100	107	107	1	30	78-124	
Acetone	100	103	103	2	30	39-150	
Benzene	20.0	20.8	104	3	30	77-121	
Bromoform	20.0	24.0	120	0	30	53-120	
Bromomethane	20.0	19.0	95	6	30	10-150	
Carbon disulfide	20.0	19.1	95	5	30	69-133	
Carbon tetrachloride	20.0	20.7	104	5	30	70-132	
Chlorobenzene	20.0	20.7	104	0	30	80-120	
Chlorobromomethane	20.0	20.5	103	3	30	77-127	
Chlorodibromomethane	20.0	21.8	109	0	30	73-120	
Chloroethane	20.0	20.0	100	11	30	52-150	
Chloroform	20.0	21.3	106	6	30	80-120	
Chloromethane	20.0	18.3	92	7	30	56-131	
cis-1,2-Dichloroethene	20.0	19.7	99	1	30	80-120	
cis-1,3-Dichloropropene	20.0	19.9	99	2	30	77-120	
Cyclohexane	20.0	17.3	86	4	30	56-150	
Dichlorobromomethane	20.0	20.2	101	6	30	76-120	
Dichlorodifluoromethane	20.0	14.9	75	5	30	50-131	
Ethylbenzene	20.0	20.0	100	0	30	80-120	
Ethylene Dibromide	20.0	21.8	109	5	30	80-120	
Isopropylbenzene	20.0	21.8	109	2	30	80-123	
Methyl acetate	100	120	120	2	30	66-144	
Methyl tert-butyl ether	20.0	20.6	103	1	30	79-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: J54460.D

Lab ID: LCSD 460-432799/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Methylcyclohexane	20.0	17.3	87	5	30	61-145	
Methylene Chloride	20.0	20.1	101	0	30	77-123	
m-Xylene & p-Xylene	20.0	19.7	98	1	30	80-120	
o-Xylene	20.0	20.5	102	2	30	80-120	
Styrene	20.0	20.3	102	2	30	80-120	
Tetrachloroethene	20.0	21.2	106	2	30	78-122	
Toluene	20.0	20.5	103	5	30	80-120	
trans-1,2-Dichloroethene	20.0	19.4	97	5	30	79-120	
trans-1,3-Dichloropropene	20.0	19.5	98	1	30	76-120	
Trichloroethene	20.0	18.8	94	5	30	77-120	
Trichlorofluoromethane	20.0	20.9	105	10	30	71-143	
Vinyl chloride	20.0	19.1	96	7	30	62-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: J54487.D

Lab ID: LCS 460-432948/3 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	19.9	99	75-125	
1,1,2,2-Tetrachloroethane	20.0	19.2	96	74-120	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	18.6	93	59-150	
1,1,2-Trichloroethane	20.0	19.1	96	78-120	
1,1-Dichloroethane	20.0	18.8	94	77-123	
1,1-Dichloroethene	20.0	18.2	91	74-123	
1,2,3-Trichlorobenzene	20.0	22.1	110	78-131	
1,2,4-Trichlorobenzene	20.0	21.3	106	80-124	
1,2-Dibromo-3-Chloropropane	20.0	19.9	100	55-134	
1,2-Dichlorobenzene	20.0	21.3	107	80-120	
1,2-Dichloroethane	20.0	19.7	99	76-121	
1,2-Dichloropropane	20.0	19.2	96	77-123	
1,3-Dichlorobenzene	20.0	20.9	104	80-120	
1,4-Dichlorobenzene	20.0	20.9	104	80-120	
1,4-Dioxane	400	666	166	10-150	*
2-Butanone (MEK)	100	94.2	94	64-120	
2-Hexanone	100	93.2	93	71-125	
4-Methyl-2-pentanone (MIBK)	100	99.9	100	78-124	
Acetone	100	95.2	95	39-150	
Benzene	20.0	20.4	102	77-121	
Bromoform	20.0	21.7	109	53-120	
Bromomethane	20.0	21.5	107	10-150	
Carbon disulfide	20.0	18.3	92	69-133	
Carbon tetrachloride	20.0	20.0	100	70-132	
Chlorobenzene	20.0	19.8	99	80-120	
Chlorobromomethane	20.0	19.7	98	77-127	
Chlorodibromomethane	20.0	20.6	103	73-120	
Chloroethane	20.0	21.7	108	52-150	
Chloroform	20.0	20.2	101	80-120	
Chloromethane	20.0	19.9	99	56-131	
cis-1,2-Dichloroethene	20.0	18.6	93	80-120	
cis-1,3-Dichloropropene	20.0	19.3	96	77-120	
Cyclohexane	20.0	18.6	93	56-150	
Dichlorobromomethane	20.0	19.3	97	76-120	
Dichlorodifluoromethane	20.0	22.0	110	50-131	
Ethylbenzene	20.0	19.3	97	80-120	
Ethylene Dibromide	20.0	19.7	98	80-120	
Isopropylbenzene	20.0	21.0	105	80-123	
Methyl acetate	100	103	103	66-144	
Methyl tert-butyl ether	20.0	18.5	93	79-122	
Methylcyclohexane	20.0	19.2	96	61-145	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: J54487.D

Lab ID: LCS 460-432948/3 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methylene Chloride	20.0	18.3	91	77-123	
m-Xylene & p-Xylene	20.0	19.1	95	80-120	
o-Xylene	20.0	19.7	99	80-120	
Styrene	20.0	19.2	96	80-120	
Tetrachloroethene	20.0	21.2	106	78-122	
Toluene	20.0	20.0	100	80-120	
trans-1,2-Dichloroethene	20.0	19.1	95	79-120	
trans-1,3-Dichloropropene	20.0	18.2	91	76-120	
Trichloroethene	20.0	18.1	91	77-120	
Trichlorofluoromethane	20.0	23.6	118	71-143	
Vinyl chloride	20.0	20.2	101	62-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rtxi-5Sil M ID: 0.25(mm)

Client Sample ID	Lab Sample ID	NBZ	#	FBP	#	TPHL	#
WWTP-042117	460-132038-1	75		66		69	
BFF-042117	460-132038-2	53		63		46	
GAC1-042117	460-132038-3	50	X	55		56	
GAC2-042117	460-132038-4	54		47		54	
	MB 460-432393/1-A	71		66		67	
	LCS 460-432393/2-A	71		64		72	
	460-132072-D-1-A MS	75		66		69	
	460-132072-D-1-B MSD	67		60		70	

	QC LIMITS
NBZ = Nitrobenzene-d5 (Surr)	51-108
FBP = 2-Fluorobiphenyl	45-107
TPHL = Terphenyl-d14 (Surr)	40-148

Column to be used to flag recovery values

FORM II 8270D

Full Scan

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-132038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: M2404855.D

Lab ID: LCS 460-432393/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Acenaphthene	80.0	53.8	67	58-107	
Acenaphthylene	80.0	57.0	71	61-106	
Anthracene	80.0	59.0	74	70-118	
Benzo[a]anthracene	80.0	60.9	76	73-119	
Benzo[a]pyrene	80.0	61.7	77	76-125	
Benzo[b]fluoranthene	80.0	60.1	75	78-123	*
Benzo[g,h,i]perylene	80.0	61.0	76	63-133	
Chrysene	80.0	61.9	77	73-121	
Fluoranthene	80.0	55.0	69	66-123	
Fluorene	80.0	56.4	70	67-112	
Hexachlorobenzene	80.0	54.6	68	63-125	
Indeno[1,2,3-cd]pyrene	80.0	64.1	80	57-142	
Naphthalene	80.0	63.3	79	51-98	
Phenanthrene	80.0	59.3	74	70-117	
Pyrene	80.0	62.5	78	63-129	

Reported from SIM

Column to be used to flag recovery and RPD values

FORM III 8270D

SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 460-133740-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-133740-1	WWTP-051917	Water	05/19/2017 1215	05/19/2017 1451

TestAmerica ~~Pittsburgh~~ Edison
301 Alpha Drive

Pittsburgh, PA 15238
Phone: 412.963.7058 Fax: 412.963.2470

Chain of Custody Record

116511

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: NYSDEC, SPDES

Client Contact		Project Manager:	Site Contact:	Date: 5/19/17	COC No:
Company Name:	AECOM	Tel/Fax:	Lab Contact:	Carrier:	___ of ___ COCs
Address:	125 Broad St.	Analysis Turnaround Time			Sampler:
City/State/Zip:	New York, NY	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	212 377 8721	TAT if different from Below 3 days			Walk-in Client:
Fax:		☐ 2 weeks			Lab Sampling:
Project Name:	National Grid Former Clifton	☐ 1 week			
Site:	Former Clifton MGP	☐ 2 days			Job / SDG No.: 133740
PO#	60137363-600 Contract: 46018803	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	1677 Avail CN	335.4 Total CN	8270PAH+SIM	2540D TSS	pH 4500, Turbidity	8260C BTEX	6010A, As, Ni	Sample Specific Notes:
WWTP-051917	5/19/17	1215	G	GW	10			X	X	X	X	X	X	X	

SHORT HOLD

460-133740 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for______ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:______ Corr'd:______ | Therm ID No.:______

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	AECOM	5/19/17 1450	[signature]	TA Edison	5/19/17 1451
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

IR8-5.0 NOCY

TestAmerica Edison
Receipt Temperature and pH Log

Page ____ of ____

Job Number: 133746

Number of Coolers: 1 IR Gun #: 8

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	5.0 °C	5.0 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
1				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

**Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: RC **Date:** 5/19/17

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-133740-1

SDG No.:

Lab Sample ID: CCVIS 460-438482/2 Calibration Date: 05/22/2017 06:40

Instrument ID: CBNAMS9 Calib Start Date: 04/13/2017 12:14

GC Column: Rtxi-5Sil MS ID: 0.25(mm) Calib End Date: 04/13/2017 16:29

Lab File ID: h19988.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5038	0.5491		218	200	9.0	20.0
N-Nitrosodimethylamine	Ave	0.6535	0.6057		92.7	100	-7.3	20.0
Bis(2-chloroethyl)ether	Ave	1.351	1.202	0.7000	17.8	20.0	-11.1	20.0
Naphthalene	Ave	1.086	1.038	0.7000	19.1	20.0	-4.4	20.0
Acenaphthylene	Ave	2.131	1.793	0.9000	16.8	20.0	-15.8	20.0
Acenaphthene	Ave	1.293	1.093	0.9000	16.9	20.0	-15.4	20.0
Fluorene	Ave	1.479	1.414	0.9000	19.1	20.0	-4.4	20.0
4,6-Dinitro-2-methylphenol	Ave	0.0871	0.0512	0.0100	235	400	-41.2*	20.0
Hexachlorobenzene	Ave	0.3654	0.3788	0.1000	20.7	20.0	3.7	20.0
Pentachlorophenol	Lin2		0.1205	0.0500	64.7	100	-35.3*	20.0
Phenanthrene	Ave	1.247	1.178	0.7000	18.9	20.0	-5.6	20.0
Anthracene	Ave	1.197	1.130	0.7000	18.9	20.0	-5.6	20.0
Fluoranthene	Ave	1.288	1.264	0.6000	19.6	20.0	-1.9	20.0
Pyrene	Ave	1.530	1.479	0.6000	19.3	20.0	-3.3	20.0
Benzo[a]anthracene	Ave	1.325	1.141	0.8000	17.2	20.0	-13.9	20.0
Chrysene	Ave	1.423	1.361	0.7000	19.1	20.0	-4.4	20.0
Benzo[b]fluoranthene	Ave	1.381	1.065		15.4	20.0	-22.9*	20.0
Benzo[k]fluoranthene	Ave	1.505	1.483	0.7000	19.7	20.0	-1.5	20.0
Benzo[a]pyrene	Ave	1.118	0.9574	0.7000	17.1	20.0	-14.3	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.286	1.141	0.5000	17.8	20.0	-11.2	20.0
Dibenz(a,h)anthracene	Ave	1.027	0.8791	0.4000	17.1	20.0	-14.4	20.0
Benzo[g,h,i]perylene	Ave	1.170	1.105	0.5000	18.9	20.0	-5.5	20.0
Nitrobenzene-d5	Ave	0.3998	0.3453		345	400	-13.6	20.0
2-Fluorobiphenyl	Ave	1.638	1.415		346	400	-13.6	20.0
Terphenyl-d14	Ave	0.8879	0.7154		322	400	-19.4	20.0

SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 460-135447-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-135447-1	WWTP-061617	Water	06/16/2017 1100	06/16/2017 1300

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

06/27/2017

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice) Robert Forstner	Samplers Name (Printed) Brian Tate	Site/Project Identification National Grid Clifton MGP
Company AECOM	P. O. # 60137363-600	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: NY SDEC SPDES DKQP: ☐
Address 125 Broad St, 16th Floor	Analysis Turnaround Time: Standard ☐	
City New York State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☒ 3day	
Phone 212 377 8721 Fax		

Sample Identification	Date	Time	Matrix	No. of Cont.	16 17 Available CN	335.4 Total CN	8270D PP PAH+SIM	2540D TSS	pH Turbidity	BTEX 8260	As+Ni 6020A	Sample Numbers
WWTP-061617	06/16/17	1100	GW	10	X	X	X	X	X	X	X	1

SHORT HOLD

460-135447 Chain of Custody

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____

Soil:								
Water:	1	1	2	1	1	3	1	

LAB USE ONLY
Project No:
Job No: 135447

Special Instructions

Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1)	AECOM	6/16/17 1300	1)	
Relinquished by 2)	Company	Date / Time	Received by 2)	Company 6/16/17 13:00
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company 2.7° C

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 135447

Number of Coolers: 1 IR Gun # 8

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	2.7 °C	2.7 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
1				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

**Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: _____ Date: 6/16/17

460-135447 Waybill

987
06.17

ORIGIN ID:LDJA (732) 549-3900
SAMPLE CONTROL - BRIAN BORDIERI
TESTAMERICA INC.
777 NEW DURHAM ROAD

EDISON, NJ 08817
UNITED STATES US

RT 0 FZ 0 /3011

BILL RECIP...

TO **SAMPLE CUSTODY**
TEST AMERICA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 152382907
(412) 963-7058
REF: 5460-05466

FedEx
Express

E

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 0201 **6116 6279 9871**

X0 AGCA

15238
PA-US **PIT**

Uncorrected temp 2.6 °C
Thermometer ID 12
CF 0 Initials B

PT-WI-SR-001 effective 7/26/13

TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Phone (732) 549-3900 Fax (732) 549-3679

Chain of Custody Record

460-135447 Chain of Custody

America IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: DeGraw, Kristin B		
Client Contact: Shipping/Receiving	Phone:	E-Mail: kristin.degraw@testamericainc.com	State of Origin: New York	Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-135447-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 6/21/2017			
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email:	WO #:			
Project Name: National Grid Clifton MGP	Project #: 46018542			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (yes or No)	1677/ Cyanide, Available (Flow Injection)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
WWTP-061617 (460-135447-1)	6/16/17	11:00 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 6/16/17 1800	Company	Received by: D Watson	Date/Time: 6-17-17 915	Company: TAP	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 460-135447-1

Login Number: 135447
List Number: 1
Creator: Wisnewski, Kelly R

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7°C, IR#8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 460-135447-1

Login Number: 135447
List Number: 2
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh
List Creation: 06/17/17 04:23 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 460-135447-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 214650 Date: 06/19/2017 11:34							
OIA-1677	MB 180-214650/60	Cyanide, Available	0.000495	J	mg/L	0.0020	1

FORM III-IN

Appendix B

Waste Manifests

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NYD980535971	1	877-918-6937	001029280 VES

GENERATOR

5. Generator's Name and Mailing Address

BROOKLYN UNION GAS D&A NAT GRID
767 MASPETH AVENUE
BROOKLYN NY 11211
406-803-8968

Generator's Site Address (if different than mailing address)

BROOKLYN UNION GAS/NATIONAL GRID/FMR CLIFTON MGP SITE
40 WILLOW AVENUE
STATEN ISLAND, NY 10305

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

VEOLIA ES TECHNICAL SOLUTIONS

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

VEOLIA ES TECHNICAL SOLUTIONS L.L.C.
125 FACTORY LANE
MIDDLESEX, NJ 08846
732-469-5100

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1999, WASTE FLAMMABLE LIQUIDS, n.o.s., (COAL TAR DISTILLATES), 3, II, RQ (D001)		D M	P		D001 D018
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

ERG SERVICE CONTRACT by VEOLIA TRANS 197193

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name | Signature | Month | Day | Year

DAVID ADRIANCE

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

VEOLIA

Activity Report

JOB NO: 2756162000 WO NO: 2756162000
BILL DOC NO NN70329813
GENERATOR NO 641489 EPA ID: NYD980532071

BILL TO: NATIONAL GRID
287 MASPETH AVENUE
BROOKLYN, NY 11211
(718) 963-5460

JOB SITE: BROOKLYN UNION GAS,DBA NAT. GRID/FMR.CLIFTON MGP SITE
40 WILLOW AVENUE
STATEN ISLAND, NY 10305
(908) 807-3968

CONTACT: GINA BECKER/CC:KATHERINE VATER CONTACT: KATHERINE VATER

MANIFEST NUMBER(S):
001029280VES

CUSTOMER P.O. NUMBER	PROJECT NUMBER	SHIP DATE	TERR.
		03/30/2017	N05

DESCRIPTION	# CONT.	CONT./CODE	QTY	UOM	PG/LN	WASTE AREA
Manifest # 001029280VES WP 111030 / Approval MARCSWFUEL COAL TAR WATER MIXTURE	5	551A1-DM	2000	P	1 / 1	
03/30/2017 Manpwr.- MOBILIZATION FEE		1248	1@1	EACH		
03/30/2017 Manpwr.- TECHNICAL SUPERVISOR		936	1@1	HOUR		
03/30/2017 Misc. - FUEL & SECURITY SURCHARGE		3130	1	EACH		
03/30/2017 Misc. - STATE REGULATORY FEES		4419	1	EACH		

Total Hours: 1

Veolia Environmental Solutions is permitted for and has capacity to accept waste listed above in container quantities

VEOLIA

Activity Report

JOB NO: 2796162000 WO NO: 2796162000
BILL DOC NO NN70329813
GENERATOR NO 641489 EPA ID: NYD980532071

BILL TO: NATIONAL GRID
287 MASPETH AVENUE
BROOKLYN, NY 11211
(718) 963-5480

JOB SITE: BROOKLYN UNION GAS,DBA NAT. GRID/FMR.CLIFTON MGP SITE
40 WILLOW AVENUE
STATEN ISLAND, NY 10305
(608) 807-8963

CONTACT: GINA BECKER/CC:KATHERINE VATER CONTACT: KATHERINE VATER

MANIFEST NUMBER(S):
001029280VES

CUSTOMER P.O. NUMBER	PROJECT NUMBER	SHIP DATE	TERR.
		03/30/2017	N05

Comments:
DAVE A ON SITE IN P297108 (24'), 8:00 TO 2:45 (windy, cold, pf) 1:45 to 1:30

Signature: _____

Print Name: _____

Veolia Environmental Solutions is permitted for and has capacity to accept waste listed above in container quantities.

FORM# VES-6

VEOLIA

Land Disposal Restriction Notification Form

Generator Name BROOKLYN UNION GAS,DBA NAT.

EPA ID Number NYD980532071 Manifest 001029280VES

This notice is being provided in accordance with 40 CFR 268.7 to inform you that this shipment contains waste restricted from land disposal by the USEPA under the land disposal restriction program. Identified below for each container is the designation of the waste as a wastewater or non-wastewater, the Clean Water Act (CWA) permit status associated with the treatment/disposal facility, applicable waste codes and any corresponding subcategories, list of any F001-F005 solvent constituents that are present in the waste, and any underlying hazardous constituents (UHC) that are present.

This notice is also being provided in accordance with 6 NYCRR 376.1(g)(1).

Container Number NN-2796162000-001 (1/ 1)

WIP / Approval Code:	111030 / MARCSWFUEL
Form Designation / CWA Status:	Non-Wastewater / Non-CWA
Waste Codes (Subcategories):	D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D018
Constituents (F001 - F005):	None
UHCs Present:	None
Treatment Requirements:	Restricted waste requires treatment to applicable standards.
Additional Notices:	

I hearby certify that all information in this and associated land disposal restriction documents is complete and accurate to the best of my knowledge and information.

Signature _____

Title _____ Date _____

VEOLIA

PACKING SUMMARY

Generator Number: 641489
BROOKLYN UNION GAS,DBA NAT.
GRID/FMR.CLIFTON MGP SITE
STATEN ISLAND, NY 10305
Attn: KATHERINE VATER
EPA ID:NYD980532071

Manifest Number: 001029280VES
Field System ID: NN
Work Order Number: 2796162000
Date Shipped: 03/30/2017

Container#: NM-2796162000-001 Waste Area: Manifest Page/Line: 01 / 1

WIP: 111030 DisposalCode: MARCSWFUEL PHY State: L

Date Accumulated: 03/30/2017 Gen Drum ID:

Shipping Name: UN1993,WASTE FLAMMABLE LIQUIDS, n.o.s., (COAL TAR DISTILLATE), 3, II, RQ (D001)

No. of Commons: 05 Outer Container: 55IA1-DM Inner Container:

Primary Waste Codes: D001,D018,B PCB Serial #: OOS Date: / /

Total Cmns Wt: 2000 SIC: 4923 Source: G39 Form: W219 System: H081 Cubic Ft.: 7.50

Individual Common Weights: 400, 400, 400, 400, 400 (POUNDS)

Units	Container Size	Net Weight	Chemical Name	EPA/State Codes
1	55 GAL		BENZENE [22M] COAL TAR DISTILLATE [25-45%] WATER [54-74%]	D001, D018, B

FORM# VES-6

Appendix C

Well Abandonment Photo Log

AECOM
125 Broad Street
New York, NY 10004

PHOTOGRAPHIC DOCUMENTATION

PROJECT NAME:	PROJECT DESCRIPTION:	AECOM PROJECT:
National Grid Clifton	Well Decommissioning	60137363

Photo No.	Date:
1	5/24/17

Description:

Well ID: NE VWP

Photo Direction: West

Close-up of concreted manhole containing NE VWP.

Photo No.	Date:
2	5/24/17

Description:

Well IDs: NW VWP & WL-PZ-1

Photo Direction: West

Close-up of concreted manhole containing NW VWP and WL-PZ-1.

AECOM 125 Broad Street New York, NY 10004	PHOTOGRAPHIC DOCUMENTATION	
PROJECT NAME: National Grid Clifton	**PROJECT DESCRIPTION:** Well Decommissioning	**AECOM PROJECT:** 60137363

Photo No. 3	**Date:** 5/24/17

Description:

Well ID: NRW-03D

Photo Direction: Southwest

Close-up of concreted roadbox from grouted NRW-03D. Drums contain bags of gravel that were used to support stick-up PVC.

Photo No. 4	**Date:** 5/24/17

Description:

Well ID: SE VWP

Photo Direction: Southwest

Close-up of concreted manhole containing SE VWP.

AECOM 125 Broad Street New York, NY 10004	PHOTOGRAPHIC DOCUMENTATION	
PROJECT NAME: National Grid Clifton	**PROJECT DESCRIPTION:** Well Decommissioning	**AECOM PROJECT:** 60137363

Photo No. 5	**Date:** 5/24/17

Description:

Well ID: RW-04

Photo Direction: North

RW-04 was grouted, roadbox removed, and area concreted over.

Photo No. 6	**Date:** 5/24/17

Description:

Well ID: RW-12

Photo Direction: Southeast

RW-12 was grouted and roadbox removed. The roadbox was sawcut out of sidewalk and the cut out area was concreted.

Appendix D

Site Inspection Photo Log

AECOM
125 Broad Street
New York, NY 10004

PHOTOGRAPHIC DOCUMENTATION

PROJECT NAME:	PROJECT DESCRIPTION:	AECOM PROJECT:
National Grid Clifton	Annual Site Inspection	60137363

Photo No.	Date:
1	6/27/17

Description:

Southerly view into OU1 from the Willow Avenue gate.

Photo No.	Date:
2	6/27/17

Description:

Westerly view into OU1 from the Willow Avenue gate; the Containment Pad is in the middle background, and the Depressurization System treatment plant is in the left background.

AECOM 125 Broad Street New York, NY 10004

PHOTOGRAPHIC DOCUMENTATION

PROJECT NAME:	PROJECT DESCRIPTION:	AECOM PROJECT:
National Grid Clifton	Annual Site Inspection	60137363

Photo No.	Date:
3	6/27/17

Description:

Westerly view along the property line of OU2 from the Willow Avenue gate. The subsurface DNAPL barrier wall is located inside the site fence, and a typical DNAPL recovery well vault can be seen in the left midground, between the barriers.

Photo No.	Date:
4	6/27/17

Description:

Northerly view into OU2 from the Willow Avenue gate.

AECOM 125 Broad Street New York, NY 10004	PHOTOGRAPHIC DOCUMENTATION	
PROJECT NAME: National Grid Clifton	**PROJECT DESCRIPTION:** Annual Site Inspection	**AECOM PROJECT:** 60137363

Photo No. 5	**Date:** 6/27/17

Description:

Easterly view along the property line of OU2 from the Willow Avenue gate. The subsurface DNAPL barrier wall is located inside the site fence, and a typical DNAPL recovery well vault can be seen in the right midground, between the barriers.

Photo No. 6	**Date:** 7/5/17*

Description:

Typcal view south into the One Edgewater Street property showing the composite cap system.

* Site was initially inspected on 6/27/17 but no pictures were taken; picture was taken on a subsequent return visit.

AECOM 125 Broad Street New York, NY 10004	PHOTOGRAPHIC DOCUMENTATION	
PROJECT NAME: National Grid Clifton	**PROJECT DESCRIPTION:** Annual Site Inspection	**AECOM PROJECT:** 60137363

Photo No.	**Date:**
7	7/5/17

Description:

Typcal view borth into the One Edgewater Street property showing the composite cap system.

* Site was initially inspected on 6/27/17 but no pictures were taken; picture was taken on a subsequent return visit.

Appendix E

Property Owner Certifications

Property Owner Annual Certification
Site Management Plan
Former Clifton MGP Site
Staten Island, New York

AECOM

Property: 1 Edgewater Street, Staten Island, NY [Block 2820, Lot 95]
Owner: EDGEWATER PLAZA LOFT, LLC

The this form is required by the Site Management Plan Section 5.2 Certification of Engineering and Institutional Controls. It is to be completed annually, after any significant weather event, and when requested by the NYSDEC and National Grid.

The property owner is required to provide notice to the NYSDEC and National Grid of changes in property use from Restricted Commercial/Industrial (60 days prior to change), proposed ground-intrusive activities (15 days prior to activity), discovered breaches/cracks/holes in concrete and pavement (within 48 hours of observation), and of any emergencies (fires, floods, etc.) that impact the ground surface (by noon the following day). See SMP Section 2.8.2 Notifications for additional details.

Owner, indicate Yes, No, or Not Applicable (NA) for each item with regard to the previous calendar year. If Yes, add a comment about item. Additional comments can be attached to this page.

Engineering Controls (ECs):

Composite Cover System (CCS): (CCS is asphalt, concrete sidewalks, and building slabs over 6-inches of non-MGP impacted soil).

				Comments (If yes, list property and explain response):
Were there any changes to the CCS in the past calendar year?	Yes ___	No ___	NA ✓	
Were any new buildings and structures built?	Yes ___	No ✓	NA ___	
Was there any utility construction?	Yes ___	No ✓	NA ___	
Were any cracks or breaches of the CCS observed (e.g., in the pavement, concrete, foundations)?	Yes ___	No ✓	NA ___	
Are there any vegetable gardens on the property(ies)?	Yes ___	No ✓	NA ___	

Institutional Controls (ICs):

Property Use:

Has land use/zoning changed from "Restricted Commercial and/or Industrial"?	Yes ___	No ___	NA ✓	
Is groundwater beneath the site used for any purpose?	Yes ___	No ✓	NA ___	

Subsurface Work and Property Development:

Were there any changes to the Cover System for which NYSDEC and National Grid was not notified?	Yes ___	No ✓	NA ___	
Were new buildings evaluated for vapor intrusion/indoor air quality?	Yes ___	No ___	NA ✓	
Were disturbances to the subsurface performed in accordance with the Excavation Work Plan (Appendix C of the SMP)?	Yes ✓	No ___	NA ___	
I certify that all information and statements in this certification form are accurate, complete and true.	Yes ✓	No ___	NA ___	

Signature: B Parks (Agent for owner) Date: 1/17/2018

Print Name: Brian Parks (Agent for owner) Title: Property Mgr

The person signing this Certification on behalf of the Property Owner has represented to National Grid that he or she has the authority to act on behalf of the Owner, and National Grid is relying on this representation.

AECOM

Property Owner Annual Certification
Site Management Plan
Former Clifton MGP Site
Staten Island, New York

Property: Bay Street, Staten Island, NY [Block 2822, Lot 22] B 24 24
Owner: Sovereign Realty Associates LLC

The this form is required by the Site Management Plan Section 5.2 Certification of Engineering and Institutional Controls. It is to be completed annually, after any significant weather event, and when requested by the NYSDEC and National Grid.

The property owner is required to provide notice to the NYSDEC and National Grid of changes in property use from Restricted Commercial/Industrial (60 days prior to change), proposed ground-intrusive activities (15 days prior to activity), discovered breaches/cracks/holes in concrete and pavement (within 48 hours of observation), and of any emergencies (fires, floods, etc.) that impact the ground surface (by noon the following day). See SMP Section 2.8.2 Notifications for additional details.

Owner, indicate Yes, No, or Not Applicable (NA) for each item with regard to the previous calendar year. If Yes, add a comment about item. Additional comments can be attached to this page.

				Comments (If yes, list property and explain response):
Engineering Controls (ECs):				
Composite Cover System (CCS): (CCS is asphalt, concrete sidewalks, and building slabs over 6-inches of non-MGP impacted soil).				
Were there any changes to the CCS in the past calendar year?	Yes ___	No ___	NA ✓	
Were any new buildings and structures built?	Yes ___	No ___	NA ✓	
Was there any utility construction?	Yes ___	No ___	NA ✓	
Were any cracks or breaches of the CCS observed (e.g., in the pavement, concrete, foundations)?	Yes ___	No ✓	NA ___	
Are there any vegetable gardens on the property(ies)?	Yes ___	No ___	NA ✓	
Institutional Controls (ICs):				
Property Use:				
Has land use/zoning changed from "Restricted Commercial and/or Industrial"?	Yes ___	No ___	NA ✓	
Is groundwater beneath the site used for any purpose?	Yes ___	No ___	NA ✓	
Subsurface Work and Property Development:				
Were there any changes to the Cover System for which NYSDEC and National Grid was not notified?	Yes ___	No ___	NA ✓	
Were new buildings evaluated for vapor intrusion/indoor air quality?	Yes ___	No ___	NA ✓	
Were disturbances to the subsurface performed in accordance with the Excavation Work Plan (Appendix C of the SMP)?	Yes ___	No ___	NA ✓	
I certify that all information and statements in this certification form are accurate, complete and true.	Yes ✓	No ___	NA ___	

Signature: [signature] Date: 1-31-18

Print Name: Max W. Gurvitch Title: Gen'l Mgr

The person signing this Certification on behalf of the Property Owner has represented to National Grid that he or she has the authority to act on behalf of the Owner, and National Grid is relying on this representation.

Property Owner Annual Certification
Site Management Plan
Former Clifton MGP Site
Staten Island, New York

AECOM

Property: Bay Street, Staten Island, NY [Block 2822, Lot 21]
Owner: TECHLINE CONSTRUCTION, LLC

The this form is required by the Site Management Plan Section 5.2 Certification of Engineering and Institutional Controls. It is to be completed annually, after any significant weather event, and when requested by the NYSDEC and National Grid.

The property owner is required to provide notice to the NYSDEC and National Grid of changes in property use from Restricted Commercial/Industrial (60 days prior to change), proposed ground-intrusive activities (15 days prior to activity), discovered breaches/cracks/holes in concrete and pavement (within 48 hours of observation), and of any emergencies (fires, floods, etc.) that impact the ground surface (by noon the following day). See SMP Section 2.8.2 Notifications for additional details.

Owner, indicate Yes, No, or Not Applicable (NA) for each item with regard to the previous calendar year. If Yes, add a comment about item. Additional comments can be attached to this page.

Engineering Controls (ECs):

Comments (If yes, list property and explain response):

Composite Cover System (CCS): (CCS is asphalt, concrete sidewalks, and building slabs over 6-inches of non-MGP impacted soil).

Were there any changes to the CCS in the past calendar year?	Yes ___	No ___	NA ✓	
Were any new buildings and structures built?	Yes ___	No ✓	NA ___	
Was there any utility construction?	Yes ___	No ✓	NA ___	
Were any cracks or breaches of the CCS observed (e.g., in the pavement, concrete, foundations)?	Yes ___	No ✓	NA ___	
Are there any vegetable gardens on the property(ies)?	Yes ___	No ___	NA ✓	

Institutional Controls (ICs):

Property Use:

Has land use/zoning changed from "Restricted Commercial and/or Industrial"?	Yes ___	No ✓	NA ___	
Is groundwater beneath the site used for any purpose?	Yes ___	No ✓	NA ___	

Subsurface Work and Property Development:

Were there any changes to the Cover System for which NYSDEC and National Grid was not notified?	Yes ___	No ✓	NA ___	
Were new buildings evaluated for vapor intrusion/indoor air quality?	Yes ___	No ✓	NA ___	
Were disturbances to the subsurface performed in accordance with the Excavation Work Plan (Appendix C of the SMP)?	Yes ___	No ✓	NA ___	
I certify that all information and statements in this certification form are accurate, complete and true.	Yes ___	No ✓	NA ___	

Signature: _____ Date: 01-30-2018

Print Name: MARIO PACUKU Title: PRESIDENT

The person signing this Certification on behalf of the Property Owner has represented to National Grid that he or she has the authority to act on behalf of the Owner, and National Grid is relying on this representation.