

Second Semiannual Monitoring (SA2) Report (July – December 2016) 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: National Grid, USA 287 Maspeth Avenue, Brooklyn, NY 11211

Prepared by: AECOM 125 Broad Street New York, NY 10004 Project No. 60137363-600

December 2017



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Prepared By: Chad Small

Reviewed By: Robert Forstner, PE

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List of Acronyms

AWQSGV	Ambient Water Quality Standards and Guidance Values
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
CAMP	Community Air Monitoring Program
COD	Chemical Oxygen Demand
DNAPL	Dense Non-Aqueous Phase Liquid
DO	Dissolved Oxygen
DUSR	Data Usability Summary Report
EC	Engineering Control
ECL	Environmental Conservation Law
GC/MS	Gas Chromatograph/Mass Spectrometry
IC	Institutional Control
ICP	Inductively Coupled Plasma
LCS	Laboratory Control Standard
MGP	Manufactured Gas Plant
MNA	Monitored Natural Attenuation
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NTU	Nephelometric Turbidity Unit
NYSDEC	New York State Department of Environmental Conservation
ORP	Oxidation Reduction Potential
PAH	Polycyclic Aromatic Hydrocarbon
Report	2016 Second Semiannual Monitoring (SA2) 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
USEPA	United States Environmental Protection Agency
WWTP	Waste Water Treatment Plant

Measurements and Units

bgs	Below Ground Surface
ft	Feet
in	Inch
µg/L	Micrograms per Liter
ND	Not Detected

1.0 Introduction

This Second Semiannual (SA2) Monitoring Report (Report) (July – December 2016) 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 July through December 2016. 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 second 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 Report includes details on the following activities completed at the Site during the reporting period:

- Dense Non-Aqueous Phase Liquid (DNAPL) gauging and recovery;
- Groundwater monitoring;
- Depressurization pump and treat system operation and maintenance, and State Pollutant Discharge Elimination System (SPDES) permit equivalent-required sampling; and
- Details of ground-intrusive activities within the SMP limits.

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, 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/ 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 Monitoring 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 a portion of the 40 Willow Avenue 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.

The system operated as intended throughout the period of this Report. The only exception was a period of approximately 11 days in December 2016 when the system was offline due to an alarm condition caused by a faulty relay, beginning on December 10, 2016. The system was repaired and resumed normal operations on December 21, 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 July through December 2016 are summarized in Table 1. A Data Usability Summary Report (DUSR) is included as Appendix A.1. 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.

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, 2015b, AECOM, 2015c, AECOM, 2016b, and AECOM 2016c) 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 26 passive DNAPL recovery wells at the Site for gauging of DNAPL levels, if any, and recovery of DNAPL, if present. 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 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. 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 O&M 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 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 O&M 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 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 December 2016, and for each recovery event in 2016 is provided in Table 4. In summary, through the end of December 2016, the following cumulative volumes have been removed from ten (10) recovery wells:

- RW-2011 512 gallons since 2010, 85 gallons from July through December 2016;
- RW-205D 354 gallons since 2010, 16 gallons from July through December 2016;
- RW-206IA 15 gallons since 2010, 15 gallons from July through December 2016;
- RW-206IB 94 gallons since 2010, 8 gallons from July through December 2016;
- RW-2071 186 gallons since 2010, 53 gallons from July through December 2016;
- RW-208I 1,168 gallons since 2010, 167 gallons from July through December 2016;
- RW-209S 83 gallons since 2010, 40 gallons from July through December 2016;
- RW-2111 89 gallons since 2010, 13 gallons from July through December 2016;
- NRW-02I 58 gallons since 2010, none from July through December 2016; and
- NRW-03D 32 gallons since 2010, none from July through December 2016.

Disposal of the recovered DNAPL and water mixture stored onsite 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 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).

Portions of the caps were disturbed during the period of this Report as a result of three specific events, as summarized below:

- Edgewater Plaza borings In preparation for a proposed redevelopment plan for the existing surface parking lot in front of One Edgewater Street, the property owner conducted a geotechnical investigation in July and August 2016. A total of 32 geotechnical borings were installed to depths of 51 to 101 feet below ground surface. Oversight services were provided throughout the geotechnical boring program for purposes of identifying and segregating DNAPL-impacted soils that were removed from the borehole by auger advancement and sampling of the soils with split-spoon samplers. Impacted soils were segregated for management and disposal by National Grid. Boring logs are included as Appendix C, and a photo log depicting selected representative sampling intervals is included as Appendix D. A Community Air Monitoring Program (CAMP) was also implemented for the duration of the geotechnical investigation. CAMP logs are included as Appendix E. A total of seven 55-gallon drums were filled with impacted soil and subsequently disposed of. Disposal manifests are included in Appendix B.
- Willow Avenue Emergency Sewer Repair Emergency repairs to a short (approximately 40foot long) section of a sewer line in the sidewalk of Willow Avenue were completed over two days in December 2016. Oversight was provided during excavation for purposes of identifying and segregating DNAPL-impacted soils that were excavated for management and disposal by National Grid. A limited quantity of impacted soil, approximately one-quarter of a 55-gallon drum, was identified and segregated for further management. Disposal will be reported upon following receipt of manifests.
- 40 Willow Avenue Fence Repair As the result of an automobile accident on Bay Street on August 3, 2016, two vehicles collided with and damaged the fence at the 40 Willow Avenue parcel. Repairs to fence required excavation of existing pole foundations and replacement in kind. Oversight was provided during the fence repair process to identify and segregate DNAPL-impacted soil; however, no impacted soils were identified due to the shallow depth of the excavation, and all excavations were backfilled and the Site restored to its prior condition.

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 July through December 2016.

3.5 2016 Annual Groundwater Monitoring Event

The groundwater monitoring well network includes 13 wells, as shown on Figure 6. As described in the SMP and Post-Remediation Groundwater Monitoring Work Plan (AECOM, 2015a), the monitoring well network will initially be monitored annually for a period of three years and biannually thereafter. Groundwater monitoring may be discontinued in monitoring wells if concentrations decrease below NYSDEC Ambient Water Quality Standards and Guidance Values (AWQSGV) for two consecutive sampling events, and approved by the NYSDEC. The sampling frequency may also be modified with the approval of the NYSDEC. The Site Management Plan will be modified to reflect changes in sampling plans approved by the NYSDEC. The first annual groundwater sampling event was conducted in December 2016, as described below.

3.5.1 Well Gauging and Redevelopment

Prior to the annual groundwater monitoring program, the condition of the thirteen site monitoring wells included in the annual groundwater monitoring program was inspected by pre-sampling gauging event to measure groundwater and total well depths on December 1, 2016. These inspections indicated that a limited number of wells required redevelopment in order to remove fine-grained sediment and fluid residue from the wells and the sand packs to maximize well efficiency prior to sampling. It was also determined that the surface manholes for three wells required repair before sampling - RW-22 was sealed shut and could not be accessed, and RW-25 and RW-26 were damaged at the ground surface but accessible for gauging.

On December 5, 2016 the manholes for RW-22, RW-25 and RW-26 were replaced, and four wells (RW-22, RW-23, RW-25, and RW-26) were redeveloped using a surge-and-pump method. The surging action was used to actively agitate the water column by forcing water back and forth through the well screens and sand packs. Following surging, the wells were pumped with a submersible pump. Wells were developed until turbidity readings were below 50 nephelometric turbidity units (NTUs) or a minimum of 10 well volumes was removed. Well development equipment was decontaminated between locations, in accordance with field procedures in the Remedial Design Work Plan (ENSR, 2008). Well development water was stored in 55-gallon drums, staged on Site, and later disposed. Well development logs are provided in Appendix F.

3.5.2 Monitoring Well Sampling

AECOM performed the annual groundwater sampling event on December 21 and 22, 2016, in accordance with the SMP. During this event, samples were collected from RW-200I, RW-200S, RW-202I, RW-202S, RW-203I, RW-203S, RW-204I, RW-210I, RW-22, RW-23, RW-25, and RW-26. Although included in the monitoring network, RW-210S was not sampled due to the presence of DNAPL in the well at the time of the sampling event.

Each well was purged using low-flow sampling techniques specified in the United States Environmental Protection Agency (USEPA) Region 1 guidance document, "Low-Stress (low flow) Purging and Sampling Procedures for the Collection of Groundwater Samples from Monitoring Wells" (USEPA, 2010). Wells were purged at a low flow rate using a Pine Peri-Pump peristaltic pump. During purging, water quality data (temperature, specific conductance, pH, dissolved oxygen (DO), oxidation/reduction potential (ORP), and turbidity) were recorded approximately every five minutes. These parameters were measured with a multi-parameter water quality meter attached to a continuous flow-through cell which was connected to the pump discharge tubing. Once field parameters stabilized, groundwater samples were collected. All equipment used for groundwater monitoring was calibrated to ensure accuracy and precision. Low Flow Groundwater Sample Collection Records from the 2016 annual sampling event are included in Appendix F.

All samples were packed in coolers with ice following collection, and sent by courier under proper chain of custody to Test America Laboratories, Inc., in Edison, New Jersey. The samples were analyzed for the following parameters:

- Organic Compounds
 - Benzene, toluene, ethylbenzene and total xylenes (BTEX) by USEPA SW-846 Method 8260C, and
 - Polycyclic aromatic hydrocarbons (PAHs) by USEPA Method 8270D, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Hexachlorobenzene and Indeno(1,2,3-cd)pyrene

were determined using gas chromatograph/mass spectrometry (GC/MS) in selected ion monitoring (SIM) mode.

- MNA Parameters:
 - o Methane by RSK-175,
 - o Total and Dissolved Arsenic and Nickel by USEPA Method 6020A,
 - Total, Bicarbonate, Carbonate and Hydroxide Alkalinity by Standard Method SM 2320B,
 - o Ammonia by USEPA Method 350.1,
 - o Nitrate and Nitrite as N by Standard Method 4500 NO3 F,
 - Sulfate by ASTM Method D516-90, 02,
 - o Sulfide by Standard Method 4500 S2 F,
 - o Free Carbon Dioxide by Standard Method SM 4500 CO2 D,
 - o Chemical Oxygen Demand (COD) by Standard Method SM 5220D, and
 - Ferrous Iron by Standard Method SM 3500 E D.

3.5.3 Groundwater Flow

Using groundwater elevation gauging data from the December 1, 2016 gauging event, the groundwater flow direction was determined to be slightly north of east, towards Upper New York Bay. This data consisted of the groundwater elevations measured at RW-200I, RW-202I, RW-203I, RW-204I, RW-23, RW-25, and RW-26. As described above, the well cover for RW-22 was damaged and could not be opened at the time of the gauging event. Barrier walls along Bay Street and Willow Avenue constrict the groundwater flow emanating from the 25 Willow Avenue property, so wells RW-200S, RW-202S, RW-203S, RW-210S, and RW-210I were not used for determining groundwater flow conditions. An illustration of groundwater flow contours can be found on Figure 6.

3.5.4 Data Usability Summary Report (DUSR)

Data validation was performed on two data packages from TestAmerica Laboratories, Inc. of Edison, New Jersev for the analysis of aqueous recovery samples collected at the Site on December 21-22. 2016. Data quality for the organic analyses was evaluated by reviewing the following parameters: holding times, GC/MS tuning and performance standards, internal standards, initial and continuing calibrations, matrix spike/matrix spike duplicates (MS/MSD), surrogate recoveries, laboratory control standards (LCSs), laboratory blanks, laboratory and field duplicates, compound identification, and compound quantitation. Inorganic data quality was evaluated by reviewing the following parameters: holding times, matrix spikes, initial calibrations, continuing calibration verification standard recoveries, contract required detection limit standard recoveries, laboratory control samples, inductively-coupled plasma (ICP) interference check sample recoveries, ICP serial dilution results, field and laboratory duplicates, laboratory blanks, and analyte quantitation. Five non-detect ferrous iron and seven nondetect free carbon dioxide results were rejected because the 24-hour holding times were grossly exceeded. All other data were determined to be useable for the purpose of assessing the presence, or absence, and quantitative concentrations of the compounds and analytes in the groundwater. The qualifications used to determine the usability of these samples is presented in Appendix A.2. The completeness of this data set was 97.4%, within the 90-100% acceptable range.

3.5.5 Groundwater Monitoring Analytical Results

A summary of organic compounds (BTEX and PAHs) data, compared to NYSDEC AWQSGVs, is presented in Table 5. The AWQSGVs include statutory standards for BTEX compounds; no standards exist for PAHs, and data is compared to relevant guidance values. Analytical results for MNA parameters is presented for comparison purposes only, and are not compared to any regulatory standards or guidance values. Analytical results are also depicted on site maps in Figures 7 and 8. Results are summarized below for groupings of site wells, downgradient wells, and up/sidegradient wells as described in the SMP.

3.5.6 Site Wells

Wells RW-202S and RW-202I are located within the Site behind the barrier wall, adjacent to Bay Street, and are considered to function as Site wells in the SMP. With regard to BTEX compounds, all constituent concentrations were below the AWQSGVs at RW-202I, and all constituents exceeded AWQSGVs at RW-202S. Exceedances of the AWQSGVs at RW-202S are summarized as follows, by constituent:

- Benzene (AWQSGV standard of 1 microgram per liter [μg/L]): 1.3 μg/L.
- Ethylbenzene (AWQSGV standard of 5 µg/L): 14 µg/L.
- m/p-Xylenes (AWQSGV standard of 5 μg/L): 13 μg/L.
- o-Xylene (AWQSGV standard of 5 µg/L): 8.7 µg/L.
- Total Xylenes (AWQSGV standard of 5 µg/L): 21.7 µg/L.
- Toluene (AWQSGV standard of 5 µg/L): 7.9 µg/L.

Both Site wells had PAH constituents in exceedance of an AWQSGV:

- Benzo(a)anthracene (AWQSGV guidance of 0.002 μg/L): RW-202I (0.072 μg/L).
- Benzo(a)pyrene (AWQSGV guidance not detected [ND]): RW-202I (0.027 μg/L).
- Benzo(b)fluoranthene (AWQSGV guidance of 0.002 μg/L): RW-202S (0.023 μg/L), and RW-202I (0.027 μg/L).
- Chrysene (AWQSGV guidance of 0.002 μg/L): RW-202S (0.037 μg/L), and RW-202I (0.079 μg/L).
- Naphthalene (AWQSGV guidance of 10 μg/L): RW-202S (41 μg/L).

MNA values for the Site Wells are summarized in Table 5.

3.5.7 Downgradient Wells

Wells RW-203S and RW-203I are located outside of the barrier wall just off-Site within the Bay Street right-of-way, and are considered downgradient wells in the SMP. RW-22, RW-23, RW-25, and RW-26 are all located on the One Edgewater Plaza property, and are likewise considered downgradient wells in the SMP. BTEX constituents did not exceed AWQSGVs at any of the Edgewater Plaza downgradient wells, but exceeded AWQSGVs at RW-203S and RW-203I:

- Benzene (AWQSGV standard of 1 μg/L): RW-203S (88 μg/L), and RW-203I (74 μg/L).
- Ethylbenzene (AWQSGV standard of 5 μg/L): RW-203S (740 μg/L), and RW-203I (680 μg/L).
- m/p-Xylenes (AWQSGV standard of 5 μg/L): RW-203S (99 μg/L), and RW-203I (460 μg/L).
- o-Xylene (AWQSGV standard of 5 μg/L): RW-203S (190 μg/L), and RW-203I (430 μg/L).
- Total Xylenes (AWQSGV standard of 5 μg/L): RW-203S (289 μg/L), and RW-203I (890 μg/L).
- Toluene (AWQSGV standard of 5 μg/L): RW-203S (28 μg/L), and RW-203I (270 μg/L).

With regard to PAH constituents, RW-26 had no exceedances of the AWQSGVs, minor exceedances at RW-22, RW-23, and RW-25 and exceedances at RW-203S and RW-203I, summarized as follows:

- Acenaphthene (AWQSGV guidance of 20 µg/L): RW-203S (120 µg/L), and RW-203I (96 µg/L).
- Benzo(a)anthracene (AWQSGV guidance of 0.002 μg/L): RW-22 (0.16 μg/L), RW-23 (0.17 μg/L), and RW-25 (0.041 μg/L).
- Benzo(a)pyrene (AWQSGV guidance ND): RW-22 (0.48 μg/L), and RW-25 (0.030 μg/L).
- Benzo(b)fluoranthene (AWQSGV guidance of 0.002 μg/L): RW-22 (0.47 μg/L), RW-23 (0.027 μg/L), and RW-25 (0.040 μg/L).
- Benzo(k)fluoranthene (AWQSGV guidance of 0.002 μg/L): RW-22 (0.14 μg/L).
- Chrysene (AWQSGV guidance of 0.002 μg/L): RW-22 (0.24 μg/L), RW-23 (0.11 μg/L), and RW-25 (0.038 μg/L).
- Fluorine (AWQSGV guidance of 50 µg/L): RW-203I (55 µg/L).
- Indeno(1,2,3-cd)pyrene (AWQSGV guidance of 0.002 μg/L): RW-22 (0.40 μg/L).
- Naphthalene (AWQSGV guidance of 10 μg/L): RW-203S (2,800 μg/L), and RW-203I (2,300 μg/L).

3.5.8 Upgradient and Sidegradient Wells

Wells RW-200S and RW-200I (located on-Site at the north end of the barrier wall along Bay Street), and RW-204I (located along Willow Avenue, near the Bay Street end of the barrier wall) are considered sidegradient wells in the SMP. Wells RW-210S and RW-210I (located at the opposite end of the barrier wall from RW-204I) are considered upgradient wells in the SMP. Monitoring well RW-210S was not sampled during the 2016 groundwater monitoring sampling event due to the presence of trace NAPL in the well. There were no BTEX exceedances at RW-200I and RW-204I. RW-200S and RW-210I (and duplicate sample RW-210DUP) had constituent concentrations in exceedance of AWQSGVs for all BTEX compounds:

- Benzene (AWQSGV standard of 1 μg/L): RW-200S (280 μg/L), RW-210I (1,100 μg/L), and RW-210IDUP (1,100 μg/L).
- Ethylbenzene (AWQSGV standard of 5 μg/L): RW-200S (800 μg/L), RW-210I (470 μg/L), and RW-210IDUP (470 μg/L).
- m/p-Xylenes (AWQSGV standard of 5 μg/L): RW-200S (270 μg/L), RW-210I (37 μg/L), and RW-210IDUP (37 μg/L).
- o-Xylene (AWQSGV standard of 5 μg/L): RW-200S (320 μg/L), RW-210I (97 μg/L), and RW-210DUP (97 μg/L).
- Total Xylenes (AWQSGV standard of 5 μg/L): RW-200S (590 μg/L), RW-210I (134 μg/L), and RW-210DUP (134 μg/L).
- Toluene (AWQSGV standard of 5 μg/L): RW-200S (330 μg/L), RW-210I (6.1 μg/L), and RW-210IDUP (5.9 μg/L).

With regard to PAH constituents, RW-200S, RW-200I, RW-204I and RW-210I (as well as its duplicate sample RW-210IDUP) had PAH impacts in exceedance of NYSDEC AWQSGVs, summarized as follows:

- Acenaphthene (AWQSGV guidance of 20 μg/L): RW-210I (63 μg/L), and RW-210IDUP (65 μg/L).
- Benzo(a)anthracene (AWQSGV guidance of 0.002 μg/L): RW-200S (0.25 μg/L), RW-200I (0.037 μg/L), RW-204I (0.13 μg/L), RW-210I (0.065 μg/L), and RW-210IDUP (0.068 μg/L).
- Benzo(a)pyrene (AWQSGV guidance ND): RW-200I (0.10 μg/L), RW-204I (0.057 μg/L), RW-210I (0.030 μg/L), and RW-210IDUP (0.032 μg/L).
- Benzo(b)fluoranthene (AWQSGV guidance of 0.002 μg/L): RW-200S (0.094 μg/L), RW-200I (0.090 μg/L), RW-204I (0.067 μg/L), RW-210I (0.038 μg/L), and RW-210IDUP (0.037 μg/L).

- Benzo(k)fluoranthene (AWQSGV guidance of 0.002 μg/L): RW-200I (0.034 μg/L), and RW-204I (0.020 μg/L).
- Chrysene (AWQSGV guidance of 0.002 μg/L): RW-200S (0.21 μg/L), RW-200I (0.059 μg/L), RW-204I (0.097 μg/L), RW-210I (0.063 μg/L), and RW-210IDUP (0.071 μg/L).
- Indeno(1,2,3-cd)pyrene (AWQSGV guidance of 0.002 μg/L): RW-200I (0.050 μg/L), and RW-204I (0.027 μg/L).
- Naphthalene (AWQSGV guidance of 10 μg/L): RW-200S (3,000 μg/L), and RW-203I (2,300 μg/L).

4.0 Conclusions and Findings

4.1 Summary of Activities

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 July through December 2016 included:

- DNAPL gauging and recovery, including recovery of 397 gallons of DNAPL/water fluid mixture from July through December 2016 and a total of 2,592 gallons removed since 2010;
- Groundwater monitoring;
- Depressurization pump and treat system operation and maintenance, and SPDES permit equivalent-required sampling; and
- Oversight of and management of impacted soils excavated as a result of intrusive activities.

4.2 Extent of Impacts to Groundwater

As described in Table 5 and Figures 6 through 8, the groundwater monitoring program identified detectable concentrations of BTEX and PAH compounds. BTEX detections in exceedance of the NYSDEC AWQSGVs for BTEX were limited to the Site wells and wells immediately adjacent to the Site, and were not detected above standards in the four downgradient wells at One Edgewater Plaza. PAHs were detected in exceedance of the NYSDEC AWQSGVs at the Site wells, upgradient/sidegradient wells and three of four downgradient wells.

5.0 Future Activities

In accordance with the SMP, the 2017 monitoring will include:

- Annual groundwater monitoring,
- On-going DNAPL gauging and recovery,
- On-going SPDES permit-required sampling,
- Site-wide cover system inspection, and intrusion oversight, and
- Semi-annual reporting and Periodic Review Report.

6.0 References

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

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USEPA, 2010. Low Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells, January 2010

Tables

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

Sample ID		S	PDES Permi	t Equivalent		W	WTP-072216	;	W	WTP-090120	16	W	WTP-0930201	6	WWTP-10211	6		WWTP-111816	,	W	/WTP-123016
Date Sampled	Disch	narge Limitations		Minimum Monitorin	g Requirements 1,2		7/22/2016			9/1/2016			9/30/2016		10/21/2016			11/18/2016			12/30/2016
Parameter	Monthly Avg.	Daily Max	Units	Measurement Frequency	Sample Type		4601174491			4601194981			4601211721		4601224141			4601241031			4601261841
рН																					
рН		6.5 - 8.5					7.81	J		7.9	J		8.4	J	8.1	J		8.3	J		8.1 J
Total Suspended Solids																					
Total Suspended Solids	Monitor	20	mg/L	Continuous	Meter		1.8			1.2			1.4		1.5			2.7			2.7
BTEX			•																-		
Benzene	Monitor	5	µg/l	Monthly	Grab	<	1	U	<	1	U	<	1	U	< 1	U	<	1	U	<	1 U
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	5	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	UJ	< 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	<	0.05	U	<	0.052	U	<	0.052	U	< 0.052	U	<	0.05	U	<	0.052 U
Benzo(a)pyrene	Monitor	0.09	µg/l	Monthly	Grab	<	0.05	U	<	0.052	U	<	0.052	U	< 0.052	U	<	0.05	U	<	0.052 U
Benzo(b)fluoranthene	Monitor	10	µg/l	Monthly	Grab	<	0.05	U	<	0.052	U	<	0.052	U	< 0.052	U	<	0.05	U	<	0.052 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	U	<	2.1	U	<	2.1	U	< 2.1	U	<	2	UJ	<	2.1 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	<	0.02	U	<	0.021	U		0.017		< 0.021	U	<	0.02	U	<	0.021 U
Indeno(1,2,3-cd)pyrene	Monitor	10	µg/l	Monthly	Grab	<	1	U	۷	1	U	<	1	U	1.1		<	0.05	U	<	0.052 U
Naphthalene	Monitor	50	µg/l	Monthly	Grab	<	10	U	۷	10	U	<	10	U	< 10	U	<	10	U	<	10 U
Phenanthrene	Monitor	10	µg/l	Monthly	Grab	<	10	U	۷	10	U	<	10	U	< 10	U	<	10	U	<	10 U
Pyrene	Monitor	10	µg/l	Monthly	Grab	<	10	U	۷	10	U	<	10	U	< 10	U	<	10	U	<	10 U
Metals																					
Arsenic	Monitor	10	µg/l	Monthly	24 hr comp	<	2	U	<	2	U	<	2	U	< 2	U	<	2	U	<	2 U
Nickel	Monitor	80	µg/l	Monthly	24 hr comp		1.9	_		2			1.4		< 4	U		1.8		<	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	UJ	<	0.002	U	< 0.002	U				<	0.004 U
Turbidity		•			•	I															
Turbidity	substantial visible o	contrast to Natural	NTU	Monthly	Visual		2.38			1.26			2.15		3.49			4.79			9.21

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.

Gray-shaded values exceed a discharge limitation.

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.

² The system was not operational for 11 days in December due to repair and maintenance.



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 (feet bgs)	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	NM	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	NM	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	23	33	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	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

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-200I = Intermediate recovery wells

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



Table 3DNAPL Thickness During Guaging EventsNational Grid Former Clifton MGP SiteStaten Island, New York



Parcel	Bay Street				Willow Avenue	9			С	ontainment Co	ell
Well ID	RW-2011	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
1/11/2016	3.00	3.40	NM	0.00	0.00	6.30	4.30	2.40	0.00	0.00	0.00
2/3/2016	2.97	0.80	NM	1.20	1.90	10.00	4.10	1.10	0.00	0.00	0.00
2/18/2016	0.00	2.23	NM	0.00	2.30	5.50	4.29	1.30	0.00	0.00	4.40
3/3/2016	3.05	1.60	NM	1.40	2.10	6.20	4.30	1.00	0.00	0.00	0.00
3/18/2016	0.00	2.10	NM	1.80	2.20	5.70	4.30	1.20	0.10	0.00	0.00
4/4/2016	4.01	2.42	NM	1.20	3.00	7.50	4.90	0.70	NM	NM	NM
4/26/2016	1.10	0.10	NM	1.20	3.20	5.30	4.95	0.90	NM	NM	NM
5/16/2016	2.70	2.70	NM	2.60	1.30	4.00	7.00	2.00	0.00	0.00	7.00
6/2/2016	0.90	0.80	NM	0.40	1.50	5.11	7.10	0.30	NM	0.00	NM
6/17/2016	3.10	1.20	NM	0.90	1.50	10.78	7.50	1.00	0.00	0.00	0.00
7/5/2016	2.60	0.00	NM	0.90	2.40	7.70	6.98	1.50	0.00	0.00	0.00
7/21/2016	2.90	3.10	3.50	0.00	3.80	10.70	5.70	0.30	NM	NM	NM
7/27/2016	NM	NM	3.90	NM	NM	NM	NM	NM	NM	NM	NM
7/30/2016	NM	3.95	NM	NM	NM	NM	5.45	NM	NM	NM	NM
8/11/2016	0.00	0.00	0.00	1.50	3.00	7.98	0.10	0.40	NM	NM	NM
8/31/2016	4.80	0.00	0.00	1.90	0.70	9.00	NM	2.00	0.00	0.50	6.10
9/22/2016	2.40	1.00	0.00	0.50	1.80	8.00	NM	0.60	NM	NM	NM
10/5/2016	1.70	2.10	0.00	0.10	1.20	8.95	0.60	1.00	0.00	0.50	6.00
10/21/2016	4.00	0.00	0.20	0.00	2.70	8.00	0.70	0.70	0.00	0.00	7.00
11/4/2016	1.50	1.30	0.60	0.00	1.50	10.20	1.00	1.40	0.00	0.00	7.00
11/18/2016	2.80	1.50	0.60	0.00	2.60	10.20	1.20	1.60	NM	NM	NM
12/2/2016	1.60	1.70	0.60	0.00	0.90	10.45	1.22	0.20	NM	NM	NM
12/16/20161	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
12/28/2016	7.00	0.00	1.20	0.00	5.50	7.00	1.30	0.90	NM	0.00	7.30
Min Thickness (ft)	0.00	0.00	0.00	0.00	0.00	4.00	0.10	0.20	0.00	0.00	0.00
Max Thickness (ft)	7.00	3.95	3.90	2.60	5.50	10.78	7.50	2.40	0.10	0.50	7.30
Avg Thickness (ft)	2.48	1.45	0.96	0.74	2.15	7.84	3.85	1.07	0.01	0.07	3.45

Notes:

ft - feet

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 - Due to frozen groundwater in vaults, measurements could not be completed.

Second Semiannual Monitoring Report, July-December 2016 Former Clifton Manufactured Gas Plant, Staten Island, New York

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



Parcel	Bay Street			V	Villow Avenu	е			Co	ontainment C	Cell	Event
Well ID	RW-2011	RW-205D	RW-206IA	RW-206IB	RW-2071	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 prio	r to 2016 no	t shown for c	larity					
1/11/2016	10	15	NM			24		10				59
2/3/2016	15		NM			15						30
2/18/2016		10	NM			15						25
3/3/2016	4		NM		4	7						15
3/18/2016			NM			12						12
4/4/2016	9	8	NM		12	11						40
4/26/2016			NM		9	12						21
5/17/2016	13	33	NM	14		12		8				80
6/2/2016			NM			15						15
6/17/2016	15		NM			20						35
7/5/2016	15		NM			25						40
7/21/2016	11				10		4					26
7/27/2016			15									15
7/29/2016		6					36					42
8/11/2016					8	15						23
8/31/2016	15			8		15		5				42
9/22/2016	14				9	8						31
10/5/2016		10				15						25
10/21/2016	9				6	15						30
11/4/2016						20						20
11/18/2016	10				8	15		8				41
12/2/2016						25						25
12/16/2016		NM			NM	NM	NM					
12/28/2016	11				12	15						37
Total Recovered, 2016	126	67	15	22	79	271	40	21	0	0	0	640
Total Recoverd To Date	512	354	15	94	186	1168	83	89	0	58	32	2,592
Percent of Total	20%	14%	1%	4%	7%	45%	3%	3%	0%	2%	1%	100%

Note:

NI - Well not installed at time of event

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

Second Semiannual Monitoring Report, July-December 2016 Former Clifton Manufactured Gas Plant, Staten Island, New York

Table 5 Groundwater Monitoring Analytical Data December 2016 National Grid Former Clifton MGP Site Staten Island, New York

Location			RW-2001	RW-200S	RW-2021	RW-202S	RW-2031	RW-203S	RW204I	RW-210I	RW-210I	RW-22	RW-23	RW-25	RW-26
Sample Date	CAS #	WG NYSDEC	12/21/2016	12/21/2016	12/21/2016	12/21/2016	12/22/2016	12/22/2016	12/21/2016	12/21/2016	12/21/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Sample ID		GUIDANCE	RW200I_460-125858-2	—	-	—	3 RW-203I_460-125929-6	_	-	DUP-1_460-125858-7	RW-210I_460-125858-6	RW-22_460-125929-1	RW-23_460-125929-2	RW-25_460-125929-3	RW-26_460-125929-4
SDG			4601258581	4601258581	4601258581	4601258581	4601259291	4601259291	4601258581	4601258581	4601258581	4601259291	4601259291	4601259291	4601259291
VOC (ug/L)															
Benzene	71-43-2	1	< 1.0 U		< 1.0 U	1.3	74	88	0.26 J	1100	1100		< 1.0 U		< 1.0 U
Ethylbenzene	100-41-4	5	< 1.0 U		< 1.0 U	14	680	740	0.48 J	470	470	···- ·	< 1.0 U		< 1.0 U
m/p-Xylenes	1330-20-7-M,P	5	< 1.0 U		< 1.0 U	13	460	99	0.91 J	37	37		< 1.0 U		< 1.0 U
o-Xylene	95-47-6	5	< 1.0 U		< 1.0 U	8.7	430	190	0.63 J	97	97		< 1.0 U		< 1.0 U
Toluene	108-88-3	5	< 1.0 U		< 1.0 U	7.9	270	28	0.87 J	5.9	6.1		< 1.0 U		< 1.0 U
Total Xylenes		5	< 1.0 U	590	< 1.0 U	21.7	890	289	1.54	134	134	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
PAH (ug/L)															
2-Methylnaphthalene	91-57-6	NL	< 10 U	170 J	< 10 U	3.4	J 390	200	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acenaphthene	83-32-9	20	< 10 U		< 10 U	< 10 l	J 96 J	120 J	2.9 J	65	63	< 10 U		< 10 U	< 10 U
Acenaphthylene	208-96-8	NL	< 10 U		< 10 U	1.7 .		< 200 U	1.3 J	< 10 U	< 10 U	< 10 U		< 10 U	
Anthracene	120-12-7	50			< 10 U	< 10 l		< 200 U	< 10 U	0.78 J				< 10 U	
Benzo(a)anthracene	56-55-3	0.002	0.037 J	0.25 J	0.072	< 0.051 l	, 0.0 0	< 0.5 U	0.13	0.068	0.065	0.16	0.17		< 0.050 U
Benzo(a)pyrene	50-32-8	ND	0.10	< 0.26 U	0.027 J	< 0.051 l	J< 0.5 U	< 0.5 U	0.057	0.032 J	0.030 J	0.48	< 0.05 U	0.030 J	< 0.050 U
Benzo(b)fluoranthene	205-99-2	0.002	0.090	0.094 J	0.027 J	0.023		< 0.5 U	0.067	0.037 J	0.038 J	0.47	0.027 J	0.0.0	< 0.050 U
Benzo(ghi)perylene	191-24-2	NL	< 10 U	l < 210 U	< 10 U	< 10 l	J < 200 U	< 200 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	
Benzo(k)fluoranthene	207-08-9	0.002	0.034 J	< 0.26 U	< 0.050 U	< 0.051 l		< 0.50 U	0.020 J	< 0.052 U	< 0.052 U	0.14	< 0.050 U		
Chrysene	218-01-9	0.002	0.059	0.21 J	0.079	0.037		< 0.50 U	0.097	0.071	0.063	0.24	0.11		< 0.050 U
Dibenz(a,h)anthracene	53-70-3	NL		l < 21 U	< 1.0 U	< 1.0 l	J < 20 U	< 20 U	< 1.0 U	< 1.0 U		< 1.0 U			< 1.0 U
Fluoranthene	206-44-0	50			< 10 U	< 10 l	J < 200 U		2.0 J	< 10 U		< 10 U			< 10 U
Fluorene	86-73-7	50	< 10 U		< 10 U	< 10 l	J 55 J	48 J	2.1 J	21	21	< 10 U			
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	0.050		< 0.050 U	< 0.051 l	J < 0.5 U	< 0.5 U	0.027 J	< 0.052 U	< 0.052 U	0.40	< 0.05 U		< 0.050 U
Naphthalene	91-20-3	10	< 10 U	3000	< 10 U	41	2300	2800	< 10 U	< 10 U	< 10 U		< 10 U		< 10 U
Phenanthrene	85-01-8	50			< 10 U	< 10 l	J 35 J	35 J	< 10 U	11	11	< 10 U	0.75 J		< 10 U
Pyrene	129-00-0	50	< 10 U	l < 210 U	< 10 U	< 10 l	J < 200 U	< 200 U	2.3 J	< 10 U	< 10 U	< 10 U	4.7 J	< 10 U	< 10 U
MNA (µg/L)															
Methane	74-82-8	NL	< 4.0 U	4.2	24	210	15	150	18 J	780	770	150	260	< 4.0 U	250
Total Iron	7439-89-6	NL	< 120 U	l < 120 U	< 120 U	< 120 l	J 102 J	1300	< 120 U	805	877	4040	1670	2690	20100
Total Manganese	7439-96-5	NL	< 8.0 U	27.7	< 8.0 U	< 8.0 l	J 2.5 J	347	11.4	346	349	48.9	3650	991	3250
Dissolved Iron	7439-89-6	NL	< 120 U	l < 120 U	< 120 U	< 120 l	J < 120 U	< 120 U	< 120 U	< 120 U	=• •	< 120 U	< 120 U	1 120 0	< 120 U
Dissolved Manganese	7439-96-5	NL	< 8.0 U	12.3	< 8.0 U	< 8.0 l	J < 8.0 U	331	6.6 J	352	356	48.5	3770	22.0	2200
MNA (mg/L)															
Carbon Dioxide, Free	CO2_FREE	NL	R	R	R	R	< 5.0 U.	J < 5.0 U.	J R	R	R	49.9 J	28.2 J	15.3 J	32.9 J
Chemical Oxygen Demand (COD)	COD	NL	12.1	26.2	< 10 U	16.1	22.2	34.3	14.1	< 10 U	10.1	350	24.5	52.4	42.3
Ferrous Iron	C-FE+2	NL	R	0.031 J	< 0.10 U	< 0.10 l	J < 0.10 U	< 0.10 U	R	0.24 J	R	R	0.32 J	R	1.2 J
Nitrate as N	14797-55-8	NL	< 0.10 U	l < 0.10 U	< 0.10 U	< 0.10 l	J < 0.10 U	< 0.10 U	0.29	< 0.10 U	< 0.10 U	< 0.10 U	0.11	1.6	< 0.10 U
Nitrite as N	14797-65-0	NL	0.020 J	0.041 J	0.033 J	0.039	J 0.038 J	0.028 J	0.030 J	0.03 J	< 0.10 U	0.039 J	0.025 J	0.037 J	0.026 J
Sulfate	14808-79-8	NL	34.5	27.8	41.1	45.1	11.3	1.9 J	81.2	< 5.0 U	< 5.0 U	910	38.9	119	7.3
Total Sulfide	18496-25-8	NL	< 1.0 U	l < 1.0 U	< 1.0 U	< 1.0 l	J < 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ammonia Nitrogen	7664-41-7	NL	0.079 J	< 0.10 U	1.0	6.8	0.60	1.4	0.11	2.8	2.6	< 0.10 U	1.8	< 0.10 U	3.7
Alkalinity, Total (As CaCO3)	ALK	NL	27.8	96.8	166	184	99.3	200	98.1	227	231	227	421	238	254
Bicarbonate Alkalinity as CaCO3	ALKB	NL	16.1	73.5	< 5.0 U	49.5	82.2	200	91.0	227	231	227	421	238	254
Carbonate Alkalinity as CaCO3	ALKC	NL	11.7	23.3	29.6	135	17.1	< 5.0 U	7.1	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Hydroxide Alkalinity	ALKH	NL	< 5.0 U	l < 5.0 U	136	< 5.0 l	J < 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U

Notes:

ug/L = micrograms per liter; mg/L = milligrams per liter (ppm) Bold value = Reported concentration greater than the detection limit

Gray Highlighted values exceed NYSDEC Groundwater Standard

Green Highlighted values exceed NYSDEC Groundwater Guidance Value

NL = Not listed ND = Not detected

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

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

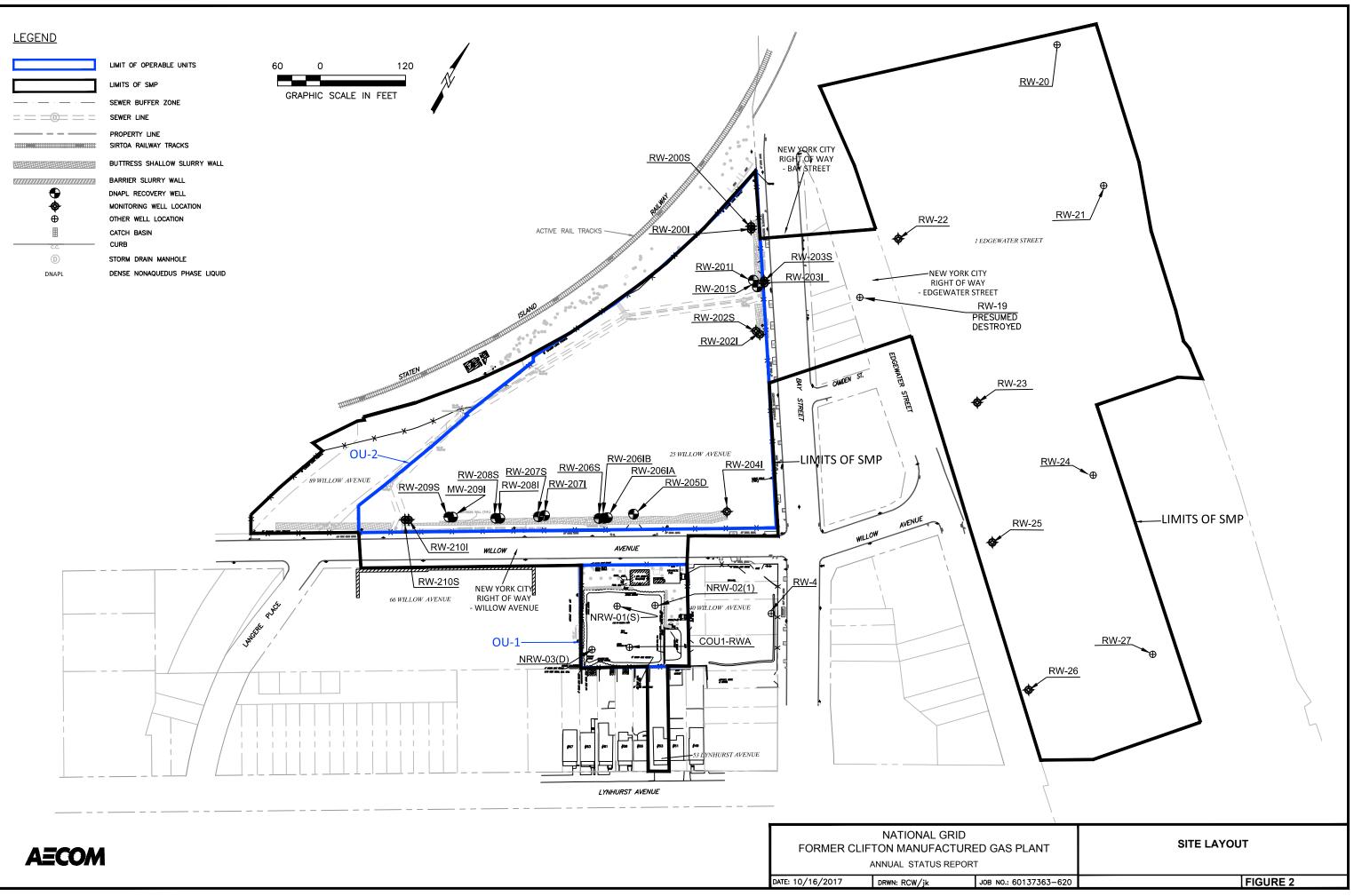
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may

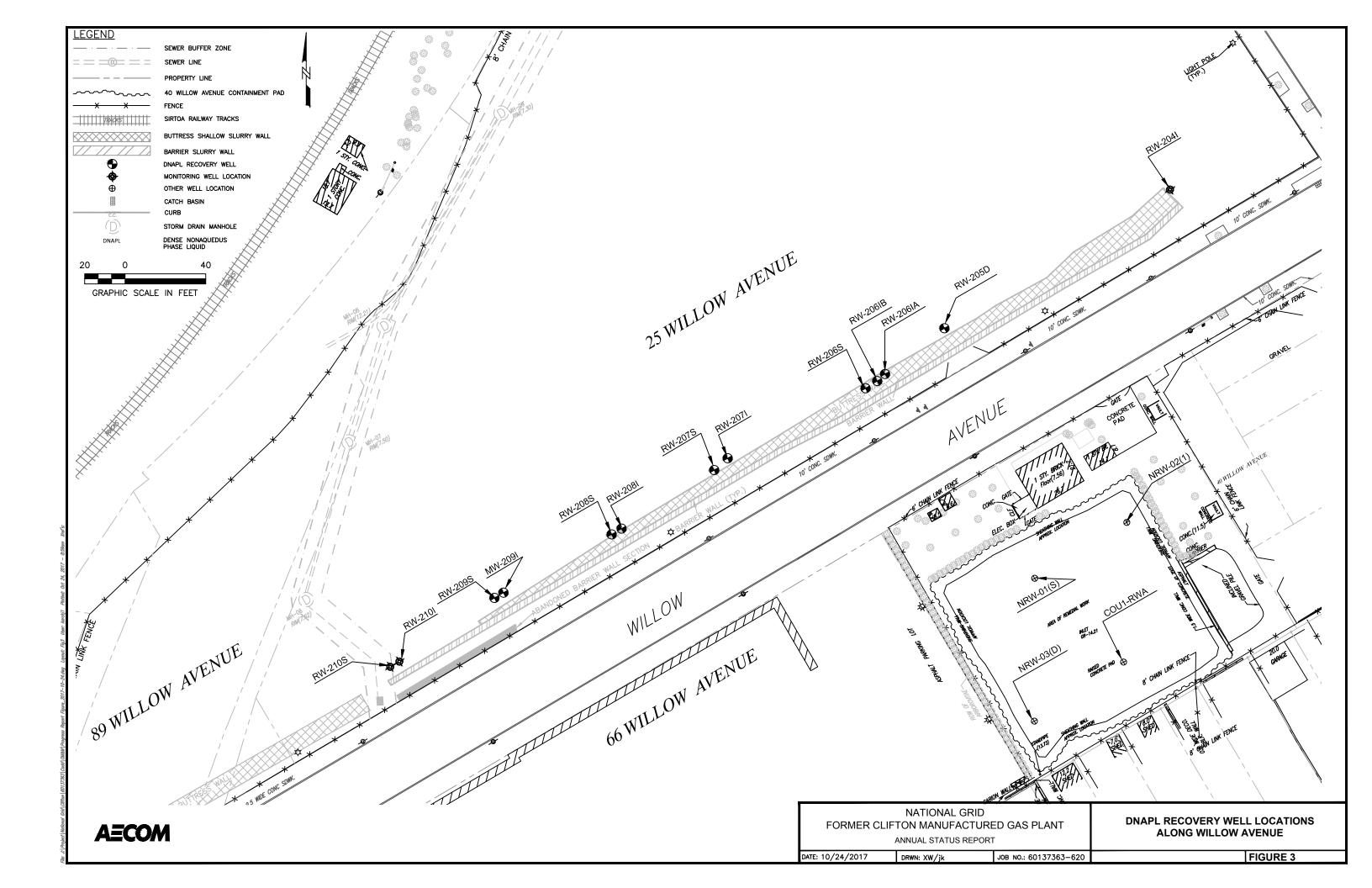
or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte

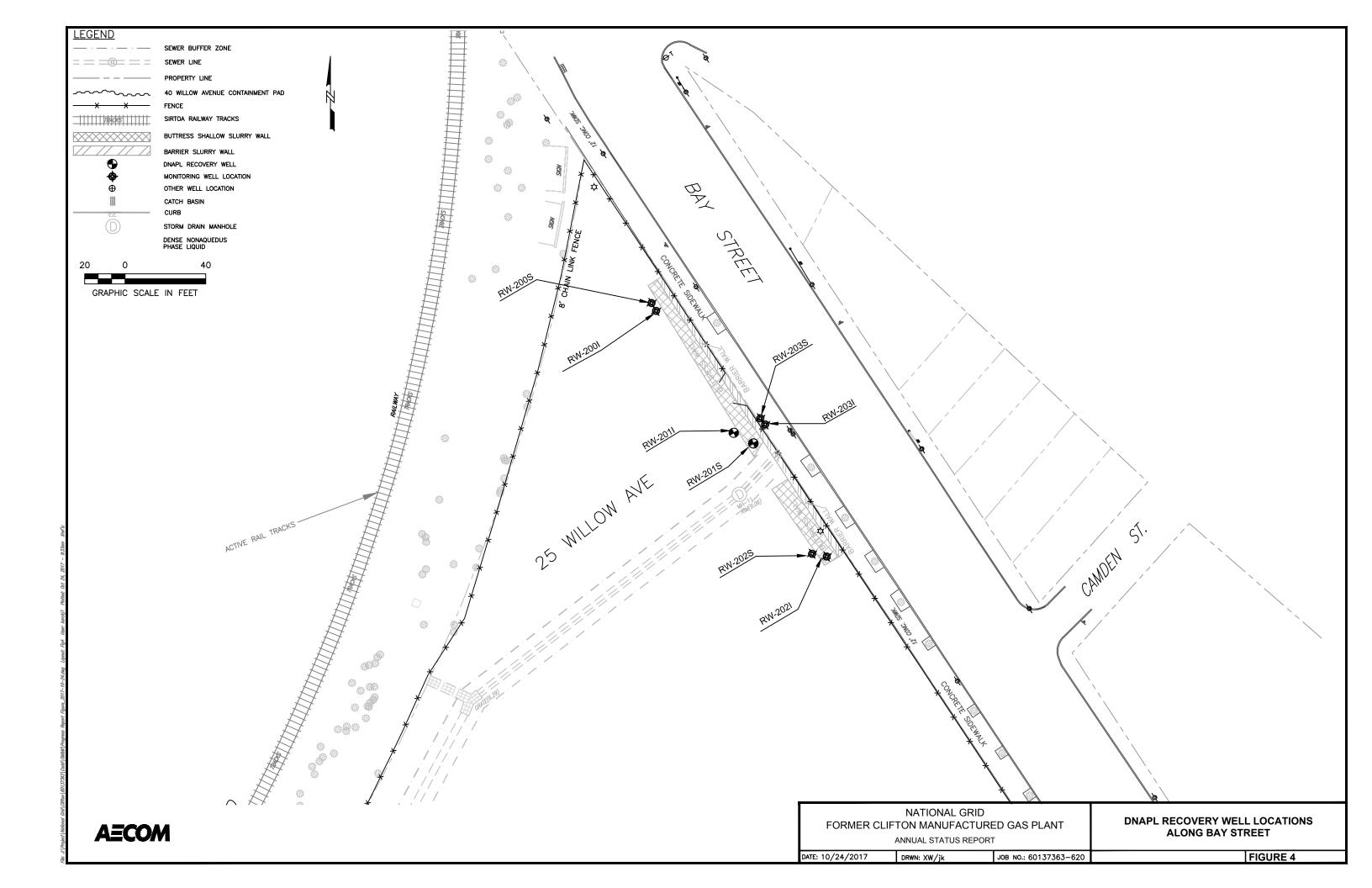


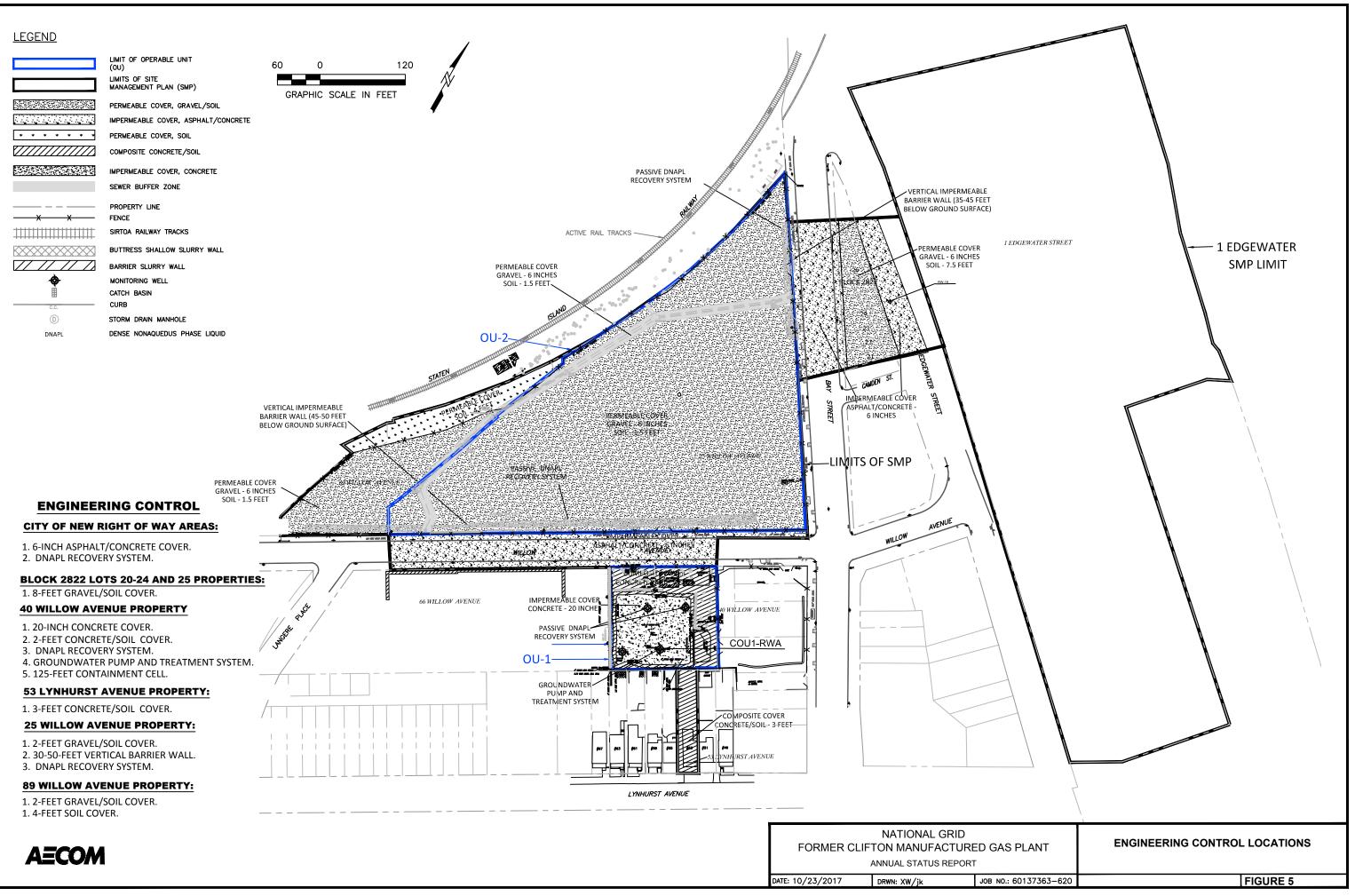
Figures

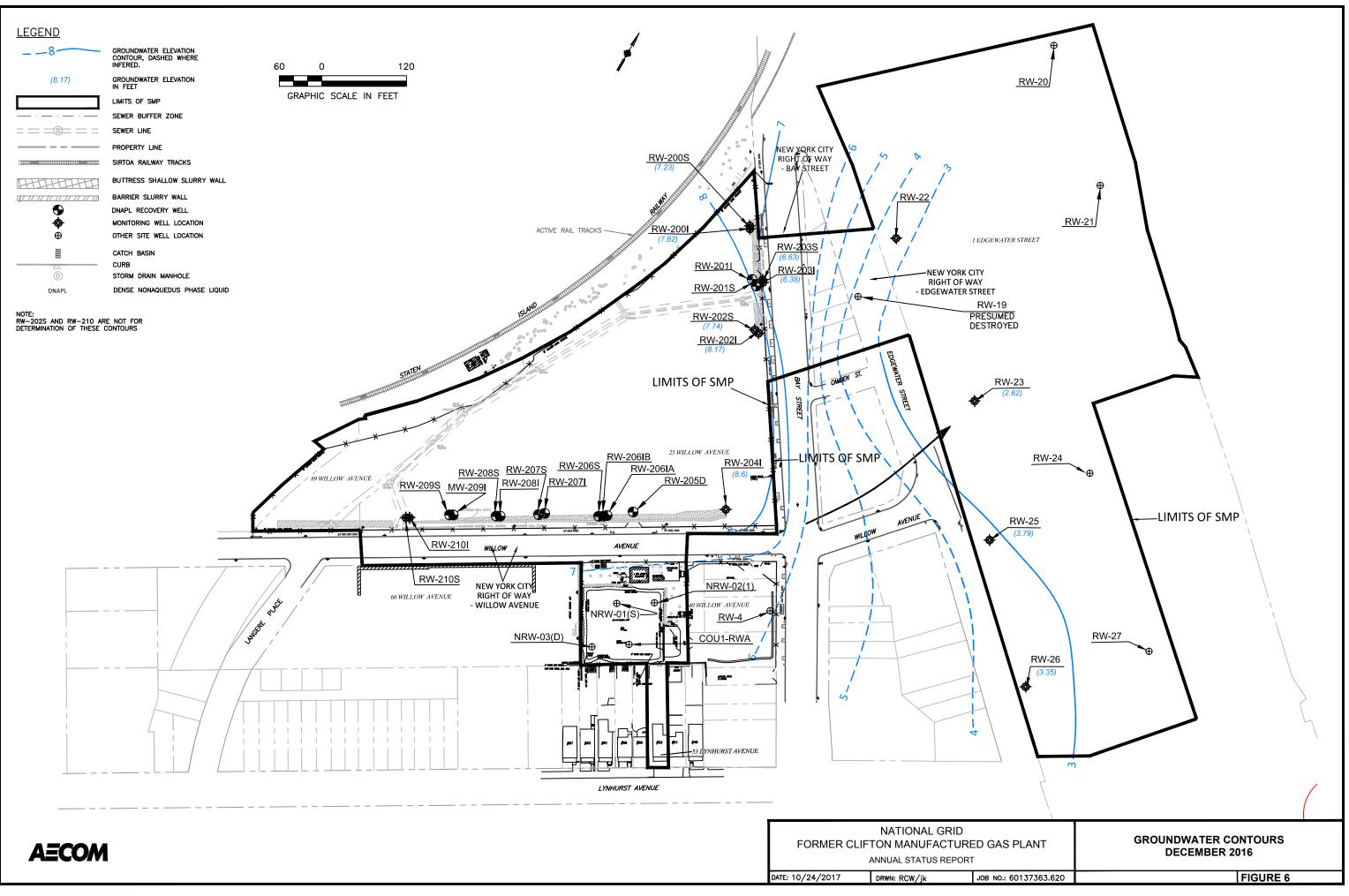












<u>LEGEND</u>	
	LIMITS OF SMP
	SEWER BUFFER ZONE
= = =0= = =	SEWER LINE
	PROPERTY LINE
	BUTTRESS SHALLOW SLURRY WALL
	BARRIER SLURRY WALL
•	MONITORING WELL LOCATION
Ð	OTHER WELL LOCATION
₿	CATCH BASIN
C.C.	CURB
D	STORM DRAIN MANHOLE
DNAPL	DENSE NONAQUEDUS PHASE LIQUID
Standards & Guida	ance Values
Compound	AWQS (ug/L)
Benzene	1
Ethylbenzene	5
Luiyibenzene	5

Benzene	1	
Ethylbenzene	5	
m/p-Xylenes	5	
o-Xylene	5	
Toluene	5	
Compound	AWQGV (ug/L)	
Acenaphthene	20	
Benzo(a)anthracene	0.002	
Benzo(a)pyrene	ND	
Benzo(b)fluoranthene	0.002	
Benzo(k)fluoranthene	0.002	
Chrysene	0.002	
Fluorene	50	
Indeno(1,2,3-cd)pyrene	0.002	
Naphthalene	10	

Notes

AWQS = NYSDEC Ambient Water Quality Standard AWQGV = NYSDEC Ambient Water Quality Guidance Value

ft bgs = Feet below ground surface ug/L = micrograms per liter, mg/L = milligrams per liter (ppm) Bold value = Reported concentration greater than the detection limit Green Highlighted values exceed NYSDEC Groundwater Standards

Gray Highlighted values exceed NYSDEC Groundwater Guidance Va NL = Not listed

ND = Not detected

ND = Nondetected U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit. J = The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.

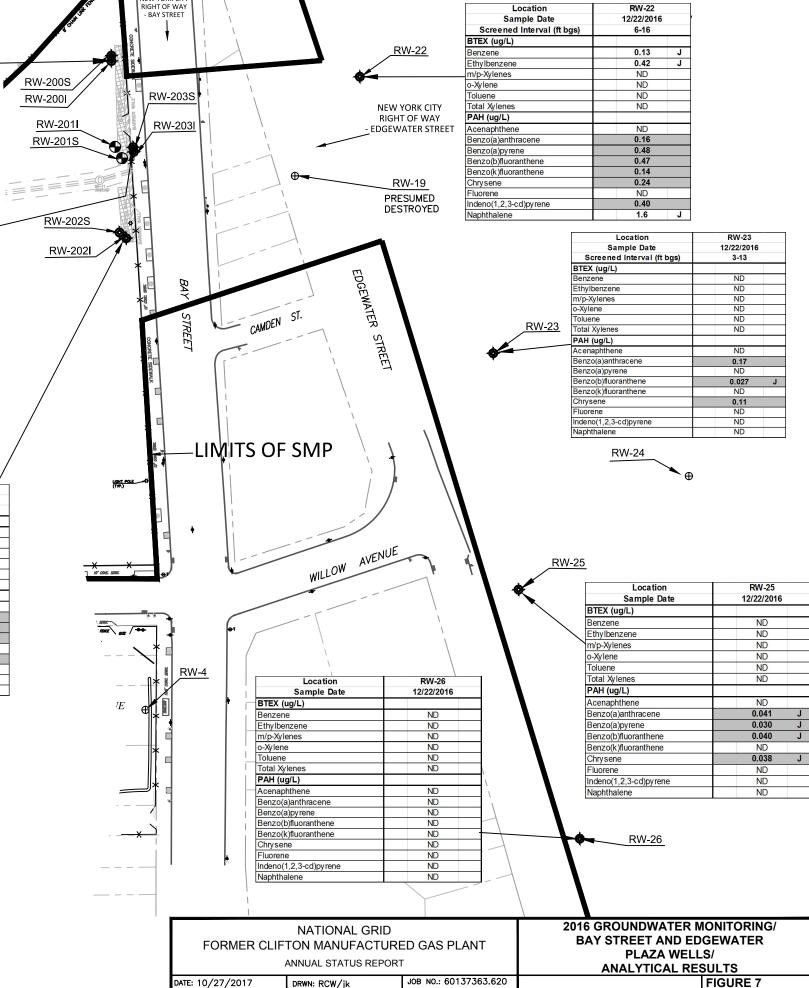




Location	RW-200S		RW-2001	
Sample Date	12/21/2016		12/21/2016	
Screened Interval (ft bgs)	10-20		24-34	
BTEX (ug/L)				
Benzene	280		ND	
Ethylbenzene	800		ND	
m/p-Xylenes	270		ND	
o-Xylene	320		ND	
Toluene	330		ND	
Total Xylenes	590		ND	
PAH (ug/L)				
Acenaphthene	ND		ND	
Benzo(a)anthracene	0.25	J	0.037	J
Benzo(a)pyrene	ND		0.10	
Benzo(b)fluoranthene	0.094	J	0.090	
Benzo(k)fluoranthene	ND		0.034	J
Chrysene	0.21	J	0.059	
Fluorene	ND		ND	
Indeno(1,2,3-cd)pyrene	ND		0.050	
Naphthalene	3000		ND	

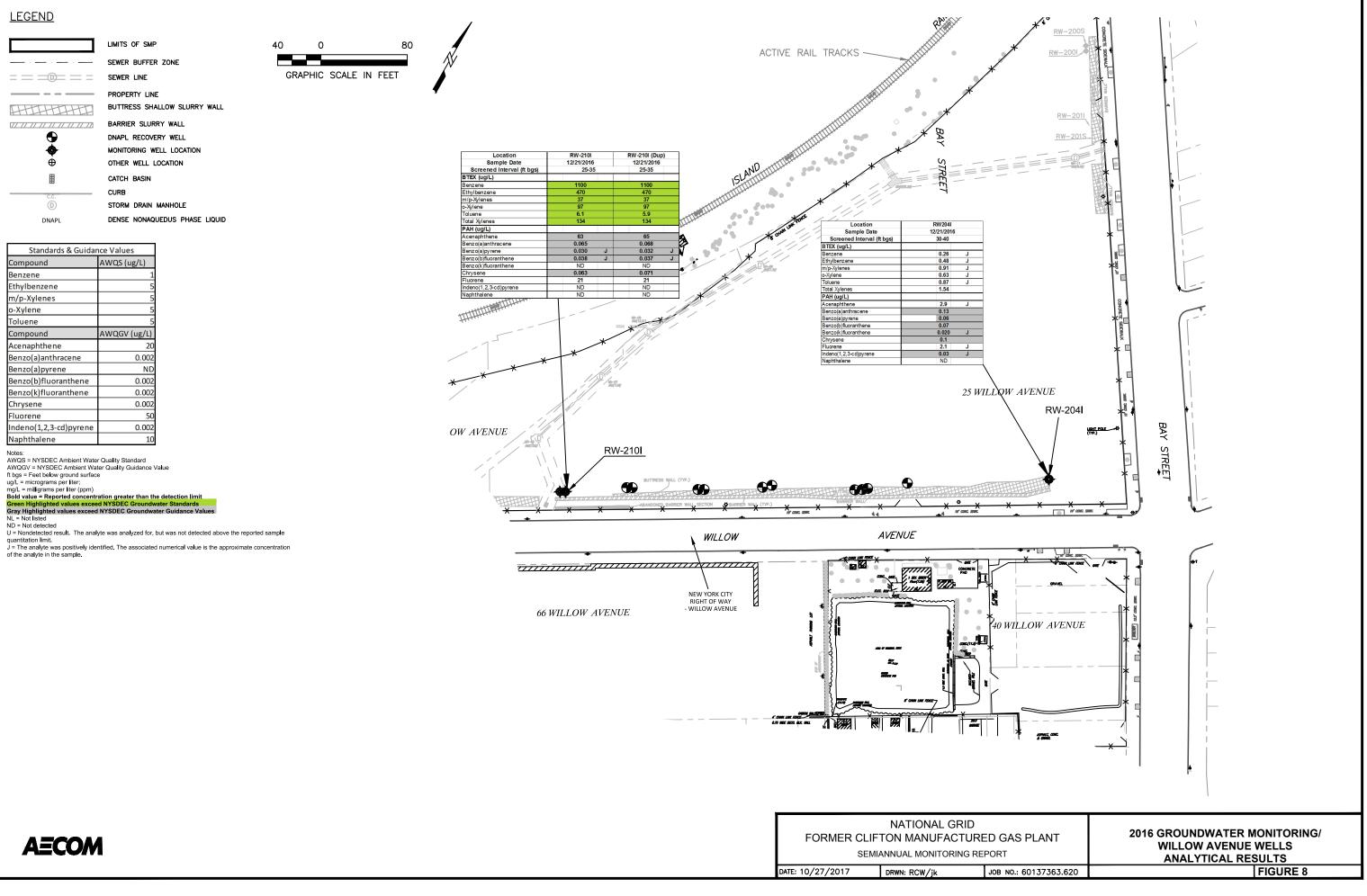
Location	RW-203S		RW-2031	
Sample Date	12/22/2016		12/22/2016	
Screened Interval (ft bgs)	14-24		24-34	
BTEX (ug/L)				
Benzene	88		74	
Ethylbenzene	740		680	
m/p-Xylenes	99		460	
o-Xylene	190		430	
Toluene	28		270	
Total Xylenes	289		890	
PAH (ug/L)				
Acenaphthene	120	J	96	J
Benzo(a)anthracene	ND		ND	
Benzo(a)pyrene	ND		ND	
Benzo(b)fluoranthene	ND		ND	
Benzo(k)fluoranthene	ND		ND	
Chrysene	ND		ND	
Fluorene	48	J	55	J
Indeno(1,2,3-cd)pyrene	ND		ND	
Naphthalene	2800		2300	

Location	RW-202S		RW-2021		
Sample Date	12/21/2016			12/21/2016	
Screened Interval (ft bgs)	10-20			27-37	
BTEX (ug/L)					
Benzene	1.3			ND	
Ethylbenzene	14			ND	
m/p-Xylenes	13			ND	
o-Xylene	8.7			ND	
Toluene	7.9			ND	
Total Xylenes	21.7			ND	
PAH (ug/L)					
Acenaphthene	ND			ND	
Benzo(a)anthracene	ND			0.072	
Benzo(a)pyrene	ND			0.027	ſ
Benzo(b)fluoranthene	0.023	J		0.027	L
Benzo(k)fluoranthene	ND			0.050	
Chrysene	0.037	J		0.079	
Fluorene	ND			ND	
Indeno(1,2,3-cd)pyrene	ND			ND	
Naphthalene	41			ND	



	Location	RW-22			
	Sample Date	12/22/2016			
	Screened Interval (ft bgs)	6-16			
	BTEX (ug/L)				
<u>22</u>	Benzene	0.13	J		
	Ethylbenzene	0.42	J		
	m/p-Xylenes	ND			
K CITY	o-Xylene	ND			
	Toluene	ND			
	Total Xylenes	ND			
WAY	PAH (ug/L)				
R STREET	Acenaphthene	ND			
Benz Benz Benz	Benzo(a)anthracene	0.16			
	Benzo(a)pyrene	0.48			
	Benzo(b)fluoranthene	0.47			
	Benzo(k)fluoranthene	0.14			
9	Chrysene	0.24			
MED OYED	Fluorene	ND			
	Indeno(1,2,3-cd)pyrene	0.40			
	Naphthalene	1.6	J		

JOB NO.: 60137363.620



NATIONAL GRID						
FORMER CLIFTON MANUFACTURED G						
SEMIANNUAL MONITORING REPORT						
DATE: 10/27/2017	DRWN: RCW/jk	JOB N				

Appendix A

Data Usability Summary and Analytical Reports (on CD Only)



Prepared for: National Grid Brooklyn, NY Prepared by: AECOM Pittsburgh, PA 60137363-540 February 2017

February 9, 2017

Data Usability Summary Report

National Grid/Clifton Former MGP Site Recovery Well Sampling Events TestAmerica-Edison Laboratory December 2016 Final



Prepared for: National Grid Brooklyn, NY Prepared by: AECOM Pittsburgh, PA 60137363-540 February 2017

Data Usability Summary Report

National Grid/Clifton Former MGP Site Recovery Well Sampling Events TestAmerica-Edison Laboratory December 2016

Sugar J. Kaf

Prepared By Gregory Malzone, Project Chemist AECOM Gulf Tower 707 Grant Street, 5th floor Pittsburgh, PA 15219

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Reviewed By Robert Davis Data Validator/Database Technician AECOM 1360 Peachtree Street NE, Suite 500 Atlanta, GA 30309

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List of Appendices

Appendix A Glossary of Data Qualifier Codes

Appendix B Data Qualification Summaries

Appendix C Support Documentation

Executive Summary

Overview

Data validation was performed by Gregory A. Malzone of AECOM Pittsburgh on two data packages from TestAmerica Laboratories, Inc., 777 New Durham Road, Edison, NJ 08817 (TAL-Edison) for the analysis of aqueous recovery well samples collected on December 21-22, 2016 at the Clifton Former manufactured gas plant (MGP) site.

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

- Volatile Organic Compounds: Benzene, Ethylbenzene, Toluene and Total Xylenes (BTEX) by USEPA Method 8260C,
- Polycyclic Aromatic Hydrocarbons (PAHs) by USEPA Method 8270D, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Hexachlorobenzene and Indeno(1,2,3-cd)pyrene were determined using GC/MS in Selected Ion Monitoring (SIM) Mode,
- Methane by RSK-175,
- Total and Dissolved Arsenic and Nickel by USEPA Method 6020A,
- Total, Bicarbonate, Carbonate and Hydroxide Alkalinity by Standard Method SM 2320B,
- Ammonia by USEPA Method 350.1,
- Nitrate and Nitrite as N by Standard Method 4500 NO3 F,
- Sulfate by ASTM Method D516-90, 02,
- Sulfide by Standard Method 4500 S2 F,
- Free Carbon Dioxide by Standard Method SM 4500 CO2 D,
- Chemical Oxygen Demand (COD) by Standard Method SM 5220D, and
- Ferrous Iron by Standard Method SM 3500 E D.

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.

Field duplicate relative percent difference (RPD) review and applicable control limits were taken from the USEPA Region I, New England Data Validation Functional Guidelines for Evaluating Environmental Analyses, December 1996.

The methane samples were analyzed at TestAmerica-Buffalo. The ferrous iron samples were analyzed at TestAmerica-Pensacola. The COD analyses for samples RW-22 and RW-23 were performed at ALS-Rochester, NY. TAL-Edison logged in the samples and reported the results under sample delivery groups (SDGs): 460-125858-1 and 460-125929-1. Table 1 below provides a sample submittal list with the field IDs cross-referenced with the TestAmerica-Edison IDs

Field ID	TestAmerica ID	Matrix	Date Sampled
RW-200S	460-125858-1	Groundwater	12/21/2016
RW-200I	460-125858-2	Groundwater	12/21/2016
RW-202S	460-125858-3	Groundwater	12/21/2016
RW-202I	460-125858-4	Groundwater	12/21/2016
RW-204I	460-125858-5	Groundwater	12/21/2016
RW-204I MS	460-125858-5MS	Groundwater (QC)	12/21/2016
RW-204I MSD	460-125858-5MSD	Groundwater (QC)	12/21/2016
RW-204I DUP	460-125858-5DUP	Groundwater (QC)	12/21/2016
RW-210I	460-125858-6	Groundwater	12/21/2016
Dup-1	460-125858-7	Groundwater	12/21/2016
Trip Blank	460-125858-8	Aqueous (QC)	12/21/2016
RW-22	460-125929-1	Groundwater	12/22/2016
RW-23	460-125929-2	Groundwater	12/22/2016
RW-25	460-125929-3	Groundwater	12/22/2016
RW-26	460-125929-4	Groundwater	12/22/2016
RW-203S	460-125929-5	Groundwater	12/22/2016
RW-203I	460-125929-6	Groundwater	12/22/2016
TRIP BLANK	460-125929-7	Aqueous (QC)	12/22/2016

Table 1 - Sample SubmittalsNational Grid / Clifton Recovery Well Samples

Summary

Data quality for the organic analyses was evaluated by reviewing the following parameters: holding times, GC/MS tuning and performance standards, internal standards, initial and continuing calibrations, matrix spike/matrix spike duplicates (MS/MSD), surrogate recoveries, laboratory control standards (LCSs), laboratory blanks, laboratory and field duplicates, compound identification, and compound quantitation.

Inorganic data quality was evaluated by reviewing the following parameters: holding times, matrix spikes, initial calibrations, continuing calibration verification standard recoveries, contract required detection limit standard recoveries, laboratory control samples, ICP interference check sample recoveries, ICP serial dilution results, field and laboratory duplicates, laboratory blanks, and analyte quantitation.

Five non-detect ferrous iron and seven non-detect free carbon dioxide results were rejected because the 24hour holding times were grossly exceeded. All other 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. groundwater) with the qualifications described below. Completeness of 97.4% 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 that required data qualification is discussed below. Support documentation for data qualifications was included in Appendix C of this report. Specific page references for the supporting documentation in the laboratory reports were provided in each item header.

1.0 Volatile Organic Compounds

460-125858-1

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

460-125929-1

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

2.0 Semivolatile Organic Compounds

460-125858-1

Laboratory Control Samples: The full scan LCS (460-411654/2-A) recovery (and the RW204I MSD) for benzo(a)anthracene was greater than the upper quality control limit. Samples RW-200I, RW-202S, RW-202I, RW-204I, RW-210I and Dup-1 were affected. Benzo(g,h,i)perylene was reported from the SIM analysis where the LCS recoveries were acceptable. No data qualifications were required.

460-125929-1

<u>Surrogate Recoveries</u>: The 2-fluorobiphenyl surrogate recovery for sample RW-25 was greater than the upper quality control limit. The USEPA National Functional Guidelines permit one nonconforming surrogate recovery per fraction (base/neutral or acid), provided the recovery is greater than 10% No data qualification was required in response to the high method bias.

3.0 Methane

460-125858-1

<u>Matrix Spike Recoveries (pp. 733-734)</u>: Sample RW-204I was designated in the field to be processed as the quality control sample, that is, as the MS/MSD. The RW-204I MS/MSD recoveries for methane were greater than the upper advisory limits. The methane result for sample RW-204I was positive and was qualified "J," as an estimated concentration, because of high bias attributable to matrix effects and/or sample heterogeneity.

460-125929-1

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

4.0 Total and Dissolved Metals

460-125858-1

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

460-125929-1

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

5.0 General Chemistry

460-125858-1

<u>Blank Contamination:</u> The continuing calibration blank analyzed on 12/28/16 at 16:26 had a ferrous iron concentration estimated to be 0.0448 J mg/L. Samples RW-200I, RW-202S, RW-202I, RW-204I, RW-210I and Dup-1 were affected. The positive ferrous iron results for samples RW-202S and RW-202I were qualified "U," as undetected at the reporting limit, because of laboratory contamination.

<u>Holding Times:</u> All free carbon dioxide analyses were performed two days beyond the USEPA method 24hour holding time. Free carbon dioxide samples must be analyzed immediately upon sample collection, that is, as field tests. The free carbon dioxide results for associated samples RW-200S, RW-200I, RW-202S, RW-202I, RW-204I, RW-210I and Dup-1 were non-detect and were qualified "R," as rejected, because the 24-hour holding time was grossly exceeded.

All ferrous iron analyses were performed 6-7 days beyond the USEPA method 24-hour holding time. Ferrous iron samples must be analyzed immediately upon sample collection, that is, as field tests. The positive and non-detect ferrous iron results for associated samples RW-200S, RW-200I, RW-202S, RW-202I, RW-204I, RW-210I and Dup-1 were qualified "J/R," as estimated concentrations and rejected, respectively, because the 24-hour holding time was grossly exceeded. The ferrous iron results negated due to blank contamination were not rejected.

460-125929-1

<u>Blank Contamination:</u> The continuing calibration blank analyzed on 12/28/16 at 16:26 had a ferrous iron concentration estimated to be 0.0448 J mg/L. Samples RW-22, RW-23, RW-25, RW-26, RW-203S and RW-203I were affected. The positive ferrous iron results for samples RW-203S and RW-203I were qualified "U," as undetected at the reporting limit, because of laboratory contamination.

<u>Holding Times:</u> All free carbon dioxide analyses were performed up to one day beyond the USEPA method 24-hour holding time. Free carbon dioxide samples must be analyzed immediately upon sample collection, that is, as field tests. The positive and non-detect free carbon dioxide results for associated samples RW-22, RW-23, RW-25, RW-26, RW-203S and RW-203I were qualified "J/UJ," as estimates, because the 24-hour holding time was exceeded.

All ferrous iron analyses were performed 5-6 days beyond the USEPA method 24-hour holding time. Ferrous iron samples must be analyzed immediately upon sample collection, that is, as field tests. The positive and non-detect ferrous iron results for associated samples RW-22, RW-23, RW-25, RW-26, RW-203S and RW-203I were qualified "J/R," as estimated concentrations and rejected, respectively, because the 24-hour holding time was grossly exceeded. The ferrous iron results negated due to blank contamination were not rejected.

6.0 Field Duplicate Precision

A field duplicate sample was collected for sample RW-210I. Field duplicate results were evaluated using the following criteria.

Organics: The RPD must be \leq 30% for groundwaters for results greater than or equal to two times the reporting limit. If one of the results is non-detect or less than two times the reporting limit, and the duplicate is greater than two times the reporting limit, the difference between the parent and field duplicate results must be less than or equal to two times the reporting limit.

Action applies only to the affected analyte in the organic duplicate sample pair.

Inorganics: The RPD must be ≤ 30% for groundwaters for results greater than or equal to five times the reporting limit. For results less than five times the reporting limit, the difference between the parent and field duplicate results must be less than or equal to two times the reporting limit for groundwaters.

Action applies to the affected analyte in all inorganic samples of the same matrix prepared and analyzed by the same method.

The RPDs and differences were calculated for those parameters for which there were positive results. All field duplicate results were within the acceptance criteria except ferrous iron. All positive and non-detect ferrous iron results were qualified "J/UJ," as estimates, because of field sampling/laboratory imprecision and/or sample heterogeneity.

The following notations are used in the field precision table.

RPD: Relative percent difference

NC: RPD could not be calculated

 μ g/L: micrograms per liter (ppb) and mg/L: milligrams per liter (ppm)

Quals: Qualifications required.

≤±2RL: The difference between the parent and field duplicate results was less than two times the reporting limit for low-level results. Variation of this magnitude is acceptable.

>±2RL: The difference between the parent and field duplicate results was greater than two times the reporting limit for low-level results. Data qualification was required.

Parameter	Units	RW-210I	Dup-1	RPD (%)	Quals
Benzene	µg/L	1100	1100	0	None
Ethylbenzene	µg/L	470	470	0	None
Toluene	µg/L	6.1	5.9	3.3	None
m-Xylene & p-Xylene	µg/L	37	37	0	None
o-Xylene	µg/L	97	97	0	None
Acenaphthene	µg/L	63	65	3.1	None
Anthracene	µg/L	1.2 J	0.78 J	42	≤±2RL, None
Fluorene	µg/L	21	21	0	None
Phenanthrene	µg/L	11	11	0	None
Benzo[a]anthracene	µg/L	0.065	0.068	4.5	None
Benzo[a]pyrene	µg/L	0.030 J	0.032 J	6.5	None
Benzo[b]fluoranthene	µg/L	0.038 J	0.037 J	2.7	None
Chrysene	µg/L	0.063	0.071	12	None
Methane	µg/L	770	780	1.3	None
Iron	µg/L	877	805	8.6	None
Manganese	µg/L	349	346	0.86	None
Ammonia	mg/L	2.6	2.8	7.4	None
Bicarbonate Alkalinity	mg/L	231	227	1.7	None
Alkalinity	mg/L	231	227	1.7	None
Nitrite	mg/L	0.10 U	0.030 J	NC	≤±2RL, None
Ferrous Iron	mg/L	0.10 U	0.24	NC	>±2RL, J
Chemical Oxygen Demand	mg/L	10.1	10.0 U	NC	≤±2RL, None
Manganese, Dissolved	µg/L	356	352	1.1	None

Table 2 – Field Duplicate Precision National Grid / Clifton Recovery Well Samples

7.0 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

5

Client Sample ID: RW20 Date Collected: 12/21/16 10:0 Date Received: 12/21/16 17:0	0					La	b Sample	ID: 460-125 Matrix:	
Method: 8260C - Volatile Or									
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fa
Benzene	280		5.0		ug/L			12/30/16 14:12	
Ethylbenzene	800		5.0		ug/L			12/30/16 14:12	
m-Xylene & p-Xylene	270		5.0		ug/L			12/30/16 14:12	
o-Xylene	320		5.0		ug/L			12/30/16 14:12	4
Toluene	330		5.0	1.3	ug/L			12/30/16 14:12	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	107		74-132					12/30/16 14:12	
4-Bromofluorobenzene	91		77 - 124					12/30/16 14:12	
Dibromofluoromethane (Surr)	98		72-131					12/30/16 14:12	
Toluene-d8 (Surr)	102		80 - 120					12/30/16 14:12	
Method: 8270D SIM - Semiv			nds (GC/MS	SIM)					
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzo[a]anthracene	0.25	J	0.26	0.19	ug/L		12/23/16 12:00	12/30/16 11:35	
Benzo[a]pyrene	0.13	U	0.26	0.13	ug/L		12/23/16 12:00	12/30/16 11:35	
Benzo[b]fluoranthene	0.094	J	0.26	0.062	ug/L		12/23/16 12:00	12/30/16 11:35	
Hexachlorobenzene	0.047	U	0.10	0.047	ug/L		12/23/16 12:00	12/30/16 11:35	
Indeno[1,2,3-cd]pyrene	0.14	U	0.26	0.14	ug/L		12/23/16 12:00	12/30/16 11:35	
Method: 8270D - Semivolati			(GC/MS) - DI	_					
Analyte		Qualifier	RL	MDL	Unit	Ð	Prepared	Analyzed	Dil Fa
Acenaphthene	18	U	210	18	ug/L		12/23/16 12:00	12/29/16 11:35	20
Acenaphthylene	100		210	13	ug/L		12/23/16 12:00	12/29/16 11:35	20
Anthracene	12	U	210	12	ug/L		12/23/16 12:00	12/29/16 11:35	20
Benzo[g,h,i]perylene	16	U	210	16	ug/L		12/23/16 12:00	12/29/16 11:35	20
Fluoranthene	15	U	210	15	ug/L		12/23/16 12:00	12/29/16 11:35	20
Fluorene	17	U	210	17	ug/L		12/23/16 12:00	12/29/16 11:35	20
Naphthalene	3000		210	17	ug/L		12/23/16 12:00	12/29/16 11:35	20
Phenanthrene	13	U	210	13	ug/L		12/23/16 12:00	12/29/16 11:35	20
Pyrene	17	U	210	17	ug/L		12/23/16 12:00	12/29/16 11:35	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2,4,6-Tribromophenol (Surr)			26 - 139				12/23/16 12:00	12/29/16 11:35	20
2-Fluorobiphenyl	85		45-107				12/23/16 12:00	12/29/16 11:35	20
2-Fluorophenol (Surr)	49		25 - 58				12/23/16 12:00	12/29/16 11:35	20
Nitrobenzene-d5 (Surr)	89		51 - 108					12/29/16 11:35	20
Phenol-d5 (Surr)	18		14-39				12/23/16 12:00	12/29/16 11:35	20
Terphenyl-d14 (Surr)	101		40 - 148					12/29/16 11:35	20
client Sample ID: RW20 ate Collected: 12/21/16 10:3 ate Received: 12/21/16 17:0	0					La	b Sample	ID: 460-125 Matrix:	
Method: 8260C - Volatile Or		unds by G	C/MS						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	0.090	U	1.0	0.090	ug/L			12/30/16 12:22	
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/30/16 12:22	
m Vulana & n Vulana	0.00		1.0					10/00/40 10:00	

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12/30/16 12:22

12/30/16 12:22

1.0

1.0

0.28 ug/L

0.32 ug/L

0.28 U

0.32 U

m-Xylene & p-Xylene

o-Xylene

1

1

Client: AECOM, Inc.

Project/Site: National Grid - Former Clifton MGP

lient Sample ID: RW2 ate Collected: 12/21/16 10	:30					La	b Sample	ID: 460-125 Matrix	
ate Received: 12/21/16 17:			0/110 (0						
Method: 8260C - Volatile C Analyte		Qualifier	C/IVIS (Conti RL		Unit	D	Prepared	Analyzed	Dil Fa
Toluene	0.25				ug/L		Prepareu	12/30/16 12:22	Dii Fa
	0.40	Ŭ.	1.0	0.20	ugre			12/30/10 12.22	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	109		74-132					12/30/16 12:22	
4-Bromofluorobenzene	88		77 - 124					12/30/16 12:22	
Dibromofluoromethane (Surr)	100		72 - 131					12/30/16 12:22	
Toluene-d8 (Surr)	102		80 - 120					12/30/16 12:22	
Method: 8270D SIM - Semi	ivolatile Organi	c Compou	nds (GC/MS	SIM					
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzo[a]anthracene	0.037		0.050	0.037				12/29/16 19:09	
Benzo[a]pyrene	0.10		0.050	0.026	ug/L			12/29/16 19:09	
Benzo[b]fluoranthene	0.090		0.050	0.012			12/23/16 12:00	12/29/16 19:09	
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L			12/29/16 19:09	
ndeno[1,2,3-cd]pyrene	0.050		0.050	0.027	ug/L		12/23/16 12:00	12/29/16 19:09	
Analyte Acenaphthene	0.88	-		MDL 0.88	ug/L	D	Prepared 12/23/16 12:00	Analyzed 12/28/16 04:09	Dil Fa
		-			-				
Acenaphthylene Anthracene	0.65 0.57		10 10		ug/L ug/L			12/28/16 04:09	
Benzo[g,h,i]perylene	0.37		10		ug/L			12/28/16 04:09	
Fluoranthene	0.73		10		ug/L			12/28/16 04:09	
Fluorene	0.80		10		ug/L			12/28/16 04:09 12/28/16 04:09	
Naphthalene	0.80		10		ug/L			12/28/16 04:09	
Phenanthrene	0.65	-	10		ug/L			12/28/16 04:09	
Pyrene	0.83		10		ug/L			12/28/16 04:09	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2,4,6-Tribromophenol (Surr)	93		26-139					12/28/16 04:09	Dirte
2-Fluorobiphenyl	72		45-107					12/28/16 04:09	
2-Fluorophenol (Surr)	23	x	25 - 58					12/28/16 04:09	
Nitrobenzene-d5 (Surr)	73		51 - 108					12/28/16 04:09	
Phenol-d5 (Surr)	24		14-39					12/28/16 04:09	
Terphenyl-d14 (Surr)	112		40 - 148					12/28/16 04:09	
lient Sample ID: RW2	02S					la	h Sample	ID: 460-125	858-
						Ban Ci	~ oumpie		
ate Collected: 12/21/16 11 ate Received: 12/21/16 17:								Matrix:	Wate

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.3		1.0	0.090	ug/L			12/30/16 12:44	1
Ethylbenzene	14		1.0	0.30	ug/L			12/30/16 12:44	1
m-Xylene & p-Xylene	13		1.0	0.28	ug/L			12/30/16 12:44	1
o-Xylene	8.7		1.0	0.32	ug/L			12/30/16 12:44	1
Toluene	7.9		1.0	0.25	ug/L			12/30/16 12:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		74 - 132			-		12/30/16 12:44	1
4-Bromofluorobenzene	91		77 - 124					12/30/16 12:44	1

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Client Sample ID: RW2 Date Collected: 12/21/16 11 Date Received: 12/21/16 17	:45					Lab Sample ID: 460-125858-3 Matrix: Water					
Method: 8260C - Volatile C	Organic Compo	unds by G	C/MS (Conti	nued)							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa		
Dibromofluoromethane (Surr)	100		72 - 131					12/30/16 12:44			
Toluene-d8 (Surr)	103		80 - 120					12/30/16 12:44			
Method: 8270D SIM - Semi Analyte		c Compou Qualifier	nds (GC/MS RL		Unit	D	Prepared	Analyzed	Dil Fa		
Benzo[a]anthracene	0.038	U	0.051	0.038	ug/L			12/29/16 19:34			
Benzo[a]pyrene	0.026	U	0.051	0.026				12/29/16 19:34			
Benzo[b]fluoranthene	0.023	J	0.051	0.012	Ŷ			12/29/16 19:34			
Hexachlorobenzene	0.0091	U	0.020	0.0091	-		12/23/16 12:00	12/29/16 19:34			
Indeno[1,2,3-cd]pyrene	0.027	U	0.051	0.027	-			12/29/16 19:34			
Analyte Acenaphthene	0.89	Qualifier U	RL		Unit ug/L	D	Prepared 12/23/16 12:00	Analyzed 12/28/16 04:30	Dil Fa		
Acenaphthylene	1.7		10		ug/L ug/L			12/28/16 04:30			
Anthracene	0.58		10		ug/L			12/28/16 04:30			
Benzo[g,h,i]perylene	0.76		10		ug/L			12/28/16 04:30			
Fluoranthene	0.73		10		ug/L			12/28/16 04:30			
Fluorene	0.81		10		ug/L			12/28/16 04:30			
Naphthalene	41		10		ug/L			12/28/16 04:30			
Phenanthrene	0.66	LI	10		ug/L			12/28/16 04:30			
Pyrene	0.84	-	10		ug/L			12/28/16 04:30			
, yrono	0.04	0	10	0.04	uy/L		12/23/10 12:00	12/20/10 04.30			
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa		
2,4,6-Tribromophenol (Surr)	112		26 - 139				12/23/16 12:00	12/28/16 04:30			
2-Fluorobiphenyl	95		45-107				12/23/16 12:00	12/28/16 04:30			
2-Fluorophenol (Surr)	33		25 - 58				12/23/16 12:00	12/28/16 04:30			
Nitrobenzene-d5 (Surr)	94		51 - 108				12/23/16 12:00	12/28/16 04:30			
Phenol-d5 (Surr)	33		14 - 39				12/23/16 12:00	12/28/16 04:30			

Client Sample ID: RW2021

Date Collected: 12/21/16 11:30

Date Received: 12/21/16 17:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.090	U	1.0	0.090	ug/L			12/30/16 13:06	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/30/16 13:06	1
m-Xylene & p-Xylene	0.28	U	1.0	0.28	ug/L			12/30/16 13:06	1
o-Xylene	0.32	U	1.0	0.32	ug/L			12/30/16 13:06	1
Toluene	0.25	U	1.0	0.25	ug/L			12/30/16 13:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		74 - 132					12/30/16 13:06	1
4-Bromofluorobenzene	88		77-124					12/30/16 13:06	1
Dibromofluoromethane (Surr)	100		72-131					12/30/16 13:06	1
Toluene-d8 (Surr)	102		80 - 120					12/30/16 13:06	1

TestAmerica Edison

Matrix: Water

TestAmerica Job ID: 460-125858-1

Client: AECOM, Inc. Project/Site: National Grid - Former Clifton MGP

Client Sample ID: RW2021

Date Collected: 12/21/16 11:30 Date Received: 12/21/16 17:00

Lab	Sample	ID:	460-125858-4
	·		Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.072		0.050	0.037	ug/L		12/23/16 12:00	12/29/16 19:58	1
Benzo[a]pyrene	0.027	J	0.050	0.026	ug/L		12/23/16 12:00	12/29/16 19:58	1
Benzo[b]fluoranthene	0.027	J	0.050	0.012	ug/L		12/23/16 12:00	12/29/16 19:58	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		12/23/16 12:00	12/29/16 19:58	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		12/23/16 12:00	12/29/16 19:58	1
Method: 8270D - Semivola	tile Organic Co	mpounds	(GC/MS)						
Analyte		Qualifier	ŔL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.88	U	10	0.88	ug/L		12/23/16 12:00	12/28/16 10:03	1
Acenaphthylene	0.65	U	10	0.65	ug/L		12/23/16 12:00	12/28/16 10:03	1
Anthracene	0.57	U	10	0.57	ug/L		12/23/16 12:00	12/28/16 10:03	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		12/23/16 12:00	12/28/16 10:03	1
Fluoranthene	0.72	U	10	0.72	ug/L		12/23/16 12:00	12/28/16 10:03	1
Fluorene	0.80	U	10	0.80	ug/L		12/23/16 12:00	12/28/16 10:03	1
Naphthalene	0.80	U	10	0.80	ug/L		12/23/16 12:00	12/28/16 10:03	1
Phenanthrene	0.65	U	10	0.65	ug/L		12/23/16 12:00	12/28/16 10:03	1
Pyrene	0.83	U	10	0.83	ug/L		12/23/16 12:00	12/28/16 10:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	95		26 - 139				12/23/16 12:00	12/28/16 10:03	1
2-Fluorobiphenyl	87		45-107				12/23/16 12:00	12/28/16 10:03	1
2-Fluorophenol (Surr)	28		25 - 58				12/23/16 12:00	12/28/16 10:03	1
Nitrobenzene-d5 (Surr)	83		51 - 108				12/23/16 12:00	12/28/16 10:03	1
Phenol-d5 (Surr)	29		14 - 39				12/23/16 12:00	12/28/16 10:03	1
Terphenyl-d14 (Surr)	124		40 - 148				12/23/16 12:00	12/28/16 10:03	1

Client Sample ID: RW204I Date Collected: 12/21/16 14:00 Date Received: 12/21/16 17:00

Lab Sample ID: 460-125858-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.26	J	1.0	0.090	ug/L			12/30/16 11:59	1
Ethylbenzene	0.48	J	1.0	0.30	ug/L			12/30/16 11:59	1
m-Xylene & p-Xylene	0.91	J	1.0	0.28	ug/L			12/30/16 11:59	1
o-Xylene	0.63	J	1.0	0.32	ug/L			12/30/16 11:59	1
Toluene	0.87	J	1.0	0.25	ug/L			12/30/16 11:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		74 - 132					12/30/16 11:59	1
4-Bromofluorobenzene	89		77 - 124					12/30/16 11:59	1
Dibromofluoromethane (Surr)	101		72-131					12/30/16 11:59	1
Toluene-d8 (Surr)	102		80 - 120					12/30/16 11:59	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.13	0.050	0.037	ug/L		12/23/16 12:00	12/29/16 18:19	1
Benzo[a]pyrene	0.057	0.050	0.026	ug/L		12/23/16 12:00	12/29/16 18:19	1
Benzo[b]fluoranthene	0.067	0.050	0.012	ug/L		12/23/16 12:00	12/29/16 18:19	1
Hexachlorobenzene	0.0090 U	0.020	0.0090	ug/L		12/23/16 12:00	12/29/16 18:19	1
Indeno[1,2,3-cd]pyrene	0.027 J	0.050	0.027	ug/L		12/23/16 12:00	12/29/16 18:19	1

TestAmerica Edison

Client: AECOM, Inc.

Fluorene

Pyrene

Project/Site: National Grid - Former Clifton MGP

Method: 8270D - Semivolatile Organic Compounds (GC/MS) Analyte

Result Qualifier RL **MDL Unit** D **Dil Fac** Prepared Analyzed Acenaphthene 2.9 J 10 0.88 ug/L 12/23/16 12:00 12/28/16 03:27 1 10 Acenaphthylene 1.3 J 0.65 ug/L 12/23/16 12:00 12/28/16 03:27 1 Anthracene 0.57 U 10 0.57 ug/L 12/23/16 12:00 12/28/16 03:27 1 Benzo[g,h,i]perylene 0.75 U 10 0.75 ug/L 12/23/16 12:00 12/28/16 03:27 1 Fluoranthene 2,0 J 10 0.72 ug/L 12/23/16 12:00 12/28/16 03:27 1 0.80 ug/L 2,1 J 10 12/23/16 12:00 12/28/16 03:27 1 Naphthalene 0.80 U 10 0.80 ug/L 12/23/16 12:00 12/28/16 03:27 1 Phenanthrene 0.65 U 10 0.65 ug/L 12/23/16 12:00 12/28/16 03:27 1 2.3 J 10 0.83 ug/L 12/23/16 12:00 12/28/16 03:27 1 il Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil
2,4,6-Tribromophenol (Surr)	100	26 - 139	12/23/16 12:00	12/28/16 03:27	
2-Fluorobiphenyl	91	45-107	12/23/16 12:00	12/28/16 03:27	
2-Fluorophenol (Surr)	32	25 - 58	12/23/16 12:00	12/28/16 03:27	
Nitrobenzene-d5 (Surr)	88	51 - 108	12/23/16 12:00	12/28/16 03:27	
Phenol-d5 (Surr)	32	14-39	12/23/16 12:00	12/28/16 03:27	
Terphenyl-d14 (Surr)	131	40 - 148	12/23/16 12:00	12/28/16 03:27	

Client Sample ID: RW-2101 Date Collected: 12/21/16 13:00 Date Received: 12/21/16 17:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1100		5.0	0.45	ug/L			12/30/16 13:29	5
Ethylbenzene	470		5.0	1.5	ug/L			12/30/16 13:29	5
m-Xylene & p-Xylene	37		5.0	1.4	ug/L			12/30/16 13:29	5
o-Xylene	97		5.0	1.6	ug/L			12/30/16 13:29	5
Toluene	6.1		5.0	1.3	ug/L			12/30/16 13:29	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		74-132					12/30/16 13:29	5
4-Bromofluorobenzene	90		77 - 124					12/30/16 13:29	5
Dibromofluoromethane (Surr)	98		72-131					12/30/16 13:29	5
Toluene-d8 (Surr)	103		80 - 120					12/30/16 13:29	5

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.065		0.052	0.038	ug/L		12/23/16 12:00	12/30/16 12:50	1
Benzo[a]pyrene	0.030	J	0.052	0.027	ug/L		12/23/16 12:00	12/30/16 12:50	1
Benzo[b]fluoranthene	0.038	J	0.052	0.012	ug/L		12/23/16 12:00	12/30/16 12:50	1
Hexachlorobenzene	0.0093	U	0.021	0.0093	ug/L		12/23/16 12:00	12/30/16 12:50	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		12/23/16 12:00	12/30/16 12:50	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	<u> </u>	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	63		10	0.91	ug/L		12/23/16 12:00	12/28/16 10:25	1
Acenaphthylene	0.67	U	10	0.67	ug/L		12/23/16 12:00	12/28/16 10:25	1
Anthracene	1.2	J	10	0.59	ug/L		12/23/16 12:00	12/28/16 10:25	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		12/23/16 12:00	12/28/16 10:25	1
Fluoranthene	0.75	U	10	0.75	ug/L		12/23/16 12:00	12/28/16 10:25	1
Fluorene	21		10	0.83	ug/L		12/23/16 12:00	12/28/16 10:25	1
Naphthalene	0.83	U	10	0.83	ug/L		12/23/16 12:00	12/28/16 10:25	1
Phenanthrene	11		10	0.67	ug/L		12/23/16 12:00	12/28/16 10:25	1

TestAmerica Edison

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Matrix: Water

TestAmerica Job ID: 460-125858-1

Lab Sample ID: 460-125858-6

lient Sample ID: RW-21 ate Collected: 12/21/16 13:0 ate Received: 12/21/16 17:00	0					Lá	ab Sample	ID: 460-125 Matrix	
Method: 8270D - Semivolati			• • • •		•				
Analyte		Qualifier			Unit	D	Prepared	Analyzed	Dil F
Pyrene	0.86	U	10	0.86	ug/L		12/23/16 12:00	12/28/16 10:25	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil F
2,4,6-Tribromophenol (Surr)	104		26-139				12/23/16 12:00	12/28/16 10:25	
2-Fluorobiphenyl	94		45-107				12/23/16 12:00	12/28/16 10:25	
2-Fluorophenol (Surr)	32		25 - 58				12/23/16 12:00	12/28/16 10:25	
Nitrobenzene-d5 (Surr)	95		51 - 108				12/23/16 12:00	12/28/16 10:25	
Phenol-d5 (Surr)	29		14_39				12/23/16 12:00	12/28/16 10:25	
Terphenyl-d14 (Surr)	120		40 - 148				12/23/16 12:00	12/28/16 10:25	
lient Sample ID: Dup-1 ate Collected: 12/21/16 00:0 ate Received: 12/21/16 17:00						La	ab Sample	ID: 460-125 Matrix	
Method: 8260C - Volatile Org		unds by G Qualifier	C/MS RL	MDI	Unit	D	Bronarad	Analyzed	Dil F
Benzene			5.0		ug/L		Prepared	Analyzed 12/30/16 13:51	
Ethylbenzene	470		5.0		ug/L ug/L			12/30/16 13:51	
n-Xylene & p-Xylene	37		5.0		ug/L			12/30/16 13:51	
o-Xylene	97		5.0		ug/L			12/30/16 13:51	
oluene	5.9		5.0		ug/L				
oldelle	5.9		5.0	1.5	ugre			12/30/16 13:51	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil I
1,2-Dichloroethane-d4 (Surr)	107		74 - 132					12/30/16 13:51	
l-Bromofluorobenzene	91		77 - 124					12/30/16 13:51	
Dibromofluoromethane (Surr)	97		72-131					12/30/16 13:51	
Toluene-d8 (Surr)	102		80 - 120					12/30/16 13:51	
Method: 8270D SIM - Semive			•			_			
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil F
Benzo[a]anthracene	0.068		0.052	0.039	-			12/30/16 13:15	
Benzo[a]pyrene	0.032		0.052	0.027	•			12/30/16 13:15	
Benzo[b]fluoranthene	0.037		0.052	0.013				12/30/16 13:15	
lexachlorobenzene	0.0094		0.021	0.0094	-			12/30/16 13:15	
ndeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		12/23/16 12:00	12/30/16 13:15	
									Dil F
			• •	MDI	Linit	P	Proparod	Analyzod	
Inalyte	Result	Qualifier	ŔL		Unit	D	Prepared	Analyzed	
Analyte Acenaphthene	Result 65	Qualifier	RL	0.92	ug/L	D	12/23/16 12:00	12/28/16 11:50	
Analyte Acenaphthene Acenaphthylene	Result 65 0.68	Qualifier	RL 10 10	0.92 0.68	ug/L ug/L	D	12/23/16 12:00 12/23/16 12:00	12/28/16 11:50 12/28/16 11:50	
Analyte Acenaphthene Acenaphthylene Anthracene	Result 65 0.68 0.78	Qualifier U J	RL 10 10 10	0.92 0.68 0.59	ug/L ug/L ug/L	D	12/23/16 12:00 12/23/16 12:00 12/23/16 12:00	12/28/16 11:50 12/28/16 11:50 12/28/16 11:50	
Analyte Acenaphthene Acenaphthylene Anthracene Benzo[g,h,i]perylene	Result 65 0.68 0.78 0.78	Qualifier U J U	RL 10 10 10 10 10	0.92 0.68 0.59 0.78	ug/L ug/L ug/L ug/L	D	12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00	12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50	
Analyte Acenaphthene Acenaphthylene Anthracene Benzo[g,h,i]perylene Fluoranthene	Result 65 0.68 0.78 0.78 0.75	Qualifier U J U	RL 10 10 10 10 10 10	0.92 0.68 0.59 0.78 0.75	ug/L ug/L ug/L ug/L ug/L	<u>D</u>	12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00	12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50	
Analyte Acenaphthene Acenaphthylene Anthracene Benzo[g,h,i]perylene Fluoranthene Fluorene	Result 65 0.68 0.78 0.78 0.75 21	Qualifier U J U U	RL 10 10 10 10 10 10 10	0.92 0.68 0.59 0.78 0.75 0.83	ug/L ug/L ug/L ug/L ug/L ug/L	<u>D</u>	12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00	12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50	
Analyte Acenaphthene Acenaphthylene Anthracene Benzo[g,h,i]perylene Fluoranthene Fluorene Japhthalene	Result 65 0.68 0.78 0.78 0.75 21 0.83	Qualifier U J U U	ŘL 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10	0.92 0.68 0.59 0.78 0.75 0.83 0.83	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	<u>D</u>	12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00	12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50	
Analyte Acenaphthene Acenaphthylene Anthracene Benzo[g,h,i]perylene Fluoranthene Fluorene Japhthalene Phenanthrene	Result 65 0.68 0.78 0.78 0.75 21	Qualifier U J U U U	RL 10 10 10 10 10 10 10	0.92 0.68 0.59 0.78 0.75 0.83 0.83 0.83	ug/L ug/L ug/L ug/L ug/L ug/L	D	12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00	12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50	
Method: 8270D - Semivolati Analyte Acenaphthene Acenaphthylene Anthracene Banzo[g.h,i]perylene Fluoranthene Fluoranthene Phenanthrene Pyrene Surrogate	Result 65 0.68 0.78 0.75 21 0.83 11 0.86	Qualifier U J U U U	RL 10	0.92 0.68 0.59 0.78 0.75 0.83 0.83 0.83	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	D	12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00	12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50	
Analyte Acenaphthene Acenaphthylene Anthracene Benzo[g,h,i]perylene Fluoranthene Fluorene Naphthalene Phenanthrene	Result 65 0.68 0.78 0.78 0.75 21 0.83 11	Qualifier U J U U U	RL 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10	0.92 0.68 0.59 0.78 0.75 0.83 0.83 0.83	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	D	12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 12/23/16 12:00 Prepared	12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50 12/28/16 11:50	Dil I

Client: AECOM, Inc.

Project/Site: National Grid - Former Clifton MGP

TestAmerica Edison

TestAmerica Job ID: 460-125858-1

TestAmerica Job ID: 460-125858-1

Client Sample ID: Dup-1 Date Collected: 12/21/16 00:00 Date Received: 12/21/16 17:00

Project/Site: National Grid - Former Clifton MGP

Client: AECOM, Inc.

Lab Sample ID: 460-125858-7 Matrix: Water

D

Prepared

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued) Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 2-Fluorophenol (Surr) 29 25 - 58 12/23/16 12:00 12/28/16 11:50 Nitrobenzene-d5 (Surr) 89 51 - 108 12/23/16 12:00 12/28/16 11:50 Phenol-d5 (Surr) 27 14-39 12/23/16 12:00 12/28/16 11:50 Terphenyl-d14 (Surr) 122 40-148 12/23/16 12:00 12/28/16 11:50 Lab Sample ID: 460-125858-8

Client Sample ID: Trip Blank Date Collected: 12/21/16 00:00 Date Received: 12/21/16 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS Analyte **Result Qualifier** RL **MDL** Unit

Benzene	0.090	U	1.0	0.090	ug/L		12/30/16 11:38	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L		12/30/16 11:38	1
m-Xylene & p-Xylene	0.28	U	1.0	0.28	ug/L		12/30/16 11:38	1
o-Xylene	0.32	U	1.0	0.32	ug/L		12/30/16 11:38	1
Toluene	0.25	U	1.0	0.25	ug/L		12/30/16 11:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		74-132			· · · · · · · · · · · · · · · · · · ·	12/30/16 11:38	1
4-Bromofluorobenzene	89		77 - 124				12/30/16 11:38	1
Dibromofluoromethane (Surr)	102		72 - 131				12/30/16 11:38	1
Toluene-d8 (Surr)	102		80 - 120				12/30/16 11:38	1

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Matrix: Water

Analyzed

Dil Fac

Client: AECOM, Inc.

Ethylbenzene

o-Xylene

m-Xylene & p-Xylene

Project/Site: Clifton MGP-National Grid

Client Sample ID: RW-22 Date Collected: 12/22/16 10:10						La	b Sample	ID: 460-125 Matrix	
ate Received: 12/22/16 15:10								Iviati ix	. vvale
Method: 8260C - Volatile Orga			C/MS						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	0.13	J	1.0	0.090	ug/L			12/29/16 19:27	
Ethylbenzene	0.42	J	1.0	0.30	ug/L			12/29/16 19:27	
m-Xylene & p-Xylene	0.28	U	1.0	0.28	ug/L			12/29/16 19:27	
o-Xylene	0.32	U	1.0	0.32	ug/L			12/29/16 19:27	
Toluene	0.25	U	1.0	0.25	ug/L			12/29/16 19:27	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	90		74 - 132					12/29/16 19:27	
1-Bromofluorobenzene	96		77 - 124					12/29/16 19:27	
Dibromofluoromethane (Surr)	91		72-131					12/29/16 19:27	
Toluene-d8 (Surr)	93		80 - 120					12/29/16 19:27	
Method: 8270D SIM - Semivola	atile Organi	c Compou	inds (GC/MS	SIM)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzo[a]anthracene	0.16		0.050	0.037	ug/L		12/23/16 08:52	12/31/16 05:48	
Benzo[a]pyrene	0.48		0.050	0.026	ug/L		12/23/16 08:52	12/31/16 05:48	
Benzo[b]fluoranthene	0.47		0.050	0.012	ug/L		12/23/16 08:52	12/31/16 05:48	
lexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		12/23/16 08:52	12/31/16 05:48	
ndeno[1,2,3-cd]pyrene	0.40		0.050	0.027	ug/L		12/23/16 08:52	12/31/16 05:48	
Method: 8270D - Semivolatile	Result	Qualifier	ŔL		Unit	D	Prepared	Analyzed	Dil Fa
Acenaphthene	0.88		10		ug/L			12/27/16 11:29	
Acenaphthylene	0.65	_	10		ug/L			12/27/16 11:29	
Anthracene	0.57		10		ug/L			12/27/16 11:29	
Benzo[g,h,i]perylene	0.75		10		ug/L			12/27/16 11:29	
Fluoranthene	0.72		10		ug/L		12/23/16 08:52	12/27/16 11:29	
Fluorene	0.80		10		ug/L		12/23/16 08:52	12/27/16 11:29	
Naphthalene	1.6	J	10	0.80	ug/L		12/23/16 08:52	12/27/16 11:29	
Phenanthrene	0.65	U	10	0.65	ug/L		12/23/16 08:52	12/27/16 11:29	
byrene	0.83	U	10	0.83	ug/L		12/23/16 08:52	12/27/16 11:29	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2,4,6-Tribromophenol (Surr)	106		26 - 139				12/23/16 08:52	12/27/16 11:29	
2-Fluorobiphenyl	103		45-107					12/27/16 11:29	
2-Fluorophenol (Surr)	35		25 - 58				12/23/16 08:52	12/27/16 11:29	
Vitrobenzene-d5 (Surr)	94		51 - 108				12/23/16 08:52	12/27/16 11:29	
Phenol-d5 (Surr)	42	X	14 - 39				12/23/16 08:52	12/27/16 11:29	
Terphenyl-d14 (Surr)	119		40 - 148				12/23/16 08:52	12/27/16 11:29	
lient Sample ID: RW-23						La	b Sample	ID: 460-125	5929-2
ate Collected: 12/22/16 10:20 ate Received: 12/22/16 15:10								Matrix	
Method: 8260C - Volatile Orga	nic Compo	unds bv G	C/MS						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	0.090	U	1.0	0.090				12/29/16 19:53	
					.				

12/29/16 19:53

12/29/16 19:53

12/29/16 19:53

1.0

1.0

1.0

0.30 ug/L

0.28 ug/L

0.32 ug/L

0.30 U

0.28 U

0.32 U

1

1

1

TestAmerica Job ID: 460-125929-1

Client Sample ID: RW-2 Date Collected: 12/22/16 10 Date Received: 12/22/16 15:	:20					La	b Sample	ID: 460-125 Matrix	
Method: 8260C - Volatile C		unds by G	C/MS (Conti	(hour					
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.25		1.0		ug/L			12/29/16 19:53	
0		A 117					_		
Surrogate	%Recovery	Quaimer	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene	89		74 - 132					12/29/16 19:53	
ч-вготопиоговелzене Dibromofluoromethane (Surr)	96 90		77 - 124					12/29/16 19:53	
Toluene-d8 (Surr)	90		72 - 131 80 - 120					12/29/16 19:53 12/29/16 19:53	
								12/20/10 /0.00	
Method: 8270D SIM - Semi Analyte		c Compou Qualifier	unds (GC/MS RL		Unit	D	Prepared	Analyzed	Dil Fa
Benzo[a]anthracene	0.17		0.050	0.037				12/31/16 06:13	Diria
Benzo[a]pyrene	0.026	U	0.050	0.026	-			12/31/16 06:13	
Benzo[b]fluoranthene	0.027		0.050	0.012	-			12/31/16 06:13	
Hexachlorobenzene	0.0090		0.020	0.0090	-			12/31/16 06:13	1999 A.
Indeno[1,2,3-cd]pyrene	0.027		0.050	0.027	-			12/31/16 06:13	
Method: 8270D - Semivola	tilo Organio Co	mnounda	(CC/MC)						
Analyte		Qualifier	(GC/IVIS) RL	MDI	Unit	D	Prepared	Analyzed	Dil Fa
Acenaphthene	0.88		10		ug/L	Ľ	· · ·	12/27/16 11:50	
Acenaphthylene	0.65		10		ug/L			12/27/16 11:50	
Anthracene	0.57		10		ug/L			12/27/16 11:50	
Benzo[g,h,i]perylene	0.75		10		ug/L			12/27/16 11:50	1
Fluoranthene	4.8		10		ug/L			12/27/16 11:50	
Fluorene	0.80		10		ug/L			12/27/16 11:50	
Naphthalene	0.80		10		ug/L			12/27/16 11:50	
Phenanthrene	0.75	J	10		ug/L			12/27/16 11:50	
Pyrene	4.7	J	10		ug/L			12/27/16 11:50	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2,4,6-Tribromophenol (Surr)			26 - 139				-	12/27/16 11:50	
2-Fluorobiphenyl	106		45 - 107				12/23/16 08:52	12/27/16 11:50	
2-Fluorophenol (Surr)	38		25 - 58				12/23/16 08:52	12/27/16 11:50	
Nitrobenzene-d5 (Surr)	92		51 - 108				12/23/16 08:52	12/27/16 11:50	
Phenol-d5 (Surr)	40	X	14-39				12/23/16 08:52	12/27/16 11:50	
Terphenyl-d14 (Surr)	129		40 - 148				12/23/16 08:52	12/27/16 11:50	:
lient Sample ID: RW-2	25					la	h Samnle	ID: 460-125	929-1
ate Collected: 12/22/16 09: ate Received: 12/22/16 15:	:00							Matrix	
Method: 8260C - Volatile C	rganic Compo	unds hv G	C/MS						
Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.27	J	1.0	0.090	ug/L			12/29/16 20:20	
Ethylbenzene	0.62	J	1.0		ug/L			12/29/16 20:20	
m-Xylene & p-Xylene	0.28		1.0	0.28	ug/L			12/29/16 20:20	
o-Xylene	0.32		1.0	0.32	ug/L			12/29/16 20:20	
Toluono	0.25	11	10	0.05				40/00/40 00:00	

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90	74 - 132		12/29/16 20:20	1
4-Bromofluorobenzene	96	77 - 124		12/29/16 20:20	1

TestAmerica Edison

1

Client: AECOM, Inc. Project/Site: Clifton MGP-National Grid

method. 02000 - volutile C	ngame oompo	unus by O	O/INO						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	D
Benzene	0.27	J	1.0	0.090	ug/L			12/29/16 20:20	
Ethylbenzene	0.62	J	1.0	0.30	ug/L			12/29/16 20:20	
m-Xylene & p-Xylene	0.28	U	1.0	0.28	ug/L			12/29/16 20:20	
o-Xylene	0.32	U	1.0	0.32	ug/L			12/29/16 20:20	
Toluene	0.25	U	1.0	0.25	ug/L			12/29/16 20:20	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	D
1,2-Dichloroethane-d4 (Surr)	90		74 - 132					12/29/16 20:20	
4-Bromofluorobenzene	96		77 - 124					12/29/16 20.20	

	lient Sample ID: RW-25 ate Collected: 12/22/16 09:00 ate Received: 12/22/16 15:10							Lab Sample ID: 460-125929 Matrix: Wat					
Method: 8260C - Volatile C		unds by G	C/MS (Conti	nued)									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac				
Dibromofluoromethane (Surr)	91		72-131					12/29/16 20:20					
Toluene-d8 (Surr)	93		80 - 120					12/29/16 20:20					
Method: 8270D SIM - Semi	ivolatile Organi	c Compou	nds (GC/MS	SIM)									
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac				
Benzo[a]anthracene	0.041	J	0.052	0.039	ug/L		12/23/16 08:52	12/31/16 06:37	1				
Benzo[a]pyrene	0.030	J	0.052	0.027	ug/L		12/23/16 08:52	12/31/16 06:37	1				
Benzo[b]fluoranthene	0.040	J	0.052	0.013	ug/L		12/23/16 08:52	12/31/16 06:37	1				
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		12/23/16 08:52	12/31/16 06:37	1				
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		12/23/16 08:52	12/31/16 06:37	1				
Method: 8270D - Semivola Analyte		mpounds Qualifier	(GC/MS) RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa				
Acenaphthene	0.92	U	10	0.92	ug/L		12/23/16 08:52	12/28/16 16:28	1				
Acenaphthylene	0.68	U	10	0.68	ug/L		12/23/16 08:52	12/28/16 16:28	1				
Anthracene	0.59	U	10	0.59	ug/L		12/23/16 08:52	12/28/16 16:28	1				
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		12/23/16 08:52	12/28/16 16:28	1				
Fluoranthene	0.75	U	10	0.75	ug/L		12/23/16 08:52	12/28/16 16:28	1				
Fluorene	0.83	U	10	0.83	ug/L		12/23/16 08:52	12/28/16 16:28	1				
Naphthalene	2.9	J	10	0.83	ug/L		12/23/16 08:52	12/28/16 16:28	1				
Phenanthrene	0.68	U	10	0.68	ug/L		12/23/16 08:52	12/28/16 16:28	1				
Pyrene	0.86	U	10	0.86	ug/L		12/23/16 08:52	12/28/16 16:28	1				
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac				
2,4,6-Tribromophenol (Surr)	118		26 - 139				12/23/16 08:52	12/28/16 16:28	1				
2-Fluorobiphenyl	112	X	45_107				12/23/16 08:52	12/28/16 16:28	1				
2-Fluorophenol (Suπ)	33		25 - 58				12/23/16 08:52	12/28/16 16:28	1				
Nitrobenzene-d5 (Surr)	101		51 - 108				12/23/16 08:52	12/28/16 16:28	1				
Phenol-d5 (Surr)	32		14 - 39				12/23/16 08:52	12/28/16 16:28	1				
Terphenyl-d14 (Surr)	142		40_148				12/23/16 08:52	10/00/46 46:00	1				

Client Sample ID: RW-26

Client: AECOM, Inc.

Project/Site: Clifton MGP-National Grid

Date Collected: 12/22/16 09:10 Date Received: 12/22/16 15:10

Analyte	Result	Qualifier	RL	MDL.	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.090	U	1.0	0.090	ug/L			12/29/16 20:46	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/29/16 20:46	1
n-Xylene & p-Xylene	0.28	U	1.0	0.28	ug/L			12/29/16 20:46	1
o-Xylene	0.32	U	1.0	0.32	ug/L			12/29/16 20:46	1
Foluene	0.25	U	1.0	0.25	ug/L			12/29/16 20:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		74-132					12/29/16 20:46	1
4-Bromofluorobenzene	95		77 - 124					12/29/16 20:46	1
Dibromofluoromethane (Surr)	90		72 - 131					12/29/16 20:46	1
Toluene-d8 (Surr)	93		80 - 120					12/29/16 20:46	1 00 1

TestAmerica Edison

Matrix: Water

Client: AECOM, Inc. Project/Site: Clifton MGP-National Grid

TestAmerica Job ID: 460-125929-1

Client Sample ID: RW-26 Lab Sample ID: 460-125929-4 Date Collected: 12/22/16 09:10 Matrix: Water Date Received: 12/22/16 15:10 Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) Analyte **Result Qualifier** RL **MDL Unit** Prepared D Analyzed **Dil Fac** 0.037 U Benzo[a]anthracene 0.050 0.037 ug/L 12/23/16 08:52 12/31/16 07:02 1 Benzo[a]pyrene 0.026 U 0.050 0.026 ug/L 12/23/16 08:52 12/31/16 07:02 1 Benzo[b]fluoranthene 0.012 U 0.050 0.012 ug/L 12/23/16 08:52 12/31/16 07:02 1 Hexachlorobenzene 0.0090 U 0.020 0.0090 ug/L 12/23/16 08:52 12/31/16 07:02 1 Indeno[1,2,3-cd]pyrene 0.027 U 0.050 0.027 ug/L 12/23/16 08:52 12/31/16 07:02 1 Method: 8270D - Semivolatile Organic Compounds (GC/MS) Analyte **Result Qualifier** RL **MDL Unit** D Prepared Analyzed **Dil Fac** 0.88 U Acenaphthene 10 0.88 ug/L 12/23/16 08:52 12/28/16 16:50 1 Acenaphthylene 0.65 U 10 0.65 ug/L 12/23/16 08:52 12/28/16 16:50 1 Anthracene 0.57 U 10 12/23/16 08:52 12/28/16 16:50 0.57 ug/L 1 Benzo[g,h,i]perylene 0.75 U 10 12/23/16 08:52 12/28/16 16:50 0.75 ug/L 1 Fluoranthene 0.72 U 10 0.72 ug/L 12/23/16 08:52 12/28/16 16:50 1 Fluorene 0.80 U 10 0.80 ug/L 12/23/16 08:52 12/28/16 16:50 1 Naphthalene 0.80 U 10 0.80 ug/L 12/23/16 08:52 12/28/16 16:50 1 Phenanthrene 0.65 U 10 0.65 ug/L 12/23/16 08:52 12/28/16 16:50 1 Pyrene 0.83 U 10 0.83 ug/L 12/23/16 08:52 12/28/16 16:50 1 Surrogate %Recovery Qualifier Limits Prepared Dil Fac Analyzed 2,4,6-Tribromophenol (Surr) 108 26-139 12/23/16 08:52 12/28/16 16:50 1 2-Fluorobiphenyl 101 45 - 107 12/23/16 08:52 12/28/16 16:50 1 2-Fluorophenol (Surr) 30 25 - 58 12/23/16 08:52 12/28/16 16:50 1 Nitrobenzene-d5 (Surr) 91 51-108 12/23/16 08:52 12/28/16 16:50 1 Phenol-d5 (Surr) 32 14-39 12/23/16 08:52 12/28/16 16:50 1 Terphenyl-d14 (Surr) 135 40 - 148 12/23/16 08:52 12/28/16 16:50 1 Client Sample ID: RW-203S Lab Sample ID: 460-125929-5

Date Collected: 12/22/16 11:30

Date Received: 12/22/16 15:10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	88		5.0	0.45	ug/L			12/29/16 21:13	5
Ethylbenzene	740		5.0	1.5	ug/L			12/29/16 21:13	5
m-Xylene & p-Xylene	99		5.0	1.4	ug/L			12/29/16 21:13	5
o-Xylene	190		5.0	1.6	ug/L			12/29/16 21:13	5
Toluene	28		5.0	1.3	ug/L			12/29/16 21:13	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		74 - 132					12/29/16 21:13	5
4-Bromofluorobenzene	99		77 - 124					12/29/16 21:13	5
Dibromofluoromethane (Surr)	90		72 - 131					12/29/16 21:13	5
Toluene-d8 (Surr)	93		80 - 120					12/29/16 21:13	5

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

A	nalyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8	enzo[a]anthracene	0.37	<u> </u>	0.50	0.37	ug/L		12/23/16 08:52	12/31/16 07:27	10
B	enzo[a]pyrene	0.26	U	0.50	0.26	ug/L		12/23/16 08:52	12/31/16 07:27	10
B	enzo[b]fluoranthene	0.12	U	0.50	0.12	ug/L		12/23/16 08:52	12/31/16 07:27	10
H F	lexachlorobenzene	0.090	U	0.20	0.090	ug/L		12/23/16 08:52	12/31/16 07:27	10
lr	ndeno[1,2,3-cd]pyrene	0.27	U	0.50	0.27	ug/L		12/23/16 08:52	12/31/16 07:27	10

TestAmerica Edison

Client: AECOM, Inc. Project/Site: Clifton MGP-National Grid TestAmerica Job ID: 460-125929-1

Lab Sample ID: 460-125929-6

Matrix: Water

Meth	od: 8270D -	Semivolatile	Organic	Comp	ounds	(GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	120	J	200	18	ug/L		12/23/16 08:52	12/29/16 11:57	20
Acenaphthylene	13	U	200	13	ug/L		12/23/16 08:52	12/29/16 11:57	20
Anthracene	11	U	200	11	ug/L		12/23/16 08:52	12/29/16 11:57	20
Benzo[g,h,i]perylene	15	U	200	15	ug/L		12/23/16 08:52	12/29/16 11:57	20
Fluoranthene	14	U	200	14	ug/L		12/23/16 08:52	12/29/16 11:57	20
Fluorene	48	J	200	16	ug/L		12/23/16 08:52	12/29/16 11:57	20
Naphthalene	2800		200	16	ug/L		12/23/16 08:52	12/29/16 11:57	20
Phenanthrene	35	J	200	13	ug/L		12/23/16 08:52	12/29/16 11:57	20
Pyrene	17	U	200	17	ug/L		12/23/16 08:52	12/29/16 11:57	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	51		26 - 139				12/23/16 08:52	12/29/16 11:57	20
2-Fluorobiphenyl	96		45_107				12/23/16 08:52	12/29/16 11:57	20
2-Fluorophenol (Surr)	46		25 - 58				12/23/16 08:52	12/29/16 11:57	20
Nitrobenzene-d5 (Surr)	84		51 - 108				12/23/16 08:52	12/29/16 11:57	20
Phenol-d5 (Surr)	19		14_39				12/23/16 08:52	12/29/16 11:57	20
Terphenyl-d14 (Surr)	102		40_148				12/23/16 08:52	12/29/16 11:57	20

Client Sample ID: RW-2031 Date Collected: 12/22/16 11:20

Date Received: 12/22/16 15:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	74		5.0	0.45	ug/L			12/29/16 21:39	5
Ethylbenzene	680		5.0	1.5	ug/L			12/29/16 21:39	5
m-Xylene & p-Xylene	460		5.0	1.4	ug/L			12/29/16 21:39	5
o-Xylene	430		5.0	1.6	ug/L			12/29/16 21:39	5
Toluene	270		5.0	1.3	ug/L			12/29/16 21:39	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		74 - 132					12/29/16 21:39	5
4-Bromofluorobenzene	98		77 - 124					12/29/16 21:39	5
Dibromofluoromethane (Surr)	90		72 - 131					12/29/16 21:39	5
Toluene-d8 (Surr)	92		80 - 120					12/29/16 21:39	5

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.37	U	0.50	0.37	ug/L		12/23/16 08:52	12/31/16 07:51	10
Benzo[a]pyrene	0.26	U	0.50	0.26	ug/L		12/23/16 08:52	12/31/16 07:51	10
Benzo[b]fluoranthene	0.12	U	0.50	0.12	ug/L		12/23/16 08:52	12/31/16 07:51	10
Hexachlorobenzene	0.090	U	0.20	0.090	ug/L		12/23/16 08:52	12/31/16 07:51	10
Indeno[1,2,3-cd]pyrene	0.27	U	0.50	0.27	ug/L		12/23/16 08:52	12/31/16 07:51	10

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	96	J	200	18	ug/L		12/23/16 08:52	12/29/16 12:39	20
Acenaphthylene	100	J	200	13	ug/L		12/23/16 08:52	12/29/16 12:39	20
Anthracene	11	U	200	11	ug/L		12/23/16 08:52	12/29/16 12:39	20
Benzo[g,h,i]perylene	15	U	200	15	ug/L		12/23/16 08:52	12/29/16 12:39	20
Fluoranthene	14	U	200	14	ug/L		12/23/16 08:52	12/29/16 12:39	20
Fluorene	55	J	200	16	ug/L		12/23/16 08:52	12/29/16 12:39	20
Naphthalene	2300		200	16	ug/L		12/23/16 08:52	12/29/16 12:39	20
Phenanthrene	35	J	200	13	ug/L		12/23/16 08:52	12/29/16 12:39	20

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RL

200

Limits

26 - 139

45 - 107

25 - 58

51 - 108

14 - 39

40 - 148

MDL Unit

17 ug/L

D

Prepared

Prepared

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL (Continued)

Result Qualifier

17 U

%Recovery Qualifier

42

81

49

74

18

106

TestAmerica Job ID: 460-125929-1

Client Sample ID: RW-203I Date Collected: 12/22/16 11:20

Project/Site: Clifton MGP-National Grid

Date Received: 12/22/16 15:10

2,4,6-Tribromophenol (Surr)

Client: AECOM, Inc.

Analyte

Pyrene

Surrogate

2-Fluorobiphenyl

Phenol-d5 (Surr)

2-Fluorophenol (Surr)

Nitrobenzene-d5 (Surr)

Terphenyl-d14 (Surr)

Lab Sample ID: 460-125929-6 Matrix: Water

12/23/16 08:52 12/29/16 12:39

12/23/16 08:52 12/29/16 12:39

12/23/16 08:52 12/29/16 12:39

12/23/16 08:52 12/29/16 12:39

12/23/16 08:52 12/29/16 12:39

12/23/16 08:52 12/29/16 12:39

12/23/16 08:52 12/29/16 12:39

Analyzed

Analyzed

Dil Fac

Dil Fac

20

20

20

20

20

20

20

Lab Sample ID: 460-125929-7

Matrix: Water

Client Sample ID: TRIP BLANK
Date Collected: 12/22/16 00:00
Date Received: 12/22/16 15:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.090	U	1.0	0.090	ug/L			12/29/16 19:00	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/29/16 19:00	1
m-Xylene & p-Xylene	0.28	U	1.0	0.28	ug/L			12/29/16 19:00	1
o-Xylene	0.32	U	1.0	0.32	ug/L			12/29/16 19:00	1
Toluene	0.25	U	1.0	0.25	ug/L			12/29/16 19:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		74 - 132					12/29/16 19:00	1
4-Bromofluorobenzene	95		77 - 124					12/29/16 19:00	1
Dibromofluoromethane (Surr)	89		72 - 131					12/29/16 19:00	1
Toluene-d8 (Surr)	93		80 - 120					12/29/16 19:00	1 10000

Lab Name: TestAmerica Buffalo	Job No.: 460-125858-1						
SDG No.:							
Client Sample ID: <u>RW200S</u>	Lab Sample ID: 460-125858-1						
Matrix: Water	Lab File ID: 21_95130.D						
Analysis Method: RSK-175	Date Collected: 12/21/2016 10:00						
Sample wt/vol: 17(mL)	Date Analyzed: 12/27/2016 12:42						
Soil Aliquot Vol:	Dilution Factor: 1						
Soil Extract Vol.:	GC Column: Alumina ID: 0.53(mm)						
% Moisture:	Level: (low/med) Low						
Analysis Batch No.: 338015	Units: ug/L						

CAS NO.	COMPOUND	NAME	RESULT	Q	RL	MDL.
74-82-8	Methane		4.2		4.0	1.0

Lab Name: TestAmerica Buffalo	Job No.: 460-125858-1					
SDG No.:						
Client Sample ID: <u>RW2001</u>	Lab Sample ID: 460-125858-2					
Matrix: Water	Lab File ID: 21_95125.D					
Analysis Method: RSK-175	Date Collected: 12/21/2016 10:30					
Sample wt/vol: 17(mL)	Date Analyzed: <u>12/27/2016</u> 11:15					
Soil Aliquot Vol:	Dilution Factor: 1					
Soil Extract Vol.:	GC Column: Alumina ID: 0.53(mm)					
% Moisture:	Level: (low/med) Low					
Analysis Batch No.: 338015	Units: ug/L					

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	1.0	U	4.0	1.0

Lab Name: TestAmerica Buffalo	Job No.: 460-125858-1				
SDG No.:					
Client Sample ID: RW202S	Lab Sample ID: 460-125858-3				
Matrix: Water	Lab File ID: <u>21_95131.D</u>				
Analysis Method: RSK-175	Date Collected: 12/21/2016 11:45				
Sample wt/vol: 17(mL)	Date Analyzed: <u>12/27/2016</u> 13:09				
Soil Aliquot Vol:	Dilution Factor: 20				
Soil Extract Vol.:	GC Column: Alumina ID: 0.53(mm)				
% Moisture:	Level: (low/med) Low				
Analysis Batch No.: 338015	Units: ug/L				

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	210		80	20

Lab Name: TestAmerica Buffalo	Job No.: 460-125858-1				
SDG No.:					
Client Sample ID: RW202I	Lab Sample ID: 460-125858-4				
Matrix: Water	Lab File ID: 21_95127.D				
Analysis Method: RSK-175	Date Collected: <u>12/21/2016</u> 11:30				
Sample wt/vol: 17(mL)	Date Analyzed: 12/27/2016 11:50				
Soil Aliquot Vol:	Dilution Factor: 1				
Soil Extract Vol.:	GC Column: Alumina ID: 0.53(mm)				
% Moisture:	Level: (low/med) Low				
Analysis Batch No.: 338015	Units: ug/L				

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	24		4.0	1.0

Lab Name: TestAmerica Buffalo	Job No.: 460-125858-1			
SDG No.:				
Client Sample ID: RW204I	Lab Sample ID: 460-125858-5			
Matrix: Water	Lab File ID: 21_95121.D			
Analysis Method: RSK-175	Date Collected: <u>12/21/2016</u> 14:00			
Sample wt/vol: 17(mL)	Date Analyzed: 12/27/2016 09:36			
Soil Aliquot Vol:	Dilution Factor: 1			
Soil Extract Vol.:	GC Column: Alumina ID: 0.53(mm)			
% Moisture:	Level: (low/med) Low			
Analysis Batch No.: 338015	Units: ug/L			

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	18	Pt J	4.0	1.0

m

Lab Name: TestAmerica Buffalo	Job No.: 460-125858-1			
SDG No.:				
Client Sample ID: <u>RW-2101</u>	Lab Sample ID: 460-125858-6			
Matrix: Water	Lab File ID: 21_95128.D			
Analysis Method: RSK-175	Date Collected: 12/21/2016 13:00			
Sample wt/vol: 17(mL)	Date Analyzed: 12/27/2016 12:07			
Soil Aliquot Vol:	Dilution Factor: 10			
Soil Extract Vol.:	GC Column: Alumina ID: 0.53(mm)			
% Moisture:	Level: (low/med) Low			
Analysis Batch No.: 338015	Units: ug/L			

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	770		40	10

Lab Name: TestAmerica Buffalo	Job No.: 460-125858-1			
SDG No.:				
Client Sample ID: Dup-1	Lab Sample ID: 460-125858-7			
Matrix: Water	Lab File ID: 21_95129.D			
Analysis Method: RSK-175	Date Collected: 12/21/2016 00:00			
Sample wt/vol: 17(mL)	Date Analyzed: 12/27/2016 12:25			
Soil Aliquot Vol:	Dilution Factor: 10			
Soil Extract Vol.:	GC Column: Alumina ID: 0.53(mm)			
% Moisture:	Level: (low/med) Low			
Analysis Batch No.: 338015	Units: ug/L			

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	780		40	10

Lab Name: TestAmerica Buffalo	Job No.: 460-125929-1			
SDG No.:				
Client Sample ID: RW-22	Lab Sample ID: 460-125929-1			
Matrix: Water	Lab File ID: <u>21_</u> 95140.D			
Analysis Method: RSK-175	Date Collected: <u>12/22/2016</u> 10:10			
Sample wt/vol: 17(mL)	Date Analyzed: 12/28/2016 13:21			
Soil Aliquot Vol:	Dilution Factor: 1			
Soil Extract Vol.:	GC Column: Alumina ID: 0.53(mm)			
% Moisture:	Level: (low/med) Low			
Analysis Batch No.: 338155	Units: ug/L			

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	150		4.0	1.0

Lab Name: TestAmerica Buffalo	Job No.: 460-125929-1	
SDG No.:		
Client Sample ID: RW-23	Lab Sample ID: 460-12592	29-2
Matrix: Water	Lab File ID: 21_95147.D	
Analysis Method: <u>RSK-175</u>	Date Collected: 12/22/2	016 10:20
Sample wt/vol: 17(mL)	Date Analyzed: 12/28/20	16 15:24
Soil Aliquot Vol:	Dilution Factor: 20	
Soil Extract Vol.:	GC Column: Alumina	ID: 0.53(mm)
% Moisture:	Level: (low/med) Low	
Analysis Batch No.: 338155	Units: ug/L	

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	
74-82-8	Methane	260		80	20	

Lab Name: TestAmerica Buffalo	Job No.: 460-125929-1	Job No.: 460-125929-1				
SDG No.:						
Client Sample ID: RW-25	Lab Sample ID: 460-125929-3					
Matrix: Water	Lab File ID: 21_95142.D					
Analysis Method: <u>RSK-175</u>	Date Collected: 12/22/2016 09:00					
Sample wt/vol: 17(mL)	Date Analyzed: 12/28/2016 13:56					
Soil Aliquot Vol:	Dilution Factor: 1					
Soil Extract Vol.:	GC Column: Alumina ID: 0.53(1	mm)				
% Moisture:	Level: (low/med) Low					
Analysis Batch No.: 338155	Units: ug/L					

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	1.0	U	4.0	1.0

Lab Name: TestAmerica Buffalo	Job No.: 460-125929-1
SDG No.:	
Client Sample ID: RW-26	Lab Sample ID: 460-125929-4
Matrix: Water	Lab File ID: 21_95148.D
Analysis Method: RSK-175	Date Collected: 12/22/2016 09:10
Sample wt/vol: 17(mL)	Date Analyzed: 12/28/2016 15:41
Soil Aliquot Vol:	Dilution Factor: 20
Soil Extract Vol.:	GC Column: Alumina ID: 0.53(mm)
% Moisture:	Level: (low/med) Low
Analysis Batch No.: 338155	Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	250	Ī	80	20

Lab Name: TestAmerica Buffalo Job No.: 460-125929-1					
SDG No.:					
Client Sample ID: RW-203S	Lab Sample ID: 460-125929-5				
Matrix: Water	Lab File ID: <u>21_95144.D</u>				
Analysis Method: RSK-175	Date Collected: 12/22/2016 11:30				
Sample wt/vol: 17(mL)	Date Analyzed: 12/28/2016 14:31				
Soil Aliquot Vol:	Dilution Factor: 20				
Soil Extract Vol.:	GC Column: Alumina ID: 0.53(mm)				
% Moisture:	Level: (low/med) Low				
Analysis Batch No.: 338155	Units: ug/L				

CAS NO.	COMPOUND NAME		ULT Q	RL	MDL
74-82-8	Methane		150	80	20

Lab Name: TestAmerica Buffalo	Job No.: 460-125929-1
SDG No.:	
Client Sample ID: RW-203I	Lab Sample ID: 460-125929-6
Matrix: Water	Lab File ID: 21_95149.D
Analysis Method: RSK-175	Date Collected: 12/22/2016 11:20
Sample wt/vol: 17(mL)	Date Analyzed: 12/28/2016 15:59
Soil Aliquot Vol:	Dilution Factor: 1
Soil Extract Vol.:	GC Column: Alumina ID: 0.53(mm)
% Moisture:	Level: (low/med) Low
Analysis Batch No.: 338155	Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	15		4.0	1.0

Client Sample ID: RW200S				Lab Sample ID: 460-125858-1 Job No.: 460-125858-1						
Lab Name: TestAmerica Edison										
SDG ID.:										
Matrix: Water			Date Sampled: 12/21/2016 10:00							
Reporting Basis: WET			Date Received: 12/21/2016 17:00							
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method	

120

8.0

42.4 ug/L

ug/L

2.5

U

2

2

6020A

6020A

42.4

27.7

7439-89-6

7439-96-5

Iron

Manganese

Client Sample ID: RW200S				Lab Sample ID: 460-125858-1 Job No.: 460-125858-1						
Lab Name: TestAmerica Edison										
SDG ID.:										
Matrix: Water				Date Sampled: 12/21/2016 10:00						
Reporting Basis	: WET			Date Recei	ved: 12/2	21/2016	17:00			
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method	

120

8.0

42.4

2.5

ug/L

ug/L

U

6020A

6020A

2

2

42.4

12.3

7439-89-6

7439-96-5

Iron, Dissolved

Manganese, Dissolved

Client Sample :	ID: RW200I		Lab Sample ID: 460-125858-2							
Lab Name: Tes	tAmerica Edison			Job No.:	460-125858	-1				
SDG ID.:										
Matrix: Water		Date Sampl	led: 12/21	/2016	10:30					
Reporting Basis	S: WET			Date Recei	lved: 12/2	21/2016	17:00			
CAS No.	RL	MDL	Units	С	Q	DIL	Method			

120

8.0

42.4 ug/L

ug/L

2.5

U

U

6020A

6020A

2

2

42.4

2.5

7439-89-6

7439-96-5

Iron

Manganese

Client Sample II	D: RW2001		Lab Sample ID: 460-125858-2								
Lab Name: Test	America Edison			Job No.:	460-125858	-1					
SDG ID.:											
Matrix: Water		Date Sampled: 12/21/2016 10:30									
Reporting Basis	Reporting Basis: WET					21/2016	17:00				
CAS No.	Analyte	RL	MDL	Units	С	Q	DIL	Method			

120

8.0

42.4

2.5

ug/L

ug/L

ΰ

U

6020A

6020A

2

2

42.4

2.5

7439-89-6

7439-96-5

Iron, Dissolved

Manganese, Dissolved

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Client Sample 1	ID: RW2025		Lab Sample ID: 460-125858-3								
Lab Name: Tes	tAmerica Edison			Job No.:	460-125858	-1					
SDG ID.:		11270									
Matrix: Water	Matrix: Water					/2016	11:45				
Reporting Basis	Reporting Basis: WET					21/2016	17:00				
CAS No.	Analyte	Result	RL	MDL	Units	с	0	DIL	Method		

120

8.0

42.4

2.5

42.4

2.5

ug/L

ug/L

U

ΰ

6020A

6020A

2

2

7439-89-6

7439-96-5

Iron

Manganese

Client Sample I	D: RW202S		Lab Sample ID: 460-125858-3							
Lab Name: Test	America Edison			Job No.:	460-125858	-1				
SDG ID.:										
Matrix: Water	Matrix: Water					/2016	11:45			
Reporting Basis		Date Recei	ived: 12/2	21/2016	17:00					
CAS No.	RL	MDL	Units	с	Q	DIL	Method			

120

8.0

42.4

2.5

ug/L

ug/L

U

U

2

2

6020A

6020A

42.4

2.5

7439-89-6

7439-96-5

Iron, Dissolved

Manganese, Dissolved

Client Sample ID: RW202I

Lab Name: TestAmerica Edison

Lab Sample ID: 460-125858-4

Job No.: 460-125858-1

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 12/21/2016 11:30

CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method
7439-89-6	Iron	42.4	120	42.4	ug/L	U		2	6020A
7439-96-5	Manganese	2.5	8.0	2.5	ug/L	σ		2	6020A

Client Sample I	D: RW2021		Lab Sample ID: 460-125858-4								
Lab Name: Test	America Edison			Job No.:	460-125858	-1					
SDG ID.:											
Matrix: Water		Date Sampled: 12/21/2016 11:30									
Reporting Basis	: WET		Date Rece	ived: 12/2	21/2016	17:00					
CAS No.	MDL	Units	c	0	DIL	Method					

120

8.0

42.4

2.5

ug/L

ug/L

υ

Ū

2

2

6020A

6020A

42.4

2.5

7439-89-6

7439-96-5

Iron, Dissolved

Manganese, Dissolved

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Client Sample ID: RW204I Lab Sample ID: 460-125858-5 Lab Name: TestAmerica Edison Job No.: 460-125858-1 SDG ID.: Matrix: Water Date Sampled: 12/21/2016 14:00 Reporting Basis: WET Date Received: 12/21/2016 17:00 CAS No. Analyte Result RL MDL Units С Q DIL Method

120

8.0

42.4 ug/L

2.5 ug/L

U

2 6020A

2

6020A

42.4

11.4

7439-89-6

7439-96-5

Iron

Manganese

Client Sample ID: RW204I

Lab Name: TestAmerica Edison

Job No.: 460-125858-1

Lab Sample ID: 460-125858-5

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 12/21/2016 14:00 Date Received: 12/21/2016 17:00

CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method
7439-89-6	Iron, Dissolved	42.4	120	42.4	ug/L	U		2	6020A
7439-96-5	Manganese, Dissolved	6.6	8.0	2.5	ug/L	J		2	6020A

Client Sample ID: RW-210I

Lab Name: TestAmerica Edison

Lab Sample ID: 460-125858-6

Job No.: 460-125858-1

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 12/21/2016 13:00

CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
7439-89-6	Iron	877	120	42.4	ug/L			2	6020A
7439-96-5	Manganese	349	8.0	2.5	ug/L			2	6020A

Client Sample ID: RW-210I

Lab Name: TestAmerica Edison

Lab Sample ID: 460-125858-6

Job No.: 460-125858-1

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 12/21/2016 13:00

CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method
7439-89-6	Iron, Dissolved	42.4	120	42.4	ug/L	U		2	6020A
7439-96-5	Manganese, Dissolved	356	8.0	2.5	ug/L			2	6020A

Client Sample ID: Dup-1

Lab Name: TestAmerica Edison

Lab Sample ID: 460-125858-7

Job No.: 460-125858-1

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 12/21/2016 00:00

CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method
7439-89-6	Iron	805	120	42.4	ug/L			2	6020A
7439-96-5	Manganese	346	8.0	2.5	ug/L			2	6020A

Client Sample I	D: Dup-1		Lab Sample ID: 460-125858-7								
Lab Name: Test	America Edison			Job No.;	460-125858	-1					
SDG ID.:											
Matrix: Water	Matrix: Water					/2016	00:00				
Reporting Basis	Reporting Basis: WET					21/2016	17:00				
CAS No.	RL	MDL	Units	с	Q	DIL	Method				

120

8.0

42.4

2.5

ug/L

ug/L

U

6020A

6020A

2

2

42.4

352

7439-89-6

7439-96-5

Iron, Dissolved

Manganese, Dissolved

Client Sample	ID: RW-22		Lab Sample ID: 460-125929-1								
Lab Name: Tes	stAmerica Edison			Job No.:	460-125929	-1					
SDG ID.:											
Matrix: Water			Date Sampl	.ed: 12/22	/2016	10:10					
Reporting Basi	.s: WET			Date Recei	.ved: 12/2	2/2016	15:10				
CAS No.	Analyte	RL	MDL	Units	С	Q	DIL	Method			

120

8.0

42.4 ug/L

ug/L

2.5

2

2

6020A

6020A

4040

48.9

7439-89-6

7439-96-5

Iron

Manganese

Client Sample ID: RW-22

Lab Name: TestAmerica Edison

Lab Sample ID: 460-125929-1

Job No.: 460-125929-1

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 12/22/2016 10:10

CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
7439-89-6	Iron, Dissolved	42.4	120	42.4	ug/L	U		2	6020A
7439-96-5	Manganese, Dissolved	48.5	8.0	2.5	ug/L			2	6020A

Client Sample I	D: RW-23		Lab Sample ID: 460-125929-2								
Lab Name: Test	America Edison			Job No.:	460-125929	-1					
SDG ID.:											
Matrix: Water	Matrix: Water					/2016	10:20				
Reporting Basis	: WET		Date Rece	ived: 12/2	22/2016	15:10					
CAS No.	RL	MDL	Units	с	Q	DIL	Method				

120

8.0

42.4

2.5

ug/L

ug/L

2

2

6020A

6020A

1670

3650

7439-89-6

7439-96-5

Iron

Manganese

Client Sample I	D: RW-23		Lab Sample ID: 460-125929-2							
Lab Name: Test	America Edison			Job No.:	460-125929	-1		·		
SDG ID.:										
Matrix: Water	Matrix: Water					/2016	10:20			
Reporting Basis	Reporting Basis: WET					2/2016	15:10			
CAS No.	RL	MDL	Units	С	Q	DIL	Method			

120

8.0

42.4 ug/L

ug/L

2.5

U

6020A

6020A

2

2

42.4

3770

7439-89-6

7439-96-5

Iron, Dissolved

Manganese, Dissolved

Client Sample	ID: RW-25		Lab Sample ID: 460-125929-3									
Lab Name: Te	stAmerica Edison			Job No.:	460-125929	-1						
SDG ID.:												
Matrix: Water				Date Sampled: 12/22/2016 09:00								
Reporting Bas	is: WET			Date Rece	ived: 12/2	2/2016	15:10					
CAS No. Analyte Result RL				MDL	Units	с	Q	DIL	Method			

120

8.0

42.4 ug/L

ug/L

2.5

2 6020A

6020A

2

2690

991

7439-89-6

7439-96-5

Iron

Manganese

Client Sample I	D: RW-25		Lab Sample ID: 460-125929-3							
Lab Name: Test	America Edison			Job No.:	460-125929)-1				
SDG ID.:										
Matrix: Water		Date Sampl	led: 12/22	2/2016	09:00					
Reporting Basis		Date Recei	ived: 12/2	22/2016	15:10					
CAS No.	RL	MDL	Units	с	Q	DIL	Method			

120

8.0

42.4 ug/L

ug/L

2.5

U

6020A

6020A

2

2

42.4

22.0

7439-89-6

7439-96-5

Iron, Dissolved

Manganese, Dissolved

Client Sample ID: RW-26

Lab Name: TestAmerica Edison

Lab Sample ID: 460-125929-4

Job No.: 460-125929-1

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 12/22/2016 09:10

CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method
7439-89-6	Iron	20100	120	42.4	ug/L			2	6020A
7439-96-5	Manganese	3250	8.0	2.5	ug/L			2	6020A

Client Sample ID: RW-26

Lab Name: TestAmerica Edison

Lab Sample ID: 460-125929-4 Job No.: 460-125929-1

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 12/22/2016 09:10

CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
7439-89-6	Iron, Dissolved	42.4	120	42.4	ug/L	U		2	6020A
7439-96-5	Manganese, Dissolved	2200	8.0	2.5	ug/L			2	6020A

Client Sample	ID: RW-2035		Lab Sample ID: 460-125929-5								
Lab Name: Te	estAmerica Edison			Job No.:	460-125929	-1					
SDG ID.:											
Matrix: Wate	r		Date Sampl	ed: 12/22	/2016	11:30					
Reporting Bas	is: WET			Date Recei	ved: 12/2	2/2016	15:10				
CAS No.	Analyte	RL	MDL	Units	с	Q	DIL	Method			
7439-89-6	Iron	120	42.4	ug/L			2	6020A			

120

8.0

42.4

2.5

ug/L

ug/L

6020A

6020A

2

2

1300

347

Iron

Manganese

7439-96-5

Client Sample I	D: RW-2035		Lab Sample ID: 460-125929-5								
Lab Name: Test	America Edison			Job No.:	460-125929	-1					
SDG ID.:											
Matrix: Water	latrix: Water					/2016	11:30				
Reporting Basis	Reporting Basis: WET					22/2016	15:10				
CAS No.	RL	MDL	Units	с	Q	DIL	Method				

120

8.0

42.4

2.5

ug/L

ug/L

U

6020A

6020A

2

2

42.4

331

7439-89-6

7439-96-5

Iron, Dissolved

Manganese, Dissolved

Client Sample ID: RW-2031

Lab Name: TestAmerica Edison

Lab Sample ID: 460-125929-6

Job No.: 460-125929-1

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 12/22/2016 11:20

CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method
7439-89-6	Iron	102	120	42.4	ug/L	J		2	6020A
7439-96-5	Manganese	2.5	8.0	2.5	ug/L	J		2	6020A

Client Sample 1	ID: RW-2031		Lab Sample ID: 460-125929-6								
Lab Name: Tes	tAmerica Edison			Job No.:	460-125929	-1					
SDG ID.:											
Matrix: Water			Date Samp	led: 12/22	/2016	11:20					
Reporting Basis	s: WET		Date Rece:	ived: 12/2	22/2016	15:10					
CAS No.	RL	MDL	Units	с	Q	DIL	Method				

120

8.0

42.4

2.5

ug/L

ug/L

U

U

6020A

6020A

2

2

42.4

2.5

7439-89-6

7439-96-5

Iron, Dissolved

Manganese, Dissolved

Client Sample	Client Sample ID: RW200S			Lab Sample	ID: 460	-125858-	-1		
Lab Name: Te	stAmerica Edison			Job No.:	460-12585	B-1			
SDG ID.:									
Matrix: Wate	r			Date Sampl	ed: 12/2	1/2016	10:00		
Reporting Bas	is: WET			Date Recei	.ved: 12/	21/2016	17:00		
CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method
7664-41-7	Ammonia	0.072	0.10	0.072	mg/L	U		1	350.1
14797-55-8	Nitrate as N	0.010	0.10	0.010	mg/L	U		1	SM 4500 NO3 F
14797-65-0	Nitrite as N	0.041	0.10	0.0030	mg/L	J		1	SM 4500 NO3 F
	Chemical Oxygen Demand	26.2	10.0	8.2	mg/L			1	SM 5220D
18496-25-8	Sulfide	0.58	1.0	0.58	mg/L	U		1	SM 4500 S2 F
14808-79-8	Sulfate	27.8	5.0	1.4	mg/L			1	D516-90, 02
	Bicarbonate Alkalinity as CaCO3	73.5	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	23.3	5.0	5.0	mg/L			1	SM 2320B
	Alkalinity	96.8	5.0	5.0	mg/L			1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Carbon Dioxide, Free	5.0	5.0	5.0	mg/L	UR	HF	1	SM 4500 CO2 D

Client Sample ID: RW2001

Lab Sample ID: 460-125858-2

Lab Name: TestAmerica Edison

Job No.: 460-125858-1

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 12/21/2016 10:30

CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
7664-41-7	Ammonia	0.079	0.10	0.072	mg/L	J		1	350.1
14797-55-8	Nitrate as N	0.010	0.10	0.010	mg/L	U		1	SM 4500 NO3 F
14797-65-0	Nitrite as N	0.020	0.10	0.0030	mg/L	J		1	SM 4500 NO3 F
	Chemical Oxygen Demand	12.1	10.0	8.2	mg/L			1	SM 5220D
18496-25-8	Sulfide	0.58	1.0	0.58	mg/L	U		1	SM 4500 S2 F
14808-79-8	Sulfate	34.5	5.0	1.4	mg/L			1	D516-90, 02
	Bicarbonate Alkalinity as CaCO3	16.1	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	11.7	5.0	5.0	mg/L			1	SM 2320B
	Alkalinity	27.8	5.0	5.0	mg/L	[1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U	1	1	SM 2320B
	Carbon Dioxide, Free	5.0	5.0	5:0	-mg/L	- -	HF	1	6M 4500 CO2 D

Client Sample ID: RW202S

Lab Name: TestAmerica Edison

SDG ID.:

Matrix: Water

Reporting Basis: WET

Lab Sample ID: 460-125858-3

Job No.: 460-125858-1

Date Sampled: 12/21/2016 11:45

CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
7664-41-7	Ammonia	6.8	0.50	0.36	mg/L	1	[5	350.1
14797-55-8	Nitrate as N	0.010	0.10	0.010	mg/L	U		1	SM 4500 NO3 F
14797-65-0	Nitrite as N	0.039	0.10	0.0030	mg/L	J		1	SM 4500 NO3 F
	Chemical Oxygen Demand	16.1	10.0	8.2	mg/L			1	SM 5220D
18496-25-8	Sulfide	0.58	1.0	0.58	mg/L	U		1	SM 4500 S2 F
14808-79-8	Sulfate	45.1	10.0	2.7	mg/L			2	D516-90, 02
	Bicarbonate Alkalinity as CaCO3	49.5	5.0	5.0	mg/L			1	SM 2320E
	Carbonate Alkalinity as CaCO3	135	5.0	5.0	mg/L			1	SM 2320B
	Alkalinity	184	5.0	5.0	mg/L			1	SM 2320E
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	σ		1	SM 2320E
	Carbon Disxide, Free	5.0	5.0	5.0	mg/L		HF	1	SM 4500
					-				CO2 D

Client Sample ID: RW202I Lab Name: TestAmerica Edison				Lab Sample ID: 460-125858-4 Job No.: 460-125858-1						
Matrix: Wate	Date Sampled: 12/21/2016 11:30									
Reporting Basis: WET				Date Received: 12/21/2016 17:00						
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method	
7664-41-7	Ammonia	1.0	0.10	0.072	mg/L	1		1	350.1	
14797-55-8	Nitrate as N	0.010	0.10	0.010	mg/L	U		1	SM 4500 NO3 F	
14797-65-0	Nitrite as N	0.033	0.10	0.0030	mg/L	J		1	SM 4500 NO3 F	
	Chemical Oxygen Demand	8.2	10.0	8.2	mg/L	U		1	SM 5220D	
18496-25-8	Sulfide	0.58	1.0	0.58	mg/L	U		1	SM 4500 S2 F	
14808-79-8	Sulfate	41.1	10.0	2.7	mg/L			2	D516-90, 02	
	Bicarbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320B	
	Carbonate Alkalinity as CaCO3	29.6	5.0	5.0	mg/L			1	SM 2320B	
	Alkalinity	166	5.0	5.0	mg/L			1	SM 2320B	
	Hydroxide Alkalinity	136	5.0	5.0	mg/L			1	SM 2320B	
	Carbon Dioxide, Free	5.0	5.0	5,0	mg/L	R -	HF		SM 4500 CO2 D	

Client Sample	Lab Sample ID: 460-125858-5								
Lab Name: Te		Job No.: 460-125858-1							
SDG ID.:									
Matrix: Wate		Date Sampled: 12/21/2016 14:00 Date Received: 12/21/2016 17:00							
Reporting Bas									
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
7664-41-7	Ammonia	0.11	0.10	0.072	mg/L	1	1.	1	350.1
14797-55-8	Nitrate as N	0.29	0.10	0.010	mg/L		1	1	SM 4500 NO3 F
14797-65-0	Nitrite as N	0.030	0.10	0.0030	mg/L	J		1	SM 4500 NO3 F
	Chemical Oxygen Demand	14.1	10.0	8.2	mg/L		ET am 02	1	SM 5220D
18496-25-8	Sulfide	0.58	1.0	0.58	mg/L	U		1	SM 4500 S2 F

25.0

5.0

5.0

5.0

5.0

5.0

6.8

5.0

5.0

5.0

5.0

mg/L

mg/L

mg/L

mg/L

mg/L

U

- R + #F

5.0 mg/L

5

1

1

1

1

1

D516-90, 02

SM 2320B

SM 2320B

SM 2320B

SM 2320B

SM 4500

CO2 D

81.2

91.0

7.1

98.1

5.0

5.0

14808-79-8

Sulfate

as CaCO3

Alkalinity

Bicarbonate Alkalinity as CaCO3 Carbonate Alkalinity

Hydroxide Alkalinity

Carbon Dioxide, Free

Client Sample ID: RW-210I

Lab Name: TestAmerica Edison

Lab Sample ID: 460-125858-6

Job No.: 460-125858-1

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 12/21/2016 13:00

Date Received: 12/21/2016 17:00

CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
7664-41-7	Ammonia	2.6	0.10	0.072	mg/L	1		1	350.1
14797-55-8	Nitrate as N	0.010	0.10	0.010	mg/L	U		1	SM 4500 NO3 F
14797-65-0	Nitrite as N	0.0030	0.10	0.0030	mg/L	U		1	SM 4500 NO3 F
	Chemical Oxygen Demand	10.1	10.0	8.2	mg/L			1	SM 5220D
18496-25-8	Sulfide	0.58	1.0	0.58	mg/L	υ		1	SM 4500 S2 F
14808-79-8	Sulfate	1.4	5.0	1.4	mg/L	υ		1	D516-90, 02
	Bicarbonate Alkalinity as CaCO3	231	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	υ		1	SM 2320B
	Alkalinity	231	5.0	5.0	mg/L			1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	-Carbon Dioxide, Free	-5-,0	5.0	5.0	mg/L	-B-R-	HF	1	SM 4500 CO2 D

Client Sample ID: Dup-1				Lab Sample	ID: 460	-125858-	.7			
Lab Name: Te	estAmerica Edison			Job No.:	460-12585	8-1				
SDG ID.:										
Matrix: Wate	r			Date Sampl	.ed: 12/2	1/2016	00:00			
Reporting Bas	sis: WET			Date Received: 12/21/2016 17:00						
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method	
7664-41-7	Ammonia	2.8	0.10	0.072	mg/L	1	1	1	350.1	
14797-55-8	Nitrate as N	0.010	0.10	0.010	mg/L	υ	1	1	SM 4500 NO3 F	
14797-65-0	Nitrite as N	0.030	0.10	0.0030	mg/L	J		1	SM 4500 NO3 F	
	Chemical Oxygen Demand	8.2	10.0	8.2	mg/L	σ		1	SM 5220D	
18496-25-8	Sulfide	0.58	1.0	0.58	mg/L	U		1	SM 4500 S2 F	
14808-79-8	Sulfate	1.4	5.0	1.4	mg/L	σ		1	D516-90, 02	
	Bicarbonate Alkalinity as CaCO3	227	5.0	5.0	mg/L			1	SM 2320B	
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	υ	1	1	SM 2320B	
	Alkalinity	227	5.0	5.0	mg/L			1	SM 2320B	
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B	
	Carbon Dioxide, Free	5.0	-5-0-	5.0	mg/L	+ R -	HF	1	5M 4500 CO2 D	

Client Sample	ID: RW200S		Lab Sample ID: 460-125858-1						
Lab Name: Te	estAmerica Pensacola			Job No.:	460-12585	8-1			
SDG ID.:									
Matrix: Wate	r		Date Sampl	.ed: 12/2	1/2016	10:00			
Reporting Bas	is: WET			Date Recei	.ved: 12/	21/2016	17:00		
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
15438-31-0	Ferrous Iron	0.031	0.10	0.022	mg/L	J	THF	1	SM3500_F E D

Client Sample I	lient Sample ID: RW200I					Lab Sample ID: 460-125858-2						
Lab Name: Test	America Pensacola			Job No.: 460-125858-1								
SDG ID.;												
atrix: Water				Date Sampl	.ed: 12/21	1/2016	10:30					
Reporting Basis	: WET			Date Recei	ved: 12/2	21/2016	17:00					
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method			
-15438-31-0	Ferrous Iron	0.022	0.10	0.022	mg/L	R-	HF	1	SM3500_F			

Client Sample	lient Sample ID: RW202S					Lab Sample ID: 460-125858-3						
Lab Name: To	estAmerica Pensacola			Job No.: 460-125858-1								
SDG ID.:												
Matrix: Wate	r		Date Sampl	ed: 12/2	1/2016	11:45						
Reporting Bas	sis: WET			Date Recei	ved: 12/	21/2016	17:00					
CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method			
15438-31-0	Ferrous Iron	0.104 0.061	0.10	0.022	mg/L	- 7		1	SM3500_F E D			

628-

Client Sample	ID: RW202I		Lab Sample	ID: 460	-125858-	4					
Lab Name: Te	estAmerica Pensacola			Job No.: 460-125858-1							
SDG ID.:											
Matrix: Wate	r		Date Sampl	.ed: 12/2	1/2016	11:30					
Reporting Bas	Reporting Basis: WET				.ved: 12/	21/2016	17:00				
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method		
15438-31-0	Ferrous Iron	0.104-0-033	0.10	0.022	mg/L	-		1	SM3500_F E D		

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Client Sample I	D: RW2041		Lab Sample ID: 460-125858-5						
Lab Name: Test	America Pensacola			Job No.:	460-125858	8-1			
SDG ID.:									
Matrix: Water			Date Sampl	Led: 12/2	1/2016	14:00			
Reporting Basis	: WET			Date Recei	ived: 12/	21/2016	17:00		
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
15438-31-0	Ferrous Iron	0.023	0.10	0.022	mg/L	R	HF	1-	<u>SM3500_F</u> E D

Client Sample I	D: RW-2101		Lab Sample ID: 460-125858-6							
Lab Name: Test	America Pensacola			Job No.:	460-12585	3-1				
SDG ID.:										
Matrix: Water			Date Sampled: 12/21/2016 13:00							
Reporting Basis	: WET			Date Rece:	ived: 12/	21/2016	17:00			
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method	
-15438-31 0	Ferrous Iron	0.023	0.10	0.022	mg/L		HF	1	<u>SM35</u> 00_F E D	

Client Sample	ID: Dup-1		Lab Sample ID: 460-125858-7							
Lab Name: Te	estAmerica Pensacola			Job No.:	460-125858	8-1				
SDG ID.:										
Matrix: Water				Date Sampled: 12/21/2016 00:00						
Reporting Bas	is: WET		A	Date Recei	.ved: 12/2	21/2016	17:00			
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method	
15438-31-0	Ferrous Iron	0.24	0.10	0.022	mg/L		^{##} J	1	SM3500_F E D	

lient Sample				Lab Sample	10. 400		• •		
ab Name: Te	estAmerica Edison			Job No.:	460-12592	9-1			0j
DG ID.:									
atrix: Wate	r			Date Sampl	ed: 12/2	2/2016	10:10		
eporting Bas	is: WET			Date Recei	ved: 12/	22/2016	15:10		
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
7664-41-7	Ammonia	0.072	0.10	0.072	mg/L	U		1	350.1
14797-55-8	Nitrate as N	0.010	0.10	0.010	mg/L	U		1	SM 4500 NO3 F
14797-65-0	Nitrite as N	0.039	0.10	0.0030	mg/L	J		1	SM 4500 NO3 F
18496-25-8	Sulfide	0.58	1.0	0.58	mg/L	U		1	SM 4500 S2 F
14808-79-8	Sulfate	910	125	34.0	mg/L			25	D516-90, 02
	Bicarbonate Alkalinity as CaCO3	227	5.0	5.0	mg/L			1	SM 2320E
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320E
	Alkalinity	227	5.0	5.0	mg/L			1	SM 2320E
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320E
	Carbon Dioxide, Free	49.9	5.0	5.0	mg/L		₩J	1	SM 4500 CO2 D

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:Test America, IncorporatedProject:460-125929-1Sample Matrix:Water

RW-22

Sample Name:

Lab Code:

Service Request: R1700132 Date Collected: 12/22/16 10:10 Date Received: 01/05/17 09:30

Basis: NA

R1700132-001

Inorganic Parameters

	Analysis						
Analyte Name	Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chemical Oxygen Demand, Total	410.4	350	mg/L	5.0	1	01/09/17 12:39	

Client Sample	ient Sample ID: RW-23			Lab Sample	ID: 460	-125929-	-2		
Lab Name: Te	estAmerica Edison			Job No.:	460-12592	9-1			
SDG ID.:									
Matrix: Wate	r			Date Sampl	.ed: 12/2	2/2016	10:20		
Reporting Bas	sis: WET	2		Date Recei	.ved: 12/	22/2016	15:10		
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
7664-41-7	Ammonia	1.8	0.10	0.072	mg/L			1	350.1
14797-55-8	Nitrate as N	0.11	0.10	0.010	mg/L			1	SM 4500 NO3 F
14797-65-0	Nitrite as N	0.025	0.10	0.0030	mg/L	J		1	SM 4500 NO3 F
18496-25-8	Sulfide	0.58	1.0	0.58	mg/L	υ		1	SM 4500 S2 F
14808-79-8	Sulfate	38.9	10.0	2.7	mg/L			2	D516-90, 02
	Bicarbonate Alkalinity as CaCO3	421	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Alkalinity	421	5.0	5.0	mg/L			1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Carbon Dioxide, Free	28.2	5.0	5.0	mg/L		₩ ₽ J	1	SM 4500 CO2 D

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:Test America, IncorporatedProject:460-125929-1Sample Matrix:Water

Sample Name:

Lab Code:

 Service Request:
 R1700132

 Date Collected:
 12/22/16 10:20

 Date Received:
 01/05/17 09:30

Basis: NA

RW-23 R1700132-002

Inorganic Parameters

	Analysis							
Analyte Name	Method	Result	Units	MRL	Dil.	Date Analyzed	Q	
Chemical Oxygen Demand, Total	410.4	24.5	mg/L	5.0	1	01/09/17 12:39		

Client Sample	ID: RW-25			Lab Sample	D: 460	-125929	-3				
Lab Name: Te	estAmerica Edison			Job No.: 460-125929-1							
SDG ID.:											
Matrix: Wate	r			Date Sampl	ed: 12/2	2/2016	09:00				
Reporting Bas	is: WET			Date Received: 12/22/2016 15:10							
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method		
7664-41-7	Ammonia	0.072	0.10	0.072	mg/L	U		1	350.1		
14797-55-8	Nitrate as N	1.6	0.10	0.010	mg/L			1	SM 4500 NO3 F		
14797-65-0	Nitrite as N	0.037	0.10	0.0030	mg/L	J		1	SM 4500 NO3 F		
	Chemical Oxygen Demand	52.4	10.0	8.2	mg/L			1	SM 5220D		
18496-25-8	Sulfide	0.58	1.0	0.58	mg/L	U		1	SM 4500 S2 F		
14808-79-8	Sulfate	119	25.0	6.8	mg/L			5	D516-90, 02		
	Bicarbonate Alkalinity as CaCO3	238	5.0	5.0	mg/L			1	SM 2320B		
	Carbonate Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B		
	Alkalinity	238	5.0	5.0	mg/L	1		1	SM 2320B		
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B		
	Carbon Dioxide, Free	15.3	5.0	5.0	mg/L		## J	1	SM 4500 CO2 D		

Client Sample ID: RW-26

Lab Name: TestAmerica Edison

Lab Sample ID: 460-125929-4

Job No.: 460-125929-1

SDG ID.:

Matrix: Water

Date Sampled: 12/22/2016 09:10

Reporting Basis: WET

Date Received: 12/22/2016 15:10

CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method
7664-41-7	Ammonia	3.7	0.10	0.072	mg/L			1	350.1
14797-55-8	Nitrate as N	0.010	0.10	0.010	mg/L	U		1	SM 4500 NO3 F
14797-65-0	Nitrite as N	0.026	0.10	0.0030	mg/L	J		1	SM 4500 NO3 F
	Chemical Oxygen Demand	42.3	10.0	8.2	mg/L			1	SM 5220D
18496-25-8	Sulfide	0.58	1.0	0.58	mg/L	U		1	SM 4500 S2 F
14808-79-8	Sulfate	7.3	5.0	1.4	mg/L			1	D516-90, 02
	Bicarbonate Alkalinity as CaCO3	254	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Alkalinity	254	5.0	5.0	mg/L			1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Carbon Dioxide, Free	32.9	5.0	5.0	mg/L		##J	1	SM 4500 CO2 D

Client Sample ID: RW-203S	Lab Sample ID: 460-125929-5
Lab Name: TestAmerica Edison	Job No.: 460-125929-1
SDG ID.:	
Matrix: Water	Date Sampled: 12/22/2016 11:30
Reporting Basis: WET	Date Received: 12/22/2016 15:10

CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method
7664-41-7	Ammonia	1.4	0.10	0.072	mg/L		1	1	350.1
14797-55-8	Nitrate as N	0.010	0.10	0.010	mg/L	U		1	SM 4500 NO3 F
14797-65-0	Nitrite as N	0.028	0.10	0.0030	mg/L	J		1	SM 4500 NO3 F
	Chemical Oxygen Demand	34.3	10.0	8.2	mg/L			1	SM 5220D
18496-25-8	Sulfide	0.58	1.0	0.58	mg/L	U		1	SM 4500 S2 F
14808-79-8	Sulfate	1.9	5.0	1.4	mg/L	J		1	D516-90, 02
	Bicarbonate Alkalinity as CaCO3	200	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	υ		1	SM 2320B
	Alkalinity	200	5.0	5.0	mg/L			1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Carbon Dioxide, Free	5.0	5.0	5.0	mg/L	UJ	<u>HF.</u>	1	SM 4500 CO2 D

Client Sample ID: RW-203I

Lab Name: TestAmerica Edison

Lab Sample ID: 460-125929-6

Job No.: 460-125929-1

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 12/22/2016 11:20

Date Received: 12/22/2016 15:10

CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
7664-41-7	Ammonia	0.60	0.10	0.072	mg/L			1	350.1
14797-55-8	Nitrate as N	0.010	0.10	0.010	mg/L	U		1	SM 4500 NO3 F
14797-65-0	Nitrite as N	0.038	0.10	0.0030	mg/L	J		1	SM 4500 NO3 F
	Chemical Oxygen Demand	22.2	10.0	8.2	mg/L			1	SM 5220D
18496-25-8	Sulfide	0.58	1.0	0.58	mg/L	U		1	SM 4500 S2 F
14808-79-8	Sulfate	11.3	5.0	1.4	mg/L			1	D516-90, 02
	Bicarbonate Alkalinity as CaCO3	82.2	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	17.1	5.0	5.0	mg/L			1	SM 2320B
	Alkalinity	99.3	5.0	5.0	mg/L	1		1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	υ	-	1	SM 2320B
	Carbon Dioxide, Free	5.0	5.0	5.0	mg/L	υJ	HF	1	SM 4500 CO2 D

Client Sample 1	lent Sample ID: RW-22				ID: 460-	-125929-	1				
Lab Name: Test	tAmerica Pensacola			Job No.: 460-125929-1							
SDG ID.:				5 500							
Matrix: Water				Date Sampl	ed: 12/22	/2016	10:10				
Reporting Basis	eporting Basis: WET				ved: 12/2	2/2016	15:10				
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method		
-15430-31-0-	Ferrous Iron	0.022	0.10	0.022	mg/L	U R	HF	1	<u>SM3500_F</u> E D		

Client Sample	: ID: RW-23		Lab Sample	ID: 460-	460-125929-2						
Lab Name: Te	estAmerica Pensacola			Job No.: 460-125929-1							
SDG ID.:											
Matrix: Wate	r		Date Sampl	ed: 12/22	/2016	10:20					
Reporting Bas	sis: WET		Date Recei	ved: 12/2	2/2016	15:10					
CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method		
15438-31-0	Ferrous Iron	0.32	0.10	0.022	mg/L	2	THE J	1	SM3500_F E D		

Client Sample I	D: RW-25		Lab Sample	ID: 460	-125929-	3					
Lab Name: Test	America Pensacola			Job No.: 460-125929-1							
SDG ID.:			Date Sampled: 12/22/2016 09:00								
Matrix: Water											
Reporting Basis	Reporting Basis: WET					22/2016	15:10				
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method		
-15438-31 0	Ferrous Iron	0.022	0.10	0.022	mg/L	U. K.	HF 8	1			

GAM 02/24/17

Client Sample	ID: RW-26		Lab Sample ID: 460-125929-4									
Lab Name: Te	estAmerica Pensacola			Job No.: 460-125929-1								
SDG ID.:												
Matrix: Wate	r		Date Sampl	ed: 12/22	/2016	09:10						
Reporting Bas	is: WET		Date Recei	ved: 12/2	22/2016	15:10						
CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method			
15438-31-0	Ferrous Iron	1.2	0.10	0.022	mg/L		THP J	1	SM3500_F E D			

Client Sample	ID: RW-203S		Lab Sample ID: 460-125929-5									
Lab Name: Te	stAmerica Pensacola			Job No.: 460-125929-1								
SDG ID.:												
Matrix: Water	r		Date Sampled: 12/22/2016 11:30									
Reporting Bas	is: WET			Date Recei	ved: 12/	22/2016	15:10					
						1	1 1					
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method			
15438-31-0	Ferrous Iron	0.104 0.096	0.10	0.022	mg/L	•-J	HF	1	SM3500_F E D			

cch-

Client Sample	e ID: RW-203I		Lab Sample ID: 460-125929-6								
Lab Name: Te	estAmerica Pensacola			Job No.: 460-125929-1							
SDG ID.:											
Matrix: Wate	r		Date Sampled: 12/22/2016 11:20								
Reporting Bas	sis: WET			Date Recei	ved: 12/	22/2016	15:10				
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method		
15438-31-0	Ferrous Iron	0.10U 0.042	0.10	0.022	mg/L	- J J		1	SM3500_F E D		

ccb-

AECOM

Appendix C

Support Documentation

Job Number: 460-125858-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-125858-1	RW200S	Water	12/21/2016 1000	12/21/2016 1700
460-125858-2	RW2001	Water	12/21/2016 1030	12/21/2016 1700
460-125858-3	RW202S	Water	12/21/2016 1145	12/21/2016 1700
460-125858-4	RW2021	Water	12/21/2016 1130	12/21/2016 1700
460-125858-5	RW2041	Water	12/21/2016 1400	12/21/2016 1700
460-125858-5MS	RW2041	Water	12/21/2016 1415	12/21/2016 1700
460-125858-5MSD	RW2041	Water	12/21/2016 1430	12/21/2016 1700
460-125858-5DU	RW2041	Water	12/21/2016 1430	12/21/2016 1700
460-125858-6	RW-2101	Water	12/21/2016 1300	12/21/2016 1700
460-125858-7	Dup-1	Water	12/21/2016 0000	12/21/2016 1700
460-125858-8	Trip Blank	Water	12/21/2016 0000	12/21/2016 1700

Laboratory Certifications: New Jersey Massachusetts (M-NJ312), North Carol			Relinquished	2 Wr / WAK	Dr		Special Instructions	6 = Other	Preservation Used: 1 = ICE; 2 = HCI, 3 =	TRI BLANK	Dup - 1	EW-210I	PW- 204I - MSD	EM- 204I- MS	RW - 204I	AW- 202I	PW - 2025	PW - 200I	P.W-2005	Sample Identification	Phone 917-597-3866 (uu)		125 Broad Street	Address	Company AFC Co N	Name (for report and invoice) Robert Forstner	THE LEADER IN ENVIRONMENTAL TESTING	TestAmerica
New Jersey (12028), New York (11452), North Carolina (No. 578) $\bigcirc 2.6$	Company		Company	Y,A-	RECAN	Company		7 = Other	$3 = H_2 SO_4, 4 = HNO_3$	12/24/14	12/21/14	12/21/16	12/24/12/1			12/21/14/1	1	12/24/16	12/21/14	Date		NY	1000	,	0.	8	CHA	
ork (11452), 2 − 0				5	126				5 = NaOH	<	1	N 8021	1430 W	1415 N	148 2	1130 W	1145 2	1030 W	1000 W	Time Matrix	1 Week	2 Week	Standard	Analysis Turnaround Time	P.O.#	ampiers Narr	N OF CU	
Pennsylvania (68-522), Connecticut (PH-0200),			Date / Time	0011 19/10/	12/21/14 1500	Date / Time		Water:	Soil:	Σ w	2 10	16			16	10	91	16	5	No. of. Cont.			§.	Ind Time	62137363	Samplers Name (Printed) Sara Inc. 55 Ner	CHAIN OF CUSTODY / /	
Inia (68-52	4) Re	3)	Re			Re		30 1		ω	8	w N	3 2	3	3 2	w	W N	2	322			821		ANJ	~	SNEL	i	
522), Co	Received by 4)		Received by	2) King and an	h	Received by	-	10 9			2-	2 (-	-	-	2-	-	-	` ~	SM4 DS		-Nit Ulfa	rake	MALYSIS REQUESTED				460-125856 Chain of Custody
			-	È		1		9 9			~	-	-	-	-	1				528 A 23	COD - hmoj Zo B Alka	nia	0, 1		State (Location of site): Regulatory Program:	Site/Project Identification	4	nain of Cu
				S	8			27			ŝ	w	ω	ŝ	ω	ω	w	ω	S	KSI	c -	het	have	(ENTER %: BELOW TO INDICATE REQUEST)	ry Progra	114		stody
					18			۹ ۹			-	-	~ ~	-	-	-	-	-		SM	4501	NIFI'd	e	IDICATE REC	n: site):	5 M		
hode Is	Company		Company	THT		Company	Water M	9	<u> </u>		-	-	^	~	~	~	-	2		602	- A N	Diss M, F	olvol	557)	NYSAEC	mep-		- e: (
Rhode Island (132).	any		any		-	any	Water Metals Filtered (Yes/No)?	9 9			-	-	-	-	-	-	-	-	-	602			e		NY:	Net		Durham New Jers 732) 549
				124	4		ared (Yes	F	-	0	_	6	3)	5							Fem	us	m	1	Other:	National	Page	Road ey 0881: -3900 F
ATX .				1100										EX &	1× 5	4	N	4		Sampie Numbers	100 96	Job No:	Project No:	LAB USE ONLY	6	1 Grid	9	New Durham Road pn, New Jersey 08817 e: (732) 549-3900 Fax: (732) 549-3679
TAL-0016 (0814)		2							5	S	!			100				4			20	2	0 1 1 1	UNLY			}	49-3679
ŝ								5	A NORY	Ĩ																		

Page 1619 of 1625

Imposition Imposition <th>he appropriate Project Manager and Departme Samples for Metal analysis which are o</th> <th>Sample No(s), adjusted: Preservative Name/Conc: Volume of Preservative used (ml):</th> <th>If pH adjustments are required record the information below:</th> <th></th> <th></th> <th></th> <th>7 < - < -</th> <th>6 <= <2 <2</th> <th>6 <2 <2 <2</th> <th>Y < <- <-</th> <th>3 <2 <2 <2</th> <th>2 22 22 6</th> <th>1 22 22 2</th> <th>TALS Sample Number (pH<2) (pH<</th> <th>Ammonia COD Nitrate Metals Hardness Pest QAM Ph</th> <th>Cooler #3: A. A. C. C. C. C. C. A. C. C.</th> <th>CHARLES THE PARTY COULD BE AND THE AND</th> <th></th> <th>Job Number: / 24 86 0</th>	he appropriate Project Manager and Departme Samples for Metal analysis which are o	Sample No(s), adjusted: Preservative Name/Conc: Volume of Preservative used (ml):	If pH adjustments are required record the information below:				7 < - < -	6 <= <2 <2	6 <2 <2 <2	Y < <- <-	3 <2 <2 <2	2 22 22 6	1 22 22 2	TALS Sample Number (pH<2) (pH<	Ammonia COD Nitrate Metals Hardness Pest QAM Ph	Cooler #3: A. A. C. C. C. C. C. A. C.	CHARLES THE PARTY COULD BE AND THE AND		Job Number: / 24 86 0
	expiration Date: I be notified about the samples which were pH adjunction I st be acidified at least Z4 hours prior to analysis.	ative used (ml):							79	177	79	79		(pH>9) (pH<2) (pH<2) (pH>12)	Sulfide TKN TOC	0	Cooler #7:		c

Page 1620 of 1625

TestAmerica Edison				•				TactA	TactAmarica
	ບ່	Chain of Custody Record	istody R	ecord					
Edison, NJ 08817 Phone (732) 549-3900 Fax (732) 549-3679								THE LEADER IN E	THE LEADER IN EWERDRINENTAL TESTING
Client Information (Sub Contract Lab)	Sampler.		Lab PM DeGra	Lab PM: DeGraw, Kristin B		Carrier Tracking No(s):	No(s):	COC No: 460-47409.1	
	Phone:		E-Mail: kristin	E-Mail: kristin.degraw@testamericainc.com	americainc.com	State of Origin: New York		Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc.				Accreditations Required (See note): NELAP - New York	uired (See note): York			Job #. 460-125858-1	
	Due Date Requested: 12/22/2016		. •		sis	Requested		Preservation Codes:	F
City: Pensacola	TAT Requested (days):							B - NaOH C - Zn Acetate	M - None 0 - Ashao2
	ž							D - Nitric Acid E - NaHSO4	P - Na204S Q - Na2S03
Phone: B50-474-1001(Tel) B50-478-2671(Fax)	#0#			- 				r - MeUH G - Amchlor H - Asconhic Aráil	R - Na2S2U3 S - H2SO4 T - TSP Indershuttsta
Emaît:	WO #	14		N JO					U - Acetone V - MCAA
Project Name: National Grid - Former Clifton MSP	Project #: 46018542			ξ×,			, Jenier		W - pH 4-5 Z other (specify)
	:#MOSS			iqmeð 2010 Terro			QOO JO	Other:	
Pa			B Matrix (www.	nenter sit	*		กรัฐกับที่ได้จ		•
			Preservation Code:	X		Construction of the second		- the first	opecial instructions/Note:
ORW200S (460-125858-1)	9	1	Water	×					
O RW2001 (460-125858-2)	12/21/16 E	10:30 Eastern	Water	×					
O RW202S (460-125858-3)	12/21/16 E	11:45 Eastern	Water	×					
ЙRW202I (460-125858-4)	12/21/16 E	11:30 Eastern	Water	×					
RW2041 (460-125858-5)	12/21/16 E	14:00 Eastern	Water	×					*
RW204I (460-125858-5MS)	12/21/16 E	14:15 MS Eastern MS	Water	×					
RW204I (460-125858-5MSD)	12/21/16 E	14:30 MSD Eastern	Water	×	-				
RW-2101 (460-125858-6)	12/21/16 E	13:00 Eastern	Water	×					
Dup-1 (460-125858-7)	12/21/16 E	Eastern	Water	×			3		
Note: Since laboratory acceditations 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-custory. If the laboratory does not currently maintain accreditation in the State of Origin fisted above for analysis/statistication analyse, 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 stasting to said complicance to TestAmerica Laboratories, inc.	arles, inc. places the own /matrix being analyzed, f to date, return the signe	ership of method, an he samples must be d Chain of Custody a	alyte & accreditatio shipped back to th ttesting to said con	n compliance upon a TestAmerica labor iplicance to TestAm	out subcontract lationatorie atory or other instructions r erica Laboratories, inc.	s. This sample shipn will be provided. Any	nent is forwarded und changes to accredita	er chain-of-custody. I tion status should be I	the laboratory does not wought to TestAmenca
Possible Hazard Identification				Sample Dis	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	e assessed if sai	mples are retain	ed longer than 1	month)
Unconfirmed	Diment Definition	Darles 4		Retur	Return To Client	Disposal By Lab	ונ	Archive For	Manths
, III, IV, Outer (specify)	Primary Deliverable Kank: 1	Kank: 1		special instr	special instructions/QC Requirements				-
Inquished by:				Time:	141	Method of Shipment	thipment:		
V	Data/Time: 22/16	\$ 1800		Received by			Date/Time: 12,	124116	No star
			Company	Received			Date/Time: 🖊		Company
	Date/Time:		Company	Received by:	by:		Date/Time:		Company
Custody Seals Intact: Custody Seal No.:				Cooler Ter	Cooler Temperature(s) °C and Other Remarks:	Remarks:	2006	AL	

TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Phone (732) 549-3500 Fax (732) 549-3679	Chain of (Chain of Custody Record			TestAmenica The leader in simplometical testing
Client Information (Sub Contract Lab)	Sampler	Lab PM: DeGrav	v, Kristin B	Carrier Tracking No(s):	COC No: 460-47410.1
	Phone:	E-Mail: kristin.d	E-Mail: kristin.degraw@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, inc.		Ao	Accreditations Required (See note): NELAP - New York		Job # 460-125858-1
Address. 10 Hazelwood Drive,	Due Date Requested: 12/28/2016		Analysis Requested	juested	ð
City: Amherst	TAT Requested (days):				H cetate
State, Zp: NY, 14228-2298		2.4			U - NITIC ACID P - NAZUAS E E - NAHSO4 Q - NAZSO3 MACH R - NA2S2O3
Phone: 716-691-2600(Teil) 716-691-7991(Fax)	PO#				G - Amchlar H - Ascorbic Acid
Emeilt	¥0M	7 <u>70 s</u>	2.65		I - Ice J - DI Weter
Project Name: National Grid - Former Clifton MGP	Project #: 46018542	10 A) (01	26.810	anipto	K-EDIA L-EDA
stte: AECOM - Former Clifton MGP	SSOW#:	dms8	Mas		other:
		Sample Matrix 60 Type (www.min.	។ ។រទាម /១೭៤ ភ្យឺវត្តិទ្រុំពូលសិ		Žedimu L
D D D D D D D D D D D D D D D D D D D	Sample Date Time G= Sample Date Time G=	21	a i i		Special Instructions/Note:
RW200S (460-125858-1)	12/21/16 10:00	Water	A martin		100 miles - 100 mi
NRW2001 (460-125858-2)	12/21/16 10:30	Water	×		
or RW202S (460-125858-3)	12/21/16 11:45 Eastern	Water			35
GRW2021 (460-125858-4)	12/21/16 11:30 Eastern	Water	X		
RW204I (460-125858-5)	12/21/16 Eastern	Water	x		1. Star
RW204I (460-125858-5MS)		MS Water	x		\$7
RW204! (460-125858-5MSD)	12/21/16 14:30 M	MSD Water	X		- pro. 33: 18:00
RW-2101 (460-125858-6)	12/21/16 13:00 Eastern	Water	X		
Dup-1 (460-125858-7)	12/21/16 Eastern	Water	x		
Note: Shoe abforatory accreditations are subject to change, TestAmerica Laboratories, the, 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 mainten accreditation in the State of Origin listed above for analysis/tests/maintx 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, testim the signed Chain of Custody attesting to said complicences to TestAmerica Laboratories, inc.	ratories, inc. places the ownership of methor sststmatrix being analyzed, the samples mus ent to date, return the signed Chain of Cust	l, analyte & accreditation cc ti be shipped back to the Te dy attesting to said complic	mpilance upon out subcontract laboratories. stAmerica laboratory or other instructions will ence b TestAmerica Laboratories, inc.	This sample shipment is forwarded un be provided. Any changes to accredit	nder chain-of-custody. If the Jaboratory does not tation status should be brought to TestAmerica
Possible Hazard Identification			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	issessed if samples are rotal	ined longer than 1 month)
Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 1		Return To Client Dis Special Instructions/QC Requirements:	Disposal By Lab An	Archive For Months
Empty Kit Retinquished by:	Date:	Tit	Time:	Method of Shipment:	
Reinquistied by:	DeterTime: Dr/22/18 18	100 comparts 100	Raceived by:	Date/Time:	23-16 (10c/ Company DF
Relinquished by:	Data/Time:	Company	Received by:	Date/Time:	
Reimquisted by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Custody Seal No.:			Cooler Temperature(s) ^b C and Officer Remarks:	marks 3.2 A	17

Login Number: 125858 List Number: 1

Creator: Meyers, Gary

Job Number: 460-125858-1

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
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	2.6/3.6/1.1 ° C IR #8
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.	True	No analysis requiring residual chlorine check assigned.

Login Number: 125858 List Number: 2 Creator: Conway, Curtis R

Job Number: 460-125858-1

List Source: TestAmerica	Buffalo
List Creation: 12/23/16 02	2:30 PM

Question	Answer	Comment	
Radioactivity either was not measured or, if measured, is at or below packground	True		
The cooler's custody seal, if present, is intact.	True		
The cooler or samples do not appear to have been compromised or ampered 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		
s the Field Sampler's name present on COC?	True		
There are no discrepancies between the sample IDs on the containers and he 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		
/OA sample vials do not have headspace or bubble is <6mm (1/4") in liameter.	True		
f necessary, staff have been informed of any short hold time or quick TAT needs	True		
Aultiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Sampling Company provided.	True		
Samples received within 48 hours of sampling.	True		
Samples requiring field filtration have been filtered in the field.	N/A		
Chlorine Residual checked.	N/A		

Login Number: 125858 List Number: 3 Creator: Johnson, Jeremy N

Job Number: 460-125858-1

List Source: To	estAmerica F	Pensacola
List Creati	ion: 12/24/16	11:08 AM

Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td> <td></td>	N/A		
The cooler's custody seal, if present, is intact.	True		
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	2.0°C IR6	
COC is present.	True		
COC is filled out in ink and legible.	True		
COC is filled out with all pertinent information.	True		
s 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").	N/A		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

Job Number: 460-125929-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-125929-1	RW-22	Water	12/22/2016 1010	12/22/2016 1510
460-125929-2	RW-23	Water	12/22/2016 1020	12/22/2016 1510
460-125929-3	RW-25	Water	12/22/2016 0900	12/22/2016 1510
460-125929-4	RW-26	Water	12/22/2016 0910	12/22/2016 1510
460-125929-5	RW-203S	Water	12/22/2016 1130	12/22/2016 1510
460-125929-6	RW-2031	Water	12/22/2016 1120	12/22/2016 1510
460-125929-7TB	TRIP BLANK	Water	12/22/2016 0000	12/22/2016 1510

4) Laboratory Certifications: New Jerse	Relinquished by	3)	Relinquished by	mart	Reinhuithed and	Helinguished by		Sporial Instructions	6 = Other	Preservation Used: $(1 = ICB, 2 = HCI, 3 = H_2SO_4,$	HOLD	SHORT	TRIP BLANK	RW - 203I	2035 - Wh	RW-26	PW - 25	PW -23	PW-22	Sample Identification	Phone Fax 917-597-3866 CC	NEW York	25 Broad Street		Company ATC a N	Name (for report and invoke) Poser + Forstnur	THE LEADER IN ENVIRONMENTAL TESTING	TestAmeric
Jersey (12028), New Yo	Company		Company	A)	Company	the Car			_, 7 = Other	4 = HNO ₃			12/22/16	12/22/16 1	12/22/11	12/22/ N	12-122-11-		12/22/10	Date	(au)	NY	4	10+		0 0	CHA	
York (11452),		f		2						5 = NaOH			1	1120	1)30	0910	0900	1020	1010	Time	1 Week Other	2 Week	Standard	Analysis Turnaround Time	Ţ. (). #			
	D		D	22		Date /				Ĩ			Z	٤	3	٤	٤	٤	٤	Matrix			R	maround 1	60	ara Melssnu	460-125929 Chain of Custody	
4) Pennsylvania (68-522),	Date / Time		Date / Time	-	Date / Time	-			Water:	Soil:			w	16	26	91	5	5	9	Cont.				Ime	60137363	Printed)	9 Chain o	
ania (6			Ű	0		g	ŀ	•	21				ω	ω	3	3	3	ω	ω	NO	821 0C3	600			5	SSM	of Custoc	
4) 18 -522)	Received by	3)	Received by	2)	Received by	1) Hecenveolog			4					Ч	2	2	γ	Ν	N	SU		027 alss	20	ANALYSIS		1	JV	
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0200)					Y	J	ŀ	1	6					-	1	1	-	-	-	SN	1450 Sul	Aid	e	NOICATE	am:	Identification		
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	Company		Company		Company	Company		har Ma	6					1	-	~	-	-	-	600	Mn	Fe Toto	0142			16P		one: (7
Rhode Island (132).	Ą		Ŷ	0	}	X			6			+		~	-	1			1	350	Mn,	Fe		1	NY:	Z		32) 54(
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TAL - 0016 (0814)				0a		•	Water Wetars Filtered (Testino):	(ac/No)?					2	6	1	Y	دى ا	2		Sample Numbers	112717	JJOB NO:	Project No:	LAB USE ONLY	Outer:	National Grid	ge] of _]	Phone: (732) 549-3900 Fax: (732) 549-3679

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Sample N Preservativ Lot # of F			6	,UN	Ч	ى	1	_	TALS Sample Number		Number of Gooder	Job Number:
Sample No(s). adjusted: Preservative Name/Conc.: Lot # of Preservative(s):				62	11	11	1		Ammonia ber (pH<2)			5
djusted:			02	11	62	11	17		• COD	0 0 0 0 0 0		15910
									Nitrate Nitrite (pH<2)			
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									(pH<2) (p		Coo	TestAmerica Edison Receipt Temperature and pH Log
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									Other			<u>e</u>

TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Phone (732) 549-3679	<u></u>	Chain of (in of Custody Record	Record				TestA	Testamente revenuente rever
	Sampior.			Lab PM: Doctors: Vrietic D		Carrier Tracking No(s):		COC No:	
Client Contact	Phode:		5 3	Leolaw, Nisuli D E-Maii:		State of Origin:		400-4/413.1 Page:	
Shipping/Receiving			kr	kristin.degraw@testamericainc.com		New York		Page 1 of 1	
company: TestAmerica Laboratories, Inc.				NELAP - New York	d (See note): K	4		Job #: 480-125929-1	
Address: 3355 McLemore Drive, ,	Dus Date Requested: 12/23/2016				Analysis Req	Requested		Preservation Codes:	
City: Pensacola	TAT Requested (days	#						A - FICL B - NaOH C - Zn Acetatia	M - Meddine N - None D - Astvarth
State, Zp: FL, 32514								D - Nitric Acid E - NaHSO4	P - Na2045 Q - Na203
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO			(0				F - MBUH G - Amchlor H - Ascorbic Acid	K - Na2S203 S - H2SO4 T - TSP Dodecathydrate
Email:	*OM			N JO H			-	1 - Ice J - DI Water	U - Acetone V - MCAA
Project Name: Clifton MGP-National Grid	Project #: 48018542			1				K-EDTA L-EDA	W - pH 4-5 Z - other (specify)
Ste: AECOM - Former Clifton MGP	SSOW#:			記録				Other	
P		۵	Type Matrix Type (www.	boloti⊡ bio 1051 0051 1051 0051			iedmUN Isa		
Sample Identification - Client ID (Lab ID)	Sample Date	Time Fi	Gregrab) sr-mane, A-At) Preservation Code:	212 XX		の読むが、サー		Special In	Special Instructions/Note:
<u>G</u> RW-22 (460-125929-1)		10:10 Eachar	Water	×					JULY
	12/22/16	10:20 Eastern	Water	×					
JRW-25 (460-125928-3)	12/22/16	09:00 Eastern	Water	×	~				
<mark>4</mark> RW-26 (480-12592 9 4)	12/22/16	09:10 Eastern	Water	×			5 5 *		
RW-203S (460-125929-5)	12/22/16	11:30 Eastern	Water	×			<u>б</u> .т.		
RW-203I (460-125829-6)	12/22/16	11:20 Eastern	Water	×					
Note: Since laboratory accreditations are subject to change. TestAmerica Laboratories, inc. places the ownership of method, analyse & accreditation compliance upon out subcontract laboration the method, analyse & accreditation in the State of Origin listed above for analyse/listentianty being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instruction (Laboratories, inc. attention immediately). If all requested accreditations are current to date, return the stand of Chanh of Custody attesting to said complicance to TestAmerica laboratories, inc. (Laboratories, inc. attention immediately). If all requested accreditations are current to date, return the stand of Chanh of Custody attesting to said complicance to TestAmerica Laboratories, inc.	boratories, Inc. places the owne streats/matrix being analyzed, th urrent to date, return the signed	Iship of method, an e samples must be Chain of Custody s	white & accreditation shipped back to the intesting to said comp	of method, analyte & accreditation compliance upon out subcontract taboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not mpless must be shipped facts to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status alroud be brought to TestAmerica n of Custody stateting to said complicance to TestAmerica Laboratories, inc.	ontract laboratories. This s other instructions will be pro oratories, inc.	ample shipment is forv wided. Any changes t	varded under chain-	of-custody. If the lat	boratory does not to TestAmerica
Possible Hazard Identification				Sample Dispos	nay be	sessed if sampl	es are retained	longer than 1 r	nonth)
Uncontituted Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 1	e Rank: 1		Special Instructions/QC	C Requirem	Disposal by Lab ents:	ALCHIVE FOR	Lo	SIRUOW
Empty Kit Retinquished by:	<u>ă</u>	Date:		Time:		Method of Shipment	ment		
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777, New Durham Road Edison, NJ 08817 Phone (732) 549-3900 Fax (732) 549-3679	1.2	hain of (Chain of Custody Record	ecor	73						TestAmerica THE LEATER IN ENVIRONMENTIC, TEETING	
Client Information (Sub Contract Lab)	Sampler:		Lab PM: DeGra	M: iraw, Kris	in B		<u>.</u>	Carrier Tracking No(s)	40(s):	COC No: 460-47423.1	423.1	
	Phone:		E-M	lt: in.degraw	E-Mait: kristin.degraw@testamericainc.com	zainc.com	Star	State of Origin: New York		Page: Page 1 of 1	of 1	
Company: TestAmerica Laboratories, Inc.				Accreditation -	Accreditations Required (See nots): NELAP - New York	ee nota):				Job # 460-12	5829-1	
Address: 10 Hazelwood Drive,	Due Date Requestad: 12/29/2016	H				Analys	Analysis Requested	sted		Preserv	ŝ	
City: Amherst State, 2p: MY: 44778-2706	TAT Requested (days):	ya):		17.979 11.5.5						A-HCL Control B-NaOH C-Zh Acetate D-Nitric Acid F-NaHSOA		M - Hexane N - None O - AsNaO2 P - Na2O45 O - Na2O45
Phone: 716-691-2600(Tel) 718-691-7991(Fax)	PO#:			(Q)			43			F - MeOH G - Amchior	R	#25203 2504 3P Dodecahydrate
	WO#.			i to s								CAA
Project Name: Cliftion MGP-National Grid	Project #: 46018542		•	10 (大)()	2							n 4-5 her (specify)
stest AECOM - Former Clifton MGP	SSOW#.			N) G R	-					Citien I	J	
				មានផ្លូវប្រធានមក ព្រះផ្លូវជាមួយទំនាំ	uniem Vartu., Xa			-		Jedmuk jeje		
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RW-23 (460-125829-2)	12/22/16	10:20 Fastern	Water		×				-	B		
RW-25 (480-125928-3)	12/22/16	09:00 Fastar	Watter		×					ຊີ້ຈາ		
RW-26 (460-125929-4)	12/22/16	09:10 Eastern	Water		×					3		
RW-203S (460-125929-5)	12/22/16	11:30 Fastern	Water		×					\$P.		
RW-203I (460-125929-8)	12/22/16	11:20 Eastern	Water		×					10		
								-		The second se		
										1.15		
Note: Since laboratory accreditations are subject to change, TestAmarica Laboratories, inc. places the ownership of mathod, analys & accreditation compliance upon out autocontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin lasted above for analysis/leaterimetric 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 accreditation status should be brought to TestAmerica Laboratories, inc.	aboratories, inc. places the own sis/hests/matrix being analyzed, i current to date, return the signe	wrship of method, an the samples must be d Chein of Custody a	alyte & accreditation or shipped back to the Te titesting to said complic	mpliance up stAmerica la ance to Test	on out subcontr boratory or othe America Labora	act laboratorie r instructions tories, Inc.	s. This samp will be provide	e shipment is d. Any chang	forwarded un	ler chain-of-custod tition status should	 If the laboratory be brought to Test 	does not Vmerica
Possible Hazard Identification				Samp	le Disposal	(A fee ma	y be asses	sed if san	ples are r	stained longer	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed Deilverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 1	ole Rank: 1		Speci	Precial Instructions/QC Requirements	tlient s/QC Requ	Irements:	bisposal By Lab ents:		Archive For	Months	hs
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Test America, Incorporated Project: 460-125929-1

Client:

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1700132-001	RW-22	12/22/2016	1010
R1700132-002	RW-23	12/22/2016	1020

TestAmerica Edison							Cot A v	2 Circle
777 New Durham Road . Edison, NJ 08817 Phone (732) 549-3800 Fax (732) 549-3679	Chain	Chain of Custody Record	y Record					COCO
	Sampler.		Lab PM:		Carrier Tracking No(s)		COC No:	
Citent Information (Sub Contract Lab)			DeGraw, Knstin B			46	460-47451.1	
Commic contract. Shipping/Receiving	Priorie:		kristin.degraw@	testamericainc.com	State of Ongin. New York	Page	Page 1 of 1	
Campany: ALS Laboratory Group			Accreditations Required NELAP - New York	Accreditations Required (See note); NFL AP - New York		# dol.	Job #: 480_175020_1	
Address:	Due Date Raquestad:					Pre	Preservation Codes:	
1565 Jefferson Road, Bldg 300, Suite 360	1/13/2017			Analysis F	Analysis Requested		2	- Hexane
Cary: Rochester	TAT Requested (days):						B - NaOH N - C - Zn Acetate 0 -	N - None O - AsNaO2
Suate, Zip: NY, 14623						-		P - Na204S Q - Na2SO3
Phone: 585-672-7470(Tel)	PO#							4a2S2O3 12SO4
Email	:*OM						1-kee Universities Inc.	I - ISP Dodecanydrate U - Acatone
	Project #		¢. (*				×	W - PH 4-5
ton MGP-National Grid	48018542		4			The local second		Z - other (specify)
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		Sample Ma	. *=+.) Dəqu		
	•,	Type (with Type (with Type)	HEOMO			uns less		
Sample Kennication - Clent ID (Lab ID)	Sample Date	Preservation code	× × 1	3			Special Instructions/Note	tiona/Note:
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						η : 5.1		
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Custody Seals intact: Custody Seal No.: Δ Yes Δ No		Pagget	23849f 1388*	Page 127944 13 Part Temperature(s) "C and Other Remarks.	r Remarks:	•		

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oject/Clie	ent	÷				older	Number_	R17-	132						
oler receive	ed on 1/5			by: <u>-</u>	Tis	- (OURIER	: ALS	UPS (FEDE	X VE	LOCITY	Y CLI	ENT	
Were Cu	stody seals on	outside	e of co	oler?	Y		5a Perc	hlorate	samples	have re	quired l	neadspac	e?	YN	NA
Custody	papers proper	ly com	pleted	(ink, si	0		5b Did V	VOA via	als, Alk,o	r Sulfic	le have	sig* bub	bles?	YN	NA
Did all be	ottles arrive in	good co	onditi	on (unb	oroken)?	N	6 When	re did th	e bottles	origina	te?	ALS/	ROC	CLIE	T
100 C	Wet Jee Dry	-				N	7 Soil	VOA ree	ceived as	: B	ulk	Encore	503	5set (N	A
Temperatur	- Pendings	Dat	e: 1/2	5	Time: O	125		: (R#1)) IR#8		From	: Temp	Blank	Samp	e Bot
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If out of 7 &Client A All samples 035 sample Cooler Bre 1. V 2. E 3. V 4. V 5. A Explain ar pH ≥12 ≤2 ≤2 <4 Residual	Approval to R held in storages placed in st eakdown: Date Were all bottle bottle Did all bottle la Were correct co Were 5035 vial Air Samples: Co hy discrepanci Reagent NaOH HNO ₃ H ₂ SO ₄ NaHSO ₄ For CN Phenol and 522	un Sam e locati orage lo nabels co bels ano ontainer s accep assettes es: Yes	nples: ion: ocatio source / 5/1 comple d tags rs used table (s / Tub	n: tete (<i>i.e.</i> agree v for the no extr bes Inta Lot R Lot R If +, c add N	Standing	by by covernment covernment by by by covernment c	val Clier	on on on y: Sw	at drop- 1/5 Vol.	estimation of the second secon	Client no at at NO NO NO NO D Bags I	inflated	/:	Yes=A sample No=Sa were preser The la listed	es OK amples ved at b as
If out of T & Client A All samples 335 sample Cooler Bre 1. V 2. E 3. V 4. V 5. A Explain ar pH ≥ 12 ≤ 2 ≤ 2 ≤ 4 Residual Chlorine	Approval to R held in storages placed in st eakdown: Dat Were all bottle bottle Did all bottle la Were correct co Were 5035 vial Air Samples: Co by discrepanci Reagent NaOH HNO ₃ H ₂ SO ₄ NaHSO ₄ For CN Phenol	un Sam e locati orage lo labels c bels ano ntainer s accep assettes es: Yes	nples: ion: ocation / 5/1 complet d tags 's used table (s / Tub	n: tete (<i>i.e.</i> agree v for the no extr bes Inta Lot R Lot R If +, c add N	Standing	by by covernment covernment by by by covernment c	val Clier	on on y: Sw	vol.	est ES ES Fedlar@	Client no at at NO NO NO D Bags I	Inflated	/: ================================	Yes=A sample No=Sa were preser The la	es OK emples ved at b as K to

BULK
FLDT
HGFB
LL3541
SUB
MARRS
REV

PC Secondary Review: _

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r12.doc

8/11/16

Full scan

FORM III GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-125858-1

SDG No.:

Matrix: Water Level: Low Lab File ID: M236856.D

Lab ID: LCS 460-411654/2-A Client ID:

	SPIKE	LCS	LCS	QC	
	ADDED	CONCENTRATION	ક	LIMITS	#
COMPOUND	(ug/L)	(ug/L)	REC	REC	
1,1'-Biphenyl	80.0	72.4	90	54-108	
1,2,4,5-Tetrachlorobenzene	80.0	74.3	93	46-105	
2,2'-oxybis[1-chloropropane]	80.0	79.2	99	50-108	
2,3,4,6-Tetrachlorophenol	80.0	91.1	114	57-122	
2,4,5-Trichlorophenol	80.0	84.9	106	59-117	
2,4,6-Trichlorophenol	80.0	84.8	106	62-120	
2,4-Dichlorophenol	80.0	65.3	82	62-102	
2,4-Dimethylphenol	80.0	64.3	80	61-95	
2,4-Dinitrophenol	160	131	82	45-125	
2,4-Dinitrotoluene	80.0	91.9	115	70-123	
2,6-Dinitrotoluene	80.0	104	130	68-121	*
2-Chloronaphthalene	80.0	65.6	82	54-105	
2-Chlorophenol	80.0	56.2	70	54-92	
2-Methylnaphthalene	80.0	52.9	66	47-104	
2-Methylphenol	80.0	55.5	69	43-80	
2-Nitroaniline	80.0	93.0	116	46-124	
2-Nitrophenol	80.0	62.3	78	58-109	
3,3'-Dichlorobenzidine	80.0	96.7	121	68-123	
3-Nitroaniline	80.0	68.7	86	60-117	
4,6-Dinitro-2-methylphenol	160	136	85	59-132	
4-Bromophenyl phenyl ether	80.0	77.0	96	57-126	
4-Chloro-3-methylphenol	80.0	61.3	77	58-98	
4-Chloroaniline	80.0	59.8	75	51-108	
4-Chlorophenyl phenyl ether	80.0	91.4	114	60-114	
4-Methylphenol	80.0	47.4	59	34-78	
4-Nitroaniline	80.0	75.7	95	48-135	
4-Nitrophenol	160	54.8	34	11-47	
Acenaphthene	80.0	78.7	98	58-107	
Acenaphthylene	80.0	77.0	96	61-106	
Acetophenone	80.0	72.6	91	54-115	
Anthracene	80.0	73.6	92	70-118	
Benzo[a]anthracene	80.0	99.5	124	73-119	*
Benzo[a]pyrene	80.0	88.0	¥10	76-125	
Benzo[b]fluoranthene	80.0	86.4	108	78-123	
Benzo[g,h,i]perylene	80.0	93.5	117	63-133	
Benzo[k]fluoranthene	80.0	95.6	119	71-126	
Bis(2-chloroethoxy)methane	80.0	73.3	92	67-104	
Bis(2-chloroethyl)ether	80.0	62.0	77	63-106	
Bis(2-ethylhexyl) phthalate	80.0	86.0	107	63-135	
Butyl benzyl phthalate	80.0	87.7	110	66-129	
Carbazole	80.0	71.0	89	68-121	
Chrysene	80.0	95.0	119	73-121	

Column to be used to flag recovery and RPD values

FORM III 8270D

Full scan

FORM III GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Nam	e: TestAmerica Edi	son	Job No.: 460	-125858-1			
SDG No.	:						
Matrix:	Water	Level: Low	Lab File ID:	M236858.D			
Lab ID:	460-125858-5 MS		Client ID: R	W204I MS			
		SPIKE	SAMPLE	MS	MS	QC	
				NODNEDATION	0	TIMTEO	

	ADDED	CONCENTRATION	CONCENTRATION	웅	LIMITS	#
COMPOUND	(ug/L)	(ug/L)	(ug/L)	REC	REC	
1,1'-Biphenyl	80.3	0.63 U	60.8	76	54-108	
1,2,4,5-Tetrachlorobenzene	80.3	0.43 U	66.8	83	46-105	
2,2'-oxybis[1-chloropropane]	80.3	0.93 U	84.1	105	50-108	
2,3,4,6-Tetrachlorophenol	80.3	0.69 U	79.1	99	57-122	
2,4,5-Trichlorophenol	80.3	0.49 U	69.3	86	59-117	
2,4,6-Trichlorophenol	80.3	0.53 U	74.8	93	62-120	
2,4-Dichlorophenol	80.3	0.63 U	61.2	76	62-102	
2,4-Dimethylphenol	80.3	0.91 U	56.4	70	61-95	
2,4-Dinitrophenol	161	2.4 U	130	81	45-125	
2,4-Dinitrotoluene	80.3	1.00	84.2	105	70-123	
2,6-Dinitrotoluene	80.3	0.88 U	84.6	105	68-121	
2-Chloronaphthalene	80.3	0.61 U	58.0	72	54-105	
2-Chlorophenol	80.3	0.74 U	55.9	70	54-92	
2-Methylnaphthalene	80.3	0.88 U	51.6	64	47-104	
2-Methylphenol	80.3	1.3 U	46.9	58	43-80	
2-Nitroaniline	80.3	0.65 U	81.5	101	46-124	
2-Nitrophenol	80.3	0.59 U	59.6	74	58-109	
3,3'-Dichlorobenzidine	80.3	1.0 U	90.2	112	68-123	
3-Nitroaniline	80.3	0.82 U	66.7	83	60-117	
4,6-Dinitro-2-methylphenol	161	2.0 U	138	86	59-132	
4-Bromophenyl phenyl ether	80.3	1.0 U	80.0	100	57-126	
4-Chloro-3-methylphenol	80.3	0.76 Մ	56.2	70	58-98	
4-Chloroaniline	80.3	0.73 U	57.2	71	51-108	
4-Chlorophenyl phenyl ether	80.3	0.96 U	81.3	101	60-114	
4-Methylphenol	80.3	0.87 U	50.8	63	34-78	
4-Nitroaniline	80.3	0.48 U	60.1	75	48-135	
4-Nitrophenol	161	4.7 U	47.5	30	11-47	
Acenaphthene	80.3	2.9 J	72.1	86	58-107	
Acenaphthylene	80.3	1.3 J	65.9	80	61-106	
Acetophenone	80.3	1.0 U	68.7	85	54-115	
Anthracene	80.3	0.57 U	76.0	95	70-118	
Atrazine	161	0.77 U	185	115	38-146	
Benzaldehyde	161	0.86 U	119	74	46-111	
Benzo[a]anthracene	80.3	0.55 U	98.6	(123		F1
Benzo[a]pyrene	80.3	0.16 U	83.4	104		
Benzo[b]fluoranthene	80.3	0.44 U	77.6	97	78-123	
Benzo[g,h,i]perylene	80.3	0.75 U	90.8	113	63-133	
Benzo[k]fluoranthene	80.3	0.18 U	76.8	96		
Bis(2-chloroethoxy)methane	80.3	0.69 U	66.4	83	67-104	
Bis(2-chloroethyl)ether	80.3	0.12 U	57.3	71	63-106	
Bis(2-ethylhexyl) phthalate	80.3	0.72 U	83.2	104		
Butyl benzyl phthalate	80.3	0.60 U	86.9	108	66-129	

Column to be used to flag recovery and RPD values

FORM III 8270D

Full Scan

FORM III GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Job No.: 460-125858-1 Lab Name: TestAmerica Edison SDG No.:

Matrix: Water Level: Low Lab File ID: M236859.D

Lab ID: 460-125858-5 MSD

Client ID: RW204I MSD

	SPIKE ADDED	MSD CONCENTRATION	MSD %	8	QC LI	IMITS	#
COMPOUND	(ug/L)	(ug/L)	™ REC	RPD	RPD	REC	Ħ
1,1'-Biphenyl	80.3	60.9	76	0	30	54-108	
1,2,4,5-Tetrachlorobenzene	80.3	67.7	84	1	30	46-105	
2,2'-oxybis[1-chloropropane]	80.3	72.2	90	15	30	50-108	
2,3,4,6-Tetrachlorophenol	80.3	75.5	94	5	30	57-122	
2,4,5-Trichlorophenol	80.3	69.3	86	0	30	59-117	
2,4,6-Trichlorophenol	80.3	69.3	86	8	30	62-120	
2,4-Dichlorophenol	80.3	60.6	75	1	30	62-102	
2,4-Dimethylphenol	80.3	56.7	71	1	30	61-95	
2,4-Dinitrophenol	161	119	74	9	30	45-125	
2,4-Dinitrotoluene	80.3	82.1	102	3	30	70-123	
2,6-Dinitrotoluene	80.3	77.6	97	9	30	68-121	
2-Chloronaphthalene	80.3	60.2	75	4	30	54-105	
2-Chlorophenol	80.3	54.5	68	3	30	54-92	
2-Methylnaphthalene	80.3	50.6	63	2	30	47-104	
2-Methylphenol	80.3	41.8	52	12	30	43-80	
2-Nitroaniline	80.3	79.8	99	2	30	46-124	
2-Nitrophenol	80.3	58.9	73		30	58-109	
3,3'-Dichlorobenzidine	80.3	86.5	108	4	30	68-123	
3-Nitroaniline	80.3	55.6	69	18	30	60-117	
4,6-Dinitro-2-methylphenol	161	132	82	4	30	59-132	
4-Bromophenyl phenyl ether	80.3	74.0	92	8	30	57-126	
4-Chloro-3-methylphenol	80.3	54.0	67	4	30	58-98	
4-Chloroaniline	80.3	57.1	71	0	30	51-108	
4-Chlorophenyl phenyl ether	80.3	79.4	99	2	30	60-114	
4-Methylphenol	80.3	38.5	48	28	30	34-78	
4-Nitroaniline	80.3	61.0	76	1	30	48-135	
4-Nitrophenol	161	46.0	29	3	30	11-47	
Acenaphthene	80.3	70.5	84	2	30	58-107	
Acenaphthylene	80.3	67.9	83	3	30	61-106	
Acetophenone	80.3	65.1	81	5	30	54-115	
Anthracene	80.3	69.5	87	9	30	70-118	
Atrazine	161	172	107	7	30	38-146	
Benzaldehyde	161	106	66	11	30	46-111	
Benzo[a]anthracene	80.3	90.3	112	9	30	73-119	
Benzo[a]pyrene	80.3	76.0	95	9	30	76-125	
Benzo[b]fluoranthene	80.3	83.6	104	7	30	78-123	
Benzo[g,h,i]perylene	80.3	89.1	111	2	30	63-133	
Benzo[k]fluoranthene	80.3	73.1	91	5	30	71-126	
Bis(2-chloroethoxy)methane	80.3	68.4	85	3	30	67-104	
Bis(2-chloroethyl)ether	80.3	53.4	67	7	30	63-106	_
Bis(2-ethylhexyl) phthalate	80.3	79.2	99		30	63-135	_
Butyl benzyl phthalate	80.3	79.7	99		30	66-129	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II GC/MS SEMI VOA SURROGATE RECOVERY

Full sem

Matrix: Water

Level: Low

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

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
RW-22	460-125929-1	35	42 X	94	103	106	119
RW-23	460-125929-2	38	40 X	92	106	115	129
RW-25	460-125929-3	33	32	101	112 >	118	142
RW-26	460-125929-4	30	32	91	101	108	135
RW-203S	460-125929-5	46	19	84	96	51	102
RW-2031 DL	460-125929-6 DL	49	18	74	81	42	106
	MB 460-411604/1-A	30	33	85	87	94	104
	LCS 460-411604/2-A	33	29	89	100	100	89
	LCS 460-411604/3-A	36	38	92	94	97	118
	460-125896-E-4-A MS	41	33	77	109 2	64	100
	460-125896-E-4-B MSD	47	28	89	95	85	121

1 No organic acide were peparted. 4 m 03/03/17

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	25-58
PHL = Phenol-d5 (Surr)	14-39
NBZ = Nitrobenzene-d5 (Surr)	51-108
FBP = 2-Fluorobiphenyl	45-107
TBP = 2,4,6-Tribromophenol (Surr)	26-139
TPHL = Terphenyl-d14 (Surr)	40-148

Column to be used to flag recovery values

FORM II 8270D

Fullscan

FORM II GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-125858-1 SDG No.: Matrix: Water Level: Low GC Column (1): Rtxi-5Sil M ID: 0.25(mm) Client Sample ID Lab Sample ID 2FP # PHL# NBZ # FBP # TBP # TPHL # 460-125858-1 DL 89 85 40 101 RW200S DL 49 18 112 RW200I 460-125858-2 23 24 73 72 93 Х RW2025 460-125858-3 33 33 94 95 112 117 95 124 RW2021 460-125858-4 28 29 83 87 131 32 32 88 91 100 RW2041 460-125858-5 RW-210I 460-125858-6 32 29 95 94 104 120 101 122 Dup-1 460-125858-7 29 27 89 94 MB 33 28 88 90 88 125 460-411654/1-A 35 32 92 103 116 128 LCS 460-411654/2-A 97 131 33 34 97 90 LCS 460-411654/3-A 32 29 87 84 101 114 RW204I MS 460-125858-5 MS 102 110 RW204I MSD 460-125858-5 MSD 30 27 89 88

No organic acids were reported. 6AM 05/03/17

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	25-58
PHL = Phenol-d5 (Surr)	14-39
NBZ = Nitrobenzene-d5 (Surr)	51-108
FBP = 2-Fluorobiphenyl	45-107
TBP = 2,4,6-Tribromophenol (Surr)	26-139
TPHL = Terphenyl-d14 (Surr)	40-148

Column to be used to flag recovery values

FORM II 8270D

FORM III GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Buf	falo	Job No.: 4	60-125858-1			
SDG No.:				1 F		
Matrix: Water	Level: Low	Lab File I	D: 21_95122.D	<u></u>	_	
Lab ID: 460-125858-5 MS		Client ID:	RW204I MS			
	SPIKE	SAMPLE	MS	MS	QC	
	ADDED	CONCENTRATION	CONCENTRATION	웅	LIMITS	#
		1 1 - 1	1	REC	REC	
COMPOUND	(ug/L)	(ug/L)	(ug/L)	KEC	REC	

 $\mbox{\tt \#}$ Column to be used to flag recovery and RPD values FORM III RSK-175

FORM III GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: <u>TestAmerica Buff</u> SDG No.:	Talo		Job No.: <u>4</u>	60-12	5858-	1		-
Matrix: Water	Level:	Low	Lab File I	D: 21	_9512	3.D		
Lab ID: 460-125858-5 MSD			Client ID:	RW20	4I MS	D		
		SPIKE	MSD	MSD		QC LI	IMITS	
COMPOUND		ADDED (ug/L)	CONCENTRATION (ug/L)	۶ REC	% RPD	RPD	REC	#
Methane		7.77	84.8	857	39	50	38-150	F1

Column to be used to flag recovery and RPD values
FORM III RSK-175

3-IN INSTRUMENT BLANKS METALS

Lab Name: TestAmerica Edison

Job No.: 460-125929-1

SDG No.:

Concentration Units: ug/L

		ICB 460-41209 12/27/2016 2		CCB 460-41209 12/27/2016 2		CCB 460-41209 12/27/2016 2		CCB 460-41209 12/28/2016 0	
Analyte	RL	Found	С	Found	С	Found	С	Found	с
Iron	60.0	21.2	U	21.2	U	21.2	U	21.2	U
Manganese	4.0	1.2	U	1.45	J	1.61	J	1.2	U

No project sumples were essociated with these cebs.

Italicized analytes were not requested for this sequence.

			1997				104%												3		105	177		1.66		1	2	74	46		2					
CCB+E+2	COV FE+2	CCB FE+2	, CCV FE+2	460-125929-1-6	460-125929-1-5	CCB FE+2	CCV FE+2	460125929L4 DU	460-125929-1-4	460-125929-1-3	460-125929-1-2	460-125929-1-1	460-125858-h-7	460-125858-h-6	460-125858-h-4	460-125858-h-3	460-125858-h-2	CCB FE+2	X CCV FE+2	460-125858-h-1	ም/ 460125858H5 MSD	460125858H5 MS	460-125858-h-5	LCS	MB	ICB	13/LICV	74%MDLS	74%.MRL	CCB FE+2	/CCV FE+2	Sample Id	Wed Dec 28 17:37:30 2016	Wed Dec 28 16:14:47 2016	_	Anijakem v 7 2AO1
¢	ь ф	0	0	S	S	ဂ	ი	S	S	S	S	S	S	S	S	S	S	ი	o	ა	S	S	თ	S	S	ი	S	S	S	ი	ი	Sa	30 20	47 20	eriod	
- offour It- th-	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Ferrous Ir P	Test short Te	016	016		
-1102317 mg/l-	0.98441 mg/i	-0.02452 mg/l	0.98397 mg/l	-0.00393 mg/l	-0.02449 mg/l	0.04475 mg/l	1.04202 mg/l	1.15994 mg/l	1.17406 mg/l	0.00329 mg/l	-0.04391 mg/l	0.8688 mg/l	0.96939 mg/l	-0.0377 mg/l	-0.00251 mg/l	0.70024 mg/l	0.00091 mg/l	-0.02155 mg/l	0.97688 mg/l	-0.01185 mg/l	2.63748 mg/l	-	-0.07666 mg/l	0.46446 mg/l	-0.02412 mg/l	-0.02303 mg/l	0.4627 mg/l	0.07423 mg/l	0.07447 mg/l	-0.02025 mg/l	0.96898 mg/l	Result Resul				
10:54:24 MA	10:54:23 MA	16:28:10 MA	16:28:09 MA	16:26:12 MA	16:26:11 MA	16:26:10 MA	16:26:09 MA	16:22:01 MA	16:22:00 MA	16:21:59 MA	16:21:58 MA	16:21:57 MA	16:21:56 MA	16:21:55 MA	16:21:54 MA	16:21:53 MA	16:21:52 MA	16:21:51 MA	16:21:50 MA	16:14:58 MA	16:14:57 MA	16:14:56 MA	16:14:55 MA	16:14:54 MA	16:14:53 MA	16:14:52 MA	16:14:51 MA	16:14:50 MA	16:14:49 MA	16:14:48 MA	16:14:47 MA	Result date Acce				
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0.00040	0.00094	-0.00011	0.0005	0.00062	0.00052	0.00002	0.00063	0.00008	0.00036	0.00051	0.00006	0.00014	0.00013	0.0001	0.00027	0.00052	0.00027	0.00017	0.0008	0.00024	0.00052	0.00034	0.00011	0.00021	-0.00004	0.00001	0.00029	0.00011	0.00014	0.00025	0.00084	Blank respil				
0.00040	0.00094	-0.00011	0.0005	0.00062	0.00052	0.00002	0.00063	0.00008	0.00036	0.00051	0.00006	0.00014	0.00013	0.0001	0.00027	0.00052	0.00027	0.00017	0.0008	0.00024	0.00052	0.00034	0.00011	0.00021	-0.00004	0.00001	0.00029	0.00011	0.00014	0.00025	0.00084	Blank init a l				
0.0004	0.11264	-0.00031	0.11216	0.00305	0.00249	0.00751	0.11873	0.02832	0.02892	0.0031	0.00161	0.02193	0.02415	0.00178	0.00273	0.01857	0.00281	0.0003	0.11167	0.00249	0.06154	0.05668	0.00092	0.05424	-0.0002	-0.00003	0.05413	0.01086	0.01091	0.00052	4	Main abs. (
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ICAL Date: 4.20.16

Ferrous Iron: SM3500Fe B -1997, -2011

- 19-90-16

2-IN CALIBRATION QUALITY CONTROL GENERAL CHEMISTRY

Lab Name: TestAmerica Pensacola

Job No.: 460-125858-1

SDG No.:

Analyst: JAT

Reporting Units: mg/L

Batch Start Date: 12/28/2016

Analytical Batch No.: 336768

Sample Number		Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	16:14	Ferrous Iron	0.969	1.00	97	90-110		Fe CCVH-W_00016
2	ССВ	16:14	Ferrous Iron	0.020				U	
5	ICV	16:14	Ferrous Iron	0.463	0.500	93	90-110		Fe ICV-W_00016
6	ICB	16:14	Ferrous Iron	0.020				U	
13	CCV	16:21	Ferrous Iron	0.977	1.00	98	90-110		Fe CCVH-W_00016
14	CCB	16:21	Ferrous Iron	0.020				U	
25	CCV	16:26	Ferrous Iron	1.04	1.00	104	90-110		Fe CCVH-W_00016
26	CCB	16:26	Ferrous Iron	0.0448				J	
54	CCV	17:28	Ferrous Iron	0.980	1.00	98	90-110		Fe CCVH-W_00016
55	CCB	17:28	Ferrous Iron	0.020				UV	
66	CCV	17:34	Ferrous Iron	0.974	1.00	97	90-110		Fe CCVH-W_00016
67	CCB	17:35	Ferrous Iron	0.020				U	
75	CCV	17:37	Ferrous Iron	0.999	1.00	100	90-110		Fe CCVH-W_00016
76	CCB	17:37	Ferrous Iron	0.020				υ	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

2-IN CALIBRATION QUALITY CONTROL GENERAL CHEMISTRY

Lab Name: TestAmerica Pensacola

Job No.: 460-125929-1

SDG No.:

Analyst: JAT Reporting Units: mg/L Batch Start Date: 12/28/2016

Analytical Batch No.: 336768

Sample Number		Time	Analyte	Result	Spike Amount	(१) Recovery	Limits	Qual	Reagent
1	CCV	16:14	Ferrous Iron	0.969	1.00	97	90-110		Fe CCVH-W_00016
2	ССВ	16:14	Ferrous Iron	0.020				U	
5	ICV	16:14	Ferrous Iron	0.463	0.500	93	90-110		Fe ICV-W_00016
6	ICB	16:14	Ferrous Iron	0.020				U	
13	CCV	16:21	Ferrous Iron	0.977	1.00	98	90-110		Fe CCVH-W_00016
14	CCB	16:21	Ferrous Iron	0.020				ΰ	
25	CCV	16:26	Ferrous Iron	1.04	1.00	104	90-110		Fe CCVH-W_00016
26	CCB	16:26	Ferrous Iron	0.0448				J	
29	CCV	16:28	Ferrous Iron	0.984	1.00	98	90-110		Fe CCVH-W_00016
30	CCB	16:28	Ferrous Iron	0.020		19		U	
54	CCV	17:28	Ferrous Iron	0.980	1.00	98	90-110		Fe CCVH-W_00016
55	CCB	17:28	Ferrous Iron	0.020				U	
66	CCV	17:34	Ferrous Iron	0.974	1.00	97	90-110		Fe CCVH-W_00016
67	CCB	17:35	Ferrous Iron	0.020				U -	
75	CCV	17:37	Ferrous Iron	0.999	1.00	100	90-110		Fe CCVH-W_00016
76	CCB	17:37	Ferrous Iron	0.020				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.



Prepared for: National Grid Brooklyn, NY Prepared by: AECOM Pittsburgh, PA 60137363-600 February 2017

Data Usability Summary Report National Grid/Clifton Former MGP Site WWTP Water Sampling Events July-December 2016 Final



Prepared for: National Grid Brooklyn, NY Prepared by: AECOM Pittsburgh, PA 60137363-600 February 2017

Data Usability Summary Report National Grid/Clifton Former MGP Site WWTP Water Sampling Event July-December 2016 Final

Sugar J. Magne

Prepared By Gregory Malzone, Project Chemist AECOM Gulf Tower 707 Grant Street, 5th floor Pittsburgh, PA 15219

And the Dawn

Reviewed By Robert Davis Data Validator/Database Technician AECOM 1360 Peachtree Street NE, Suite 500 Atlanta, GA 30309

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Appendix A Glossary of Data Qualifier Codes

Appendix B Data Qualification Summaries

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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 a waste water treatment plant samples collected on July 22, 2016, September 1, 2016, September 30, 2016, October 21, 2016, November 18, 2016, and December 30, 2016 at the Clifton Site.

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

- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) by USEPA Method 8260C,
- Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270D, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene and Hexachlorobenzene were determined using GC/MS in Selected Ion Monitoring (SIM) Mode,
- Total Arsenic and Nickel by USEPA Method 6020A, ICP/MS,
- 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 sample for available cyanide (OIA-1677) analysis was 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, USEPA-540-R-07-003, July 2008, with additional reference to USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review, EPA 540/R-99-008, May 1999 and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, USEPA-540-R-10-011, January 2010, with additional reference to USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, USEPA-540-R-10-011, January 2010, with additional reference to USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA-540-R-04, October 2004, as they applied to the analytical methods employed.

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

Field ID	TestAmerica ID	Matrix	Date Sampled
WWTP-072216	460-117449-1	Aqueous	07/22/2016
WWTP-09012016	460-119498-1	Aqueous	09/01/2016
WWTP-09302016	460-121172-1	Aqueous	09/30/2016
WWTP-102116	460-122414-1	Aqueous	10/21/2016
WWTP-111816	460-124103-1	Aqueous	11/18/2016
WWTP-123016	460-126184-1	Aqueous	12/30/2016

Table 1 - Sample Submittals - National Grid / Clifton WWTP Samples

Summary

Data quality for the organic analyses was evaluated by reviewing the following parameters: holding times, 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, 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. water) with the qualifications described below. 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.

1.0 Volatile Organic Compounds

July 22, September 1, September 30, October 21, November 18, December 30, 2016 Samples

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

2.0 Semivolatile Organic Compounds

July 22, 2016 Sample

<u>Calibrations</u>: The continuing calibration percent difference for benz(a,h)anthracene was greater than the upper method specification limit of 20% on 07/27/16 at 05:45 on instrument CBNAMS6. Benz(a,h)anthracene was not detected in associated sample WWTP-072216. No data qualification was required in response to the high instrument bias.

September 1, 2016 Sample

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

September 30, 2016 Sample.

<u>Calibrations:</u> The continuing calibration percent drift for acenaphthene was less than the lower method specification limit of -20% on 10/05/16 at 04:35 on instrument CBNAMS6. The acenaphthene result for associated sample WWTP-09302016 was non-detect and was qualified "UJ," as an estimate, because of low instrument bias.

October 21, 2016 Sample

<u>Calibrations:</u> The SIM continuing calibration percent difference for hexachlorobenzene was greater than the upper method specification limit of 20% on 10/25/16 at 08:24 on instrument CBNAMS9. The hexachlorobenzene result for associated sample WWTP-102116 was non-detect and did not require qualification in response to the high instrument bias.

November 18, 2016 Sample

<u>Laboratory Control Sample Recoveries:</u> The LCSD (460-405375/3-A) recovery for chrysene was less than the lower quality control limit, but greater than 10%. The chrysene result for associated sample WWTP-111816 was non-detect and was qualified "UJ," as an estimate, because of low method bias.

December 30, 2016 Sample

<u>Laboratory Control Sample Recoveries</u>: The LCS (460-412909/2-A) recoveries for acenaphthylene and pyrene were greater than the upper quality control limits The acenaphthylene and pyrene results for associated sample WWTP-123016 were non-detect and did not require qualification in response to the high method bias.

3.0 Total Metals

July 22, September 1, September 30, October 21, November 18 and December 30, 2016 Samples No data quality issues were noted. No data qualifications were required.

4.0 Total and Available Cyanide

July 22, 2016 Sample

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

September 1, 2016 Sample

<u>Sample Receipt Temperature:</u> The WWTP-09012016 sample for available cyanide was shipped to TestAmerica-Pittsburgh for analysis. The sample was shipped overnight and was received the next day at 9.5° C on ice. The chemical preservation of the sample was verified and the sample was placed in cold storage upon receipt at TestAmerica-Pittsburgh prior to analysis on 09/08/16. The available cyanide result for sample WWTP-09012016 was non-detect and was qualified "UJ," as an estimate, biased low because the sample receipt temperature was greater than 6° C.

September 30, 2016 Sample

<u>Blank Contamination:</u> Total cyanide was detected in the method blank 460-395123/1-A, and the continuing calibration blanks, analyzed on 10/05/16, at concentrations estimated to be less than the reporting limits. The total cyanide result for sample WWTP-09302016 was less than the reporting limit and was qualified "U," as undetected at the reporting limit, because of laboratory contamination.

<u>Matrix Spike Recovery:</u> The WWTP-09302016 MS recovery for total cyanide was less than the laboratory lower default limit of 90%, at 87%, but was within the data validation acceptance limits of 75-125%. No data qualification was required.

October 21, 2016 Sample

<u>Blank Contamination</u>: Total cyanide was detected in the method blank 460-399863/1-A, analyzed on 10/27/16, at a concentration estimated to be less than the reporting limit. The total cyanide result for sample WWTP-102116 was non-detect and did not require qualification.

Available cyanide was detected in the continuing calibration blanks, analyzed on 10/25/16 at 15:08, at a concentration estimated to be less than the reporting limit. The available cyanide result for sample WWTP-102116 was non-detect and did not require qualification.

<u>Matrix Spike Recovery:</u> The WWTP-102116 MS/MSD recoveries for total cyanide were less than the laboratory lower default limit of 90%, at 75% and 80%, but were within the data validation acceptance limits of 75-125%. No data qualification was required.

November 18, 2016 Sample

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

December 30, 2016 Sample

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

4-1

5.0 General Chemistry

July 22 Sample

<u>Holding Time:</u> Sample WWTP-072216 was analyzed within the method-specified holding times for all analyses except for the pH analysis. pH must be analyzed immediately upon sample collection, that is, as a field test. The pH result for sample WWTP-072216 was qualified "J," as an estimate, because the holding time was exceeded.

September 1, 2016 Sample

<u>Holding Time:</u> Sample WWTP-09012016 was analyzed within the method-specified holding times for all analyses except for the pH analysis. pH must be analyzed immediately upon sample collection, that is, as a field test. The pH result for sample WWTP-09012016 was qualified "J," as an estimate, because the holding time was exceeded.

September 30, 2016 Sample

<u>Holding Time:</u> Sample WWTP-09302016 was analyzed within the method-specified holding times for all analyses except for the pH analysis. pH must be analyzed immediately upon sample collection, that is, as a field test. The pH result for sample WWTP-09302016 was qualified "J," as an estimate, because the holding time was exceeded.

October 21, 2016 Sample

<u>Holding Time:</u> Sample WWTP-102116 was analyzed within the method-specified holding times for all analyses except for the pH analysis. pH must be analyzed immediately upon sample collection, that is, as a field test. The pH result for sample WWTP-102116 was qualified "J," as an estimate, because the holding time was exceeded.

November 18, 2016 Sample

<u>Holding Time:</u> Sample WWTP-111816 was analyzed within the method-specified holding times for all analyses except for the pH analysis. pH must be analyzed immediately upon sample collection, that is, as a field test. The pH result for sample WWTP-111816 was qualified "J," as an estimate, because the holding time was exceeded.

December 30, 2016 Sample

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

<u>Holding Time:</u> Sample WWTP-123016 was analyzed within the method-specified holding times for all analyses except for the pH analysis. pH must be analyzed immediately upon sample collection, that is, as a field test. The pH result for sample WWTP-123016 was qualified "J," as an estimate, because the 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 and laboratory duplicates 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.
- 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

SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 460-117449-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-117449-1	WWTP-072216	Water	07/22/2016 1010	07/22/2016 1350

Dody Art CC of the standard of	777 New Durtham Road Edison, New Jersey 08817 Phone: (732) 549-3900 Fax: (732) 549-3679	ANALYSIS	TOK StreiProject Ideptification TOK Nong/64,04	子 G ろ 、 6 0 の Requiatory Program: A	F7 Standard	6 1. n 1. 0 1. 0 1. 0 1. 0 1. 0 1. 0 1. 0 1. 0	2007 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	Time Matrix Cont. 2 C S S C S S	-22-18/010 6W 10 × 2 × 2 × 2 × 2 × 2			LINKT			-	Water:	Water Metals Filtered (Yes/No)?	Date / Time Received by	7/22/10/1350 10 (JUN) (NOW NO	Date / Time Received by Company	Date / Time Received by Company	Date / Time Received by Company	
		CHAIN O	Sampl	P. O. 4	1	2 We	- We	Date Time	7-22-16 (210				LS	5		13 = H2004, 4 = H1905, 6 = NaUT		Company	500	Company			,

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Pag			Other											α.	
			Total Phos	(pH<2)											adjusted. tis.
			Total Cyanide	(pH>12)	212										were pH to analys
			TOC	(pH<2)										41	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:
-			TKN	(pH<2)										, √,	least 24 h
ŋ		-8-8-8	Suffide	(64Hd)										ed (ml):	fied about
TestAmerica Edison Receipt Temperature and pH Log			Phenois	(pH<2)										on below: Volume of Preservative used (m):	Expiration Ind be noti must be a Date:
TestAmerica Edison of Temperature and p	nperat		EPH or CAM P	(pH<2)						\vdash				wr: s of Prese	ager shot mpliance I
stAmeri emperz	er Ter		Pest	(pH 5-9) (If pH adjustments are required record the information below: djusted:	ment Man out of co
Te eceipt]			Hardness	(pH<2) (p										e Inform:	rd Depart which are
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\rightarrow			Amr	L.										If p l (s). adjus Name/Co	
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Job Number:	Number of		·	TALS Sample Number										Ϋ́ Ϋ́ Ϋ́	EDS-W1-038, Rev 4, 06/09/2014
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07/29/2016

TestAmerica Edison					Concine .
777 New Durham Road Edison, NJ 08817	Chain of Custody Record	tody Rec	ord		
Phone (732) 549-3900 Fax (732) 549-3679					MA VI
Client Information (Sub Contract Lab)	Sampler	DeGraw	Leb PM DeGraw Kristin B	460- 17449 Chain of Custody	4 0/2 4
Cleni Contact Shipping/Receiving	Phone:	E-Mail kristin de	E-Mail kristin degraw@testamericainc com		-
Comeany: TestAmerica Laboratories, Inc.			Analysi	Analysis Requested	Job # 460-117449-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested 7/27/2016				des
Cary Pritsburgh State Zip PA, 15238	TAT Requested (days):				A - MCL M - Hexana B - NaOH N - None C - Zh Acetate O - AsNuO D - Nucc Actd P - Nu2COAS E NaHSOA O Na2SOA
Phone: 412-963-7058(Tei) 412-963-2468(Fax)	# 0d	(0			∝ » ⊢
Email,	#OM		(on		
Project Name: National Grid Former Clifton MGP	Pt-oject # 46018542		10 68		K - EDTA W - ph 4-5 L EDA Z - other (specify)
Srte	\$SOW#		20 (J	-	Other
Asmole Identification - Client ID (Lab ID)	Sample Type Sample (G=comp. Sample Date Time G=crah)	Matrix (Wenaler Scaoled Deversion, Marchanaler	%/8¥ myare ۲۲۵	Jedmuń leto	Gnorial Instructions (Note:
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WWTP-072216 (460-117449-1)	┢	Water	~		
(1-6++/11-00-) 01 77/0	ULZU Eastern	Adde	×		
26					
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Uncontitrmed Deilverable Requested' I, II, IV, Other (specify)	Primary Deliverable Rank 1		Return To Chent Ubsp Special Instructions/OC Requirements	Libisposal By Lab	For Months
Empty Kit Relinquished by:	Date	Time	(/ Method of Shipment:	C
Relinuarined by	2/22/16/1802	company Teste	Te U (value av	HOCH DUTERTAR	16 Compare of A
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	Date/Time;	Company	Received by	Date/Turke	Company
Custody Seals Intact: Custody Seal No A Yes A No			Cooler Temperature(s) C and Other Remarks	Other Remarks	

Login Sample Receipt Checklist

Client: AECOM, Inc.

Login Number: 117449 List Number: 1

Creator: Lysy, Susan

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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	2.7°C IR#7
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.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

List Source: TestAmerica Edison

Login Sample Receipt Checklist

Client: AECOM, Inc.

Login Number: 117449 List Number: 2 Creator: Watson, Debbie

	List Source: TestAmerica Pittsburgh List Creation: 07/23/16 02:51 PM
Answer	Comment

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	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	

Job Number: 460-117449-1

FORM I GC/MS VOA ORGANICS ANALYSIS DATA SHEET

ab Name: TestAmerica Edison Job No.: 460-117449-1		
SDG No.:		
Client Sample ID: WWTP-072216	Lab Sample ID: 460-117449-1	
Matrix: Water Lab File ID: 012969.D		
Analysis Method: <u>8260C</u> Date Collected: <u>07/22/2016</u> 10:10		
Sample wt/vol: 5(mL)	Date Analyzed: 07/26/2016 13:55	
Soil Aliquot Vol:	Dilution Factor: 1	
Soil Extract Vol.:	GC Column: DB-624 ID: 0.18(mm)	
% Moisture:	Level: (low/med) Low	
Analysis Batch No.: 381065	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)	108		70-137
460-00-4	4-Bromofluorobenzene	96		70-131
1868-53-7	Dibromofluoromethane (Surr)	105		72-136
2037-26-5	Toluene-d8 (Surr)	100		74-120

FORM I GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-117449-1
SDG No.:	
Client Sample ID: WWTP-072216	Lab Sample ID: 460-117449-1
Matrix: Water	Lab File ID: M230473.D
Analysis Method: 8270D	Date Collected: 07/22/2016 10:10
Extract. Method: 3510C	Date Extracted: 07/23/2016 15:29
Sample wt/vol: 250(mL)	Date Analyzed: 07/27/2016 16:15
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.: 381273	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	υ	2.0	0.67
206-44-0	Fluoranthene	0.72	U	10	0.72
86-73-7	Fluorene	0.80	U	10	0.80
193-39-5	Indeno[1,2,3-cd]pyrene	0.21	U	1.0	0.21
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	84		63-113
4165-60-0	Nitrobenzene-d5 (Surr)	83		62-120
1718-51-0	Terphenyl-d14 (Surr)	112		57-125

FORM I GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-117449-1
SDG No.:	
Client Sample ID: WWTP-072216	Lab Sample ID: 460-117449-1
Matrix: Water	Lab File ID: <u>h178802.D</u>
Analysis Method: 8270D SIM	Date Collected: 07/22/2016 10:10
Extract. Method: 3510C	Date Extracted: 07/23/2016 15:29
Sample wt/vol: 250(mL)	Date Analyzed: 07/25/2016 07:21
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.: 380825	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

1A-IN INORGANIC ANALYSIS DATA SHEET METALS

Client Sample ID: WWTP-072216 Lab Sample ID: 460-117449-1 Lab Name: TestAmerica Edison Job No.: 460-117449-1 SDG ID.: Matrix: Water Date Sampled: 07/22/2016 10:10 Reporting Basis: WET Date Received: 07/22/2016 13:50 CAS No. RL Analyte Result MDL Units DIL С Q Method

2.0

4.0

0.71 ug/L

1.6 ug/L

U

J

0.71

1.9

7440-38-2

7440-02-0

Arsenic

Nickel

2 6020A

6020A

2

Client Sample	e ID: WWTP-072216			Lab Sample	e ID: 460	-117449-	1		
Lab Name: Te	estAmerica Edison			Job No.:	460-117449	9-1			
SDG ID.:									
Matrix: Wate	r			Date Sampl	.ed: 07/22	2/2016	10:10		
Reporting Bas	sis: WET			Date Recei	.ved: 07/	22/2016	13:50		
CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method
57-12-5	Cyanide, Total	0.0040	0.010	0.0040	mg/L	U		1	335.4
	Turbidity	2.38	0.500	0.125	NTU			1	180.1

1.0

1.0 mg/L

SU

1.8

7.81

Total Suspended Solids

pН

SM 2540D

SM 4500 H+ B

HT.

1

1

<u>HE</u>

J

Client Sample	ID: WWTP-072216			Lab Sample	ID: 460-	117449-	1		
Lab Name: Te	stAmerica Pittsburgh			Job No.:	460-117449	-1			
SDG ID.:									
Matrix: Water				Date Sampl	ed: 07/22	/2016 2	10:10		
Reporting Bas:	.s: WET			Date Recei	ved: 07/2	2/2016	13:50		
CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method

0.0020

0.0011 mg/L

U

0.0011

Cyanide, Available

1 | OIA-1677

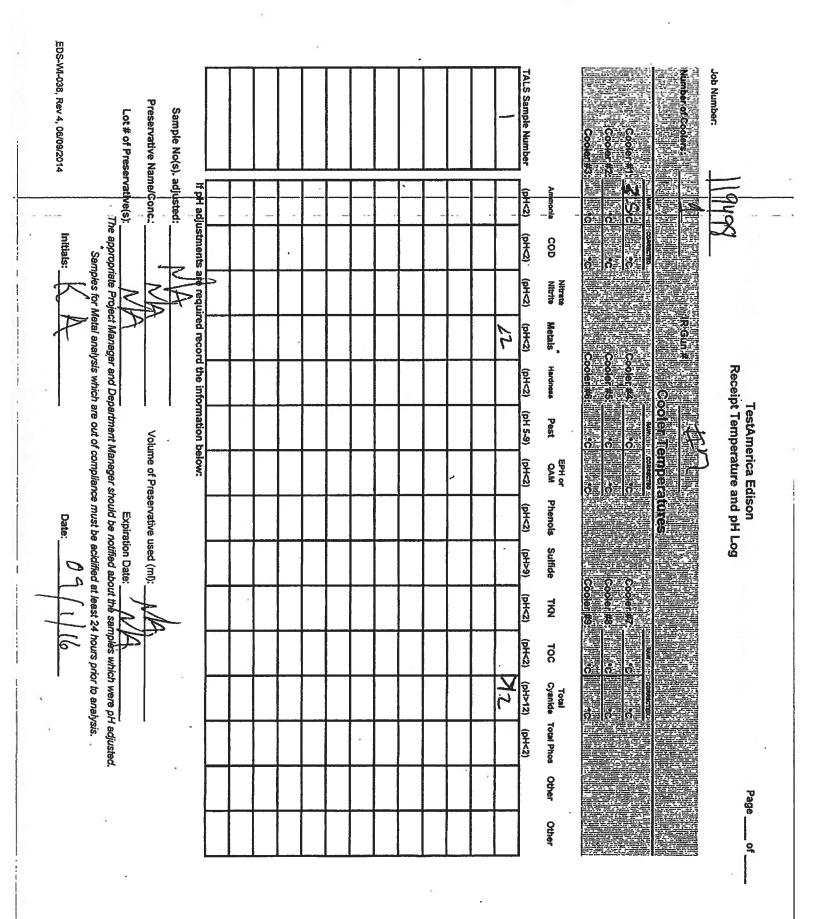
SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 460-119498-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received	
460-119498-1	WWTP-09012016	Water	09/01/2016 1000	09/01/2016 1418	

COM Brand Invoice) Brand Brand TP-0 WTP-0 6 = Other 6 = Other	The forst $rections$ and $Streed$ Read $Streed$ Read $Streed$ NY Fax CI 09012.016 0911/16 0911	Samplegs, Name (Printed) P. O. # Analysis Turnaround Time Standard Danges Authorized For: 2 Week 1 Week 1 Week 1 Week 1 Week 3 d_{42} 7 Time Matrix Cont. 4 b0001 6 W 10 b001 6 W 10		SignProject Identification NGLT: $c_{A} \in f$ Regulatory Program: $\chi \in P PAH + SIN$ Regulatory Program: $\chi = PAH + SIN$ $\chi = PAH + SIN$	
	forstner 	Samplegs,Name (Printed) P. O. # 6013776		Jiect Identification	
× 10- 377	State N	F 9 1677	35.4 1 0 10 (CIV 32 700 09 PAH + SIM 5400 55	8260C BTEX	
wwtp-00		OW IO	X X X	×	
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	3 = H ₂ SO ₄ , 7 = Ott	S=N90H		· · · ·	
Special Instructions Relinquished by	Company		Received by	\$ I	Company
Relinquished by 2)	Company	Date / Time	Received by 2)		Company
Relinquished by 3)	Company	Date / Time	Received by 3)		Company
		Date / Time			



09/09/2016

TestAmerica Edisor							Mit Australia	Tot Amonion	ζ
777 New Durham Road	0	thain c	Chain of Custody Record	tody R	ecord				51
Edison_ NJ 08317 Phone (732) 549-3900 Fax (732) 549-3679								NADE (22 FOR THE THE A. 3. 3	3
Client Information (Sub Contract Lab)	Sampler			DeG	Lab PM DeGraw, Kristin B	460-119498 Chain of Custody		4a 46464 1	
Client Contact	Phone			E-Mar	E-Mail	-			Γ
Shipping/Receiving				Kristi	n degraw@lestame	encainc com		,e1011	Τ
company TestAmerica Laboratories Inc		1000			A State of the second se	Analysis Requested	46	460-119498-1	
Address 301 Alpha Drive, RIDC Park,	Due Date Requested: 9/7/2016	-11					Pr	Preservation Codes.	
City Pittsburgh	TAT Requested (days	ya):			1		0 = 0	iżć	
State, Zp PA, 15238							0 ш ц	E - Martic Acid P Na204S E - MartSO4 Q Na2SO3 E MarOH P Na7S203	
Phone 412-963-7058(Tel) 412-963-2468(Fax)	PO#		-		255		UI	COL	ale
Emiai	#OM			100-11-100-100-1000	(ON				
Project Name National Grid - Clifton Former MGP	Project # 46018542				JO 59			K + EDTA W - pH 4-5 L - EDA Z - ather (specify)	
Site AECOM - Former Clitton MGP	SSOW#				N asi			Other ⁻	
		Sample		Matrix (w-water, 5-scold, Ormanializal,	beidil Filtered Standa Alanide Alanide		nedmuki lato		
or sample identification - vient (Leo IV)	auton and marc		Preservation Code	tion Code	X			Special Instructions/Note:	
00WWTP-09012016 (460-119498-1)	9/1/16	10:00		Water	×		-		
47		Eastern							
of 645									
	-								
Possible Hazard Identification					Sample Dispo	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	imples are retained I	onger than 1 month)	
Uncontirmed Deliverable Requested: 1, 11, 11, 1V, Other (specify)	Primary Deliverable Rank	able Rank: 1			Special Instruc	Return To Client Disposal By Lab Special Instructions/QC Requirements:	b Archive For	or Months	
Empty Kit Relinquished by:		Date.			Time	Method o	Method of Shipment	1	C
GReinquished by	Date/Time: 0	2/18	105	Company	Received by	MAN IN	Date/Time / R.	-16 Company AH	Υ
Reinquished by	Date/Time			Company	Received by	L'action an	Date/Time	30 company	
90 Rebringuished by	Date/Time			Company	Received by		Date/Time	Company	
Custody Seals Intact Custody Seal No , Yes , No					Coolar Temp	Cooler Temperature(s) *C and Other Remarks			

Client: AECOM, Inc.

Login Number: 119498 List Number: 1 Creator: Rivera, Kenneth

Job	Number:	460-1	19498-1
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List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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	3.5°C, IR #7
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.

Client: AECOM, Inc.

Login Number: 119498 List Number: 2 Creator: Skowronek, Elvse N

Job Number: 460-119498-1

Question	Answer	Comment
		Comment
Radioactivity wasn't checked or is ≃ background as measured by a survey meter.</td <td>True</td> <td></td>	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.	False	Refer to Job Narrative for details,
Cooler Temperature is recorded.	True	9.5
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 I GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-119498-1					
SDG No.:						
Client Sample ID: WWTP-09012016	Lab Sample ID: 460-119498-1					
Matrix: Water	Lab File ID: J45216.D					
Analysis Method: 8260C	Date Collected: 09/01/2016 10:00					
Sample wt/vol: 5(mL)	Date Analyzed: 09/06/2016 16:02					
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.: 388791	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)	98		74-132
460-00-4	4-Bromofluorobenzene	98		77-124
1868-53-7	Dibromofluoromethane (Surr)	96		72-131
2037-26-5	Toluene-d8 (Surr)	98		80-120

FORM I GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-119498-1
SDG No.:	
Client Sample ID: WWTP-09012016	Lab Sample ID: 460-119498-1
Matrix: Water	Lab File ID: M232278.D
Analysis Method: 8270D	Date Collected: 09/01/2016 10:00
Extract. Method: 3510C	Date Extracted: 09/02/2016 09:20
Sample wt/vol: 240(mL)	Date Analyzed: 09/06/2016 09:40
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.: 388720	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
193-39-5	Indeno[1,2,3-cd]pyrene	0.22	U	1.0	0.22
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	56		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	60		51-108
1718-51-0	Terphenyl-d14 (Surr)	68		40-148

FORM I GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-119498-1
SDG No.:	
Client Sample ID: WWTP-09012016	Lab Sample ID: 460-119498-1
Matrix: Water	Lab File ID: U29288.D
Analysis Method: 8270D SIM	Date Collected: 09/01/2016 10:00
Extract. Method: 3510C	Date Extracted: 09/02/2016 09:20
Sample wt/vol: 240(mL)	Date Analyzed: 09/04/2016 16:17
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.: 388366	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

1A-IN INORGANIC ANALYSIS DATA SHEET METALS

Client Sample I	lient Sample ID: WWTP-09012016				Lab Sample ID: 460-119498-1								
Lab Name: TestAmerica Edison				Job No.: 460-119498-1									
SDG ID.:													
Matrix: Water				Date Sampl	.ed: 09/01	/2016	10:00						
Reporting Basis	: WET			Date Recei	.ved: 09/0	1/2016	14:18						
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method				

2.0

4.0

0.64

1.4

ug/L

ug/L

U

J

2

2

6020A

6020A

0.64

2.0

7440-38-2

7440-02-0

Arsenic

Nickel

Client Sample ID: WWTP-09012016 Lab Sample ID: 460-119498-1 Lab Name: TestAmerica Edison Job No.: 460-119498-1 SDG ID.: Date Sampled: 09/01/2016 10:00 Matrix: Water Reporting Basis: WET Date Received: 09/01/2016 14:18 Units C Q DIL Method CAS No. Analyte Result RL MDL

	Mechoc	DID		C	UNICS	HDH	ICD	. Result	Anaryce	CAD NO.
1	335.4	1		U	mg/L	0.0020	0.010	0.0020	Cyanide, Total	57-12-5
L	180.1	1			NTU	0.160	0.500	1.26	Turbidity	
340D	SM 2540	1			mg/L	1.0	1.0	1.2	Total Suspended Solids	
500	SM 4500 H+ B	1	#FJ		SU			7.9	рH	
5	SM 4	1				1.0	1.0		Solids	

FORM IB-IN

Client Sample I	Lab Sample	ID: 460	-119498-	-1						
Lab Name: Test	Job No.: 460-119498-1									
SDG ID.:										
Matrix: Water				Date Sampl	Led: 09/0	1/2016	10:00			
Reporting Basis: WET				Date Received: 09/01/2016 14:18						
CAS No.	Analyte	Analyte Result	RL	MDL	Units	C Q		DIL	Method	
	Cyanide, Available	0.0011	0.0020	0.0011	mg/L	05		1	OIA-1677	Jeccipt

SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 460-121172-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-121172-1	WWTP-09302016	Water	09/30/2016 1015	09/30/2016 1210

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)	4)	S) Relinquished by	Relinquished by Company		Relinquished by Company	Relinquished by Company	Special Instructions	6 = Other, 7 = 0	Preservation Used: ()ICE, 2= HCI, 3 = H2SO,		HOLD	SHORT				WWTP-09202016	Sample Identification	Phone 212 315 Fax 8721	Non Xol Man	Didne Junes 10	-	1) E CUIV)	Company C / C IV	Name (for report and invoice)	THE LEADER IN ENVIRONMENTAL TESTING	lestAmerica	•
28), New Vo. 578)		Z	īy		¥	ompany みた c u TM		7 = Other	4=HNC	ľ	•	4	1		101.	9/20/16	Date								ę		
7 York (11452), Pennsylvania (68-522), C	4)	Date / Time Received by	Date / Time Received by	2)	Time	9/3e/61 12.10 1) lay		Water: 1 1 1	3 = H2SO (4=)HNO, (3= NACH Soil:	460-121172 Chain of Custody						1015/34/10 × × ×	Time Matrix Cont IC 3 7 20 5	7 ~ 1 5 m	JU Tvail	ab11	Analysis Turnaround Time Avulysis REOL	60131363-600	P.O.サービル シン	Samplers Name (Printed)	CHAIN OF CUSTODY / ANALYSIS REQUEST		
Connecticut (PH-0200), Rhode Island		ov ICompany	by Company		y Company	and the second s				Custody						XVXX	рн Лин 820	PF y 2 0A 2 0A	55 0 1 (<u>80'i</u>	ANALYSIS REQUESTED (BITER 7: BELOW TO MOKATE REQUEST)		State (Location of site): NJ: NY	Site/Project Identification	REQUEST	Prione: (/32)	777 New Du Edison, New
((132). TAL- 0016 (0715)				(cherry)	1	Elison 1210	Water Metals Filtered (Yes/No)?									/	Sample Numbers	14110	(Joh No: 7 M	Project No:	LAB USE ONLY		NY: Other:	nor Cliffs MGP	Page 1 of 1	1549-3900 Fax: (/32) 549-36/9	777 New Durham Road Edison, New Jersey 08817

31 /2C/L

10/07/2016

:. J

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Sample No(s). adjusted: Preservative Name/Conc.: Lot # of Preservative(s): 77			•		×				TALS Sample Number		cooler #11 [14] cooler #2-		Š.	Job Number:
adjusted: me/Conc.: rvative(s): Th	If pH adjustments are required record the information below:								(pH<2)	Ammonia	io C			2
d: .	stments a	ŀ							(pH<2)	COD				2/172
ste Project	ire require								(pH<2)	Nitrata				``
Image:	ad record							2	(pH<2)	Metals	888		RGm#	
and Depa	the inform					_			(pH<2)	Hardness				TestAmerica Edison Receipt Temperature and pH Log
Volum rtment Ma re out of c	nation be						_		(pH 5-9)	Pest	0.000 C	Coder Temperatures		TestAmerica Edison t Temperature and p
Volume of Preservative used (ml): Expiration Date: ant Manager should be notified about of compliance must be acidified.	low:		-				_		(pH<2)	CAM F	6	nperat		ica Edis ature an
ervative us Expiration uld be not must be a									(pH<2)	Phenois		lies		d pH Lo
rative used (ml): Expiration Date: Id be notified about nust be acidified at nust of									(6⊲Hd)	Sulfide		-		à
			_						(pH<2)	TKN	三方, 南方, 边		2 7 7	
les which						*			(pH<2) (TOC	6 6 6			
des which were pH adjusted. hours prior to analysis.								12 Ye	(pH>12) (Total Cyanide Total Phos	9. (C) (C) (C) (C) (C) (C) (C) (C) (C) (C)			
ojusted. s.									(pH<2)	φ.				
								-		Other				Page
				_						Other				t of

10/07/2016

TestAmerica Edison 777 New Durham Road	Chain of Cu	ain of Custody Record	cord	stAmerica
Phone (732) 549-3900 Fax (732) 549-3679				ADCR IN ENVIRONMENTAL TESTING
Client Information (Sub Contract Lab)	Sampler	Lau PM DeGrav	DeGraw, Kristin B 460-121172 Chain of Custody	stody 723.1
Client Contact Shipping/Receiving	Phone	E-Mail kristin d	E-Mail knstin degraw@testamericainc.com	Irage 1 of 1
Company TestAmerica Laboratories, Inc			Analysis Requested	Juob # 460-121172-1
Address 301 Alpha Drive, RIDC Park,	Due Date Requested: 10/5/2016			S
Cty Pritsburgh	TAT Requested (days):			A - HCL M. Haxane B - NuCH N. None C - Zn Acetate O - AsNAC2
Stata 2.p PA, 15238				
Phone 412-963-7058(Tei) 412-963-2468(Fax)	P0 8	(0	1910	20
Emai	# OM		(0)	1 - Ice J - Di Water
Project Name National Grid - Citition Former MGP	Project # 46018542	HPY) 01	JO 50	K- EDTA L- EDA
Site AECOM - Former Clitton MGP	SSOW#	dura	N) as	01 001 001
Samole Identification - Client ID /Lab ID)	Sample Time C≂comp Samnie Date Time G=comb	C Matrix (vvvese: 0. 0-wester 0. 0-wester 0. 0-wester 0. 0-wester 0. 0-wester 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	MVZM Introfres , sbinary 1773 , cyanide, i	redmuki late
	X	ation Code:	X	
V WWTP-D9302016 (480-121172-1)	0/20/48 10:15	Mater		
(1-2/11/21-00-) 01/22/0501/MM 11 0f 713	BioUrio Eastern		<	F
Possible Hazard Identification			Sample Disposal (A fee may be assessed if samples are retained ionger than 1 month)	nples are retained longer than 1 m
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank, 1		Special Instructions/OC Requirements	ALCING FOR MONINS
	Date:	Ē	Time Although Although Although Although	Stupment
00 Reinquished by	Datertime 10/3/16 1800	Bolly 6	Recoveder X	Daterting UIII 9 610 Company At
Reinquished by	Date/Lime	Company	Rebauved by	Date/Tinte 1 Company Company
D Retinquished by	Date/Tune	Company	Received by	ОагеЛта
Custody Seats Intact Custody Seat No			Cooler Temperature(s) °C and Other Remarks	

Login Sample Receipt Checklist

Client: AECOM, Inc.

Login Number: 121172 List Number: 1

Creator: Lysy, Susan

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey<br 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 ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8°C IR#7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s 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	
/lultiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Job Number: 460-121172-1

List Source: TestAmerica Edison

Login Sample Receipt Checklist

Client: AECOM, Inc.

Login Number: 121172 List Number: 2

Creator: Kovitch, Christina M

Job Number: 460-121172-1

List Source: TestAmerica Pittsburgh List Creation: 10/04/16 09:52 AM

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey neter.</td <td>True</td> <td></td>	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 ampered 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	
s 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	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 I GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-121172-1
SDG No.:	
Client Sample ID: WWTP-09302016	Lab Sample ID: 460-121172-1
Matrix: Water	Lab File ID: A27801.D
Analysis Method: 8260C	Date Collected: 09/30/2016 10:15
Sample wt/vol: 5(mL)	Date Analyzed: 10/05/2016 11:48
Soil Aliquot Vol:	Dilution Factor: 1
Soil Extract Vol.:	GC Column: Rtx-624 ID: 0.25(mm)
<pre>% Moisture:</pre>	Level: (low/med) Low
Analysis Batch No.: 394998	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)	94		74-132
460-00-4	4-Bromofluorobenzene	96		77-124
1868-53-7	Dibromofluoromethane (Surr)	99		72-131
2037-26-5	Toluene-d8 (Surr)	102		80-120

FORM I GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-121172-1
SDG No.:	
Client Sample ID: WWTP-09302016	Lab Sample ID: 460-121172-1
Matrix: Water	Lab File ID: M233825.D
Analysis Method: 8270D	Date Collected: 09/30/2016 10:15
Extract. Method: 3510C	Date Extracted: 10/03/2016 10:37
Sample wt/vol: 240(mL)	Date Analyzed: 10/05/2016 08:41
Con. Extract Vol.: 2(mL)	Dilution Factor: 1
Injection Volume: 5(uL)	Level: (low/med) Low
<pre>% Moisture:</pre>	GPC Cleanup:(Y/N) N
Analysis Batch No.: 394980	Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.92	UJ	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	υ	10	0.75
86-73-7	Fluorene	0.83	U	10	0.83
193-39-5	Indeno[1,2,3-cd]pyrene	0.22	U	1.0	0.22
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	83		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	69		51-108
1718-51-0	Terphenyl-d14 (Surr)	84		40-148

FORM I GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-121172-1
SDG No.:	
Client Sample ID: WWTP-09302016	Lab Sample ID: 460-121172-1
Matrix: Water	Lab File ID: h1790150.D
Analysis Method: 8270D SIM	Date Collected: 09/30/2016 10:15
Extract. Method: 3510C	Date Extracted: 10/03/2016 10:37
Sample wt/vol: 240(mL)	Date Analyzed: 10/05/2016 08:16
Con. Extract Vol.: 2(mL)	Dilution Factor: 1
Injection Volume: 5(uL)	Level: (low/med) Low
<pre>% Moisture:</pre>	GPC Cleanup:(Y/N) N
Analysis Batch No.: 394977	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	0.017	J	0.021	0.0094

1A-IN INORGANIC ANALYSIS DATA SHEET METALS

Client Sample	ID: WWTP-09302016			Lab Sample	ID: 460	-121172-	-1		
Lab Name: To	estAmerica Edison			Job No.:	460-12117	2-1			
SDG ID.:									
Matrix: Wate	r			Date Sampl	.ed: 09/3	0/2016	10:15		
Reporting Bas	sis: WET			Date Recei	.ved: 09/	30/2016	12:10		
CAS No.	Analyte	Result	RL	MDL	Onits	с	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	J		2	6020A

Client Sample I	D: WWTP-09302016			Lab Sample	e ID: 460-	121172-	1		
Lab Name: Test	America Edison			Job No.:	460-121172	-1			
SDG ID.:									
Matrix: Water			Date Samp	led: 09/30	/2016	10:15			
Reporting Basis	: WET			Date Rece	ived: 09/3	0/2016	12:10		
CAS No.	Analyte	Result	RL	MDL	Units	с	٩	DIL	Method

					1				1	-
57-12-5	Cyanide, Total	0.01011-0.0056	0.010	0.0020	mg/L	0	D F1	1	335.4	mg-
	Turbidity	2.15	0.500	0.160	NTU			1	180.1	1
	Total Suspended Solids	1.4	1.0	1.0	mg/L			1	SM 2540D	1
	pH	8.4			SU	J	-#₽-	1	SM 4500 H+ B	HT

Client Sample	ID: WWTP-09302016			Lab Sample	ID: 460	-121172-	·1		
Lab Name: T	estAmerica Pittsburgh			Job No.:	460-121172	2-1			
SDG ID.:									
Matrix: Wate	er			Date Sampl	ed: 09/3	0/2016	10:15		
Reporting Ba	sis: WET			Date Recei	ved: 09/	30/2016	12:10		
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
	Cyanide, Available	0.0011	0.0020	0.0011	mg/L	υ		1	OIA-1677

SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 460-122414-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-122414-1	WWTP-102116	Water	10/21/2016 1415	10/21/2016 1558

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

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Name (for report and invoice)		Sampler	Samplers Name (Printed)	Printed) 7 a fe		2	Site/P Nu/	Site/Project k	/ fentifi	cation.	Former		i c	Q
Company & Er Chu		# 0 0	P.O.# 7702	1717			State	(Locatic	State (Location of site):	Ë.	NN:	R	Other:	
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Address		Analysis Tu	Analysis Tumaround Timo	<u> </u>	F	NLYSIS REO	ESTED (B)	TEN 2: BE	AVALYSIS REQUESTED (SATER Y: BELOW TO INDICATE REQUEST)	TE REQUEST	$\left \right $	T	LAB USE ONLY	ONLY
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	Date	Time	Matrix	No. of.	' <u>522</u> *^¥ LL9	1 00	0352	177 1 1 H d	205	, ki ta			Sample Numbers	
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TestAmerica Edison Receipt Temperature and pH Log

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Page ____ of ____

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Kecelpt I emperature and pH Log	L COORTANDERAURES		Phenois Sutfide	(pH<2)						•						Volume of Preservative used (ml):	Expirat	ould be no	Date.	
erature a	anter a		EPH or QAM	(2Hq)										elow:		me of Pre		laneger sh complianci		
t lempe			Pest	(pH 5-9)										mation b		Volu		artment M are out of (
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EDS-WI-038, Rev 4, 06/09/2014

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Login Sample Receipt Checklist

Client: AECOM, Inc.

Login Number: 122414

List Number: 1 Creator: Wisnewski, Kelly R

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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	1.1°C, IR#7
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	

Job Number: 460-122414-1

List Source: TestAmerica Edison

FORM I GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-122414-1	
SDG No.:		
Client Sample ID: WWTP-102116	Lab Sample ID: 460-122414-1	
Matrix: Water	Lab File ID: A28910.D	
Analysis Method: 8260C	Date Collected: 10/21/2016 14:15	
Sample wt/vol: 5(mL)	Date Analyzed: 10/23/2016 19:42	
Soil Aliquot Vol:	Dilution Factor: 1	
Soil Extract Vol.:	GC Column: <u>Rtx-624</u> ID: 0.25(mm)
% Moisture:	Level: (low/med) Low	
Analysis Batch No.: 399147	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	υ	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)	110		74-132
460-00-4	4-Bromofluorobenzene	100		77-124
1868-53-7	Dibromofluoromethane (Surr)	113		72-131
2037-26-5	Toluene-d8 (Surr)	104		80-120

FORM I GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-122414-1		
SDG No.:			
Client Sample ID: WWTP-102116	Lab Sample ID: 460-122414-1		
Matrix: Water	Lab File ID: M234625.D		
Analysis Method: 8270D	Date Collected: 10/21/2016 14:15		
Extract. Method: 3510C	Date Extracted: 10/24/2016 14:04		
Sample wt/vol: 240(mL)	Date Analyzed: 10/26/2016 11:53		
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.: 399642	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	υ	10	0.83
193-39-5	Indeno[1,2,3-cd]pyrene	1.1		1.0	0.22
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	85		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	85		51-108
1718-51-0	Terphenyl-dl4 (Surr)	73		40-148

FORM I GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison Job No.: 460-122414-1	
SDG No.:	
Client Sample ID: WWTP-102116	Lab Sample ID: <u>460-122414-1</u>
Matrix: Water	Lab File ID: h17905756.D
Analysis Method: 8270D SIM	Date Collected: 10/21/2016 14:15
Extract. Method: 3510C	Date Extracted: 10/24/2016 14:04
Sample wt/vol: 240(mL)	Date Analyzed: 10/25/2016 17:44
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.: 399198	Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-55-3	Benzo[a]anthracene	0.039	υ	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

1A-IN INORGANIC ANALYSIS DATA SHEET METALS

Client Sample I	D: WWTP-102116			Lab Sample	e ID: 460-	122414-	1		
Lab Name: Test	America Edison			Job No.:	460-122414	-1			
SDG ID.:									T.
Matrix: Water				Date Samp	led: 10/21	/2016	14:15		
Reporting Basis	: WET			Date Rece	ived: 10/2	1/2016	15:58		
CAS No.	Analyte	Result	RL	MDL	Units	С	Q	DIL	Method

2.0

4.0

0.64 ug/L

ug/L

1.4

σ

U

2 6020A

6020A

2

0.64

1.4

7440-38-2

7440-02-0

Arsenic

Nickel

1B-IN INORGANIC ANALYSIS DATA SHEET GENERAL CHEMISTRY

Client Sample	e ID: WWTP-102116	2 1 2		Lab Sample	ID: 460	-122414	-1		
Lab Name: T	estAmerica Edison			Job No.:	460-12241	4-1			
SDG ID.:									
Matrix: Wate	er			Date Sampl	led: 10/2	1/2016	14:15		
Reporting Ba	sis: WET			Date Recei	.ved: 10/	21/2016	15:58		
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
57-12-5	Cyanide, Total	0.0020	0.010	0.0020	mg/L	U	- ? 1	1	335.4
	Turbidity	3.49	0.500	0.160	NTU			1	180.1
	Total Suspended Solids	1.5	1.0	1.0	mg/L			1	SM 2540D
	рН	8.1			SU	J	HP	1	SM 4500

J

HT

1 SM 4500 H+ B

1B-IN INORGANIC ANALYSIS DATA SHEET GENERAL CHEMISTRY

Client Sample	e ID: WWTP-102116			Lab Sample	ID: 460	-122414-	1		
Lab Name: T	estAmerica Pittsburgh			Job No.:	460-12241	1-1			
SDG ID.:									
Matrix: Wate	er			Date Sampl	.ed: 10/2	1/2016	14:15		
Reporting Bas	sis: WET			Date Recei	.ved: 10/	21/2016	15:58		
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
	Cyanide, Available	0.0011	0.0020	0.0011	mg/L	U		1	OIA-1677

SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 460-124103-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-124103-1	WWTP-111816	Water	11/18/2016 1300	11/18/2016 1408

TestAmerica Edison 717 New Durham Road Edison, NJ 08817 Phone (732) 549-3600 Fax (732) 549-3079 Cellent Information (Sub Contract Lab) Phone (732) 549-3600 Fax (732) 549-3079 Phone (732) 549-3600 Fax (732) 549-3079 Phone (732) 549-3600 Fax (732) 549-3079 Concent Center Center Shipping/Receiving Concent Concen	of Custod Sample Type (C=comp. (C=comp. C=grab)	ly Record Lab PM DeGraw, Krishin B E-Main Resultions Required (See note) NELAP - New York Analysis Requested	Apola	
ormation (Sub Contract Lab) cerving a Laboratorias, Inc. Drive, RIDC Park, 58(Tel) 412-963-2468(Fax) 58(Tel) 412-963-2468(Fax) d - Cititon Former MGP ormer Cititon MGP	Sample Ma Type (C=comp, C=rest G=grab) Is restricted			6
scerving a Laboratories, Inc. Drive, RIDC Park, 58(Tel) 412-963-2468(Fax) 68(Tel) 412-963-2468(Fax) d - Citton Former MGP ormer Citton MGP	Sample Type Ma (C=comp, artist G=grab) artist	0		I CA
a Laboratories, Inc. Drive, RIDC Park, 58(Tel) 412-963-2468(Fax) 64 - Clitton Former MGP ormer Ctitton MGP	Sample Ma Type Kit (C=comp, B=rite G=grab) Is retered	0	Page 1 of 1	la l
Drive, RIDC Park, 58(Tel) 412-963-2468(Fax) id - Citton Former MGP ormer Citton MGP	Semple Matrix Type (www. C=Comp, c-warder, C=grab) re-warder, co-	Analysis Requested		
58(Tel) 412-963-2468(Fax) d - Clitton Former MGP ormer Ctitton MGP	Sample Matrix Type Wwww. C=Comp, orwards.		Preservation Codes:	7
58(Tel) 412-963-2468(Fax) d - Citton Former MGP ormer Citton MGP	Sample Matrix Type (www. C=comp, o=net. G=grab) archai.e.d.	uop	A - HOL B - NACH C - ZN - Acetate D - MANS - Acetate E - NaHSO4	M - 1472814 N - None O - ASNAO2 P - NA2045 O - NA2203
t Namo mai Grid - Ciliton Former MGP OM - Former Ciliton MGP	Sample Matrix Type (www. C=Comp, c=sat, G=grab) ar:teu.e.	98	F - MaOH G - Amchlor H - Ascorbic Acid	
et Name Bonal Grid - Cititon Former MGP COM - Former Cititon MGP	Semple Matrix Type (www. C=Comp, c-wat. (C=Comp, c-wat.	(ON		
COM - Former Citition MGP	Sample Matrix Type (www. C=comp, c-rand, G=grab) rertinue, Ank	20 50,		W - pH 4-5 Z - biher (specify)
	Sample Matrix Type (www. (C=Comp, pww.aw. G=grab) n=riteu., p.44)	d as	Other:	
Samoja klantification - Cilent ID (Lab ID) Samoja Samoja Data Data	Beneninten Code	42 (10W) (141) 64	nedmuN istoT C C C C C C C C C C C C C C C C C C C	Soecial Instructions/Note:
	C Short Nation Course	X	1000000	
WWTP-111816 (460-124103-1) 11/18/16 13.00 Eastern		×		
			400 C	
			12.20	
Abia. Ceres isherstenu prevatationa ara unberi la chanca. Tastitanoonal asonatonas bon darees tha autoretica d	and a state of the			
rowe concrete accordances are available to transfer currents on the proces we contracture currents of the test and accordance accordances into provided. Any changes to accordance to accordance to accordance of the test of test of the test of the test of the test of test	e inserted, enange a sourcement on the TestA Mus must be shipped back to the TestA of Custody attesting to said complicanc	terroc upon ou soconsoc acourtours rus senpre expriment mence aboranny or other netructions witho provided Ary chan a to TastAmence Laboreloniae inc	revenues under comment-conception and the brow	e renor encry cores mor ught to TestAmerica
Possible Hazard Identification Unconfirmed		Sample Disposal (A foo may be assessed if samples are retained ionger than 'i month) — Rehim To Cliant — Monti	nples are retained longer than	f month) Months
Deliverable Requested: I, II, IV, Other (specify) Primary Deliverable Rank:	nk: 1	C Requiroments:		
knquished by:	μ.	Time: Method of Shpmeni	Shipment ~	
H	1800 Committee	Received by W atom	1-61/1	Attures 9
Remained by // Hurs / Delating Hiller	Company	ŀ	Date/Time 1 1 03	0
Contrado. Caral Ma	Company	Received by August	DataTime 11-30-160 (030	FLLE
		LOOKE I REPORT ALLEY & AND UNKER REMARKS		

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Curofins Lancaster Labora Environmental			dministration umentation Log	Doc Log ID: 169311 Group Number(s): 736 523				
Client: Test America								
	Deliv	ery and I	Receipt Information					
Delivery Method:	Fed Ex		Arrival Timestamp:	<u>11/30/2016</u>	10:30			
Number of Packages:	1		Number of Projects:	<u>8</u>				
	Arr	ival Con	dition Summary					
Shipping Container Sea	aled:	Yes	Sample IDs on COC	match Containers	s: Yes			
Custody Seal Present:		Yes	Sample Date/Times r	natch COC:	Yes			
Custody Seal Intact:		Yes	VOA Vial Headspace	≥ 6mm:	N/A			
Samples Chilled:		Yes	Total Trip Blank Qty:		0			
Paperwork Enclosed:		Yes	Air Quality Samples F	Present:	No			
Samples Intact:		Yes						
Missing Samples:		No						
Extra Samples:		No						
Discrepancy in Contain	er Qty on COC:	No						
Unpacked by Joseph H	luber (7831) at 14	:28 on 11/3	0/2016					
			Chilled Details	Tomo) All 7	emperatures in °C.			
Thermometer Types:	DT = Digital (Te	тр. воше)	IR = Infrared (Surface	Hemp) Air i	emperatures in C.			
Cooler # Thermometer ID Corre	ected Temp Therr	n. Type	Ice Type Ice Present? Ic	e Container Eleva	ated Temp?			
1 32170023	1.4	IR	Wet Y	Loose	Ν			

Skowronek, Elyse

From:	Franklin, Jannel
Sent:	Tuesday, November 29, 2016 4:04 PM
To:	Pittsburgh - Sample Receiving; Ruyechan, Roseann
Cc:	Meidhof, Marie; Lowe, Deb; DeGraw, Kristin B.; Franklin, Jannel
Subjec	t: Please ship water sample 460-124103-1 (WWTP-111816) (client:AECOM, Inc.) for method 1677 to Eurofins Lancaster Labs in PA
Hi Sample	Receiving,
Eurofins l	lease ship the water sample 460-124103-1 (WWTP-111816) (client:AECOM, Inc.) for method 1677 to ancaster Labs in PA today for tomorrow receipt? I have added the Subcontract method to the login. The is up 12-2-16 and I need Eurofins to rush this sample since we are late. Please confirm.
Thoules	

Thanks, JANNEL FRANKLIN Project Manager I/Network PM Floater Support (732.593.2551 TestAmerica

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: <u>Project Feedback</u>

From: Ruyechan, Roseann Sent: Tuesday, November 29, 2016 7:44 AM To: Meidhof, Marie Cc: Franklin, Jannel Subject: RE: TPS Comment Update for Job 460-124103-1 for AECOM, Inc.

Instrument is out of commission, will need to sub these out.

Roseann S. Ruyechan Department Manager TestAmerica THE LEADER IN ENVIRONMENTAL TESTING 301 Alpha Drive Pittsburgh, PA 15238 Tel 412.963.2446 www.testamericainc.com

From: Meidhof, Marie Sent: Friday, November 25, 2016 9:06 AM To: Ruyechan, Roseann Cc: Franklin, Jannel Subject: RE: TPS Comment Update for Job 460-124103-1 for AECOM, Inc.

Thank you! Please keep us posted.

MARIE MEIDHOF Project Manager II

TestAmerica

🎲 eurofins

Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

	-		
BMQL C cfu	Below Minimum Quantitation Level degrees Celsius colony forming units	mg mL MPN	milligram(s) milliliter(s) Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	none detected
F	degrees Fahrenheit		nanogram(s)
-	gram(s)	ng NTU	nephelometric turbidity units
g IU	International Units		picogram/liter
kg	kilogram(s)	pg/L RL	
ĸy		TNTC	Reporting Limit Too Numerous To Count
۲ ib.	liter(s) pound(s)		
m3		μg	microgram(s)
	cubic meter(s)	μL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm		be equivalent to mill	kilogram (mg/kg) or one gram per million grams. For igrams per liter (mg/l), because one liter of water has a weight juivalent to one microliter per liter of gas.
ppb	parts per billion		
Dry weight basis			pisture content. This increases the analyte weight ample without moisture. All other results are reported on an

Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Laboratory Certifications: New Jersey (12028), Ne Massachusetts (M-NJ312), North Carolina (No. 578)		Relinquished by Company 3)		Bellinguished by Company	ructions	6 = Other 7 = Other 7 = Other					WWTP-111816 11/	Sample Identification D	2/2 377 3721	lew Ya	Chu Street 1074 \$1		AFCOM	Name (for report and invoice) Adbect For(the	THE LEADER IN ENVIRONMENTAL TESTING
New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Hinode Island (132). North Carolina (No. 578)	Date / Time	Date / lime		11/18/16/1/108	7.	$3 = r_2 SU_4, 4 = r_1 V_4, 5 = V_4 S_7$ $SUI.$ $Water: / ($					11/18/16 1300 GW 10 × ×	Date Time Matrix Cont. 6 4 M	Other 2 /arx 77	14 (* N	Analysis Turnaround Time Ava	50137363-60e	Samplers Name (Printed)	CHAIN OF CUSTODY / ANALYSIS REQUEST
522), Connecticut (PH-U200), Anode		460-124103 Chain of Custody		Len June							<pre>/ / / / / / / / / / / / / / / / / / /</pre>	82 61 60 7	tail 70D 500 510 510 510 510 510 510 55	PAI	N 7 + Sin 10.1	١.	Regulatory Program: NY50 12C	State 1 postion of state NI-	2
1544110 (132). TAL-0016 (0715)		npany	1075.70	Automative Support	Water Metals Filtered (Yes/No)?		•	HOLD	SHORT			Numbers	Sample	101 /102 / 103	Project No:	1 1	SPDES	Former Clifton Mob	Page <u>1</u> of <u>1</u>

1

Page 39 of 43

Preservative Name/Conc.: Lot # of Preservative(s): <i>TT</i> EDS-WI-038, Rev 4, 06/09/2014	If pH adj Sample No(s). adjusted:								TALS Sample Number		Cooler #3	Number of Coolers	Job Number:
me/Conc.: rvative(s): <i>The a</i> In	If pH adjustr adjusted:								(pH<2) (p	Ammonia (0.00 0.00 0.00		1401
seppropriate Pro Samples for	nents are req								(pH<2) (pH<2)	COD Nitrate	n n n		103
.: Volume of Preservative used (ml): .: Expiration Date: .: Expiration Date: The appropriate Project Manager and Department Manager should be notified about the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out of compliance must be acidified at least 24 light in the samples for Metal analysis which are out	If pH adjustments are required record the information below: djusted:			1941				47) (pH<2)	Metals	Cooler	IR Gun #	
and Departme 's which are o	the informati		-						(pH<2) (pH 5-8)	Hardness Pest		Geole	TestAmerica Edison Receipt Temperature and pH Log
Volume of Preservative used (ml): Expiration Date: ant Manager should be notified about of compliance must be acidified Date:	on below:	÷	t						5-8) (pH<2)	St QAM	6 6 6	Cooler Tenperatures	TestAmerica Edison It Temperature and p
servative used (ml): Expiration Date: hould be notified abo ce must be acidified Date:									(pH<2) ()	Phenols S		atores	lison and pH Log
d (ml): n Date: ied about the s idified at least: ///	-								(pH>9) (pH<2)	Sulfide TKN	Cooler #9:		
samples which 24 hours price									2) (pH<2)	TOC			
ples which were pH adjusted hours prior to analysis.							, ,	72	(pH>12) (p	Total Cyanide Total Phos	5 75 5 7		
ljusted.									(pH<2)	al Phos Other			סי
										r Other			Page of _



X

460-124103 Waybill

TestAmerica Edison	Chain		of Custody Record	ord		
Phone (732) 549-3900 Fax (732) 549-3679	Canadaa		In the DM			
Client Information (Sub Contract Lab)	Camper		DeGraw,	DeGraw, Kristin B	Aporterio	ial i
	Phone		E-Mail kristin de	E-Mail kristin deoraw@testamericainc con	In the second state of Custom	Inde 1 of 1
Company			Acc	Accreditations Required (See note)		
TestAmerica Laboratories, Inc.			NE	AP - New YOR		460-124103-1
Addiess 301 Alpha Drive, RIDC Park,	11/23/2016			Analy	Analysis Requested	A - HCL M - Hexane
Cdry Pritisburgh Baile 2.5P PA 152/3R	TAT Requested (days):			noit		B - NaOH N - None C - Zh Acatale O - NaNaOZ D - Nime Acada P - Na2O4S E - NaHSO4 D - Na2SO3
Phone 412-083-7058/Tel\ 412-063-2468/Fax\	Post		6	w Jujec		5
	# OM		ot No			I - Ice J - DI Water
Project Name National Grd - Clitton Former MGP	Project # 48018542			-		L + EDA V - PH 4.5 L - EDA Z - other (specify)
Site AECOM - Former Clifton MGP	SSOW#		qma8			8 Other:
and the state of t	0			(100) CA		Cotal Instructions/Note.
_	and	+	ation Code			
_	}	001				
WWTP-111816 (460-124103-1)	11/18/16 [2] [2] [2] [2] [2] [2] [2] [2]		Water	×		-
Note Since laborations are subject to change, TestAmenca Laboratories, Inc. pieces the ownership of method, analyte & accreditation complance upon out subcontract laboratories are subject to change. TestAmenca Laboratories, Inc. pieces the ownership of method, analyte & accreditation complance upon out subcontract laboratories are subject to change. TestAmenca Laboratories, Inc. pieces the analyte & accreditation complance upon out subcontract laboratories. This samples must be supped back to the TestAmenca Laboratories of the analyte is accreditation to the SistAmenca Laboratories will be provided. Any changes to accreditation to the SistAmenca Laboratories will be provided. Any changes to accreditation testAmenca Laboratories inc. Laboratories are attended abora testing to said completence to TestAmenca Laboratories. Inc.	Antonies, inc. places the contership estaimatinx being analyzed, the sa rent to date, return the signed Cha	of method, analyte tiples must be shipt in of Custody attesti	& accreditation compli- ed back to the TeslAm ng to said complicance	Ince upon out subcontract labora ence laboratory tr other mstructu to TestAmerica Laboratories. Inc	tories. This sample shipment is towarded under chain-ot-custody. If the laboratory does not one will be provided. Any changes to accreditation status should be brought to TestAmenca	ain-of-custody. If the laboratory does not status should be brought to TestAmenca
Possible Hazard Identification				Sample Disposal (A fee	Sample Disposal (A fee may be assessed if samples are retained ionger than 1 month)	etained longer than 1 month)
Uncomment Deliverable Requested: 1, 11, 11, 1V, Other (specify)	Primary Deliverable Rank	ank 1		Special Instructions/OC Requirements	nen fan	
Empty Kit Relinquished by	Date		Time	le:	Method of Shipmani	
Reinquished by C	Date/Time 11/19/16	1801	Companyed	Received by UU	NOW DateTime 1	(19-16 Committy
Reimquished by	Date/Time		Company	Received by	Date/fime L	1 93 0 Company
Reinquished by	Date/Time		Company	Received by	Date/Ime	Company
Custody Seals intact: Custody Seal No				Cooler Temperature(s) *C and Other Remarks	and Other Romarks	

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Login Sample Receipt Checklist

Client: AECOM, Inc.

Login Number: 124103 List Number: 1

Creator: Meyers, Gary

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
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	5.7 ° C iR #7
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	X
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.

Job Number: 460-124103-1

List Source: TestAmerica Edison

FORM I GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-124103-1				
SDG No.:					
Client Sample ID: WWTP-111816	Lab Sample ID: 460-124103-1				
Matrix: Water	Lab File ID: J48607.D				
Analysis Method: 8260C	Date Collected: 11/18/2016 13:00				
Sample wt/vol: 5(mL)	Date Analyzed: 11/23/2016 01:29				
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.: 405885	Units: ug/L				

CAS NO.	CAS NO. COMPOUND NAME		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)	98		74-132
460-00-4	4-Bromofluorobenzene	113		77-124
1868-53-7	Dibromofluoromethane (Surr)	117		72-131
2037-26-5	Toluene-d8 (Surr)	94		80-120

FORM I GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-124103-1				
SDG No.:					
Client Sample ID: WWTP-111816	Lab Sample ID: <u>460-124103-1</u>				
Matrix: Water	Lab File ID: M235605.D				
Analysis Method: 8270D	Date Collected: 11/18/2016 13:00				
Extract. Method: 3510C	Date Extracted: 11/19/2016 18:10				
Sample wt/vol: 250(mL)	Date Analyzed: 11/23/2016 13:08				
Con. Extract Vol.: 2(mL)	Dilution Factor: 1				
Injection Volume: <u>5(uL)</u>	Level: (low/med) Low				
% Moisture:	GPC Cleanup:(Y/N) N				
Analysis Batch No.: 405959	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	υJ	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	73		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	74		51-108
1718-51-0	Terphenyl-d14 (Surr)	68		40-148

FORM I GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-124103-1				
SDG No.:					
Client Sample ID: WWTP-111816	Lab Sample ID: 460-124103-1				
Matrix: Water	Lab File ID: h17906452.D				
Analysis Method: 8270D SIM	Date Collected: 11/18/2016 13:00				
Extract. Method: 3510C	Date Extracted: 11/19/2016 18:10				
Sample wt/vol: 250(mL)	Date Analyzed: 11/23/2016 11:29				
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.: 405993	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	93-39-5 Indeno[1,2,3-cd]pyrene		U	0.050	0.027

1A-IN INORGANIC ANALYSIS DATA SHEET METALS

Client Sample ID: WWTP-111816

Lab Sample ID: 460-124103-1

Lab Name: TestAmerica Edison

Job No.: 460-124103-1

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 11/18/2016 13:00

Date Received: 11/18/2016 14:08

CAS No.	Analyte	Result	RL MDL		Units	С	Q	DIL	Method
7440-38-2	Arsenic	0.64	2.0	0.64	ug/L	U		2	6020A
7440-02-0	Nickel	1.8	4.0	1.4	ug/L	J		2	6020A

1B-IN INORGANIC ANALYSIS DATA SHEET GENERAL CHEMISTRY

Client Sample ID: WWTP-111816				Lab Sample	ID: 460-	-124103-	1		
Lab Name: Te	estAmerica Edison		Job No.:	bb No.: 460-124103-1					
SDG ID.:									
Matrix: Wate	r			Date Sampl	ed: 11/18	/2016	13:00		
Reporting Bas	is: WET			Date Recei	ved: 11/2	L8/2016	14:08		
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
57-12-5	Cyanide, Total	0.0020	0.010	0.0020	mg/L	σ	1	1	335.4
	Turbidity	4.79	0.500	0.160	NTU			1	180.1
	Total Suspended Solids	2.7	1.0	1.0	mg/L			1	SM 2540D
	рН	8.3		1	SU		HF.T	1	SM 4500

h

#F J

SM 4500 H+ B

🔅 eurofins

Lancaster Laboratories Environmental **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: WWTP-111816 (460-124103-1) Water National Grid - Clifton Former MGP

LL Sample # WW 8719664 LL Group # 1738563 Account # 01042

Project Name: 460-124103-1

Collected: 11/18/2016 13:00

Submitted: 11/30/2016 10:30 Reported: 12/02/2016 16:58 TestAmerica Edison 777 New Durham Road Edison NJ 08817

SDG#: TAE01-01

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Wet C	hemistry	OIA-1677-09	mg/l	mg/l	
12999	Available CN	n.a.	0.0029 J	0.0020	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12999	Available CN	OIA-1677-09	1	16337999101A	12/02/2016 00:07	Joseph E McKenzie	

SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 460-126184-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-126184-1	WWTP-123016	Water	12/30/2016 1045	12/30/2016 1145

TectAmerica		51	8 by 215	RX		n		777 New L Edison, Ne Phone: (73	777 New Durham Hoad Edison, New Jersey 08817 Phone: (732) 549-3900 Fa	777 New Durham Hoad Edison, New Jersey 08817 Phone: (732) 549-3900 Fax: (732) 549-3679
THE LEADER IN ENVIRONMENTAL TESTING	CHAIN	OF CU	CHAIN OF CUSTODY / ANALYSIS REQUEST	ANALY	SIS REO	QUEST				Page 1_ of
Name (for report and invoice)	S	malers Nam	Samplers Name (Printed)	J	Sitte	A T 162	Site/Project Identification	Form		Cliftian INGP
Cdir	<u>ज.</u>	163#.0	P.O. #69137363, 660	.600	State	State (Location of site): Regulatory Program:		SPDE -	NY: CORDENER:	Other:
Address 125 Around St. 16th E	S An	Analysis Turnaround Time	id Time	VHVTASIS	REQUE		NDICATE	_ 4		LAB USE ONLY Project No:
V3. 15 1		Rush Charges Authorized For: 2 Week		gurile Vielco	IM	· ·				Job No:
			3 day		0 H + 5 D	lurbic BBE	4 5,			18/221
Sample Identification	Date T	Time Matrix	x Cont.	231	254 PA 254 TSS	ρн,	-			Sample Numbers
WWTP-12-3016 1	12/30/16 1945	45 G W	10	א א א	Y	K,	N.			-/
		_								
HORT				480-12	460-126184 Chain of Custody	of Custody		\ 		
HOLD				- 1	_	H				
Preservation Used: (= ICR, (= HQ, 3 = H2SO, (= HNO, (=))AOH	Shino"	таон Н	Soil:	-	a 	-		· · ·		
								Water Met	Water Metals Filtered (Yes/No)?	(Yes/No)?
Relinquished by Company	Com	12/	Date / Time		1) Received by			Company	- 	54:11 91/36/21
Relinquished by Company			Date / Time		Received by 2)			Company	ny	
Relinquished by Company			Date / Time	Rece	Received by 3)			Company	ny	
Relinquished by Company 4)			Date / Time	Rece 4)	Received by 4)			Company	ny	
Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Massachusetts (M-NJ312), North Carolina (No. 578)), New Yoi . 578)	* (11452),	Pennsylva	nia (68-52	2), Conne	cticut (Pł		Rhode Island (132).	ınd (132).	TAL - 0016 (0715)
4) Laboratory Certifications: New Jersey (12028 Massachusetts (M-NJ312), North Carolina (No), New Yo	rk (11452),	Date / Time		ived by 2), Conne	cticut (P)		Compare State	ny Ind (132)	· · · · ·

If pH adji Sample No(s). adjusted: Preservative Name/Conc.; Lot # of Preservative(s); <i>T</i> 7								/	TALS Sample Number				Job Number:
if pH adji idjusted: ie/Conc.: /ative(s): /7									(pH<2)	Ammonia	6		26
a approp									(pH<2)	COD	0		48/
are requi									(pH<2)	Nitrate Nitrite			
If pH adjustments are required record the information below; adjusted:								2>	(pH<2)	Metals		INCONT	
ar and Dep									(pH<2)	Hardness			Receip
- Volu partment A are out of									(pH 5-9)	Pest	6 6		TestAmerica Edison t Temperature and p
elow: Ime of Pre fanager si compliand									(pH<2)	EPH or DAM	с. С. С. С		erica Ed 9rature a
servative Expira hould be n			1						(pH<2)	Phenols		aures	TestAmerica Edison Receipt Temperature and pH Log
Justments are required record the information below: d: 									(pH>9)	Sulfide			go
at least 24									(pH<2)	TKN			1 4
amples which 24 hours pri									(pH<2)	TOC	3. I.		
ants are required record the information below:								21<	(pH>12)	Total Cyanide	E. 3. 8.		- 25 E La 14 13 14 2
es which were pH adjusted.						Ċ			(pH<2)	Total Phos			
		1.1								Other			Page
										Other			e + o

TestAmerica Edison								ct A	ict A morino
/// New Dumam Koad Edison, NJ 08817 Phone (732) 549-3900 Fax (732) 549-3679	0	Chain of Custody Record	F Cust	ody Re	cord			ADPR ALE	
Client Information (Sub Contract Lab)	Sampler			Lab PM DeGra	Lab PM DeGraw, Kristin B	Co 106184 Chain of Custody	ustody	440 1	7.4.6
Client Contact Shipping/Receiving	Phone			E-Mail kristin	E-Mail kristin degraw@lestamenca			Page 1 of 1	500
Company TestAmerica Laboratories, Inc.					Accreditations Required (See note) NELAP - New York	note)		Job # 460-126184-1	510
Address 301 Alpha Drive, RIDC Park,	Due Date Requested: 1/5/2017	÷				Analysis Requested		Preservation Codes	1
City Pittsburgh Scient 7.5	TAT Requested (days	ys):						A - HCL B - NeOH C - Zn Acetate	M - Hexane 11 - None O - AsNaO2
State 2.p PA, 15238			1		ction			D - Nithic Acid E - NaHSOA	P - Na2045 Q - Na2503
Phone 412-963-7058(Tel) 412-963-2468(Fax)	PO .							F - MeOH G - Amchlor H - Ascorbic Acid	R - Na2S203 S - H2SO4 T - TSP Dodecatholrate
Emai	# OM				(0)			1 - Icce J - Di Water	U - Acetorie V - MCAA
Project Name National Grid Former Clifton MGP	Project # 46018542				JO SR		nonlati	K.EDTA L-EDA	W - pH 4-5 Z - other (specify)
Site AECOM - Former Clifton MGP	SSOW				N) as		of con	Other:	
Samole Mentification - Cliend ID (Lab ID)	Samula Data	Sample	Sample Type (C=comp,		i berefija biei W2M mohe W2 (GOM) 1116) redmul/ lato		
	X	1	一词		X			Special In	Special Instructions/Note:
WWTP-123016 (460-126184-1)	12/30/16	10.45		Water	*				
	2	Eastern	T	intere	<				
			t						
			1						
				T					
Note Since laborations are subject to change. TestAmentica Laborationes, inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laborationes. This sample attractions will be provided under chain of custody if the laborationy does no currently maintain accreditation in the State of Origin isteld above for analyses/frests/method back to the TestAmenca above of the markets/method method, analyte & accreditation compliance upon out subcontract laborationes. This sample attractions will be provided upon analyses/frests/method back to the TestAmenca above of one markets/method method, market to sample above to the TestAmenca above of one markets above for analyses/frests/method back to the TestAmenca above of one markets/method markets/method back to the TestAmenca above of one of the places of the subject of back to the TestAmenca above of one of the subject of the places of the subject of back to the TestAmenca above of or intervention accorditions are current to date, return the signed Chain of Custody attesting to said complicance to TestAmenca laborations. Any changes to accreditation status should be brought to TestAmenca Laborations, inc. attention immeduately. If all requested accreditations are current to date. return the signed Chain of Custody attesting to said complicance to TestAmenca laborations.	oratories, inc. piaces the ow Resistmatrix perry analyzed, irrent to dele, return the signe	hership of methoc the samples mus of Chain of Custo	I, analyte & acr t be shipped b dy attesting to	creditation com ack to the Test said complicen	Miance upon out subcontrac vimenca laboratory or other is ce in TestAmenca Laborato	a laboratories. This sample shipmer instructions will be provided. Any ch	This sample algorithm of the shore of the laboratory does not the provided Any changes to acceditation status should be brought to TestAmerica to provided Any changes to acceditation status should be brought to TestAmerica.	-of-custody If the lab	oraiory does not to TestAmerica
Possible Hazard Identification					Sample Disposal (<u>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</u>	amples are retained	i longer than 1 n	nonth)
Unconfirmed	Deteror Delivery	e Baale e			Return To Client	ent Disposal By Lab	ab Archive For	s For	Months
Deriver adre Kequested: 1, 11, 11, 14, Outer (specify)	Primary Deliverable Kank	DIE Kank 1			Special Instructions/QC Requirements				
Empty Kit Relinquished by		Date			Time:	1 I Method	Method of Shipment		0%
Reinquished by	3	17 18	800 0	Company De	Received by	Wittin	Deterfune	61-	Company IN
Reinquished by	Date/Timfe		Ğ	Company	Received by		Date/Time	005	Company
Reimquished by	Date/Time		3	Company	Received by		Date/Timo		Company
Custody Seats Intact Custody Seal No					Cooler Temperature	Cooler Temperature(s) *C and Other Remarks			

Page 544 of 546

of 546

Client: AECOM, Inc.

Login Number: 126184 List Number: 1 Creator: Lysy, Susan

Job Number: 460-126184-1

List Source: TestAmerica Edison

Answer N/A	Comment
/ N/A	
N/A	Not present
N/A	
True	
True	
True	
True	5.1°C IR#8
True	
N/A	
N/A	
N/A	No analysis requiring residual chlorine check
	assigned.
	True True True True True True True True

Client: AECOM, Inc.

Login Number: 126184 List Number: 2

Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh List Creation: 01/04/17 12:10 PM

Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey<br 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 ampered 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		
s 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		
/ultiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

FORM I GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-126184-1
SDG No.:	
Client Sample ID: WWTP-123016	Lab Sample ID: 460-126184-1
Matrix: Water	Lab File ID: A32721.D
Analysis Method: 8260C	Date Collected: <u>12/30/2016</u> 10:45
Sample wt/vol: 5(mL)	Date Analyzed: 01/04/2017 16:12
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.: 413053	Units: ug/L

71-43-2 Benzene 0.090 U 1.0 100-41-4 Ethylbenzene 0.30 U 1.0 179601-23-1 m-Xylene & p-Xylene 0.28 U 1.0 95-47-6 o-Xylene 0.32 U 1.0 108-88-3 Toluene 0.25 U 1.0	CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
179601-23-1 m-Xylene & p-Xylene 0.28 U 1.0 95-47-6 o-Xylene 0.32 U 1.0 108-88-3 Toluene 0.25 U 1.0	71-43-2	Benzene	0.090	U	1.0	0.090
95-47-6 o-Xylene 0.32 U 1.0 108-88-3 Toluene 0.25 U 1.0	100-41-4	Ethylbenzene	0.30	U	1.0	0.30
108-88-3 Toluene 0.25 U 1.0	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
1330-20-7 Xvlenes Total 0.28 H 2.0	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	88		77-124
1868-53-7	Dibromofluoromethane (Surr)	99		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.: 460-126184-1
SDG No.:	
Client Sample ID: WWTP-123016	Lab Sample ID: <u>460-126184-1</u>
Matrix: Water	Lab File ID: M237061.D
Analysis Method: 8270D	Date Collected: <u>12/30/2016</u> 10:45
Extract. Method: 3510C	Date Extracted: 01/03/2017 09:05
Sample wt/vol: 240(mL)	Date Analyzed: 01/04/2017 04:07
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.: 413023	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	UF	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	99		45-107
4165-60-0	Nitrobenzene-d5 (Surr)	90		51-108
1718-51-0	Terphenyl-d14 (Surr)	129		40-148

FORM I GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison	Job No.: 460-126184-1
SDG No.:	
Client Sample ID: WWTP-123016	Lab Sample ID: <u>460-126184-1</u>
Matrix: Water	Lab File ID: h17907661.D
Analysis Method: 8270D SIM	Date Collected: 12/30/2016 10:45
Extract. Method: 3510C	Date Extracted: 01/03/2017 09:05
Sample wt/vol: 240(mL)	Date Analyzed: 01/05/2017 00:57
Con. Extract Vol.: 2(mL)	Dilution Factor: 1
Injection Volume: <u>5(uL)</u>	Level: (low/med) Low
% Moisture:	GPC Cleanup:(Y/N) N
Analysis Batch No.: 413171	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-123016

Job No.: 460-126184-1

Lab Name: TestAmerica Edison

SDG ID.:

Matrix: Water

Reporting Basis: WET

Date Sampled: 12/30/2016 10:45

Date Received: 12/30/2016 11:45

Lab Sample ID: 460-126184-1

CAS No.	Analyte	Result	RL	MDL	Units	С	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-123016 Lab Sample ID: 460-126184-1 Lab Name: TestAmerica Edison Job No.: 460-126184-1 SDG ID.: Matrix: Water Date Sampled: 12/30/2016 10:45 Reporting Basis: WET Date Received: 12/30/2016 11:45 CAS No. Analyte Result RL MDL Units С DIL Q Method 57-12-5

Cyanide, Total 0.0020 0.010 0.0020 mg/L Ū 1 335.4 9.21 0.500 0.160 NTU 1 180.1 Total Suspended 2.7 1.0 1.0 mg/L 1 SM 2540D 8.1 SU SM 4500 H+ B ₽₽J 1

HT

Turbidity

Solids рН

1B-IN INORGANIC ANALYSIS DATA SHEET GENERAL CHEMISTRY

Client Sample	ID: WWTP-123016			Lab Sample	ID: 460	-126184-	-1		
Lab Name: Te	estAmerica Pittsburgh			Job No.:	460-12618	4-1			
SDG ID.:									
Matrix: Wate	r			Date Sampl	ed: 12/3	0/2016	10:45		
Reporting Bas	is: WET			Date R ece i	ved: 12/	30/2016	11:45		
CAS No.	Analyte	Result	RL	MDL	Units	с	Q	DIL	Method
	Cyanide, Available	0.00072	0.0040	0.00072	mg/L	U	<u> </u>	2	0IA-1677

Appendix B Waste Manifests

NON-HAZARDOUS WASTE MANIFEST

1 2

122

ase type or print.	and the summaries of the state							2 Page 1 of
NON-HAZARDOUS	1. Generator's US EP	A ID No.	Manife	est Doc. N	10. 			Z Page I OT
WASTE MANIFEST		- N	V/A 1		3 0	8 5		1
3. Generator's Name and Mailing . Bro	-	D/R/A Notion		YA	Generati	or's Site Address	(if different)	
Attn: Katherine Vater	One Metrote Brooklyn, N 718) 963-5480	ech Center Y 11201				MGP site - Island, NY	10305	2 1
5. Transporter 1 (Company Name)	6	US EPA ID Number		B. 1	State Tr	ansporter's ID	2A-	531
William J. Lauer Corp.		VYR0001	5764	44 c		rter 1 Telephone (718) 981-8500
7 Transporter 2 (Company Name)	5	US EPA ID Number		D	State Tr	ansporter's ID	<u>`</u>	
						nter 2 Telephone () -
9. Designated Facility Name and Site A	uddress 1	0. US EPA ID Number		- E. I	Slale Fa	iciliiy ID		
Bayshore Recycling 75 Crow's Mill Road					Facility '	Telephone (7	18) 98	31-4600
Keasby, NJ 08832	the second se	V J 1 2 2 5 0	A COLUMN TWO IS NOT THE OWNER.			i an Total	1 4 4 14-5	(2.5
11. US DOT Description (Including Pro	per Shipping Name. Ha	Zard Class and IU Num		12. Con Number		13. Total	14. Unit Wt7 Vot	* ** H Weste No.
				HUHUEI	1,100	aconoly		EPA
[®] NON RCRA NON DOT	SULIDS			003	DH	2100	Р	STATE
h	Del IDE DIA			003	UM		- F	EPA
* -NON RCRA NON DOT	SOFIDE -					a su	27	STATE
				006	UM			EPA
							1.0	
			1			\$ 1	1 1 1	STATE
d y		1.2					1	EPA
d Para ta sana ana sa	The section of						ines to	STATE
d 1. Additional Description for Materials lia		ر المحمد المراجع الم			J. Hand	dling Codes for W	estes Liste	STATE
I. Additional Description for Materials its 55 - asphalt a		ور می اور			J. Hend	ding Codes lof W	estes Liste	STATE
I. Additional Description for Materials lis 55 - asphalt a -55-gravel.	tod Above c.					dling Codes for W	G	STATE
Additional Description for Materials lis 55 - asphalt a <u>-55-gravel</u> M b Special Handing Instructions and A	ited Above c. c. d. dd tional Information				a 0.			STATE
I. Additional Description for Materials lie 55 - asphalt 55 - gravel 55 - gravel 5 5 Special Handing Instructions and A 24 Hour Emergency Tel 35. GENERATOR'S CERTIFICATION:	d tonal information dephone # 877 3	e contents of this shiom	SilCL 57 57 1	D ^{Trn} 3 <i>3</i> 70	a TI#-	WM-1	đ	STATE d Above
	tod Above c. d dd Bonal Information lephone # 877 3 HCLO : Thereby cartify that the attanials described on this FoA MGR_1DD	e contents of this shiom	nent are fully	D ^{Trn} 3 <i>3</i> 70	a TI#-	WM-1	đ	STATE d Above
I. Additional Description for Materials lie 55 - asphalt 55 - gravel 55 - gravel 5 55 - gravel 5 5 5 5 5 5 5 5 5 5 5 5 5	tod Above c. d dd Bonal Information lephone # 877 3 HCLO : Thereby cartify that the attanials described on this FoA MGR_1DD	e contents of this shipm is manufest are not subj	nent are fully	D ^{Trn} 3 <i>3</i> 70	a TI#-	WM-1	đ	STATE d Above
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	5. Generator's Name and Mailing BROOKLYN UNION	Address	Plat w/		20323867.		11	06694	ł	_	
1	BROOKLYN, NY 11: Generator's Phone:		63545:	2	CLIFTON N 40 WILLON STATEN IS	NAVE					
	6. Transporter 1 Company Name TRADEBE TRANSPI 7. Transporter 2 Company Name	ORTATION, LLC					U.S. EPA I		89		
							U.S. EPA I) Number			
	8. Designated Facility Name and 1 TRADEBE T&R OF E 50 CROSS STREET BRIDGEPORT, CT 06 Facility's Phone:	SRIDGEPORT, LLC	(203)334	4-1666	e third out and the		U.S. EPA II CTDOO		87		
	9. Waste Shipping Name ar	nd Description			10. Cor	tainers	t1. Total	12. Unit	T	1000	-
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Date for your treatment and recovery needs. absorption value. The aqueous phase was treated by ultrafiltration, chemical precipitation and carbon petroleum and/or solid phase were blended with other materials and burned for its thermal This is to certify that materials from *busklen then bar out* of non-hazardous waste manifest number *-11011155* were received at Tradebe Treatment and Recycling of Bridgeport LLC. If you have any questions or would like to visit our facility, please feel free to contact us at (203) 238- 6745. Thank you for choosing Tradebe Treatment and Recycling of Bridgeport LLC The materials were treated at our facility at 50 Cross Street, Bridgeport Connecticut. The -19-2016 Certificate of Disposal **Ronnie Hazard Facility Manager** Ronnie Hazard

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Acknowledgment of Recycling Recycling Corp hereby acknowledges Bayshore Recycling Corp hereby acknowledges <i>The Recycling</i> Of <u>0.74</u> tons of Of <u>0.74</u> tons of Asphalt (Received on 01/11/16)	From the Clifton MGP Site Staten Island, NY January 19, 2016 AR: Facility ID Number 19031; Permit BOP130001 CLASS B: Facility ID Number 132397: Permit CBG110004 Keasbey, New Jersey
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Driver's Worksheet

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Crdor Number: 1109455

Manifest Number:

Start Date:	01/11/2916	End Deta: 01/11/2018	***********	Salos Office;	40	10 Robert G	eary / Korry Bujak
Customer N	lumber:	1100025003		Siop Sample I			
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Site location		SLIFTON NGP SITE 25 WILLOW AVE STATEN ISLAND NY 10305		Sita Contact H Phone Number			
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	3. Generator's Name and Mailing Ac		-		ator's Site Address	il different)	
	Attn: Katherine Vater One	Union Gas D/B/A Nationa Metrotech Center oklyn, NY 11201	l Grid/7	Clifto	on MGP site - en Island, NY	25 Will	
	4. Generator's Telephone Number (718) 9 5. Transporter 1 (Company Name)	63-5480 ALLIA TPA		B. State	Transporter's ID	2A-	-531
	William J. Lauer Corp.	NYR00015	7644	C. Trans	porter 1 Telephone	718) 981-8500
114	7. Transporter 2 (Company Name)	8. US EPA ID Number			Transporter's ID		
			1	E. Trans	porter 2 Telephone)
	9. Designated Facility Name and Site Address	10. US EPA ID Number	_	F. Stata	Facility ID	r	
	Bayshore Recycling 75 Crow's Mill Road Keasby, NJ 08832	N J 1 2 2 5 0 0	1522	G. Facili	y-Telephone (7	18) 98	81-4600
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Clean Water of New York, Inc. Daily Time Sheet

Date:		Employee Name: Last, First Signature:
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		06:00
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	Customer/Generator/Addre	ESS BROOKLYN UNIONGASCO, - STATENISLANDN.
	Product	Soil Soil
	Quantity (gallons or drums)	3 DRUM AUL
	Truck/Tractor	111m1
	Time of Arrival	07:24
	Time of Departure	08:00
CH SUC	ישמחשאר שסנ	
1	Customer/Generator/Address	S BAYSHORE RECYCLING KGASRY NIT
	Product	OILY DEBRIS
	Quantity (gallons or drums)	4 DRUM
	Truck/Tractor	MMI
	Time of Arrival	11:40
	Time of Departure	13:30
n Water	Time of Arrivol	
	Truck Post -Trip Inspection	13:48 OFFLOAD 7 DRUM
	Time Out	15:00 LADIMENTE
	Total Daily Hours	GUDO LOAD 44 FULLDRUM LUCASLANE

	90230749 015491632JJK 1308460		۰ ج			5		- 0050 0020
î	UNIFORM I AZARDOUS I. Generator ID Number WASTE MANIFEST NY D 9 8 0 5 3 2 5 7 1	2. Page 1 of	3. Emergency Respons 84-1873872	a Plione 3		t Tracking Nu	Approved, OMB N Inber	10210
	S. Generator's Name and Making Address CO D/B/A MATL GRID ONE METROTECH CTR ATT KUFFCK BROOKLYTHNY 11251 Generator's Phone: 718 763 5470	1-7 3	Generators Sile Addres	Idifierent B I AVE	an mailing addr	ess)		
	6. Transporter 1 Company Name TTR A 502255 TR A FUSE THE TOTAL LLC				U.S. EPAID	Number 2181668	9	
	7. Transporter 2 Company Name				U.S. EPAID	Number		12
	8. Designated Facility Name and Sile Address NEALITE, LLC 625 SARATIGGA STREET COHOES NY 12047 Facility's Phone:	0401			U.S. EPA ID	Number 3046922	25	11
	9a. 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Numbe HM and Packing Group (if any))	<u>л</u> ,	10. Conta No.	inera Type	11. Total Quantity	12. Unit Wt.Nol.	13. Waste Co	odes
CENERATOR	LARGOURSCEAR AND ADD BLYDT BOOK A FORCE	(3865	011	단어	sea	17	2051 Dali	8
CENE								
	3.						а на ц.	
	11 × 55 15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of II marked and labeled/placa/ded, and are in all respects in proper condition for transport a Exporter, I certify that the contents of this consignment conform to the terms of the attact I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a la Generator's/Offeror's Printed/Typed Name Action Frank Martinovic	ccording to applic hed EPA Acknow arge quantity gen	cable international and na ledgment of Consent.	ilonal governn jali quantily ge	vental regulation: nerator) is true.	hipping name, s, if export ship	ment and I am the P	ackaged, rimary lay Year
<u>∔</u> ;ب	E MILL ORID KIY		2	Sert	n	. <u> </u>	101	1 16
I INTL	Transporter signature (for exports only):	Export from 1.	J.S. Port of er Date teav					
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Types Name KM Transporter 2 Printed/Typed Name Transporter 2 Printed/Typed Name		nature 746 (A	n	lj	VOV.	ay Year lay Year
<u>Ĕ</u>	18. Discrepancy							
	18a. Discrepancy Indication Space Quantity Type		Manifest Reference	e Number:	Partial Re	election	🗌 Fāl F	Rejection
DESIGNATED FACILITY	18b. Alternate Facility (or Generator) Facility's Phone:				U.S. EPA ID	Number		-
SIGNATEL	18c. Signature of Allernate Facility (or Generator) 19. Hazardous Waste Report Management Method Codes (I.e., codes for hazardous waste tro	eatment, disposat	I, and recycling systems)				Month 1	Day Year
3	2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	-		m 18a _	4.		.:	
↓ EPA	Printed/Typed Name S. E. (1) (1		ALANATED F	B		11101	1011	AY Year 7/6 GUIRED)

(لالفانية)

Load has been inspected for container integrity.

Totes/CYB/Skid/odd shaped weights verified by supervisor.

(initials)

Drum Weights verified with stickered weights

Filled out Weight Sheet

(iziuisk)

(initials)

Total Drums : 1

Sales Ord	Sales Order: 1308460	PG/LN	Waste Stream	Pre-code	Proc Code	Bill Cd	Drum Type	Manifest	Weight	Weight	LP Drum #	*
D002079179	016491632JJK	M	1000130522	Ę			:	DM				
D002079180	016491632JJK	1/1	1000130522	LF				DM				
D002079181	016491632JJK	1/1	1000130522	Lç				DM				
D002079182	016491632JJK	1/1	1000130522	LF				DM				
D002079183	016491632JJK	1/1	1000130522	LF				DM				
D002079184	016491632JJK	1/1	1000130522	LF				DM				
D002079185	016491632JJK	ы	1000130522	Ļ				DM	_			
D002079186	016491632JJK	M	1000130522	두				DM			1	
D002079187	016491632JJK	М	1000130522	LF				DM	Ì		·	
D002079188	016491632JJK	1/1	1000130522	Ę				DM			4	1
D002079189	016491632JJK	1/1	1000130522	L.				DM	2	×		

Weight Sheet

10/17/2016

alle a TRADEBE



ł

Tradebe Lab Analysis

	Sample details		Batch Number		
Customer	Environmental Strategie	s & App			
Generator	CLIFTON MPG SITE		S002079178		
Material Code	LF				
Material Description	HAZ LIQUID COAL TAF	R DNAPL DRUMS			
Document Number (S.O.)	0001308460	·			
Registered On	10/31/2016	Validated On	10/31/2016		
Route		Status	Pass		
Manifest	016491632JJK	Waste profile	1000130522		

and the second second second	Results	SMONTE COMPANY S., INC.	William Navig
Component	Method	Result	Status
BTUs	ASTM D240-87	4,430 BTU/LB (5,000-100	E
Halogens	SW-846 9253	ND0.08 % (0-1.67)	
Specific Gravity		1.01 mg/l	
% Ash	ASTM D482 NON-NELAP	0.85 %	
PCBs, Total	ASTM D6160	ND2 MG/KG (0-2)	
Weight/Gal		8.4234 g/ml	
% Solids	ASTM D 1796-97 NON-NELAP	NA	
Compatibility	SOP#04-063 NON-NELAP	OK (OK)	
Sample Extraction	ASTM D6160	COMPLETE (COMPLETE	
Oxidizer	SPOT TEST NON-NELAP	NEGATIVE (NEGATIVE)	
Peroxides	SPOT TEST NON-NELAP	NEGATIVE (NEGATIVE)	
Sulfur	3050B/6010C NON-NELAP	NA (0-2)	

Additional comments	S101816017
Visual inspection	
Quality Control	

Lab Approval	Signature
Approved by	
Received by Relinquished by Analyzed by Comments	



Driver's Worksheet

Order Number: 1308460

Manifest Number: 016491624JJK

	وسقتهم والمراجع والمراجع والمراجع المراجع والمراجع			andra ta any Altrady and de		وروب ومرو المراد ويوسا الموطور مرورت	ا ماد الماد ماد المان المرد والله وروم وروم مرد المرد الم	
Start Date:	10/11/2016	End Datu:	10/11/2016		Salas Öffice:	4000	Robert Cl	aary / Kerry Bujsk
Customer	Number:	110002003	13		Stop Sample h	leededa		
Customer:	1	Environm: App	ental Strategles	<u>8</u> .				
Site lacatte	oit:	CLIFTON N	POSITE		Sila Contact N	ama:		
		25 WILLON	NAVE		Phote Numbe	t.		
		STATEN IS	LAND BY 10265	i				
Appointme	ant Timo:	07:00.00			Hours of Open	aliun:		
ob Descript	107	a of react these descents from	and the second					an a second s
And a second sec	and designate for any approximation of the second second second	Remove (12) 55g	drums of haz D	NAPL.Site	Contact: Ed Mi	ller 516.394	3.7495	
abor						·····		
ltem	Description		yee Name		Employee 1D	Sta	rt Time	End Time
0010	Pre-Trip	Roy					<u> </u>	
0020	Travel (Custo	omer)						
0030	Loading (Cu						1.45	10:45
0040	Travel (Facili							nggania angalamata-mananana arivitan ito at 1.11.11111
0050	Unloading (F	acility)						
0060	Pust-Trip	6			1			
ranoporteile				1 feet	t Number	Ortown	iter Start	Odometer End
0010	Description Tractor			15:71		Caoma	iler Glaft	
0070	Trailer							
guipment /								
	Description						UoM	Quantity
								1 /1
Commente								

Signature:								
		ALAT F	L					
α	- ^	ATIONAL (R SLID NY	r				
4	D.	10-11-						
Mal	m_						Tradebe Sign	dite That
Custame	er Signature/D	210	Contra	ci#/PO#:			ាររបស់ទេ ខាជីប	111111121214

Signatures verifies hours waiting and authorizes demurrage charges to be billed when applicable according to your quote os contract.

NORLITE CORPORATION

CERTIFICATE OF DESTRUCTION NYD 080 469 935

This document certifies that Norlite has accepted custody of the waste stream and shipment referenced below. This waste stream has been managed under our custody utilizing Federal and New York State approved RCRA Thermal Treatment Technology.

GENERATOR: Environmental Strategies & App MANIFEST 016491632JJK APPROVAL CODE: 1000130522

vn Surin

<u>1/4/17</u> Date Issued

NON-HAZARDOUS WASTE MANIFEST

Please type or print.				•		
NON-HAZARDOUS 1. Generator's	US EPA ID No. Ma	inifest Doc. No	.			2. Page 1 of
WASTE MANIFEST	N/A	149	87	5		1
3. Generator's Name and Mailing , Brooklyn Linic	on Gas D/B/A National Grid		eneral	or's Site Address (if different	
Attn: Katherine Vater One Ma Brookly 4. Generator's Telephone Number (718) 963-	etrotech Center yn, NY 11201 -5480	C C		n MGP site - n Island, NY		low Ave.
5. Transporter 1 (Company Name)	6. US EPA ID Number	B. St	ate Tr	ansporter's ID	2A-	-531
William J. Lauer Corp. 7. Transporter 2 (Company Name)	NYR0001576 8. US EPA ID Number	4 4 C. TI D. SI	anspo tate Tr	rter 1 Telephone (ansporter's ID	718) 981-8500
9. Designated Facility Name and Site Address				rter 2 Telephone ()
Bayshore Recycling 75 Crow's Mill Road	10. US EPA ID Number			cility ID		31-4600
Keasby, NJ 08832	NJ12250015	2 2	actaty	relephone (7	10) 90	51-4000
11. US DOT Description (Including Proper Shipping Nam	ne, Hazard Class and ID Number	12. Contai Number		13. Total	14. Unit	
^{a.} NON RCRA NON DOT SOLIDS		Number	rype	Quantity	Wt / Vol	H. Waste No. EPA
* o		007	DM .	3500	Р	STATE
C. C			्न			EPA
		<u> </u>				STATE
0						EPA
d						STATE
						EPA
I. Additional Description for Materials listed Above			Hand	ing Codes for Wa		STATE
2716-1579 - 55 - soil		5.	CIGNU	ing codes for veg	sies Listed	Abdve
8.	C	8.			c.	53
ь. -	-					
15. Special Handling Instructions and Additional Informati	d	b.			d.	
24 Hour Emergency Telephone # 8		Tr/T	1±.1	WM-1		
	Til	TEAR	Ar	1		
	IN-C Dut-		<u> </u>			
16 CENEDATOR'S CERTIFICATION IN THE	lut-	0812	A.	·		
16. GENERATOR'S CERTIFICATION: I hereby certify the in proper condition for transport. The materials described	on this manifest are not subject to feder	y and accurate al hazardous	ely de: waste	cribed and are in a regulations.	all respect	5
	1/ 0 -	^		-	•	(
Printed Typed Name ACPLI GATO	Signature A. K.					Mo Day Year
17. Transporter 1 Acknowledgement of Receipt of Materia	ak futur					1220/16
17. Transporter 1 Acknowledgement of Receipt of Materia Printed/Typed Name 18. Transporter 2 Acknowledgement of Receipt of Materia Printed/Typed Name	Signature	\overline{a}	1	Me J	9	Mo. Day Year
2 18. Transporter 2 Acknowledgement of Receipt of Materia	als		u.a.	1		
	Signature					Mo. Dey Year
19. Discrepancy Indication Space						р.
No.	R					
20. Facility Owner or Operator: Certification of receipt of h	azardous materials covered by this man	ifest except as	s notec	l in Item 19.		
R. chard X Heunode	Signature					Mo. Day Year
- Unara remark	~ 80					22016

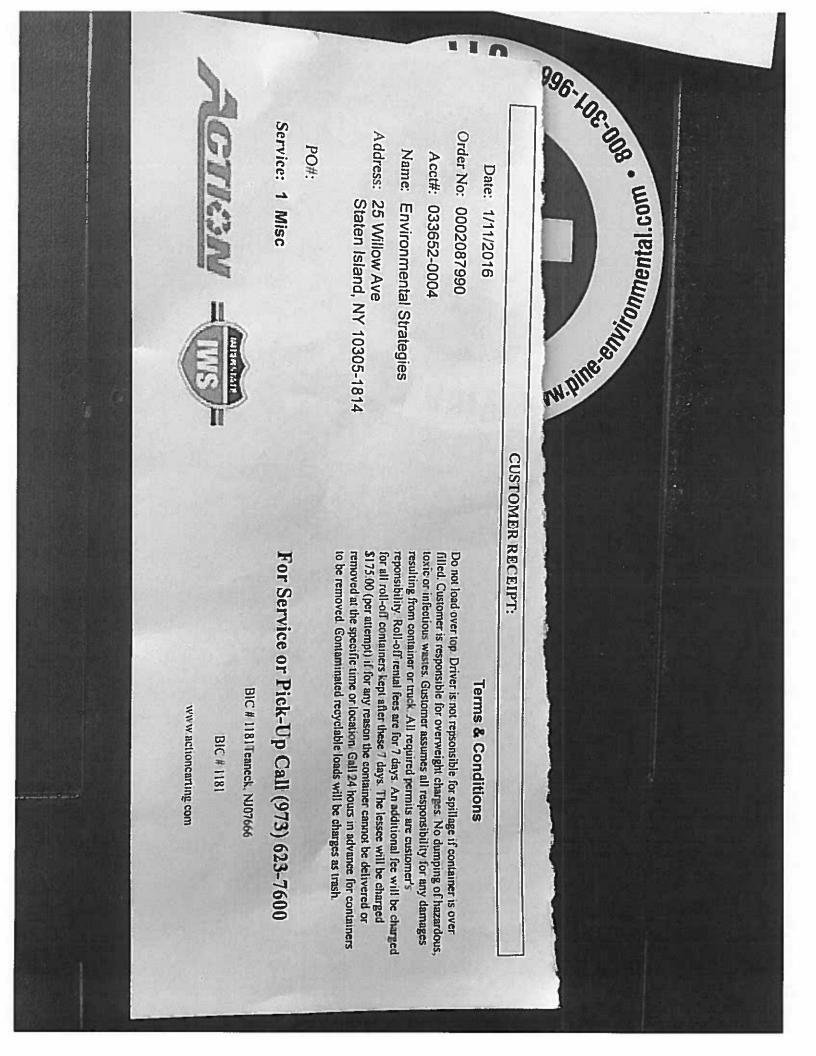
ORIGINAL - RETURN TO GENERATOR

÷

Bayshore Rec 75 Crows Mill PD Box 290	l Rd	Facility IB:	132397
Keasbey, NJ (98835		12720/2016
		line:	10:49:31 - 11:13:35
	EGA/BSH0822 495 UNION AVE SULTE ID MIDDLESEX, NJ 08846-	Bross: Tare: Net:	Scale 31480 lb In Scale 2 28180 lb Out Scale 5 3300 lb
Truck:	67625PA	CUYDs: 20	License: 67625PA
Carriers	NJ LAUER CORP		Truck Type: TANDEN
Profile: Generator: Compent:	2716-1579/EDGENATER PLAZA MBP SITE EDGEWATER PLAZA MOP SITE		Manifest: 149830 Remaining: 0.00 TN
Origin	Naterials & Services	Quantity Unit	
Staten Island	1027 NHCT DRUM	7.00 Units	
THE ABOVE I	S CURRECT IND NON-HAZARDOUS TO THE BEST C	F NY KNUHLEDGE	$\left(\right)$
Driver:		Weighmaster: Denn	

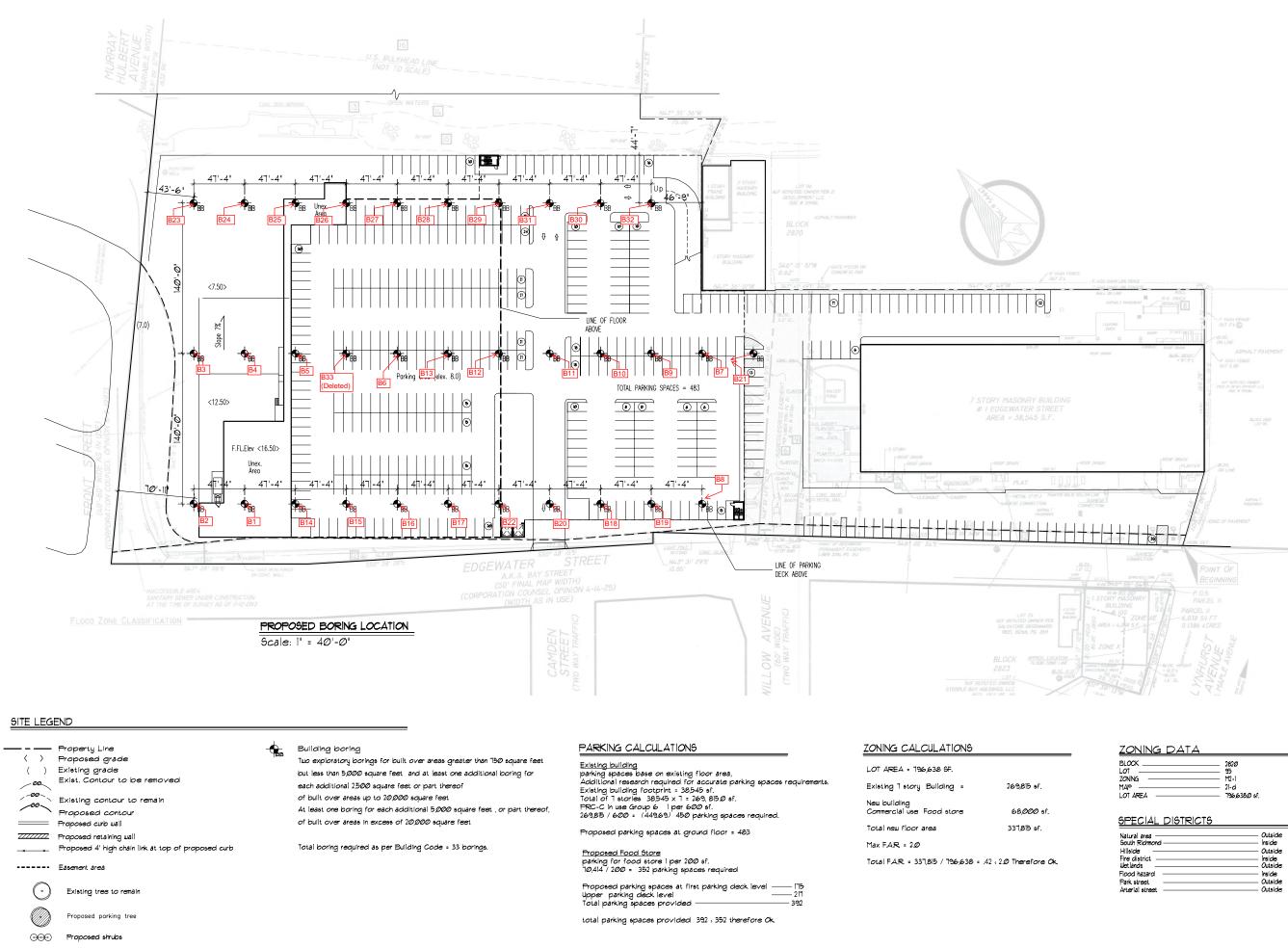
Acknowledgment of Treatment and Recycling
Bayshore Soil Management, LLC hereby acknowledges
The Thermal Treatment
Of <u>1.65</u> Tons of
Coal Tar Contaminated Soil (Received on 12/20/16)
From the Edgewater Plaza MGP site, Staten Island, NY
December 21, 2016 AIR: Facility ID Number 18437; Permit PCP100001 Bayshore Soil Management, LLC.
CLASS B: Facility ID Number 132397: Permit CBG110004 Keasbey, New Jersey

be charged \$175.00 (per attempt) if for any reason the container cannot be delivered or removed at the specific time or location. Call 24 hours in advance for containers to be removed. Contaminated recyclable loads will be charges as trash.	customer's reponsibility. Roll-off rental fees are for 7 days. An additional fee will be charged for all roll-off containers kept after these 7 days. The lessee will	filled. Customer is responsible for overweight charges. No dumping of hazardous, toxic or infectious wastes. Customer assumes all responsibility for any damages resulting from container or track. All required memory of the second s	Do not load over top. Driver is not repsonsible for spillage if container is over	Terme & Conditions			1070-000	Instructions: must removed opentop** behind gate*** 7-10 am Don 718-496-8321 or 10am-2pm Jen 914-530-0261	Acct No: 033652-0004	(732) 469-8888	25 Willow Ave	Environment of		\square		AGIIGN -	
Customer Signature:	End Time:	Start Time:	Container/Picked Up:	Container/Dropped:	Route: 116	Truck: 122	Driver: JADiaz	Directions: BAY ST	Service: Misc 1 RO - Miscellaneous Service	PO#: Time Window:	Requested By: matt	Billed To: Environmental Strategies	SERVICE DETAILS:	1/11/20.16 0002087990	DATE: ORDER NO:	Service Dispatch Ticket	

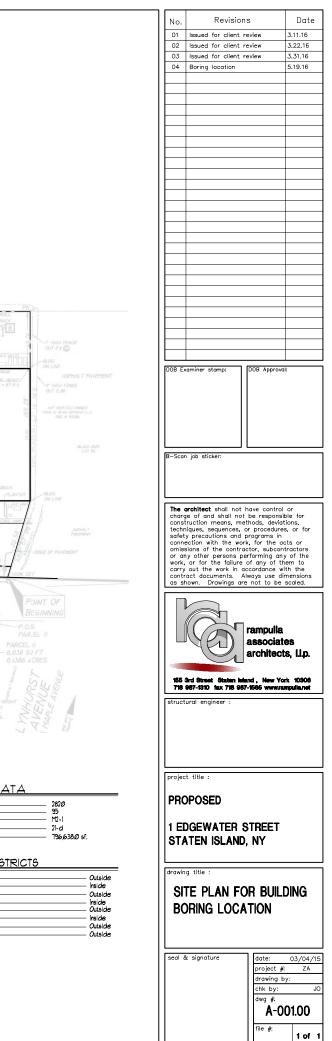


Appendix C

Boring Logs and Map, Oversight of Third Party Geotechnical Investigation (One Edgewater Street)



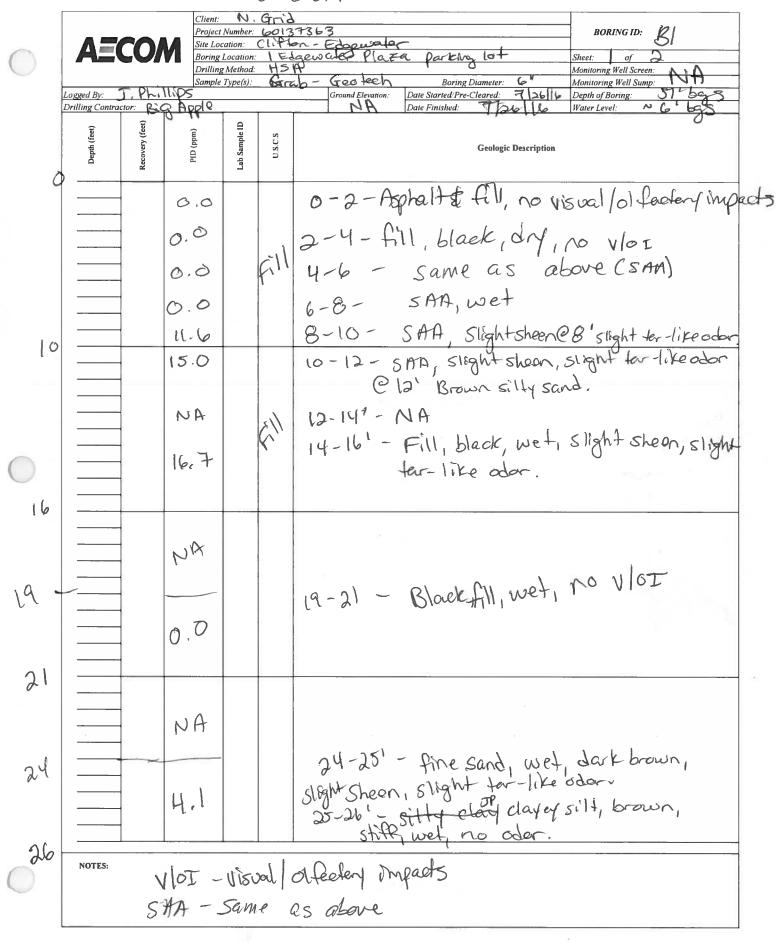
COPYRIGHT



<u>ZONING DATA</u>	
BLOCK LOT ZONNG MAP LOT AREA	

Natural area South Richmond Hilliode Frie district Wetlands Flood hazard Park street detroid unced	Outside
Arterial street	Outside

33' N offenceline 84" E offenceline



Client: National Grid 60137363 Clifter - Edgensafer I Edgensafer HSM- JSS B-1 BORING ID: Project Number: **AECOM** Site Location: 2 of (Boring Location: Sheet: Drilling Method: Monitoring Well Screen NA 64 Geotech-Grab ample Type(s): Boring Diameter: Monitoring Well Sump: Date Started Pre-Cleared: 7 26/16 Date Finished: 7 26/16 Jehillips actor: Bis Aple estive + bas g/S Ground Elevation: Logged By: Depth of Boring: Drilling Contractor: Date Finished: Water Level: ab Sample ID Recovery (feet) Depth (feet) PID (ppm) U.S.C.S **Geologic Description** 2 NA 29-31 - silt with Sand lenses, brown, Sm 29 wet, loose, no odor. 0.4 3 NA 34-36' - Silt, few large gravel, brown, stiff, wet, NO VIOI. mL 0.0 3(NA 39-41'- 5AA. 39 -O.D ML 41 NA 44-44-461- SATA, mL 0.0 46 NA 49-51 - SAA. 49 0.0 ML End of Bening 51' bg? 51 NOTES:

					30'	N of curb E offence
0	AE(Project Site Loc Boring Drilling Sample	Number: ation: C Location: Method:	tional 601 11ifte 1 E. Split	
			Apple to	Lab Sample ID	U S.C.S	NA Date Finished: TDTW Water Level: NO 598 Geologic Description
(0	*		4.1			0-2-Leyers of fill material, some brewn, Someblack, sand, silt, gravel, dry, NO VIOT. Concrete 1-21
ц			0.0		Fill	2-4 - Concrete 2-2' bgs, Sand & Silf W/gravel, Grewny dry, no VIOI. 4-6-544A.
6			5.1			6-8-fill-sand, sill, gravel, loose, dt brown, dry, no VIOI.
0			139*			8-10- SMA, wet. & driller used wo-40 on splitspæn which caused high pid reading.
10			25.9 NA			10-12 Sandy fill material wl gravel, black, slight sheen, slight Acclike odar, wet. Naphtha
"			1.9			14-16'- fill, black, gravelly, wet, no oder, no Visual.
16			NA			
19-			0.9			19-19.5' - fine sand, wek, dk brown, no V/OI 19.5-21'- sandy silt, little gravel, still brown, wet, no V/OI.
0	NOTES:	\	1[0I-	Ulsu	al / ol	factory impacts.

Р. Grid Client: 60137363 BORINGID: B~2 Project Number. AECOM CliPten Site Location: L Edgwale Plaza Split Speen/HSH grass-glasseen \bigcirc 2 Boring Location: Sheet: 2 of Drilling Method: Monitoring Well Screen NH 64 Sample Type(s): grab Boring Diameter: Monitoring Well Sump. red: 7/27/16 7/27/16 31'6 8ft Phillip Ground Elevation Logged By: Date Started/Pre-Cleared: <u>J.</u> Depth of Boring: Apple Drilling Contractor: Bia Date Finished: Water Level: Recovery (feet) Lab Sample ID Depth (feet) PID (ppm) USCS **Geologic Description** 21 NA 24-26 - sandy silt w/gravel, stiff, wet, brown, No V/DI. 24-0.6 26 NA 29-31- m-fsand littlesilt, loose, wet, bown NO VIOI. 29 -0.1 31 End of barling 311 bgs NOTES:

19 Ft 5 of fence 39 Ft E of fence

		39	FFEO			
			Client: Projec	Number:	tion 60	BORINGID: Q-Q
		CO /		cation: Location:		decuerter, Plana Sheet: of 2
\bigcirc			Drillin	g Method:	Spl	Monitoring Well Screen: NIA
	Logged By:	J.Ph	11005	Type(s):	Birt.	Ground Elevation: Date Started Pre-Cleared: 727/16 Depth of Boring: 51 285
	Drilling Contra	1 (Apple		T	ND Date Finished: 72714 Water Level: NB Ft bag
	Depth (feet)	Recovery (feet)	PID (ppm)	Sample ID	CS	
	Depth	Cecover	PID (Lab Sar	U S.	Geologic Description
0					0	
		-	0.1			0-2 - Asphalt& concrete
2		-	0.1			2-4 - Black fill material, clinker, dry, NOV/07
ц			1.3			4-6- SAA, concrete layer @NSI bgs, NO U/OI
6		-				6-8-5AA, NO VOI
8		-	0.9		2	
Ø]	0.0			8-10-Large gravel & silt, wet, NB V/OI.
lo			0,1			10-12- Clinker, wet, no VOI
12		-				12-141 - NA
110		-	NA			V. Stor
14		-	1.9			14-161 - f. sand, little silt, that trace argamics,
16						black, wet, slight for-like oder 16-191 - NA
O	,	-	NA			16-191 - NA
19 -	(96)	-		-		
			6.3			19-20 - SATA (14-16) 20-21'- peat, NO VIOI
21		-				
N.			WA			21-241-NA very Naphtha
24			- C			24-26'- f.sand, black, wet, slight the day silt @ 26', 2-3 sught dea 3 greas of slightsleen.
26		-	0.6			silt @ 26, 2-3 sught dea 3 was of slightsleer.
- ,,			NA			26-29 - MA Nephiha
29						29-30 - f. send, little fine gravel, black, wet, slight ter-like dor.
31			0.3			26-29 - MA 29-30 - f. Sand, "little fine gravel, black, wet, slight tar-like dor. 30-31' - Silty Sand, brown, wet, no V/0 I.
		-				
		-	NA			
34				-		
(-	6.0			34-36- Wet Send silt, & gravel,
36						
		2	NA			36-391-NA
39			I			
21	NOTES:	. 1			-1 /	1 A last marches
\bigcirc		V10]- '	Visu	ci	of factory impacts.
	L					

			Site Loc Boring Drilling Sample	Bornolity Bornolity Project Number: 60137363 ite Location: Chifton- Proving Location: 1 Edge weiter Plaza Sheet: 2 of Proving Method: Split Spean Split Spean HSA Ample Type(s): Ground Elevation: D Ground Elevation: D Ground Elevation: D Boring Diameter: Monitoring Well Sump:					
4	Drilling Contra (teet) HideO	Ctor: Kecovery (feet)	(udd) Cli	Lab Sample ID	U.S.C.S	Date Finished: HD:FLLG Water Level: NO ft bg S Geologic Description			
39 41 41			0.7 NVA			39-39.51 - Sand, loose, wet N U/OI. 39.5-41 - Silty clay, brown, wet, stiff, NO U/OI. 41-44-NA			
0)-C)		0.0 NA			44-46 - STH, some sand & growel, brown, STAPP, no VIOI. 46-49'-NA			
99			0.0			49-51' - SAA (44-46").			
51						End of boring 51 bgs.			
0	NOTES:								

A	CO	Site Loo Boring Drilling	Number:	CUP	Grid 37363 Boring Diameter: 6" Monitoring Well Surper: NA
gged By: illing Cont	Jessica ractor: Bi	Phillips 2 Apple		June	Ground Elevation: Date Started Pre-Cleared: 7728/16 Depth of Boring: 57 bgs NA Date Finished: 728/16 Water Level: 16 bg5
Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sample ID	U.S.C.S	Geologic Description
		8.7*			0-2' - Asphalti concrete, fill (clinker) black, dry, No 11/0 I. Note pid reading due to the uso of
	-	1.9		1	NO V/OID. Note pit reading due to the uso of windo, Jp tells them again no WD-40 on spoons.
	-	2.2		X	2-41- Fill- black clinker, black sand & gravel, N. 4-61 - Filt Fill, SAA
	_	1.0		``	6-81 - SAA, wet
		0.4		4	8-10- SAA
		0.4		X	10-12 - SATA
		NA			12-14-NA
					14-16-f. sand, trace organics, trace c. sand, black wet, slight naphthalene-like odor, slightsheen 11
		8.7			wet, slight naphthalene-like odor, slightsheen li
	_	NA			
		9.3			19-26-SAA, Slight rapitha-like oder & sheen 20-21-Organiz clay, gray, fibrous, organic odor, Novisu
		0.4			20-21 - Organie day, gray, tobrous, organic odor, Nervisu
	_	NA			
		6.3			24-25 - F. sand & silt, moderale sheen, moderate rophateile ador. 25-26 - SAA (20-21)
	_				25-26- SATA C20-21)
				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	and a problem to due and the free de
		3.1			29-30'- soft-silf, black, steen, slight noththa-like oder. 30-31'- silf, stiff, brown, NO VIOI.
		NA			
•					34-36- sandy silt, brown, wet, No U/OF.
		0.0			
		0.0			39-41-Silt, Clay & some sand, bown, No WIUI
NOTES:					of fadeny Impact

	AEC	:OM	Project	Number: sation: Location:	601 CINP	BORINGID: B - Y	
$\bigcirc$			Drilling	Method: Type(s):	COL	Jewater Plaza + Special Utsa - Sected Boring Diameter: 6"	Monitoring Well Screen: Monitoring Well Sump:
	Logged By: <b>5</b> Drilling Contracto	Phillip m: Biz	5 Apple		0	Ground Elevation: Date Started/Pre-Cleared: 7/20/16 Date Finished: 7/20/16	Depth of Boring: 57' 695 Water Level: ~6 625
.( )	Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sample ID	USCS	Geologic Description	8
41		1	PV				
44 - 46 ~		(	0.0			44-46 (picture board not-opdated) Silt low recovery, NO VIOI.	& gravel, stift,
49-		1	NA			49-511- SAA	
-		0	9.0				
51 -						End of boring 51'	
0							
ii.							20 20
							1
0	NOTES:						

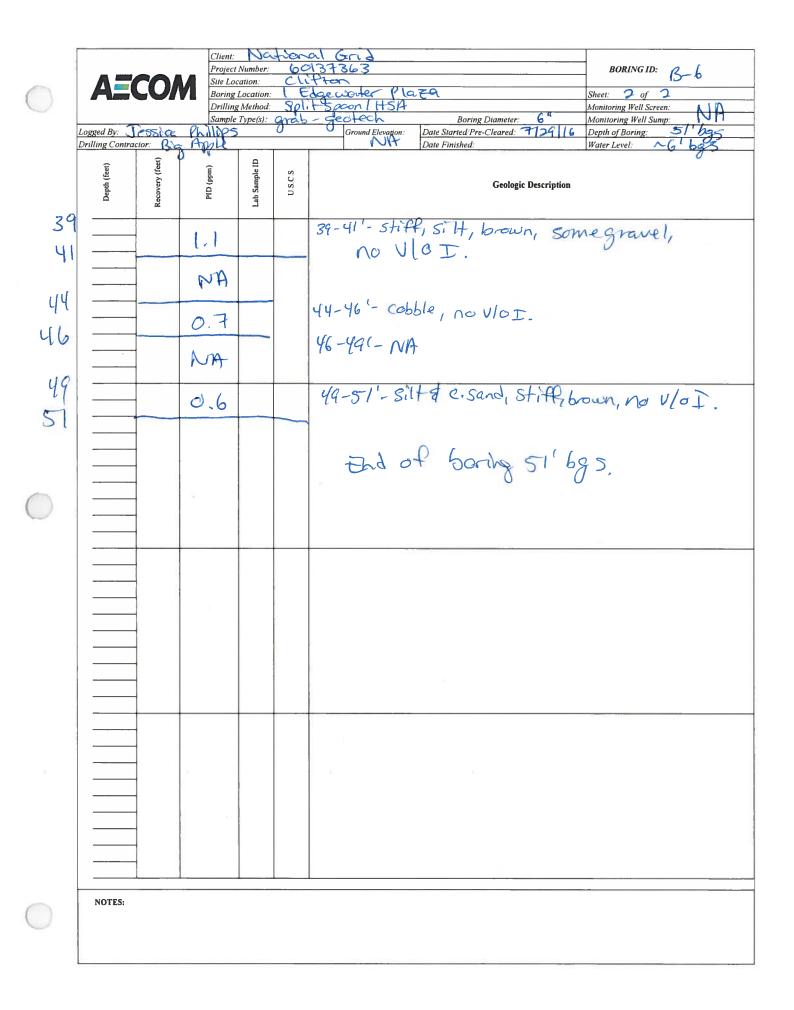
14's of fence dividing forking lot 135'E of Front St Fence line.

Г			Ch		ation	nal Grid					
			Pro	oject Number:	60	CI37363 BORINGID: B-5					
	AE	<b>(</b> 0)/		e Location:		Egewater Plaza Sheet: 1 of 2					
				lling Method.	Spl	Monitoring Well Screen:					
ŀ	Logged By:	Jessi	00 124	nple Type(s):	gra	Boring Diameter: 6 Monitoring Well Sump:					
	Drilling Contra		a App	le		Ground Elevation: Date Started/Pre-Cleared: 7128/16 Depth of Boring: 51.69.5 NVF Date Finished: Water Level: ~66.698					
	Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sample ID	U S.C S	Geologic Description					
			0,0			0-2' - Aphalt, concrete & fill (clinker), bleek dry, Nos V/o I 2-4'- fill-clinker SAA.					
ů			0.0								
6			0.0	2	_	4-6- SAA					
8			0,0	>		6-8'- Black fine Sand, gravel, Clinker, wet,					
10			NR	_		8-10' - No recovery					
12			17.1			10-121- silt, soft, black, wet, slight MLO. 12-14'- NA					
14			NA			14-16' - SAA, some sand, moderate NLO Esheen.					
014			23.4			(Bet					
						16-19 - NA 19-21 - Soft Silt, black, Very Slight NLO, wet					
21			0	7							
24			8			21-24 - NA 24-26 - f. sand, blackishgray, wet, slight NLC					
26			8.3	_		moderate sheen. 26-29 - NA					
29			NF	+	•						
31			(A)	2		29-31- Silt, brown, NO VLOI					
51			NA			31-34-NA					
34			0.1			34-36'- brown silt & gravel, no ybI.					
36			MA			36-391 - NA					
39	<u> </u>	•				39-41'- silt, bown, shift well, norvioI.					
M			0.0								
$\bigcirc$	NOTES:	V	'lo I	V	lísua	al lot factory impacts, Naphthallene -like odor - NLC					
			SAT-	F -	Sai	eme as above					

	Logged By: Drilling Contra	T.Phi ctor: Bi	Site Low Boring Drilling Sample	Number: cation: Location: Method: Type(s):		Venal Grid DI37363 However Special HSA Boring Diameter: 64 Ground Elevanon: Date Started Pre-Cleared: 7/D8/16 NA Date Finished: 7/1	BORING ID: B-5 Sheet: 2 of 2 Monitoring Well Screen: Monitoring Well Sump: AAA Depth of Boring: 51 595 Water Level: ~6 box
	Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sample ID	U.S.C.S	Geologic Description	U
41			NA			41-44-NA	
44 46	•		0.1			46-49-NA	
49	·····		NA 02			49-51 - SATA, (44-46)	
51			CoA			51' bgs End of bariv	5
							0
		~					
-							
D	NOTES:		H SA	-  -	lello	w Sten auger	

230' E of Font St. forceline 19' 5 of dividinglace (the

0	Logged By:		Site Loo Boring Drilling Sample	Project Number:       OIST363       BORING ID:       B-6         Site Location:       Clean       Sheet:       of 2         Boring Location:       Elegeworker Plaze       Sheet:       of 2         Drilling Method:       Split       Spoon       HSA       Monitoring Well Screen:         Sample Type(s):       gradb - Geolech       Boring Diameter:       6 ^{tt} Monitoring Well Sump:         UNDS       Ground Elevation:       Date Started Pre-Cleared:       7       24       Uppth of Boring:					
	Drilling Contrac (teet) Debth	Recovery (feet)	(undd) CI d	Lab Sample ID	U.S.C.S	Geologic Description	Water Level: 06 bg5		
10 12 14 14 14 14 14 14 14 24 24 24 24 26 29 31 31 34 31			SP.1 30.5 13.1 0.9 0.1 37.9 NA 6.9 NA 6.9 NA 10.5 1.8 NA 10.5		12 12	0-2 Asphalt concrete, fill (clinker, dry, no odor, no viscou impacts 2-4 - Fill, clinker, sand, gravel, bla 4-6' - SAA, brown sand stsilt @ 0 6-8 wet, sand & silt, black, N 8-10 - SAA. 10-13' - Sand, silt, trace gravel, we n20, sheen & few blebs throw 12-14'-NA 14-16' - SAA (10-12') wood in core by moderate - heavy sheen, moderat 20-21' - Organic layer (Peat) w) tra 0dor, no visual impact 21-24 - NA 24-31 - Organic clay, brown & g tibers, Organic color no 31-34' - NA 34-36 - SAA (29-31) silty sand & g	ack, No VIOF. G'bgs, Nor VIOT. NO VIOT. et, moderate to strong ughert. swell. Multiple datk gray, e NLO. ace organies, organic s. OT. vay trace plant VIOT.		
39		HSA - Ho ATA - Sc	ame a	s al	ane	- NA-Notapplicable Vloi - Visual / of factory ike oder	Impacts.		



23.9 N to fence National End Client: 60137363 Clifton BORING ID: Project Number: B-7 Site Location: AECOM Boring Location: Edge Water Plaza Drilling Method: HSA I Sprit Spoon Sample Type(s): brab - beotech of 2 Boring Location: Sheet: Monitoring Well Screen: N/A 6" Boring Diameter: Monitoring Well Sump: Date Started/Pre-Cleared: 73114 Ground Elevation: Sara Meissner Depth of Boring: Logged By: ~6 fbg 7311 Drilling Contractor: Big Apple Date Finished: Water Level: ₽ Recovery (feet (feet) (mqq) Sample U.S.C.S **Geologic Description** Dcpth ΠD Lab 6 0-2" Asphart, concrete, fill fine to coaser sand, dub, no odor, no visual imparts 0.0 2-4- - light brown fto c sond and silt. Some grand 0.0 4-6- Black sardy silt, n. VI. FILL 0.2 6-8' SHA some gravel, no VI. wet 4,1 8-10' SMA Some silt sclarg. Black no ST, wet. 3.2 10-12' No recovers (re-do. Brown fto ( Sand, sime granel, site with b 0:0 FILL 12-14 NA 37.1 14-16' Black, sandy silt, sheen & fursless, odor wet ¥ Natile -19-21 brig, fto c sad silty day with grand NO 2.1 10 Port. 24.26 Red - brown organiz pear layon wood some gray brown f- brand no odor. wet. 3.7 29-31 Grey f silty Sand Some grey clay Trace pront Profit, ogowir odor. NO VI. 3.7 Bo 34-36 Brown on to a sand some growel, some silt. No VI, no oder. 0.2 SAA NO VI no odor. 39-41 0.4 40 NOTES:

	[		Client:			National buil	
		Project i			BORING ID: 2-2		
		Site Loca Boring	ation: Location:	E	laewater Plaza	Sheet: 2_of Z	
0				Method:	t	ISAI Split spoon	Monitoring Well Screen:
V	Loog et Pur	Logged By: SM			6	SA Solit Coon rab - Sester Boring Diameter: 6" Ground Elevation: Date Started/Pre-Cleared: 7131 16	Monitoring Well Sump:
	Logged By: Drilling Contra	ctor:	is App	N		Date Startew Pre-Clearea:	Depth of Boring: Water Level: ~ 61
			•	′ I			· · · · · · · · · · · · · · · · · · ·
	Depth (feet)	Recovery (feet)	(mqq) (JI4	Lab Sample ID	U.S.C.S	Geologic Description	
	Dept	secov	OId	ab Se	'n	Corregio 2 con prom	
	0	<u> </u>					
	·		0.4				
						44-46 Brown fto c sand, some no odon no vI.	- silt, some gravel,
			1.1			no odon no VI.	
						510.0	
	, o		0.2			49-51' SAA. No oder no VI. EOBC 51' 595	
						EOBC SI bas	
$\frown$							
$\bigcirc$							
	٥ — – ،						
	£2						
			15				
	NOTES						
0	NOTES:						
	L						

83.3 E to grand house

Apple       N/h       Dur mining       Pisitiv       Ware Load       ~ 6453         0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0		Boring Location: E		BORING ID: B-8 Sheet: of Z- Monitoring Well Screen: Monitoring Well Sump: NA Monitoring: 51
000000000000000000000000000000000000			N/A Date Finished: 71	
4.1 0.4 1.4 3.3 FIL 2.4 3.3 FIL 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1	_	D (ppm) Sample ID	Geologic Desc	cription
0.4 3.3 4.4 SAA M VI. 4.4 SAA M SAA Some Sad Some Sad Saa Saa Saa Saa Saa Saa Saa Saa Saa				s and, concrete, dry, impacts.
3.3 Fill 4.9 Brown fto c sand, some gravel. No VI. 2.1 8-11 Red Lorel (12), light brown fto c sand (1/2 dark borown fto c sand (1/2 dark borown fto c sand grav dark borown fto c sand grav 10-12 Black I gray citty sand, oder, blekk VI. 12-14 NA 14-16' Black I gray fto c sand some silt for viet No oders or VI. - Native - 19-21' brey fto c sand some silt for 0.7 0.7 000V, m VI. 0.3 24-26' Brown grey mto c sand some silt for 14-26' Brown grey mto c sand some silt for silt for 15-26' Brown grey mto c sand some silt for sil				
2.1 2.1 3.11 Red Lonch (1/2), light boom for c sand (1/2 dark woom for c sand good 4 38.2 10-12 Black I gray citty sand, oder, blet.r. vT. 12-14 NA 14-16 Black I gray for c sand, some sitt for viet wooders or VI. Native - 19-21 brey for c sand, some sitt for 0.7 0.7 24-26 Brown grey moder, no VI. 0.3 24-26 Brown grey moder, no VI. 29-31 SIAM, no oder, no VI.			10-18 Brown fto c sand, 5	one gravel NOVI.
2.0 2.0 14-16' Black orang f to c sand some silt & graver, No 0.7 0.7 0.7 0.3 24-26' Brown-grey m to c sand some silt & graver, No 0.7 0.3 24-26' Brown-grey m to c sand some silt & graver, No 0.7 0.7 24-26' Brown-grey m to c sand some silt & graver, No 0.7 0.7 24-26' Brown-grey m to c sand some silt & graver, No 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7		-	8-11 Red Lorele (12), light	brown f to c sard (1/3) Loronn f to c sand grand
2.0 2.0 14-16' Black loray f to c sand some silt f graner. Native - 19-21' brey f to c sand some silt & graner. No oder, m VI. 0.3 24-26' Brown grey m to c sand some silt & g 24-26' Brown grey m to c sand some silt & g added. No oder, no VI. 29-31' SIGM, no oder, no VI.	* _			d odor, bleer. VT.
- Native - 19-21' brey f to c sand some silt & graver, No oder, m VI. 0.3 24-26' Brown grey m to c sand some silt & Deter. No oder, no VI. 29-31' SHA, no oder, no VI.		1 1	14-16 Black Gray fto c si	and some silt of gravel
0.3 24-26 Brown-grey m to c sand nome sitt fg 0.3 24-26 Brown-grey m to c sand nome sitt fg 0.1 29-31 Stan, no oder, no vI.				
0.3 24-26 Brown-grey m to c sand nome sitt fg 0.3 24-26 Brown-grey m to c sand nome sitt fg 0.1 29-31 Stan, no oder, no vI.			19-21 brey f to c sardy so	ome silt & graner, No
6 0.1 29-31 SHA no oder, no vJ.		0.7	oder, m VI.	
	· · · · · · · · · · · · · · · · · · ·	0.3	24-26 Brown-grey m to	c sand some silt form
				ж.
0.7 No oder, no VI	b	0.1	29-31 SBA, no oder, n.	≥ VJ.
		0.7	34-36 Brown F to c sand No oder; no	some sitt, somegare
0.2 39-41 SAM, no odog no VI.	D	0.2	39-41 SARA, no odon no	, VI
NOTES:	NOTES:			

C

Nahonal 6nd 60137363 Client: BORING ID: Project Number: B-8 AECOM C1.7401 Site Location: Edgewater Plaza HSAI Spit Span prov - geotech Sheet: 2 of 2 Boring Location: Monitoring Well Screen: Drilling Method: N/A Monitoring Well Sump: Sample Type(s): 6000 -Boring Diameter: Sara M Rig Date Started/Pre-Cleared: 93116 Depth of Boring: 5 Ground Elevation: Logged By: <u>Fsa</u> Drilling Contractor: Apple Date Finished: 2/7/16 Water Level:  $\sim$ Recovery (fect) A PID (ppm) Depth (fect) Lab Sample U.S.C.S **Geologic Description** 0 0.2 44-46' Red brown fto c sond some sitt of gravel. Dense NO oday no VI. 0.3 SAA, no odor no VI. EOB@ 51' bgs 49-51 00.1 44 NOTES:

	<b>CO/</b>	Sile L Borin Drilli Samp	ct Number: ocation g Location ng Method le Type(s):	600	National Grid - 60137363 Cliftin Edgewater Place Splitspin Splitspin Boring Diameter: 6" Monitoring Well Sump: N/4
By:			ssn		Ground Elevention: Date Started Pre-Cleared: 7-131116 Depth of Boring: 57 Date Finished: Water Level: ~
Contra	Recovery (feet)	Big (mdd) Gld	Lab Sample ID	USCS	Geologic Description
-		3.3 2.8			0-2' Asphalt concrete light snown f to c sond, brack dry, no odor, No VI 2-4' SAM no odon no VI.
		7.5 8.1	F		2-4' SAA no odon no VI. 4-6' Grey-black fincto c sand some sitt, clay, gravel, coal chunks. Dry, no odon 6-8' SHA, wet, slight odor. No VI 8-10' NO recovers-
	*	28.9	-		10-12' Black of to c Sand some silt & gravel. Wood pieces coal chink I. odor, VI. wed.
		6.2	- P	u 	14-16 SAA, no odor, organic smell. Wet.
				-	Native -
	-	3.4	-		19-21 Black Sitty Ane Sandy some wood, organiz olar, no VI.
		2.6	-		24-26 brey to light brown f to c sand some svity day of gravel. no odst, no VI
		1.3	••••		29-31' brey - black fto c sand, some silt & gravel, no odon No VI.
		0.3	-	20	34-36 Grey f to c sand, some s It & gravel. No aday no vI.
		0.7	-		39-41 SAA no odor, no VI

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AEC	ОМ	Client: Project Number: Site Location: Boring Location Drilling Method.	Ed	honal bud 0137367 gewater Placa htfton iff ( Split Spoon	BORING ID: B-9 Sheet: 2 of 2 Monitoring Well Screen:
Logged By:	Sam	Sample Type(s):	670	Ground Eleyation: Date Started Pre-Cleared: PS []	Monitoring Well Screen: Monitoring Well Sump: Depth of Boring:
Drilling Contractor.	Recovery (feet)	PID (ppm)	U.S.C.S	Ground Elevation: Date Started/Pre-Cleared: Date Finished: Geologic Description	Water Level:
		(		14-46 Brown firsto coarse & clay and fire grav	SAND, sime silty ol. No odor, No VI
		.3		19-51 SAA. No odan no	VI.
				EOB @ 51' Lgs	
00					
	2				
NOTES:		I			

124.4' E to cursdividing Parking seaces from Elgewater Place (A) National bid Client: 60137263 Clifton Project Number: BORINGID: B-10 AECOM Site Location: Edgeward Planch HIA I Split Spoon brab-beater Bori Boring Location: Sheet: of 2 Monitoring Well Screen: N/A Drilling Method: Sample Type(s): Boring Diameter: Monitoring Well Sump: Sara Me: 15NV JP Ground Elevation: Big Apple NIA ~12 ~10 713114 Logged By: Date Started/Pre-Cleared: Depth of Boring: 595 81.116 Drilling Contractor: Date Finished: Water Level: (feet) feet) (mqq) ab Sample U.S.C.S Recovery Depth ( **Geologic Description** PID 0 0-2' Asphabt, brown fto c sond, some orth gravel, concrete, dry, no odor, NO VI. 2.4' SIAA no odor, no VI. 0.4 1.1 4-6 brey f to c sand so me silt & gravel. No odor, moist. No VI. FILL 2.8 6-8' SAA vet. 1.0 8-10' Black silty clay, some f to c sand, slight \$ 10.5 10 10-12' Black Silty day. No odog no VI. 2.4 AU 14-16' SAA, no odor, no VI. 1.4 - Native -19-21' Black fine sitty SAND some grand, strong odor, VI. oily sheen 39.6 ⊁ 24-26 Brown med to c sand some orbit of gravel, no odor, no vI. 1.8 295.31 29-31 - SAA 29-29.5', brown. stiff silt, no V/aD. 0.1 31-36 - Silt, brown, no VIOI. 0.1 39-41- SAA (34-36) 0.3 40 VOI- Visual / of factory impacts. NOTES:

27.1 N to the

Citent: National Grid Project Number: V0137363 Site Location: Clietton Boring Location: Faceware (127A Drilling Method: NGA - Split Spoon Sample Type(s): broz - GtoteC Boring Diameter: V Sample Type(s): broz - GtoteC Boring Diameter: V Sample Type(s): broz - GtoteC Boring Diameter: V Logged By: Sora Me: Ssner JTI Ground Elevation: Date Started Pre-Cleared: 713116 Drilling Contractor: Boring Diameter: V Interview Started Pre-Cleared: 713116 Drilling Contractor: Boring Diameter: V Ground Elevation: Date Finished: BIIIIG (1) (1) (1) (1) (1) (1) (1) (1)	BORING ID: B-10 Sheet: 2 of 2 Monitoring Well Screen: N/A Monitoring Well Sump: Depth of Boring: 51 Water Level: ~ 6 ~ 53
Drilling Method:     HSA - Split + Spoon       Sample Type(s):     brog - (510+6C)       Boring Diameter:     0       Logged By:     Some Meisson - [JT]       Drilling Contractor:     Boring Diameter:       Image: Split - [JT]     Ground Elevation:       Drilling Contractor:     Boring Diameter:       Image: Split - [JT]     Ground Elevation:       Drilling Contractor:     Boring Diameter:       Image: Split - [JT]     Ground Elevation:       Drilling Contractor:     Boring Diameter:       Image: Split - [JT]     Ground Elevation:       Image: Split - [JT]     Date Finished:       Split - [Strift]     Split - [Strift]       Image: Split - [Strift]     Split - [Strift]       Image: Split - [Strift]     Split - [Strift]       Split - [Strift]     Split - [Strift]       Split - [Strift]     Split - [Strift]       Image: Split - [Strift]     Split - [Strift]       Split - [Strift]     Split - [Str	Monitoring Well Screen: N/A Monitoring Well Sump: Depth of Boring: 51
Sample Type(s):     brog -     62004CC'     Boring Diameter:       Logged By:     Sample Type(s):     brog -     62004CC'     Boring Diameter:       Drilling Contractor:     Big Apple     Ground Elevation:     Date Started/Pre-Cleared:     713116       (1)     (1)     (1)     SC     SC     SC     SC       (1)     (1)     (1)     SC     SC     SC       (1)     (1)     (1)     SC     SC       (2)     (2)     (2)     SC     SC       (2)     (2)     (3)     (3)     SC       (2)     (3)     (4)     (4)     (4)       (2)     (3)     (4)     (4)       (2) <td< td=""><td>Monitoring Well Sump: Depth of Boring: 51</td></td<>	Monitoring Well Sump: Depth of Boring: 51
Logged By:     Date Started/Pre-Cleared:     Image: Cleared:       Drilling Contractor:     Image: Cleared:     Image: Cleared:       (1)     (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (1)     (1)       (2)     (1)       (2)     (1)       (2)     (1)       (2)     (1)       (2)     (2)       (3)     (1)       (4)     (2)       (5)     (2)       (2)     (2)       (3)     (2)       (4)     (2)       (5)     (2)	Depth of Boring: <b>51</b>
Drilling Contractor: Provide Contractor: Date Finished: Date Finished: Date Finished: Date Finished: Ceologic Description Geologic Description	
Cecovery (feet) Pepth (feet) C S S S P Sample ID U U S C S P Sample ID U U S C S P Sample ID C S P SAmp	
see above	
41 41-44'- NA	
44 O.O 44-46 - Sitt, some gravel, brauer	i, no vloI
46-49-NA	
49 49-51- SAA (44-46).	
$\mathbf{S}^{-}$	
End of banky 51' by s.	
NOTES:	

171 Wof curb (restside officit)

26' S of fence danding lot.

_					L	all S of tence deriding lot.			
			Clien		liona				
_				ct Number: ocation:	601	37363 BORINGID: B-11			
	AE	JUA	· / · · · · · · · · · · · · · · · · · ·	g Location:	1 8	Deurale Plate Sheet: of 2			
				ng Method	HS	A Solid Spoon Monitoring Well Screen:			
ŀ	Logged By:	Tessico		le Type(s):	grab	Ground Elevation: Date Started/Pre-Cleared: 81116 Depth of Boring.			
	Drilling Contrac	tor: Si	gApple			NA Date Finished: BILL Water Level: NY bas			
			v						
	Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sample ID	S.C.S				
	Depth	cove	PID (	b Sar	U.S.	Geologic Description			
ļ		Re		La la					
Ŷ	ッ――					0-2- concrete & asphalt sand silt aravel brown			
			0.3			0-2- concrete & asphalt, sand, silt, gravel, brown, no VIOI			
2									
			0.1			2-4- Sand, silt, gravel, NO V/OI, Very little recovery.			
Ч						4-6'- 5AA, wet.			
<u>n</u>			0.3						
6			01			6-8'- m-fsand, little silt, wet, brewn, No EV/OI.			
0			0.1			6-0 M-FJano, Millio Stir, Veci Jorowill			
8			0.0			8-10'-SAA (6-8)			
			0.0	1					
10			0.0			10-12'- Silt& sand, brown, wel, few bands of black			
10			0.0			10-12'- Silt& sand, brown, wel, few bands of black staining, very slight NLO.			
12			NA			12-141- NA			
14			IVH						
			0.5			19-10 - t. Sand to C. Sand & gravel, wet, Slight NLO			
16			0.5			14-16' - f. sand to c. sand & gravel, wet, slight NLO No visual impacts.			
			- 10						
			NA						
19						19-205-f. scad little as could be all all a los			
* *			0.			19-205-f. sand, little m. sand, brawn, wel, no Visual impacts, slight NLO, peat @ 20.5'-21; organic oder.			
21						start le 20.5 - 21; organic oder.			
-			TA CIA.			21-24-NA			
			NA			2426'- Silt & sand, no V/OI.			
24-									
			0.1			24 26 Sin a Sonia, no VIO I.			
26+									
			NA						
~~~			1 +11						
29			0.0			29-31' - brown silt, gittle gravel, no VloI.			
31			0.0						
31						31-34- MA			
			NA						
34	3 3								
ST			0.0			34-36' - SAM (29-31')			
36									
00			A 1 A			36-381-NA			
			NA						
39					+	29 UI SAM			
			O.C			39-41 - SAA			
YI			<i>c</i>	0 0 0	1-1-1				
	NOTES:	SAA-	Same	15 0	0				
	١	JO I	- Visi	al / ol	tact	ery impacts			
L	1		naphthe	utere-	inne				
			1						

ſ			Project	Na- Number:	60	2137363 BORINGID: R-11
D	AE		Drilling	Location: g Method:	HSP	Solit Span Monitoring Well Screen:
	Logged By:	Tessica	Sample Phillups	Type(s):	grat	Ground Elevation: Date Started Pre-Cleared: BILLS Depth of Boring: S1'555. Date Finished: BILLS Water Level: ~4'55
	Depth (fect)	Recovery (feet)	PID (ppm)	Lab Sample ID	U S.C S	Geologic Description
41			NA			41-441-NA 44-461- Silt, brown, littlegravel, stiff, no V/OI.
46			NA			46-491- NA
49			0.0			49-511 - SAA CUY-46).
51						End of bering 57 bgs
D						
					1	
	 			3		
	NOTES:			. <u> </u>	I	

2015 of dividing lence

						224' wot curb
5			Client: Project	Number:	tion	BORINGID: DIS
-	ΛΞ	CO		cation:	$-C(\delta$	fton D-d
()				Location: Method:		Edgewater Plaza Sheet: of 2 A-95plit-5000n Monitoring Well Screen:
~		TA and	Sample	Type(s):	Grad	Boring Diameter: 6 Monitoring Well Sump.
	Logged By: Drilling Contr	actor: B	2 Phillips		<u> </u>	Ground Elevation: Date Started Pre-Cleared: 82/16 Depth of Boring: 511-535 Date Finished: 8216 Water Level: 612-3
a	Depth (feet)	Recovery (feet)	O (mqq) OI9	Lab Sample ID	U.S.C.S	Geologic Description
2			119			0-2 - Asphalt, concrete, fill (sand, gravel, clinker) dry, No oder (high pid reading). No visual.
e y	· · · · · · · · · · · · · · · · · · ·	-	209			2-3.5' - Sand, gravel, clinker, dry, no odor (hyppil) 3.5-4' - dk brown, silty clay, no odor.
6			NA			4-6'- No recovery
8			5.7			6-8-SAA (3.5-4), wet. 8-10-No recovery.
(0			NA			10-12- Soft silty elay, dk brown, wet, no edor. Nousual.
. 10			2.0			12-14-NA
M			NA			14-16' - sandy silt, little gravel, lightgray web slight NLO, slight sheen @ x 15.5!
10			84			slight NLO, slight sheen @ \$ 15.5.
0		-	NA			
19			2.1			19-21'- Pead ordente oder.
· 21			NA			21-244 - MA
2			0.8			24-26'-SAA(19-21) site @ 26' bgs, no VIOI.
2(
29			NA	_		29-31- silty sand, brown, wet, No 1/01.
31		-	0.4			
		-	NA			31-34-MA
34			0.2			34-36' - SAA (29-31)
. 36			NA			36-391-MA
39			0.2			39-41-5144(29-31)
41				1		
	NOTES:	Itsa	-Hollows	stem	arger	V/02 - Visual / d factery impacks.
		NA	-not a	Rita	15-2.	- B
at						j4

National Grid Number: 60137363 ation: Clifton Client: B-12 Project Number: BORING ID: AECOM Site Location: Boring Location: 1 Edgewater Plaza Drilling Method: HSA Splitspeen Sample Type(s): grab-geolech Sheet: 1 of 2 Monitoring Well Screen μţ Boring Diameter: 64 Date Started Pre-Cleared: 82/16 Monitoring Well Sump: ST'bgs 152 Logged By: Jessica Chillips Drilling Contractor: Big Apple ind Elevation Depth of Boring: ~6' bgg 812/16 Date Finished: Water Level: Recovery (feet) 209 ab Sample ID Depth (feet) PID (ppm) U.S.C.S **Geologic Description** 41 41-44'- NA NA 44-46 - silt, gravel, Grown, wet, nov/0 I. 44 0.4 46 46-491 - NA NA 49-57 - SATA-(44-46) 49 02 51 End of boring 51 bgs. NOTES:

24' SofdiWalls Ance 273' Workeurb.

Drilling Contractor (a) (a) (b) (c) (c) (c) (c) (c) (c) (c) (c	Secovery (feet)	PID (ppm)	U S.C.S	Geologic Description Geologic Description 0-2'- Asphalf, concrete & fill, dry NO V/OI. (high pidbane as B-12)
10 12 14		997		(high piddame as 8-12) 2-4'- Fill-sand, gravel, clinker, dry, noulot. (high pid) 4-6'- SAFT (2-4) 6-8'- sand later, day & peat, gray, arganic odar, no Nisual impacts, wet.
19		5A 9.1 NA 9.1		8-101-Norecovery 10-12' - Silty clay, dk brawn, Wet, no Vlot. 12-H1' - DIA 14-16' - SATA (10-12) 19-21' - f. Sand, dk brawn, slight NLO & moderate sheen.
21 24 26 29 29 31		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		21-24'- INA 24-261 - SHAA (19-21) 26-29'- NA 29-31'- Peat (29-30) sandy silt, brawn, no UloI BO-211 31-34'-NA
34 36 39 41 NOTES:	ttsAlss NOI	D.D NA D.O - Hellowski - Uisual/	ol fec	34-36'- sill, stiff, braun, novlot. 36-39'- NA 39-41'-SAAC34-36). Uger (Split spoon. remeasured headspace from geotech sample jars (that is the # to the right of high the st. eres high. (bung lest showed pid was off)

Client: National Grid Project Number: 60137363 Site Location: Cliften Boring Location: Legenster Plang Drilling Method: Gridanss Sample Type(s): Geolegrab Willing Cound Elevation: BORING ID: B-13 AECOM 2 of Sheet: 2 Monitoring Well Screen: Sample Type(s): Ca Phillips Big Apple NF Ý Monitoring Well Sump: Boring Diameter: 6 4 Date Started/Pre-Cleared: 8 2/1/4 Date Finished: 8 2/2/14 Boring Diameter: 46.69 Logged By: Jassica Ground Elevation: Depth of Boring: Drilling Contractor: Date Finished: Water Level: Recovery (feet) Ð Depth (feet) PID (ppm) U.S.C.S Lab Sample **Geologic Description** 41 41-441-NA NA 44-461- cobble - refusal 44 0.0 46-49-NA 46 NA H 46'bgs due to refleal NOTES:

29's of curb 132' Eoffence

			Site Low Boring Drilling Sample	Number: cation: Location: g Method: Type(s):	Clif Ez Hs	0137363 Pto Dowater Plaza SAP 155 Monitoring Well Screen: Monitoring Well Sump: Monitoring Well Sump: Monitoring Well Sump: Monitoring Well Sump:	
	Logged By: Drilling Contra (199) Hida O		0.7 0.7		U.S.C.S	Geologic Description Ground Elevation: Date Started Pre-Cleared: 8 311/2 Depth of Boring: 51/538 Date Finished: 8 311/2 Water Level: ~9. b38 Geologic Description Geologic Description 0-2' - Asphalt, concrete, fill (t.sand, silt & Clinkar) dry, no Vlo I. 2-4' - f-c sand & silt, brown, Orf, no Vlo I. 4-6' - Sand & silt, stiff, brown, moist, no Vlo I.	
6 8 10 12 14 16			0.2 0.4 0.6 11.7 NA 0.6 NA			6-8'- SAA, Crusted cobble, No VICE. 8-9'- SAA(4-6) 9-10'- fill - Sant, growel, Unker, black, wet, norVIOE. 10-12'- fill - concrete (crusted) sand, clinkar, wet, moderate NLO. NorVisual impacts 12-14'- NA 14-16' 16-19'- NA	
19 21 24 26 29			4.7 NA 2.1 NA			19-21- Soft silt, sand & gravel, brown, wet, sligh NLO, no visual impacts. 21-24-NA 24-26'- SAA (19-21). 26-29'- NA 29-31'- Stiff silt brown Og V/OT	L
31 34 36 39			2.1 NA 1.2 NA			29-31'- Stiff silt, brawn, no Vlot. 31-34'-NA 34-36'- soft silt & sand & fine gravel, brown, wet, n 36-39'-NA 39-41'- SAA (34-36)	vov/ct.
Ч (NOTES:	NA .	ss - Holl Not appli	cable.	-	Auger/splitspoon NLO-naphthelene-like oder.	

	_		Client: Project	Number:	BORINGID: B-14						
1	AE	201		the Location: (1)+1-2-0							
()				Location:		bewaler Plaza Sheet: 2 of 2 Nonitoring Well Screen: NIA					
			Sample	g Method: Type(s):	ach	-goalech Boring Diameter: 6" Monitoring Well Sump					
	Logged By:	Jassi	ica thi	1105	0	Ground Elevation: Date Started Pre-Cleared; 83 6 Depth of Boring: 51 65					
	Drilling Contra	tor: Bi	3 Apple	> \		MA Date Finished: 8 3 16 Water Level: ~ 9 63					
	Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sample ID	uscs	Geologic Description					
41	De	Reco	H	Lab							
• •		:	NA			41-441-NA					
ЧЧ			0.5			44-46'- silt, seft, wet, brewh, noulot.					
46			NA			46-491- NA					
49						49-51'- stiff silt, little sand, brown, wet, no V/0I,					
51											
						End of boring 51' bgs.					
				-							
		-									
\bigcirc	NOTES:										
			*								

28' Nof aurb 181'E of fence

÷			Client: Project	Nat Number:		16nd 37363			BORINGID: B-15
		COA	Site Loc Boring	ation: Location:		ten Jaewater Plaza			Sheet: of 2
\bigcirc				Method: Type(s):	- CE Seo	HSA/SS Hech-Grab	Boring Diameter:		Monitoring Well Screen:
	Logged By: J Drilling Contra	Essica	Phillips		0	Ground Elevation:	Date Started Pre-Cleared: 8 Date Finished:		Depth of Boring: Water Level: NB by S
	Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sample ID	USCS		Geologic De	escription	multi Level.
0			0.3			0-2- Asphalts	f concrete, NO 1	slot	
2			0.2			2-4'- Concrete	, fill (clinker, san	å el gra	vel), silt, brewn,
ч			0.3				silt & gravel,		I
6			0.2			6-81- SAA (9 .		
8			0.3			8-10'- clink	er, sand, gravel	1 1005	e, brown, wet, No V/03
10			1.4						breun, no VIOI
14			NA			12-141- MA			
			0.3			14-151 - Pear 15-16' - San	t, arganic oder dy silt, stiff, a	JK bro	NOI.
06			NA			16-191-NA	L		1 , 2 - 0
19			0.3			19-211- Soft	sand & Sill, br	zun, u	sehno VloI.
21			NA			21-24 - NA			
24			0.3			24-26'- stiff st	It, little sand & g.	ravel, f	Drown, novioI
26			NA			26-29'- NA			
29			0.1			29-31' - SMA (24	-26)		
31			NA			31-341- NA			
34	——		0.2			34-36'- SAA (2	24-26)		
31	>		NA			36-391 - NA			
39 41			0.2			39-411- Soft-sil	Horavel, brown,	no VLo) Ì.
	NOTES:	NA-1	Volappi	cabh	l	luge (split-spoc			

	-		and and a second se	Number:	onal 601	37363	BORING ID: B-15
	AE	CO	Site Loc Boring I	ocation:	CIEP	ten Igewater Plaza 19/55	Sheet: 2 of 2
\bigcirc			Sample	Method: Type(s):	9 rcl	o-Geolech Boring Diameter: 6;	Monitoring Well Screen: AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
	Logged By: Drilling Contro	Jessico	Phillips		5	Ground Elevation: Date Started Pre-Cleared: 0/3/ Date Finished:	/ 6 Depth of Boring Water Level:
	Depth (feet)	Recovery (feet)	(mdd) and	Lab Sample ID	U.S.C.S	Geologic Descripti	
41 44			NA			41-44'- NA 44-46'- Stiff silt, little grou	PL bruin actilat
46		-	0.4 NA			46-491- NA	
49 51		-	0.2			4G-51'- SAA (44-46)	
31		-				End of boring 51' Bgs	5,
		-					
\bigcirc		-					
		-					
		-					
		-					
\bigcirc	NOTES:						

7.5' away from a monitoring well

29' Noteub 226'E offinitist fina

[Client: Project	Nat Number:		1 Grid 37363			0				
		CO	N	Site Loc		Clif		70				Sheet: of 2	_	
\bigcirc				Drilling	Method:	HSV	A-455				u	Monitoring Well Screen:		
	Logged By:		Rh	111/105	Type(s):	aval	Ground Elevation		Boring Date Started/Pre	Diameter: 6 -Cleared: 9	5/16	Monitoring Well Sump: Depth of Boring: 51 bg 8		
	Drilling Contra		2 Ar	ple	-		NA		Date Finished:	815116	2	Water Level: NB1698.	\neg	
	Depth (feet)	Recovery (feet)	(mun) (I)d	(inde) are	Lab Sample ID	U S.C S				Geologic Des	cription			
0			4	.7			0-2'- Asph Clinker	alt, JJ	concre N. Wo	te fill od & ga	(bla soline	ck Sand, Gravel & -like Odar at 21635	5.	
ч			(.	3			2-4' - fill	-cli	inker, sa	ind, gra	vel, d	ry, black novloI.		
6			3.6				4-61- Sil					dry, brewn, noulos,		
B						-				ise wees		0 43		
(0			N	A			8-101 - No		,					
12			N	A			10-121 - NO.		7.					
14			N	<u>A</u>			14-16'- f-c sand of Esubranded gravely black, wet, no VIOI.							
16			0.0						it, no	VOI.		0		
\bigcirc			Ν	NA			16-191 - NK	с _г						
19			-	4			19-21'- gr	arli	wet f	f-c San	d, no	o VIOI.		
2(N	A			21-241-NI	A						
24			0	0			24-26'-5	19-21) Wet	2 241, 5, -, no V	hiff sill,	Sand 1.5-26)	& gravel, brown,		
26			N	A	-		26-29 - NA							
29			0	0			29-30-5AR 30-31 - 5A)				
31			N	A			31-34-NA							
34			0	0			34-361- f-		land, gre	up, wet,	No	VIOI.		
36			N	A			36-391-NA	4						
39	0		0.	Õ			39-41- St	iff =	silt, 17	He sand,	li)#le	gravely brown,		
0	NOTES:	HEA LC NA-0 VLOI	s - H not - U	lollor appi isva	u slen icabl	navg e. Gader	pr/spliitspoe y Impacts	त्र ं	<u> 10 016</u>	25.		<u> </u>		

					onal	Gnè
		0		Number:	CIP	BORING ID: B-16
	AE	40 /	Boring	Location;	LF	Zoewaler Plaza Sheet: Dof D. Monitoring Well Screen: NIN
1			Drilling	Method:	HS	APISS Monitoring Well Screen: NA
	Logged By:	Tre	a Phillip	Type(s):	- gra	Boring Diameter.
	Loggea By: Drilling Contra		Apple	5		Ground Elevation: Date Started/Pre-Cleaged: 8/5/1/6 Depth of Boring: 51/695 Date Finished: 8/5/1/6 Water Level: NS #1683
		-	0			
	Depth (feet)	Recovery (feet)	(uud	Lab Sample ID	s	
	-tht	overy	(mqq) CII	Sam	U.S.C.S	Geologic Description
	Ã	Rec	£	Lab		
41						
			N M			41-441-NA
			NA			
44						security and and and a contract
- ` `			0.0			44-46'- silf, sand, gravely still brown, wet, novloy.
46						
10			NA			46-491- NA
			NA			
44					-	
11			0.0			49-51 - SAA (44-46')
51						
51						
						End of banky 51' bgs
						Ender
						5
•		2	<u>N</u>		20	5. E
			L			
	hiomeo					
	NOTES:					

29'N of curb 274'Ed frontst fence like

						274'Ed trantsteend
				ent: Nat	10/10	Gnd 137363 BORINGID: R-17
		CO		ject Number: Location:		137363 BORINGID: B-17-
	A	CO/		ing Location:		Edgewaler Plata Sheet: of 2
				lling Method: nple Type(s):	HS	17. 155 Monitoring Well Screen: NA sb-Geolech Boring Diameter: 69 Monitoring Well Sump. NA
	Logged By:	Tessico			- 010	Ground Elevation: Date Started Pre-Cleared: 85 Depth of Boring: 57 698
£	Drilling Contra	ctor: Bio	Aml	و		NA Date Finished: B 5/16 Water Level: ~6 695
	Depth (feet)	Recovery (feet)	(mqq) CI9	Lab Sample ID	USCS	Geologic Description
0			0.0)		0-21-Asphalt, concrete, fill (sand, gravel, clinker) black dry i novloz.
Э Ч			0,0	5		2-4- fill-clinker, sand, silt, dry, branblack,
6			6-8			4-6'-SAA, wet
8			O.C			6-8' - 5AA(2-4) 8-10' - 5AA(2-4')
10			0.(-		10-121- f-c sand& clinker, wet, dtbrown, no VIOT.
» 12			0.5			12-14'- NA
t.q			NA			14-16' - Fibrous Peat, organic oder, no Visual impacts.
16			29	(IG-19'-NA
			NA	r.		
19			0.	3		19-20.51- Peat saa (14-16) 20.5-21'- stiff silt, brewn, no vloI.
31			NA	+		21-241- NA
24			0.8	 >		24-26- sill, peat & sand, no VloI.
26			MA			26-291-NA
29			0_(<u>}</u>		29-311- clayer Silt, Stiff, low plastic, brown, wety no v[0].
31			NA			31-341-NA-
34	2003	<u>-</u>	0.9		-	34-36'- soft sandy silt, brown, wet, nov lot.
36			N			36-391-NA
39			0.0			39-41'- Stiff Silt, little cause gravel, brown, no vbt.
0	NOTES:	NA =	Notap	plicabl	e are	er / splut spoon
l		- 10 -	- • • · C			/ inflows.

[Na-	tono	137363 BORINGID: B-17
-	ΔΞ	CO		ation:	Cli	tter .
\bigcirc				Location: Method	45	A PSS Sheet: 2 of D Monitoring Well Screen:
	Logged By:	Teres	Sample Se Phillip		gra	ub-Gestell Boring Diameter: (Monitoring Well Sump. NF)
	Drilling Contra	ctor: Rice	z Apple	2		Ground Elevation: Date Started Pre-Cleared: 8516 Depth of Boring: 51655 NA Date Finished: 8516 Water Level: ~6665
. 63	Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sample ID	USCS	Geologic Description
41 44			NA			41-441- NA
46			0.0			44-46'-silt, cobble, wet, brewn, no VIOI.
			NTA			46-491- NA
49 51			00			49-571 - silt, fine gravel, bravn, wet, no V/OI.
0						End of boring 51 695
0						
0	NOTES:					

981 west of entry curb 25' North of fence curb.

		-	Client:	Na	tional	1 Grid
				Number		Boring ID: B-18
0		CO /	Site Lo Boring	cation: Location:	TE	towater Plaza Sheet: of 2
\bigcirc			Drillin	g Method:	HS	SP/55 Monitoring Well Screen: A IV
	Logged By: J	DESCA	Chillios	Type(s):	gra	Ground Elevation: Date Started Pre-Cleared: 077/16 Depth of Boring: 51.693
	Drilling Contro	ctor: Bi	a Apple			NA Date Finished: 87716 Water Level: NB bes
	Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sample ID	USCS	Geologic Description
0			0.3			0-2'- Asphalt, concrete, fill Lblack sand & gravel, little clinker, dwy, no VIOI.
3			6.7			2-41- Gill can
4		-	NA			4-61- No recovery, piece of cobble in share
6			3.9			6-81- silty sand & growel, brown, moist, no VIOI.
8			1.4			8-10'- sand, silt, gravel, wet, dk brown, nov/ot.
10		-	0.9			(0-121- Som (2-10).
12			NA			12-141-NA
14			0.3			14-161 - sand, silt, brewn, wet, stipp, no vloI.
0		-	NA			16-191-NA
19			0.4			19-21'- m-f sand, brown, wet, no VIOI.
21			NA			21-241-NA
24 24			0.4			24-26 - loose Sand, silt & gravel, wet Grawn, no V/07.
29		m	AGA	are		26-29 - MA
29 31						29-311- sandy silt, some gravel, stiff, brown wet, no Vlog.
			NA			31-341- NA
-34 36			0.6			34-36'-5114 29-31.
00			MA			
39			0.3			39-41' - Rodish brown silt, littlesand, shiff, wet nov/os
- M	NOTES:					

Client: National G Project Number: 6013731 Site Location: Clifton Go BORING ID: B-18 AECOM 1 Edgewater Plaze HSPP 155 Sheet: 2 of 2 Boring Location: Drilling Method: Monitoring Well Screen VA Sample Type(s): and geoteen Boring Diameter: 6 Monitoring Well Sump Jessiea Phillips racior: Big Apple 8171 Ground Elevation: NA Logged By: Date Started Pre-Cleared; Depth of Boring: 817116 Drilling Contractor: Date Finished: Water Level: Recovery (feet) Lab Sample ID Depth (feet) PID (ppm) U.S.C.S **Geologic Description** 91 41-44'- ND NA 44 44-461- stiff Sandy silt, brown, wet, no VIOT. 0.2 46 46-491-NA NA 49 49-511- soft, sandy silt, brown, wet, no UDF. 0.3 51 End of boning 51' bgs NOTES:

52' West of entry curb 24' North offence curb

0			Project Site Lo Boring Drillin, Sample	Number:	601 CUT 1 to HST	Grid BORING ID: B-9 137363 BORING ID: B-9 Hon Sheet: of R Alss Monitoring Well Screen: MA Ground Elevation: Date Started Pre-Cleared: 8716
	Drilling Contra	ctor: Big	Apple	Sample ID	S	Ground Elevation: NH Date Started Pre-Cleared: 8 71 6 Depth of Boring: 51 65 Date Finished: Water Level: NB 65
0	Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sam	U.S.C.S	Geologic Description
د			2.3			0-2'- Asphalt, concrete, fill- Sand, gravel, clinker, black, dry, no VloI.
U			0.5			2-41- Fill, 8 saa. 4-6'- fill, saa, wet @ 51 logs TP
6 8			1.0			6-81- sand, silt, gravel, clinter, wood, wetmoist, black,
16			0.3			8-10'- SAA6-8', wet.
12			O.Y NA			10-12 - Sand, sill, gravel, dk brown, wet, no V/OI. 12-141-NA.
14	,		0.2			14-16' - Sand & silt, brawn, wet, novicit.
			NA			16-19 - NA
19 21			00			19-21'- law recovery, silt & sand, are brown, novlot
ЭY			NA			21 - 241 - N14
26			<i>0.3</i>			24-26'-f-c sand, Silt, wet, brown, no VlOI. 26-29'-Na
29			NA			29-31'- sandy silt, wet, brawn, nov/ot.
31	·		0.2			31-34'- NA
34			NA 0.2			34-361 - c-f sand, loose, wet, brown, nov/ot.
36			NA			
39			0.2			39-405-f-msand, loose, wet, brown, nor VloI. HO.5-411- Stiff silt, brown, wet, NO MOI.
0	NOTES:					

	A=4	201	Project	Number:	6017	BORI 100	^{NG ID:} B -19
\bigcirc	AE			Location: Method:	1 EC	Jeewater Pla 7a Shee: 2	
	Logged By:	Tessi	Sample	Type(s):	grat	p - sedtech Boring Diameter: , (0, Monitoring	Well Sump:
	Drilling Contra	ctor: Bie	3 Appl-e			Ground Elevation: Date Started Pre-Cleared: 8/7/16 Depth of Ba	MB beg
(0)	Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sample ID	U.S.C.S	Geologic Description	0
41 નન			NA			44-461- C-F sand Asill - R	a
46			0.2			44-461- C-fsand & silt, soft, wet, br	wh, no v/or.
49			NA			49-511 - SAA (44-46)	
51			0.1				
						End of boring 51' bgs	
0							
						i i	
	1			2		21 21	27
							-
0	NOTES:						

1521 West at entry cub 261 North of fence cub

			Clie	ject Number:	Grid	137363			BORINGID: B-20
\bigcirc		CO /		Location: ing Location:	CNIE	P.Jen			Sheet: 0 of 2
\bigcirc			Dril	lling Method: ple Type(s):	HSI	Edgewater A (55 rels-geotech	Boring Di	ameter: 6 ⁴	Monitoring Well Screen NA Monitoring Well Sump:
	Logged By: Drilling Contra		2 Phillip		- 2'	Ground Elevation:	Date Started Pre-Cl Date Finished:		Depth of Boring: 51 695
	Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sample ID	U.S.C.S			Geologic Description	Water Level: ~ The S
O			0.4			0-2-Asphalt, ca	ncreke, fill -	black Sand,	gravel, clinker, dry, neV/SI.
2			0.4			2-4-fill, black	sandÉgrau	elpieces, dry	ind VIOI.
4			0.4			11-6 - SAA, silty			
6			0.5	-		6-81- SAA (4-6		•	
8 (0			1-2					clinker, wet	, black, nov/or.
			0.4			10-12'- SAA CE	3-(0).		
12			NA	-					
14			0.4	2.4 NA		14-161- SMA(
\bigcirc			NA						
19			0.0			19-20'- fm s 20-21'- silf, 3	and, wet, bran	own loose,	Novjot.
21			NA)		21-241-NA			
24			0.3	,					
26		·	NA			26-291-NA			
29			0.1			29-31'-SAA((9-21).		
31			NA			31-341 - NA			
34	и 		0.2			34-36'- reddis	h brewn :	silt, stiff,	rovloj.
36			NF			36-391-NA			
39			0.4			39-411 - Soft	sand & g	owel, uset,	brawn, norvloj.
41	NOTES:								
\bigcirc									

F			Client:	N.	Grid				
	_		Projec	Number:	6017	37363			BORINGID: B-20
	AE		Site Lo	cation:	CIL	on loc			Sheet: 2 of 2
			Boring	Location: g Method:	HE	depender AU/SS			
			Sample	e Type(s):	- U.SI	b-Geoleon	Boring D	Diameter:	Monitoring Well Sump
	Logged By:	. Phill	145	-27 - (7	0	Ground Elegation:	Date Started Pre-C		Depth of Boring: 51 50 5
	Drilling Contra	ctor: Bi	er Apple			NA	Date Finished:	817/14	Water Level: NF bgs
		() set()							0
	Depth (feet)	Recovery (feet)	(mqq) Olq	Lab Sample ID	U S.C.S				
	epth	cover	D (I	o Sar	U.S.			Geologic Description	
	4	Re	_	La					
41						IN ITIT A MA			
			110			41-441-NA.			
			NA						
44						use use - C -	1 1810		i idat
1			0.2			44-46 - 4. 59	nd, little	c. sand, br	can, wet no VloI.
46									
						46-491-NA			
			NA						
ICG			1						
49						49-51' - saar	44-4611	ittle Stiff s	ilt @ sil
51			0-2			11 S. Suril	11 000		
21						•	_		
								ng 51' be	
						End OI	KUFU	ng JI be	23
								0	0
1									
1									
				ļ		1			
			2						
				1					
201			89			2			
			<u> </u>						
	·								
	NOTES:								

20's of dividing fence 15' west of cirb

1			Client	Abd	ional	
			Client Projec	t Number:	60(7	37363 BORINGID: R-21
		CO /	Site Le Boring	cation: Location:	CIOPA	ton Sheet: Of 2
			Drillir	g Method:	HSI	AP155 Monitoring Well Screen: A [M
	Logged By:	12cch	2 Phillip	e Type(s):	grad	B George Dumeter. 6 Informitioning wen sump
	Drilling Contra	ctor: Bie	Apple			Ground Elevation: Date Started Pre-Cleared: 8716 Depth of Boring: 5165
0	Depth (feet)	Recovery (feet)	biD (bbu)	Lab Sample ID	USCS	Geologic Description CTIL- O-2'- Asphalt concrete, Sand, gravel, bride, clinker, black
2			0.3			dry, no VloI. 241 - Black sand & clinker, dry, no VloI.
Y		~~~~~	0.2			4-6'- SAA (2-4)
6			0-5			6-81-51417, wet.
8			0.2		G	8-101- silt, soft, brawn, wet, no vlo I 18-9'- sAA/6-8). 10-121- sandy silt, brawn, wet, ho vloI.
10			0.2			
14			NA			12 - 141 - NA
16			0.2			14-151-Saa (10-12) 15-161-fsand, loose, wet, gray, nov(0],
\bigcirc	§		NA			16-191- NH
19			0.4			19-201-Saa(15-16) 20-21- Silf, brown, wet, no VIOI.
			NA			21-241-NA
24 26			0.3			24-261- dk brawn, finesand, loose, wet, no V/OI.
			NA			26-221-NA
29			0.3			29-30.51- saa (24-26)
31						30.5-911- Saa (20-21) 31-341-NA
34	ł		MA			34-36'-f-m sand, little c. sand, little silt, brown, wet,
36		an	0.8 MA			34-36'-f-m sand, little c. sand, little silt, brown, wet, no VICI. 36-39'-NA
39			0.3			39-41'-5AA-(34-36)
M	NOTES:					

1					Snal	611	
	A =	CO		Number: ation:	60	BORINGID: B-21	
\bigcirc				Location: Method:	1E	ten bewale Plaza MSS	Sheet: 2 of 2 Monitoring Well Screen: ALD
~			Sample	Type(s):	grat	-Ceclech Boring Diameter: /9	Monitoring Well Sump: VI
	Logged By: Drilling Contra	Jessic	a Phillips zAppli			Ground Elevation: Date Started Pre-Cleared: 87/16 Date Finished: 87/16	Depth of Boring: 51 695 Water Level: ~6 60 6
	et)	(teet)		D			0
	Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sample ID	U S.C.S	Geologic Description	
15	Del	Reco	PII	Lab	D		
41						41-441-	
		4-00	ALA	~		41-441-	
44			TVIT			111 101 - COQ (211 21)	
			0.3			44-96-54-6 (39-36)	
46						44-461-5aa (34-36) 46-491-NA	
			NA				
49					ه	49-51'-SAA(34-36)	
-			0.3			DITIT(34-36)	
51							
						End of boning 51' bg 5	
						g o	
		-					
\bigcirc							
		-					
		- 1					
		-					
		-					
		-					
		-				2	2
		-					
		-					
		I			l	I	
	NOTES:						
\bigcirc							
						· · · · · · · · · · · · · · · · · · ·	

1961 W of entry cub 271 N of fèree curb

\bigcirc		CO/	Site Loc Boring Drilling Sample	Number: ation: Location: Method: Type(s):	Clif	BORING ID: B-22 Hon Hon Hon Horing Diameter: 6 Monitoring Well Sump: Hon Hon Hon Hon Hon Hon Hon Hon
0 2 4 6 8 10 17 4 6 8 10 17 4 6 8 10 17 4 6 8 10 17 4 6 8 10 17 4 6 19 21 24 26 29 31 34 26 29 31 34		Jessic	Boring Drilling	Location: Method: Type(s):	Cliff HSH GH STR STR STR	Acewater Plaza Sheet: of 3 Monitoring Well Screen: NIN
36 39 41	NOTES:	-	NA 0.2			36-391-NA 39-41- Reddig braun Sitt, NOV/0J.

		CO /	Boring Drilling	ation: Location: Method: Type(s):	1 5	liften Agewaler Plaza p/55 b-geolech Boring Diameter: 6 ⁴	Sheet: 2 of 3 Monitoring Well Screen: NA Monitoring Well Sump: NA
		Jessice	a hillips		0	Ground Elevation: (Date Startea Pre-Clearea: OV)	Depth of Boring: Ol'bas
	r <u>illing Contra</u> (teet) Debty	ctor: K Kecovery (feet)	(undd) Cita	Lab Sample ID	USCS	Geologic Description	Water Level: N 8 bezz
			NA		2	di-dar - UN	
2			0.0			44-461- soft sandy silt algravel, a	vety brawn, novie
			NA			46-401-NA	
		-	0,0			49-57'- SAA(44-46) Stiff 50-57' 51-541-NA	
			NA			54-56'- SAA (44-46') Shiff	
			0.0			56-591-NA	
			NA			59-611- 01-90 cill 1.441- cand 1.97400-	and we break
		-	0.0			59-611- Stiff silt, little sand, littlegn NO VIOI. 61-641-NA	
	12		NA 0.0			64-66 - SAA (59-61)	
			NA				
			0.0			69-70' - f. sand, little silt, wet, ba 70-71' - SAA (59-61)	own, no Vlot.
	Ťi	-	NA			71-741-NA	
f			0.0			74-76'-Shiff silt, little gravely	wet, brown, noviol
			NA			76-79'-NA	
			0.0			79-81'- SAA (74-76)	

			Client; Project	Number:	tion	al Grid 137363	BORINGID: P, 2 2
0	ΔΞ	CON		ation:	010	Pton	0.02
\bigcirc				Location: Method	HSI	Roewaler Plaza 9 PSS	Sheet: 3 of 3 Monitoring Well Screen:
	Logged By:	Tassi	sample	Type(s):	gra	Ground Elevation: Date Started Pre-Cleared: 8 8 16	Depth of Boring:
	Drilling Contra	clor: Bi	g Apple	<u></u>		NA Date Finished: 8/8/16	Depth of Boring:
	(feet)	(feet)	-	ole ID	Ś		Ŭ
	Depth (feet)	Recovery (feet)	(nqq) (IP	Lab Sample ID	U.S.C.S	Geologic Description	
81	ц 	Re		La			
U V			• • • • •			81-84' - NA	
044			NA				
84			0.0			84-86'- SMA (74-76)	
86			0.0		L	86-891- NA	
			NA			86-01	
89	-	<u> </u>					
91			NA		-	89-911- No recovery.	
.) [NA			91-94'- NH	
94						94-96'- SAA (74-76)	
·			0.0			The Sunction	
96			NA				
On			11/1			99-101'- SAM (74-76)	
99	· _· ·		0.0				
101							~
						End of boring 101'b	55
						6	
						×	
				3			8 1
0	NOTES: ,						
\bigcirc							

SOLE of front st fence 26's of fence

[Client:	Nar Number:		BORINGID: R-72
~	AE	201	Site Loc	ation:	Cli	Fton U as
\bigcirc				Location: Method:	HS	ASS Sheet: of 2 Monitoring Well Screen: ALD
	Logged By:	Jessia		Type(s):	gral	Ground Elevation: Date Started/Pre-Cleared: 89916 Depth of Boring: 51' 555
	Drilling Contrac		a Apple			NA Date Finished: 8(9,116 Water Level: ~6 bgg
	Depth (feet)	Recovery (feet)	PID (ppm)	Lab Sample ID	USCS	Geologic Description
Ø						a 21 a male l'a anal the states split
2			NA		_	0-2'- Concrete (augered through, no spoon)
ų			5.6			4-61-SAAC2-4) driller Says void space after concrete.
6			3.0			4-61-5HACO-45 driver says vois space
8			0.3			6-8'- powdered concrete followed by fill, clinker, sand, gravel, black, wet no VIOI.
10			0.2			8-10- Clinkepsandy gravel, black, wet, no VIOI.
12			0.2			10-12'-very little reavery, just a little sand in spoon.
			NA			12 - 14' - NA
14			0.2			14-161- SATA (8-10)
			NA			16-191 - NA
19			0.2			19-211 - SAA (B-10)
21			NA			21-241- NA
24			2.6			24-26' - Clinker, silt, Sand, growel, dk grow, loose, wel,
26		-				Slight NLO, Slight sheen. 26-291-NA
			NA			
29			1,4			29-30'- SAA (24-26).
31			NA			30-31'- f. sand, wet, loose, grow, organic odor, no Visual impacts. 31-34'-NA
34 36			1.7			34-351- SAA (30-31) 35-361- Stiff silt little growel, brown, no VloI.
			NA			36-391-NA
39			0-2			39-41- Silt, sand, gravel, loose to shife, bown, nov/or.
41	NOTES:					

			Client;		tonal	Grid
				Number:	601	37363 BORINGID: B-23
\bigcirc	AE		Boring	Location:	LE	bewater Plaza Sheet: 2 of 2 HISS Monitoring Well Screen: ND
			Drilling	Method:	HS	A PSS Monitoring Well Screen: NA
	Logged By TA	esico.	Phillip	Type(s):	grat	Ground Elevation Date Started Pre-Cleared 969116 Denth of Boring
Ì	Logged By: Je Drilling Contrac	tor Big	Apple			Ground Elevation: Date Started Pre-Cleared: 8/9/16 Depth of Boring: Date Finished: 8/9/16 Water Level: ~6 bg.5
		(ja		₽		
	Depth (fect)	Recovery (feet)	PID (ppm)	Lab Sample ID	U.S.C.S	Geologic Description
	Dept	.ecov(DID	ab Sa	ŝ'n	Conge Section
41		~				
-11						41-441-MA
	0.0		NA			
44						
ì			0.0			44-46'- silt, gravel, stiff, brown, wet, No Vloit.
~16						
			NM.			46-491-NA
			NA			
49						49-57'- SMA-C44-46')
			01			
51						
						End of boring 51' bgs
						Lyid
0						
\bigcirc						
						· ·
					1	
90						e i i
				L	I	
-	NOTES:					
\bigcirc						
-	9					
				8		

981 E officit st lence 31's of fence

\bigcirc		CO/	Site Loo Boring Drilling Sample	Number: cation: Location: Method: Type(s):	<u></u> 1 Ec Hs	BORING ID: B-24 Hon Hon Hon Hon Horing Well Screen: Hon Hon Hon Hon Hon Hon Hon Hon
		Jessico clor: Bir	: Phillip	5	0	Ground Elevation: Date Started/Pre-Cleared: Die Depth of Boring: SI 555
	Drilling Contrac (teet) Debth Debth	Recovery (feet)	(undd) CIId	Lab Sample ID	U.S.C.S	Geologic Description
0 2			0.2			0-2-Asphalt, concrete, fill-dry, black, clunker & Sand & gravel, no V/02.
4			0.1			2-41- fill-clinkersandigravel, black, nov/oI. 4-61-SAA-(2-4)
6			0.0			6-8'- 5AA(2-4), wet.
8			0.1			8-101 - SAAC6-8).
12			1.0			10-121 - black, soft Silt, Slight NLO, no Visual impacts, little gravel & clinker, wet.
14			NA			12-141-NA
16			0.9			14-16'-SMAC10-12)
0			NA			
21			0.1			$19-21^{1}-5444(10-12)$
			NA			21-241-147
24			0.1			24-261- Sand, gravel, Clinker, 1005e, wet, dkgray, no V/O-I.
26			NA			26-291-NA
29			0.1			29-30-SAA (24-26) 30-31 - Stiff brown silt, gravel, wet, no V/OI.
31			NA			31-341- NA
34			1.4			34-361 - SAAC30-31).
55			NA			3C-391-NA
39 41			0.0			39-411 - SAM (30-31) driller Thinks he is on cobble /baulder.
	NOTES:					

	AEC	essica	Site Loo Boring Drilling Sample	Number: ation: Location: Method: Type(s):	601	Gold 37.363 Hen Gewaler Plaza APSS Ground Elevation: Date Started/Pre-Cleared: 8/9/16 Date Finished: 0/9/16 Water Level: 2/0 Boring Diameter: 0/9/16 Water Level: 2/0 0/2 0/2 0/2 0/2 0/2 0/2 0/2
41 44 40 49 51	Depth (feet)	Recovery (feet)	India (India)	Lab Sample ID	USCS	Geologic Description 41-44(-NA 44-46(-sill, stiff, brown, wet, nor V/OIT. 46-491-NA 49-511-SAMC44-40) End of boring 511 bgs
0						

31's of fence 126'E of ferce

\bigcirc	Logged By:	stca P	Project Number Site Location: Boring Location Drilling Method Sample Type(s): https://www.sample.com/sample		a Grid DI 37363 Hor Edgewater Plaza APISS Ab - Geolech Boring Diameter: 6 ⁴⁴ Monitoring Well Screen: Ab - Geolech Boring Diameter: 6 ⁴⁴ Monitoring Well Sump: Ground Elevanon: Date Started/Pre-Cleared: 8[9] [G Depth of Boring: 571 523 NA Date Finished: 8[0] [G Water Level: 726 563
2	Depth (feet) D	BigA	PID (ppm)	U.S.C.S	Geologic Description
0 2 4 6 8 10 12 14 16 19 21 14 16 19 21 24 16 29 31 34 36 39 41		N 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	A 9 .9 .0 .2 .0 .2 .0 .2 .0 .2 .0 .2 .0 .2 .0 .2 .0 .2 .0 .2 .0 .2 .0 .2 .0 .2 .0 .2 .0 .2 .0 .1 .7 .1 .7 .1 .7 .1 .7 .1 .7 .1 .7 .1 .7 .1 .7 .1 .7 		0-21 - Concrete. 2-3.51 - Clinker, Sand, Gravel, black, dry, no Var. 35.41 - Clean R. Sand, Brown, dry, norvial. + H-51 - brown sand, sill, gravel, losse, dry, no Var. S-61 - clean f. sand, brown, moisting vior. wet@61 S-61 - clean f. sand, brown, moisting vior. wet@61 S-61 - sha(s-5), wet. 8-01 - Sha(S-6), wet. 10-121 - Black, soft, silly Clay, wet, no Vlor. 12-141 - NA 14-161 - SAA(10-12), Strong NLO, light-sheen, few blebs. 16-191 - NA 14-161 - SAA(10-12), Strong NLO, light-sheen, few blebs. 16-191 - NA 14-261 - SAA(10-12), Strong NLO, light-sheen, few blebs. 16-191 - NA 14-261 - SAA(19-21), 26-291 - NA 24-261 - SAA(19-21), 26-291 - NA \$24-261 - SAA(19-21), 26-291 - NA \$34-361 - Give grading to coase sand of gravel, black, wet, modeance NLO, Shen @30'bgs. Peat layer storting at 305! 31-341 - NA 34-361 - Sandy Silt with gravel, brown, we f, no V/07. 36-391 - NA 34-361 - SAA(34-36). d informs d-iller this is not native (possible officity).



0	AEC	. philli	Site Loc Boring I Drilling Sample	ation: Location: Method:	NE H	37363 BORING ID: B-25 Sheet: 2 of 2 Sheet: 2 of 2 Monitoring Well Screen: Ground Elevation: Date Started/Pre-Cleared: 8 [1] [b] Depth of Boring: 51 / 525 Date Finished: 8 [2] [b] Water Level: ~(2 / 625)
. 14	Depth (feet)	Recovery (feet)	(undd) Old	Lab Sample ID	USCS	Geologic Description
41 44 49 51			NA 0.2 NA 0.0	Lab Sa		U(-941-NA U(-941-NA U(-941-NA 46-491-NA 49-571-SAA(34-36) Soft 49-50, SHPP 50-511 End of boring 51' 593
0	NOTES:					

321 Sofferer. 1811 Eaferce

				Project Num	ber: (0)	al Grid 237363 11490 BORINGID: B-26
\bigcirc		GO /		Site Location Boring Loca	tion:	Edgewaler Plaza Sheet: of 2
\bigcirc				Drilling Met Sample Type	(s): Con	5A 155 ab Good ach Boring Diameter: 64 Monitoring Well Sump: NA Ground Elevation: Date Stated/Prescharged: 9 USUL/2 Depth of Boring: 51 / bo &
	Logged By: Drilling Contra	Jessi clor: R	ica P	hillips tpp12	0	Ground Elevation: Date Started/Pre-Cleared: 8, LO 10 Depth of Boring: 5, 1055 NH Date Finished: 8, 10, 10 Water Level: ~8, 69, 5
		(eet)			2	
	Depth (feet)	Recovery (feet)	(mqq) CI9		U S.C.S	Geologic Description
0	ă	Rec	ā.			
2			0.	.0		6-11- Concrete 1-21- Chuker, graver, sand, black, dry, no VloI Eleonerete
بر بر			0.	0		2-41- clinker, gravel, c-f sand, black to brean,
			0.	6	-	4-61- Clinker, sand, gravely concrete, silt, black to brain, dry, novioI.
l B			O	.6		6-81- SAA (4-6) wet @ 8'bgs
_			0	0		8-101 - SAA (4-6) wet.
10			NK	+*		10-121-SAA (B-10)
14			N	A	-	12-14-NA
14			R	XA *		14-151- SAA(8-10) 15+161 - Soft Silt, black, Slight NLO, no visual impacts.
\bigcirc			N	A		16-19 - NH
19				A	6	19-21'- sand & sill, darkgroup to black, wet, soft, moderat NLO, light sheen.
21	2		N	n	_	
. /			2 AL	A		21-241-NA
24			9.	6		24-26'-f-m Sand, grey, wet, moderate NLB, no visual impacts. Some silt, sheen in silt from 24-25'.
26	· · · · · · · · · · · · · · · · · · ·		N	A		20-291-MA
29			a		-	29-31 - F-m sand, little silt, Jk gray wet, strong NLO, shear.
31			95	+		feart le 31 bgs.
- 1			N	R		31-34'- NA
34			45	.9		34-351- f-m sand, Carlegray sandy loose, wet, moderale NLO- 35-36'- silly brown, stiff, no V/07.
36			N	A		36-39'-NA
39			0	0		39-41'-soft-silt, littlegravel, brown, we to no V/OI.
41	NOTES:	no pi	12 0	callo	ps due	e to heavy rawn
\bigcirc		<u> </u>		(J	

[Client:		iona	Gaid				
				Number:		137363			BORING ID:	B-26
\bigcirc	A=	CO/	Boring	Location:	11	Edgewater Pla	17a		Sheet: D of	
			Drilling	Method:	H	SAUSS	· · · · · · · · · · · · · · · · · · ·	14	Monitoring Well Screen	HAA Look
	Logged By:	Jessi	- 01 71	Type(s):	-gr	al Geolech	Boring Diameter: Date Started/Pre-Cleared:	6ª	Monitoring Well Sump Depth of Boring:	51 69.3
	Drilling Contro	actor: B	ig Appl	e		Ground Elevation:	Date Finished: 8 10	116		81655
	Depth (feet)	Recovery (feet)	(Indq) CIY	Lab Sample ID	U.S.C.S		Geologic	Description		0
	ñ	Reci	E	Lab	-					
11	.					41-441-NA	Ň			
44		-	NA							
yc		-	0.0			44-45 - 4. 45-46'- St	sand, gray, loo	se, wet,	no viot.	0 novisual
		-	NA			46-491- NA				
49			0.0			49-571- SATA((44-46), no odour	•		
10	,	-		8		End	of baring	51	bg3	
~		-								
\bigcirc		-								
							5 a ⁻ 4 11	4		
		-							×	
		-								
		-								
		-								
		-				5				
		-								
		-								
0	NOTES:									

					ient	a Jar	tiana	Grid			2
					Number: ite:	6	CI2	1365 ON		Boring ID:	B-27
										Sheet: Drilling Method:	HSA755
	Project I	Aanagar:	0 0	instre	Logged By:	J.Phi	line	Date Started:	elielle	Ground Elev.: Depth of Boring:	ST JES
	Drilling (Rig		Driller:	OT.		Date Finished:	Bulle	Water Level:	NA
	Depth	Elevation	Lab Sample ID C	Recovery	Moisture	СІЫ	nscs ,			Classification of Materia	1
0	feet	feet	Lai	feet		ppm		0-6"-0	and all		
0	_					2.4				ot.	and, dry,
2	-					2.9		2-41-	SAA (Gu-21).	
2						3.1	ي	4-61-	SAA (a	511-21S	
U Q	-					D.3		6-81- brick	Clime Jobrie	en sand, si'lt s, motst, n	, gravel, ovlot
00	-					NA		8-101	-Ne	precovery	
(0	-					0.7		10-121- NO V	Black LOI;	: Silly clay wel.	1. soff,
12						MA		12-141 NA	r		
14						0.3		14-161-	SAA	(16-12))	
16						NA		16-191 NA			
19						8.1		19-211	- S 1919	-(10-12) Slie	ght NLO.
Al						NB		21-24	I-NA	,	
24								17 14 14	11.12.12 11.12		

Γ					lient Number:	601	vena 373			Boring ID:	26# Ecfe B-27
				S	lite:		f-lon			Sheet:	0
1										Drilling Method: Ground Elev.:	2 of 2 HSA/SS NA
_	roject N rilling C	fanager: `o_:	R.For	stner	Logged By: Driller:	J.Phi Ozz	lips	Date Started: Date Finished:	B10/16 8/11/14	Depth of Boring: Water Level:	SI'bas
			90				1				
	Depth	Elevation	Sample	Recovery	Moisture	DID	nscs			Classification of Materia	a/
	feet	feet	Lab	feet		ррт		1			
	-					30.0		24-26 few	- sof biebs,	+ Silt, blac malerate NI	ik, wet, LO, Slightshee
_								26-291-	NA		
	_			7		NA			-		
-							· _	29-31-	silt &	Sand, detda	ckgray,
	-					45.9		Modere	k NLO	patchy she	en, some grave
	-										
	-							31-341-	NA		
	_					NA					
_									a ml_d	Saal	loss al
	-					0.0		34-36'- Sligh	SITT 4	Suna, gray	, loose, web drysteen
-	-							36-391-	NA		
	4		3:			NA					
_									Δ.	and all	1
						1.9		39-41 '- Slight	- Soft - NLC	-sand & sili 1, no vizual	impacts.
								41-441-	NA		
						NA					
_										1	
			1					44-46	- SA	A (39-41')	no odor.
						0.0					
_								46-49'	- MAA		
						WA		11 00	רוען		
						1	10				
								49-51	' - S A	A (44-46)	
						0.1					
]									ening 514	

	Projec	Client ht Number: Site:	Nat 60	137- 137-	0 000
roject Manager: R	wstre	Logged By:	J.Ph	llips	Sheet: of Q Drilling Method: HSA1.SS Ground Elev.: NA Date Started: Ø[11/1] Depth of Boring:
	g Apple	Driller:	OEE	¢"	Date Finished: Water Level: ~ ~ Y" bcs
Depth Elevation	Recovery	Moisture	СІН	nscs	Classification of Material
feet feet	feet		ppm		0-1"-concrete
			6.0		(44-11- fill, clinker, Sand, gravel, black, wet, no VIOL. 1-21- silt& f-c sand, soft brown, wet, novioz
-			5.1		2-41- bown sand & silt & gray sulfyelay, soft, wet, no vloI.
_			6.9	ر	4-61-SAA (2-4)
-			5.4		6-81-Soft-Sitt, Sand, gravel, gray, wet, NovioI.
-			3.7		8-8.51-F-Msand, brown, wetine UloI. 8.5-101- soft silty clay, degray, wety NO VIOT
-			3.4		10-121-SAA(B-10').
-			NA		12-141-NM
-			2.7	-	14-161- soft, siltessand, dkbrawn - black, wet, no VIOI.
			NA		16-191 - NA
-			273		19-21'-SAA (14-16) moderale NLO & Sleen.
			NA		21-24'-NA
	rote Ard	COMP (1)2	as we	. P	obably not waterlevel, water sciler of Cracks in the cement unable to deter

			Projec	Client t Number:	6	013-	1363		Boring ID:	B-28
				Site:	LC	1Pfc	n		Sheet:	2 of 2
									Drilling Method: Ground Elev.:	HSA/SS NA
Project Manag	ger:	R.R.	rsther	Logged By:	Tehill	05	Date Started:	Blulib	Depth of Boring:	
Drilling Co.:		Blei	UII	Driller:	Oth]	Date Finished:		Water Level:	NYh
Depth		Lab Sample ID	Recovery	Moisture	DIA	nscs			Classification of Materia	I
feet fee	ət	Lab	feet		ppm		1			
-					4.0		24-25'- 25-26'- NLOS	SAA (f.san pateh	(9-21). 2, gray, w y Shepn.	ret, slight
-					NA		26-291	- (/14)	V	
-					3.6		29-30'- 30-31' ar			brown, is val impacts
					NA					
-					0.5		39-40'- 40-46'-	Peat, Visual Sandy s	brewn, few f impacts. Siltwlgravel, No VIOI	bers, agant ob brown, wety
_					NA		36-391-1	117		
-					0-3		34-36' - Soft	- black no V	silt, Sand, lot.	clay, gravel,
-					NA		41-44'-	NA		
-					0.8		44-45- 1 45-46'-	f-m so o Vlo: sandy	and, Luose, I. Sull, Soun,	Ne VIOI.
-					NA		46-491.	-NB		
-					0.6		49 - 51 L Gre	-(005e)	e sand, silk	tol gravely

			Project	lient Number:	Nati	1373	Gad	Boring ID:	n CUYB (tcst From Kence B-29
			S	Site:	Cla	Pton		Sheet: Drilling Method: Ground Elev.:	1 of 2 HSA/SS NA
	Manager:	R.For	stner	Logged By:	J.Phil	lips		Depth of Boring:	511 bgs
Drilling		Big A		Driller:	OFF	<i>1</i> 	Date Finished: 8(2);	Water Level:	r 8 bak
Depth	Elevation	Lab Sample ID	Recovery	Moisture	PID	nscs	-	Classification of Materia	al de la constante de la const
) feet	feet		feet		ррт ()-()		0-2'- Aspha gravel, ore	It, concrete	r, Sand & noviot
					0.0		2-4'- Brewn Chlwker, dry,	f black sand no vleg.	, larze grewel,
					NA	,	4-6'- Norea	wen	
				195	NA	(m)	6-81-No rea	overy	
	-				3.5		8-101 - sand wet, n	& soft s o vioI.	It, dk brown,
					1.5		10-121- Soft f. sand, wet	silt, dk brow dk gray, no	n, wet, nould VIOI @ 121
					NA		12-141-NY	t-	
(2.5		14-16 - Soft	silt, dance.	own, web nove
,					NA		16-19-NA		
			-		23.5		19-21'-soft Wood deb	-silt, dark n's, wet, m	brown to black, od NLO.
21	+				NA		21-241-MA		• 1

		-	Projec	lient Number: Site:	601	onal 373 Pton	63		Boring ID:	B-29
	Manager:	R-For		Logged By:	JPhil		Date Started:	8/11/16		2 of 2 HSA755 NA SI'025 V& 668
Drilling Uebth	Co	Lab Sample ID	Recovery	Driller: euntsiow	OTEL	nscs	Date Finished:	18/12/14	Water Level: Classification of Materia	0
feet	feet	Lab	feet		ppm					
-					13.3		24-261 SWg	- SAA gra-she	(19-21) slag zen, few blef	ht-NLO
-					NA		26-29			
-	-				0.0		29-30 No 30-31'-	bgs- Not. Pealt	-f-e sand,	gray, wet, lase
-					NA		31-341-	NA		
					0.0		34-391	-SAA	[29-30]	
-	-				NA		36-391-	NA		ě
					O.G		39-41'.	-f-m no Vl	sand, loose	gray, wet,
-	-				NA		41-441	-MA		
-					0.0		44-46	- SA	n (39-41).	
-					NA		46-491	-NA		Ø.
					0.0		49-511-	f-c sa	nd & gravely	wet, nov/ot.
-									nd & gravely boning 51	

										42'50	th offener
				Project	lient Number: ìite:	6017	Ptonal Pton	<u><u><u>a</u></u> <u>3</u></u>		Boring ID:	B-30
\bigcirc	Brain at A	1000001	0 -		Langed Bir	701	105	Date Started:		Sheet: Drilling Method: Ground Elev.:	HSA-155 NA
-	Project N Drilling C		K. For Ria A		Logged By: Driller:	J. Phill Reag			<u></u>	Depth of Boring: Water Level:	511525 ~ 41625
	Depth	Elevation	Lab Sample ID	Recovery	Moisture	aid	nscs			Classification of Mater	0
0	feet	feet	La	feet		ppm					1 0 0 1 0
0	-					0.0		0-21- Sand	Aspto & gre	uvel) dry	te elfill(clika, novíci
2	-					0.0		2-41- L Clink	er, dr	sand f s	silt & black
Ч		27	,			0.0		4-6'- JK Sand	brawn wety	soft sill no Vlot	h gravel,
6	-					0.0		6-81-51	ity cle	ay, brown	1 nor V/oI, wet.
Ő	-					0.0			Sand, S V/0]D		el, dkbrown,
10						0.0		[0-121-	S1414 ([8-10]	
12	1 1 1 1 1	•				NA		12-141-	NA		
14	-					0.0		14-161 - Sa u	off, sa	ndisiltign ovlot	avel, brown,
16	-		;			NA		16-191-	NA		
19	-					0.0		19-21'-5	AA (14	1-165	
Q,	-					NA		21-241-	. NA		r
24	L	-		L	L	1	<u> </u>	l			

				Projeci	lient Number:	Nation GCI3	736:	3		Boring ID:	B-30
				S	Site:	CIN	ten_			Sheet: Drilling Method: Ground Elev.;	2 of 2 1+587/SS
\bigcirc	Project I Drilling (Manager: Co.:	R. For Ble F	pole	Logged By: Driller:	J. Phil Recogn	lips	Date Started: Date Finished:	8/12/16	Depth of Boring: Water Level:	STUDAS ~41545
	Depth	Elevation	ab Sample ID	Recovery	Moisture	aid	nscs		ſ	Classification of Material	U
24	feet 	feet	La La	feet		_{ppm} 3.3		24-261- Weti	JK bron 51 ûgihit	wn Sand, gr NLO, parts	ewelr (ittlesith)
26	-					NA		26-291	-NA		
29						0.2	U	29-31'- Stiff(- Sani 231,	Ne Vlot.	legravel,
31						NA		31-341.	-NA		
34	-					0-0		34-36-	SAA	(29-31).	
						NA		36-391	-NA		ŧ
39 4]						0_0		39-41 breu	-1005 201 N	e, wet, Sa o VloI	ndésilt,
YY	-					NA		NA			
46						0.0		44-46 v	vet, 1	and, silt & a	gravel, brown,
46	-					NA		46-491-			
1	-					0.0		49-511.	- SAA	(94-96)	
21								End	of b	aning 57 ^L	bgs.

				Project	lient Number: ìite:		ional 37.36 Refer	Boring ID: 8-3/
\bigcirc	Project N		R.Fe	sther	Logged By:	J. Phill	ips_	Sheet: of Drilling Method: HSH/SS Ground Elev.: NA Date Started: B (2) (b Depth of Boring: 11 b c S Date Einishad: Goult L Water Lavel: A 2 t 6 k S
	Drilling C Uebtų	Elevation	Sample ID	Recovery	Driller: Woistnue	Otto	nscs	Date Finished: 8 12 6 Water Level: ~3 655
\wedge	feet	feet	Lab	feet		ррт		
0	-					0,0		0-2'- Asphalt, concrete, brown sand & gravel, dry, no VIOI.
2 4	-					0.0		2-41- Sand & silt, soft silt @ 3-41 brown no VIOI, wet@ 31695
4	-					0.0	ر.	4-61-SANia & Silt, brown, wet, no VIOI-
6	-					0.0		6-81- Sand Collawed by Sill, dk brawn, Wet, novloI.
						0.0		8-10-very little recovery, wet, brown, Sand & gravel
05						2.0		10-2'-SAA(6-8) very sloght NLO.
12	-					NA		12-14'-NA
	-					27		14-16-Soft-silt, dk brown, wet, slight NLO, no visual impacts. more sandy @ 16'
16	-					NA		16-191-NA
(9	-					1.8		19-21 - Sand, silt, soft, black, trace grewer, trace wood, wet, slight crease - like odor, novisual.
() sr (-					NR		21-24'-NA

- 1		<u> </u>		с	lient	Natio	mal	Grid			
					Number: lite:	iool?	3736			Boring ID:	B-31
				<u>_</u>			Hear 1			Sheet:	2 of 2
										Drilling Method:	NSA155
\bigcirc	Project	Manager:	R-For	1.00	Logged By:	J.PLI	200	Date Started:	8/12/16	Ground Elev.: Depth of Boring:	Sime
	Drilling		Big A		Driller:	J.FA	4ps_	18	Blielli	Water Level:	N3165
	Depth	Elevation	Lab Sample ID	Recovery	Moisture	aid	nscs			Classification of Materia	1
- 0	feet	feet	L 6	feet		ppm			<u> </u>		(A .
29	-				3	(.0		24-261- Wef oder	- Soff black	sith clay, i ck, stight soul imper	wooddebris creasole-WZe 245.
26	-					NA		26-291	-NA		
A	-					0.0	j.	29-31'- 1 10	gray ose, u	f-c grained set, hould	sand. J-
31	-					NA		31-341-	MA		
34	-					0.0		34-361 We	- San ti Shif	disilté gri finovídi	avel, brawn,
36						NA		36-39	-MA		
						6.0		39-411-	SAA	(34-36).	
49						NA		41-44	-		-
45	-					0.0		44-46 f	-c Sar $\Lambda_1 \Lambda O$	Not forewel	wet, loese, ve silty @ 462.
49	-		_			NA		46-49 '-	NA		
	-					0.0		49-51'. V	- silt let, s	igravel & c. Hiff, no V	sand, bewn, lot.
0,				L	L <u></u>			End	of	bonneg 5	l' bgs.

				Project	lient Number: Site:	601	onal (3736 for			Boring ID:	B-32				
_								ana a daranana i i i i i i i i i i i i a		Sheet: Drilling Method:	1 or 4 145A 155				
\bigcirc	Project N	langage	10 C.		Lorgod Ru			Date Started:	8/15/16	Ground Elev.: Depth of Boring:	NA				
	Drilling C		R. Fur		Logged By: Driller:	J. Philli OZE		Date Started, Date Finished:	815116	Water Level:					
	Depth	Elevation	ab Sample I&	Recovery	Moisture	GIH	nscs			Classification of Materia	0				
0	feet	feet	Lat	feet		ррт									
2	-					0.0		0-6"- 6"-21- Sand,			lowed by sulty				
5.	-					0.5		2-4'- gra	law re wel, br	covery - fr ewn, moist	m sand & no VIOE.				
Ч	-					0.0	, ,	4-6'- SAA(2-11).							
6	-					2.1		6-8'- S Very	6-8'- soft silly day, black, wet, Very slight NLO.						
0	-					5.4		8-101- Ver	8-101 - silly sand, dt brewn, wet, Very slight NLO.						
10	-					3.3		10-121- Slie no	Soft NIOT	(si'lly clay Lo followed . (11-121)	, black, wet, by siltysard,				
12						NA		12-141-	-NA						
14	-					1.2		10	ubual	sand, trad slight creating pacts.	ce wood, isoke-like odbr.				
	-					NA		16-191-	NA	·					
19	-	2				0.0		19-211	- Blan wet,n	ele sand, sit	It & gravel,				
24						NA		21-241	-MA						

					lient	Natio	mal 6 3731	ind		Boring ID:	0.20			
					t Number: Site:	EI.F	100	2)		comy ib.	B-32			
										Sheet:	2 of Y HSM KS NR 91' LC 2			
	1									Drilling Method: Ground Elev.:	HST ISS			
	Project	Manager:	R.For	sther	Logged By:	J.Phil	1,105	Date Started:	8/15/16	Depth of Boring:	911/00			
	Drilling		Big K	malo	Driller:	077	J J	Date Finished:	815116	Water Level:	911 Lgs NG bgg			
		_		V 0	h		Ý							
	Depth	Elevation	ab Sample ID	Recovery	Moisture	СІН	nscs		(Classification of Material				
all	feet	feet	Lab	feet		ppm								
24	-					O.Ò		24-26 gran	1- sof	t, wet, so ek, no vlo	and, silts I.			
						NA		26-291-	- MA					
29								001 -1	211 0	Carl del	Liter h			
2.	-					0.0		d	K bown	sand, shift wet, no N	Not.			
31								31-341	-NA					
				•		NA		31-31						
34										cildo	- al			
0	-					0.0		34-361 bro	- Sand wh, h	ind, silta gravel, , wet, no VloI.				
36									0.110					
	-					NA		36-391	- (VH		-			
39						0.0	5	39-411. Wet	- f-ms	sand & sill, n, no Vla	little gravel, D.			
ΰ.	-													
41						NA		41-441	- NA					
44						0.0		44-46	1-SAA	r(39-41).				
46														
Yg						Nh		46-491	~ NVA					
07						0.0		49-51	- SMAA	(39-41).	*			

					Client t Number:	Nat 6013	10na	1Gnd		Boring ID:	R-27
					Site:	CTit	ton	·			B-32
	1								_	Sheet:	3 of 4
\cap	1									Drilling Method:	HSA 155
	Project	Manager:	00		Logand Dut	7 11	11.22-	Date Started:	18/15/1	Ground Elev.:	NA
				strer	Logged By:	J. Phil Ott	mps_				91 693
	Drilling (Amle	Driller:	UTT		Date Finished:	8131	Water Level:	~6 bas
	Depth	Elevation	Lab Sample ID	Recovery	Moisture	DIA	nscs			Classification of Materia	ai
~1	feet	feet	Lab	feet		ppm					
5]	-					NA		51-54	- NA		
54	_					0.0				hlittle sar , wet, No V	
56	-					NA		56-591	-NA		
59	-					0.0		59-61	1 - 51	AA, reddish.	braun.
64	-					NA		61-641	-NA	-	
64	-					0.0		64-661	- S#1	A(59-61).	8
66						NA		66-69	1- N	74	
b 9	-					1 M		69-71	1 - Si	It, little grav	el, brewn
71	-					0.0				It, littlegran Vlot.	,
	-					NA		71-74	-NA		
74	-					0.D		74-76	1- St	AA, brown.	
76						NA		76-79	'-NA	ř	43
399											

								44,21	West of C	erb next tobuilding.
				Project	lient Number: Site:	Na GC Čl	tiona 1373 i Ptor	Land 363	Boring ID:	B-32
\bigcirc			0 0	1		J.Phi	h1	low more love 10	Sheet: Drilling Method: Ground Elev.:	9 of 9 H5#/55 NF
	Project Drilling (Rie	Agele	Logged By: Driller:	OTTO	nips ev 1/	Date Started: 8/15/16 Date Finished: 8/15/16	Depth of Boring: Water Level:	~6 698
	Depth	Elevation	Lab Sample ID	Recovery	Moisture	СІН	nscs /		Classification of Materia	al
刑國	feet	feet	- Fra	feet		ppm		79-811-SA	A(69-71)	
84								81-841-MA		
en	-					NA				
80	-					0.0	v	84-86'- brou	o Vloj.	ilt & gravel,
						NA		86-891 - MA		
09								89-91' - Si H No	of gravel, b VIOI.	rown, wet,
94	-				-	MA		End of b	crihg@ 9	11 bgs willer believes there is a copple equ.
髀								due tor	chisa :	a coblie @911.
97	_									
9	-					DA				
TEED	_									
何										
\bigcirc										
	-									

Appendix D

Photo Logs of Edgewater Borings



Boring B-1 Date: 7/26/16 Depth: 10'-12' Notes: Slight sheen and tar-like odor at 12'



Boring B-4 Date: 7/28/16 Depth: 14' – 16' Notes: Boring exhibits trace organics with a slight naphthalene odor and a slight sheen.



Boring B-4 Date: 7/28/16 Depth: 24' – 26' Notes: Moderate sheen, and moderate naphthalene odor.



Boring B-6 Date: 7/29/16 Depth: 10' – 12' Notes: Moderate to strong naphthalene odor. This boring also exhibits a sheen and blebs throughout.



Boring B-19 Date: 8/7/16 Depth: 10' – 12' Notes: No impacts



Boring B-23 Date: 8/9/16 Depth: 24' – 26' Notes: Slight naphthalene odor with a slight sheen.



Boring B-25 Date: 8/9/16 Depth: 14' – 16' Notes: Strong naphthalene odor with a slight sheen and a few blebs.



Boring B-25 Date: 8/10/16 Depth: 29' – 31' Notes: Moderate naphthalene odor with sheen.



Boring B-27 Date: 8/11/16 Depth: 29' – 31' Notes: Moderate naphthalene odor with patchy sheen.



Boring B-28 Date: 8/11/16 Depth: 19' – 21' Notes: Moderate naphthalene odor with sheen.



Boring B-5 Date: 7/28/16 Depth: 24' – 26' Notes: Slight naphthalene odor with moderate sheen.



Boring B-14 Date: 8/3/16 Depth: 10' – 12' Notes: Moderate naphthalene odor with very slight sheen.



Boring B-12 Date: 8/2/16 Depth: 14' – 16' Notes: Slight naphthalene odor with slight sheen at 15.5'.



Boring B-13 Date: 8/2/16 Depth: 19' – 21' Notes: Slight naphthalene odor with moderate sheen. Appendix E

CAMP Data, Oversight of Third Party Geotechnical Investigation (One Edgewater Street)

4

Community Air Monitoring Plan / Noise Field Log Client: National Grid Location: 1 Edgewater Date: 7132, 111

Project: Clithon Project Number: 60137363 Weather: Hary, hot 8 humd Ambient Noise:

					other they the				I moisture tilter											
the states	Comments	working and ill rig	0 11 8	Doillive, B)	* Dalling (31-JF recalled Upwind	Drilling 8-1	ro daling.	Resume du Title 13-1	Dilling RT France moist	5	11	11)1	Ŋ	Break baller willing groors	setting in the Break	minalevelt	Pulling avers	0	
Ambient Noise:	dB Readings ¹	NA	1												1				-	 ÷
	Downwind Dust Trak	10.0	0.62/	0.019	0,018	0,020		0.020	C.017	0.0(3	210.0	C. CCA	0.0/0	0.014	0.010	110.0	0,015	CJ. CII	0.008	
	Downwind PID	0.0	0.0	0 0	0.0	0,0		0,0	0.0	0.0	0.0	0. 0	0.0	0.0	O.O	0.0	0,0	0.0	Q,O	
	Work Area PID	0.0	0.0	0 0	0,0	0.0		0.0	0.0	0.0	7 10	00	0.0	0.0	Ó	0.0	0 0	0.0	0,0	
Phillips	Upwind Dust Trak	0.018	0.015	0.010	0.016	0.010.0		0.012	0.009	0.009	0.009	0,00,0	0.010	0.010	0.010	0.010	0.010	0,009	0.010	
Jessica Phillips	Upwind PID	0,0	0.(O.Y.	* 4. 81	3		8. S	\$t ')	0.0	0.6	Q.S		0.0	0.0	0,0	0,3	0,9	(°)	
Field Personnel:	Time	1015	1030	1055	0111	5011	0/11	1300	1340	Neo	1415	1450	1505	1520	1535	1600	1620	1630	Sot!	
		Ř		71			Å			A.	and a					y Ca				

L

Client: National Grid Location: 1 Edgewater Plaza Date: 7 127116 Field Personnel: J. Phillips

i.

Community Air Monitoring Plan / Noise Field Log Project: C(いかもの Project Number: 60137363 Weather: Hary, hash humi d Ambient Noise: NA

Downwind PID Downwind Dust dB Readings ¹ Comments	0.0 0.039 NA Setting UP A-2	9	0°. C C C C C C C C C C C C C C C C C C C		0.0 0.00 J	2.0 0.014 NI	0.00.0(3	0.0 0.013 Pulling augers them 13	2.0 0.011 1 contrete dive et 32	0.0 0.005 Milling 1803	0.0 0.00 × 1	0.0 0.004 1 4	0-0 0.005 ¹ 11	0.0 0.004 11	0.0 0.0/2 ···	0.0 0.019 11	0.0 0.0/3 1. 11	0 0 0.064 11	0.0 0.015 1, Proverine to short 8-3	0,0 0,015 V Grathie B 2 location
Work Area PID Do	0.00	0.0	0	0.3	0.0	0.0	0.0	0.0	0.0	<u>0</u> .0	0.0	Q	0.0	0.0	o O	0.4 6	0.0	0.0	0,0	0+0
Upwind Dust Trak	0,026	G,017	0.019	910.0	0.020	0.010	0.010	0.014	0.040	0.008	0.009	0.009	0.009	0.010	210.0	0.013	0.013	0,032	0.012	0.01
Upwind PID	0.0	0.0	0.3	0.2	0.7	0_0	1.3	0.7	0.2	3.0	0.6	0.9	0.7	0.9	0,0	0.0	0,0	0.(0,0	0.0
Time	755	326	640	Bor	910	(000)	1015	1030	1045	1125	01140	1155	1210	1205	1345	1405	IYas	1500	1575	1535

Break

Client: Nachlanal Grid Location: 1 Edgewater Plaza Date: 7920116 Field Personnel: Jacoba 01,11105

θ_{30} 0.0 0.03 1.1 0.0 0.03 1.1 0.0 0.03 0.046 M M_{11} h_{10} h_{11} h_{10} h_{11} h_{10}	Time	Upwind PID	Upwind Dust Trak	Work Area PID	Downwind PID	Downwind Dust Trak	dB Readings ¹	Comments
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	B 50	0 Ö	0.051	+ -	0.0	0.076	NA	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	910	0'0	0.051		0 0	0.0513	1	
7 0.0 0.044 0.2 0.0 0.056 u 5 0.1 0.044 0.0 0.0 0.056 u 5 0.1 0.041 0.0 0.0 0.053 u u 7 0.041 0.0 0.0 0.053 0.0 0.053 u 0.06 0.038 0.0 0.053 0.0 0.053 0.0 0.053 0 0.0 0.038 0.0 0.0234 0.0234 0.0234 0.011 1.0 0 0.0 0.038 0.0 0.0334 0.0334 0.0 0.0334 0.0 0 0.0 0.0334 0.0 0.0334 0.0 0.0334 0.0 0.0334 0.0 0.0334 0.0 0.0 0.00 0.00 0.00 0.0034 0.0 0.0034 0.0 0.0034 0.0 0.0034 0.0 0.0034 0.0 0.0034 0.0 0.0 0.0		0 Ø	0.052	0,0	0.0	0.068		6
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	945	•	B. oyu	0,2	·	0.054		n
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1030		0. oy3	D. E		0,006		¢ (
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1045	ľ .	0,040	0.0	0.0	0:033		Ic
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	110	0	0.038	0	0	0.051	2	11
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	7	0.0	0. C3 80	-		0.046		& Gatter of the given
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1400	0 0	0,030	0,0	0.0	0,036		R-S
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1415	0.0	0.030	-	0 0	0.034		Dil
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1430	0,0	0.029	0 0	0.0	0.037	1	10
15 0.0 0.027 0.3 0.0 0.031 32 0.0 0.028 0.1 0.0 0.035 35 0.0 0.028 0.1 0.035 10 0.0 0.028 0.035 10 0.0 0.036 0.036	1450	0.0	0.006	0	0,0	VCD.0		11
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1515	0	£20.0	1 ° /	\sim	0.031		71
55 0.0 0.024 0.4 0.0 0.034 10 0.0 0.028 0.3 0.0 0.036	1530	0 0	0.008	0.1	0	0.035		11
10 0.028 0.3 0.036	1555	0.0	0.029	•		0.039		C (
	1610		0,008		0	0.036		11
		1						
		4						
	-						7	

Community Air Monitoring Plan / Noise Field Log Client: National Grid Location: 1 Edgewoder Plaza Date:

-Edgewoler Project: Cliffer - Edgew Project Number: 6 018786

Comments	۹- C									a 3-6 location	es nerve event. / break	avent 00	scive and thes	04320 location			
dB Readings ¹	NA Drilling		11	1	11	11	N	11		finished advanced	RULING RAPERS	mixine	1 Averten de	arthree	0 0		
Downwind Dust dB Trak	N Pho.0	0.039	O. C30	0.030	0.036	0.037	Q.022	0.019	C.017	0,010	-0, 013°	-0.006	-0.016	0.030		и ^в	
Downwind PID	0.1	0.0	0.0	0,0	0 0	0.0	Q.Q	0.0	ට_ බ	0,0	0-0	0.0	0, 0	0.0			
Work Area PID	0.0	0.8	Q ² Q	0,3	い、こ	0.6	<i>O</i> . ي	1.0	Ó	0-0	O, O	0.0	0,0	0.0			
Upwind Dust Trak	O.033	20, 029A	0.022	0.023	20.00Y	0.00Y	0.024	ð. 0 3 5	0.00%	0,006	Jeo.0	0.027	0.005),00.0			
Upwind PID	0.0	0. O	0.0	0.0	0.0	0.0	0.0	0.0	୍ ଚ୍	Q*Q	2.54	Q, B	0,0	0.0			
Time	1045	1100	1115	1130	1150	1200	1330	1350	1405	1420	Isos	1518	1540	1600			

		0			9		Freens	0	S		0 - 1	Xara/						> Break					1.08
AECOM	Log lifton- Edgewater 60137363 PF, Cloudy, 1944 Whid, humid	Comments	Settles us to and R-9 leading	IVING ODERT	Orentha & adline erees OB		Drilling R-10	(°)	Preparie to credt 8-10 leadier	A allive aver el	0 ¹¹	Drilling B-11	016	11	11	11	11	11	ļl	11	Pulling award bealitha.		
	Community Air Monitoring Plan / Noise Field Log Project: Clr Hon Project Number: G Weather: Jor Ambient Noise: Ambient Noise:	'dB Readings ¹	4N				-					1										>	
	itoring Plan	Downwind Dust Trak	0.00	O. Cas	0.023	0.033	0,030	C. 08	0.015	0,010	0.010	100.0	6.003	10.0Y	0.016	2.02Y	0.043	0° CIU	110.0	-0.031	-0.001	800.0-	
	ity Air Mon	Downwind PID	0.0	0.0	0.0	Q, Ò	0 0	0.0	0.0	0,0	0.0	0. 0	0.0	0.0	0.0	0.0	0.0	0,0	0,0	0.0	0.0	U. O	
	Commun	Work Area PID	0.0	0°0	0.0	C. 3	Ð	0.1	0.(0.(0 0	0.0	0.2	0.0	Ó.C	0.0	0.0	Õ, O	0.0.	0.0	0.0	0.0	opid .
	Plaza Philips	Upwind Dust Trak	0.018	0.015	0.015	0.023	0.000	0.015	0.013	2010	0.015	C. COT	0.016	0.016	0.06	0.014	0.012	0.013	0,013	0.012	0:012	0,0(0	Jularly been
	National Grid L'Edquerter Plaza Onnel: Jessica Philli	Upwind PID	¥ 1.5	1.5	0.3	0,9	۲.1	9.0	0.5	1.4	5.1		0,0	0.3	0.3	0.4	0.0	0.0	Ø. 3	0.2	0 0	$\hat{\mathcal{O}}_{*}\mathcal{O}_{-}$	bid has rea
	Client: NOt Location: () Date: 2 Field Personnel:	Time	920	ers	900	930	945	1000	1035	1020	1105	1210	Scel	0 1210	255	1315	1330	onn	iuss	1515	1530	1550	AI - yought Pit has regularly been it after fight humidenty. Re-terpid

		& Upwind Pid Sensitive Sen	dw dust tracked	to read) ou confin	in yours dust you								Finish green hig 8	/ when we want					I		
Log	SIFTERN 60137363 6, sun 8 clauder, Light curd	Comments	Millina Q-12 leation		11	(1	۱ ۶	1	r(11	Pulling algors & grouthed	p oct-s putputs	0, "0	Milliner 13-13 location	0 10		۱	miking aneut	areutive 3-13	0 "0	
Community Air Monitoring Plan / Noise Field Log	Project: Project Number: Weather: 15 Ambient Noise:	dB Readings ¹	A2	-				_												-	7
itoring Plan /		Downwind Dust Trak	0.012	0.006	0.008	100.0	0.007	0.009	800.0	0.011	0.016	0.018	0.018	e. co.7	0.015	pao.o	20-00 ho	10.0	7 20,0	0.027	
ity Air Moni	v*/	Downwind PID	0.0	0.4	0. O	0,2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10	0.0	0.0	0 · Ò	
Commun		Work Area PID	0.0	0.)	4	0.5	0.3	0.1	0.3	9.0	0.0	0,0	0.0	Q, Ç	0.0	0.0	0.0	0.0	0.0		
3	Plaza 2 Phyllips	Upwind Dust Trak	0.010	0.008	0.012	0.009	0.011	0.009	0.009	2.009	0.013	110.0	0.0/2	0.01	0.010	0.011	0.011	0,010	0.011	0.009	
	National Grad 1 Elaqueder 6 1 2116 onnel: Jussia	Upwind PID	\$I.6	. ()	2.1	31	21	l. 3	60	5.1	1.6	1.5	0.9	9.0	0.2	p.0	0.0	9.)	1.7	1-0	
	Client: Not Location: 1 Date: Field Personnel:	Time	8/C	825	940	805	910	925	940	1000	1035	1020	11 est	Shill	1220	lays	1300	420	1435	14 SO	

@ 949- re-zerved du dust, ituas reading regetive

AECOM

Client: National GnZ Location: 1 Edoppoder Maze Date: 813116 Field Personnel: Jessica Phillips

Community Air Monitoring Plan / Noise Field Log Project: Cliffen Project Number: 60137363 Weather: 80°F, SUDAY, humid 1: 344-0004 Ambient Noise: 00137363

										7	2						+				
A A	Comments	Dilling R-14 location.	0 11	11	11	11	on an archards on 11	1	71	11	Polling augers	Milling B215 Tocation	n Q n	16	11	<i>(</i> 1	pulling first aver, althing ready to gra	mikes great a b b	anythe & alling greats	0 2 1 1 1 .0	
Ambient Noise:	dB Readings ¹	AN			-											-				,	\geq
'	Downwind Dust Trak	0.041	0.049	0,032	0.034	0,023	0.09	0.019	0.014	0.005	C.017	0.029	0.008	0.006	-0.00l	Re-tero batter	0. OY	0,015	0.03B		
	Downwind PID	0, (0	0.0	Ô	0.0	0.0	0.0	0,0	0.0	0.1	0. l	C (0. (0.1	0.0	0.0	0.0	0.0		
	Work Area PID	0.3	0.3	0.2	Ő.S	0.2	1.3*	0	0.3	0.0	0, 3	0,3	G.Z	0.5	O,S	0.3	0.1	0	0.2		
Phillips	Upwind Dust Trak	0.015	0.013	0.03	B00.0	0.00%	0.008	0,008	t0.07	0.000	0.009	୦.୦୦୫	0.007	0.007	5.007	0.000	0.007	0.000	0.007		
Jessica Phillips	Upwind PID	Ó Ó	0.0	0.0	0	0.0	0.0	0.0	Ó. Ó	Q,Ò	0,0	0 Ó	0° 0	0,0	0,0	0,0	0.0	Q, Q	Q, C		
Field Personnel:	Time	820	905	920	935	950	002		1040	1055	1910	320	1250	1305	1400	1420	1530	Isys	1000		

beak

Client: Nothonal Grid Location: 1 Eclosuoler Plaza Date: 815Hb Field Personnel: Jessica Phyllips

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Community Air Monitoring Plan / Noise Field Log Project: Cl Plan Project Number: Cl Alan Veather: 205, 52007, 10844 curve Ambient Noise: Albert Number

					- Rock	/wank			10 mm M	100										
NA	Comments	Drilling B-16 location	0 11		11	11	1/	Pulling first ager hom B-16	pulling accord backling.	Drilling B217 Location 0	0 11	11	11	11	Ĩí	11	Questice B-17/ocation			
Ambient Noise:	dB Readings ¹	NA.																		\rightarrow
	Downwind Dust Trak	£10.0	000.0	0.019	0.011	0.0J	50°.0	0,023	0.025	C. 038	C. 035	c). oyla	0.034	0.036	0.031	0.0(0	0.092	260.D		
	Downwind PID	0,0	0.0	Q. Q	0,0	0.0	0.0	0.0	0.0	0	0.0	0,0	0.0	0°0	0.0	0.0	0.0	0 , Ĉ		
	Work Area PID	0.0	0.5	00	0.2	0,0	0.0	0	0.0	0.0	0,0	0,0	0.0	0.0	0,0	0,0	0.0	0.2		
Phillips	Upwind Dust Trak	0,010	0100	0.009	0.010	0,010	0.00	0-0(C)	0.010	0.04	O.CII	0.010	0.010	0.010	0.009	0.008	0,008	0.008		
Jessica Phillips	Upwind PID	0.0	0. Ó	0.0	0.0	0,0	0,0	0.0	0.0	0.0	0,0	0.0	0,0	Q - Q	0.0	0,0	Q, C	0,0		
Field Personnel:	Time	1000	1020	1035	1050	1120	1135	1150	1205	1310	1325	1340	1355	1410	1450	Sosi	scs/	1540		

)				
	P	er plaza		Tessing Phillins
	Vational Grid	1 Pagewooder	81719	
	Client:	Location:	Date:	Field Personnel

Time

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SBreak local bn S Setting upon B-20, Pulling auges B19 5 3-1 \$35 re-re-co sudust have 5 11204 alla Comments 6-18 _ د ĩ 60137363 7 1 5 Prilling Project Number: (0013) Weather: 805, 5 UNNY, 1 Ambient Noise: Community Air Monitoring Plan / Noise Field Log dB Readings¹ NA P -0.036\$ Downwind Dust Trak Sag. O 0.026 00,00 0,014 -0.624 0.016 0,000 500.0 0.010 Downwind PID 0 0 ں 0 0 0 0 0. 0 0 0 Q Q 0.0 0 S, S , O Work Area PID 9.0 6.0 0 0 3 0 P V 5.0 0.4 \mathcal{C} • 5 < Upwind Dust Trak 1000 0.006 0,00% 0.00 0.009 0,000 0, 606 50010 0.008 50.0 Upwind PID

Pulling autors & beel Children B-209. B. 8-19 Ballhing. 12-21 6-20 2 \$ Drilling Dilling ⇒ 100.0 0.005 0.00 0.00 120.0 6. col 800 0) 0 0 Q Q 0.0 o Ġ 0 Ó C C 0.0 0 .V ナ、0 Ó 0 0 ó 0.005 0.001 0,005 0,00,0 500.0 0.004 S00.0 0 0 0.0 0 0 0 0.0 0 Ó 0,0 0.0 0 O Ó 0.0 0.0 0 0.0 0,0 Ģ 0 0 0 000 230 いたい ч <u>с</u> б 320 940 50 8 305 1120 (335 20 1205 355 910 925 1135

1 24

client: National Grid	Location: Economic Dage	Date: B 80 (6	Field Personnel: Jassica Pullines	

Community Air Monitoring Plan / Noise Field Log Project: Cliften Project Number: 60137365 Weather: & 75°F, mostly SUNDY, 10304 - UNA Ambient Noise: NIA

					(-1 Break			-	1/ isrealc										1	
NR O	Comments	Drilling 8-22	01,	11	łc	ſſ	16	1	L(ſſ	11	(1	11	7	ţl	Pulling avers	graffine. 98-22 location	0 1 1 0	h	CC-B Anon a animal	0
Ambient Noise:	dB Readings ¹	AN																			~
	Downwind Dust Trak	0.034	0,032	0.02	0 023	10.0	0.00	710.0	100.0-	0.035	0.00	#12-Fead	9,00,0	0.016	0,010	1-00.0	0.012	0.03	0.057	heo.o	
	Downwind PID	0.0	000	o Ó	0.0	0,0	o o	0.0	0.0	0.0	0.0	0.0	0 0	0,0	0 0	0.0	0.0	0 O	0.0	0.0	
	Work Area PID	0.0	6.0	0:0	0.0	0.0	0.0	0.0	0.0	0.0	0,0	0,0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0,0	
L'MINES	Upwind Dust Trak	110.0	0.011	0,010	0.009	0.009	6-009	0.009	0.0/0	0,008	0.008	0.008	6.009	0.008	0.009	0.00	0.007	0.08	0.026	6.008	
Jessica Milines	Upwind PID	0. 0	6.0	0.0	Q, Q	0 0	0	0,0	0.0	0.0	S S	0.2	0,0	1.6	0.0	0.0	Q. O	0.0	0.0	0.0	
	Time	830	Bus	000	915	1000	1015	1030	ious	01140	1155	1205	1220	1235	1250	1400	1415	1430	SHHI	1500	

Ct 01 20	-	PLO Aviances &	reaching high since	this unit acts up	duetchumidright					re tored du	dustmak'							2			1	
AECOM	Aton 60137363 vnny, lizht wind	Comments	Drilling 13-23 lactor	11) [11 to Sprayed wo-40	11	31	11	Anthro K-23 location		milling B-24 location	0 11	١	1)	Lt.	Pulling appres	Ou O & Rack Mina Ba	Drilling B-25 location	11	11	M
	Noise Field Project: Project Number: Weather: 700f Ambient Noise:	dB Readings ¹	AN	-														1			_	~
	Community Air Monitoring Plan / Noise Field Log	Downwind Dust Trak	0.050	0,080	0.052	0.044	0.042	teo o	0.01	200,00	0.006	C) . Coul	0.011	G.013	0.030	0,024	0.034	0.035	0.025	120.0	0.022	0.033
	ity Air Moni	Downwind PID	0 Ó	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0	o Ó	0.0	0.0	p. 0	0.0	0,0	0 0	0.0	0.0	0.0	0.0
	Commun	Work Area PID	0	0.2	0.1	1 (0 \$	0.2	0.2	1.0	0.0	0.1	0,0	.0	0 O	0.1	0.2	Q.	0.0	0.0	30	0.0	0.4
	Plaza	Upwind Dust Trak	0.038	0.043	0.046	T70.0	0,038	0.034	6.027	0.03	0.011	0.007	800.0	0.013	0.01	110.0	0.009	0.010	0.010	0.009	0,009	0.008
	National Gri I Edgewater BI 9116 mnel: Jessica	Upwind PID	1.6 \$	towind oid	0.0	0.0	0.0	0.0	0.0	0.0	0-0	0.0	0-0	0.0	0.0	0.0	Ó, Ó	0.0	0.0	0.0	0.0	0.0
	Client: No- Location: 1 Date: Field Personnel:	Time	Que	855	910	925	940	955	1010	1025	ohol	0111	1125	0,411	1155	0121	1325	1340	1400	1415	1430	1445

N	Line Aril	
Client: 1 W	5	
Location:	Edgework, Maza	
Date:	Colle	
Field Personnel:	Jessica Phillips	
	P	1

breezy, claudy humid Community Air Monitoring Plan / Noise Field Log Project: C1:P4-00 Project Number: 6-013-736-5 Weather: 800 C Sentry Loc Ambient Noise: N. N.

			Webo an	Piper					toy hat	¢himil.								
Comments	Willing 8-25 location	11 the upwind pid beancies around,		Automine angles be fer grant		Drilling B-26 location	1 0	11 Bagini Sterting to	11 A UPWING PIG SANATO NO	alling areas of mildre credt.	1 9 0 ¹ 11 9 9	Drilling B-27 location	11 0	M				
dB Readings ¹	AN	8 <u></u>																-
Downwind Dust Trak	0.035	0,036	0.037	0.83	0.032	0.030	0.027	960.0	6 tho	210.0	C. Car	0, 008	0.014	0.016	-			
Downwind PID	0.0	0 N	0.4	O.	0.(Q. (0.0	0.1	0	0.0	0.0	0. 1	0.0	Ó,Ò				
Work Area PID	0.4	м 0	0.2	 0	Q, Q	0.0	00	0	0.0	Ô, Ċ	0.0	04	0.5) 0				
Upwind Dust Trak	0.009	80	0.008	0,00	0,011	0.012	610.0	0.012	0.018	0.015	910.0	0.013	0.012	0.011				-
Upwind PID	0,0	× 0,	0.20	et o	0.0	0:0	0.0	0.0	3,04	G.C	0,0	0.0	0. C	0,0				-
Time	915	930	945	1125	241	1215	1230	1245	1340	1445	15-00	1540	1555	1615				-

Community Air Monitoring Plan / Noise Field Log wederplaza Client: Nortional Cond Location: 1 Edecuedar Date: Field Personnel

Project: Cliffer Project Number: 60137363 Weather: Ser & douds, light-wind, humid Ambient Noise: NIA

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455 0.00	0.04	0.1	0`0	0.099	 Milline B-27 acation
5.0	0.014	0, (0	0.0M	71
025 0.1 0	0.014	0.3	0.0	0.013	 pulling Arst 2 augus.
00000000	0.044	0 K	0-0	9100	 anutive B27
055 0.00	0.014	A 0.0	0	0.017	0 11 0
1130 0,5 0.	0.010	1.541	0.1	0.020	Milling R-28 location
145 0.6 0	0.0)5	. (0.0	0.020	11
200 0.0 0	0.015	0.9	0.0	20.022	 11
0 0 0 00	0.00	0.0	0.1	O.CON	 11
	0.016	5.0	/. 0	0.000	11
	910.0	S	0.2	0.017	 11
1450		0.2	0,2	0.022	miking evert
505 0.00	0,06	0.3	ю 0	0-030	 graph B-28 location.
600 0.8 0	.015	0.0	0.0	10.021	Chilling 13-29 location
651.10	0.016	0. T	0.0	9.026	
635 0.00	5100	o ٌ ر	0,0	0.009	 [1]

Bcak

Client: National Grid Location: 1 Edgewater plaza Date: 2/11

Community Air Monitoring Plan / Noise Field Log Project: CL分子CA Project Number: 60137363 Weather: 85で下, SUND 4, 1696-Furlind, Very humid

				428	and du 1	out they								12				
Comments	Fuelinania @ 8-39 & Dnillina & 30	NaTU 0 8-29 & 13-30 0	1,0 1,1	Drilline B-36/000 to west 15-29		4 greething B-29	1.1	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	3r1 0 11	Closing 2-30	Drilline 18-31	β^{c}	· · · · · · · · · · · · · · · · · · ·	PULLING ABOR & Backfulling R-	0 , n.0			
dB Readings ¹	NA	1														_		
Downwind Dust Trak	0.000	0.015	0.013	CO.O	-0. DI2R	0.015	50.077	0.025	0.032	-0.013	a,oue	0.035	0.034	0.036				
Downwind PID	0.1	0.0	0.0	0 Ø	0.0	0. 0	0.0	6	0	0.6	0.7	6.9	G.Y	0.4				
Work Area PID	0-0	0. 0	0.0	0,0	0.0	0.0	0.0	0.0	0	0.0	0,0	o ó	0.0	0.0				
Upwind Dust Trak	0.015	0.015	0.015	0.016	P10-0	0,015	0.016	F10.0	910-0	0.016	P10.0	0.014	O.OLY	P10.0		÷*:		
Upwind PID	0.0	0.0	0.0	0.0	0.0	00	0.0	0.0	0.0	0,0	0.0	0,0	\sim	0.0				
Time	950	1010	1028	[cy 5]	1100	115	Shel	320	1.835	1355	1425	1440	1455	1575				

Community Air Monitoring Plan / Noise Field Log AND SUL) Client: National Location: 1 topen Date: 215 Mc

60137363 authy cleudy, hunid, 11/44-wind Ş Project: Clift

				2	1 Sreak					r Brook		EUCS	0				
Comments	Drilling 8-32 location	0 4	11	16	W) (ł c	1	11	١١	L(Backfilling a white a	BackAlline B-320 0	Ø			
dB Readings ¹	NA	_					4										
Downwind Dust Trak	0.087	C.107	0.112	Stor 0	E0) 0	0.00	0,109	0.083	0.108	0,09	0.111	\$ 0.10°	0.095				
Downwind PID	0.0	00	0,0	0.0	0.0	0.0			0.0	0.0	0.0	*	Battersted O O95				
Work Area PID	0.0	0	0.0	0.0	Ø.	0,0	0	00	0.0	0.0	0.0	Q. 0	Q.Q				
Upwind Dust Trak	0.012	0.010	0.010	0,012	0.012	0.012	P10.0	0.013	0.01U	0.04	0.014	0.013	O. Oly				
Upwind PID	0.0	p.0	40	٥, ٧	0.1	0.3	0 2	1.0	0.2	р. 0	0	0.3	S. D				
Time	855	915	020	945	1030	1048	1100	1115	1130	1205	1220	2451	1305				

* & Word had

Appendix F

Well Development and Groundwater Sampling Forms **URS CORPORATION**

Site Name: LOW FLOW RATE PURGING AND SAMPLING DATA SHEET

<u> </u>	- 1													Г	Т					T		1		1	1000					
100						Water	Elevation	(ft from TOC)	6=60	H.C.																				
1/22	1 () -					Pumping	Rate	(ml/min)	AN																					
1			2		Volume	of Water	Removed	(ml)	NA																					
Ъ		(TOC)	6 Oft from TO			Temperature	(degrees C)		15.57	10.02	15-5-4	10.01	1010	2000																
SHEET		ft from top of casing (TOC)	WATER ELEVATION WITH PUMP IN PLACE (Initial): <u>んん</u> たt from TOC DIMP STATT TIME:			Turbidity	(NTU)	Reading %****	ZC- C NA	4		18.2	9 (
HS		TH: f	WITH PUMP IN		Dissolved	Oxygen	(mg/L)	°/°***	NA	2+ 2	5	1																	-	
	10	PUMP INTAKE DEPTH:	ELEVATION		ā	0	_	** Reading	1/067		1.5 ~/	1								-										
	IT NUMBER:		WATER I	FUMP 31	Redox	Potential	(mv)	Reading Change***	AN AN	4	M	~	3			-	-	, , ,		_									-	
, 9	WELL PERMIT N		K I.					%** Read	\vdash	17-	1	1-1	121		n c												-	-		
1/22	N N N	AMBIENT AIR:	tial);	rt No.	Specific	Conductivity	(mS/cm)	Reading %	<u> </u>		6	2	20	0	6				+	_								-	alvsis:	
121	1.1-	AMBI	OPEN WELL (initial):	WQ Meter Cert No.				+		0	0 0		201		10102			-		-								-	oratory Ar	
	12		Q	M		Hq	(oH units)	na Change*	+	5	20	000	20	00	4	~		<u> </u>					+				<u> </u>	+-	Samuling Foreinment and Laboratory Analysis:	
	ON I	(man)	funded) o					Read	1	\$	0	2	<u>d</u>	0 - 0												<u> </u>		\downarrow		····dinh:
	WEI	l d			1	6uj			_	+	+-			+	X		+	╋	+	+		+	╋	╀╴	+	+	+	╋		2
	in the second se		3			61	11Q	unc	T	\downarrow	12	$\langle \cdot \rangle$		ł	0		+-	+	+	+	+-	+-	+	+		+	┿	+		-
DATE:	WEATHER: MONITODING WELL NO -	moninonino neer no.						TIME	0110	10	200	2	1000	No.	10/01														S	5

* Calculate change by subtracting current reading from previous reading. When 3 consecutive readings are +/- 0.1, pH is considered stabilized

** Calculate percent by dividing current reading by previous reading and multiplying by 100. When 3 consecutive readings are between 97 and 103 percent,

specific conductivity is considered stabilized

*** Calculate change by subtracting current reading from previous reading. When when 3 consecutive readings are +/- 10 mv, redox potential is considered stabilized **** Calculate percent by dividing current reading by previous reading and multiplying by 100. When 3 consecutive readings are between 90 and 110 percent, these parameters are considered stabilized

OW RATE PURGING AND SAMPLING DATA SHEET SHEET SHEET FIELD PERSONNEL: NMBER: PUMP INTAKE DEPTH: MIER: AMBER: PUMP INTAKE DEPTH: MIER: AMBER: PUMP IN PLACE (Initial): MIER: Addition Addition <tr< th=""><th>LOW FLOW RATE PURGING AI PUMP INTAKE DEPTH: WATER ELEVATION WITH PUMP START TIME: PUMP START TIME:</th></tr<>	LOW FLOW RATE PURGING AI PUMP INTAKE DEPTH: WATER ELEVATION WITH PUMP START TIME: PUMP START TIME:
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N. G. ENGHTMAR Gridt

Site Name:

* Calculate change by subtracting current reading from previous reading. When 3 consecutive readings are +/- 0.1, pH is considered stabilized

** Calculate percent by dividing current reading by previous reading and multiplying by 100. When 3 consecutive readings are between 97 and 103 percent,

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these parameters are considered stabilized

Site Name:

SHEET
DATA :
LOW FLOW RATE PURGING AND SAMPLING DATA SHEET
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PURGING
V RATE I
OW FLOV
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URS CORPORATION

						1																	
5			Water Elevation	(ft from TOC)	2.65			-	7														
55/0			Pumping Rate	(ml/min)	AN																		
	U	Volume	of Water Removed	(ml)	NA																		
5	ng (TOC) Z. () ft from TOC		Temperature (deorees C)		14.59	14.63	14.66	14.70	14 70														
SONNEL:	ft from top of casing (TOC) PLACE (Initial):		idity U	****0%	AN												1						
SHEET FIELD PERSONNEL:	ft from to IN PLACE (I		Turbidity (NTU)	Reading	1267	401	4.0	U. 1	1 1	3						-1-							
	I D C	ved	l	****%	NA																		
	ce depth: :Vation Wi :T Time:	Dissolved	Oxygen (md/L)	Reading	1.81		051	02 1		222													
UMBER:	PUMP INTAKE DEPTH: ft from top of cash WATER ELEVATION WITH PUMP IN PLACE (Initial): PUMP START TIME: <u>1053</u>	xo	Itial	Change***	AN								-			1							
SDC WELL PERMIT NUN		Redox	Potential	Reading		52-	198	1100		-	i												
WELL PI		fic	tivity	····)	AN						MIL									7			
2/16	AMBIENT AIR: EN WELL (Initial): WQ Meter Cert No.	Specific	Conductivity	Deading	U TIC		``	0 1 1 0	1/1/2000		S C												rv Analvsis:
12/21	N WEL			nits) Change	NA						APPL -												d 1 aborato
T NO. PIL	5		Hd	31-		0			20 × 20	27.4													Samuling Equipment and Laboratory Analysis:
MEI	INGS		ճսյլզ		_		Į.	Ţ	T		<	T	Ţ	Ţ	1	1	T		-		-	+	
DATE: WEATHER: WONITODING WELL NO.	PID/FID READINGS (ppm):		Đuị	6.n.				X (0/	C 0111	115	120												Samul

* Calculate change by subtracting current reading from previous reading. When 3 consecutive readings are +/- 0.1, pH is considered stabilized

** Calculate percent by dividing current reading by previous reading and multiplying by 100. When 3 consecutive readings are between 97 and 103 percent,

specific conductivity is considered stabilized

*** Calculate change by subtracting current reading from previous reading. When when 3 consecutive readings are +/- 10 mv, redox potential is considered stabilized **** Calculate percent by dividing current reading by previous reading and multiplying by 100. When 3 consecutive readings are between 90 and 110 percent, these parameters are considered stabilized

Client:	Nation		Da	ite: 12	121	6 Time		330 am/pm
Project No: Site Location:		137363	P				Finish	1900 am/pm
Weather Cond	s: <u> </u>	after me	5 0	ollector(s):		Sava	Meis	sne
1 WELL & W		DATA: (measure	d.	21 F F				
		1.28 c. Screen			asing unit	iss noted)	4 "PV	C Casing
		To C d. Screen	The second se	ake)	_		Sump:	
		4.28 e. Calcul			ume			
2. WELL PUR		1.8516.0	221.0 5					
a. Purge Me		1225	IN F	low-	Peri	stalt	2 Pun	-p
b. Acceptar	ce Criteria defi	ined (see workpla						
- Temperati	ire 3%	-D.O.	10%					
- pH - Sp. Cond.	<u>+</u> 1.0 3%	unit - ORP - Drawdow	<u>+</u> 10m\ n < 0.3'	/				
					Madal		Oricial	N Is simply a set
C. Field Tes	ting Equipmen		Nake Honba			2	Serial	Number
			pen pur	p				
Volu <u>Time R</u> em	ume oved <u>Temp.</u>	pH Spec. Cond	d. DO	ORP	Turbidity	Flow Rate	Drawdown	Color/Odor
	ers) (°C)	(mS/cm)	(mg/L)	(mV)	(NTU)	(ml/min)	(teet)	1000 North
1375	13.70 4			-69	5.6	Joonly	-	clear un
		7.01 0.74	1 2.20	-55	29		-	d 4 d 4
1345		889 0.731		-57	0.0		-	1 h
1355	13.92 8	155 0.710	2.24	- 49	0.0	N	-	h c
1400	2 14,04 8	45 0.717	- 2.25	-44	0.0			
	nce criteria pas uired volume be		Yes No	N/A				(continued on back)
	uired turbidity b							
	rameters stabil or N/A - Explai		8 U					
1.								
3. SAMPLE C	OLLECTION:	Method:	lou) FI	»W			
			-	1	1.	1.1.1		
Sample RAN - 7	NYE	Container Type		Preser	vation lands	Analys	is Req. Ce Coz	Time 14
RW - 2	OY I-MS	N u	u	*	n -		4 *	14
_KW-2	04] - M	Sp 4 4	e e	ч	a u		k u	143
Comments				In hereit			C.E.	
			1			1.77	1.5	
hr		1 1 2 2 4 1		1.1.1		1 I.		

Well ID: RW-204I

Well ID: PW-210I

AECOM

Project No: 60137 Site Location: Cliffy	363 1 Mbl	Pate: 12/2/ /	<u>b</u> Tim		2 <u>3°</u> am/om 300_am/om
a. Total Well Length <u>38. 15</u>	red from Top of Casin	g)		Casing Diam	eter/Material Y ^M PVC
 b. Water Table Depth <u>Toc</u> 2. WELL PURGE DATA a. Purge Method: 	*	Volume (see back)	utiz .	Punp	
b. Acceptance Criteria defined (- Temperature 3% - pH <u>+</u> 1.0 unit - Sp. Cond. 3%	-D.O. 10%		* * * *	l	* 8
c. Field Testing Equipment used	1: Make Honiba Per Pur	Model U	52	Serial	Number
VolumeTimeRemoved Temp.pH(24hr)(Liters)(°C)1231111.009.22123212.407.11123212.407.91124012.237.891251212.97125011.077.841301810.70Has required volume been re Has required turbidity been re Have parameters stabilized If no or N/A - Explain bel	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
Sample ID Container Type	No. of Containers	Preservation Vaniou	Analysi	s Req.	Time 1308
N 4 Comments	и ч 	<u>к</u> и			
Signature	Chud Sur	al	Date	12/2	21/16

Well ID:	RW	-200	5
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AECOM

Ditent: Nahoual bond Date: 12/21/10 Time: Start 0913(h)m Project No: (a137303 Calibration Finish 1013(h)m Project No: (a137303) Collector(s): Chad Study Weather Conds: H05_3/2007 Collector(s): Chad Study Weather Conds: H05_3/2007 Casing Diameter/Material a. Total Weil Length If I							
Site Location: Children (m6) Weather Condis: UDS, SMAN		Dat	e: 12	12/11	o Tim		
1. WATER LEVEL DATA: (measured from Top of Casing) a. Total Weil Length 19.75 c. Length of Water Column 19.72 (a-b) Casing Diameter/Material b. Water Table Depth 3.0 d. Calculated System Volume (see back)	Site Location: <u>CN-fton M6P</u>	Co	llector(s):	Ċ	had S	nau	
a. Total Well Length <u>19.75</u> c.: Length of Water Column <u>19.72</u> (a-b) b. Water Table Depth <u>3.92</u> d. Calculated System Volume (see back)	1. WATER LEVEL DATA: (measured from Top	of Casing)	0	882	-		
2. WELL PURGE DATA a. Purge Method: $U \subseteq W = flow - flow flow flow flow flow flow flow flow$	a. Total Well Length 19.75 c Length of N	Water Colun	nn 14.7	<₽ (a-b)		Casing Diame	•
a. Purge Method: $U \otimes Haw$ Pen Math C ruly b. Acceptance Criteria defined (see workplan) - Temperature 3% -D.0. 10% - pH ±1.0 unit - ORP ±10mV - Sp. Cond. 3% - Drawdown <0.3' c. Field Testing Equipment used: Make Model Serial Number Haw ba NSZ Volume Volume Time Removed Temp. pH Spec. Cond. DO (RTU) (mV) (mV) (mV) (1981) (VTU) (mV) (1981) - 092.8 1 12,33 9.20 0.357 3.40 - 132 0.0 10 mV (Color/Odor (RSCm) (mV) (NTU) (mV) (1981) - 092.8 2 1325 9.21 0.357 3.40 - 132 0.0 10 mV (Color/Odor - 093.5 3 103.29 8.24 0.357 3.40 - 132 0.0 10 mV (Color/Odor - 093.5 3 103.29 8.24 0.357 3.40 - 132 0.0 10 mV (Color/Odor - 093.5 3 103.29 8.24 0.357 3.40 - 132 0.0 10 mV (Color/Odor - 093.5 3 103.29 8.24 0.357 5.224 - 151 0.0 1 4 4 4 - 093.5 4 13.46 8.25 0.359 5.224 - 151 0.0 4 4 4 - 093.5 4 13.46 8.25 0.359 5.224 - 151 0.0 4 4 4 - 093.5 4 13.46 8.25 0.359 5.224 - 151 0.0 4 4 4 - 093.5 4 13.46 8.25 0.359 5.224 - 151 0.0 4 4 4 - 093.5 8 H.4.4 8.24 0.394 1.4.4 1.4.5 0.0 4 4 4 - 093.5 8 H.4.4 8.24 0.394 1.4.5 1.58 0.0 4 4 4 - 093.5 8 H.4.4 8.24 0.394 1.4.5 1.58 0.0 4 4 4 - 093.5 8 H.4.4 8.24 0.394 1.4.5 0.0 4 4 4 - 093.5 8 H.4.4 8.24 0.394 1.4.5 0.0 4 4 4 - 093.5 8 H.4.4 8.24 0.394 1.4.5 0.0 4 4 4 - 093.5 8 H.4.4 0.994 0.4.394 1.4.5 0.0 4 4 4 - 094 5.6 M.1/A Explain below. 3. SAMPLE COLLECTION: Method: Low PLBW 	b. Water Table Depth $3.\infty$ d. Calculated	System Vo	lume (see l	back)			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Plow-	Pent	staltie	Pur	P	
C. Pield Testing Equiphenin doed. Harriba MSZ Far purper Volume Time Removed Temp. pH Spec. Cond. DO (ustron) CO (Uters) CO (ustron) CO (or Color/Odor (ustron) CO (ustron) CO (ustron) CO (ustron) Co (ustron) Color/Odor (ustron) Color (ustron) Color (- Temperature 3% -D.O. - pH <u>+</u> 1.0 unit - ORP	10% <u>+</u> 10mV				i.	i.
Volume Time Removed Temp. pH Spec. Cond. DO ORP Turbidity Flow Rate Drawdown Color/Odor 092.3 1 12,751 9.74 0.319 3.90 -137 0. 400 ml/min) (freet) 092.3 1 12,751 9.74 0.319 3.90 -137 0. 400 ml/min) (freet) 092.3 1 12,751 9.74 0.359 3.40 -137 0.0 400 ml/min) (freet) 093.8 2 13.349 8.74 0.359 512.4 -151 0.0 4.4 094.3 14,04 9.741 0.359 512.4 -151 0.0 4.4 094.3 14,04 9.741 0.434 4.74 -152 0.0 4.4 094.3 H.410 9.741 0.434 4.74 -152 0.0 4.4 094.3 H.410 9.741 0.434 1400 0.0 0.0 0.0 0.0 0.10 0.0 <td></td> <td></td> <td></td> <td></td> <td>52</td> <td>Serial</td> <td>Number</td>					52	Serial	Number
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			ng .		•		3
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Time Removed Temp. pH Spec. Cond.				Flow Rate		Color/Odor
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	(24hr) (Liters) (°C) (µS/cm)						der
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	0928 2 1335 874 0,350	3.40	- 141			<u>د</u>	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $							
0 - 1/3 $0 - 3/3$ $0 - 3/5$ 3.30 -157 2.0 1.57 1.57 2.0 1.57						_	уч
0453 8 Hugi 9.24 0.424 2.31 -160 0.0 0 <td></td> <td>and the second se</td> <td></td> <td></td> <td></td> <td></td> <td>v L</td>		and the second se					v L
d. Acceptance criteria pass/fail Yes No N/A (continued on back) Has required volume been removed Has required turbidity been reached Has required turbidity b					V	_	
Has required turbidity been reached Have parameters stabilized Have parameters stabilized If no or N/A - Explain below. If no or N/A - Explain below. 3. SAMPLE COLLECTION: Method: Low Plow Sample ID Container Type No. of Containers Preservation Analysis Req. Time Qw - 200 S Variowid 16 Variowid Comments	d. Acceptance criteria pass/fail	Yes No	N/A	<u>,</u>			(continued on back)
Have parameters stabilized If no or N/A - Explain below. 3. SAMPLE COLLECTION: Method: Low Plow Sample ID Container Type No. of Containers Preservation Analysis Req. Time pw - 200 S Various 16 Jamin Sec Coc 100 Comments							
If no or N/A - Explain below. 3. SAMPLE COLLECTION: Method: Low Plow Sample ID Container Type No. of Containers Preservation Analysis Req. Time <u>Rw - 2005 Varior</u> 16 Jan Secce 100 Comments			님				
3. SAMPLE COLLECTION: Method: Low Flow Sample ID Container Type No. of Containers Preservation Analysis Req. Time Rw - 2005 Varior 16 Janna Seccor 100 Comments							
Sample ID Container Type No. of Containers Preservation Analysis Req. Time <u><u><u></u></u><u><u><u></u></u><u><u><u></u></u><u><u></u><u><u></u></u><u><u></u><u></u><u><u></u></u><u><u></u><u></u><u></u><u></u></u></u></u></u></u></u>	It no or N/A - Explain below.		· · ·				-
Comments	3. SAMPLE COLLECTION: Method:	Low	Plo.	لم	t		······
Olard Fradd Data 12/21/16						•	Time \ 00
Olard Fradd Data 12/21/16			2				
Signature Date	Comments	W.			*	19	
Signature Chad Small Date 12/21/14	· · · · · · · · · · · · · · · · · · ·	92			¥		
	Signature	Sina	U .		Date	. 12	121/16
		0.	16				

Well	ID:	fw	-	2001
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AECOM	
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				-				
Client:	National	bud	Date	e: 12	121/1	tim را		<u>940</u> (m)/pm
Project No:	601373						Finish	<u>137</u> am/pm
Site Location:	Clifton	Mbl						
Weather Conds:		sunny	Col	lector(s):		sara	Mersin	e
<u> </u>								
1. WATER LEVEL					3			stor/Matorial
a. Total Well Le	ength 38.13	c Length of V	Vater Colum	in <u>36.</u>	12-(a-b)		Casing Diam V	⁴ PVZ
b. Water Table	Depth	d. Calculated	System Vol	ume (see l	back)			
2. WELL PURGE	DATA	алан (р. 1997) 1997 — Пара Санан (р. 1997) 1997 — Пара Санан (р. 1997)		0	- 0	0		
a. Purge Metho	od:	low	Flow-	- 1-6	n fu	rip		
b. Acceptance	Criteria defined (8			
- Temperature	3%	-D.O.	10%					<i>.</i> 2.
- pH	<u>+</u> 1.0 unit		<u>+</u> 10mV				•	
- Sp. Cond.	3%	- Drawdown	< 0.3'					
c. Field Testing	J Equipment used		ike _		Model		Serial	Number
	-		oriba	-	452			
	_	44	n jun	1 · · · ·			-	
Volume				000	The substability of	Elour Doto	Drawdown	Color/Odor
	<u>ed Temp. pH</u>	Spec. Cond. (µS/cm)	DO (mg/L)	<u>ORP</u> (mV)	(NTU)	Flow Rate (ml/min)	(teet)	COIOI/OUOI
(24hr) (Liters)	(°C) 13.18 824		4.01	130	3,0	loomlin	·	clear
0945 1	13 22 8 28		3,99	129	1.5	10 10010	·	U Y
0955 5	13.30 8.30	0.232	3.94	128	0,0			24
1000 6	1332 8 40	6,233	3.89	127	0,0			nu
1005	13.34 842	0232	3,87	119	00			a u
1010 8	13.41 8.49	0,232	3.71	117	0.0	·N		n Le
1015 10	13.53 8.51	0.232	3.79	115	0.0		5	61.
d. Acceptance	criteria pass/fail		Yes No	N/A	s .			(continued on back)
	d volume been r							
	d turbidity been I	reached		닏				
	neters stabilized			Ļ				Ξ.
If no or	N/A - Explain bel	ow.		45		ф		
×	<u></u>			~		·····		
3. SAMPLE COL	LECTION:	Method:	low	M	*W	·		
Sample ID (Container Type	No. of Conta	ainers	Prese	rvation	Analysi	s Req.	Time
Rev-200I	Various		. ما	l	anous	S	ua	1030
								·
				<u> </u>				
						104		
Comments	3		ā)	27			54.	
								·
						,,		
W		$ \rightarrow $	•			L.H.	<u></u>	
		$\langle \rangle \rangle$				Date	12/	21/16
Signature	(/	$\gamma \mu $				Dale	V	
		10						
		2						

Well ID: FW - 2025

AECOM

lient	No havã el la	nd	Date:	12	21/12	- Tim	e: Start	(OU mypm
Client: Project No:	National 6: 6:137					5		145 am/pm
Site Location:	Clifton				<i>e</i> .		_	-
Weather Cond		Unny	Collec	ctor(s):		Chad	Small	
1. WATER LE	EVEL DATA: (measu	red from Top	of Casing)					
a. Total We	ell Length 25.30	c. Length of V	Vater Column			-	Casing Diame	eter/Material
b. Water T	able Depth 1.85	d. Calculated	System Volun	ne (see ba	ick)			
2. WELL PUF a. Purge M		Low	Flow-	P1	in P	unip		
b. Accepta	nce Criteria defined				e.	: •		
- Tempera		-D.O.	10%					<u>8</u> .
- pH - Sp. Cond	<u>+</u> 1.0 unit	- ORP - Drawdown	<u>+</u> 10mV < 0.3'			v		
52							Quality	Number
c. Field Te	sting Equipment use	d: Ma	St. 1.		Model US	7	Serial	Number
	-	11	oriba		<u>us</u>	0	9	
Vo	lume .		cr fund				•	
	noved Temp. pH	Spec. Cond.				Flow Rate	Drawdown	Color/Odor
(24hr) (L	iters) (°C)	(µS/cm)		(mV)	(NTU)	(ml/min)	(feet)	CLEAR
11:04	1 11.45 7.92		9.53	-98	1.5	Ioontin		u 1
11:09	3 14.2 9.47		1.58 -	-108	0.3	-1		пч
11:19	15,01 9,49		1.42 -	-(12	0.3			U d
11:24	5 15,05 9,48			-(16	6.0			au
1:29	14.93 9.39	0,609	1.35 -	17	01			<u>a</u> 4
11:34	10 14.09 9.49			119	0,0			or h
d. Accept	ance criteria pass/fai	-	Yes No	N/A				(continued on back)
	quired volume been I							
	quired turbidity been arameters stabilized	reached		H				
	o or N/A - Explain be	low.				2		
	o or reve explain be			2))				
3. SAMPLE	COLLECTION:	Method:	low	Fb	2	-11		9 9
Sample ID	Container Type	No. of Conta	liners	Preserv VA	ation	Analysi S-e	s Req. L COC	Time 1145
				- 10 				
Comments _			₩.	43		8	89	
						2		
*							101	- 10
Signature		had Su	nall			Date	L	2116
-								

Well	ID:	RW	- 202	J
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AECOM

Client:	National		Dat	e: 12	21/11	e Tim		100 (am/pm 130 (am/pm
Project No:		37363					rinsii_ <u>(</u>	130 ampin
Site Location:	Clif4	on Mbp				Cha	0.0.0.0	
Weather Cond	s: 405	sunny	Co	llector(s):		Sara	Meissne	
	WEL DATA: (mea				05 (a-b)	*	Casing Diam	
						-		4" PVL
	able Depth 1.3	\leq d. Calculated	l System Vo	lume (see	back)			
2. WELL PUF a. Purge M		20	W FLI	<u>.</u> ۲	len.	stalt	<u>c fur</u>	rp_
b. Accepta - Temperat - pH - Sp. Cond	<u>+</u> 1.0 un	-D.O.	10% <u>+</u> 10mV	,				
c. Field Te	sting Equipment u		ake		Model	52	Serial	Number
			in Pum	0			(.)	
Vo	lume	· · · ·	21. 1 and				-	·
	noved Temp. ph			ORP		Flow Rate	Drawdown	Color/Odor
(24hr) (L	iters) (°C)	(µS/cm)	(mg/L)	(mV)	(NTU)	(ml/min)	(feet)	clear
100	1 13.20 10.2		3.65	-16	0,0	100 MT M	-	a 1
1105	13.22 10,	the second s	3.21	-16	0,0	Ι- <u>Λ</u>		LY
1110	5 13.24 10.		3.19	- 45	0.0			a 1
1115	13.74 10,0		3.18	-75	0.0			4 4
1120	13.44 10.9		3.6	-45	00			6 -
130	10 13.51 10.		3.15	-46	0.0	V V		av
	ance criteria pass/		Yes No	N/A				(continued on back)
	uired volume bee		V D					
	quired turbidity bee							
	arameters stabilize							
	o or N/A - Explain					×.		-
		·			· · · · · · · · · · · · · · · · · · ·			
3. SAMPLE (COLLECTION:	Method:	Low	Flo	<u>w</u>	1.		
Sample ID RW - 202	Container Typ		ainers		rvation	Analysi S-ea	s Req.	Time <u> </u>
		····					5%	
	- 0. I	S		- x	<u> </u>		2.	
Comments	18.1		<u> </u>					
	<u></u>	<u> </u>				,		
			-					
Cianatura	· •	$\left(\right) $		3		Date	.121	21/16
Signature		101		<u> </u>			· · ·	
	7							
	L	/ .			÷			

Δ	-	C	0	A	A * .
				/ //	

<u> </u>	<u>ر المعامر </u>	Co feet from ength interval (Inta ed Water Co FLO 10%	Illector(s): Top of C ke) blumn Volu w) - {	asing unle	Sara ess noted)	Meiss Y "PV Sump:	130 am/pm
$\frac{4 \circ 5}{1 \text{ LEVEL DATA}}$ gth 25.77 epth 2.4 (a-b) 23.37 ATA riteria defined (3% ± 1.0 unit 3%	c. Loudy : (measured in 2 c. Screen In 2 e. Calculate LOW see workplan) -D.O. - ORP - Drawdown	Co n feet from ength nterval (Inta ed Water Co PLO 10% ± 10mV	Top of C ke) olumn Volu	ume	ess noted)	ပြ " PVi Sump:	1.12
tevel DATA gth 25.77 epth 2.4 (a-b) 23.37 ATA riteria defined (3% ± 1.0 unit 3%	: (measured ir c. Screen Lo d. Screen Ir e. Calculate ل ک ک See workplan) -D.O. - ORP - Drawdown	n feet from ength nterval (Inta ed Water Co FLO 10% ± 10mV	Top of C ke) olumn Volu	ume	ess noted)	ပြ " PVi Sump:	1.12
$\begin{array}{c} \text{gth} 25.77\\ \text{epth} 2.9\\ \text{(a-b)} 23.37\\ \textbf{ATA}\\ \text{:}\\ \text{:}\\ \text{riteria defined (}\\ 3\%\\ \pm 1.0 \text{ unit}\\ 3\%\\ \end{array}$	2 c. Screen Lo d. Screen Ir e. Calculate رویک See workplan) -D.O. - ORP - Drawdown	ength nterval (Inta ed Water Co <u>FLo</u> 10% ± 10mV	ke) blumn Volu いー (ume		لا " PVi Sump:	C Casing
riteria defined (3% +1.0 unit 3%	_ d. Screen Ir 2 e. Calculate ک ک ک see workplan) -D.O. - ORP - Drawdown	10% ± 10mV	ke <u>)</u> blumn Volu	ume		Sump:	
(a-b) 23.3 ATA riteria defined (3% +1.0 unit 3%	e. Calculate ک ک see workplan) -D.O. - ORP - Drawdown	10% ± 10mV	olumn Voli いー(
ATA riteria defined (3% <u>+</u> 1.0 unit 3%	لی بی see workplan) -D.O. - ORP - Drawdown	<u>بالم</u> 10% ± 10mV	<u>w-</u> 1		altic	Purp	
riteria defined (3% <u>+</u> 1.0 unit 3%	see workplan) -D.O. - ORP - Drawdown	10% <u>+</u> 10mV		Renst	altic	Runp	<u></u> ``
3% <u>+_</u> 1.0 unit 3%	-D.O. - ORP - Drawdown	<u>+</u> 10mV					
Equipment used	l: Mal						
_		ke. Niba			52	Serial	Number
provide statements		in Dun					
	1		1				
Temp. pH	Spec. Cond. (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (teet)	Color/Odor
1354 7.95			<u>, , , , , , , , , , , , , , , , , , , </u>	6.1			dear
		10/01	-186	6.7			u N
	1.487	6.59	-197	3.1		-	av
13.67 7.81	0.485	0.44	-199	28			hi
				1.1		-	nl
				_			nl
							ny
					$-\forall$	-	m
						L	(continued on back
turbidity been r ters stabilized	eached						
ECTION:	Method:	loui	Plo	W			1
	Nandus	<u>No.</u> 16					<u>Time</u> /(3c
	13.54 7.95 13.62 7.75 13.62 7.95 13.63 7.95 13.75 7.95 13.75 7.95 13.93 7.95 13.93 7.95 13.93 7.95 13.93 7.90 13.93 7.90 13.93 7.90 13.93 7.90 13.93 7.90 13.93 7.90 13.95 7.90 13.95 7.90 13.95 7.90 13.95 7.90 13.95 7.90 13.95 7.90 13.95 7.90 13.95 7.90 13.95 7.90 reters stabilized A - Explain bel CTION: 10	13.54 7.95 0.503 13.62 7.71 (.493 13.62 7.81 6.495 13.67 7.81 6.495 13.70 7.82 0.493 13.70 7.82 0.493 13.70 7.85 0.491 13.80 7.85 0.491 13.80 7.95 0.491 13.80 7.95 0.491 13.85 7.90 0.477 13.85 7.90 0.477 13.85 7.90 0.477 13.85 7.90 0.477 13.85 7.90 0.477 13.85 7.90 0.477 13.85 7.90 0.477 13.85 7.90 0.477 volume been removed 1.475 turbidity been reached 1.464 /A - Explain below. 1.464 Container Type 1.464	13:54 7:95 0.503 0.78 13:12 7:71 (.493 0.191 13:12 7:71 (.493 0.191 13:12 7:71 (.497 6.59 13:12 7:72 0.485 0.471 13:70 7:82 0.485 0.471 13:70 7:82 0.485 0.471 13:70 7:82 0.485 0.471 13:70 7:82 0.485 0.471 13:70 7:82 0.481 0.49 13:80 7:95 0.491 0.49 13:80 7:95 0.497 0.40 13:85 7:40 0.477 0.39 volume been removed 9 0.39 10.40 ters stabilized 9 10 10.40 /A - Explain below. 9 10.40 Container Type No.	13:54 7:95 0.503 0.78 -174 13:12 7:71 1.413 0.161 -186 13:12 7:71 1.413 0.161 -186 13:12 7:71 1.413 0.161 -186 13:12 7:71 0.465 0.47 -186 13:70 7:62 0.465 0.47 -181 13:70 7:62 0.485 0.47 -181 13:70 7:62 0.485 0.47 -181 13:70 7:62 0.485 0.47 -181 13:80 7:62 0.485 0.47 -181 13:80 7:66 0.477 0.40 -201 13:85 7.40 0.477 0.34 -201 riteria pass/fail Yes No N/A volume been removed 9 9 0 9 4 - Explain below. 9 9 9 A - Explain below. 10 10 10 10 Container Type No. Preser <	135477950.5030.78 $-1746.6.1$ $1367779.6.4930.191-196.6.7$ $0.191-196.6.7$ $1367779.6.4950.0.4976.5.79-1977.3.1$ $0.191-196.6.79$ $1367779.790.0.4950.0.497-0.970.0.4970.0.4970.0.4970.0.4970.0.4970.0.4970.0.490-1.1$ $1.111.111.111.111.111.111.111.111.111.$	13:54 7:95 0.503 0.78 -174 0.1 100mlm 13:62 7:73 (.493 0.91 -180 6.7 13:64 7.80 (.487 6.59 -187 3.1 13:67 7.81 0.485 0.47 -187 3.1 13:67 7.82 0.485 0.47 -187 2.8 13:70 7.82 0.483 0.47 -190 1.1 13:73 7.85 0.481 0.49 -191 6.0 13:80 7.95 0.481 0.49 -191 6.0 13:80 7.95 0.481 0.49 -191 6.0 13:80 7.95 0.491 0.49 -191 0.0 13:85 7.40 0.497 0.39 -201 0.0 volume been removed 9 9 9 10 10 ters stabilized 9 9 10 10 10 /A - Explain below. 10 10 10 10 10 Container Type	135477195 0.503 0.78 -174 6.1 $100mlm$ 1342771 7.79 6.997 0.91 -186 6.7 -1747 -18477

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lient: roject No:	N		nal 00137		Da	te:	2 22	16 Tim	ie: Start Finish	0830 am/pm
ite Location /eather Co			,	doudy		ollector/s).	Sara	Meiss	wr
-				(measured i						<u> </u>
				c. Screen l		-	-	iess noteu)	1-5" P	VC Casing
				d. Screen I					Sump:	•
				e. Calculat					Sec. 8.	
a. Purge	URGE D	ATA		1012.0 1			_	taiti	- Pur	Q
- Temper	rature	3%	.0 unit	ee workplan) -D.O. - ORP - Drawdown	10% <u>+</u> 10m∖					
c. Field T	Testing I	Equipme	ent used: —	<u> </u>	ake Driba			52	Seria	l Number
N N	Volume		_	P.	er pu	np				al anno 1
<u>Time</u> Re	emoved		<u>pH</u>	Spec. Cond.	DO	ORP			Drawdown	Color/Odor
0830	(Liters)	(℃) 3.1%	9.16	(mS/cm) 0,989	(mg/L)	(mV) -117		(ml/min)	(teet)	dar
0935	2	13.20	9.17	0.987	291	-117	0,0		-	4 1
0840	3 4	1324		0.981	290	-14	0,0			0 4
0845	5	13.24	9.13	0,989	2.77	-115	0.0			h u h u
0 855	<u> </u>	13.31	9,15	0.977	2.61	-114	0.0			L 4
0900	в	1340	the second se	0.975	2.66	-114	0,0		-	u 4
14								V		
Has ro Have	required required parame	volume turbidity ters sta	been rei been re	moved eached	Yes No					(continued on back
. SAMPLE		ECTION	l: N	lethod:	L	ow F	Law			
<u>Samp</u> Rw-				tainer Type	<u>No.</u> 14		Van du	Analy	sis Req. See Co	Time C 0
Comments										
			1	2		<u></u>				
		/								
Signature				$\Delta \downarrow$				Date	12	122/16

AECOM				Well ID:	RW-23
Low Flow G	round Water S	Sample Col	lection	Record	
Client: National Project No: 601373 Site Location: Cliffor Veather Conds: 405 Cl	363 mbp	te: 222	\sim	1.2. 1.1.1.1	020 amp
. WELL & WATER LEVEL DATA:					
a. Total Well Length 1241	c. Screen Length				C Casing
b. Water Table Depth 6.24	d. Screen Interval (Inta	ake <u>)</u>		Sump:	
c. Water Column (a-b) 6.17	e. Calculated Water C	olumn Volume	-	1.1	
2. WELL PURGE DATA a. Purge Method:	LOW FROW	- Penst	alti	Punp	<u>.</u>
b. Acceptance Criteria defined (s - Temperature 3% - pH <u>+</u> 1.0 unit - Sp. Cond. 3%	-D.O. 10%				
c. Field Testing Equipment used	Horiba		152	Serial	Number
Volume	Peri fien	rf			in a second
Time Removed Temp. pH (24hr) (Liters) (°C)	Spec. Cond. DO (mS/cm) (mg/L)	ORP <u>Turbidi</u>	ty Flow Rate (ml/min)	Drawdown (teet)	Color/Odor
0945 1 13.21 8.02	0.534 0.80	-164 9.8		/	Clear
0955 2 13.25 8.11 0955 3 1340 8.12	0.54 0.88	-160 6.1	1		4 4
1000 4 13.41 9.13	0.519 0.80	- (59 0,4		-	u ~
10 6 1347 8.11	0.574 0.79	-155 0,0		-	h le
1010 6 1347 8.01 1015 7 13.50 9.12	0.480 0.79	-158 0,0			n l n l
d. Acceptance criteria pass/fail Has required volume been re Has required turbidity been re Have parameters stabilized If no or N/A - Explain belo	eached	N/A			(continued on bac
3. SAMPLE COLLECTION: M	lethod:lou	J FLOW	- Per	-i Pur	q
	tainer Type No. Janous 16	Preservation	Analı M	See Coc	<u>Time</u> I C
Comments					
Signature (Date		-122/1