

Empire Electric Company Site (224015)

**5200 1st Avenue
Brooklyn, New York
Interim Site Management Plan
NYSDEC Site Number: 224015**

Revisions to Final Approved Site Management Plan

Revision Number	Date Submitted	Summary of Revision	New York State Department of Environmental Conservation Approval Date

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LIST OF ACRONYMS/ABBREVIATIONS

µg/L	Microgram(s) per liter
amsl	Above mean sea level
bgs	Below ground surface
BOD	Basis of Design
DER	Division of Environmental Remediation
EA	EA Engineering, P.C. and Its Affiliate EA Science and Technology
EAR	Environmental Assessment & Remediations
EC	Engineering control
ECL	Environmental Conservation Law
ERM	Environmental Resources Management
EWP	Excavation work plan
ft	Feet (foot)
IC	Institutional control
IRM	Interim removal measures
mg/kg	Milligram(s) per kilogram
MW	Monitoring well
ND	Non-detect
No.	Number
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYCRR	New York Codes, Rules, and Regulations
PCB	Polychlorinated biphenyl
ppb	Parts per billion
ppm	Parts per million
PSA	Preliminary site assessment
QAPP	Quality assurance project plan
RAO	Remedial action objective
RI	Remedial investigation
RSO	Remedial site optimization

LIST OF ACRONYMS/ABBREVIATIONS (continued)

SCG	Standards, Criteria, and Guidelines
SCO	Soil Cleanup Objective
SMP	Site management plan
SVOC	Semi-volatile organic compound
TOGS	Technical and Operational Guidance Series
USEPA	U.S. Environmental Protection Agency
VOC	Volatile organic compound

ES. EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Empire Electric Site, as well as the inspections, monitoring, maintenance, and reporting activities required by this Site Management Plan:

Site Identification No: Empire Electric Site (224015)
 5200 1st Avenue
 Brooklyn, New York

Institutional Controls – Environmental Easement (Pending)	<ul style="list-style-type: none"> The property may be used for commercial and industrial use. All Engineering Controls must be inspected at a frequency and in a manner defined in the Site Management Plan.
Engineering Controls	<ul style="list-style-type: none"> Chain-link fence to prevent access to the Site. Clean soil cover. After a period of at least 12 months once the soil cover has compacted and settled, the area will be covered with an asphalt cap to control infiltration into the subsurface.
Site Management Activities	Frequency
<i>Inspections</i>	
General Site Inspection	Annually
<i>Maintenance</i>	
As noted during general site inspections	Re-evaluate Annually

Further descriptions of the above requirements are provided in detail in the latter sections of this Site Management Plan.

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1. INTRODUCTION

1.1 GENERAL

This Interim Site Management Plan (SMP) is a required element of the remedial program for the Empire Electric Site (Site) located in Brooklyn, New York (Figure 1). The Site is currently a Class 2 inactive hazardous waste site which is being administered by New York State Department of Environmental Conservation (NYSDEC).

After completion of the Interim IRM, some contamination was left at this Site, which is hereafter referred to as remaining contamination. Institutional controls (ICs) and engineering controls (ECs) will be incorporated into the site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted by the property owner to the NYSDEC will be required for compliance with this Interim SMP and all ECs and ICs placed on the Site. Figure 1 shows the site location and boundaries. The boundaries of the Site will be fully described in the metes and bounds site description that will be part of the Environmental Easement pending completion and execution of the easement.

This Interim SMP was prepared to manage remaining contamination at the Site until the Environmental Easement is extinguished in accordance with Environmental Conservation Law (ECL) Article 71, Title 36. Compliance with this plan is required. This Interim SMP may only be revised with the approval of the NYSDEC.

It is important to note that:

- This Interim SMP details the site-specific implementation procedures that are required by the NYSDEC.
- The site owner shall submit a periodic certification of the site controls when requested by NYSDEC. A change in ownership and/or the remedial party will be documented in a revised Interim SMP.
- Failure to comply with this Interim SMP is a violation of ECL, 6 New York Codes, Rules, and Regulations (NYCRR) Part 375 and thereby, subject to applicable penalties.

This Interim SMP was developed in accordance with the requirements of the NYSDEC's Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation (NYSDEC 2010a). This Interim SMP addresses the means for implementing the ICs and/or ECs that are required by this Interim SMP and the pending Environmental Easement for the Site. A list of contacts for persons involved with the Site is provided in Appendix A of this Interim SMP.

1.2 REVISIONS

Revisions to this Interim SMP will be proposed in writing to the NYSDEC's Project Manager. Revisions will be necessary upon, but not limited to, the following occurring: a change in media

monitoring requirements, Remedial Investigation (RI) field work, required soil vapor system installation, upgrades to or shutdown of a remedial system, remedial removal of contaminated soil, or other significant change to the site conditions.

1.3 NOTIFICATIONS

Notifications will be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC DER-10 for the following reasons:

- An advance notice of 60 days for any proposed changes in Site use that are required by 6 NYCRR Part 375, and ECL.
- An advance notice of 7 days for any field activity associated with the remedial program.
- An advance notice of 15 days of any proposed ground-intrusive activity pursuant to the Excavation Work Plan.
- Notice within 48 hours of any damage or defect to the foundation, structures, or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the Site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the Site or the responsibility for implementing this Interim SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/remedial party has been provided with a copy of this Interim SMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

The following table includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix A.

Notifications*

Name	Contact Information
Stephen A Eisner New York City Mayor's Office of Environmental	212-788-1360 seisner@cityhall.nyc.gov
John Gallagher Deputy Borough Commissioner	JoGallagher@buildings.nyc.gov
Charles Post Central NYSDEC Representative	518-402-9767 charles.post@dec.ny.gov
*Notifications are subject to change and will be updated as necessary.	

2. SUMMARY OF PREVIOUS INVESTIGATIONS AND INTERIM REMOVAL ACTION

2.1 SITE LOCATION AND DESCRIPTION

The Site is located in Brooklyn, Kings County, New York, and is identified as Section 1, Block 803, Lot 009 on the Brooklyn Tax Map (Figure 1). The Site is a 100 feet (ft) x 240 ft parcel located at 5200 1st Avenue, which previously contained a dilapidated, vacant red brick building covering the entire lot. Currently the lot is finished at grade with crushed stone with access limited by a gated chain-linked fence. The Site is bounded by 52nd Street and a New York City Department of Sanitation vehicle maintenance and storage building to the northeast, commercial/industrial buildings to the southwest, 1st Avenue to the southeast, and a film studio and waterfront to the northwest (Figure 1 – Site Location and Figure 2 – Layout Map). The owner of the Site parcels at the time of issuance of this Interim SMP is believed to be 5200 Enterprises Limited.

2.2 PHYSICAL SETTING

2.2.1 Land Use

The Site is currently zoned M3 districts and is designated for areas with heavy industries that generate noise, traffic or pollutants and is vacant. The M3 designation also anticipated potential commercial use. The site is surrounded by commercial properties. The main access to the Site is from the southeast on 1st Avenue.

2.2.2 Geology

A review of the geologic map of New York (Lower Hudson Sheet published by the University of the State of New York, the State Education Department and dated 1970) indicates that the Site lies within the glacial and alluvial deposits which are part of the Quarternary Period. The soil in the area of the Site is classified as Ug – Urban Land. This classification contains areas where at least 85 percent of the surface is covered with asphalt, concrete, or institutional sites. The Site slopes gently toward the west.

Site-specific boring logs are provided in Appendix B.

2.2.3 Hydrogeology

Based on groundwater monitoring performed in the vicinity of the Site, groundwater was typically encountered 0.91 to 4.21 ft above mean sea level (amsl). The lowest area on the Site is 14.6 ft amsl; in this area groundwater is approximately 13.7 ft below ground surface (bgs). The regional shallow groundwater flow was previously determined to be in a north-northwest direction.

Groundwater monitoring well construction logs are provided in Appendix C.

2.3 INVESTIGATION AND REMEDIAL HISTORY

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site.

The building was constructed in 1892 by the Brooklyn City Railroad Company for use as a power plant for the municipally-owned trolley system. The building was used for electrical generation until the 1930s when the trolley system was abandoned. The facility was conveyed to the City of New York in 1940. In 1951, the property was sold to Hastone Realty Corporation who demolished the smoke stack, placed the rubble in the cellar, and subdivided the parcel into two lots (Lot 9 and Lot 6). On 5 September 1951, Lot 9 was sold to Ben Hasnas. The Hasnas family operated Empire Electric on Lot 9, the eastern two-thirds of the building, from 1951 to December 1986 when the property was sold to 5200 Enterprises Limited. Significant polychlorinated biphenyl (PCB) contamination of Lot 9 was identified at the time of the building sale in 1986 and a cleanup was conducted by ENSI, Inc. However, PCBs at elevated levels were still present in post cleanup samples as documented by the cleanup contractor, ENSI, Inc., in their 12 December 1986 report. On 28 February 1989, the NYSDEC listed the Site as a Class 2 Site on the New York State Registry of Inactive Hazardous Waste Sites.

The following is a summary of investigations and associated reports that have been completed at the Site:

- **1993**—NYSDEC collected and analyzed four shallow soil samples for PCBs from outside the building along 52nd Street. The data indicated the presence of PCBs above the NYSDEC Surface Soil Cleanup Guidelines (i.e., greater than 1 part per million [ppm]).
- **1999**—Lawler, Matusky, & Skelly Engineers LLP conducted a preliminary site assessment (PSA) of the Site on behalf of the NYSDEC to determine if the building was still contaminated and whether other media (i.e., soil and groundwater) had also been contaminated by site activities. The PSA results were summarized in the Lawler, Matusky, & Skelly Engineers LLP PSA Report (Lawler, Matusky, & Skelly 1999). This assessment showed that PCBs were detected in concrete chip samples at concentrations up to 260,000 ppm and in soil samples collected from beneath the building at concentrations up to 960 ppm. Additionally, PCBs were detected in groundwater collected from a downgradient monitoring well installed near the site (71 micrograms per liter [$\mu\text{g/L}$]).
- **2007**—NYSDEC retained Environmental Resources Management (ERM) to complete a RI/Feasibility Study at the Site in March 2004. ERM completed a Draft Limited RI in February 2007 that included soil borings in and around the structure, groundwater sampling, sub-slab vapor and indoor air sampling, a structural analysis and report, debris removal and disposal, and a PCB immunoassay building material survey with confirmation sampling. ERM's draft RI and Building Characterization Report concluded that groundwater at the Site had not been fully characterized and that there was poor correlation between the immunoassay survey and the conformational laboratory

analytical results. Subsequent to the Draft RI, NYSDEC concluded that building demolition is required to complete the RI at the Site (ERM 2007).

- **2009**—EA conducted a pre-IRM design investigation in December 2008 and April 2009. Building material samples were collected from concrete material from structure floors from all building levels, brick material from the interior and exterior walls, and brick material from large structural support pier in the cellar for PCB analysis. Results indicated that PCB concentrations in the upper levels ranged from 3.10 to 3,300 ppm and PCB concentrations in the cellar slab ranged from 2.0 to 7,900 ppm. Additionally, two representative samples of a grease/oil material that covered approximately 70 percent of the pier surfaces in the cellar were taken, with results showing this material contained PCB concentrations within the 11,000–26,000 ppm range. Results of this investigation are detailed in the Basis of Design Report (EA 2009).

2017—Soil samples collected near the granite smoke stack foundation in the northwestern side of the building footprint during IRM documentation/verification sampling contained concentrations of PCBs in excess of 100 ppm. These concentrations were in soil approximately 15 ft below the post-IRM site ground surface. Environmental Assessment & Remediations (EAR) performed an investigation on behalf of NYSDEC to understand the extent of contamination originating from the Empire Electric building and assess the need for further remediation. Soil and concrete samples were collected in the footprint of the building, and groundwater samples were collected from wells both onsite and offsite. PCBs were detected at elevated concentrations in soil at depths up to 24 ft (bgs), both onsite and offsite. Results of this investigation are detailed in the Investigation Summary Report (EAR 2018).

The following table summarizes pre-IRM impacts from site-related contaminants of concern.

Pre-IRM Soil and Groundwater Contamination

Contaminants of Concern	Location and Media	Applicable Standards	SCG	Concentration Range Detected
PCBs	Onsite soil	Commercial SCOs	0.05 mg/kg	ND – 33,000 mg/kg
NOTES: mg/kg = milligrams per kilogram ND = Non-detect SCO = Soil cleanup objective SCG = Standards, Criteria, and Guidelines				

The historic layout of the site is shown on Figure 2.

2.4 INTERIM REMOVAL MEASURE OBJECTIVES

The IRM objectives for the Site as listed in the Basis of Design (BOD) (EA 2014) are as follows:

- Groundwater
 - Objectives for public health protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
 - Prevent contact with contaminated groundwater.
- Objectives for environmental protection
 - Remove the source of ground or surface water contamination.
 - Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Soil
 - Objectives for public health protection
 - Prevent ingestion/direct contact with contaminated soil.
 - Prevent inhalation of contaminated dust.
 - Objectives for environmental protection
 - Prevent migration of contaminants that would result in groundwater contamination.
 - Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

2.5 REMAINING CONTAMINATION

The IRM for this Site involved the demolition of the site building, offsite disposal of building debris including asbestos and PCB waste, excavation and offsite disposal of sub-slab soil exceeding the NYSDEC Part 375 SCO for Commercial Use of 1 parts per billion (ppb) of PCBs, and re-grading of the excavation with clean backfill. In May and June 2017, PCB concentrations in excess of 50 ppb were detected in several verification soil samples near the granite smoke stack foundation in the northwestern end of the building footprint.

Figure 3 shows concentrations of PCBs in samples collected from concrete slabs remaining in place. Figure 4 shows concentrations of PCBs in samples collected from walls, additional locations on the concrete basement floor slab, granite foundation, and soil from beneath the basement floor slab. Some areas where concentrations of PCBs exceeded 50 ppb were further excavated or scarified, depending on material, and resampled. Subsequent results are shown below the prior results on both Figures 3 and 4; in these instances, remaining contamination is represented by the bottom result only. Figures 5, 6 and 7 show contamination remaining in soil near the former smoke stack foundation, at various depths below the basement slab.

Groundwater samples and additional soil samples were collected in July and October 2017 to further characterize the remaining contamination. PCB concentrations in excess of 50 ppb were found in soil at all depth intervals between 0 and 24 ft below the excavation surface (35 ft below the final site surface following backfill placement).

2.5.1 Groundwater

Onsite and downgradient groundwater was not treated as part of the IRM. Groundwater contamination is expected to remain until all areas with soil contamination are remediated. PCB concentrations in groundwater in excess of the NYSDEC Technical and Operational Guidance Series (TOGS)111 Class GA Standard of 5 µg/L were detected in SB-13_GW (290 µg/L), SB-15_GW (1,000 µg/L), SB-18_GW (7.3 µg/L), SB-36 (8.8 µg/L), SB-37S (24 µg/L), SB-37D (16 µg/L), (6 of 7 onsite wells), monitoring well (MW)-05R (6.9 µg/L) (offsite), MW-10 (5 µg/L) (offsite), 2 out of 10 offsite wells (Figure 8).

3. INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 GENERAL

Since remaining contamination exists at the Site, ICs and ECs are required to protect human health and the environment. The IC/EC Plan is a component of this Interim SMP and describes the procedures for the implementation and management of all IC/ECs at the Site.

This IC/EC Plan provides:

- A description of all IC/ECs on the Site.
- The basic implementation and intended role of each IC/EC.
- A description of the key components of the ICs to be set forth in the pending Environmental Easement.
- A description of the controls to be evaluated during each required inspection.
- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of an Excavation Work Plan (EWP)(pending) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site. A revised NYSDEC-approved EWP will be required prior to the any onsite excavation.
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the site remedy, as determined by the NYSDEC.

3.2 INSTITUTIONAL CONTROLS

A series of ICs is required to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to remaining contamination; and (3) limit the use and development of the Site to industrial uses only. Adherence to site ICs is required and will be implemented in accordance with this Interim SMP.

ICs identified in the Interim SMP and/or pending Environmental Easement may not be discontinued without an amendment to or extinguishment of the Interim SMP and/or Environmental Easement. The IC boundaries are the property boundaries shown on Figure 1. These ICs are:

- The property may be used for commercial and industrial uses as defined by Part 375-1.8(g), subject to local zoning and building laws.
- All ECs must be operated and maintained as specified in this Interim SMP.
- All ECs must be inspected at a frequency and in a manner defined in the Interim SMP.

- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH) or the New York City Department of Health and Mental Hygiene (NYCDOHMH) to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the NYSDEC.
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this Interim SMP.
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this Interim SMP.
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this Interim SMP.
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this Interim SMP.
- Access to the Site must be provided to agents, employees, or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement. Typically, notice will be provided 7 days in advance of intrusive work.
- Raising of animals for consumption and planting vegetable gardens is prohibited.

3.3 ENGINEERING CONTROLS

3.3.1 Soil Cover System

Excavation of onsite soils during the IRM, including soil and rubble from beneath the concrete sub-basement slab, was limited to 6 ft below the concrete sub-basement slab due to groundwater intrusion and large granite or concrete blocks that were too large to hoist with the excavator. The excavated portions of the Site were backfilled with clean material.

A survey was completed prior to backfilling to the surrounding ground surface elevation. Site ground surface elevations range from approximately 14 (closer to the water) to 20 feet amsl (on 1st Avenue). The backfilled portion of the was covered with crushed stone to provide a level surface that limits the potential of creating dust from the site. The Site will be covered with asphalt 12 months after backfill completion to control the infiltration of rainwater. This schedule will allow backfilled soils to settle prior to asphalt installation. The intended purpose of the cover will be specifically for the control of water infiltration at the site and may not necessarily be suitable for any other purpose. It is beyond the scope of the NYSDEC to improve the site for the benefit of the property owner; therefore, the cover system will not be designed or constructed as a parking lot. Any damage to the crushed stone or blacktop cap will be reported to the NYSDEC in accordance with Section 5.2 of this document.

3.3.2 Fenced Perimeter

In addition to the soil cover system, a 10-ft fence that was installed around the perimeter of the Site following building demolition and site backfill will act as an EC. The fence serves as an additional barrier from remaining contamination for the public in addition to site security.

4. INSPECTION AND MONITORING PLAN

4.1 GENERAL

This section describes the measures for evaluating the overall effectiveness of the IRM. The Monitoring and Sampling Plan described in this section may only be revised with the approval of the NYSDEC. Details regarding the sampling procedures, data quality usability objectives, analytical methods, etc. for all samples collected as part of site management for the Site shall be included in a revised Quality Assurance Project Plan (QAPP). The NYSDEC will require a revised QAPP prior to the commencement of any monitoring and sampling. Details regarding health and safety procedures for all fieldwork conducted as part of site management for the Site are to be included in a revised Health and Safety Plan. The NYSDEC will require a revised Health and Safety Plan prior to the performance of any intrusive fieldwork.

This Monitoring and Sampling Plan shall describe the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater, indoor air, soil vapor, soils),
- Assessing compliance with applicable NYSDEC SCGs, particularly groundwater standards and Part 375 SCOs for soil,
- Evaluating site information periodically to confirm that the IRM continues to be effective in protecting public health and the environment.

To adequately address these issues, the required Monitoring and Sampling Plan shall provide information on:

- Sampling locations, and protocol
- Information on all designed monitoring systems
- Analytical sampling program requirements
- Inspection and maintenance requirements for monitoring wells
- Monitoring well decommissioning procedures
- Annual inspection and reporting.

Reporting requirements are provided in Section 5.0 of this SMP.

4.2 SITEWIDE INSPECTION

Sitewide inspections will be performed at a minimum of once per year. Modification to the frequency or duration of the inspections will require approval from the NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During each inspection, an inspection form will be completed as provided in Appendix E – Site Management Forms.

The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage
- An evaluation of the condition and continued effectiveness of ECs
- General site conditions at the time of the inspection
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection
- Confirm that site records are up-to-date.

Inspections of all remedial components installed at the site will be conducted. A comprehensive sitewide inspection will be conducted and documented according to the SMP schedule. The inspections will determine and document the following:

- Whether ECs continue to perform as designed
- If these controls continue to be protective of human health and the environment
- Compliance with requirements of this SMP and the Environmental Easement
- Achievement of remedial performance criteria
- If Site records are complete and up-to-date
- Reporting requirements are outlined in Section 6.0 of this SMP.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the Site, verbal notice to the NYSDEC must be given by noon of the following day. In addition, an inspection of the Site will be conducted within 5 days of the event by a qualified environmental professional, as determined by the NYSDEC, to verify the effectiveness of the ICs/ECs. Written confirmation of the inspection must be provided to the NYSDEC within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

4.3 POST INTERIM REMOVAL MEASURE GROUNDWATER MONITORING AND SAMPLING

Samples shall be collected from the groundwater monitoring network as directed by the NYSDEC. Sampling locations and the required analytical parameters are provided in the following table. Sampling locations are shown on Figure 8. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

4.3.1 Post IRM Sampling Requirements

A round of gauging is to be completed prior to each groundwater sampling event to record the static water level. Groundwater samples are to be collected using low-flow methods. Purge water is to be filtered with a 0.5-micron filter prior to discharge. Detailed sample collection and

analytical procedures and protocols are provided in the (pending) revised Field Sampling Plan and (pending) revised QAPP.

4.3.2 Groundwater Sampling

Groundwater monitoring will be performed as directed by the NYSDEC. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

The network of monitoring wells has been installed to monitor onsite and downgradient groundwater conditions at the Site. The network of offsite wells to be sampled were selected based on their location within the groundwater flow path from the Site.

The following table summarizes the data for each of the wells to be sampled including identification number, location, depths, diameter and screened intervals of the wells. Ten pre-existing site related wells are to be sampled to satisfy the groundwater monitoring requirement of this Interim SMP.

Monitoring Well Construction Details

Monitoring Well ID	Well Location	Coordinates (northing/easting)	Well Diameter (inches)	Depth to Water (ft)	Elevation (amsl)	
					Casing	Surface
MW-01	Offsite/ Adjacent to site	978505.60/ 175752.83	2	20.97	24.6	25.10
MW-02	Offsite/ Adjacent to site	978557.73/ 175814.71	2	20.42	23.92	24.21
MW-03	Offsite/ Adjacent to site	978448.28/ 175935.63	2	16.38	20.03	20.59
MW-05	Offsite/ Downgradient	978243.30/ 176094.93	2	12.77	15.96	16.17
MW-08	Offsite/ Upgradient	978593.16/ 175746.45	2	20.29	24.50	24.50
MW-09	Offsite/ Upgradient	978679.56/ 175866.00	2	18.54	22.67	22.67
MW-10	Offsite/ Downgradient	978228.19/ 176127.59	2	13.69	14.48	14.60
MW-12	Offsite/ Adjacent to site	978543.13/ 175865.14	2	18.98	22.42	22.61
MW-13	Offsite/ Adjacent to site	978471.13 / 175916.34	2	17.23	20.65	20.86
MW-14	Offsite/ Adjacent to site	978410.83/ 175968.16	2	15.81	19.44	19.83
NOTE: ID - Identification						

All groundwater samples collected are to be analyzed for PCBs using U.S. Environmental Protection Agency Method 8082, volatile organic compounds (VOCs) using U.S. Environmental Protection Agency (USEPA) Method 8260, and semi-volatile organic compounds (SVOCs) using USEPA Method 8270 by a laboratory certified by the NYSDOH Environmental

Laboratory Approval Program. PCBs have a method and reporting detection limit of 0.05 µg/L. Contact the NYSDEC Project Manager prior to sampling for the most current requirements for Emerging Contaminant sampling and reporting.

If biofouling or silt accumulation occurs in the onsite and/or offsite monitoring wells, the wells shall be physically agitated/surged and redeveloped. Additionally, monitoring wells are to be properly decommissioned and replaced, if an event renders the wells unusable. Additional repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance. The NYSDEC will be notified prior to any repair or decommissioning of any monitoring well for replacement, and the repair or decommissioning and replacement process will be documented in the subsequent report. Well decommissioning without replacement will be done only with the prior approval of the NYSDEC. Well abandonment will be performed in accordance with NYSDEC's guidance entitled CP-43: Groundwater Monitoring Well Decommissioning Procedures (NYSDEC 2009). Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved by the NYSDEC.

The sampling frequency may only be modified with the approval of the NYSDEC. This Interim SMP will be modified to reflect changes in sampling plans approved by the NYSDEC.

Deliverables for the groundwater-monitoring program are specified in Section 6.0 Reporting Requirements.

4.3.3 Monitoring and Sampling Protocol

All sampling activities will be recorded in a field book and associated sampling log as provided in Appendix E – Site Management Forms. Other observations (e.g., groundwater monitoring well integrity, etc.) will be noted on the sampling log. The sampling log will serve as the inspection form for the monitoring network. Additional detail regarding monitoring and sampling protocols are to be provided in the pending site-specific Field Sampling Plan.

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5. REPORTING REQUIREMENTS

5.1 SITE MANAGEMENT REPORTS

All site management inspection, maintenance, and monitoring events will be recorded on the appropriate site management forms provided in Appendix E. This form is subject to NYSDEC revision.

All applicable inspection forms and other records, including media sampling data and system maintenance reports, generated for the Site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of the following table and summarized in the Groundwater Monitoring Report.

Schedule of Interim Monitoring/Inspection Reports	
Task/Report	Reporting Frequency*
Site Report	Annually
* The frequency of events will be conducted as specified until otherwise approved by the NYSDEC.	

All interim monitoring/inspections reports will include, at a minimum:

- Date of event or reporting period
- Name, company, and position of person(s) conducting monitoring/inspection activities
- Description of the activities performed
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet)
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc.)
- Copies of all field forms completed (e.g., well-sampling logs, chain-of-custody documentation, etc.)
- Sampling results in comparison to appropriate standards/criteria
- A figure illustrating sample type and sampling locations
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (submitted electronically in the NYSDEC-identified format)
- Any observations, conclusions, or recommendations
- A determination as to whether contaminant conditions have changed since the last reporting event.

Routine maintenance event reporting forms will include, at a minimum:

- Date of event
- Name, company, and position of person(s) conducting maintenance activities
- Description of maintenance activities performed
- Any modifications to the system
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet)
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

Non-routine maintenance event reporting forms will include, at a minimum:

- Date of event
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities
- Description of non-routine activities performed
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet)
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

Data will be reported in digital format as determined by the NYSDEC. Currently, data is supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link: <http://www.dec.ny.gov/chemical/62440.html>.

5.2 CORRECTIVE MEASURES WORK PLAN

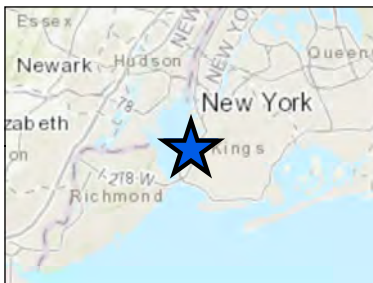
If any component of the remedy is found to have failed, a Corrective Measures Work Plan will be submitted to the NYSDEC for approval by the responsible party(ies) within 30-days of observing the failure. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by the NYSDEC.

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Figures

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G:\Projects\State&Local\NYSDEC - D007624\D007624 - Work Assignments\14907_06 - Empire Electric\D007630\GIS\MXDs\SMP\01 - SiteLocation.mxd



Legend

-  Empire Site Boundary
-  Site Location

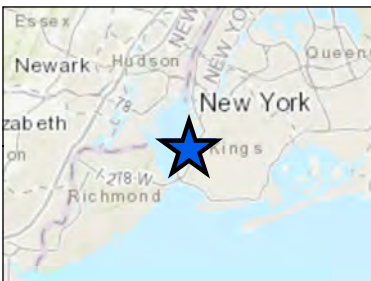
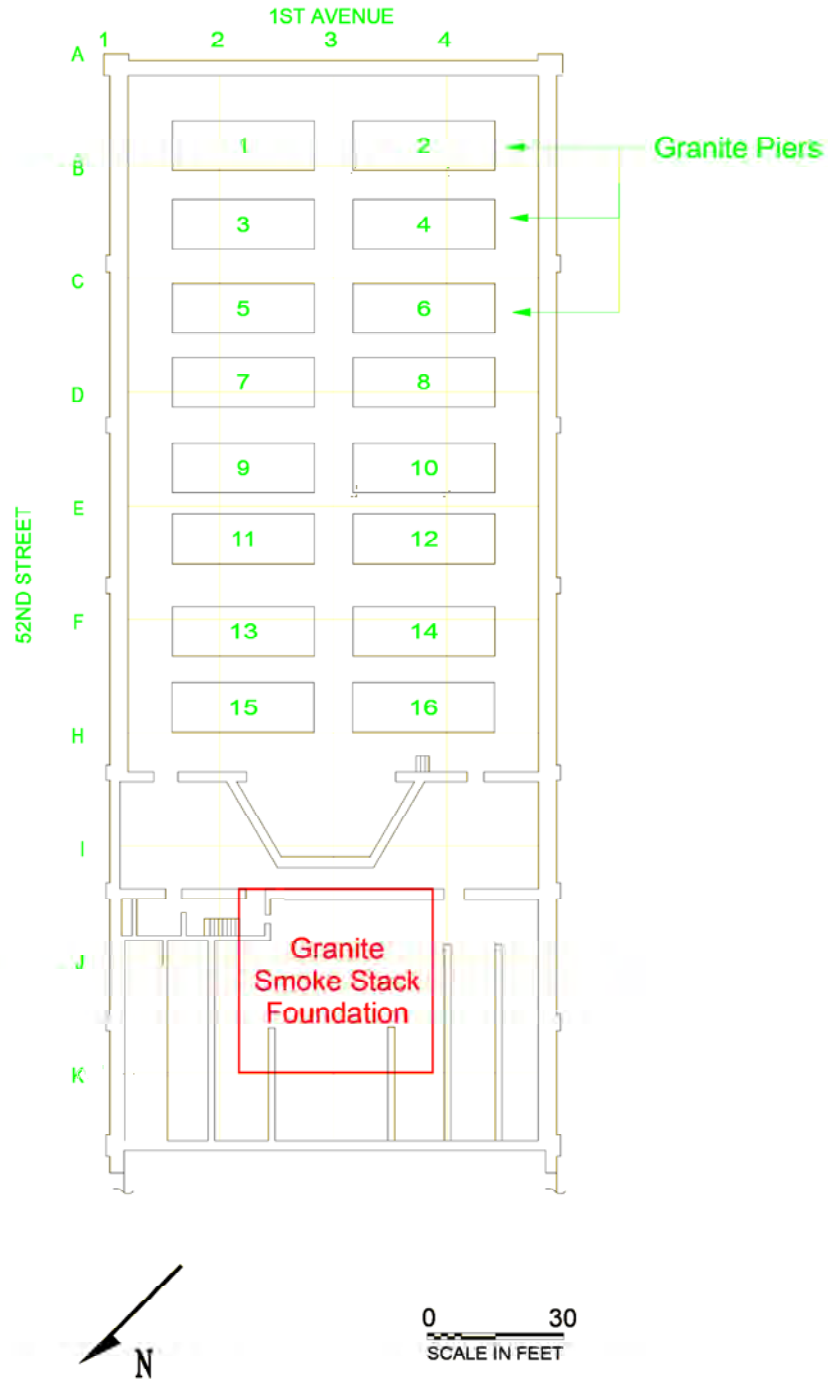
0 125 250 500
Feet



Figure 1
General Site Location
Empire Electric Company Site (224015)
Brooklyn, New York

Map Date: 5/29/2018
Projection:

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Legend

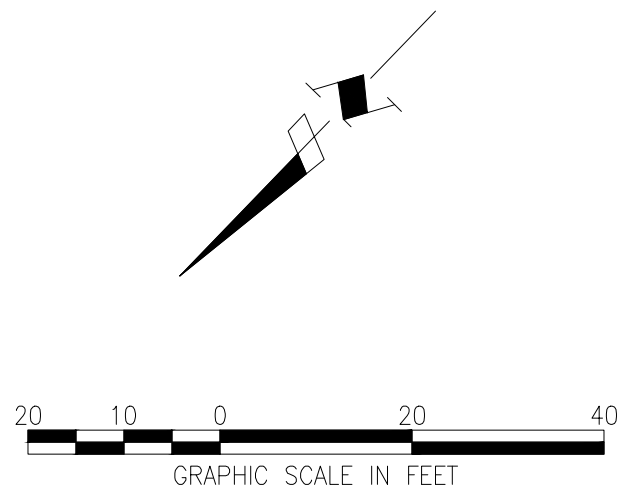
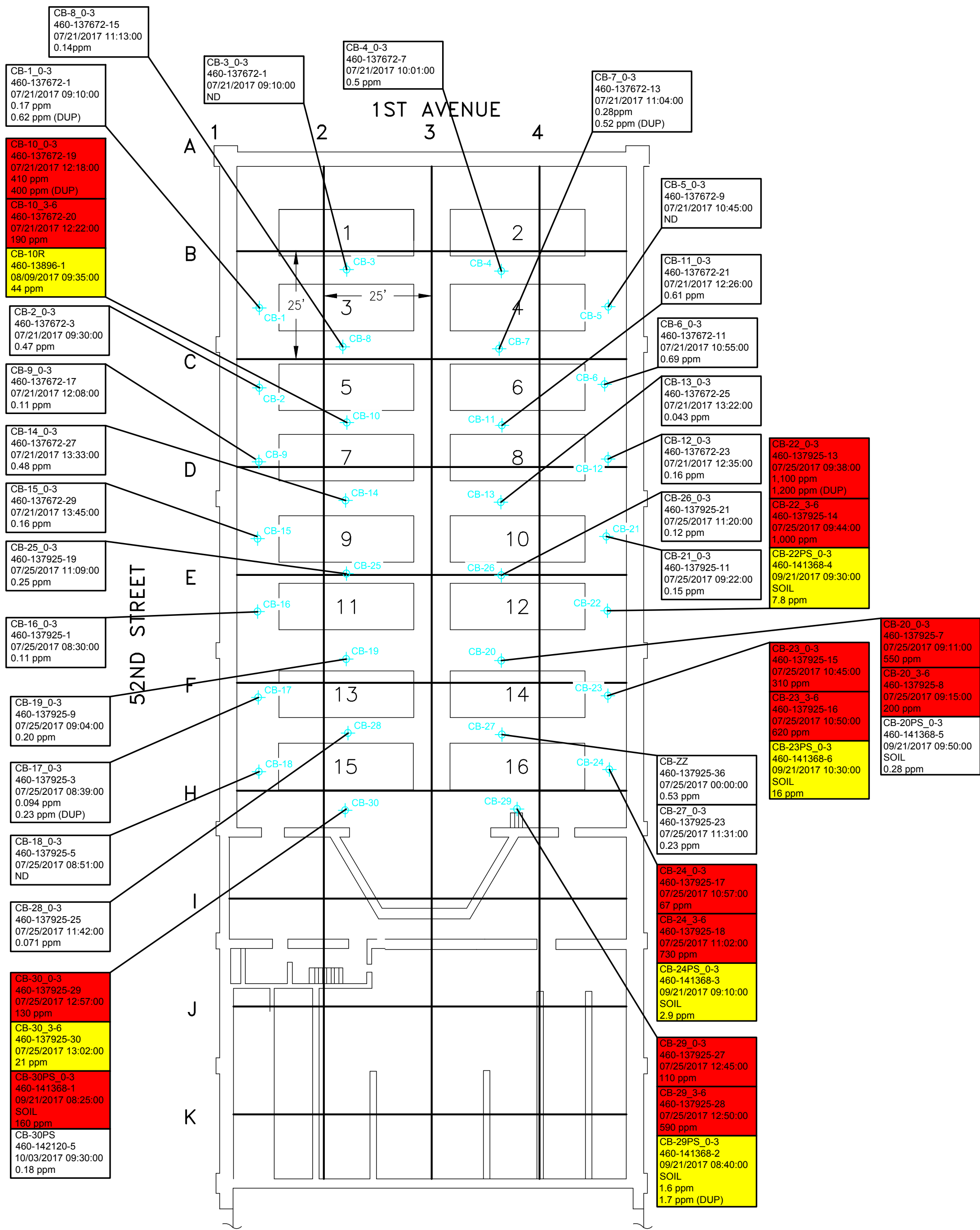
★ Empire Location

Figure 2
Historic Site Layout
Empire Electric Company Site (224015)
Brooklyn, New York

Map Date: 5/30/2018
Projection:

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FILE PATH: \\MARINCO\WORKING\PROJECTS\1490706 - EMPIRE ELECTRIC\LOAD\CB REMEDIATION\CONFORMATION SAMPLING-AUG 2017.dwg [PBC CONCRETE LOCATIONS] ALLEN, DANIEL 3/28/2018 2:58 PM



Department of
Environmental
Conservation

NEW YORK
OPPORTUNITY

FOR BIDS DUE	10/13	3/18	MINOR REVISIONS	NO. DATE	DESCRIPTION	REVISIONS
0	1					

CONCRETE CELLAR SLAB PCB
SAMPLE LOCATIONS

FORMER EMPIRE ELECTRIC SITE NO. 224015
CONTRACT NO. 1490706
BROOKLYN, NEW YORK

PREPARED BY:
EA ENGINEERING, P.C.
AND ITS AFFILIATE
EA SCIENCE AND
TECHNOLOGY

CARRS#	
EA #	1490706
DESIGN #	
FILE	1490706 Contract.dwg
DRAWN BY	JRM/DPA
DATE	MARCH 2018
SCALE	AS SHOWN
SS	

SHEET #

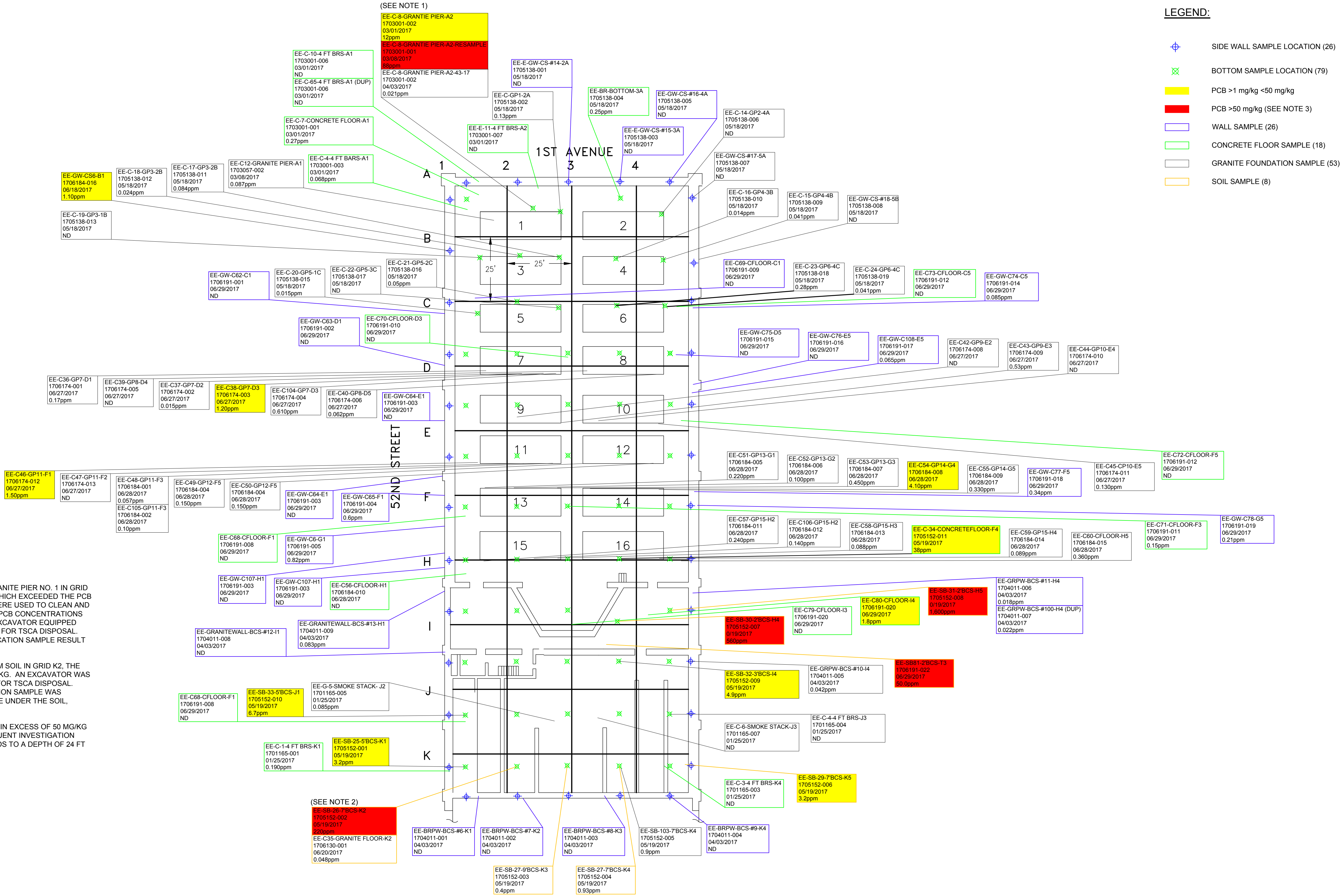
FIGURE 3

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FILE PATH: \\MARINCO\WORKSPACE\PROJECTS\1490706 - EMPIRE ELECTRIC\LOADS\REDEMATION\CONSTRUCTION SAMPLING-AUG 2017.dwg [PLOT: 2] ALLEN, DANIEL 3/29/2018 3:28 PM

NOTES:

1. THE INITIAL PCB SAMPLE COLLECTED FROM GRANITE PIER NO. 1 IN GRID A2 HAD A PCB CONCENTRATION OF 12 MG/KG WHICH EXCEEDED THE PCB CLEANUP GOAL OF 1 MG/KG SO HAND TOOLS WERE USED TO CLEAN AND ABRASE THE PIER. AFTER CLEANING THE PIER PCB CONCENTRATIONS INCREASED TO 88 MG/KG AT WHICH POINT AN EXCAVATOR EQUIPPED WITH A HYDRAULIC RAM DEMOLISHED THE PIER FOR TSCA DISPOSAL. FOLLOWING PIER DEMOLITION, THE PCB VERIFICATION SAMPLE RESULT WAS 0.021 MG/KG
2. THE INITIAL PCB SAMPLE WAS COLLECTED FROM SOIL IN GRID K2, THE PCB CONCENTRATION IN THE SOIL WAS 220 MG/KG. AN EXCAVATOR WAS USED TO REMOVE THE SOIL IN THE GRID AREA FOR TSCA DISPOSAL. FOLLOWING SOIL REMOVAL THE PCB VERIFICATION SAMPLE WAS COLLECTED FROM GRANITE BLOCKS THAT WERE UNDER THE SOIL, SAMPLE RESULT 0.048 MG/KG.
3. IN GRID AREAS H1 TO I4 PCB CONCENTRATIONS IN EXCESS OF 50 MG/KG WERE IDENTIFIED IN SUB-SLAB SOILS. SUBSEQUENT INVESTIGATION CONFIRMED THAT PCB CONTAMINATION EXTENDS TO A DEPTH OF 24 FT BELOW THE CELLAR SLAB.



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0	10/13	FOR BIDS DUE
NO.	DATE	DESCRIPTION

REVISIONS

FORMER EMPIRE ELECTRIC SITE NO. 224015 CONTRACT # D007630 BROOKLYN, NEW YORK	1
--	---

PREPARED BY:
SEA ENGINEERING, P.C.
AND ITS AFFILIATE
SEA SCIENCE AND
TECHNOLOGY



CARRS#	
E.A. #	1490706
DESIGN #	
FILE	1490706 Contract.dwg
DRAWN BY	JRM
DATE	OCTOBER 2013
SCALE	AS SHOWN
SS	

SHEET #

FIGURE 5

LEGEND:



SAMPLE LOCATION COLLECTED WITH A HAND AUGER TO THE DEPTH SPECIFIED BY THE NYSDC ONSITE REPRESENTATIVE. SAMPLES ARE TO BE COLLECTED ON A 1 FT INTERVAL ALONG THE FULL DEPTH OF THE BORING.



GROUNDWATER AND SOIL SAMPLING LOCATION

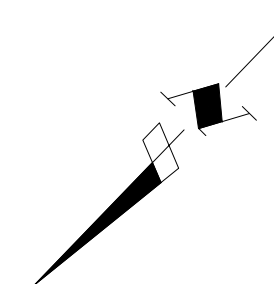
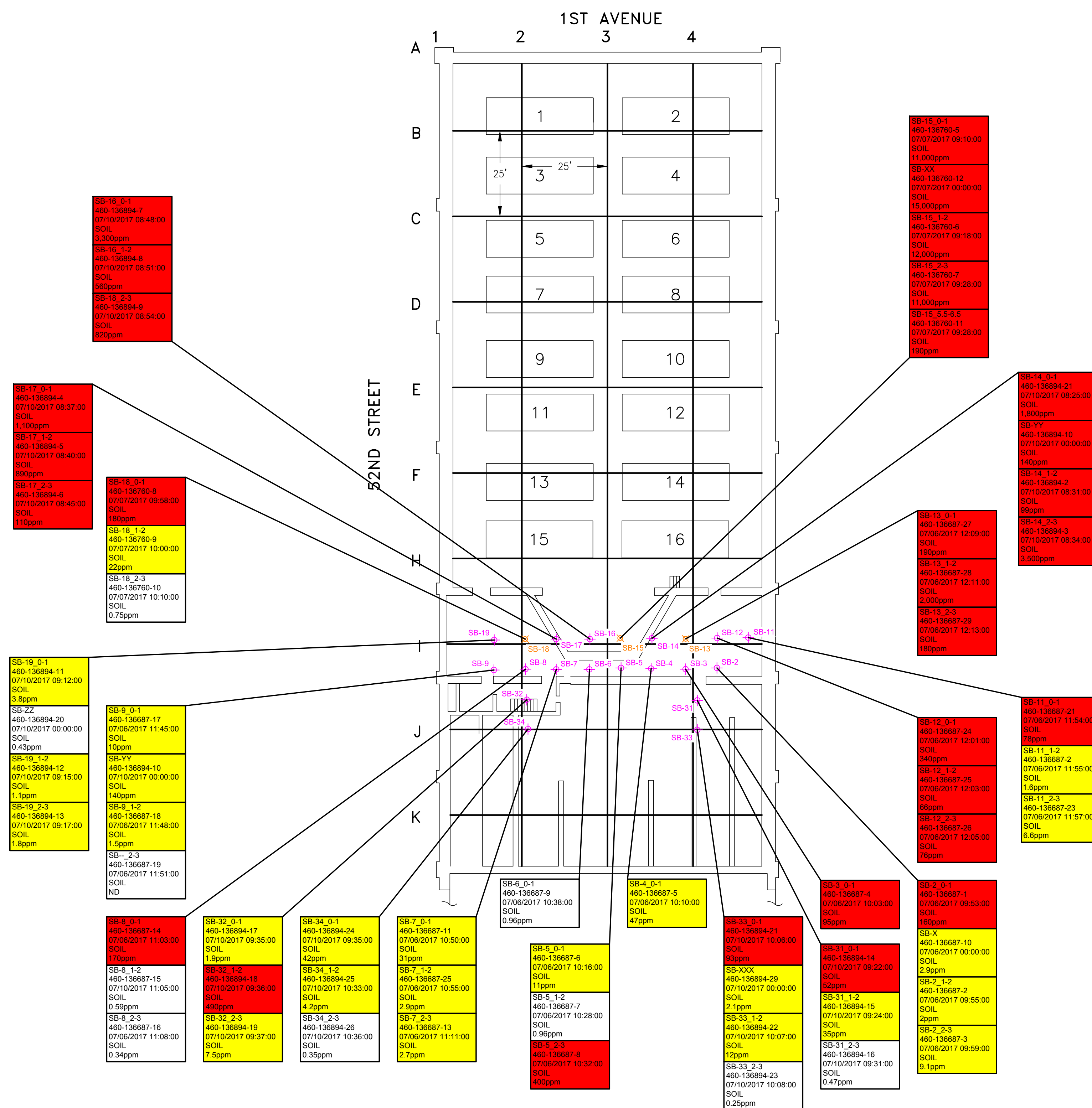


PCB <1 mg/kg

PCB >1 mg/kg <50 mg/kg

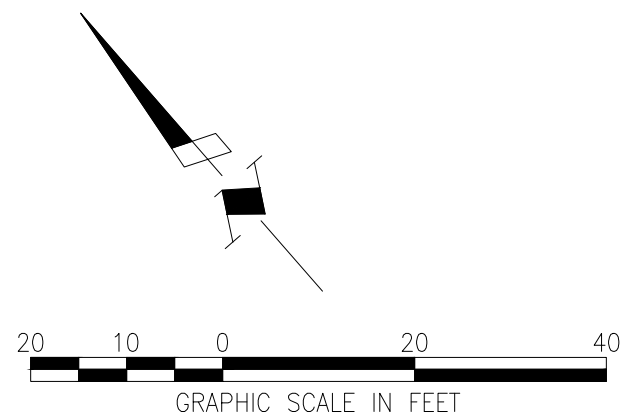


PCB >50 mg/kg



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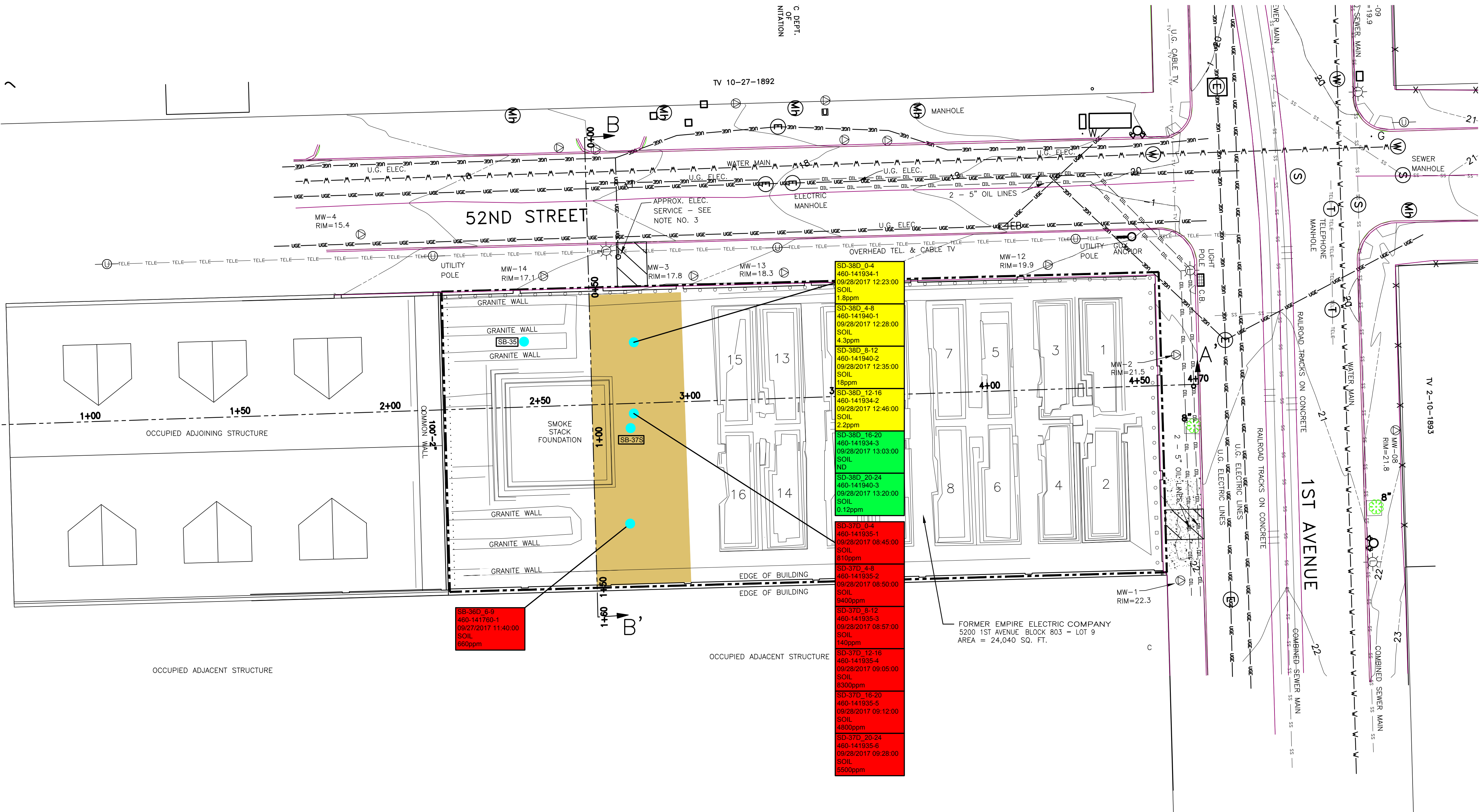
DRAWING NAME: F:\State & Local\State\NECO\Engine electric company\147426\figures\from Synchus\Revised figures\August 2017\1490706-MW location-021 2017.dwg
DATE: 10/23/2017 TIME: 11:54
DRAWN BY: extension



- LEGEND:**
- LIMIT OF PCB EXCAVATION
 - PCB <1 mg/kg
 - PCB >1 mg/kg <50 mg/kg
 - PCB >50 mg/kg
 - SOIL BORING LOCATION

MW-5
RIM=11.8
460-141579-1
09/25/2017 10:10:00
SOIL
0.355ppm
460-141579-2
09/25/2017 10:45:00
SOIL
1.200ppm

MW-10
RIM=14.9



Department of
Environmental
Conservation

NEW YORK
OFFICE OF
OPPORTUNITY

REVISIONS		NO. DATE	DESCRIPTION

REMAINING PCB CONTAMINATION
OF SUB-SLAB SOILS

FORMER EMPIRE ELECTRIC SITE NO. 224015
CONTRACT # 1490706
BROOKLYN, NEW YORK

PREPARED BY:
EA ENGINEERING, P.C.
AND ITS AFFILIATE
EA SCIENCE AND
TECHNOLOGY

EA

CARRS#	EA #
1490706	1490706
DESIGN #	FILE
1490706 Contract.dwg	JRM/DPA
DRAWN BY	DATE
MARCH 2018	SCALE
AS SHOWN	SS

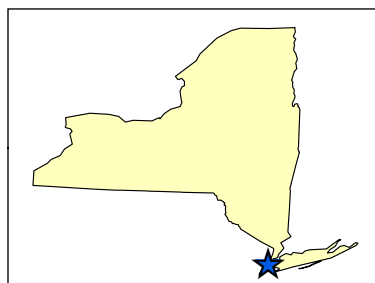
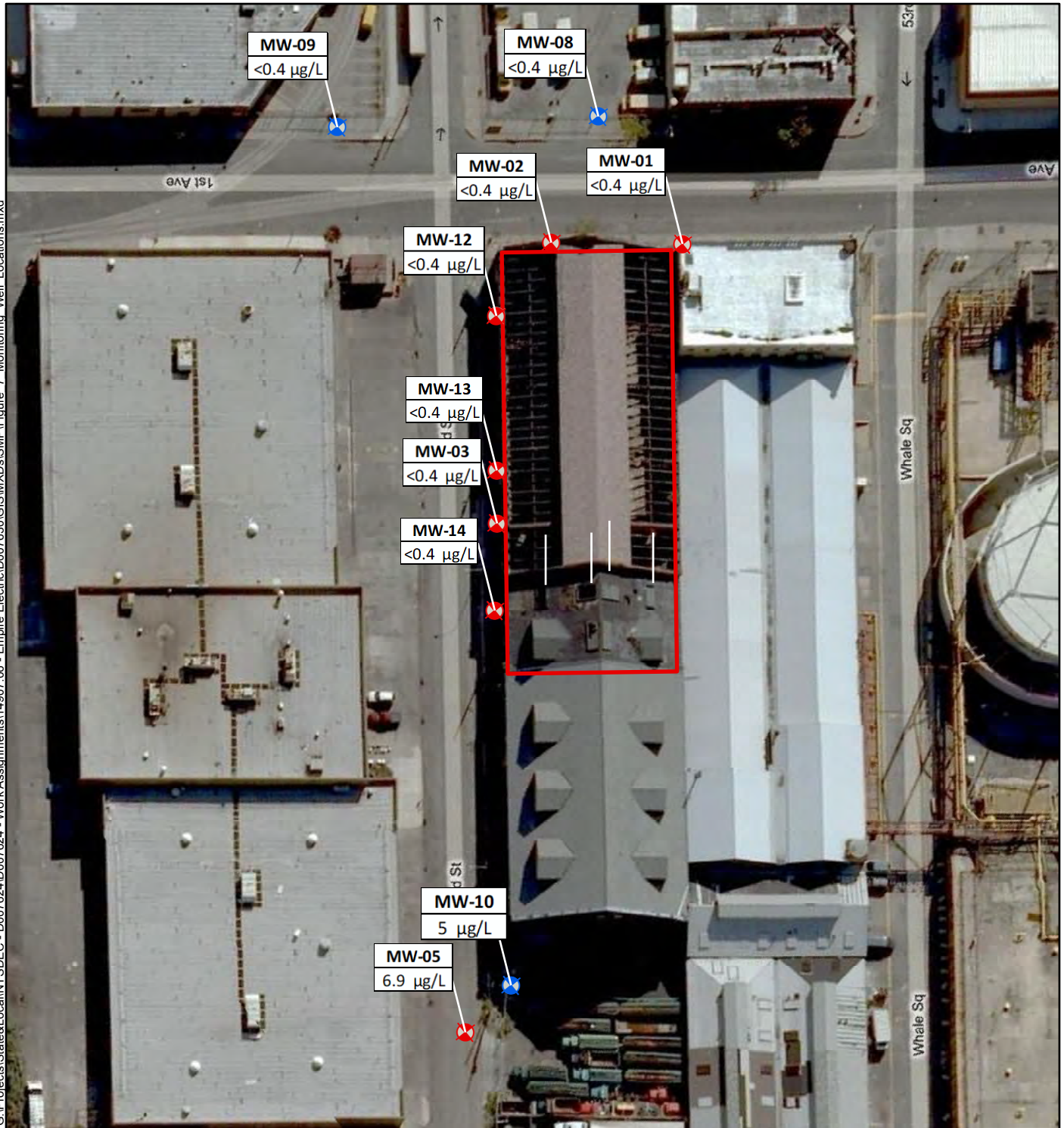
SHEET #

FIGURE 6

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G:\Projects\State&Local\NYSDEC - D007624\D007624 - Work Assignments\14907.06 - Empire Electric\GIS\MXDs\SMP\Figure 7 Monitoring Well Locations.mxd



0 37.5 75 150
Feet

Legend

-  Building Footprint
-  Existing Monitoring Wells
-  Monitoring Wells Installed by EA

Notes: Concentrations are in micrograms per liter (µg/L)
J: Result is less than the reporting limit but greater than or equal to the minimum detection limit and the concentration is an approximate value.
U: Indicates the analyte was analyzed for but not detected.

Figure 8 Remaining PCB Contamination in Groundwater

Empire Electric Site (224015)
Brooklyn, New York

Map Date: 5/30/2018
Projection: NAD83/ New York Long Island

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Appendix A
Site Contact List

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Contact List
Empire Electric Company Site Remedial Action Brooklyn, New York
Site No. 224015

Page 1 of 1

June 2018

Project Role	Organization	Contact Name	Phone Numbers	Email address
Technical Fellow	NYC Mayor's Office of Environmental Remediation	Stephen A. Eisner	212-788-1360	seisner@cityhall.nyc.gov
Deputy Borough Commissioner	NYC Department of Buildings	John Gallagher		JoGallagher@buildings.nyc.gov
Property Owner	5200 Enterprises Limited	John A. Luhrs	904-699-4153	Luhrs54@AOL.COM
Adjacent owner	NYPD 72nd Precinct	Officer Dean Hamaar	718-965-6326	
Adjacent owner	Department of Sanitation	Mr. Carannante	646-885-4887	
Adjacent owner	NYNJ Rail, LLC	Jim Christie	201-433-0360	
Adjacent owner	NYNJ Rail, LLC	Donald Hutton	201-433-0360	
Adjacent owner	Astoria Generating Company Holdings, LLC	Jay Peterson	347-684-4868	
Adjacent owner	East of Hollywood Productions	Lucille Ascanio	718-492-7400	ASCLU101@aol.com

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Appendix B

Boring Logs

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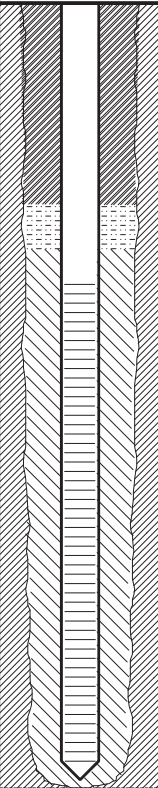



Page 1 of 2

WELL CONSTRUCTION

PROJECT/SITE NAME	DEC-BROOKLYN5200
SITE ADDRESS	Empire Electric Company
	5200 1st Avenue
	Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	MW-05R
DRILLING METHOD	Hollow Stem Auger (BK-81 Rig)
DRILLING COMPANY	AARCO Environmental
HEAD DRILLER	T. Kelly
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	6"
SAMPLE METHOD	Split-Spoon Sampler (SS)
DEPTH-TO-WATER	13.02'
TOTAL WELL DEPTH	24'

CASING	
Type <u>PVC</u>	Diameter <u>2"</u> Length <u>14'</u>
SCREEN	
Type <u>PVC</u>	Diameter <u>2"</u> Slot <u>0.010"</u> Length <u>10'</u>
GRAVEL PACK	<u>Grout (0'-9' BGS) & Well gravel (12'-24'BGS)</u>
CASING SEAL	<u>Bentonite (Hydrated Pellets) (9'-12' BGS)</u>
SECURITY	<u>8"x12" Steel Bolt-Down Manhole cover</u> <u>2" locking well cap</u>
FINISH	<u>2'x2' concrete pad</u>
COMMENTS	<u>MW-05 is 9.5' SW of SW curb of 52nd St.,</u> <u>29.25' NW of NW corner of building #2 52nd</u> <u>St., and 19.5' S of utility pole #6.</u>

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
		0'-5'	Post hole; cleared.				
		5'-7'	0.25'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 1.20'-Brown fine sand, trace medium sand, trace coarse sand, moist, no odor.	SS	5'-7'	324 ppm	73
		7'-9'	0.30'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 0.80'-Brown fine sand, trace medium sand, trace coarse sand, moist, no odor.	SS	7'-9'	25.6 ppm	55
		9'-11'	0.25'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 1.25'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, moist, no odor.	SS	9'-11'	68.4 ppm	75
		11'-13'	0.25'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 0.25'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, moist, no odor. 0.65'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, wet, no odor.	SS	11'-13'	149.3 ppm	58
13.02'							
		13'-15'	1.70'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, wet no odor. 0.30'-Black fine sand, trace silt, trace medium sand, trace coarse sand, wet, odor.	SS	13'-15'	3.9 ppm	100
		15'-17'	0.90'-Brown fine sand, trace silt, trace medium sand, wet, no odor. 0.05'-Black fine sand and medium sand, trace coarse sand, wet, odor.	SS	15'-17'	6.7 ppm	48
		17'-19'	1.40'-Brown fine sand, trace medium sand, trace coarse sand, wet, odor.	SS	17'-19'	87.1 ppm	70
TWD 24'		19'-21'	2.00'-Brown fine sand, trace medium sand, trace coarse sand, wet, odor.	SS	19'-21'	120.4 ppm	100
		NOT TO SCALE					

Backfill/Gravel  Bentonite  Grout 

Page 2 of 2

Boring I.D. MW-05R

[illegible]

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-4	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	1'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-5	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-6	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	1'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-7	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%



225 Atlantic Avenue
Patchogue, New York 11772
Tel (631) 447-6400
Fax (631) 447-6497
Email info@Enviro-Asmnt.com
www.Enviro-Asmnt.com

Installation Date 07/06/17

Page 1 of 1

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME DEC-BROOKLYN5200

SITE ADDRESS
Empire Electric
5200 First Avenue
Brooklyn, NY

SITE ID NUMBER 224015

BORING I.D. SB-8

PURPOSE Investigation

DRILLING METHOD Hand Auger

DRILLING COMPANY EAR

HEAD DRILLER J. Lohan

LOGGED BY J. Lohan

BOREHOLE DIAMETER 4"

DEPTH-TO-WATER ~3'-5'

TOTAL BORING DEPTH 3'

SOIL SAMPLING

Type S/S hand auger.

GROUNDWATER SAMPLING

Type

BACKFILL Native

FINISH Match existing (no finish, in dirt)

COMMENTS

Depth
Below
Grade

Soil Lithology/Field Observations

Description/Classification

Sample
Type

Screening
Interval

PID
Reading

Percent
Recovery

0'-1' Brown fine sand, trace medium sand; moist, no odor

HA

0'-1'

5.8

-

1'-2' Brown fine sand, trace medium sand; moist, no odor

HA

1'-2'

3.8

-

2'-3' Brown fine sand, trace medium sand; moist, no odor

HA

2'-3'

2.2

-

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-9	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-12	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%



Installation Date	07/06/17
Page	1 of 1

DRILLING DETAILS

WELL CONSTRUCTION

PROJECT/SITE NAME	DEC-Brooklyn5200
SITE ADDRESS	Empire Electric Company 5200 1st Avenue Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	SB-13
DRILLING METHOD	S/S Hand Auger
DRILLING COMPANY	EAR
HEAD DRILLER	J. Lohan
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	4"
SAMPLE METHOD	S/S Hand Auger (HA)
DEPTH-TO-WATER	~1.5
TOTAL WELL DEPTH	3'

CASING

Type PVC Diameter 1" Length 3'

SCREEN

Type PVC Diameter 1" Slot 10 Length 2'

GRAVEL PACK Well Gravel (1'-3')

CASING SEAL Bentonite (0'-1.0')

SECURITY PVC dome cap

FINISH NA

COMMENTS Well casing extended above grade

[illegible]Backfill/Gravel Bentonite 

Grout 

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-13	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	Resampling for VOC analysis
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~1.5'		
TOTAL BORING DEPTH	5'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-14	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%



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Installation Date 07/07/17

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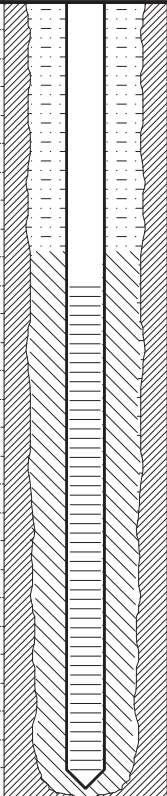
DRILLING LOG - Monitoring Well Installation




DRILLING DETAILS

PROJECT/SITE NAME	DEC-Brooklyn5200
SITE ADDRESS	Empire Electric Company
	5200 1st Avenue
	Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	SB-15
DRILLING METHOD	S/S Hand Auger
DRILLING COMPANY	EAR
HEAD DRILLER	J. Lohan
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	4"
SAMPLE METHOD	S/S Hand Auger (HA)
DEPTH-TO-WATER	~3.9
TOTAL WELL DEPTH	6.5

WELL CONSTRUCTION

CASING			
Type	<u>PVC</u>	Diameter	<u>1"</u> Length <u>6'</u>
SCREEN			
Type	<u>PVC</u>	Diameter	<u>1"</u> Slot <u>10</u> Length <u>2'</u>
GRAVEL PACK	<u>Well Gravel (4.5'-6.5')</u>		
CASING SEAL	<u>Bentonite (0'-4.5')</u>		
SECURITY	<u>PVC dome cap</u>		
FINISH	<u>NA</u>		
COMMENTS	<u>Well casing extended above grade</u>		

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
		0'-1'	Brown fine sand, little medium sand, little coarse sand, trace gravel; wet, odor	HA	0'-1'	58.0 ppm	-
		1'-2'	Brown fine sand, little medium sand, little coarse sand, trace gravel; wet, strong odor	HA	1'-2'	142 ppm	-
		2'-3'	Brown fine sand, little medium sand, little coarse sand, trace gravel; wet, strong odor	HA	2'-3'	1201 ppm	-
		5.5'-6.5'	Brown silty fine sand; wet, strong odor	HA	2'-3'	107 ppm	-
~3.9'							
TWD 6.5'							
	NOT TO SCALE						
			Drilling Notes:				

Backfill/Gravel  Bentonite  Grout 

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-15	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	Resampling for VOC analysis
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3.5'		
TOTAL BORING DEPTH	5'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-16	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-17	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

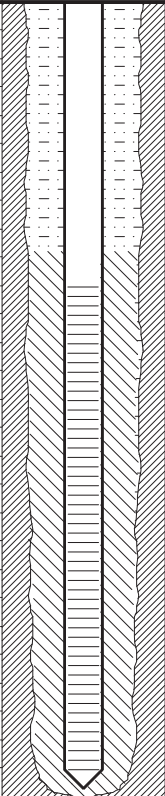
"Little", 10 - 20%




"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS		WELL CONSTRUCTION	
PROJECT/SITE NAME	<u>DEC-Brooklyn5200</u>	CASING	
SITE ADDRESS	<u>Empire Electric Company</u>	Type <u>PVC</u> Diameter <u>1"</u> Length <u>5'</u>	
	<u>5200 1st Avenue</u>		
	<u>Brooklyn, NY</u>	SCREEN	
SITE ID NUMBER	<u>224015</u>	Type <u>PVC</u> Diameter <u>1"</u> Slot <u>10</u> Length <u>2'</u>	
WELL ID	<u>SB-18</u>	GRAVEL PACK <u>Well Gravel (3.5'-5.5')</u>	
DRILLING METHOD	<u>S/S Hand Auger</u>	CASING SEAL <u>Bentonite (0'-3.5')</u>	
DRILLING COMPANY	<u>EAR</u>	SECURITY <u>PVC dome cap</u>	
HEAD DRILLER	<u>J. Lohan</u>		
LOGGED BY	<u>J. Lohan</u>	FINISH <u>NA</u>	
BOREHOLE DIAMETER	<u>4"</u>	COMMENTS <u>Well casing extended above grade</u>	
SAMPLE METHOD	<u>S/S Hand Auger</u>		
DEPTH-TO-WATER	<u>~4.9</u>		
TOTAL WELL DEPTH	<u>5.5</u>		

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
		0'-1'	Brown fine sand, little medium sand, trace coarse sand, trace gravel; moist, no odor	HA	0'-1'	1.0 ppm	-
1'-2'		Brown fine sand, little medium sand, trace coarse sand, trace gravel; moist, no odor	HA	1'-2'	3.0 ppm	-	
2'-3'		Brown fine sand, trace medium sand; moist, no odor	HA	2'-3'	1.2 ppm	-	
TWD 5.5'		Drilling Notes: Well set at 5.5' BGS per EA representative					
	NOT TO SCALE						

Backfill/Gravel  Bentonite  Grout 

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-19	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-19	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	Resampling for VOC analysis
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3.5'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-31	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-32	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-33	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-34	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%



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Installation Date 09/27/17

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DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS

PROJECT/SITE NAME DEC-Brooklyn5200
SITE ADDRESS Empire Electric Company
5200 1st Avenue
Brooklyn, NY
SITE ID NUMBER 224015
WELL ID SB-35
DRILLING METHOD Direct Push (Geoprobe 7822DT)
DRILLING COMPANY AARCO Environmental
HEAD DRILLER A. Hutchinson
LOGGED BY J. Lohan
BOREHOLE DIAMETER 3"
SAMPLE METHOD Macro Core (MC)
DEPTH-TO-WATER ~5.5'
TOTAL WELL DEPTH 7'

WELL CONSTRUCTION

CASING
Type NA Diameter NA Length NA
SCREEN
Type NA Diameter NA Slot NA Length NA
GRAVEL PACK NA
CASING SEAL NA
SECURITY NA
FINISH Backfilled with native cuttings
COMMENTS After making two additional attempts, during
which rig hit refusal again at ~7' BGS, NYSDEC
directed that no further attempts be made at this
location.

Depth
Below
Grade

Well Design

Soil Lithology/Field Observations

Depth

Description/Classification

Sample
Type

Screening
Interval

PID
Reading

Percent
Recovery

0'-4'

0.85' Tan-brown fine sand, trace medium sand, dry, no staining, no odor
0.40' Crushed red brick and concrete
1.85' Brown fine sand, trace medium sand, dry, no staining, no odor

MC

0'-4'

0.9 ppm

78

4'-8'

2.15' Brown fine sand, trace medium sand, trace coarse sand; wet, no staining
no odor.
Refusal at approx. 7 feet BGS

MC

4'-8'

1.1 ppm

54

~5.5'

TWD
7'

NOT TO SCALE

Drilling Notes:
Refusal at ~7'.

Backfill/Gravel



Bentonite



Grout





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WELL CONSTRUCTION

PROJECT/SITE NAME	DEC-Brooklyn5200
SITE ADDRESS	Empire Electric Company
	5200 1st Avenue
	Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	SB-36
DRILLING METHOD	Direct Push (Geoprobe 7822DT)
DRILLING COMPANY	AARCO Environmental
HEAD DRILLER	A. Hutchinson
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	3"
SAMPLE METHOD	Macro Core (MC)
DEPTH-TO-WATER	~5.5'
TOTAL WELL DEPTH	8'

CASING
Type PVC Diameter 2" Length 4'

SCREEN
Type PVC Diameter 2" Slot 10 Length 5'

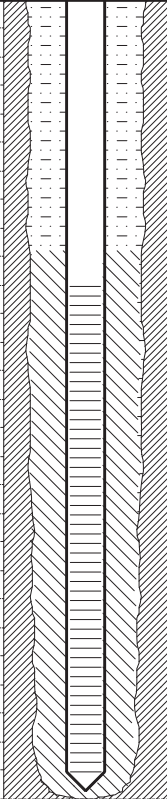
GRAVEL PACK Pre-Packed Screen (3'-8') Well Gravel (2.5'-3')

CASING SEAL Bentonite (0'-2.5')

SECURITY 2" locking well cap

FINISH Clean Fill

COMMENTS Well casing extended above grade

Depth Below Grade	Well Design	Soil Lithology/Field Observations						
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery	
 TWD 8' NOT TO SCALE	0'-4'	2.65' Tan Fine sand, trace medium sand, trace coarse sand; dry to moist, no staining, no odor.	MC	0'-4'	0.9ppm	66		
	4'-8'	1.10' Tan Fine sand, trace medium sand, trace coarse sand; moist, no staining no odor. 2.20' Brown fine sand, trace medium sand, trace coarse sand; wet no staining odor.	MC	4'-8'	94.2 ppm	82		



DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-Brooklyn5200
SITE ADDRESS	Empire Electric Company
	5200 1st Avenue
	Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	SB-37D
DRILLING METHOD	Direct Push (Geoprobe 7822DT)
DRILLING COMPANY	AARCO Environmental
HEAD DRILLER	A. Hutchinson
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	3"
SAMPLE METHOD	Macro Core (MC)
DEPTH-TO-WATER	5.23'
TOTAL WELL DEPTH	24'

WELL CONSTRUCTION

CASING

Type PVC Diameter 2" Length 19'

SCREEN

Type PVC Diameter 2" Slot 10 Length 5'

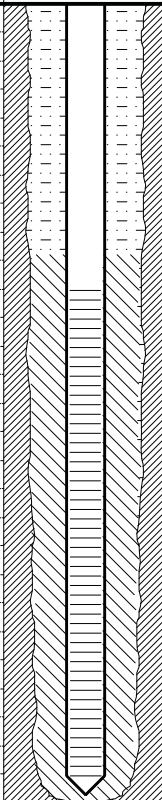
GRAVEL PACK Pre-Packed Screen (19'-24') Well Gravel (17'-19')

CASING SEAL Bentonite (0'-17')

SECURITY 2" locking well cap

FINISH	Clean Fill
--------	------------

COMMENTS	Well casing extended above grade
----------	----------------------------------

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
 5.23'	0'-4'	0.65' Tan fine sand, trace medium sand, trace coarse sand; dry, no staining, no odor. 1.25' Brown fine sand, trace medium sand, trace coarse sand; dry, no staining, no odor. 0.40' Brown fine sand, trace medium sand, trace coarse sand; moist, no staining, no odor. 0.40' Black fine sand, trace medium sand, trace coarse sand; moist, no staining, no odor. 0.20' Crushed concrete.	MC	0'-4'	68.4 ppm	73	
	4'-8'	2.75' Brown fine sand, trace medium sand, trace coarse sand; wet, no stain, odor.	MC	4'-8'	101.9 ppm	69	
	8'-12'	0.60' Brown silty fine sand, trace medium sand; wet, no staining, odor. 2.35' Brown silty fine sand, trace medium sand; wet, no staining, faint odor.	MC	8'-12'	41.1 ppm	74	
	12'-16'	1.50' Brown/black silty fine sand, trace medium sand; wet, no staining, odor. 1.30' Brown silty fine sand, trace medium sand; wet, no staining, faint odor. 1.00' Brown fine and medium sand, some coarse sand; no staining, no odor.	MC	12'-16'	90.2 ppm	95	
	16'-20'	4.00' Brown fine sand, some medium sand, trace coarse sand; wet, no staining, odor.	MC	16'-20'	79.2 ppm	100	
	20'-24'	3.40' Brown fine and medium sand, little coarse sand; wet, no staining, faint odor.	MC	20'-24'	92.8 ppm	85	
	TWD 24'	Drilling Notes: NA					
	NOT TO SCALE						

Backfill/Gravel



Bentonite



Grout





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WELL CONSTRUCTION

PROJECT/SITE NAME	DEC-Brooklyn5200
SITE ADDRESS	Empire Electric Company
	5200 1st Avenue
	Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	SB-37S
DRILLING METHOD	Direct Push (Geoprobe 7822DT)
DRILLING COMPANY	AARCO Environmental
HEAD DRILLER	A. Hutchinson
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	3"
SAMPLE METHOD	Macro Core (MC)
DEPTH-TO-WATER	5.34'
TOTAL WELL DEPTH	11'

CASING
Type PVC Diameter 2" Length 6'

SCREEN
Type PVC Diameter 2" Slot 10 Length 5'

GRAVEL PACK Pre-Packed Screen (6'-11') Well Gravel (4'-6')

CASING SEAL Bentonite (0'-4')

SECURITY 2" locking well cap

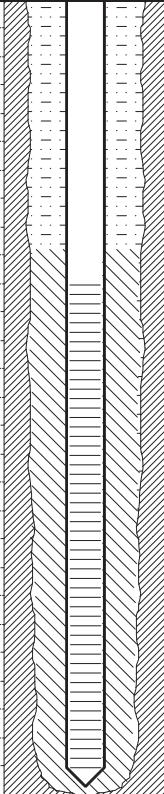
FINISH Clean Fill

COMMENTS Well casing extended above grade

[illegible]

DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS		WELL CONSTRUCTION	
PROJECT/SITE NAME	<u>DEC-Brooklyn5200</u>	CASING	
SITE ADDRESS	<u>Empire Electric Company</u>	Type <u>PVC</u> Diameter <u>2"</u> Length <u>6'</u>	
	<u>5200 1st Avenue</u>		
	<u>Brooklyn, NY</u>	SCREEN	
SITE ID NUMBER	<u>224015</u>	Type <u>PVC</u> Diameter <u>2"</u> Slot <u>10</u> Length <u>5'</u>	
WELL ID	<u>SB-38</u>	GRAVEL PACK	<u>Pre-Packed Screen (6'-11') Well Gravel (4.5'-6')</u>
DRILLING METHOD	<u>Direct Push (Geoprobe 7822DT)</u>	CASING SEAL	<u>Bentonite (0'-4.5')</u>
DRILLING COMPANY	<u>AARCO Environmental</u>	SECURITY	<u>2" locking well cap</u>
HEAD DRILLER	<u>A. Hutchinson</u>		
LOGGED BY	<u>J. Lohan</u>	FINISH	<u>Clean Fill</u>
BOREHOLE DIAMETER	<u>3"</u>	COMMENTS	<u>Well casing extended above grade</u>
SAMPLE METHOD	<u>Macro Core (MC)</u>		
DEPTH-TO-WATER	<u>7.13'</u>		
TOTAL WELL DEPTH	<u>11'</u>		

Depth Below Grade	Well Design	Soil Lithology/Field Observations						
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery	
		0'-4'	1.40' Tan fine sand, trace medium sand; dry, no staining, no odor.	MC	0'-4'	0.3 ppm	75	
			1.60' Brown fine sand, trace medium sand; moist, no staining, no odor.					
		4'-8'	1.00' Brown fine sand, trace medium sand; moist, no staining, no odor.	MC	4'-8'	0.8 ppm	67	
			1.00' Brown fine sand, trace medium sand; wet, no staining, no odor.					
		8'-12'	2.40' Brown fine sand, trace medium sand; wet, no staining, no odor.	MC	8'-12'	41.1 ppm	100	
			0.65' Brown fine sand, trace medium sand, little gravel; wet, no staining, no odor.					
			0.95' Crushed concrete.					
		12'-16'	2.00' Brown fine sand, little gravel, trace medium sand; wet, no staining, no odor.	MC	12'-16'	0.4 ppm	100	
			1.40' Crushed concrete.					
			0.60' Wood.					
	7.13'		16'-20'	1.95' Dark brown/gray fine sand, trace medium sand, trace concrete, trace wood; wet, no staining, no odor.	MC	16'-20'	7.1 ppm	96
				1.85' Brown fine sand, some medium sand, trace coarse sand; wet, no staining, no odor.				
		20'-24'	3.60' Red/brown fine sand, little medium sand, trace coarse sand; wet, no staining no odor.	MC	20'-24'	0.9 ppm	90	
		24'-28'	3.80' Red/brown fine sand, little medium sand, trace coarse sand; wet, no staining no odor.	MC	24'-28'	3.4 ppm	96	
TWD 11'		Drilling Notes: Refusal at ~11.5' using larger diameter rods required for well installation.						
	NOT TO SCALE							

Backfill/Gravel



Bentonite



Grout



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Appendix C

Monitoring Well Construction Logs

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DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS		WELL CONSTRUCTION	
PROJECT/SITE NAME	<u>DEC-BROOKLYN5200</u>	CASING	
SITE ADDRESS	<u>Empire Electric Company</u>	Type <u>PVC</u> Diameter <u>2"</u> Length <u>14'</u>	
	<u>5200 1st Avenue</u>		
	<u>Brooklyn, NY</u>		
SITE ID NUMBER	<u>224015</u>	SCREEN	
WELL ID	<u>MW-05R</u>	Type <u>PVC</u> Diameter <u>2"</u> Slot <u>0.010"</u> Length <u>10'</u>	
DRILLING METHOD	<u>Hollow Stem Auger (BK-81 Rig)</u>	GRAVEL PACK	<u>Grout (0'-9' BGS) & Well gravel (12'-24'BGS)</u>
DRILLING COMPANY	<u>AARCO Environmental</u>	CASING SEAL	<u>Bentonite (Hydrated Pellets) (9'-12' BGS)</u>
HEAD DRILLER	<u>T. Kelly</u>	SECURITY	<u>8"x12" Steel Bolt-Down Manhole cover</u>
LOGGED BY	<u>J. Lohan</u>		<u>2" locking well cap</u>
BOREHOLE DIAMETER	<u>6"</u>	FINISH	<u>2'x2' concrete pad</u>
SAMPLE METHOD	<u>Split-Spoon Sampler (SS)</u>	COMMENTS	<u>MW-05 is 9.5' SW of SW curb of 52nd St.,</u>
DEPTH-TO-WATER	<u>13.02'</u>		<u>29.25' NW of NW corner of building #2 52nd</u>
TOTAL WELL DEPTH	<u>24'</u>		<u>St., and 19.5' S of utility pole #6.</u>

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
		0'-5'	Post hole; cleared.				
		5'-7'	0.25'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 1.20'-Brown fine sand, trace medium sand, trace coarse sand, moist, no odor.	SS	5'-7'	324 ppm	73
		7'-9'	0.30'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 0.80'-Brown fine sand, trace medium sand, trace coarse sand, moist, no odor.	SS	7'-9'	25.6 ppm	55
		9'-11'	0.25'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 1.25'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, moist, no odor.	SS	9'-11'	68.4 ppm	75
		11'-13'	0.25'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 0.25'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, moist, no odor. 0.65'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, wet, no odor.	SS	11'-13'	149.3 ppm	58
▼ 13.02'		13'-15'	1.70'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, wet no odor. 0.30'-Black fine sand, trace silt, trace medium sand, trace coarse sand, wet, odor.	SS	13'-15'	3.9 ppm	100
		15'-17'	0.90'-Brown fine sand, trace silt, trace medium sand, wet, no odor. 0.05'-Black fine sand and medium sand, trace coarse sand, wet, odor.	SS	15'-17'	6.7 ppm	48
TWD 24'		17'-19'	1.40'-Brown fine sand, trace medium sand, trace coarse sand, wet, odor.	SS	17'-19'	87.1 ppm	70
		19'-21'	2.00'-Brown fine sand, trace medium sand, trace coarse sand, wet, odor.	SS	19'-21'	120.4 ppm	100
	NOT TO SCALE						

Backfill/Gravel



Bentonite



Grout





Installation Date	07/06/17
Page	1 of 1

WELL CONSTRUCTION

PROJECT/SITE NAME	DEC-Brooklyn5200
SITE ADDRESS	Empire Electric Company 5200 1st Avenue Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	SB-13
DRILLING METHOD	S/S Hand Auger
DRILLING COMPANY	EAR
HEAD DRILLER	J. Lohan
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	4"
SAMPLE METHOD	S/S Hand Auger (HA)
DEPTH-TO-WATER	~1.5
TOTAL WELL DEPTH	3'

CASING

Type PVC Diameter 1" Length 3'

SCREEN

Type PVC Diameter 1" Slot 10 Length 2'

GRAVEL PACK Well Gravel (1'-3')

CASING SEAL Bentonite (0'-1.0')

SECURITY PVC dome cap

FINISH NA

COMMENTS Well casing extended above grade

[illegible]Backfill/Gravel Bentonite 

Grout 

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-13	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	Resampling for VOC analysis
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~1.5'		
TOTAL BORING DEPTH	5'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%



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Installation Date 07/07/17

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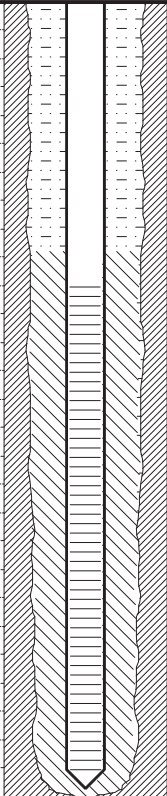
DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-Brooklyn5200
SITE ADDRESS	Empire Electric Company
	5200 1st Avenue
	Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	SB-15
DRILLING METHOD	S/S Hand Auger
DRILLING COMPANY	EAR
HEAD DRILLER	J. Lohan
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	4"
SAMPLE METHOD	S/S Hand Auger (HA)
DEPTH-TO-WATER	~3.9
TOTAL WELL DEPTH	6.5

WELL CONSTRUCTION

CASING			
Type	<u>PVC</u>	Diameter	<u>1"</u> Length <u>6'</u>
SCREEN			
Type	<u>PVC</u>	Diameter	<u>1"</u> Slot <u>10</u> Length <u>2'</u>
GRAVEL PACK	<u>Well Gravel (4.5'-6.5')</u>		
CASING SEAL	<u>Bentonite (0'-4.5')</u>		
SECURITY	<u>PVC dome cap</u>		
FINISH	<u>NA</u>		
COMMENTS	<u>Well casing extended above grade</u>		

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
		0'-1'	Brown fine sand, little medium sand, little coarse sand, trace gravel; wet, odor	HA	0'-1'	58.0 ppm	-
		1'-2'	Brown fine sand, little medium sand, little coarse sand, trace gravel; wet, strong odor	HA	1'-2'	142 ppm	-
		2'-3'	Brown fine sand, little medium sand, little coarse sand, trace gravel; wet, strong odor	HA	2'-3'	1201 ppm	-
		5.5'-6.5'	Brown silty fine sand; wet, strong odor	HA	2'-3'	107 ppm	-
~3.9'							
TWD 6.5'							
	NOT TO SCALE						
			Drilling Notes:				

Backfill/Gravel	
-----------------	---

Bentonite

Grout 

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-15	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	Resampling for VOC analysis
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3.5'		
TOTAL BORING DEPTH	5'		

[illegible]

"Trace", 1 - 10%

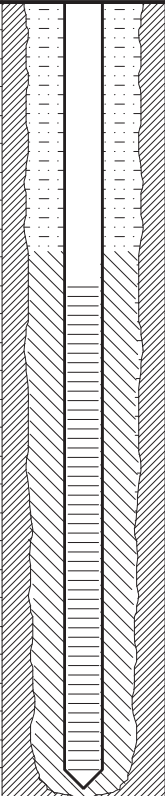
"Little", 10 - 20%



"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS		WELL CONSTRUCTION	
PROJECT/SITE NAME	<u>DEC-Brooklyn5200</u>	CASING	
SITE ADDRESS	<u>Empire Electric Company</u>	Type <u>PVC</u> Diameter <u>1"</u> Length <u>5'</u>	
	<u>5200 1st Avenue</u>		
	<u>Brooklyn, NY</u>	SCREEN	
SITE ID NUMBER	<u>224015</u>	Type <u>PVC</u> Diameter <u>1"</u> Slot <u>10</u> Length <u>2'</u>	
WELL ID	<u>SB-18</u>	GRAVEL PACK	<u>Well Gravel (3.5'-5.5')</u>
DRILLING METHOD	<u>S/S Hand Auger</u>	CASING SEAL	<u>Bentonite (0'-3.5')</u>
DRILLING COMPANY	<u>EAR</u>	SECURITY	<u>PVC dome cap</u>
HEAD DRILLER	<u>J. Lohan</u>		
LOGGED BY	<u>J. Lohan</u>	FINISH	<u>NA</u>
BOREHOLE DIAMETER	<u>4"</u>	COMMENTS	<u>Well casing extended above grade</u>
SAMPLE METHOD	<u>S/S Hand Auger</u>		
DEPTH-TO-WATER	<u>~4.9</u>		
TOTAL WELL DEPTH	<u>5.5</u>		

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
		0'-1'	Brown fine sand, little medium sand, trace coarse sand, trace gravel; moist, no odor	HA	0'-1'	1.0 ppm	-
		1'-2'	Brown fine sand, little medium sand, trace coarse sand, trace gravel; moist, no odor	HA	1'-2'	3.0 ppm	-
		2'-3'	Brown fine sand, trace medium sand; moist, no odor	HA	2'-3'	1.2 ppm	-
TWD 5.5'		Drilling Notes: Well set at 5.5' BGS per EA representative					
	NOT TO SCALE						

Backfill/Gravel  Bentonite  Grout 



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Installation Date 09/27/17

Page 1 of 1

DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS

PROJECT/SITE NAME DEC-Brooklyn5200
SITE ADDRESS Empire Electric Company
5200 1st Avenue
Brooklyn, NY
SITE ID NUMBER 224015
WELL ID SB-35
DRILLING METHOD Direct Push (Geoprobe 7822DT)
DRILLING COMPANY AARCO Environmental
HEAD DRILLER A. Hutchinson
LOGGED BY J. Lohan
BOREHOLE DIAMETER 3"
SAMPLE METHOD Macro Core (MC)
DEPTH-TO-WATER ~5.5'
TOTAL WELL DEPTH 7'

WELL CONSTRUCTION

CASING
Type NA Diameter NA Length NA
SCREEN
Type NA Diameter NA Slot NA Length NA
GRAVEL PACK NA
CASING SEAL NA
SECURITY NA
FINISH Backfilled with native cuttings
COMMENTS After making two additional attempts, during
which rig hit refusal again at ~7' BGS, NYSDEC
directed that no further attempts be made at this
location.

Depth
Below
Grade

Well Design

Soil Lithology/Field Observations

Depth

Description/Classification

Sample
Type

Screening
Interval

PID
Reading

Percent
Recovery

0'-4'

0.85' Tan-brown fine sand, trace medium sand, dry, no staining, no odor
0.40' Crushed red brick and concrete
1.85' Brown fine sand, trace medium sand, dry, no staining, no odor

MC

0'-4'

0.9 ppm

78

4'-8'

2.15' Brown fine sand, trace medium sand, trace coarse sand; wet, no staining
no odor.
Refusal at approx. 7 feet BGS

MC

4'-8'

1.1 ppm

54

~5.5'

TWD
7'

NOT TO SCALE

Drilling Notes:
Refusal at ~7'.

Backfill/Gravel



Bentonite



Grout





Page 1 of 1

WELL CONSTRUCTION

PROJECT/SITE NAME	DEC-Brooklyn5200
SITE ADDRESS	Empire Electric Company
	5200 1st Avenue
	Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	SB-36
DRILLING METHOD	Direct Push (Geoprobe 7822DT)
DRILLING COMPANY	AARCO Environmental
HEAD DRILLER	A. Hutchinson
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	3"
SAMPLE METHOD	Macro Core (MC)
DEPTH-TO-WATER	~5.5'
TOTAL WELL DEPTH	8'

CASING

Type PVC Diameter 2" Length 4'

SCREEN

Type PVC Diameter 2" Slot 10 Length 5'

GRAVEL PACK Pre-Packed Screen (3'-8') Well Gravel (2.5'-3')

CASING SEAL Bentonite (0'-2.5')

SECURITY 2" locking well cap

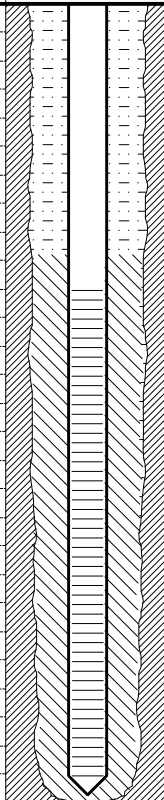
FINISH Clean Fill

COMMENTS Well casing extended above grade

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
	<p>The diagram shows a vertical cross-section of a well. The left side has hatching representing different soil types. A blue arrow points down at approximately 5.5 feet depth, labeled '~5.5\''. At the bottom, it says 'TWD 8\''.</p>	0'-4'	2.65' Tan Fine sand, trace medium sand, trace coarse sand; dry to moist, no staining, no odor.	MC	0'-4'	0.9ppm	66
		4'-8'	1.10' Tan Fine sand, trace medium sand, trace coarse sand; moist, no staining no odor. 2.20' Brown fine sand, trace medium sand, trace coarse sand; wet no staining odor.	MC	4'-8'	94.2 ppm	82
TWD 8'		Drilling Notes: Refusal at ~8.5'.					
	NOT TO SCALE						

DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS		WELL CONSTRUCTION	
PROJECT/SITE NAME	<u>DEC-Brooklyn5200</u>	CASING	
SITE ADDRESS	<u>Empire Electric Company</u>	Type <u>PVC</u>	Diameter <u>2"</u> Length <u>19'</u>
	<u>5200 1st Avenue</u>		
	<u>Brooklyn, NY</u>	SCREEN	
SITE ID NUMBER	<u>224015</u>	Type <u>PVC</u>	Diameter <u>2"</u> Slot <u>10</u> Length <u>5'</u>
WELL ID	<u>SB-37D</u>		
DRILLING METHOD	<u>Direct Push (Geoprobe 7822DT)</u>	GRAVEL PACK <u>Pre-Packed Screen (19'-24') Well Gravel (17'-19')</u>	
DRILLING COMPANY	<u>AARCO Environmental</u>	CASING SEAL <u>Bentonite (0'-17")</u>	
HEAD DRILLER	<u>A. Hutchinson</u>	SECURITY <u>2" locking well cap</u>	
LOGGED BY	<u>J. Lohan</u>		
BOREHOLE DIAMETER	<u>3"</u>	FINISH <u>Clean Fill</u>	
SAMPLE METHOD	<u>Macro Core (MC)</u>	COMMENTS <u>Well casing extended above grade</u>	
DEPTH-TO-WATER	<u>5.23'</u>		
TOTAL WELL DEPTH	<u>24'</u>		

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
 5.23'	0'-4'	0.65' Tan fine sand, trace medium sand, trace coarse sand; dry, no staining, no odor. 1.25' Brown fine sand, trace medium sand, trace coarse sand; dry, no staining, no odor. 0.40' Brown fine sand, trace medium sand, trace coarse sand; moist, no staining, no odor. 0.40' Black fine sand, trace medium sand, trace coarse sand; moist, no staining, no odor. 0.20' Crushed concrete.	MC	0'-4'	68.4 ppm	73	
	4'-8'	2.75' Brown fine sand, trace medium sand, trace coarse sand; wet, no stain, odor.	MC	4'-8'	101.9 ppm	69	
	8'-12'	0.60' Brown silty fine sand, trace medium sand; wet, no staining, odor. 2.35' Brown silty fine sand, trace medium sand; wet, no staining, faint odor.	MC	8'-12'	41.1 ppm	74	
	12'-16'	1.50' Brown/black silty fine sand, trace medium sand; wet, no staining, odor. 1.30' Brown silty fine sand, trace medium sand; wet, no staining, faint odor. 1.00' Brown fine and medium sand, some coarse sand; no staining, no odor.	MC	12'-16'	90.2 ppm	95	
	16'-20'	4.00' Brown fine sand, some medium sand, trace coarse sand; wet, no staining, odor.	MC	16'-20'	79.2 ppm	100	
	20'-24'	3.40' Brown fine and medium sand, little coarse sand; wet, no staining, faint odor.	MC	20'-24'	92.8 ppm	85	
	TWD 24'	Drilling Notes: NA					
	NOT TO SCALE						

Backfill/Gravel



Bentonite



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Installation Date 09/28/17

Page 1 of 1

DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS

PROJECT/SITE NAME DEC-Brooklyn5200
SITE ADDRESS Empire Electric Company
5200 1st Avenue
Brooklyn, NY
SITE ID NUMBER 224015
WELL ID SB-37S
DRILLING METHOD Direct Push (Geoprobe 7822DT)
DRILLING COMPANY AARCO Environmental
HEAD DRILLER A. Hutchinson
LOGGED BY J. Lohan
BOREHOLE DIAMETER 3"
SAMPLE METHOD Macro Core (MC)
DEPTH-TO-WATER 5.34'
TOTAL WELL DEPTH 11'

WELL CONSTRUCTION

CASING

Type PVC Diameter 2" Length 6'

SCREEN

Type PVC Diameter 2" Slot 10 Length 5'

GRAVEL PACK Pre-Packed Screen (6'-11') Well Gravel (4'-6')

CASING SEAL Bentonite (0'-4')

SECURITY 2" locking well cap

FINISH Clean Fill

COMMENTS Well casing extended above grade

Depth
Below
Grade

Well Design

Soil Lithology/Field Observations

Depth

Description/Classification

Sample
Type

Screening
Interval

PID
Reading

Percent
Recovery

No lithology logged.

5.34'

TWD
11'

NOT TO SCALE

Drilling Notes:
NA

Backfill/Gravel



Bentonite

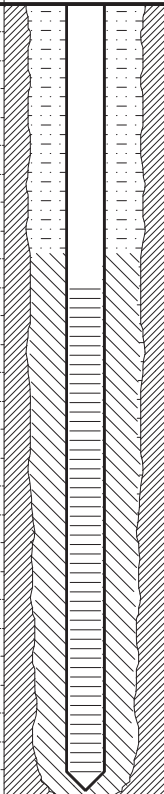


Grout



DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS		WELL CONSTRUCTION	
PROJECT/SITE NAME	<u>DEC-Brooklyn5200</u>	CASING	
SITE ADDRESS	<u>Empire Electric Company</u>	Type <u>PVC</u> Diameter <u>2"</u> Length <u>6'</u>	
	<u>5200 1st Avenue</u>		
	<u>Brooklyn, NY</u>	SCREEN	
SITE ID NUMBER	<u>224015</u>	Type <u>PVC</u> Diameter <u>2"</u> Slot <u>10</u> Length <u>5'</u>	
WELL ID	<u>SB-38</u>	GRAVEL PACK	<u>Pre-Packed Screen (6'-11') Well Gravel (4.5'-6')</u>
DRILLING METHOD	<u>Direct Push (Geoprobe 7822DT)</u>	CASING SEAL	<u>Bentonite (0'-4.5')</u>
DRILLING COMPANY	<u>AARCO Environmental</u>	SECURITY	<u>2" locking well cap</u>
HEAD DRILLER	<u>A. Hutchinson</u>		
LOGGED BY	<u>J. Lohan</u>	FINISH	<u>Clean Fill</u>
BOREHOLE DIAMETER	<u>3"</u>	COMMENTS	<u>Well casing extended above grade</u>
SAMPLE METHOD	<u>Macro Core (MC)</u>		
DEPTH-TO-WATER	<u>7.13'</u>		
TOTAL WELL DEPTH	<u>11'</u>		

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
	0'-4'	1.40' Tan fine sand, trace medium sand; dry, no staining, no odor.	MC	0'-4'	0.3 ppm	75	
		1.60' Brown fine sand, trace medium sand; moist, no staining, no odor.					
	4'-8'	1.00' Brown fine sand, trace medium sand; moist, no staining, no odor.	MC	4'-8'	0.8 ppm	67	
		1.00' Brown fine sand, trace medium sand; wet, no staining, no odor.					
	8'-12'	2.40' Brown fine sand, trace medium sand; wet, no staining, no odor.	MC	8'-12'	41.1 ppm	100	
		0.65' Brown fine sand, trace medium sand, little gravel; wet, no staining, no odor.					
		0.95' Crushed concrete.					
	12'-16'	2.00' Brown fine sand, little gravel, trace medium sand; wet, no staining, no odor.	MC	12'-16'	0.4 ppm	100	
		1.40' Crushed concrete.					
		0.60' Wood.					
	7.13'	16'-20'	1.95' Dark brown/gray fine sand, trace medium sand, trace concrete, trace wood; wet, no staining, no odor.	MC	16'-20'	7.1 ppm	96
			1.85' Brown fine sand, some medium sand, trace coarse sand; wet, no staining, no odor.				
	20'-24'	3.60' Red/brown fine sand, little medium sand, trace coarse sand; wet, no staining no odor.	MC	20'-24'	0.9 ppm	90	
	24'-28'	3.80' Red/brown fine sand, little medium sand, trace coarse sand; wet, no staining no odor.	MC	24'-28'	3.4 ppm	96	
TWD 11'		Drilling Notes: Refusal at ~11.5' using larger diameter rods required for well installation.					
	NOT TO SCALE						

Backfill/Gravel



Bentonite



Grout



Appendix D
Post-Remediation Groundwater Summary Letter Report

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March 26, 2018

David Chiusano
New York State Department of Environmental Conservation
Div. of Environmental Remediation
625 Broadway, 12th floor
Albany, NY 12233-7015

RE: Site No. 224015, Empire Electric, 5200 First Avenue, Brooklyn, NY – Investigation Summary Report

Dear Mr. Chiusano:

This letter summarizes the investigation activities conducted by Environmental Assessment & Remediations (EAR) at the above referenced site. The investigation activities were conducted in July through October 2017 in response to directives provided in the New York State Department of Environmental Conservation (NYSDEC) Standby Contractor Authorization Form dated 6/2/17 (Callout ID: 129841). A site location map is provided as Figure 1.

Prior to the investigation activities conducted by EAR, site remedial activities conducted by project engineers EA Engineering, Science and Technology, Inc (EA) included demolition of the former Empire Electric building and subsequent excavation which exposed a subfloor located several feet below street level. The building footprint and site features are illustrated in Figure 2.

Soil Borings / Temporary Well Installations

A conceptualized 3x3 meter grid pattern of thirty (30) temporary borings in the area of interest was proposed by project engineers, EA (Syracuse, NY), and approved by NYSDEC in effort to delineate extent of impact. Proposed locations were measured out by EAR on the first day of field activities and sequentially labeled as SB-1 through SB-30. Select locations proved inaccessible due to the presence of the concrete slabs/debris and granite blocks which constituted part of the sub flooring; a total of 13 locations were removed from the sampling plan (SB-1, SB-10, SB-20, SB-21 through SB-30). Four additional locations (SB-31 through SB-34) were added to the sampling plan by EA's onsite representative. As such, a total of 17 temporary boring locations were accessible for sample collection.

Temporary borings were advanced over a five-day period (July 6-10, 2017) using a stainless-steel hand auger. At 13 locations, soil samples were collected from three depth intervals: 0-1, 1-2, and 2-3 feet below grade surface (BGS). At locations SB-3, SB-4, and SB-6, the auger could not be advanced beyond 2 feet BGS. As directed by EA's onsite representative, SB-15 and SB-18 were advanced to approximately 6.5 feet BGS; with an additional soil sample collected at 5.5-6.5 ft BGS at SB-15. All samples were logged for lithology and screened with a photo-ionization detector (PID) for total volatile



organic compounds (VOCs) via the headspace method. All downhole tooling was decontaminated between sample intervals via Alconox scrub, followed by hexane wipe-down, and de-ionized water rinse. Decontamination rinsate was co-mingled with another project contractor's (PAL Environmental Services (Long Island City, NY)) aqueous wastes. Following sample collection, all boreholes were backfilled to grade with native soil.

A total of 65 soil samples (including 7 blind duplicates) and 3 aqueous samples (rinse blanks) were submitted to a NYSDEC standby laboratory (Test America, Inc.) for analysis of polychlorinated biphenyls (PCBs) via EPA Method 8082. Samples were submitted for expedited (72-hr) turn around with Category B deliverables requested. Samples were picked up by the laboratory-provided courier service each day for transport to the lab.

On July 26, additional soil samples were collected from 3 locations (SB-13, SB-15 and SB-19) for VOC analysis. Per directives from the onsite EA representative, borings at these locations were to be advanced to 4-feet BGS. At SB-13 and SB-15, soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, 2-3 feet BGS, and 3-4 feet BGS. At SB-19, boring could not be advanced beyond 3.5 feet BGS, as such the 3-4 feet sampling interval was excluded.

Temporary borings were advanced using a stainless-steel hand auger. All samples were logged for lithology and screened with a PID for VOCs via the headspace method. All downhole tooling was decontaminated between sample intervals via Alconox scrub and de-ionized water rinse. Decontamination rinsate was co-mingled with PAL Environmental Services' aqueous wastes.

At each boring location, the interval exhibiting the highest PID reading was retained for lab analysis. EAR submitted a total of 4 soil samples (including one blind duplicate). All soil samples were preserved via EPA 5035 compliant means and submitted to Test America, Inc. for analysis of VOC's via EPA Method 8260. Samples were submitted for an expedited (72-hr) turn around with Category B deliverables requested. Samples were picked up by the laboratory-provided courier service each day for transport to the lab.

Analytical results from the above soil sampling activities are summarized in Tables 1-2. Boring logs are provided as Appendix A.

At locations SB-13, SB-15, and SB-18, EAR installed temporary monitoring wells each consisting of 2-feet of 1-inch diameter Schedule 40 PCV screen (20 slot) and 1-inch diameter Schedule 40 PVC riser extending to approximately 2-feet above grade surface. SB-13_GW was screened from 1-2 feet BGS. After observing poor groundwater recharge at this location, SB-15_GW was screened from 4-6 feet BGS and SB-18_GW was screened from 3-5 feet BGS. At each location, #2 well gravel was installed to the top of the screened interval followed by a hydrated bentonite seal from top of the screened interval to grade surface. Well risers were extended to approximately 2-feet above grade surface and capped with PVC dome caps.

On September 27-28, 2017, EAR was onsite to conduct additional soil sampling and installation of temporary monitoring wells within the building footprint using a track mounted direct-push rig. Drilling services were provided by Aarco Environmental Services (Lindenhurst, NY). Soil samples were collected continuously in 4-foot intervals from grade to the end of the boring. All samples were logged for lithology and screened with a PID for total volatile organic compounds (VOCs) via the headspace method. All downhole tooling was decontaminated between sample intervals via Alconox scrub,



followed by hexane wipe-down, and de-ionized water rinse. Decontamination rinsate was co-mingled with PAL Environmental Services' aqueous wastes.

A total of four boring pairs (SB-35 through SB-38) were conceptualized; with a shallow boring installed to approximately 10-feet BGS and a deep boring to approximately 23-feet BGS at each of the proposed four locations. Boring locations are shown in Figure 3.

Three attempts were made to install borings at location SB-35, however refusal was encountered at approximately 7-feet BGS during each attempt. Per EA and NYSDEC, no further attempts were made at this location.

Two attempts were advanced at location SB-36, with soil samples collected from grade to approximately 8.5-feet BGS before refusal was encountered. As directed by NYSDEC, only the 6-8 foot sample interval was retained for laboratory analysis. A temporary monitoring well (SB-36D) was installed and constructed of a 2-inch diameter, 5-foot pre-packed screen set at 3-8 feet BGS, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 1-foot above grade. No. 0 gravel pack was installed to 2.5-feet below grade, and a bentonite seal was installed from 2.5-feet below grade to surface.

At SB-37, soil samples were collected from grade to 24-ft BGS. Samples from each depth interval were retained for laboratory analysis. A temporary well (SB-37D) was installed and constructed of a 2-inch diameter schedule 40 PVC pre-packed screen (5-foot) section set at 19-24 feet BGS and a 4-foot section of 2-inch diameter, schedule 40 PVC riser extending to 2-feet above grade. No. 0 gravel pack was installed to 17-feet BGS, and a bentonite seal was installed from 17-feet BGS to surface. A complementary, shallow well (SB-37S) was installed adjacent to SB-37D to a total depth of 11-feet BGS. SB-37S was constructed of a 2-inch diameter, 5-foot pre-packed screen, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 2.5-feet above grade. No. 0 gravel pack was installed to 4-feet BGS, and a bentonite seal was installed from 4-feet BGS to surface.

At location SB-38, soil samples were collected from grade to 28-ft BGS. Samples from discrete sampling intervals from grade to 24-ft BGS were retained for laboratory analysis. During advancement of larger diameter rods for installation of the temporary monitoring well, refusal was encountered at approximately 11.5-feet BGS. Concrete was observed in soil samples collected at the same interval. Per the onsite EA representative, the temporary monitoring well was set at 11.5-feet BGS and was constructed of a 2-inch diameter, 5-foot pre-packed screen, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 2.5-feet above grade. No. 0 gravel pack was installed to 4.5-feet BGS, and a bentonite seal was installed from 4.5-feet BGS to surface.

A total of 13 soil samples and 1 rinse blank were collected and submitted to Test America, Inc. of analysis of PCBs via EPA Method 8082. Of those soil samples, a total of 7¹ were also analyzed for VOC's via EPA Method 8260C², SVOC's via 8270, pesticides via 8081, TAL metals via 6020/7470, and total cyanide via 9012. All soil samples submitted for analysis of VOCs were preserved via EPA 5035 compliant means. Samples were submitted for an expedited (72-hr) turn around with Category B deliverables requested. Samples were picked up by the laboratory-provided courier service each day for transport to the lab.

¹ Samples from depth intervals corresponding to the water table interface, anticipated depth of upcoming focused soil excavation, and boring terminus.

² All soil samples for VOC analysis were preserved via EPA 5035 compliant means



Soil analytical results are summarized in Tables 3-7. Site maps with posted analytical data for soil borings conducted July – September are provided as Figures 3-5³. Boring logs are provided as Appendix A.

Groundwater Sampling

Seven (7) temporary wells were installed on July-September 2017 with screened intervals summarized as follows:

Location	Screen Interval (ft BGS)
SB-13_GW	1-2
SB-15_GW	4-6
SB-18_GW	3-5
SB-36	3.5-5.5
SB-37S	6-11
SB-37D	19-24
SB-38	6.5-11.5

Groundwater samples were collected from temporary wells SB-13_GW, SB-15_GW, and SB-18_GW on July 7-10 utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged and recorded. Due to very poor recharge at the three temporary monitoring wells, water quality parameters could not be monitored and samples were collected as soon as the wells yielded sufficient sample volume.

Groundwater samples collected for lab analysis were placed into the appropriate sample containers provided by the laboratory and immediately placed in a cooler with ice to maintain a temperature of 4 degrees Celsius. A total of 3 groundwater samples were submitted to Test America, Inc. for analysis of PCBs via EPA Method 8082.

Samples were collected from the SB-13_GW, SB-15_GW, and SB-18_GW again on July 26 and August 9 utilizing the above referenced methodology. Due to very poor recharge, water quality parameters could not be monitored and samples were collected following purges of one well volume. Groundwater samples collected for lab analysis were placed into the appropriate sample containers provided by the laboratory and immediately placed in a cooler with ice to maintain a temperature of 4 degrees Celsius. A total of 7 groundwater samples (including 1 blind duplicate) were submitted to Test America, Inc. for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCBs via 8082 (dissolved⁴), TAL metals via 6020/7470 (total and dissolved), total cyanide via 9012, and PFA's via modified 537.

Analytical results from the above groundwater samples are summarized in Tables 8-13.

³ Post maps are not provided for pesticides as no analytes were detected under EPA Method 8081. Post maps are not provided for TAL Metals as no parameters exceeded 6 NYCRR 375-6 soil cleanup objectives for commercial, industrial, or unrestricted use.

⁴ Groundwater samples for dissolved PCB and metals analyses were collected on August 9, 2017.



The wells installed September 27-28 (SB-36, SB-37S, SB-37D, and SB-38) were developed on September 29 via pumping using a submersible pump. All wells exhibited poor recharge at flow rates from 0.1 to 0.5 gallons per minute and had to be rested periodically to allow for recharge. Each well was purged of at least 5 well volumes with pumping continuing until turbidity dropped below 50 nephelometric turbidity units (NTUs) or stabilized with little apparent visually observed improvement.

Development purge volumes and turbidity readings are summarized as follows:

Location	Purge (cumulative gallons)	NTUs at Completion	Observations
SB-36	2.75	808	Well repeatedly stripped during pumping. Purge water transitioned from dark brown to light brown after 2 gallons then stabilized.
SB-37S	10.0	17.2	Well repeatedly stripped during pumping. Purge water transitioned from dark red- brown to clear after 8 gallons.
SB-37D	21.0	47.7	Well repeatedly stripped during pumping. Purge water transitioned from dark red- brown to clear after 16 gallons.
SB-38	9.0	>1,000	Well repeatedly stripped during pumping. Purge water transitioned from dark brown to light brown after 7 gallons then stabilized.

Groundwater samples were collected from SB-36, SB-37S, SB-37D, and SB-38 on October 3, 2017, utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and oxidation reduction potential (ORP) were recorded as well. Downhole equipment such as water level meters were decontaminated between each well location. Decontamination consisted of gross contaminant removal, Liquinox wash, and distilled water rinse. Decontamination rinsate was co-mingled with PAL Environmental Services' aqueous wastes.

EAR collected a total of 4 aqueous samples which were submitted to Test America, Inc. for analysis of VOCs via EPA Method 8260C, SVOCs via 8270, pesticides via 8081, PCBs via 8082, TAL metals via 6020/7470 (total and dissolved), and total cyanide via 9012.

Analytical results are summarized in Tables 14-18. Field screening results are summarized in Table 19. Site maps with posted analytical data for groundwater samples collected at temporary wells are provided as Figures 6-10

Concrete Sampling

On July 21 and July 25, 2017, EAR collected concrete samples from a total of 30 locations predetermined by EA. At each location, concrete samples were collected from 0-3 inches BGS and 3-6 inches BGS.

Samples were collected using a hammer drill fitted with a 1.5-inch diameter masonry bit. The drill was advanced through a 1.5-inch diameter hole in a stainless-steel tray to the desired sample depth. Concrete drill cuttings, collected in the steel tray, were screened with a PID (via headspace method) and placed in appropriate laboratory-provided containers. All sampling tools which contacted concrete were



decontaminated between samples via a hexane wipe followed by a wash with anionic detergent (Liquinox) and a distilled water rinse.

A total of 66 concrete samples (including 6 blind duplicates) and 2 rinsate blanks were submitted to a NYSDEC standby laboratory (Test America, Inc.) for analysis of polychlorinated biphenyls (PCBs) via EPA Method 8082. Samples from locations CB-9 (3-6 inches BGS) and SB-22 (0-3 inches BGS) were also submitted for analysis of VOCs via EPA Method 8260 due to elevated PID readings. PCB analysis of samples from the 3-6 inch BGS intervals was initially placed on hold with activation pending review of analytical results from the 0-3 inch BGS samples.

On August 9 and September 21, 2017, EAR collected additional samples at locations CB-10 (CB-10R), and CB-20, CB-22, CB-23, CB-24, CB-29, CB-30 (CB-20PS, CB-22PS, etc...). Prior to re-sampling, these locations had been scarified by another contractor. A concrete sample was collected again at CB-30 (CB-30PS2) on October 3, 2017, following additional scarification activities. All post-scarification samples were collected from 0-3 inches below post-scarification grade using the above described methodology. A total of 9 concrete samples (including 1 blind duplicate) and 2 rinsate blanks were submitted to Test America, Inc. for analysis of PCBs via EPA Method 8082.

Analytical results are summarized in Tables 20-21. Site maps with posted analytical data for concrete samples are provided as Figures 11-12.

Offsite Groundwater Sampling and Monitoring Well Installation

On July 24 & 27, 2017, EAR collected groundwater samples from seven (7) pre-existing site monitoring wells. Groundwater samples were not collected at MW-13 as this well could not be located. Groundwater samples were not collected at MW-10 as the riser could not be located and was believed to have been damaged. Groundwater samples were not collected at MW-5 as neither water level meter or sample tubing could be advanced beyond 7 feet BGS.

Groundwater samples were collected utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter (YSI 556 or equivalent) was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and ORP were recorded as well.

Groundwater samples collected for lab analysis were placed into the appropriate sample containers provided by the laboratory and immediately placed in a cooler with ice to maintain a temperature of 4 degrees Celsius. A total of 9 water samples (including 1 blind duplicate and 1 rinse blank) were submitted to a NYSDEC standby contracted laboratory (Test America, Inc.) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCBs via 8082, TAL metals via 6020/7470, total cyanide via 9012, and PFA's via modified 537.

Analytical results are summarized in Tables 22-27 and are compared to the TOGS 1.1.1 Class GA water quality standards and guidance values⁵. Field screening results are summarized in Table 28. Depth-to-water readings, as gauged prior to sampling, are summarized in Table 29.

⁵ NYSDEC Division of Water Technical & Operational Guidance Series 1.1.1 – Ambient Water Quality Standards and Guidance Values, Class GA (groundwater)



Following directives from NYSDEC to install replacement wells for MW-10, MW-13, and MW-05, EAR and its subcontractor (Aarco Environmental Services) mobilized to the site on September 20, 2017. During rig set-up and clearing activities, the casings for both MW-10 and MW-13 were located. As directed by an onsite NYSDEC representative, Araeco installed new manholes (8-inch diameter, steel, bolt-down manholes) and concrete pads (12"x12") at both locations and redeveloped the wells. As well development activities were not scheduled for 9/20, no turbidimeter was available. NYSDEC directed EAR/Aarco to develop the wells, to the extent feasible, until purge waters were visibly clear. MW-10 and MW-13 were developed via pumping using the inertia method. MW-13 was purged of approximately 20 gallons (12.5 well volumes). MW-10 was purged of approximately 10 gallons (5.5 well volumes). Purge water generated was co-mingled with PAL Environmental Services' aqueous wastes.

On September 25, 2017, EAR and Araeco installed a replacement monitoring well (MW-05R) in the vicinity of MW-05 using hollow-stem auger drilling methods. During advancement of the borehole, soil samples were collected continuously from grade surface to 25-feet BGS using a split-spoon sampler (2-foot intervals). The samples were inspected for lithological changes and physical evidence of contamination. Soil samples collected from the water table interface (11-13 feet BGS, 149.3 ppm) and at the interval exhibiting the highest PID reading (19-21 feet BGS, 120.4 ppm) were retained for laboratory analysis.

MW-05R is constructed of 14-feet of 2-inch diameter, 10-slot, schedule 40 PVC screen installed from 14 feet to 24 feet BGS, and 14-feet of 2-inch diameter, schedule 40 PVC riser. Gravel pack was installed from 24-feet to 12-feet BGS, with a bentonite seal from 12-feet to 9-feet BGS. Bentonite grout was installed from 9-feet BGS to near grade. The surface was finished with an 8-inch diameter, steel, bolt-down manhole set in a 24-inch by 24-inch concrete pad. The well casing was secured with a locking J-plug.

MW-05R was developed via pumping using a submersible pump. The well was pumped of at least 5 well volumes and two consecutive samples yielded turbidity readings less than 50 nephelometric turbidity units (NTU). Generated purge water (~40 gallons) was comingled with PAL's aqueous wastes.

Soil samples collected during the MW-05R installation activities and retained for lab analysis were submitted to Test America, Inc. for analysis of VOC's via EPA Method 8260C⁶, SVOC's via 8270, pesticides via 8081, PCBs via 8082, TAL metals via 6020/7470, and total cyanide via 9012.

Analytical results for soil samples collected during MW-05R installation activities are summarized in Tables 30-34. A drill log for MW-05R is included in Appendix A.

Groundwater samples were collected from MW-05R, MW-10, and MW-13 on October 2, 2017. Groundwater samples were collected utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter (YSI 556 or equivalent) was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and oxidation reduction potential (ORP) were recorded as well.

⁶ All soil samples for VOC analysis were preserved via EPA 5035 compliant means



Groundwater samples collected for lab analysis were placed into the appropriate sample containers provided by the laboratory and immediately placed in a cooler with ice to maintain a temperature of 4 degrees Celsius. A total of 4 water samples (including 1 blind duplicate) were submitted to an NYSDEC standby contracted laboratory (Test America, Inc.) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCBs via 8082, TAL metals via 6020/7470, and total cyanide via 9012.

Groundwater analytical is summarized in Tables 22-27. Field screening results are summarized in Table 28. Site maps with posted analytical data for offsite groundwater samples are provided as Figures 13-15

Survey

Newly installed, modified, and select pre-existing site monitoring wells were surveyed by an EAR survey team on September 27 and October 2, 2017. The survey was conducted in order to provide northing and easting coordinates and riser elevation data to the nearest 0.01 foot. As requested by EA, the EAR survey team also surveyed select curbline locations and other permanent features along 52nd Street to the northwest (hydraulic downgradient) of the site.

Figure 16 illustrates the locations of surveyed features. Coordinate and elevation⁷ data is summarized in Tables 35-36.

Documentation & Quality Control

Field activities detailed herein were documented in daily field reports. The daily field reports, which contain field notes and copies of chain of custody forms, are provided as Appendix B.

A summary of analytical results for quality assurance/quality control (QAQC) samples is provided as Appendix C.

All NYSDEC ASP Category B deliverables are under review for completeness and compliance. Data usability summary reports (DUSR) will be generated and submitted to NYSDEC under separate cover along with the laboratory analytical reports.

Should you have any questions regarding the activities or data detailed in this report, please feel free to contact me at 631.241.8741.

Sincerely,

Ian Hofmann
Project Manager

⁷ Elevation datum is based on USGS National Map land elevation at initial survey station.



Cc:
Conan, D. (EA)
Conden, R. (EA)
Lawrence, J. (EAR)



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Table 1

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Soil Analytical Results - Temporary Soil Borings, July 2017 (ug/Kg)
TestAmerica, Inc.
Methods: SW8082A

Location	Depth (ft BGS)	Date Collected	Time Collected	Moisture (%)	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Polybrominated biphenyls (total)
SB-2	0-1	7/6/2017	9:53 AM	12.1	<15000	<15000	<15000	<15000	<15000	<15000	160,000	<15000	<15000	160,000
	1-2	7/6/2017	9:55 AM	16.2	<160	<160	<160	<160	<160	<160	2,000	<160	<160	2,000
	2-3	7/6/2017	9:59 AM	21.7	<850	<850	<850	<850	<850	<850	9,100	<850	<850	9,100
SB-3	0-1	7/6/2017	10:03 AM	18.9	<8200	<8200	<8200	<8200	<8200	<8200	95,000	<8200	<8200	95,000
SB-4	0-1	7/6/2017	10:10 AM	8.9	<3700	<3700	<3700	<3700	<3700	<3700	47,000	<3700	<3700	47,000
SB-5	0-1	7/6/2017	10:16 AM	10.9	<750	<750	<750	<750	<750	<750	11,000	<750	<750	11,000
	1-2	7/6/2017	10:28 AM	19.5	<83	<83	<83	<83	<83	<83	960	<83	<83	960
	2-3	7/6/2017	10:32 AM	26.4	<46000	<46000	<46000	<46000	<46000	<46000	400,000	<46000	<46000	400,000
SB-6	0-1	7/6/2017	10:38 AM	7.9	<72	<72	<72	<72	<72	<72	950	<72	<72	950
	0-1	7/6/2017	10:50 AM	6.1	<3600	<3600	<3600	<3600	<3600	<3600	31,000	<3600	<3600	31,000
	1-2	7/6/2017	10:55 AM	9	<370	<370	<370	<370	<370	<370	2,900	<370	<370	2,900
SB-7	2-3	7/6/2017	11:00 AM	16.2	<160	<160	<160	<160	<160	<160	2,700	<160	<160	2,700
	0-1	7/6/2017	11:03 AM	9.7	<15000	<15000	<15000	<15000	<15000	<15000	170,000	<15000	<15000	170,000
	1-2	7/6/2017	11:05 AM	7.4	<72	<72	<72	<72	<72	<72	590	<72	<72	590
SB-8	2-3	7/6/2017	11:08 AM	12.8	<77	<77	<77	<77	<77	<77	340	<77	<77	340
	0-1	7/6/2017	11:45 AM	7.6	<720	<720	<720	<720	<720	<720	10,000	<720	<720	10,000
	1-2	7/6/2017	11:48 AM	6.1	<71	<71	<71	<71	<71	<71	1,500	<71	<71	1,500
SB-9	2-3	7/6/2017	11:51 AM	9.9	<74	<74	<74	<74	<74	<74	<74	<74	<74	<74
	0-1	7/6/2017	11:54 AM	6.4	<3600	<3600	<3600	<3600	<3600	<3600	78,000	<3600	<3600	78,000
	1-2	7/6/2017	11:55 AM	6.5	<72	<72	<72	<72	<72	<72	1,600	<72	<72	1,600
SB-11	2-3	7/6/2017	11:57 AM	6.9	<720	<720	<720	<720	<720	<720	6,600	<720	<720	6,600
	0-1	7/6/2017	12:01 PM	17.2	<20000	<20000	<20000	<20000	<20000	<20000	340,000	<20000	<20000	340,000
	1-2	7/6/2017	12:03 PM	14.2	<7800	<7800	<7800	<7800	<7800	<7800	68,000	<7800	<7800	66,000
SB-12	2-3	7/6/2017	12:05 PM	22.1	<8600	<8600	<8600	<8600	<8600	<8600	76,000	<8600	<8600	76,000
	0-1	7/6/2017	12:09 PM	8.1	<15000	<15000	<15000	<15000	<15000	<15000	190,000	<15000	<15000	190,000
	1-2	7/6/2017	12:11 PM	15.8	<200000	<200000	<200000	<200000	<200000	<200000	2,000,000	<200000	<200000	2,000,000
SB-13	2-3	7/6/2017	12:13 PM	14.7	<16000	<16000	<16000	<16000	<16000	<16000	180,000	<16000	<16000	180,000
	0-1	7/10/2017	8:25 AM	12.5	<150000	<150000	<150000	<150000	<150000	<150000	1,800,000	<150000	<150000	1,800,000
	1-2	7/10/2017	8:31 AM	8.8	<15000	<15000	<15000	<15000	<15000	<15000	99,000	<15000	<15000	99,000
SB-14	2-3	7/10/2017	8:34 AM	14.1	<160000	<160000	<160000	<160000	<160000	<160000	3,500,000	<160000	<160000	3,500,000
	0-1	7/7/2017	9:10 AM	24.1	<880000	<880000	<880000	<880000	<880000	<880000	11,000,000	<880000	<880000	11,000,000
	1-2	7/7/2017	9:18 AM	15.2	<790000	<790000	<790000	<790000	<790000	<790000	12,000,000	<790000	<790000	12,000,000
SB-15	2-3	7/7/2017	9:28 AM	17	<810000	<810000	<810000	<810000	<810000	<810000	11,000,000	<810000	<810000	11,000,000
	5.5-6.5	7/7/2017	9:28 AM	20.2	<8400	<8400	<8400	<8400	<8400	<8400	190,000	<8400	<8400	190,000
	0-1	7/10/2017	8:48 AM	22.5	<170000	<170000	<170000	<170000	<170000	<170000	3,300,000	<170000	<170000	3,300,000
SB-16	1-2	7/10/2017	8:51 AM	20	<42000	<42000	<42000	<42000	<42000	<42000	560,000	<42000	<42000	560,000
	2-3	7/10/2017	8:54 AM	16.6	<40000	<40000	<40000	<40000	<40000	<40000	820,000	<40000	<40000	820,000

Table 1

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Soil Analytical Results - Temporary Soil Borings, July 2017 (ug/Kg)
TestAmerica, Inc.
Methods: SW8082A

Location	Depth (ft BGS)	Date Collected	Time Collected	Moisture (%)	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Polybrominated biphenyls (total)
SB-17	0-1	7/10/2017	8:37 AM	9.3	<74000	<74000	<74000	<74000	<74000	<74000	1,100,000	<74000	<74000	1,100,000
	1-2	7/10/2017	8:40 AM	10.7	<75000	<75000	<75000	<75000	<75000	<75000	890,000	<75000	<75000	890,000
	2-3	7/10/2017	8:45 AM	8.8	<7300	<7300	<7300	<7300	<7300	<7300	110,000	<7300	<7300	110,000
SB-18	0-1	7/7/2017	9:58 AM	13.8	<16000	<16000	<16000	<16000	<16000	<16000	180,000	<16000	<16000	180,000
	1-2	7/7/2017	10:00 AM	9	<1800	<1800	<1800	<1800	<1800	<1800	22,000	<1800	<1800	22,000
	2-3	7/7/2017	10:10 AM	13	<77	<77	<77	<77	<77	<77	750	<77	<77	750
SB-19	0-1	7/10/2017	9:12 AM	20.3	<420	<420	<420	<420	<420	<420	3,800	<420	<420	3,800
	1-2	7/10/2017	9:15 AM	9.6	<74	<74	<74	<74	<74	<74	1,100	<74	<74	1,100
	2-3	7/10/2017	9:17 AM	11.8	<150	<150	<150	<150	<150	<150	1,800	<150	<150	1,800
SB-31	0-1	7/10/2017	9:22 AM	22.5	<4300	<4300	<4300	<4300	<4300	<4300	52,000	<4300	<4300	52,000
	1-2	7/10/2017	9:24 AM	13	<3800	<3800	<3800	<3800	<3800	<3800	35,000	<3800	<3800	35,000
	2-3	7/10/2017	9:31 AM	15.6	<79	<79	<79	<79	<79	<79	470	<79	<79	470
SB-32	0-1	7/10/2017	9:35 AM	26.2	<180	<180	<180	<180	<180	<180	1,900	<180	<180	1,900
	1-2	7/10/2017	9:36 AM	25.7	<45000	<45000	<45000	<45000	<45000	<45000	490,000	<45000	<45000	490,000
	2-3	7/10/2017	9:37 AM	20.3	<840	<840	<840	<840	<840	<840	7,500	<840	<840	7,500
SB-33	0-1	7/10/2017	10:06 AM	18.5	<8200	<8200	<8200	<8200	<8200	<8200	93,000	<8200	<8200	93,000
	1-2	7/10/2017	10:07 AM	20.8	<850	<850	<850	<850	<850	<850	12,000	<850	<850	12,000
	2-3	7/10/2017	10:08 AM	7.7	<73	<73	<73	<73	<73	<73	250	<73	<73	250
SB-34	0-1	7/10/2017	10:30 AM	13.9	<3900	<3900	<3900	<3900	<3900	<3900	42,000	<3900	<3900	42,000
	1-2	7/10/2017	10:33 AM	10.3	<370	<370	<370	<370	<370	<370	4,200	<370	<370	4,200
	2-3	7/10/2017	10:36 AM	11.2	<75	<75	<75	<75	<75	<75	350	<75	<75	350
NYCRR 375-6: Commercial					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,000
NYCRR 375-6: Industrial					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	25,000
NYCRR 375-6: Unrestricted					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100

Notes:
n/a - Not applicable

Table 2

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Soil Analytical Results - Temporary Soil Borings, July 2017 (ug/Kg)

TestAmerica, Inc.

Methods: 8260C

Location	SB-13	SB-15	SB-19	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	4-5	4-5	1-2			
Date Collected	7/26/2017	7/26/2017	7/26/2017			
Time Collected	11:25 AM	9:52 AM	8:39 AM			
Moisture (%)	30.3	23.7	9.3			
1,1 Dichloroethane	<480	<1900	<0.8	240,000	480,000	270
1,1 Dichloroethene	<480	<1900	<0.8	500,000	1,000,000	330
1,1,1 Trichloroethane	<480	<1900	<0.8	500,000	1,000,000	680
1,1,2 Trichloroethane	<480	<1900	<0.8	n/a	n/a	n/a
1,1,2,2 Tetrachloroethane	<480	<1900	<0.8	n/a	n/a	n/a
1,2 Dibromoethane	<480	<1900	<0.8	n/a	n/a	n/a
1,2 Dichlorobenzene	390 J	25,000	<0.8	500,000	1,000,000	1,100
1,2 Dichloroethane	<480	<1900	<0.8	30,000	60,000	20
1,2 Dichloropropane	<480	<1900	<0.8	n/a	n/a	n/a
1,2,3 Trichlorobenzene	29,000	36,000	<0.8	n/a	n/a	n/a
1,2,4 Trichlorobenzene	120,000	690,000	0.40 J	n/a	n/a	n/a
1,3 Dichlorobenzene	210 J	240,000	0.21 J	280,000	560,000	2,400
1,4 Dichlorobenzene	890	130,000	0.16 J	130,000	250,000	1,800
1,4-Dioxane	<24000	<95000	<16	130,000	250,000	100
2-Hexanone	<2400	<9500	<4	n/a	n/a	n/a
4-Methyl-2-Pentanone	<2400	<9500	<4	n/a	n/a	n/a
Acetone	<2400	<9500	56	500,000	1,000,000	50
Benzene	<480	<1900	<0.8	44,000	89,000	60
Bromochloromethane	<480	<1900	<0.8	n/a	n/a	n/a
Bromodichloromethane	<480	<1900	<0.8	n/a	n/a	n/a
Bromoform	<480	<1900	<0.8	n/a	n/a	n/a
Bromomethane	<480	<1900	<0.8	n/a	n/a	n/a
c 1,3 Dichloropropene	<480	<1900	<0.8	n/a	n/a	n/a
Carbon Disulfide	<480	<1900	<0.8	n/a	n/a	n/a
Carbon Tetrachloride	<480	<1900	<0.8	22,000	44,000	760
Chlorobenzene	<480	3,200	<0.8	500,000	1,000,000	1,100
Chloroethane	<480	<1900	<0.8	n/a	n/a	n/a
Chloroform	<480	<1900	<0.8	350,000	700,000	370
Chloromethane	<480	<1900	<0.8	n/a	n/a	n/a
cis-1,2-Dichloroethene	<480	<1900	<0.8	500,000	1,000,000	250
Cyclohexane	<480	<1900	<0.8	n/a	n/a	n/a
Cyclohexane, methyl-	<480	<1900	<0.8	n/a	n/a	n/a
Dibromochloromethane	<480	<1900	<0.8	n/a	n/a	n/a
Dibromochloropropane	<480	<1900	<0.8	n/a	n/a	n/a
Dichlorodifluoromethane	<480	<1900	<0.8	n/a	n/a	n/a
Ethylbenzene	<480	<1900	<0.8	390,000	780,000	1,000
Freon 113	<480	<1900	<0.8	n/a	n/a	n/a

Table 2

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Soil Analytical Results - Temporary Soil Borings, July 2017 (ug/Kg)

TestAmerica, Inc.

Methods: 8260C

Location	SB-13	SB-15	SB-19	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	4-5	4-5	1-2			
Date Collected	7/26/2017	7/26/2017	7/26/2017			
Time Collected	11:25 AM	9:52 AM	8:39 AM			
Moisture (%)	30.3	23.7	9.3			
Isopropylbenzene	<480	<1900	<0.8	n/a	n/a	n/a
m + p Xylene	<480	<1900	0.16 J	n/a	n/a	n/a
Methyl acetate	<2400	<9500	<4	n/a	n/a	n/a
Methyl Ethyl Ketone	<2400	<9500	2.60 J	500,000	1,000,000	120
Methylene Chloride	<480	<1900	0.69 J	500,000	1,000,000	50
o-Xylene	<480	<1900	<0.8	n/a	n/a	n/a
Styrene	<480	<1900	<0.8	n/a	n/a	n/a
t 1,3 Dichloropropene	<480	<1900	<0.8	n/a	n/a	n/a
t butylmethylether	<480	<1900	0.16 J	500,000	1,000,000	930
Tetrachloroethene	<480	<1900	<0.8	150,000	300,000	1,300
Toluene	<480	<1900	<0.8	500,000	1,000,000	700
trans-1,2-Dichloroethene	<480	<1900	<0.8	500,000	1,000,000	190
Trichloroethylene	<480	<1900	<0.8	200,000	400,000	470
Trichlorofluoromethane	<480	<1900	<0.8	n/a	n/a	n/a
Vinyl Chloride	<480	<1900	<0.8	13,000	27,000	20
1,2,3,4- Tetrachlorobenzene	4,800 JN !	n/a	n/a	n/a	n/a	n/a
1,2,3,5-Tetrachlorobenzene	3,200 JN !	14,000 JN !	n/a	n/a	n/a	n/a
Calculated						
Total VOCs	158,490	1,138,200	60.4	n/a	n/a	n/a
Total BTEX	<2400	<9500	0.16	n/a	n/a	n/a
Total Xylenes	<960	<3800	0.16	500,000	1,000,000	260

Notes:

J - Indicates an estimated value below laboratory reporting limits, or value reported as a TIC

n/a - not analyzed / not applicable

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

Table 3

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)
TestAmerica, Inc.
Methods: SW8082A

Location	Depth (ft BGS)	Date Collected	Time Collected	Moisture (%)	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Polybrominated biphenyls (total)
SB-36D	6-8	9/27/2017	11:40 AM	14.1	<39000	<39000	<39000	<39000	<39000	<39000	660,000	<39000	<39000	660,000
	0-4	9/28/2017	8:45 AM	10.2	<75000	<75000	<75000	<75000	<75000	<75000	810,000	<75000	<75000	810,000
	4-8	9/28/2017	8:50 AM	17.7	<810000	<810000	<810000	<810000	<810000	<810000	9,400,000	<810000	<810000	9,400,000
	8-12	9/28/2017	8:57 AM	18.5	<8200	<8200	<8200	<8200	<8200	<8200	140,000	<8200	<8200	140,000
	12-16	9/28/2017	9:05 AM	18.5	<410000	<410000	<410000	<410000	<410000	<410000	8,300,000	<410000	<410000	8,300,000
	16-20	9/28/2017	9:12 AM	11.5	<380000	<380000	<380000	<380000	<380000	<380000	4,800,000	<380000	<380000	4,800,000
SB-37D	20-24	9/28/2017	9:28 AM	12.9	<380000	<380000	<380000	<380000	<380000	<380000	5,500,000	<380000	<380000	5,500,000
	0-4	9/28/2017	12:23 PM	7.6	<140	<140	<140	<140	<140	<140	2,000	<140	<140	1,800
	4-8	9/28/2017	12:28 PM	14.9	<390	<390	<390	<390	<390	<390	4,300	<390	<390	4,300
	8-12	9/28/2017	12:35 PM	21.9	<1700	<1700	<1700	<1700	<1700	<1700	18,000	<1700	<1700	18,000
	12-16	9/28/2017	12:46 PM	14.6	<160	<160	<160	<160	<160	<160	2,200	<160	<160	2,200
	16-20	9/28/2017	1:03 PM	15.2	<79	<79	<79	<79	<79	<79	71 J	<79	<79	71 J
SB-38D	20-24	9/28/2017	1:20 PM	10.8	<75	<75	<75	<75	<75	<75	120	<75	<75	120
NYCRR 375-6: Commercial					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,000
NYCRR 375-6: Industrial					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	25,000
NYCRR 375-6: Unrestricted					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

Table 4

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8260C

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	6-8	4-8	8-12	20-24	4-8	8-12	20-24			
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017			
Time Collected	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM			
Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9	10.8			
1,1 Dichloroethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	240,000	480,000	270
1,1 Dichloroethene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	500,000	1,000,000	330
1,1,1 Trichloroethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	500,000	1,000,000	680
1,1,2 Trichloroethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
1,1,2,2 Tetrachloroethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
1,2 Dibromoethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
1,2 Dichlorobenzene	250 J	11,000	480	15,000	<0.85	0.29 J	0.79	500,000	1,000,000	1,100
1,2 Dichloroethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	30,000	60,000	20
1,2 Dichloropropane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
1,2,3 Trichlorobenzene	55,000	1,200,000	20,000	660,000	1.6	120	1.6	n/a	n/a	n/a
1,2,4 Trichlorobenzene	210,000	2,800,000	81,000	2,900,000	6.4	340	9.4	n/a	n/a	n/a
1,3 Dichlorobenzene	<980	31,000	920	<14000	0.16 J	1.1	3.5	280,000	560,000	2,400
1,4 Dichlorobenzene	680 J	19,000	820	26,000	0.22 J	1.3	2.6	130,000	250,000	1,800
1,4-Dioxane	<49000	<530000	<9100	<700000	<17	<17	<14	130,000	250,000	100
2-Hexanone	<4900	<53000	<910	<70000	<4.2	<4.3	<3.5	n/a	n/a	n/a
4-Methyl-2-Pentanone	<4900	<53000	<910	<70000	<4.2	<4.3	<3.5	n/a	n/a	n/a
Acetone	<4900	<53000	<910	<70000	24	74	21	500,000	1,000,000	50
Benzene	<980	<11000	<180	<14000	0.64 J	<0.86	0.21 J	44,000	89,000	60
Bromochloromethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Bromodichloromethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Bromoform	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Bromomethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
c 1,3 Dichloropropene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Carbon Disulfide	<980	<11000	<180	<14000	<0.85	0.47 J	<0.7	n/a	n/a	n/a
Carbon Tetrachloride	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	22,000	44,000	760

Table 4

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8260C

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	6-8	4-8	8-12	20-24	4-8	8-12	20-24			
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017			
Time Collected	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM			
Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9	10.8			
Chlorobenzene	<980	<11000	<180	<14000	0.46 J	2.3	2.7	500,000	1,000,000	1,100
Chloroethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Chloroform	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	350,000	700,000	370
Chloromethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
cis-1,2-Dichloroethene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	500,000	1,000,000	250
Cyclohexane	<980	<11000	<180	<14000	0.37 J	<0.86	<0.7	n/a	n/a	n/a
Cyclohexane, methyl-	<980	<11000	<180	<14000	0.23 J	<0.86	<0.7	n/a	n/a	n/a
Dibromochloromethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Dibromochloropropane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Dichlorodifluoromethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Ethylbenzene	<980	<11000	<180	<14000	0.26 J	<0.86	<0.7	390,000	780,000	1,000
Freon 113	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Isopropylbenzene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
m + p Xylene	<980	<11000	<180	<14000	0.79 J	0.60 J	0.17 J	n/a	n/a	n/a
Methyl acetate	<4900	<53000	<910	<70000	<4.2	<4.3	<3.5	n/a	n/a	n/a
Methyl Ethyl Ketone	<4900	<53000	<910	<70000	2.90 J	6.5	1.90 J	500,000	1,000,000	120
Methylene Chloride	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	500,000	1,000,000	50
o-Xylene	<980	<11000	<180	<14000	0.28 J	0.27 J	0.09 J	n/a	n/a	n/a
Styrene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
t 1,3 Dichloropropene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
t butylmethylether	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	500,000	1,000,000	930
Tetrachloroethene	<980	<11000	<180	<14000	0.74 J	<0.86	<0.7	150,000	300,000	1,300
Toluene	<980	<11000	<180	<14000	2.1	<0.86	<0.7	500,000	1,000,000	700
trans-1,2-Dichloroethene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	500,000	1,000,000	190
Trichloroethylene	<980	<11000	<180	<14000	0.22 J	<0.86	<0.7	200,000	400,000	470

Table 4

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8260C

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	6-8	4-8	8-12	20-24	4-8	8-12	20-24			
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017			
Time Collected	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM			
Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9	10.8			
Trichlorofluoromethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Vinyl Chloride	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	13,000	27,000	20
1,2,3,4- Tetrachlorobenzene	7,900 JN !	520,000 JN !	2,200 JN !	100,000 JN !	n/a	74 JN !	n/a	n/a	n/a	n/a
1,2,3,5-tetrachlorobenzene	5,300 JN !	630,000 JN !	n/a	520,000 JN !	n/a	n/a	n/a	n/a	n/a	n/a
1,2,4,5-Tetrachlorobenzene	n/a	260,000 JN !	n/a	n/a	n/a	23 JN !	n/a	n/a	n/a	n/a
2 Methylbutane	n/a	n/a	n/a	n/a	13 JN !	n/a	n/a	n/a	n/a	n/a
Pentane	n/a	n/a	n/a	n/a	5.80 JN !	n/a	n/a	n/a	n/a	n/a
Calculated										
Total BTEX	<4900	<55000	<900	<70000	4.00	0.87 J	0.47 J	n/a	n/a	n/a
Total VOCs	279,130	5,471,000	105,420	4,221,000	60.17	643.83	43.96	n/a	n/a	n/a
Total Xylenes	<1960	<22000	<360	<28000	1.07 J	0.87 J	0.26 J	500,000	1,000,000	260

Notes:

J - Indicates an estimated value below laboratory reporting limits

n/a - not analyzed / not applicable

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

Table 5

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	6-8	4-8	8-12	20-24	4-8	8-12	20-24			
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017			
Time Collected	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM			
Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9	10.8			
1,1-Biphenyl	52 J	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
1,2,4,5-Tetrachlorobenzene	4,200	79,000	890	48,000	<390	<420	<370	n/a	n/a	n/a
2,3,4,6-Tetrachlorophenol	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
2,4,5-Trichlorophenol	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
2,4,6-Trichlorophenol	<150	<3200	<160	<1500	<160	<170	<150	n/a	n/a	n/a
2,4-Dichlorophenol	<150	<3200	<160	<1500	<160	<170	<150	n/a	n/a	n/a
2,4-Dimethylphenol	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
2,4-Dinitrophenol	<310	<6500	<330	<3100	<310	<340	<300	n/a	n/a	n/a
2,4-Dinitrotoluene	<78	<1600	<82	<770	<79	<86	<75	n/a	n/a	n/a
2,6-Dinitrotoluene	<78	<1600	<82	<770	<79	<86	<75	n/a	n/a	n/a
2-Chloronaphthalene	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
2-Chlorophenol	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
2-Methyl-4,6-dinitrophenol	<310	<6500	<330	<3100	<310	<340	<300	n/a	n/a	n/a
2-Methylnaphthalene	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
2-Nitroaniline	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
2-Nitrophenol	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
3,3-Dichlorobenzidine	<150	<3200	<160	<1500	<160	<170	<150	n/a	n/a	n/a
3-Nitroaniline	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
4-Bromophenyl-phenylether	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
4-Chloro-3-methylphenol	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
4-Chloroaniline	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
4-Chlorophenyl-phenylether	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
4-Nitroaniline	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
4-Nitrophenol	<780	<16000	<820	<7700	<790	<860	<750	n/a	n/a	n/a

Table 5

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	6-8	4-8	8-12	20-24	4-8	8-12	20-24			
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017			
Time Collected	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM			
Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9	10.8			
Acenaphthene	<380	<8000	<400	<3800	<390	<420	<370	500,000	1,000,000	20,000
Acenaphthylene	<380	<8000	<400	<3800	<390	<420	<370	500,000	1,000,000	100,000
Acetophenone	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
Anthracene	<380	<8000	<400	<3800	<390	<420	<370	500,000	1,000,000	100,000
Atrazine	<150	<3200	<160	<1500	<160	<170	<150	n/a	n/a	n/a
Benzaldehyde	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
Benzo(a)anthracene	<38	<800	<40	<380	<39	<42	<37	5,600	11,000	1,000
Benzo(a)pyrene	<38	<800	<40	<380	<39	<42	<37	1,000	1,100	1,000
Benzo(b)fluoranthene	49	<800	<40	<380	<39	<42	<37	5,600	11,000	1,000
Benzo(g,h,i)perylene	<380	<8000	<400	<3800	<390	<420	<370	500,000	1,000,000	100,000
Benzo(k)fluoranthene	<38	<800	<40	<380	<39	<42	<37	56,000	110,000	800
bis(2-Chloroethoxy)methane	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
bis(2-Chloroethyl)ether	<38	<800	<40	<380	<39	<42	<37	n/a	n/a	n/a
bis(2-Chloroisopropyl)ether	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
bis(2-Ethylhexyl)phthalate	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
Butylbenzylphthalate	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
Caprolactam	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
Carbazole	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
Chrysene	<380	<8000	<400	<3800	<390	<420	<370	56,000	110,000	1,000
Dibenzo(a,h)anthracene	<38	<800	<40	<380	<39	<42	<37	560	1,100	330
Dibenzofuran	<380	<8000	<400	<3800	<390	<420	<370	350,000	1,000,000	7,000
Diethylphthalate	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
Dimethylphthalate	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
Di-n-butylphthalate	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a

Table 5

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	6-8	4-8	8-12	20-24	4-8	8-12	20-24			
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017			
Time Collected	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM			
Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9	10.8			
Di-n-octylphthalate	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
Fluoranthene	<380	<8000	<400	<3800	<390	<420	<370	500,000	1,000,000	100,000
Fluorene	<380	<8000	<400	<3800	<390	<420	<370	500,000	1,000,000	30,000
Hexachlorobenzene	710	4,700	<40	3,300	<39	<42	<37	6,000	12,000	330
Hexachlorobutadiene	<78	<1600	<82	<770	<79	<86	<75	n/a	n/a	n/a
Hexachlorocyclopentadiene	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
Hexachloroethane	<38	<800	<40	<380	<39	<42	<37	n/a	n/a	n/a
Indeno(1,2,3-cd)pyrene	<38	<800	<40	<380	<39	<42	<37	5,600	11,000	500
Isophorone	<150	<3200	<160	<1500	<160	<170	<150	n/a	n/a	n/a
Naphthalene	<380	<8000	<400	<3800	<390	<420	<370	500,000	1,000,000	12,000
Nitrobenzene	<38	<800	<40	<380	<39	<42	<37	n/a	n/a	n/a
N-Nitrosodi-N-Propylamine	<38	<800	<40	<380	<39	<42	<37	n/a	n/a	n/a
N-Nitrosodiphenylamine	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a
o-cresol	<380	<8000	<400	<3800	<390	<420	<370	500,000	1,000,000	330
p-cresol	<380	<8000	<400	<3800	<390	<420	<370	500,000	1,000,000	330
Pentachlorophenol	<310	<6500	<330	<3100	<310	<340	<300	6,700	55,000	800
Phenanthrene	<380	<8000	<400	530 J	<390	<420	<370	500,000	1,000,000	100,000
Phenol (total)	<380	<8000	<400	<3800	<390	<420	<370	500,000	1,000,000	330
Pyrene	<380	<8000	<400	<3800	<390	<420	<370	500,000	1,000,000	100,000
1,2,3 Trichlorobenzene	n/a	250,000 JN !	10,000 JN !	160,000 JN !	n/a	n/a	n/a	n/a	n/a	n/a
1,2,3,5-tetrachlorobenzene	n/a	150,000 JN !	2,200 JN !	100,000 JN !	n/a	n/a	n/a	n/a	n/a	n/a
1,2,4 Trichlorobenzene	38,000 !	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1,3,5-TRICHLOROBENZENE	8,200 JN !	640,000 JN !	2,500 JN !	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Octachlorobiphenyl; 2,2",3,3",4,5,6,6"- (PCB 200)	n/a	75,000 JN !	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Table 5

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	6-8	4-8	8-12	20-24	4-8	8-12	20-24			
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017			
Time Collected	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM			
Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9	10.8			
Unknown SVOC w/ highest conc.	19,000 J !	120,000 J !	2,100 J !	130,000 J !	n/a	700 J !	n/a	n/a	n/a	n/a
Unknown SVOC w/ 2nd highest conc.	6,000 J !	110,000 J !	1,600 J !	56,000 J !	n/a	n/a	n/a	n/a	n/a	n/a
Unknown SVOC w/ 3rd highest conc.	5,000 J !	110,000 J !	n/a	54,000 J !	n/a	n/a	n/a	n/a	n/a	n/a
Unknown SVOC w/ 4th highest conc. (All)	3,900 J !	100,000 J !	n/a	33,000 J !	n/a	n/a	n/a	n/a	n/a	n/a
Unknown SVOC w/ 5th highest conc.	3,900 J !	87,000 J !	n/a	30,000 J !	n/a	n/a	n/a	n/a	n/a	n/a
Unknown SVOC w/ 6th highest conc.	n/a	67,000 J !	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Unknown SVOC w/ 7th highest conc. (All)	n/a	61,000 J !	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Calculated										
Total SVOC's	89,011	1,853,700	19,290	614,830	<20,346	700	<19,312	n/a	n/a	n/a

Notes:

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

J - Indicates an estimated value below laboratory reporting limits or reported as a TIC.

n/a - not analyzed / not applicable

Table 6

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8081B

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D
Depth (ft BGS)	6-8	20-24	4-8	8-12	20-24	4-8	8-12
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017
Time Collected	11:40 AM	9:28 AM	8:50 AM	8:57 AM	1:20 PM	12:28 PM	12:35 PM
Moisture (%)	14.1	12.9	17.7	18.5	10.8	14.9	21.9
4,4,-DDT	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
4,4-DDD	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
4,4-DDE	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Aldrin	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
alpha BHC	<47	<46	<49	<2.5	<2.2	<2.3	<2.6
beta BHC	<47	<46	<49	<2.5	<2.2	<2.3	<2.6
Chlordane	<1600	<1500	<1600	<82	<75	<79	<86
delta-BHC	<47	<46	<49	<2.5	<2.2	<2.3	<2.6
Dieldrin	<47	<46	<49	<2.5	<2.2	<2.3	<2.6
Endosulfan I	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Endosulfan II	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Endosulfan Sulfate	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Endrin	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Endrin Aldehyde	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Endrin ketone	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Gamma-BHC(Lindane)	<47	<46	<49	<2.5	<2.2	<2.3	<2.6
Heptachlor	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Heptachlor Epoxide	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Methoxychlor	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Toxaphene	<1600	<1500	<1600	<82	<75	<79	<86

NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
47,000	94,000	3.3
92,000	180,000	3.3
62,000	120,000	3.3
680	1,400	5
3,400	6,800	20
3,000	14,000	36
n/a	n/a	n/a
500,000	1,000,000	40
1,400	2,800	5
200,000	920,000	2,400
200,000	920,000	2,400
200,000	920,000	2,400
89,000	410,000	14
n/a	n/a	n/a
n/a	n/a	n/a
9,200	23,000	100
15,000	29,000	42
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a

Notes:

n/a - not analyzed / not applicable

Table 7

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (mg/Kg)

TestAmerica, Inc.

Methods: SW6010C, SW7471B, SW9012

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	6-8	20-24	4-8	8-12	20-24	4-8	8-12			
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017			
Time Collected	11:40 AM	9:28 AM	8:50 AM	8:57 AM	1:20 PM	12:28 PM	12:35 PM			
Moisture (%)	14.1	12.9	17.7	18.5	10.8	14.9	21.9			
Aluminum	3,950	1,900	2,780	2,170	2,720	2,870	4,540	n/a	n/a	n/a
Antimony	<3.4	<3.4	<4	<3.7	<4.4	<4.6	<4.8	n/a	n/a	n/a
Arsenic	2 J	<2.6	1.20 J	1.10 J	0.92 J	1.40 J	1.80 J	16	16	13
Barium	34.30 J	24.90 J	17.20 J	26.80 J	23.10 J	28.70 J	40.10 J	400	10,000	350
Beryllium	0.29 J	0.21 J	0.27 J	0.21 J	0.18 J	0.19 J	0.25 J	590	2,700	7.2
Cadmium	<0.69	<0.69	<0.79	<0.74	<0.87	<0.92	<0.96	9.3	60	2.5
Calcium	6,380	672 J	6,090	5,670	900 J	3,960	40,800	n/a	n/a	n/a
Chromium (total)	9.6	5.1	7.6	6.3	7.3	7.1	9.1	n/a	n/a	n/a
Cobalt	4.60 J	2.70 J	4.20 J	2.80 J	2.80 J	3.20 J	3.30 J	n/a	n/a	n/a
Copper	10.2	6.7	12.4	7.5	6.6	8.3	8.9	270	10,000	50
Cyanide	<0.28	<0.26	<0.28	<0.31	<0.27	<0.27	<0.31	27	10,000	27
Iron	9,790	7,730	7,840	7,200	6,700	6,780	7,140	n/a	n/a	n/a
Lead	53.5	2.2	14.7	4.1	2.5	7.4	8.9	1,000	3,900	63
Magnesium	2,960	1,040	3,140	2,930	1,330	2,670	7,880	n/a	n/a	n/a
Manganese	222	174	158	135	191	181	216	10,000	10,000	1,600
Mercury	0.04	<0.017	0.09	<0.019	<0.018	0.01 J	0.02	2.8	5.7	0.18
Nickel	19.2	6.10 J	11.5	9.7	6 J	11.9	12.6	310	10,000	30
Potassium	923	341 J	692 J	666 J	484 J	820 J	740 J	n/a	n/a	n/a
Selenium	<3.4	<3.4	<4	<3.7	<4.4	<4.6	<4.8	1,500	6,800	3.9
Silver	<1.7	<1.7	<2	<1.8	<2.2	<2.3	<2.4	1,500	6,800	2
Sodium	92.30 J	73.40 J	<988	<922	119 J	111 J	162 J	n/a	n/a	n/a
Thallium	<3.4	<3.4	<4	<3.7	<4.4	<4.6	<4.8	n/a	n/a	n/a
Vanadium	13.3	11.2	11.6	9.7	10.9	9.20 J	12.5	n/a	n/a	n/a
Zinc	30	10.9	20.4	16.7	12.8	21.2	20.1	10,000	10,000	109

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

Table 8

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8082A

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/7/2017	7/7/2017	7/10/2017		
Time Collected	10:30 AM	9:50 AM	9:50 AM		
Aroclor 1016	<40	<80	<0.4	n/a	n/a
Aroclor 1221	<40	<80	<0.4	n/a	n/a
Aroclor 1232	<40	<80	<0.4	n/a	n/a
Aroclor 1242	<40	<80	<0.4	n/a	n/a
Aroclor 1248	<40	<80	<0.4	n/a	n/a
Aroclor 1254	<40	<80	<0.4	n/a	n/a
Aroclor 1260	290	1,000	7.3	n/a	n/a
Aroclor 1262	<40	<80	<0.4	n/a	n/a
Aroclor 1268	<40	<80	<0.4	n/a	n/a
Polybrominated biphenyls (total)	290	1,000	7.3	5	n/a

DISSOLVED	8/9/2017	8/9/2017	8/9/2017		
Date Collected	8/9/2017	8/9/2017	8/9/2017		
Time Collected	11:20 AM	10:40 AM	10:00 AM		
Aroclor 1016	<0.4	<2	<0.4	n/a	n/a
Aroclor 1221	<0.4	<2	<0.4	n/a	n/a
Aroclor 1232	<0.4	<2	<0.4	n/a	n/a
Aroclor 1242	<0.4	<2	<0.4	n/a	n/a
Aroclor 1248	<0.4	<2	<0.4	n/a	n/a
Aroclor 1254	<0.4	<2	<0.4	n/a	n/a
Aroclor 1260	3.1	1.40 DJ	0.33 J	n/a	n/a
Aroclor 1262	<0.4	<2	<0.4	n/a	n/a
Aroclor 1268	<0.4	<2	<0.4	n/a	n/a
Polybrominated biphenyls (total)	3.1	1.40 DJ	0.33 J	5	n/a

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

D - Indicates sample was diluted in the laboratory

n/a - not analyzed / not applicable

Samples for analysis of dissolved compounds were filtered by the laboratory

Table 9

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8260C, SW8260C-SIM

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
1,1 Dichloroethane	<1	<10	<1	5	n/a
1,1 Dichloroethene	<1	<10	<1	5	n/a
1,1,1 Trichloroethane	<1	<10	<1	5	n/a
1,1,2 Trichloroethane	<1	<10	<1	1	n/a
1,1,2,2 Tetrachloroethane	<1	<10	<1	5	n/a
1,2 Dibromoethane	<1	n/a	<1	0.001	n/a
1,2 Dichlorobenzene	<1	300	<1	3	n/a
1,2 Dichloroethane	<1	<10	<1	0.6	n/a
1,2 Dichloropropane	<1	<10	<1	1	n/a
1,2,3 Trichlorobenzene	81	720	<1	5	n/a
1,2,4 Trichlorobenzene	67	3,100	0.40 J	5	n/a
1,3 Dichlorobenzene	0.73 J	1,000	0.52 J	3	n/a
1,4 Dichlorobenzene	0.42 J	440	<1	3	n/a
1,4-Dioxane	<0.4	<0.8	<0.4	n/a	n/a
2-Hexanone	<5	<50	<5	n/a	50
4-Methyl-2-Pentanone	<5	<50	<5	n/a	n/a
Acetone	14	<50	23	n/a	50
Benzene	0.22 J	1.60 J	<1	1	n/a
Bromochloromethane	<1	<10	<1	5	n/a
Bromodichloromethane	<1	<10	<1	n/a	50
Bromoform	<1	<10	<1	n/a	50
Bromomethane	<1	<10	<1	5	n/a
c 1,3 Dichloropropene	<1	<10	<1	n/a	n/a
Carbon Disulfide	<1	<10	<1	n/a	60
Carbon Tetrachloride	<1	<10	<1	5	n/a
Chlorobenzene	<1	120	<1	5	n/a
Chloroethane	<1	<10	<1	5	n/a
Chloroform	<1	<10	<1	7	n/a
Chloromethane	<1	<10	<1	5	n/a
cis-1,2-Dichloroethene	<1	<10	<1	5	n/a
Cyclohexane	<1	<10	<1	n/a	n/a

Table 9

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8260C, SW8260C-SIM

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
Cyclohexane, methyl-	<1	<10	<1	n/a	n/a
Dibromochloromethane	<1	<10	<1	n/a	50
Dibromochloropropane	<1	<10	<1	0.04	n/a
Dichlorodifluoromethane	<1	<10	<1	5	n/a
Ethylbenzene	<1	<10	<1	5	n/a
Freon 113	<1	<10	<1	5	n/a
Isopropylbenzene	<1	<10	<1	5	n/a
m + p Xylene	<1	<10	<1	5*	n/a
Methyl acetate	<5	<50	<5	n/a	n/a
Methyl Ethyl Ketone	<5	<50	<5	n/a	50
Methylene Chloride	<1	<10	<1	5	n/a
o-Xylene	<1	<10	<1	5	n/a
Styrene	<1	<10	<1	5	n/a
t 1,3 Dichloropropene	<1	<10	<1	n/a	n/a
t butylmethylether	<1	<10	<1	n/a	10
Tetrachloroethene	<1	<10	0.44 J	5	n/a
Toluene	<1	<10	<1	5	n/a
trans-1,2-Dichloroethene	<1	<10	<1	5	n/a
Trichloroethylene	<1	<10	<1	5	n/a
Trichlorofluoromethane	<1	<10	<1	5	n/a
Vinyl Chloride	<1	<10	<1	2	n/a
Calculated					
Total VOC's	163.37	5,681.60	24.36	n/a	n/a
SW8260C-SIM Total	<0.4	<0.8	<0.4	n/a	n/a
Total BTEX	0.22	2	<5	n/a	n/a

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

Table 10

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
1,1-Biphenyl	<10	<10	<10	5	n/a
1,2,4,5-Tetrachlorobenzene	15	42	<10	n/a	n/a
2,3,4,6-Tetrachlorophenol	0.90 J	<10	<10	n/a	n/a
2,4,5-Trichlorophenol	<10	<10	<10	n/a	n/a
2,4,6-Trichlorophenol	<10	<10	<10	n/a	n/a
2,4-Dichlorophenol	<10	<10	<10	5	n/a
2,4-Dimethylphenol	<10	<10	<10	n/a	50
2,4-Dinitrophenol	<20	<20	<20	n/a	10
2,4-Dinitrotoluene	<2	<2	<2	5	n/a
2,6-Dinitrotoluene	<2	<2	<2	5	n/a
2-Chloronaphthalene	<10	<10	<10	n/a	10
2-Chlorophenol	<10	<10	<10	n/a	n/a
2-Methyl-4,6-dinitrophenol	<20	<20	<20	n/a	n/a
2-Methylnaphthalene	<10	<10	<10	n/a	n/a
2-Nitroaniline	<10	<10	<10	5	n/a
2-Nitrophenol	<10	<10	<10	n/a	n/a
3,3-Dichlorobenzidine	<10	<10	<10	5	n/a
3-Nitroaniline	<10	<10	<10	5	n/a
4-Bromophenyl-phenylether	<10	<10	<10	n/a	n/a
4-Chloro-3-methylphenol	<10	<10	<10	n/a	n/a
4-Chloroaniline	<10	<10	<10	5	n/a
4-Chlorophenyl-phenylether	<10	<10	<10	n/a	n/a
4-Nitroaniline	<10	<10	<10	5	n/a
4-Nitrophenol	<20	<20	<20	n/a	n/a
Acenaphthene	<10	<10	<10	n/a	20
Acenaphthylene	<10	<10	<10	n/a	n/a
Acetophenone	<10	<10	<10	n/a	n/a
Anthracene	<10	<10	<10	n/a	50
Atrazine	<2	<2	<2	7.5	n/a
Benzaldehyde	<10	<10	<10	n/a	n/a
Benzo(a)anthracene	<1	<1	<1	n/a	0.002

Table 10

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
Benzo(a)pyrene	<1	<1	<1	n/a	n/a
Benzo(b)fluoranthene	<1	<1	<1	n/a	0.002
Benzo(g,h,i)perylene	<10	<10	<10	n/a	n/a
Benzo(k)fluoranthene	<1	<1	<1	n/a	0.002
bis(2-Chloroethoxy)methane	<10	<10	<10	5	n/a
bis(2-Chloroethyl)ether	<1	<1	<1	1	n/a
bis(2-Chloroisopropyl)ether	<10	<10	<10	5	n/a
bis(2-Ethylhexyl)phthalate	<2	<2	<2	5	n/a
Butylbenzylphthalate	<10	<10	<10	n/a	50
Caprolactam	<10	<10	<10	n/a	n/a
Carbazole	<10	<10	<10	n/a	n/a
Chrysene	<2	<2	<2	n/a	0.002
Dibenzo(a,h)anthracene	<1	<1	<1	n/a	n/a
Dibenzofuran	<10	<10	<10	n/a	n/a
Diethylphthalate	<10	<10	<10	n/a	50
Dimethylphthalate	<10	<10	<10	n/a	50
Di-n-butylphthalate	1.10 J	<10	1.20 J	50	n/a
Di-n-octylphthalate	<10	<10	<10	n/a	50
Fluoranthene	<10	<10	<10	n/a	50
Fluorene	<10	<10	<10	n/a	50
Hexachlorobenzene	<1	<1	<1	0.04	n/a
Hexachlorobutadiene	<1	<1	<1	0.5	n/a
Hexachlorocyclopentadiene	<10	<10	<10	5	n/a
Hexachloroethane	<1	<1	<1	5	n/a
Indeno(1,2,3-cd)pyrene	<1	<1	<1	n/a	0.002
Isophorone	<10	<10	<10	n/a	50
Naphthalene	<10	<10	<10	n/a	10
Nitrobenzene	<1	<1	<1	0.4	n/a
N-Nitrosodi-N-Propylamine	<1	<1	<1	n/a	n/a
N-Nitrosodiphenylamine	<10	<10	<10	n/a	50
o-cresol	<10	<10	<10	n/a	n/a

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
p-cresol	<10	<10	<10	n/a	n/a
Pentachlorophenol	<20	<20	<20	1.5	n/a
Phenanthrene	<10	<10	<10	n/a	50
Phenol (total)	<10	<10	<10	1	n/a
Pyrene	<10	<10	<10	n/a	50
1,2 Dichlorobenzene	n/a	210 JN !	n/a	3	n/a
1,2,3 Trichlorobenzene	190 JN !	700 JN !	n/a	5	n/a
1,2,3,4- Tetrachlorobenzene	72 JN !	n/a	n/a	n/a	n/a
1,2,3,5-Tetrachlorobenzene	n/a	150 JN !	n/a	n/a	n/a
1,3 Dichlorobenzene	n/a	79 JN !	n/a	3	n/a
Pentachlorobenzene	6.90 JN !	29 JN !	n/a	5	n/a
Unknown Semivolatile w/ 2nd Highest Conc.	65 J !	130 J !	n/a	n/a	n/a
Unknown Semivolatile w/ 3rd Highest Conc.	22 JN !	110 J !	n/a	n/a	n/a
Unknown Semivolatile w/ 4th Highest Conc.	13 J !	89 JN !	n/a	n/a	n/a
Unknown Semivolatile w/ 5th Highest Conc.	9.50 J !	38 J !	n/a	n/a	n/a
Unknown Semivolatile w/ 6th Highest Conc.	8.90 J !	31 J !	n/a	n/a	n/a
Unknown Semivolatile w/ 7th Highest Conc.	7.10 J !	27 J !	n/a	n/a	n/a
Unknown Semivolatile w/ Highest Conc.	130 J !	200 J !	n/a	n/a	n/a
Calculated Total SVOC's	715.6	2,292	1.2	n/a	n/a

Notes:

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

J - Indicates an estimated value below laboratory reporting limits, or reported as TIC.

n/a - not analyzed / not applicable

Table 11

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8081B

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
4,4,-DDT	<0.02	<0.4	<0.02	0.2	n/a
4,4-DDD	<0.02	<0.4	<0.02	0.3	n/a
4,4-DDE	<0.02	<0.4	<0.02	0.2	n/a
Aldrin	<0.02	<0.4	<0.02	n/a	n/a
alpha BHC	<0.02	<0.4	<0.02	0.01	n/a
beta BHC	<0.02	<0.4	<0.02	0.04	n/a
Chlordane	<0.5	<10	<0.5	0.05	n/a
delta-BHC	<0.02	<0.4	<0.02	0.04	n/a
Dieldrin	<0.02	<0.4	<0.02	0.004	n/a
Endosulfan I	<0.02	<0.4	<0.02	n/a	n/a
Endosulfan II	<0.02	<0.4	<0.02	n/a	n/a
Endosulfan Sulfate	<0.02	<0.4	<0.02	n/a	n/a
Endrin	<0.02	<0.4	<0.02	n/a	n/a
Endrin Aldehyde	<0.02	<0.4	<0.02	5	n/a
Endrin ketone	<0.02	<0.4	<0.02	5	n/a
Gamma-BHC(Lindane)	<0.02	<0.4	<0.02	0.05	n/a
Heptachlor	<0.02	<0.4	<0.02	0.04	n/a
Heptachlor Epoxide	<0.02	<0.4	<0.02	0.03	n/a
Methoxychlor	<0.02	<0.4	<0.02	35	n/a
Toxaphene	<0.5	<10	<0.5	0.06	n/a

Notes:

n/a - not analyzed / not applicable

Table 12

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW6020A, SW7470A, SW9012

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC	NYSDEC
Depth (ft BGS)	1-3	4-6	3-5	TOGS111	TOGS111
Date Collected	7/26/2017	7/26/2017	7/26/2017	ClassGA	ClassGA
Time Collected	9:02 AM	9:09 AM	9:16 AM	Standard	Guidance
Aluminum	2,940	217,000	59,800	n/a	n/a
Antimony	2.1	1.80 J	3.7	3	n/a
Arsenic	10.1	66.4	26.1	25	n/a
Barium	36.4	2,530	621	1,000	n/a
Beryllium	<0.8	21.5	4.9	n/a	3
Cadmium	<2	4.2	1 J	5	n/a
Calcium	22,400	656,000	64,700	n/a	n/a
Chromium (total)	4.7	347	197	50	n/a
Cobalt	2.40 J	201	80.3	n/a	n/a
Copper	20.5	1,160	222	200	n/a
Cyanide	<10	<10	<10	200	n/a
Iron	3,940	370,000	123,000	300	n/a
Lead	23.4	1,200	157	25	n/a
Magnesium	5,040	212,000	42,600	n/a	35,000
Manganese	128	14,800	3,600	300	n/a
Mercury	<0.2	8.7	0.85	0.7	n/a
Nickel	14.4	704	327	100	n/a
Potassium	15,900	83,900	34,900	n/a	n/a
Selenium	2.20 J	4.40 J	3 J	10	n/a
Silver	<2	2.2	<2	50	n/a
Sodium	29,500	43,600	38,000	20,000	n/a
Thallium	<0.8	3.9	1.1	n/a	0.5
Vanadium	20.7	463	160	n/a	n/a
Zinc	22.7	1,350	1,370	n/a	2,000

DISSOLVED					
Date Collected	8/9/2017	8/9/2017	8/9/2017		
Time Collected	11:20 AM	10:40 AM	10:00 AM		
Aluminum, Dissolved	<40	<40	<40	n/a	n/a
Antimony, Dissolved	1.20 J	<2	4.3	n/a	n/a
Arsenic, Dissolved	11	5.4	1.40 J	n/a	n/a
Barium, Dissolved	14.9	140	48.5	n/a	n/a
Beryllium, Dissolved	<0.8	<0.8	<0.8	n/a	n/a
Cadmium, Dissolved	<2	<2	<2	n/a	n/a
Calcium, Dissolved	21,400	46,800	34,900	n/a	n/a
Chromium (total)	<4	<4	<4	50	n/a
Cobalt, Dissolved	<4	<4	<4	n/a	n/a
Copper, Dissolved	4.5	1.50 J	3.30 J	n/a	n/a
Iron (Dissolved)	<120	44.80 J	<120	300	n/a
Lead, Dissolved	<1.2	<1.2	<1.2	n/a	n/a
Magnesium, Dissolved	3,160	9,380	5,500	n/a	n/a
Manganese (Dissolved)	18.3	575	13.5	300	n/a
Mercury, Dissolved	<0.2	<0.2	<0.2	n/a	n/a
Nickel, Dissolved	<4	<4	<4	n/a	n/a
Potassium, Dissolved	14,100	22,300	17,600	n/a	n/a
Selenium, Dissolved	2.50 J	1.20 J	1.40 J	n/a	n/a
Silver, Dissolved	<2	<2	<2	n/a	n/a
Sodium, Dissolved	19,700	30,700	25,800	n/a	n/a
Thallium, Dissolved	<0.8	<0.8	<0.8	n/a	n/a
Vanadium, Dissolved	14.3	9.2	2.60 J	n/a	n/a
Zinc, Dissolved	<16	<16	11.10 J	n/a	n/a

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

Samples for analysis of dissolved compounds were filtered by the laboratory

Table 13

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - July-August, 2017 (ng/L)

TestAmerica, Inc.

Methods: Modified EPA 537

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
Perfluorobutanesulfonic acid (PFBS)	9.89	17.6	10	n/a	n/a
Perfluoroheptanoic acid (PFHpA)	<2	<2	<2	n/a	n/a
Perfluorohexanesulfonic acid (PFHxS)	<2	5.67	<2	n/a	n/a
perfluorononanoic acid (PFNA)	2.17	3.07	5.44	n/a	n/a
perfluorooctanesulfonic acid (PFOS)	10.5	27.3	82.7	n/a	n/a
perfluorooctanoic acid (PFOA)	17.3	34.2	35.9	n/a	n/a
Calculated Total PFC's	39.86	87.84	134.04	n/a	n/a

Notes:

n/a - not analyzed / not applicable

Table 14

Empire Electric
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Brooklyn, NY
Site # 224015



ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Groundwater Analytical Results - October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8082A

Location	SB-36	SB-37S	SB-37D	SB-38
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM
Aroclor 1016	<2	<4	<4	<0.4
Aroclor 1221	<2	<4	<4	<0.4
Aroclor 1232	<2	<4	<4	<0.4
Aroclor 1242	<2	<4	<4	<0.4
Aroclor 1248	<2	<4	<4	<0.4
Aroclor 1254	<2	<4	<4	<0.4
Aroclor 1260	8.8	24	16	0.81
Aroclor 1262	<2	<4	<4	<0.4
Aroclor 1268	<2	<4	<4	<0.4
Polybrominated biphenyls (total)	8.8	24	16	0.81

NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
n/a	n/a
n/a	n/a
n/a	n/a
n/a	n/a
n/a	n/a
n/a	n/a
n/a	n/a
n/a	n/a
n/a	n/a
5	n/a

Notes:

n/a - not analyzed / not applicable

Empire Electric
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Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW8260C

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
1,1 Dichloroethane	<20	<25	<25	<1	5	n/a
1,1 Dichloroethene	<20	<25	<25	<1	5	n/a
1,1,1 Trichloroethane	<20	<25	<25	<1	5	n/a
1,1,2 Trichloroethane	<20	<25	<25	<1	1	n/a
1,1,2,2 Tetrachloroethane	<20	<25	<25	<1	5	n/a
1,2 Dibromoethane	<20	<25	<25	<1	0.001	n/a
1,2 Dichlorobenzene	24	430	110	<1	3	n/a
1,2 Dichloroethane	<20	<25	<25	<1	0.6	n/a
1,2 Dichloropropane	<20	<25	<25	<1	1	n/a
1,2,3 Trichlorobenzene	1,400	1,900	2,200	<1	5	n/a
1,2,4 Trichlorobenzene	4,500	7,300	8,100	<1	5	n/a
1,3 Dichlorobenzene	12 J	760	100	2.3	3	n/a
1,4 Dichlorobenzene	56	610	200	1.6	3	n/a
1,4-Dioxane	<1000	<1300	<1300	<50	n/a	n/a
2-Hexanone	<100	<130	<130	<5	n/a	50
4-Methyl-2-Pentanone	<100	<130	<130	<5	n/a	n/a
Acetone	<100	<130	<130	6.1	n/a	50
Benzene	<20	4.40 J	3 J	1.6	1	n/a
Bromochloromethane	<20	<25	<25	<1	5	n/a
Bromodichloromethane	<20	<25	<25	<1	n/a	50
Bromoform	<20	<25	<25	<1	n/a	50
Bromomethane	<20	<25	<25	<1	5	n/a
c 1,3 Dichloropropene	<20	<25	<25	<1	n/a	n/a
Carbon Disulfide	<20	<25	<25	<1	n/a	60
Carbon Tetrachloride	<20	<25	<25	<1	5	n/a
Chlorobenzene	<20	220	31	11	5	n/a
Chloroethane	<20	<25	<25	<1	5	n/a
Chloroform	<20	<25	<25	<1	7	n/a
Chloromethane	<20	<25	<25	<1	5	n/a
cis-1,2-Dichloroethene	<20	<25	<25	<1	5	n/a
Cyclohexane	<20	<25	<25	<1	n/a	n/a

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Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW8260C

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
Cyclohexane, methyl-	<20	<25	<25	<1	n/a	n/a
Dibromochloromethane	<20	<25	<25	<1	n/a	50
Dibromochloropropane	<20	<25	<25	<1	0.04	n/a
Dichlorodifluoromethane	<20	<25	<25	<1	5	n/a
Ethylbenzene	<20	<25	<25	<1	5	n/a
Freon 113	<20	<25	<25	<1	5	n/a
Isopropylbenzene	<20	<25	<25	<1	5	n/a
m + p Xylene	<20	<25	<25	<1	5*	n/a
Methyl acetate	<100	<130	<130	<5	n/a	n/a
Methyl Ethyl Ketone	<100	<130	<130	<5	n/a	50
Methylene Chloride	<20	<25	<25	<1	5	n/a
o-Xylene	<20	<25	<25	<1	5	n/a
Styrene	<20	<25	<25	<1	5	n/a
t 1,3 Dichloropropene	<20	<25	<25	<1	n/a	n/a
t butylmethylether	<20	<25	<25	<1	n/a	10
Tetrachloroethene	<20	<25	11 J	0.62 J	5	n/a
Toluene	<20	<25	<25	<1	5	n/a
trans-1,2-Dichloroethene	<20	<25	<25	<1	5	n/a
Trichloroethylene	<20	<25	<25	<1	5	n/a
Trichlorofluoromethane	<20	<25	<25	<1	5	n/a
Vinyl Chloride	<20	<25	<25	<1	2	n/a
Calculated						
Total VOCs	5,992	11,224.40	10,755	23.22	n/a	n/a
Total BTEX	<100	4	3	2	n/a	n/a

Notes:

J - Indicates an estimated value below laboratory reporting limits

n/a - not analyzed / not applicable

* - Standard applies to each isomer separately

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Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
1,1-Biphenyl	<10	1.10 J	0.80 J	<10	5	n/a
1,2,4,5-Tetrachlorobenzene	21	42	34	<10	n/a	n/a
2,3,4,6-Tetrachlorophenol	<10	<10	<10	<10	n/a	n/a
2,4,5-Trichlorophenol	0.68 J	5.50 J	2.30 J	<10	n/a	n/a
2,4,6-Trichlorophenol	<10	0.72 J	<10	<10	n/a	n/a
2,4-Dichlorophenol	<10	<10	<10	<10	5	n/a
2,4-Dimethylphenol	<10	<10	<10	<10	n/a	50
2,4-Dinitrophenol	<21	<20	<21	<20	n/a	10
2,4-Dinitrotoluene	<2.1	<2	<2.1	<2	5	n/a
2,6-Dinitrotoluene	<2.1	<2	<2.1	<2	5	n/a
2-Chloronaphthalene	<10	<10	<10	<10	n/a	10
2-Chlorophenol	<10	<10	<10	<10	n/a	n/a
2-Methyl-4,6-dinitrophenol	<21	<20	<21	<20	n/a	n/a
2-Methylnaphthalene	<10	<10	<10	<10	n/a	n/a
2-Nitroaniline	<10	<10	<10	<10	5	n/a
2-Nitrophenol	<10	<10	<10	<10	n/a	n/a
3,3-Dichlorobenzidine	<10	<10	<10	<10	5	n/a
3-Nitroaniline	<10	<10	<10	<10	5	n/a
4-Bromophenyl-phenylether	<10	<10	<10	<10	n/a	n/a
4-Chloro-3-methylphenol	<10	<10	<10	<10	n/a	n/a
4-Chloroaniline	<10	<10	<10	<10	5	n/a
4-Chlorophenyl-phenylether	<10	<10	<10	<10	n/a	n/a
4-Nitroaniline	<10	<10	<10	<10	5	n/a
4-Nitrophenol	<21	<20	<21	<20	n/a	n/a
Acenaphthene	<10	<10	<10	<10	n/a	20
Acenaphthylene	<10	<10	<10	<10	n/a	n/a
Acetophenone	<10	<10	<10	<10	n/a	n/a
Anthracene	<10	<10	<10	<10	n/a	50
Atrazine	<2.1	<2	<2.1	<2	7.5	n/a
Benzaldehyde	<10	<10	<10	<10	n/a	n/a
Benzo(a)anthracene	<1	<1	<1	<1	n/a	0.002
Benzo(a)pyrene	<1	<1	<1	<1	n/a	n/a
Benzo(b)fluoranthene	<1	<1	<1	<1	n/a	0.002
Benzo(g,h,i)perylene	<10	<10	<10	<10	n/a	n/a
Benzo(k)fluoranthene	<1	<1	<1	<1	n/a	0.002
bis(2-Chloroethoxy)methane	<10	<10	<10	<10	5	n/a
bis(2-Chloroethyl)ether	<1	<1	<1	<1	1	n/a
bis(2-Chloroisopropyl)ether	<10	<10	<10	<10	5	n/a

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Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
bis(2-Ethylhexyl)phthalate	1.60 J	<2	1.50 J	1.20 J	5	n/a
Butylbenzylphthalate	<10	<10	<10	<10	n/a	50
Caprolactam	<10	<10	<10	<10	n/a	n/a
Carbazole	<10	<10	<10	<10	n/a	n/a
Chrysene	<2.1	<2	<2.1	<2	n/a	0.002
Dibenzo(a,h)anthracene	<1	<1	<1	<1	n/a	n/a
Dibenzofuran	<10	<10	<10	<10	n/a	n/a
Diethylphthalate	<10	<10	<10	<10	n/a	50
Dimethylphthalate	<10	<10	<10	<10	n/a	50
Di-n-butylphthalate	0.91 J	<10	1 J	0.91 J	50	n/a
Di-n-octylphthalate	<10	<10	<10	<10	n/a	50
Fluoranthene	<10	<10	<10	<10	n/a	50
Fluorene	<10	<10	<10	<10	n/a	50
Hexachlorobenzene	<1	<1	<1	<1	0.04	n/a
Hexachlorobutadiene	<1	<1	<1	<1	0.5	n/a
Hexachlorocyclopentadiene	<10	<10	<10	<10	5	n/a
Hexachloroethane	<1	<1	<1	<1	5	n/a
Indeno(1,2,3-cd)pyrene	<1	<1	<1	<1	n/a	0.002
Isophorone	<10	<10	<10	<10	n/a	50
Naphthalene	<10	<10	<10	<10	n/a	10
Nitrobenzene	<1	<1	<1	<1	0.4	n/a
N-Nitrosodi-N-Propylamine	<1	<1	<1	<1	n/a	n/a
N-Nitrosodiphenylamine	<10	<10	<10	<10	n/a	50
o-cresol	<10	<10	<10	<10	n/a	n/a
p-cresol	<10	<10	<10	<10	n/a	n/a
Pentachlorophenol	<21	<20	<21	<20	1.5	n/a
Phenanthrene	<10	<10	<10	<10	n/a	50
Phenol (total)	<10	<10	<10	<10	1	n/a
Pyrene	<10	<10	<10	<10	n/a	50
1,2 Dichlorobenzene	n/a	450 JN !	72 JN !	n/a	3	n/a
1,2,3 Trichlorobenzene	n/a	860 JN !	780 JN !	n/a	5	n/a
1,2,3,4- Tetrachlorobenzene	92 JN !	180 JN !	120 JN !	n/a	n/a	n/a
1,2,4 Trichlorobenzene	480 JN !	n/a	n/a	n/a	5	n/a
1,3 Dichlorobenzene	n/a	280 JN !	62 JN !	n/a	3	n/a
1,3,5-Trichlorobenzene	1,300 JN !	2,300 JN !	2,300 JN !	n/a	n/a	n/a
1,4 Dichlorobenzene	9.90 JN !	490 JN !	180 JN !	n/a	3	n/a
2,5-Dichlorothiophene	n/a	20 JN !	n/a	n/a	n/a	n/a
3-Carene	n/a	n/a	n/a	8.70 JN !	n/a	n/a

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Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
Benzene, 1-Methyl-2-(1Methylethyl)	n/a	n/a	n/a	12 JN !	5	n/a
Chlorobenzene	n/a	130 JN !	14 JN !	n/a	5	n/a
Hexadecanoic Acid	n/a	77 JN !	12 JN !	n/a	n/a	n/a
Octadecanoic Acid	n/a	93 JN !	9.90 JN !	n/a	n/a	n/a
Pentachlorobenzene	n/a	14 JN !	9.90 JN !	n/a	5	n/a
Tert-Amyl-Methyl-Ether	n/a	44 JN !	n/a	n/a	n/a	n/a
Unknown SVOC	n/a	23 J !	16 J !	n/a	n/a	n/a
Unknown SVOC	n/a	23 J !	14 J !	n/a	n/a	n/a
Unknown SVOC	n/a	15 J !	12 J !	n/a	n/a	n/a
Unknown SVOC	n/a	11 J !	10 J !	n/a	n/a	n/a
Unknown SVOC	n/a	11 J !	9.70 J !	n/a	n/a	n/a
Unknown SVOC	n/a	9.90 J !	9.50 J !	n/a	n/a	n/a
Unknown SVOC	n/a	n/a	8.80 J !	n/a	n/a	n/a
Unknown SVOC	n/a	n/a	8 J !	n/a	n/a	n/a
Unknown SVOC	n/a	25 J !	17 J !	n/a	n/a	n/a
Calculated Total SVOCs	1,906.09	5,115.22	3,724.40	22.81	n/a	n/a

Notes:

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

J - Indicates an estimate dvalue below laboratory reporting limits, or value reported as a TIC

n/a - not analyzed / not applicable

Empire Electric
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Brooklyn, NY
Site # 224015



Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW8081B

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
4,4,-DDT	<0.02	<0.02	<0.02	<0.02	0.2	n/a
4,4-DDD	<0.02	<0.02	<0.02	<0.02	0.3	n/a
4,4-DDE	<0.02	<0.02	<0.02	<0.02	0.2	n/a
Aldrin	<0.02	<0.02	<0.02	<0.02	n/a	n/a
alpha BHC	<0.02	<0.02	<0.02	<0.02	0.01	n/a
beta BHC	<0.02	<0.02	<0.02	<0.02	0.04	n/a
Chlordane	<0.5	<0.5	<0.5	<0.5	0.05	n/a
delta-BHC	<0.02	<0.02	<0.02	<0.02	0.04	n/a
Dieldrin	<0.02	<0.02	<0.02	<0.02	0.004	n/a
Endosulfan I	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endosulfan II	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endosulfan Sulfate	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endrin	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endrin Aldehyde	<0.02	<0.02	<0.02	<0.02	5	n/a
Endrin ketone	<0.02	<0.02	<0.02	<0.02	5	n/a
Gamma-BHC(Lindane)	<0.02	<0.02	<0.02	<0.02	0.05	n/a
Heptachlor	<0.02	<0.02	<0.02	<0.02	0.04	n/a
Heptachlor Epoxide	<0.02	<0.02	<0.02	<0.02	0.03	n/a
Methoxychlor	<0.02	<0.02	<0.02	<0.02	35	n/a
Toxaphene	<0.5	<0.5	<0.5	<0.5	0.06	n/a

Notes:

n/a - not analyzed / not applicable

Empire Electric
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Brooklyn, NY
Site # 224015



Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW6020A, SW7470A, SW9012

Location	SB-36	SB-37S	SB-37D	SB-38
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM
Aluminum	59.2	18.30 J	78.1	246
Aluminum, Dissolved	<40	<40	<40	<40
Antimony	1.50 J	<2	<2	1.90 J
Antimony, Dissolved	1.10 J	<2	<2	1.50 J
Arsenic	1.50 J	9.7	0.68 J	1.60 J
Arsenic, Dissolved	2	5.7	0.69 J	1.60 J
Barium	55.3	217	58.1	55.9
Barium, Dissolved	55.4	190	61.1	52
Beryllium	<0.8	<0.8	<0.8	<0.8
Beryllium, Dissolved	<0.8	<0.8	<0.8	<0.8
Cadmium	<2	<2	<2	<2
Cadmium, Dissolved	<2	<2	<2	<2
Calcium	46,400	65,000	70,400	57,000
Calcium, Dissolved	43,400	60,700	67,700	53,100
Chromium (total)	<4	<4	<4	1.60 J
Cobalt	<4	<4	<4	<4
Cobalt, Dissolved	<4	<4	<4	<4
Copper	3.80 J	10.4	2.20 J	1.90 J
Copper, Dissolved	3.90 J	<4	1.50 J	<4
Cyanide	6.9 J	3.3 J	<10	2.5 J
Iron	82.70 J	4,440	1,050	386
Iron (Dissolved)	<120	<120	<120	<120
Lead	0.41 J	4.8	<1.2	0.62 J
Lead, Dissolved	<1.2	<1.2	<1.2	<1.2
Magnesium	9,130	10,100	13,200	8,530
Magnesium, Dissolved	8,160	9,380	12,200	8,410
Manganese	292	1,070	2,210	309
Manganese (Dissolved)	267	970	2,100	276
Mercury	<0.2	<0.2	<0.2	<0.2
Mercury, Dissolved	<0.2	<0.2	<0.2	<0.2
Nickel	3.60 J	<4	4.7	3.30 J

NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
n/a	n/a
n/a	n/a
3	n/a
n/a	n/a
25	n/a
n/a	n/a
1,000	n/a
n/a	n/a
n/a	3
n/a	n/a
5	n/a
n/a	n/a
n/a	n/a
50	n/a
n/a	n/a
n/a	n/a
200	n/a
n/a	n/a
200	n/a
300	n/a
300	n/a
25	n/a
n/a	n/a
n/a	35,000
n/a	n/a
300	n/a
300	n/a
0.7	n/a
n/a	n/a
100	n/a

Table 18

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW6020A, SW7470A, SW9012

Location	SB-36	SB-37S	SB-37D	SB-38
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM
Nickel, Dissolved	3.60 J	<4	3.70 J	2.40 J
Potassium	22,400	23,400	18,400	13,400
Potassium, Dissolved	22,900	22,600	18,200	12,800
Selenium	1.90 J	<10	1.30 J	0.92 J
Selenium, Dissolved	2 J	0.74 J	1.60 J	1.30 J
Silver	<2	<2	<2	<2
Silver, Dissolved	<2	<2	<2	<2
Sodium	36,000	41,800	109,000	56,900
Sodium, Dissolved	31,600	40,000	100,000	55,900
Thallium	<0.8	<0.8	<0.8	<0.8
Thallium, Dissolved	<0.8	<0.8	<0.8	<0.8
Vanadium	2.30 J	16.2	<4	3.10 J
Vanadium, Dissolved	<4	2 J	<4	2.40 J
Zinc	<16	<16	<16	<16
Zinc, Dissolved	<16	<16	<16	<16

NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
n/a	n/a
n/a	n/a
n/a	n/a
10	n/a
n/a	n/a
50	n/a
n/a	n/a
20,000	n/a
n/a	n/a
n/a	0.5
n/a	n/a
n/a	n/a
n/a	n/a
n/a	2,000
n/a	n/a

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

Samples for analysis of dissolved compounds were filtered by the laboratory

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



ENVIRONMENTAL
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Groundwater Analytical Results - October 2017
EAR Field Screening

Location	Date Collected	Dissolved Oxygen <i>mg/L</i>	Temperature <i>°C</i>	pH -	ORP (Oxidation Reduction Potential) <i>mV</i>	Conductivity <i>us/cm</i>
SB-36	10/3/2017	1.14	15.10	8.12	70.1	562
SB-37S	10/3/2017	0.52	14.36	7.02	-96.6	706
SB-37D	10/3/2017	0.54	12.49	6.35	106.3	1,007
SB-38	10/3/2017	1.78	18.00	8.23	-190.2	800

Table 20

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Concrete Analytical Results - July-October 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8082A

Location	Depth (inches below grade surface)	Date Collected	Time Collected	Moisture %	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Polybrominated biphenyls (total)
CB-1 0-3	0-3	7/21/2017	9:10 AM	8.3	<73	<73	<73	<73	<73	<73	170	<73	<73	170
CB-2 0-3	0-3	7/21/2017	9:30 AM	4.2	<70	<70	<70	<70	<70	<70	470	<70	<70	470
CB-3 0-3	0-3	7/21/2017	9:42 AM	12.4	<76	<76	<76	<76	<76	<76	<76	<76	<76	<76
CB-4 0-3	0-3	7/21/2017	10:01 AM	0.7	<67	<67	<67	<67	<67	<67	500	<67	<67	500
CB-5 0-3	0-3	7/21/2017	10:45 AM	12.1	<76	<76	<76	<76	<76	<76	<76	<76	<76	<76
CB-6 0-3	0-3	7/21/2017	10:55 AM	5.8	<71	<71	<71	<71	<71	<71	690	<71	<71	690
CB-7 0-3	0-3	7/21/2017	11:04 AM	5.5	<71	<71	<71	<71	<71	<71	280	<71	<71	280
CB-8 0-3	0-3	7/21/2017	11:13 AM	7.2	<72	<72	<72	<72	<72	<72	150	<72	<72	140
CB-9 0-3	0-3	7/21/2017	12:08 PM	5.1	<71	<71	<71	<71	<71	<71	140	<71	<71	110
CB-10 0-3	0-3	7/21/2017	12:18 PM	11.8	<38000	<38000	<38000	<38000	<38000	<38000	410,000	<38000	<38000	410,000
CB-10 3-6	3-6	7/21/2017	12:22 PM	7.2	<36000	<36000	<36000	<36000	<36000	<36000	190,000	<36000	<36000	190,000
CB-10R (post scarification)	0-3	8/9/2017	9:35 AM	9.8	<3700	<3700	<3700	<3700	<3700	<3700	45,000	<3700	<3700	44,000
CB-11 0-3	0-3	7/21/2017	12:26 PM	0.2	<67	<67	<67	<67	<67	<67	610	<67	<67	610
CB-12 0-3	0-3	7/21/2017	12:35 PM	5.1	<71	<71	<71	<71	<71	<71	160	<71	<71	160
CB-13 0-3	0-3	7/21/2017	1:22 PM	6.4	<71	<71	<71	<71	<71	<71	43 J	<71	<71	43 J
CB-14 0-3	0-3	7/21/2017	1:33 PM	2.8	<69	<69	<69	<69	<69	<69	480	<69	<69	480
CB-15 0-3	0-3	7/21/2017	1:45 PM	4.5	<70	<70	<70	<70	<70	<70	160	<70	<70	160
CB-16 0-3	0-3	7/25/2017	8:30 AM	3.8	<70	<70	<70	<70	<70	<70	110	<70	<70	110
CB-16 3-6	3-6	7/25/2017	8:35 AM	3.6	<69	<69	<69	<69	<69	<69	140	<69	<69	130
CB-17 0-3	0-3	7/25/2017	8:39 AM	6	<71	<71	<71	<71	<71	<71	94	<71	<71	94
CB-17 3-6	3-6	7/25/2017	8:45 AM	4.7	<70	<70	<70	<70	<70	<70	390	<70	<70	390
CB-18 0-3	0-3	7/25/2017	8:51 AM	5	<71	<71	<71	<71	<71	<71	<71	<71	<71	<71
CB-18 3-6	3-6	7/25/2017	8:58 AM	5.4	<71	<71	<71	<71	<71	<71	140	<71	<71	140
CB-19 0-3	0-3	7/25/2017	9:04 AM	1	<68	<68	<68	<68	<68	<68	200	<68	<68	200
CB-19 3-6	3-6	7/25/2017	9:08 AM	<0.1	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67
CB-20 0-3	0-3	7/25/2017	9:11 AM	2.1	<34000	<34000	<34000	<34000	<34000	<34000	550,000	<34000	<34000	550,000
CB-20 3-6	3-6	7/25/2017	9:15 AM	0.6	<13000	<13000	<13000	<13000	<13000	<13000	200,000	<13000	<13000	200,000
CB-20PS 0-3	0-3	9/21/2017	9:50 AM	5.1	<70	<70	<70	<70	<70	<70	280	<70	<70	280
CB-21 0-3	0-3	7/25/2017	9:22 AM	6	<71	<71	<71	<71	<71	<71	180	<71	<71	150
CB-21 3-6	3-6	7/25/2017	9:30 AM	5.5	<71	<71	<71	<71	<71	<71	130	<71	<71	130
CB-22 0-3	0-3	7/25/2017	9:38 AM	4.7	<70000	<70000	<70000	<70000	<70000	<70000	1,100,000	<70000	<70000	1,100,000
CB-22 3-6	3-6	7/25/2017	9:44 AM	4.4	<70000	<70000	<70000	<70000	<70000	<70000	1,000,000	<70000	<70000	1,000,000
CB-22PS 0-3	0-3	9/21/2017	9:30 AM	3.5	<690	<690	<690	<690	<690	<690	7,800	<690	<690	7,800
CB-23 0-3	0-3	7/25/2017	10:45 AM	4.5	<35000	<35000	<35000	<35000	<35000	<35000	310,000	<35000	<35000	310,000
CB-23 3-6	3-6	7/25/2017	10:50 AM	5	<35000	<35000	<35000	<35000	<35000	<35000	620,000	<35000	<35000	620,000
CB-23PS 0-3	0-3	9/21/2017	10:30 AM	6.9	<1400	<1400	<1400	<1400	<1400	<1400	16,000	<1400	<1400	16,000
CB-24 0-3	0-3	7/25/2017	10:57 AM	7.3	<3600	<3600	<3600	<3600	<3600	<3600	67,000	<3600	<3600	67,000
CB-24 3-6	3-6	7/25/2017	11:02 AM	4.6	<35000	<35000	<35000	<35000	<35000	<35000	730,000	<35000	<35000	730,000
CB-24PS 0-3	0-3	9/21/2017	9:10 AM	4.2	<350	<350	<350	<350	<350	<350	2,900	<350	<350	2,900
CB-25 0-3	0-3	7/25/2017	11:09 AM	2	<68	<68	<68	<68	<68	<68	250	<68	<68	250
CB-25 3-6	3-6	7/25/2017	11:14 AM	0.9	<67	<67	<67	<67	<67	<67	340	<67	<67	340
CB-26 0-3	0-3	7/25/2017	11:20 AM	2.4	<69	<69	<69	<69	<69	<69	140	<69	<69	120
CB-26 3-6	3-6	7/25/2017	11:25 AM	0.8	<67	<67	<67	<67	<67	<67	250	<67	<67	250
CB-27 0-3	0-3	7/25/2017	11:31 AM	5.9	<71	<71	<71	<71	<71	<71	230	<71	<71	230
CB-27 3-6	3-6	7/25/2017	11:36 AM	3.1	<69	<69	<69	<69	<69	<69	390	<69	<69	390

Table 20

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Concrete Analytical Results - July-October 2017 (ug/Kg)
TestAmerica, Inc.
Methods: SW8082A

Location	Depth (inches below grade surface)	Date Collected	Time Collected	Moisture %	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Polybrominated biphenyls (total)
CB-28 0-3	0-3	7/25/2017	11:42 AM	12.4	<76	<76	<76	<76	<76	<76	71 J	<76	<76	71 J
CB-28 3-6	3-6	7/25/2017	11:49 AM	8.2	<73	<73	<73	<73	<73	<73	110	<73	<73	110
CB-29 0-3	0-3	7/25/2017	12:45 PM	3.8	<7000	<7000	<7000	<7000	<7000	<7000	110,000	<7000	<7000	110,000
CB-29 3-6	3-6	7/25/2017	12:50 PM	5.9	<36000	<36000	<36000	<36000	<36000	<36000	590,000	<36000	<36000	590,000
CB-29PS 0-3	0-3	9/21/2017	8:40 AM	3.5	<140	<140	<140	<140	<140	<140	1,600	<140	<140	1,600
CB-30 0-3	0-3	7/25/2017	12:57 PM	4.6	<14000	<14000	<14000	<14000	<14000	<14000	130,000	<14000	<14000	130,000
CB-30 3-6	3-6	7/25/2017	1:02 PM	3.4	<1700	<1700	<1700	<1700	<1700	<1700	21,000	<1700	<1700	21,000
CB-30PS 0-3	0-3	9/21/2017	8:25 AM	3.7	<14000	<14000	<14000	<14000	<14000	<14000	160,000	<14000	<14000	160,000
CB-30PS2	0-3	10/3/2017	9:30 AM	3.1	<69	<69	<69	<69	<69	<69	180	<69	<69	180
NYCRR 375-6: Commercial					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,000
NYCRR 375-6: Industrial					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	25,000
NYCRR 375-6: Unrestricted					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



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Concrete Analytical Results - July-October 2017 (ug/Kg)
TestAmerica, Inc.
Methods: SW260C

Location	CB-22_0-3	CB-9_3-6	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (inches below grade)	0-3	3-6			
Date Collected	7/25/2017	7/25/2017			
Time Collected	9:38 AM	12:15 PM			
Moisture, Percent	4.1	5.5			
1,1 Dichloroethane	<2000	<0.86	240,000	480,000	270
1,1 Dichloroethene	<2000	<0.86	500,000	1,000,000	330
1,1,1 Trichloroethane	<2000	<0.86	500,000	1,000,000	680
1,1,2 Trichloroethane	<2000	<0.86	n/a	n/a	n/a
1,1,2,2 Tetrachloroethane	<2000	<0.86	n/a	n/a	n/a
1,2 Dibromoethane	<2000	<0.86	n/a	n/a	n/a
1,2 Dichlorobenzene	1400 J	<0.86	500,000	1,000,000	1,100
1,2 Dichloroethane	<2000	<0.86	30,000	60,000	20
1,2 Dichloropropane	<2000	<0.86	n/a	n/a	n/a
1,2,3 Trichlorobenzene	220,000	<0.86	n/a	n/a	n/a
1,2,4 Trichlorobenzene	610,000	<0.86	n/a	n/a	n/a
1,3 Dichlorobenzene	<2000	<0.86	280,000	560,000	2,400
1,4 Dichlorobenzene	1600 J	<0.86	130,000	250,000	1,800
1,4-Dioxane	<99000	<17	130,000	250,000	100
2-Hexanone	<9900	1 J	n/a	n/a	n/a
4-Methyl-2-Pentanone	<9900	<4.3	n/a	n/a	n/a
Acetone	<9900	44	500,000	1,000,000	50
Benzene	<2000	<0.86	44,000	89,000	60
Bromochloromethane	<2000	<0.86	n/a	n/a	n/a
Bromodichloromethane	<2000	<0.86	n/a	n/a	n/a
Bromoform	<2000	<0.86	n/a	n/a	n/a
Bromomethane	<2000	<0.86	n/a	n/a	n/a
c 1,3 Dichloropropene	<2000	<0.86	n/a	n/a	n/a
Carbon Disulfide	<2000	<0.86	n/a	n/a	n/a
Carbon Tetrachloride	<2000	<0.86	22,000	44,000	760
Chlorobenzene	<2000	<0.86	500,000	1,000,000	1,100
Chloroethane	<2000	<0.86	n/a	n/a	n/a
Chloroform	<2000	<0.86	350,000	700,000	370
Chloromethane	<2000	<0.86	n/a	n/a	n/a
cis-1,2-Dichloroethene	<2000	<0.86	500,000	1,000,000	250

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



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Concrete Analytical Results - July-October 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW260C

Location	CB-22_0-3	CB-9_3-6	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (inches below grade)	0-3	3-6			
Date Collected	7/25/2017	7/25/2017			
Time Collected	9:38 AM	12:15 PM			
Moisture, Percent	4.1	5.5			
Cyclohexane	<2000	<0.86	n/a	n/a	n/a
Cyclohexane, methyl-	<2000	<0.86	n/a	n/a	n/a
Dibromochloromethane	<2000	<0.86	n/a	n/a	n/a
Dibromochloropropane	<2000	<0.86	n/a	n/a	n/a
Dichlorodifluoromethane	<2000	<0.86	n/a	n/a	n/a
Ethylbenzene	<2000	<0.86	390,000	780,000	1,000
Freon 113	<2000	<0.86	n/a	n/a	n/a
Isopropylbenzene	<2000	<0.86	n/a	n/a	n/a
m + p Xylene	<2000	<0.86	n/a	n/a	n/a
Methyl acetate	<9900	<4.3	n/a	n/a	n/a
Methyl Ethyl Ketone	<9900	9	500,000	1,000,000	120
Methylene Chloride	<2000	0.30 J	500,000	1,000,000	50
o-Xylene	<2000	<0.86	n/a	n/a	n/a
Styrene	<2000	<0.86	n/a	n/a	n/a
t 1,3 Dichloropropene	<2000	<0.86	n/a	n/a	n/a
t butylmethylether	<2000	<0.86	500,000	1,000,000	930
Tetrachloroethene	<2000	<0.86	150,000	300,000	1,300
Toluene	<2000	<0.86	500,000	1,000,000	700
trans-1,2-Dichloroethene	<2000	<0.86	500,000	1,000,000	190
Trichloroethylene	<2000	<0.86	200,000	400,000	470
Trichlorofluoromethane	<2000	<0.86	n/a	n/a	n/a
Vinyl Chloride	<2000	<0.86	13,000	27,000	20
Calculated					
Total BTEX	<10000	<4.3	n/a	n/a	n/a
Total VOCs	833,000	53.3	n/a	n/a	n/a
Total Xylenes	<4,000	<1.72	500,000	1,000,000	260

Notes:

J - Indicates an estimated value below laboratory reporting limits

n/a - not analyzed / not applicable

Table 22

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



ENVIRONMENTAL
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Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8082A

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
Aroclor 1016	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1221	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1232	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1242	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1248	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1254	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1260	<0.4	<0.4	<0.4	6.9	<0.4	<0.4	5	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1262	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1268	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Polybrominated biphenyls (total)	<0.4	<0.4	<0.4	6.9	<0.4	<0.4	5	<0.4	<0.4	<0.4	5	n/a

Notes:

n/a - not analyzed / not applicable

Table 23

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



ENVIRONMENTAL
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Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8260C, SW8260C-SIM

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
1,1 Dichloroethane	0.36 J	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
1,1 Dichloroethene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
1,1,1 Trichloroethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
1,1,2 Trichloroethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	1	n/a
1,1,2,2 Tetrachloroethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
1,2 Dibromoethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	0.001	n/a
1,2 Dichlorobenzene	<1	<1	<1	38	<1	<1	23	<1	<1	0.31 J	3	n/a
1,2 Dichloroethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	0.6	n/a
1,2 Dichloropropane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	1	n/a
1,2,3 Trichlorobenzene	<1	<1	<1	1,400	<1	<1	370	<1	<1	<1	5	n/a
1,2,4 Trichlorobenzene	<1	<1	<1	5,500	<1	<1	2,000	<1	<1	0.30 J	5	n/a
1,3 Dichlorobenzene	<1	<1	<1	89	<1	<1	330	<1	<1	1.1	3	n/a
1,4 Dichlorobenzene	<1	<1	<1	140	<1	<1	95	<1	<1	0.71 J	3	n/a
1,4-Dioxane	0.57	<0.4	<50	<1300	0.72	<0.4	<500	<50	<50	<50	n/a	n/a
2-Hexanone	<5	<5	<5	<130	<5	<5	<50	<5	<5	<5	n/a	50
4-Methyl-2-Pentanone	<5	<5	<5	<130	<5	<5	<50	<5	<5	<5	n/a	n/a
Acetone	<5	<5	<5	<130	<5	<5	<50	<5	<5	<5	n/a	50
Benzene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	1	n/a
Bromochloromethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Bromodichloromethane	<1	0.19 J	<1	<25	<1	<1	<10	<1	<1	<1	n/a	50
Bromoform	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	50
Bromomethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
c 1,3 Dichloropropene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	n/a
Carbon Disulfide	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	60
Carbon Tetrachloride	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Chlorobenzene	<1	<1	<1	8.40 J	<1	<1	45	<1	<1	0.85 J	5	n/a
Chloroethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Chloroform	1.6	3.6	<1	<25	3	0.28 J	<10	1.2	1.7	<1	7	n/a
Chloromethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
cis-1,2-Dichloroethene	0.79 J	<1	<1	<25	<1	<1	<10	<1	0.52 J	<1	5	n/a
Cyclohexane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	n/a

Table 23

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8260C, SW8260C-SIM

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA	TOGS111 ClassGA
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017	Standard	Guidance
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
Cyclohexane, methyl-	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	n/a
Dibromochloromethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	50
Dibromochloropropane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	0.04	n/a
Dichlorodifluoromethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Ethylbenzene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Freon 113	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Isopropylbenzene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
m + p Xylene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5*	n/a
Methyl acetate	<5	<5	<5	<130	<5	<5	<50	<5	<5	<5	n/a	n/a
Methyl Ethyl Ketone	<5	<5	<5	<130	<5	<5	<50	<5	<5	<5	n/a	50
Methylene Chloride	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
o-Xylene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Styrene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
t 1,3 Dichloropropene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	n/a
t butylmethylether	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	10
Tetrachloroethene	3	6.9	1.2	<25	1.7	5.6	<10	2.6	9.8	0.27 J	5	n/a
Toluene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
trans-1,2-Dichloroethene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Trichloroethylene	5.7	0.71 J	0.49 J	<25	0.23 J	0.36 J	<10	2.4	3.4	0.44 J	5	n/a
Trichlorofluoromethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Vinyl Chloride	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	2	n/a
Calculated												
Total VOCs	12.02	11.4	1.69	7,175.40	5.65	6.24	2,863	6.2	15.42	3.98	n/a	n/a
Total BTEX	<5	<5	<5	<125	<5	<5	<50	<5	<5	<5	n/a	n/a

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

* - standard applies to each isomer separately

Table 24

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
1,1-Biphenyl	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
1,2,4,5-Tetrachlorobenzene	<10	<10	<10	24	<10	<10	10	<10	<10	<10	n/a	n/a
2,3,4,6-Tetrachlorophenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
2,4,5-Trichlorophenol	<10	<10	<10	1.80 J	<10	<10	<10	<10	<10	<10	n/a	n/a
2,4,6-Trichlorophenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
2,4-Dichlorophenol	<10	<10	<10	<10	<10	<10	2.50 J	<10	<10	<10	5	n/a
2,4-Dimethylphenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
2,4-Dinitrophenol	<20	<21	<20	<21	<21	<20	<20	<20	<21	<20	n/a	10
2,4-Dinitrotoluene	<2	<2.1	<2	<2.1	<2.1	<2	<2	<2	<2.1	<2	5	n/a
2,6-Dinitrotoluene	<2	<2.1	<2	<2.1	<2.1	<2	<2	<2	<2.1	<2	5	n/a
2-Chloronaphthalene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	10
2-Chlorophenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
2-Methyl-4,6-dinitrophenol	<20	<21	<20	<21	<21	<20	<20	<20	<21	<20	n/a	n/a
2-Methylnaphthalene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
2-Nitroaniline	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
2-Nitrophenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
3,3-Dichlorobenzidine	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
3-Nitroaniline	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
4-Bromophenyl-phenylether	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
4-Chloro-3-methylphenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
4-Chloroaniline	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
4-Chlorophenyl-phenylether	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
4-Nitroaniline	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
4-Nitrophenol	<20	<21	<20	<21	<21	<20	<20	<20	<21	<20	n/a	n/a
Acenaphthene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	20
Acenaphthylene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Acetophenone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Anthracene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Atrazine	<2	<2.1	<2	<2.1	<2.1	<2	<2	<2	<2.1	<2	7.5	n/a
Benzaldehyde	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a

Table 24

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)
TestAmerica, Inc.
Methods: SW8270D

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
Benzo(a)anthracene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	0.002
Benzo(a)pyrene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	n/a
Benzo(b)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	0.002
Benzo(g,h,i)perylene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Benzo(k)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	0.002
bis(2-Chloroethoxy)methane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
bis(2-Chloroethyl)ether	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	n/a
bis(2-Chloroisopropyl)ether	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
bis(2-Ethylhexyl)phthalate	<2	<2.1	<2	1.30 J	<2.1	<2	1.20 J	<2	1.40 J	1.20 J	5	n/a
Butylbenzylphthalate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Caprolactam	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Carbazole	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Chrysene	<2	<2.1	<2	<2.1	<2.1	<2	<2	<2	<2.1	<2	n/a	0.002
Dibenzo(a,h)anthracene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	n/a
Dibenzofuran	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Diethylphthalate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Dimethylphthalate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Di-n-butylphthalate	<10	<10	1.60 J	<10	<10	<10	0.90 J	<10	<10	<10	50	n/a
Di-n-octylphthalate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Fluoranthene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Fluorene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Hexachlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.04	n/a
Hexachlorobutadiene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.5	n/a
Hexachlorocyclopentadiene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
Hexachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5	n/a
Indeno(1,2,3-cd)pyrene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	0.002
Isophorone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Naphthalene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	10
Nitrobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.4	n/a
N-Nitrosodi-N-Propylamine	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	n/a

Table 24

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
N-Nitrosodiphenylamine	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
o-cresol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
p-cresol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Pentachlorophenol	<20	<21	<20	<21	<21	<20	<20	<20	<21	<20	1.5	n/a
Phenanthrene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Phenol (total)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1	n/a
Pyrene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
1,2 Dichlorobenzene	n/a	n/a	n/a	30 JN !	n/a	n/a	21 !	n/a	n/a	n/a	3	n/a
1,2,3 Trichlorobenzene	n/a	n/a	n/a	n/a	n/a	n/a	160 JN !	n/a	n/a	n/a	5	n/a
1,2,3,4- Tetrachlorobenzene	n/a	n/a	n/a	62 JN !	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1,2,3,5-Tetrachlorobenzene	n/a	n/a	n/a	n/a	n/a	n/a	11 JN !	n/a	n/a	n/a	n/a	n/a
1,2,4 Trichlorobenzene	n/a	n/a	n/a	600 JN !	n/a	n/a	1,000 !	n/a	n/a	n/a	5	n/a
1,3 Dichlorobenzene	n/a	n/a	n/a	170 JN !	n/a	n/a	280 !	n/a	n/a	n/a	3	n/a
1,3,5-Trichlorobenzene	n/a	n/a	n/a	1,800 JN !	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1,4 Dichlorobenzene	n/a	n/a	n/a	74 JN !	n/a	n/a	82 !	n/a	n/a	n/a	3	n/a
2,3,5-Tribromophenol	n/a	n/a	n/a	n/a	44 JN !	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bisphenol A	n/a	n/a	n/a	n/a	n/a	n/a	1.40 J !	n/a	n/a	n/a	n/a	n/a
Unknown SVOC w/ highest conc.	n/a	69 J !	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Calculated Total SVOCs	<562	69	1.6	2,763.10	44	<562	1,570	<562	1.4	1.2	n/a	n/a

Notes:

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

J - Indicates an estimated value below laboratory reporting limits, or value reported as a TIC

n/a - not analyzed / not applicable

Table 25

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



ENVIRONMENTAL
ASSESSMENT &
REMEDICATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8081B

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
4,4-DDT	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.2	n/a
4,4-DDD	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.3	n/a
4,4-DDE	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.2	n/a
Aldrin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	n/a	n/a
alpha BHC	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.01	n/a
beta BHC	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	n/a
Chlordane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.05	n/a
delta-BHC	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	n/a
Dieldrin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.004	n/a
Endosulfan I	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endosulfan II	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endosulfan Sulfate	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endrin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endrin Aldehyde	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	5	n/a
Endrin ketone	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	5	n/a
Gamma-BHC(Lindane)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.05	n/a
Heptachlor	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	n/a
Heptachlor Epoxide	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	n/a
Methoxychlor	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	35	n/a
Toxaphene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.06	n/a

Notes:

n/a - not analyzed / not applicable

Table 26

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW6020A, SW7470A, SW9012

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
Aluminum	<40	73.4	86.6	130	37.40 J	86.7	113	48	55.7	33.80 J	n/a	n/a
Aluminum, Dissolved	n/a	n/a	n/a	<40	n/a	n/a	<40	n/a	<40	n/a	n/a	n/a
Antimony	<2	1 J	<2	0.64 J	<2	<2	0.67 J	<2	<2	0.95 J	3	n/a
Antimony, Dissolved	n/a	n/a	n/a	<2	n/a	n/a	<2	n/a	<2	n/a	n/a	n/a
Arsenic	<2	<2	<2	<2	<2	<2	5.4	<2	<2	<2	25	n/a
Arsenic, Dissolved	n/a	n/a	n/a	1.10 J	n/a	n/a	2.2	n/a	<2	n/a	n/a	n/a
Barium	99.8	128	58.3	89	158	290	384	185	90.8	123	1,000	n/a
Barium, Dissolved	n/a	n/a	n/a	91.5	n/a	n/a	360	n/a	84.2	n/a	n/a	n/a
Beryllium	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	n/a	3
Beryllium, Dissolved	n/a	n/a	n/a	<0.8	n/a	n/a	<0.8	n/a	<0.8	n/a	n/a	n/a
Cadmium	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	5	n/a
Cadmium, Dissolved	n/a	n/a	n/a	<2	n/a	n/a	<2	n/a	<2	n/a	n/a	n/a
Calcium	60,200	59,100	120,000	65,000	75,000	104,000	39,600	101,000	45,200	118,000	n/a	n/a
Calcium, Dissolved	n/a	n/a	n/a	64,700	n/a	n/a	38,700	n/a	43,800	n/a	n/a	n/a
Chromium (total)	<4	9.7	<4	<4	73.5	2 J	<4	12.3	5.5	3.40 J	50	n/a
Chromium, Dissolved	n/a	n/a	n/a	<4	n/a	n/a	<4	n/a	5.2	n/a	n/a	n/a
Cobalt	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	n/a	n/a
Cobalt, Dissolved	n/a	n/a	n/a	<4	n/a	n/a	<4	n/a	<4	n/a	n/a	n/a
Copper	<4	2 J	5.4	<4	3.40 J	<4	4.9	<4	<4	<4	200	n/a
Copper, Dissolved	n/a	n/a	n/a	<4	n/a	n/a	<4	n/a	<4	n/a	n/a	n/a
Cyanide	<10	11	2.4 J	2 J	<10	2.1 J	<10	2.4 J	<10	<10	200	n/a
Iron	<120	135	478	188	122	128	4,850	75.60 J	59.70 J	57.10 J	300	n/a
Iron, Dissolved	n/a	n/a	n/a	<120	n/a	n/a	<120	n/a	<120	n/a	300	n/a
Lead	<1.2	<1.2	4.6	<1.2	<1.2	<1.2	2.7	<1.2	0.45 J	<1.2	25	n/a
Lead, Dissolved	n/a	n/a	n/a	<1.2	n/a	n/a	<1.2	n/a	<1.2	n/a	n/a	n/a
Magnesium	20,700	7,340	30,900	10,500	21,500	17,800	11,500	37,300	12,400	22,900	n/a	35,000
Magnesium, Dissolved	n/a	n/a	n/a	11,200	n/a	n/a	11,900	n/a	12,200	n/a	n/a	n/a
Manganese	63.7	13.6	360	2,480	6.20 J	5.20 J	1,080	4.60 J	184	4.30 J	300	n/a

Table 26

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW6020A, SW7470A, SW9012

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
Manganese, Dissolved	n/a	n/a	n/a	2,390	n/a	n/a	1,000	n/a	74.7	n/a	300	n/a
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.7	n/a
Mercury, Dissolved	n/a	n/a	n/a	<0.2	n/a	n/a	<0.2	n/a	<0.2	n/a	n/a	n/a
Nickel	<4	<4	1.60 J	2.50 J	5.6	4.2	2.90 J	3.20 J	<4	<4	100	n/a
Nickel, Dissolved	n/a	n/a	n/a	2.40 J	n/a	n/a	2.30 J	n/a	<4	n/a	n/a	n/a
Potassium	4,070	8,020	27,500	12,400	6,380	9,050	11,600	5,690	4,830	24,000	n/a	n/a
Potassium, Dissolved	n/a	n/a	n/a	12,200	n/a	n/a	12,000	n/a	4,800	n/a	n/a	n/a
Selenium	1.40 J	<10	3.70 J	<10	<10	0.90 J	<10	1.60 J	1.20 J	8.50 J	10	n/a
Selenium, Dissolved	n/a	n/a	n/a	<10	n/a	n/a	<10	n/a	1.40 J	n/a	n/a	n/a
Silver	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	50	n/a
Silver, Dissolved	n/a	n/a	n/a	<2	n/a	n/a	<2	n/a	<2	n/a	n/a	n/a
Sodium	156,000	1,060,000	101,000	202,000	93,900	541,000	48,000	228,000	163,000	106,000	20,000	n/a
Sodium, Dissolved	n/a	n/a	n/a	223,000	n/a	n/a	56,500	n/a	163,000	n/a	n/a	n/a
Thallium	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	n/a	0.5
Thallium, Dissolved	n/a	n/a	n/a	<0.8	n/a	n/a	<0.8	n/a	<0.8	n/a	n/a	n/a
Vanadium	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	n/a	n/a
Vanadium, Dissolved	n/a	n/a	n/a	<4	n/a	n/a	<4	n/a	<4	n/a	n/a	n/a
Zinc	<16	<16	30.7	<16	<16	<16	12.20 J	<16	<16	<16	n/a	2,000
Zinc, Dissolved	n/a	n/a	n/a	<16	n/a	n/a	<16	n/a	<16	n/a	n/a	n/a

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

Samples for analysis of dissolved compounds were filtered by the laboratory

Table 27

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ng/L)

TestAmerica, Inc.

Methods: Modified EPA 537

Location	MW-01	MW-02	MW-03	MW-08	MW-09	MW-12	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	7/27/2017	7/27/2017	7/24/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:45 AM	12:00 PM	9:35 AM	1:08 PM		
Perfluorobutanesulfonic acid (PFBS)	<2	<2	4.85	3.75	<2	2.24	7.04	n/a	n/a
Perfluoroheptanoic acid (PFHpA)	15.8	9.26	2.88	21.3	34.3	12.2	20.1	n/a	n/a
Perfluorohexanesulfonic acid (PFHxS)	7.27	3.11	3.61	5.41	3.64	3.49	3.1	n/a	n/a
perfluorononanoic acid (PFNA)	<2	2.81	3.9	0.93 J	2.81	<2	5.93	n/a	n/a
perfluorooctanesulfonic acid (PFOS)	3.64	61.1	42	6.86	22.3	2.97	37.7	n/a	n/a
perfluorooctanoic acid (PFOA)	90.6	116	81.1	146	253	72	224	n/a	n/a
Calculated Total PFC's	117.31	192.28	135.34	184.25	316.05	92.9	297.87	n/a	n/a

Notes:

n/a - not analyzed / not applicable

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Analytical Results - Monitoring Wells, July-October 2017
EAR Field Screening

Location	Date Collected	Dissolved Oxygen <i>mg/L</i>	Temperature <i>°C</i>	pH -	ORP (Oxidation Reduction Potential) <i>mV</i>	Conductivity <i>us/cm</i>
MW-01	7/27/2017	1.48	17.91	4.90	72.8	1,103
MW-02	7/27/2017	1.71	16.68	5.72	47.6	4,293
MW-03	7/24/2017	1.31	15.19	6.72	63.2	1,124
MW-05R	10/2/2017	0.97	18.08	7.21	-114.3	1,331
MW-08	7/27/2017	1.71	16.56	4.59	81.0	947
MW-09	7/27/2017	2.86	18.19	5.03	85.7	2,991
MW-10	10/2/2017	1.69	17.31	6.95	-91.2	514
MW-12	7/24/2017	2.68	17.84	5.96	112.8	1,685
MW-13	10/2/2017	1.56	18.35	6.65	85.8	1,058
MW-14	7/24/2017	1.76	15.25	7.20	31.3	1,001

Table 29

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Groundwater Sampling - Monitoring Wells, July-October 2017

EAR Field Screening

Depth-to-Water

Location	Date Collected	Time Collected	Depth-to-Water (ft BGS)
MW-01	7/27/2017	9:10 AM	20.97
MW-02	7/27/2017	8:08 AM	20.42
MW-03	7/24/2017	12:05 PM	16.38
MW-05R	10/2/2017	10:50 AM	12.77
MW-08	7/27/2017	10:45 AM	20.29
MW-09	7/27/2017	12:00 PM	18.54
MW-10	10/2/2017	9:45 AM	13.69
MW-12	7/24/2017	9:35 AM	18.98
MW-13	10/2/2017	12:12 PM	17.23
MW-14	7/24/2017	1:08 PM	15.81

All readings collected from top of north side of well casing

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



MW-05R - Soil Analytical Results (ug/Kg)

TestAmerica, Inc.

Methods: SW8082A

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
Aroclor 1016	<77	<86000	n/a	n/a	n/a
Aroclor 1221	<77	<86000	n/a	n/a	n/a
Aroclor 1232	<77	<86000	n/a	n/a	n/a
Aroclor 1242	<77	<86000	n/a	n/a	n/a
Aroclor 1248	<77	<86000	n/a	n/a	n/a
Aroclor 1254	<77	<86000	n/a	n/a	n/a
Aroclor 1260	55 J	1,200,000	n/a	n/a	n/a
Aroclor 1262	<77	<86000	n/a	n/a	n/a
Aroclor 1268	<77	<86000	n/a	n/a	n/a
Polybrominated biphenyls (total)	55 J	1,200,000	1,000	25,000	100

Notes:

J - Indicates and estimated value below laboratory reporting limit

n/a - Not applicable or not analyzed

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



MW-05R - Soil Analytical Results (ug/Kg)

TestAmerica, Inc.

Methods: SW8260C

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
1,1 Dichloroethane	<0.83	<2000	240,000	480,000	270
1,1 Dichloroethene	<0.83	<2000	500,000	1,000,000	330
1,1,1 Trichloroethane	<0.83	<2000	500,000	1,000,000	680
1,1,2 Trichloroethane	<0.83	<2000	n/a	n/a	n/a
1,1,2,2 Tetrachloroethane	<0.83	<2000	n/a	n/a	n/a
1,2 Dibromoethane	<0.83	<2000	n/a	n/a	n/a
1,2 Dichlorobenzene	<0.83	910 J	500,000	1,000,000	1,100
1,2 Dichloroethane	<0.83	<2000	30,000	60,000	20
1,2 Dichloropropane	<0.83	<2000	n/a	n/a	n/a
1,2,3 Trichlorobenzene	<0.83	110,000	n/a	n/a	n/a
1,2,4 Trichlorobenzene	<0.83	510,000	n/a	n/a	n/a
1,3 Dichlorobenzene	<0.83	1,700 J	280,000	560,000	2,400
1,4 Dichlorobenzene	<0.83	3,200	130,000	250,000	1,800
1,4-Dioxane	<17	<100000	130,000	250,000	100
2-Hexanone	<4.1	<10000	n/a	n/a	n/a
4-Methyl-2-Pentanone	<4.1	<10000	n/a	n/a	n/a
Acetone	78	<10000	500,000	1,000,000	50
Benzene	<0.83	<2000	44,000	89,000	60
Bromochloromethane	<0.83	<2000	n/a	n/a	n/a
Bromodichloromethane	<0.83	<2000	n/a	n/a	n/a
Bromoform	<0.83	<2000	n/a	n/a	n/a
Bromomethane	<0.83	<2000	n/a	n/a	n/a
c 1,3 Dichloropropene	<0.83	<2000	n/a	n/a	n/a
Carbon Disulfide	<0.83	<2000	n/a	n/a	n/a
Carbon Tetrachloride	<0.83	<2000	22,000	44,000	760
Chlorobenzene	<0.83	<2000	500,000	1,000,000	1,100
Chloroethane	<0.83	<2000	n/a	n/a	n/a
Chloroform	<0.83	<2000	350,000	700,000	370
Chloromethane	<0.83	<2000	n/a	n/a	n/a
cis-1,2-Dichloroethene	<0.83	<2000	500,000	1,000,000	250

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



MW-05R - Soil Analytical Results (ug/Kg)

TestAmerica, Inc.

Methods: SW8260C

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
Cyclohexane	<0.83	<2000	n/a	n/a	n/a
Cyclohexane, methyl-	<0.83	<2000	n/a	n/a	n/a
Dibromochloromethane	<0.83	<2000	n/a	n/a	n/a
Dibromochloropropane	<0.83	<2000	n/a	n/a	n/a
Dichlorodifluoromethane	<0.83	<2000	n/a	n/a	n/a
Ethylbenzene	<0.83	<2000	390,000	780,000	1,000
Freon 113	<0.83	<2000	n/a	n/a	n/a
Isopropylbenzene	<0.83	<2000	n/a	n/a	n/a
m + p Xylene	0.46 J	<2000	n/a	n/a	n/a
Methyl acetate	<4.1	<10000	n/a	n/a	n/a
Methyl Ethyl Ketone	5.5	<10000	500,000	1,000,000	120
Methylene Chloride	<0.83	<2000	500,000	1,000,000	50
o-Xylene	0.22 J	<2000	n/a	n/a	n/a
Styrene	<0.83	<2000	n/a	n/a	n/a
t 1,3 Dichloropropene	<0.83	<2000	n/a	n/a	n/a
t butylmethylether	0.13 J	<2000	500,000	1,000,000	930
Tetrachloroethene	<0.83	<2000	150,000	300,000	1,300
Toluene	<0.83	<2000	500,000	1,000,000	700
trans-1,2-Dichloroethene	<0.83	<2000	500,000	1,000,000	190
Trichloroethylene	<0.83	<2000	200,000	400,000	470
Trichlorofluoromethane	<0.83	<2000	n/a	n/a	n/a
Vinyl Chloride	<0.83	<2000	13,000	27,000	20
(1S,4S)-(-)-Camphor	8.90 JN !	n/a	n/a	n/a	n/a
1,2,3,4- Tetrachlorobenzene	n/a	19,000 JN !	n/a	n/a	n/a
1,2,4,5-Tetrachlorobenzene	n/a	24,000 JN !	n/a	n/a	n/a
1,3,3-Trimethylbicyclo[2.2.1]heptan-2-one	9.70 JN !	n/a	n/a	n/a	n/a
1-Methyl-4-(1-methylethyl)-cyclohexene	9.50 JN !	n/a	n/a	n/a	n/a
1-Methyl-4-propan-2-ylidenecyclohexene	7.20 JN !	n/a	n/a	n/a	n/a
1R-,alpha.-Pinene	350 JN !	n/a	n/a	n/a	n/a
2 Methylbutane	4.80 JN !	n/a	n/a	n/a	n/a

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



MW-05R - Soil Analytical Results (ug/Kg)

TestAmerica, Inc.

Methods: SW8260C

Location	MW-05R	MW-05R
Depth (ft BGS)	11-13	19-21
Date Collected	9/25/2017	9/25/2017
Time Collected	10:10 AM	10:45 AM
Moisture (%)	12.9	21.8
Benzene, 1-Methyl-2-(1-Methylethyl)	84 JN !	n/a
Cyclohexene, 4-methyl-1-(1-methylethyl)	7.20 JN !	n/a
D-Limonene	22 JN !	n/a

NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a

Calculated		
Total BTEX	0.68 J	<10000
Total VOCs	587.6	668,810
Total Xylenes	0.68 J	<4000

n/a	n/a	n/a
n/a	n/a	n/a
500,000	1,000,000	260

Notes:

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

J - Indicates an estimated value below laboratory reporting limits, or value reported as a TIC

n/a - not analyzed / not applicable

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



MW-05R - Soil Analytical Results (ug/Kg)

TestAmerica, Inc.

Methods: SW8270D

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
1,1-Biphenyl	<380	<420	n/a	n/a	n/a
1,2,4,5-Tetrachlorobenzene	<380	6,400	n/a	n/a	n/a
2,3,4,6-Tetrachlorophenol	<380	<420	n/a	n/a	n/a
2,4,5-Trichlorophenol	<380	<420	n/a	n/a	n/a
2,4,6-Trichlorophenol	<150	<170	n/a	n/a	n/a
2,4-Dichlorophenol	<150	<170	n/a	n/a	n/a
2,4-Dimethylphenol	<380	<420	n/a	n/a	n/a
2,4-Dinitrophenol	<300	<340	n/a	n/a	n/a
2,4-Dinitrotoluene	<77	<86	n/a	n/a	n/a
2,6-Dinitrotoluene	<77	<86	n/a	n/a	n/a
2-Chloronaphthalene	<380	<420	n/a	n/a	n/a
2-Chlorophenol	<380	<420	n/a	n/a	n/a
2-Methyl-4,6-dinitrophenol	<300	<340	n/a	n/a	n/a
2-Methylnaphthalene	<380	<420	n/a	n/a	n/a
2-Nitroaniline	<380	<420	n/a	n/a	n/a
2-Nitrophenol	<380	<420	n/a	n/a	n/a
3,3-Dichlorobenzidine	<150	<170	n/a	n/a	n/a
3-Nitroaniline	<380	<420	n/a	n/a	n/a
4-Bromophenyl-phenylether	<380	<420	n/a	n/a	n/a
4-Chloro-3-methylphenol	<380	<420	n/a	n/a	n/a
4-Chloroaniline	<380	<420	n/a	n/a	n/a
4-Chlorophenyl-phenylether	<380	<420	n/a	n/a	n/a
4-Nitroaniline	<380	<420	n/a	n/a	n/a
4-Nitrophenol	<770	<860	n/a	n/a	n/a
Acenaphthene	37 J	<420	500,000	1,000,000	20,000
Acenaphthylene	<380	<420	500,000	1,000,000	100,000
Acetophenone	<380	<420	n/a	n/a	n/a
Anthracene	110 J	<420	500,000	1,000,000	100,000
Atrazine	<150	<170	n/a	n/a	n/a
Benzaldehyde	<380	<420	n/a	n/a	n/a

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



MW-05R - Soil Analytical Results (ug/Kg)

TestAmerica, Inc.

Methods: SW8270D

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
Benzo(a)anthracene	640	<42	5,600	11,000	1,000
Benzo(a)pyrene	730	<42	1,000	1,100	1,000
Benzo(b)fluoranthene	840	41 J	5,600	11,000	1,000
Benzo(g,h,i)perylene	310 J	<420	500,000	1,000,000	100,000
Benzo(k)fluoranthene	270	<42	56,000	110,000	800
bis(2-Chloroethoxy)methane	<380	<420	n/a	n/a	n/a
bis(2-Chloroethyl)ether	<38	<42	n/a	n/a	n/a
bis(2-Chloroisopropyl)ether	<380	<420	n/a	n/a	n/a
bis(2-Ethylhexyl)phthalate	120 J	<420	n/a	n/a	n/a
Butylbenzylphthalate	<380	<420	n/a	n/a	n/a
Caprolactam	<380	<420	n/a	n/a	n/a
Carbazole	15 J	<420	n/a	n/a	n/a
Chrysene	620	<420	56,000	110,000	1,000
Dibenzo(a,h)anthracene	94	<42	560	1,100	330
Dibenzofuran	15 J	<420	350,000	1,000,000	7,000
Diethylphthalate	<380	<420	n/a	n/a	n/a
Dimethylphthalate	<380	<420	n/a	n/a	n/a
Di-n-butylphthalate	16 J	<420	n/a	n/a	n/a
Di-n-octylphthalate	<380	<420	n/a	n/a	n/a
Fluoranthene	1,000	35 J	500,000	1,000,000	100,000
Fluorene	24 J	<420	500,000	1,000,000	30,000
Hexachlorobenzene	<38	390	6,000	12,000	330
Hexachlorobutadiene	<77	<86	n/a	n/a	n/a
Hexachlorocyclopentadiene	<380	<420	n/a	n/a	n/a
Hexachloroethane	<38	<42	n/a	n/a	n/a
Indeno(1,2,3-cd)pyrene	400	<42	5,600	11,000	500
Isophorone	<150	<170	n/a	n/a	n/a
Naphthalene	12 J	<420	500,000	1,000,000	12,000
Nitrobenzene	<38	<42	n/a	n/a	n/a
N-Nitrosodi-N-Propylamine	<38	<42	n/a	n/a	n/a

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



MW-05R - Soil Analytical Results (ug/Kg)

TestAmerica, Inc.

Methods: SW8270D

Location	MW-05R	MW-05R
Depth (ft BGS)	11-13	19-21
Date Collected	9/25/2017	9/25/2017
Time Collected	10:10 AM	10:45 AM
Moisture (%)	12.9	21.8
N-Nitrosodiphenylamine	<380	<420
o-cresol	<380	<420
p-cresol	<380	<420
Pentachlorophenol	<300	<340
Phenanthrene	480	64 J
Phenol (total)	<380	<420
Pyrene	1,100	25 J
1,2,3 Trichlorobenzene	n/a	14,000 JN !
1,2,3,5-Tetrachlorobenzene	n/a	8,200 JN !
1,2,4 Trichlorobenzene	n/a	40,000 JN !
1R-,alpha.-Pinene	340 JN !	n/a
2,6,10,14-Tetramethyl pentadeca	n/a	5,700 JN !
Benzo[e]pyrene	470 JN !	n/a
Unknown SVOC w/ 2nd highest conc.	370 J !	7,100 J !
Unknown SVOC w/ 3rd Highest Conc.	n/a	6,600 J !
Unknown SVOC w/ 3rd Highest Conc.	n/a	5,400 J !
Unknown SVOC w/ Highest Conc.	640 J !	10,000 J !

NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
n/a	n/a	n/a
500,000	1,000,000	330
500,000	1,000,000	330
6,700	55,000	800
500,000	1,000,000	100,000
500,000	1,000,000	330
500,000	1,000,000	100,000
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a

Calculated Total SVOC's	8,653	103,955
----------------------------	-------	---------

n/a	n/a	n/a
-----	-----	-----

Notes:

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

J - Indicates an estimated value below laboratory reporting limits, or value reported as a TIC

n/a - not analyzed / not applicable

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



MW-05R - Soil Analytical Results (ug/Kg)

TestAmerica, Inc.

Methods: SW8081B

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
4,4,-DDT	<7.7	<170	47,000	94,000	3.3
4,4-DDD	<7.7	<170	92,000	180,000	3.3
4,4-DDE	<7.7	<170	62,000	120,000	3.3
Aldrin	<7.7	<170	680	1,400	5
alpha BHC	<2.3	<51	3,400	6,800	20
beta BHC	<2.3	<51	3,000	14,000	36
Chlordane	<77	<1700	n/a	n/a	n/a
delta-BHC	<2.3	<51	500,000	1,000,000	40
Dieldrin	<2.3	<51	1,400	2,800	5
Endosulfan I	<7.7	<170	200,000	920,000	2,400
Endosulfan II	<7.7	<170	200,000	920,000	2,400
Endosulfan Sulfate	<7.7	<170	200,000	920,000	2,400
Endrin	<7.7	<170	89,000	410,000	14
Endrin Aldehyde	<7.7	<170	n/a	n/a	n/a
Endrin ketone	<7.7	<170	n/a	n/a	n/a
Gamma-BHC(Lindane)	<2.3	<51	9,200	23,000	100
Heptachlor	<7.7	<170	15,000	29,000	42
Heptachlor Epoxide	<7.7	<170	n/a	n/a	n/a
Methoxychlor	<7.7	<170	n/a	n/a	n/a
Toxaphene	<77	<1700	n/a	n/a	n/a

Notes:

n/a - Not applicable

Empire Electric
5200 1st Avenue
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Site # 224015



MW-05R - Soil Analytical Results (mg/Kg)

TestAmerica, Inc.

Methods: SW6010C, SW7471B, SW9012

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: 6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
Aluminum	3,160	3,270	n/a	n/a	n/a
Antimony	<4.4	<4.8	n/a	n/a	n/a
Arsenic	4.4	4.6	16	16	13
Barium	22.40 J	11.40 J	400	10,000	350
Beryllium	0.35 J	0.45 J	590	2,700	7.2
Cadmium	<0.88	<0.97	9.3	60	2.5
Calcium	699 J	442 J	n/a	n/a	n/a
Chromium (total)	9.1	10.6	n/a	n/a	n/a
Cobalt	5.10 J	6.10 J	n/a	n/a	n/a
Copper	11.6	6	270	10,000	50
Cyanide	<1	<1.2	27	10,000	27
Iron	12,300	13,800	n/a	n/a	n/a
Lead	17.4	4.7	1,000	3,900	63
Magnesium	1,900	901 J	n/a	n/a	n/a
Manganese	232	118	10,000	10,000	1,600
Mercury	0.05	<0.02	2.8	5.7	0.18
Nickel	20.7	11.1	310	10,000	30
Potassium	592 J	750 J	n/a	n/a	n/a
Selenium	<4.4	<4.8	1,500	6,800	3.9
Silver	<2.2	<2.4	1,500	6,800	2
Sodium	128 J	110 J	n/a	n/a	n/a
Thallium	<4.4	<4.8	n/a	n/a	n/a
Vanadium	12.6	15.2	n/a	n/a	n/a
Zinc	33.6	37	10,000	10,000	109

Notes:

J - Indicates and estimated value below laboratory reporting limit

n/a - Not applicable or not analyzed

Table 35

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Well Coordinates (NY LISP)
EAR Survey

Well ID	Easting (ft) Northing (ft)	Riser Elevation (ft)	Manhole Elevation (ft)
MW-01	978505.60 ----- 175752.83	24.60	25.10
MW-02	978557.73 ----- 175814.71	23.92	24.21
MW-03	978448.28 ----- 175935.63	20.03	20.59
MW-05R	978243.30 ----- 176094.93	15.96	16.17
MW-08	978593.16 ----- 175746.45	**	24.50
MW-09	978679.56 ----- 175866.00	**	22.67
MW-10	978228.19 ----- 176127.59	14.48	14.60
MW-12	978543.13 ----- 175865.14	22.42	22.61
MW-13	978471.53 ----- 175916.34	20.65	20.86
MW-14	978410.83 ----- 175968.16	19.44	19.83

Notes:

Arbitrary elevation datum used - based on USGS National Map land elevation at initial survey station.

** - Elevation data for manhole cover is shown as these locations were not selected for tie-in.

Table 36

Empire Electric
5200 1st Avenue
Brooklyn, NY
Site # 224015



Survey Locations (NY LISP)
Downgradient Features
EAR Survey

Station ID	Easting (ft) Northing (ft)	Elevation (ft)
Curblineline-1	978217.80	14.51
	176172.80	
Curblineline-2	978193.50	14.38
	176153.80	
Curblineline-3	978136.40	12.85
	176214.60	
Curblineline-4	978155.20	13.15
	176237.70	
Curblineline-5	978124.40	12.53
	176266.10	
Curblineline-6	978106.00	12.39
	176241.00	
Curblineline-7	978003.50	10.11
	176363.50	
Curblineline-8	977898.70	9.16
	176404.50	
Curblineline-9	977939.90	9.3
	176414.90	
Manhole Cover	978069.40	11.15
	176293.60	

Notes:

Arbitrary elevation datum used - based on USGS
National Map land elevation at initial survey station.



FIGURES

- Figure 1: Site Location Map
- Figure 2: Site Map - Former Empire Electric Building Footprint
- Figure 3: Soil Analytical Results – Soil Borings, July-September 2017 (PCBs)
- Figure 4: Soil Analytical Results – Soil Borings, July-September 2017 (VOCs)
- Figure 5: Soil Analytical Results – Soil Borings, July-September 2017 (SVOCs)
- Figure 6: Groundwater Analytical Results – Temporary Wells, July-Oct 2017 (PCBs)
- Figure 7: Groundwater Analytical Results – Temporary Wells, July-Oct 2017 (VOCs)
- Figure 8: Groundwater Analytical Results – Temporary Wells, July-Oct 2017 (SVOCs)
- Figure 9: Groundwater Analytical Results – Temporary Wells, July-Oct 2017 (Metals)
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- Figure 15: Groundwater Analytical Results – Monitoring Wells, July-Oct 2017 (Metals)
- Figure 16: EAR Survey

Figure 1

Site Location Map

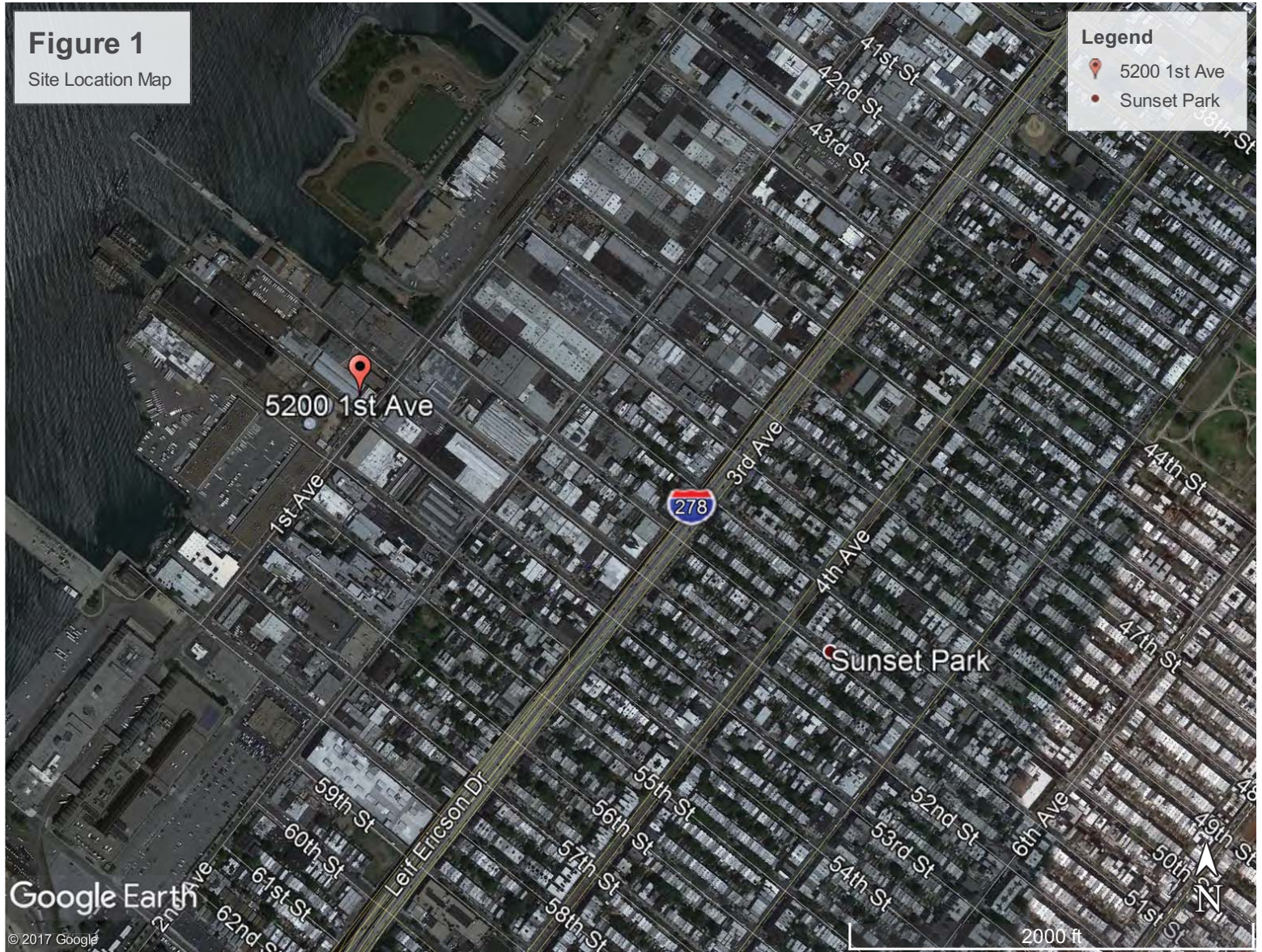
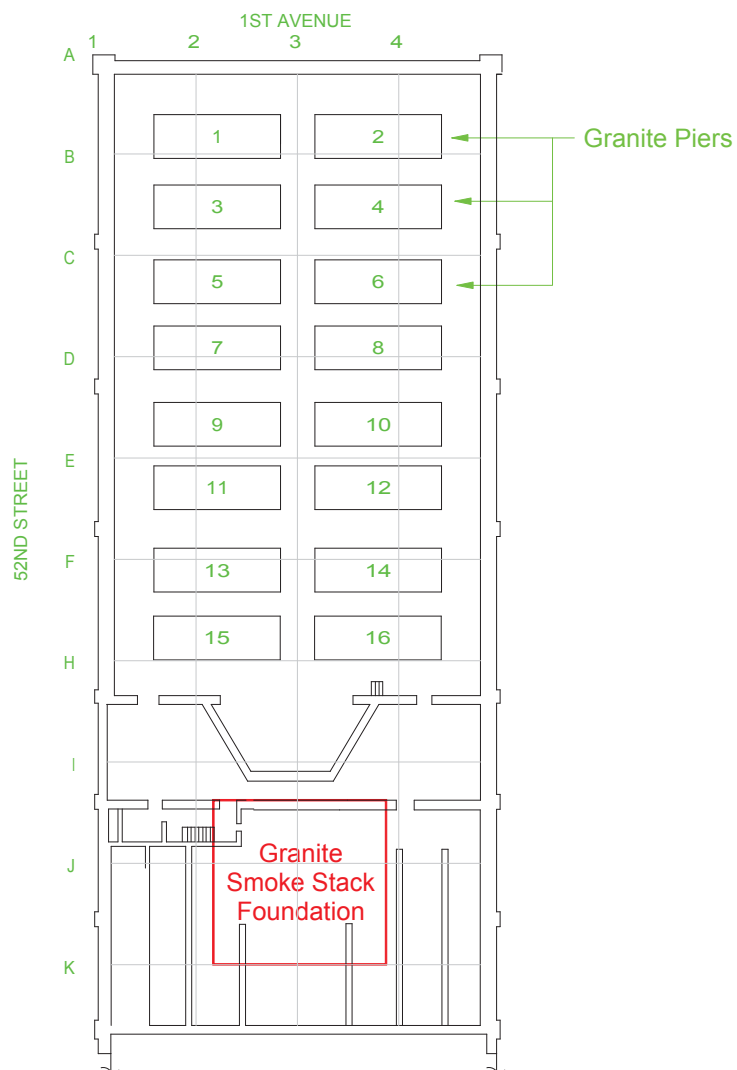




Figure 2



0 30
SCALE IN FEET



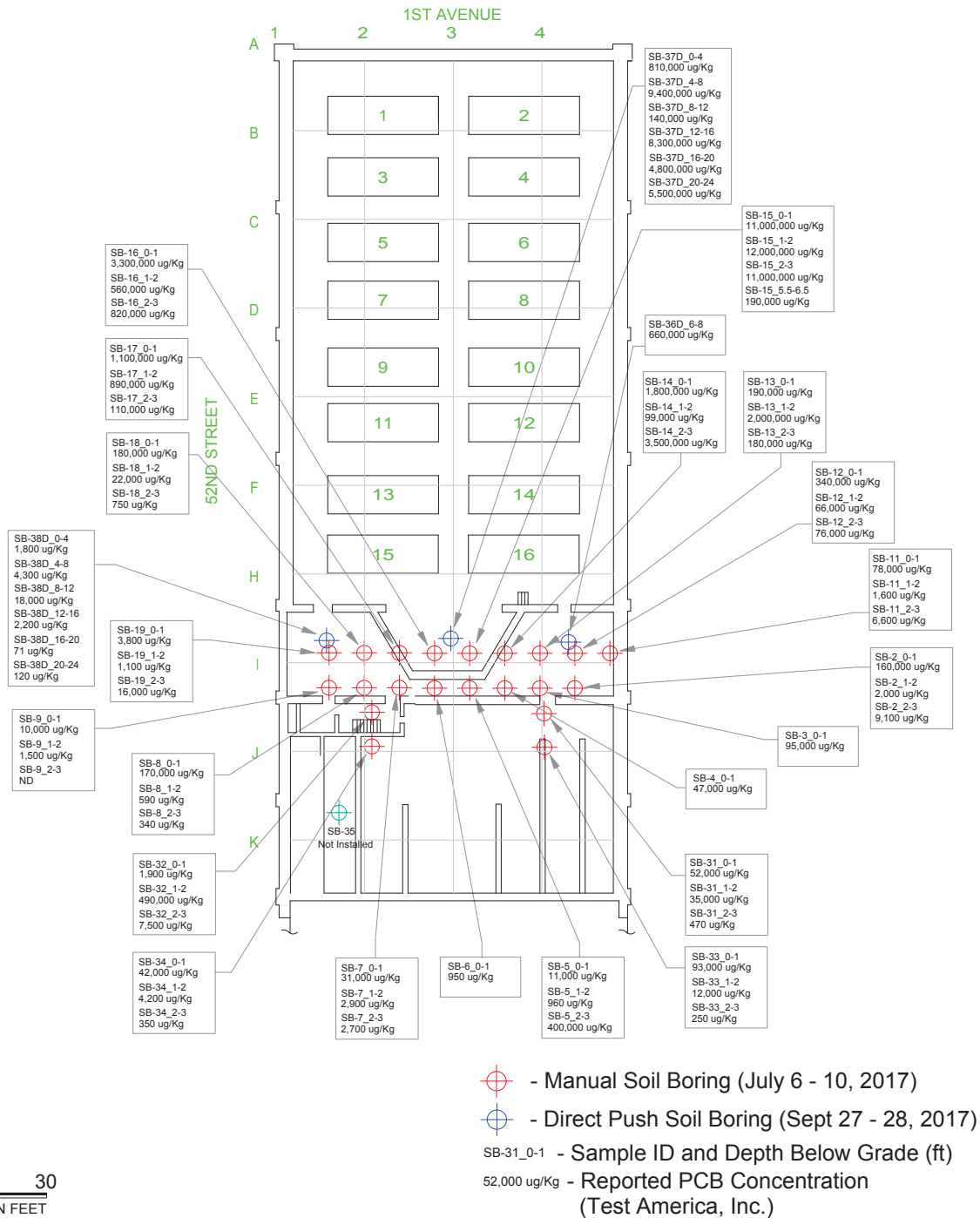
ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Site Map
Former Empire Electric Building
Footprint

Empire Electric
5200 First Avenue
Brooklyn, NY
NYSDEC Site No. 224015



Figure 3



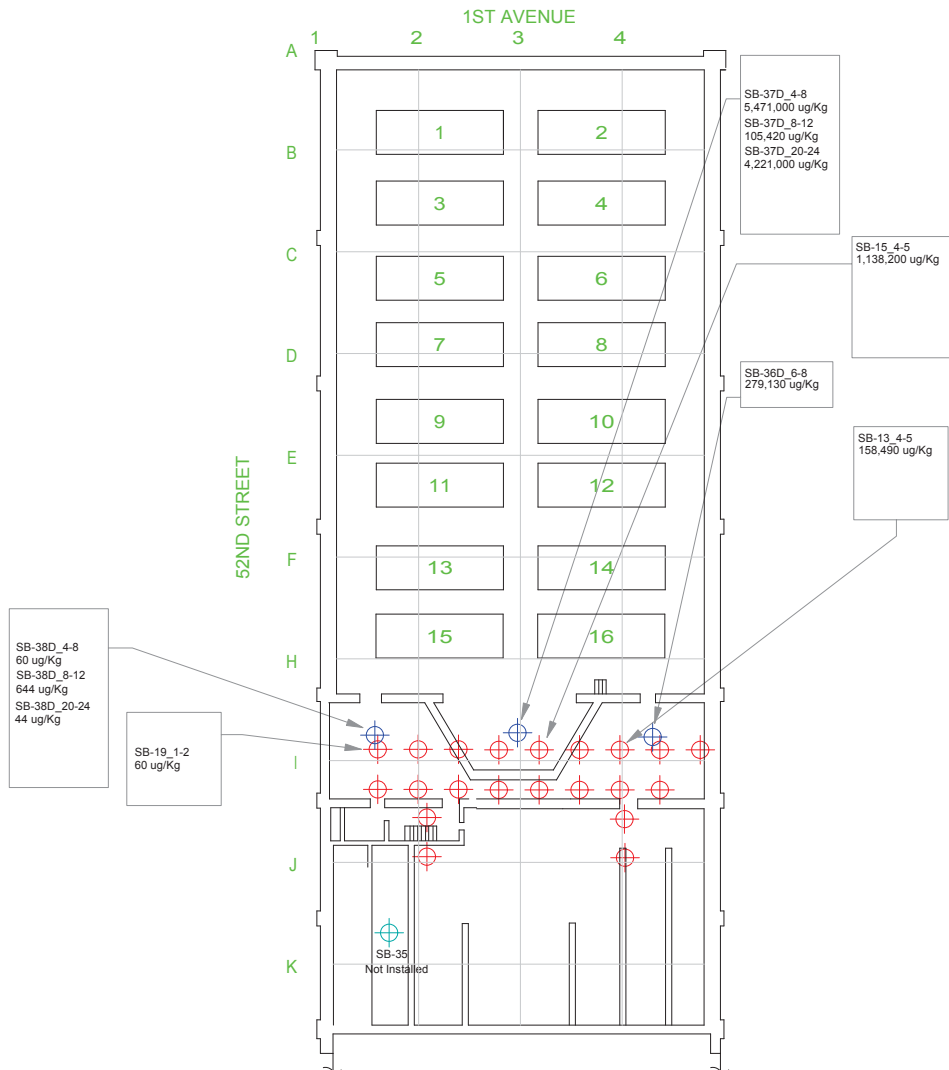
ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Soil Analytical Results
Total PCBs
Soil Borings
July - September 2017

Empire Electric
5200 First Avenue
Brooklyn, NY
NYSDEC Site No. 224015



Figure 4



- ⊕ - Manual Soil Boring (July 6 - 10, 2017)
- ⊕ - Direct Push Soil Boring (Sept 27 - 28, 2017)
- SB-31_0-1 - Sample ID and Depth Below Grade (ft)
- 52,000 ug/Kg - Reported VOC Concentration (Test America, Inc.)

0 30
SCALE IN FEET



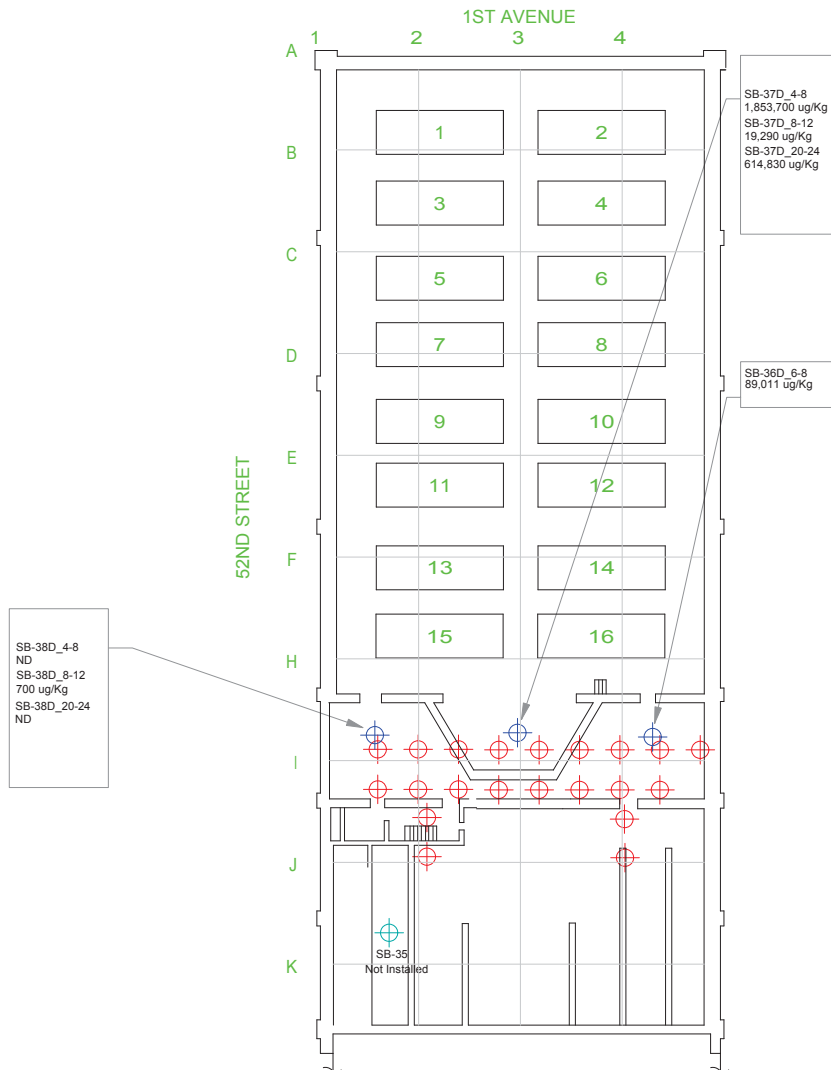
ENVIRONMENTAL
ASSESSMENT &
REMIEDIATIONS

Soil Analytical Results
Total VOCs
Soil Borings
July - September 2017

Empire Electric
5200 First Avenue
Brooklyn, NY
NYSDEC Site No. 224015



Figure 5



- Manual Soil Boring (July 6 - 10, 2017)
- Direct Push Soil Boring (Sept 27 - 28, 2017)
- SB-31_0-1 - Sample ID and Depth Below Grade (ft)
- 52,000 ug/Kg - Reported SVOC Concentration (Test America, Inc.)
- ND - Not Detected

0 30
SCALE IN FEET



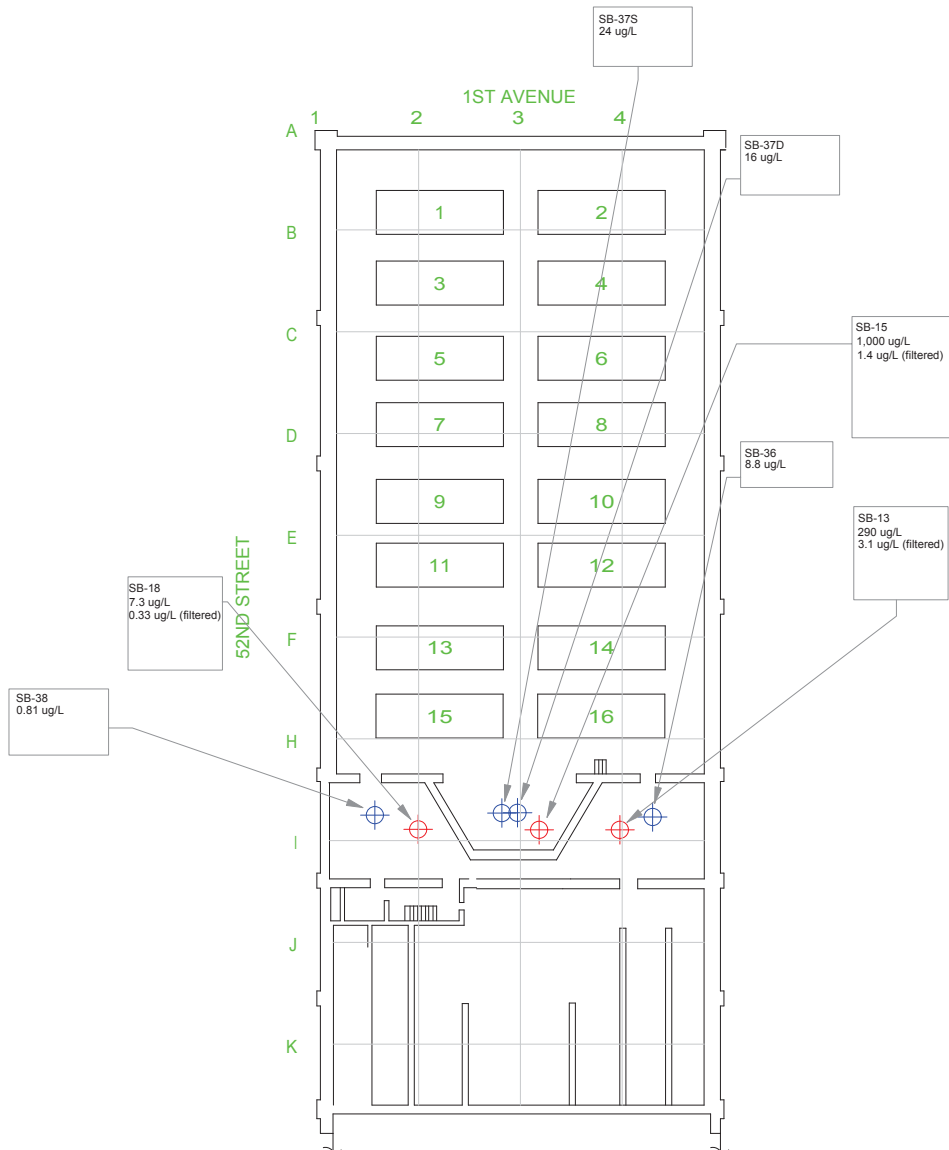
ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Soil Analytical Results
Total SVOCs
Soil Borings
July - September 2017

Empire Electric
5200 First Avenue
Brooklyn, NY
NYSDEC Site No. 224015



Figure 6



- Manual Boring (Installed July 6 - 10, 2017)
- Direct Push Soil Boring (Installed Sept 27 - 28, 2017)
- SB-31 - Sample ID
- 52,000 ug/L - Reported PCB Concentration (Test America, Inc.)



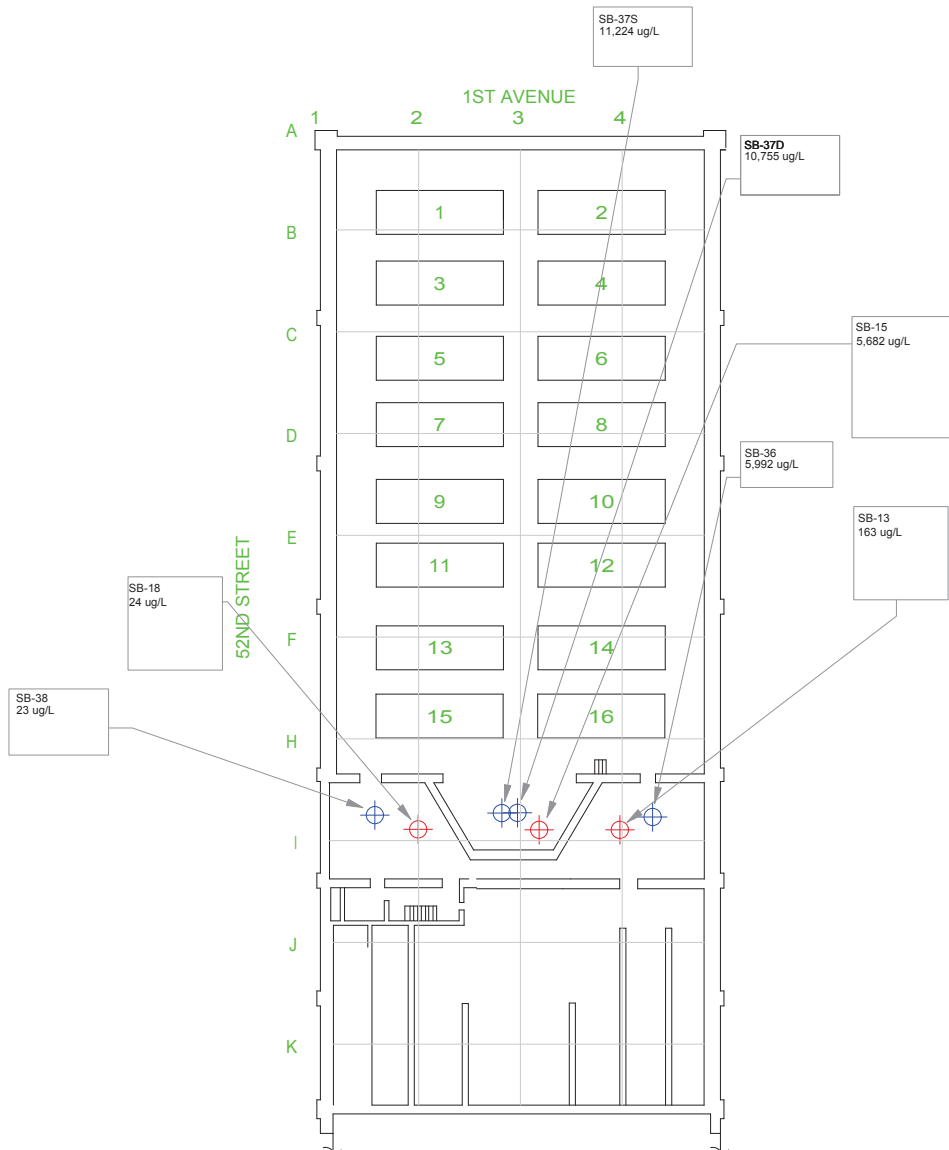
ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Groundwater Analytical Results
Total PCBs
Temporary Wells
July - October 2017

Empire Electric
5200 First Avenue
Brooklyn, NY
NYSDEC Site No. 224015



Figure 7



- Manual Boring (Installed July 6 - 10, 2017)
- Direct Push Soil Boring (Installed Sept 27 - 28, 2017)
- SB-31 - Sample ID
- 52,000 ug/L - Reported VOC Concentration (Test America, Inc.)

0 30
SCALE IN FEET



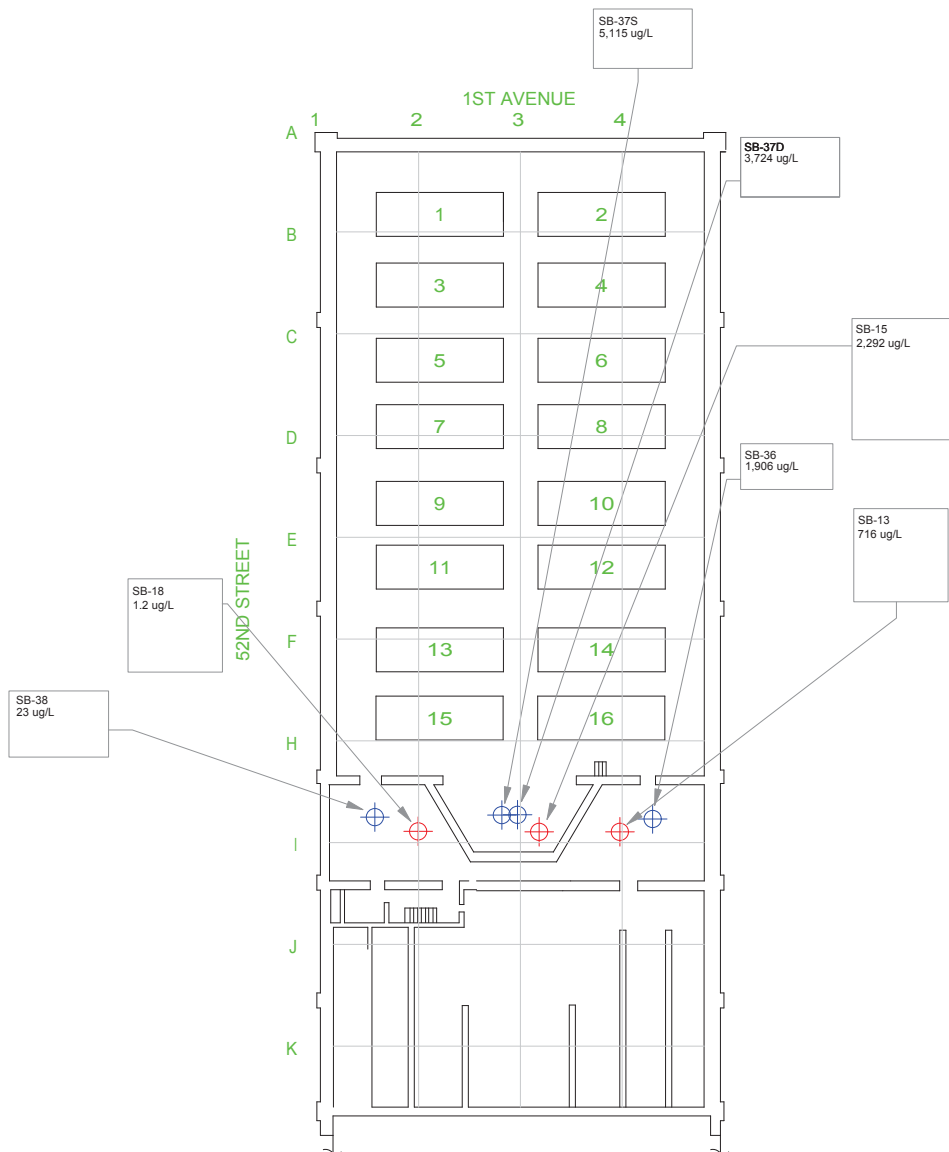
ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Groundwater Analytical Results
Total VOCs
Temporary Wells
July - October 2017

Empire Electric
5200 First Avenue
Brooklyn, NY
NYSDEC Site No. 224015



Figure 8



- Manual Boring (Installed July 6 - 10, 2017)
- Direct Push Soil Boring (Installed Sept 27 - 28, 2017)
- SB-31 - Sample ID
- 52,000 ug/L - Reported SVOC Concentration (Test America, Inc.)

0 30
SCALE IN FEET



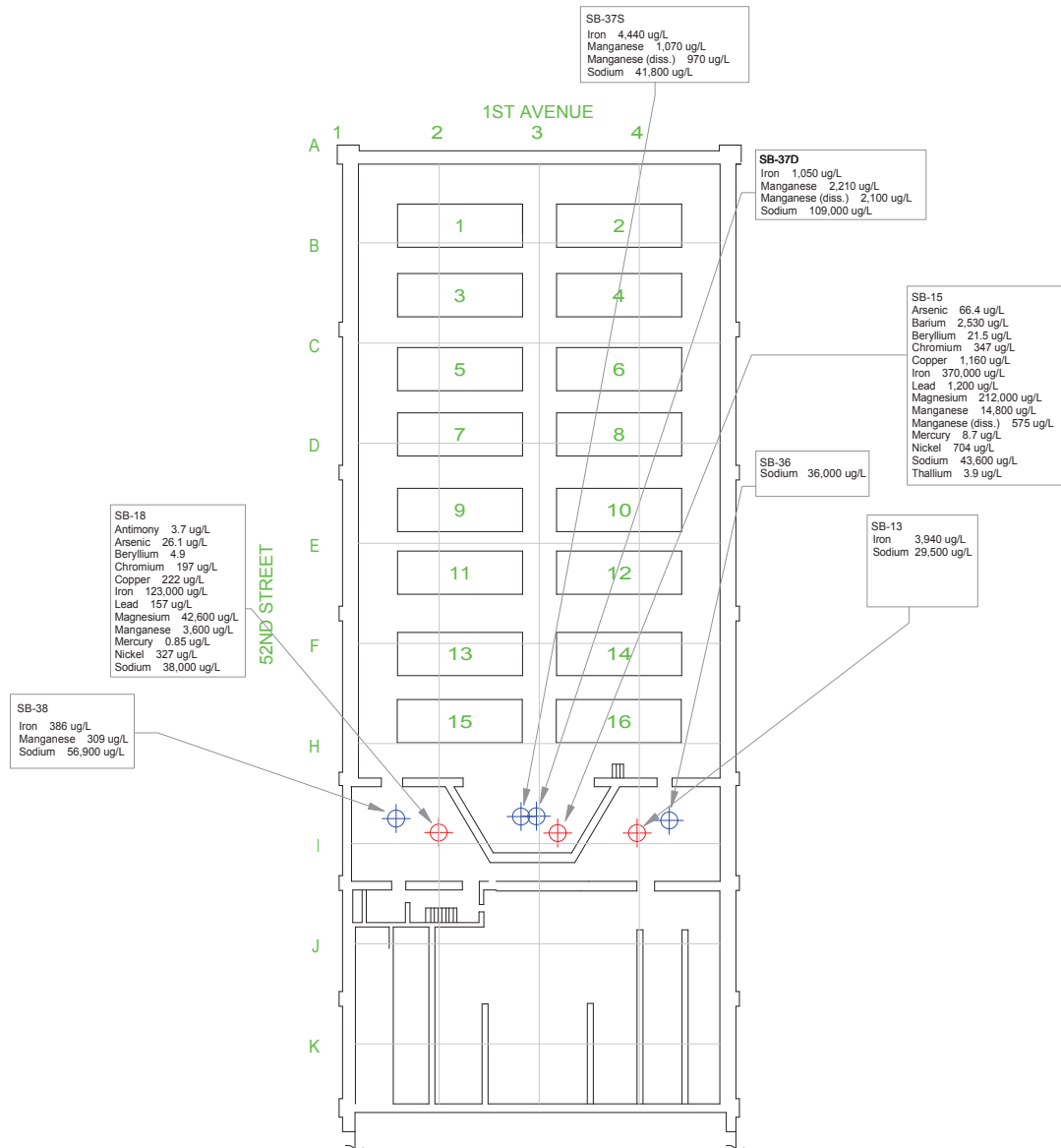
ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Groundwater Analytical Results
Total SVOCs
Temporary Wells
July - October 2017

Empire Electric
5200 First Avenue
Brooklyn, NY
NYSDEC Site No. 224015



Figure 9



Only Parameters Exceeding NYSDEC TOGS
1.1.1 Standards or Guidance Values Are Posted

- Manual Boring (Installed July 6 - 10, 2017)
- Direct Push Soil Boring (Installed Sept 27 - 28, 2017)
- SB-31 - Sample ID
- 52,000 ug/L - Reported Metals Concentration (Test America, Inc.)

0 30
SCALE IN FEET



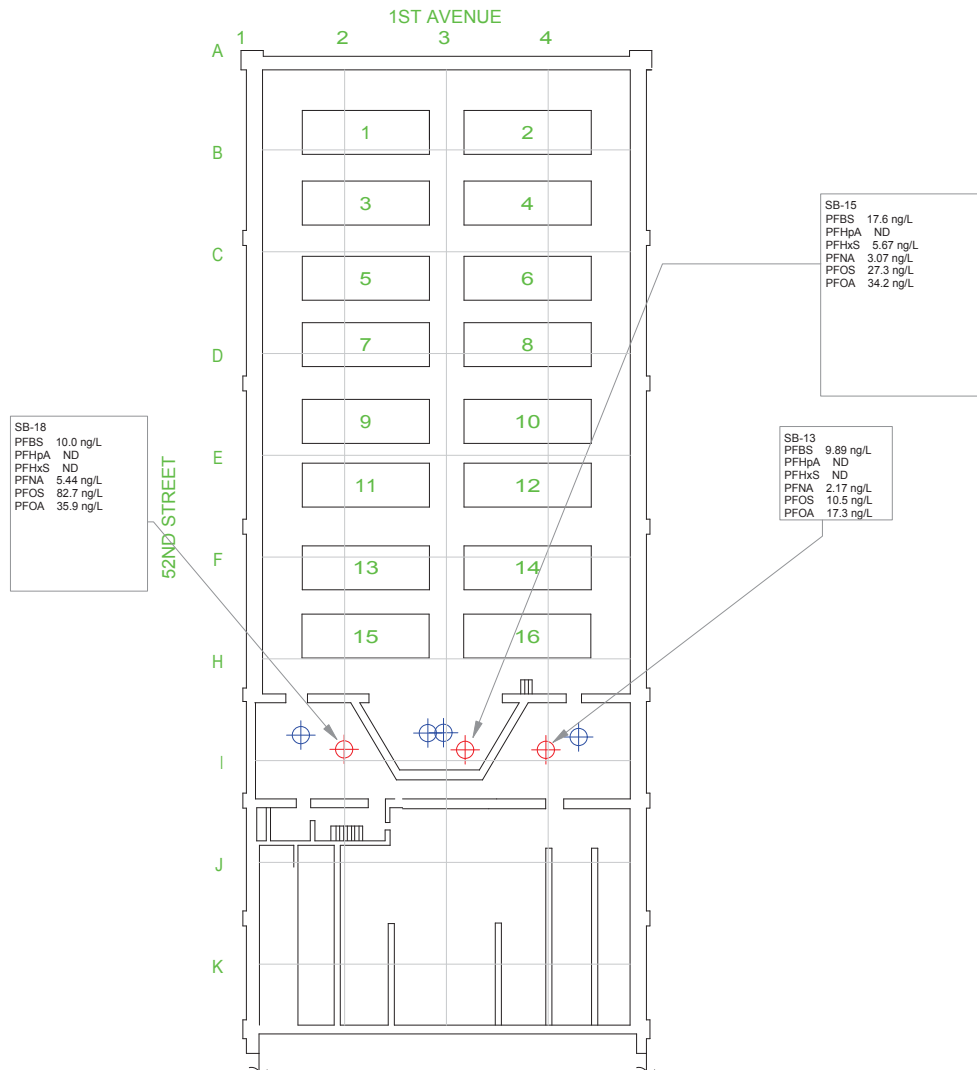
ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Groundwater Analytical Results
Metals
Temporary Wells
July - October 2017

Empire Electric
5200 First Avenue
Brooklyn, NY
NYSDEC Site No. 224015



Figure 10



PFBS = Perfluorobutanesulfonic Acid
PFHpA = Perfluoroheptanoic Acid
PFHxS = Perfluorohexanesulfonic Acid
PFNA = Perfluorononanoic Acid
PFOS = Perfluorooctanesulfonic Acid
PFOA = Perfluorooctanoic Acid

- ⊕ - Manual Boring (Installed July 6 - 10, 2017)
⊕ - Direct Push Soil Boring (Installed Sept 27 - 28, 2017)
- SB-31 - Sample ID
52,000 ng/L - Reported PFA Concentration
(Test America, Inc.)
ND - Not Detected

0 30
SCALE IN FEET

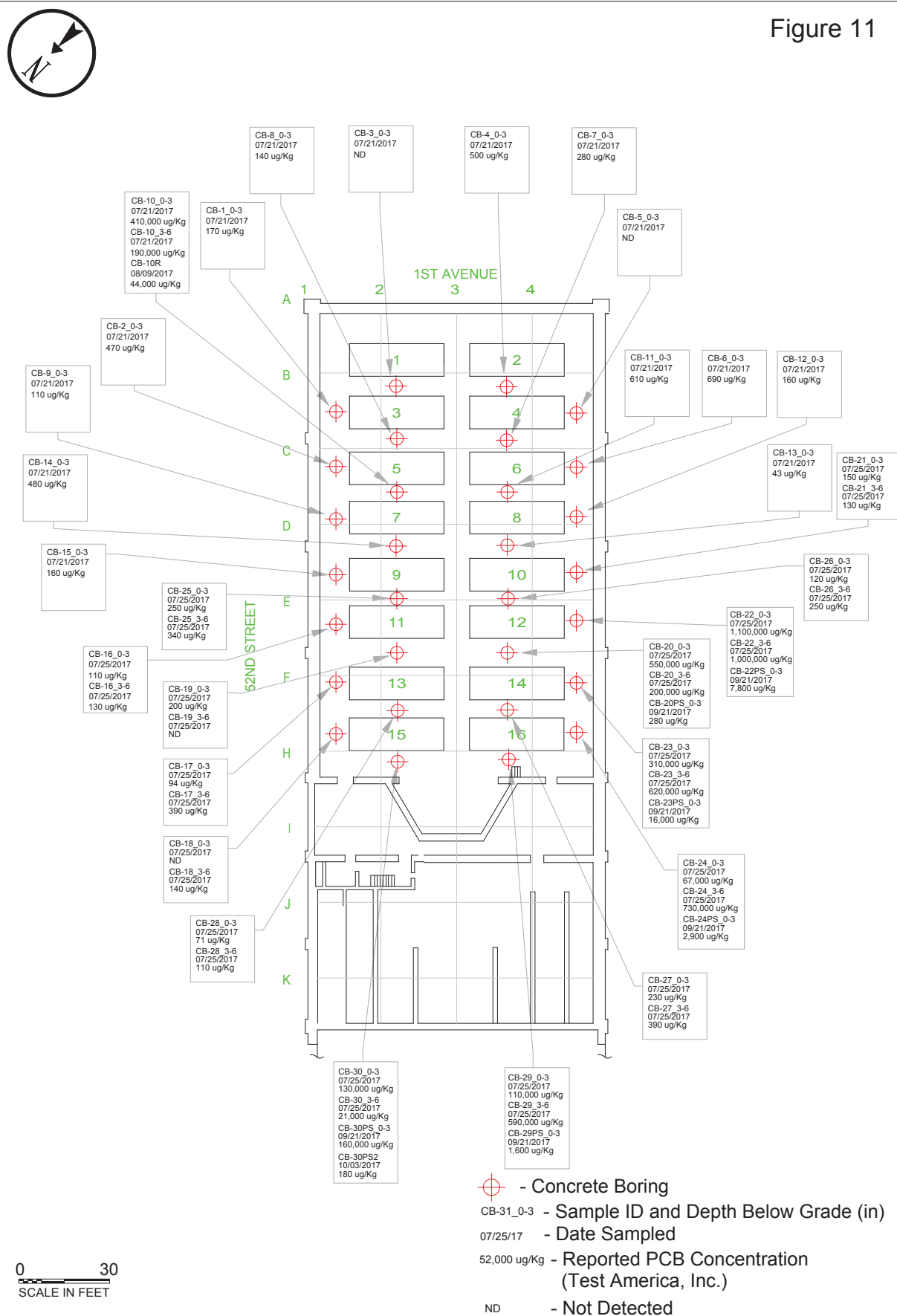


ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Groundwater Analytical Results
Perfluorinated Compounds
Temporary Wells
July - October 2017

Empire Electric
5200 First Avenue
Brooklyn, NY
NYSDEC Site No. 224015

Figure 11



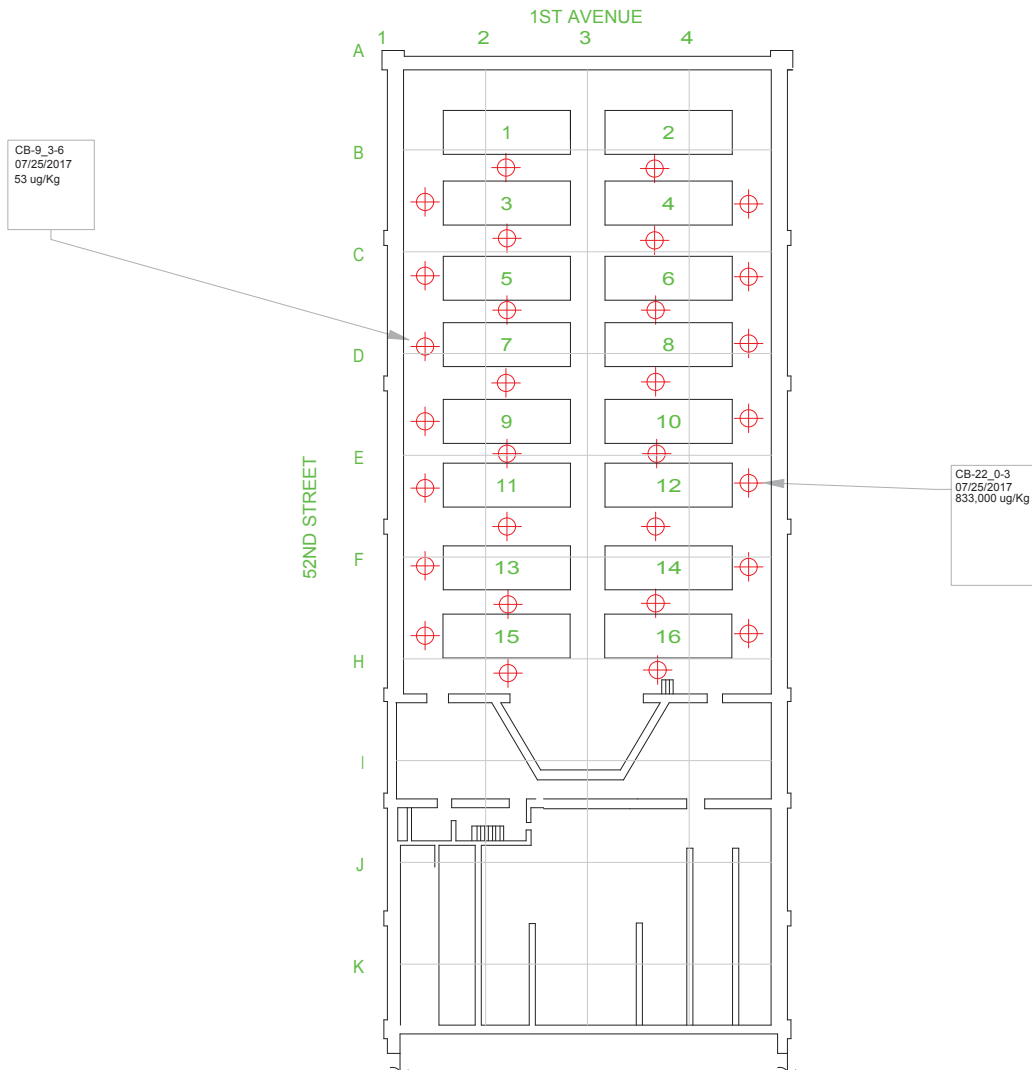
ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Concrete Analytical Results
Total PCBs
Concrete Borings
July - October 2017

Empire Electric
5200 First Avenue
Brooklyn, NY
NYSDEC Site No. 224015



Figure 12



0 30
SCALE IN FEET

⊕ - Concrete Boring
CB-31_0-3 - Sample ID and Depth Below Grade (in)
07/25/17 - Date Sampled
52,000 ug/Kg - Reported VOC Concentration
(Test America, Inc.)
ND - Not Detected



ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Concrete Analytical Results
Total VOCs
Concrete Borings
July - October 2017

Empire Electric
5200 First Avenue
Brooklyn, NY
NYSDEC Site No. 224015

Figure 13



Monitoring Well

Test America, Inc. Analytical Results

Figure 14



Monitoring Well
Test America, Inc. Analytical Results

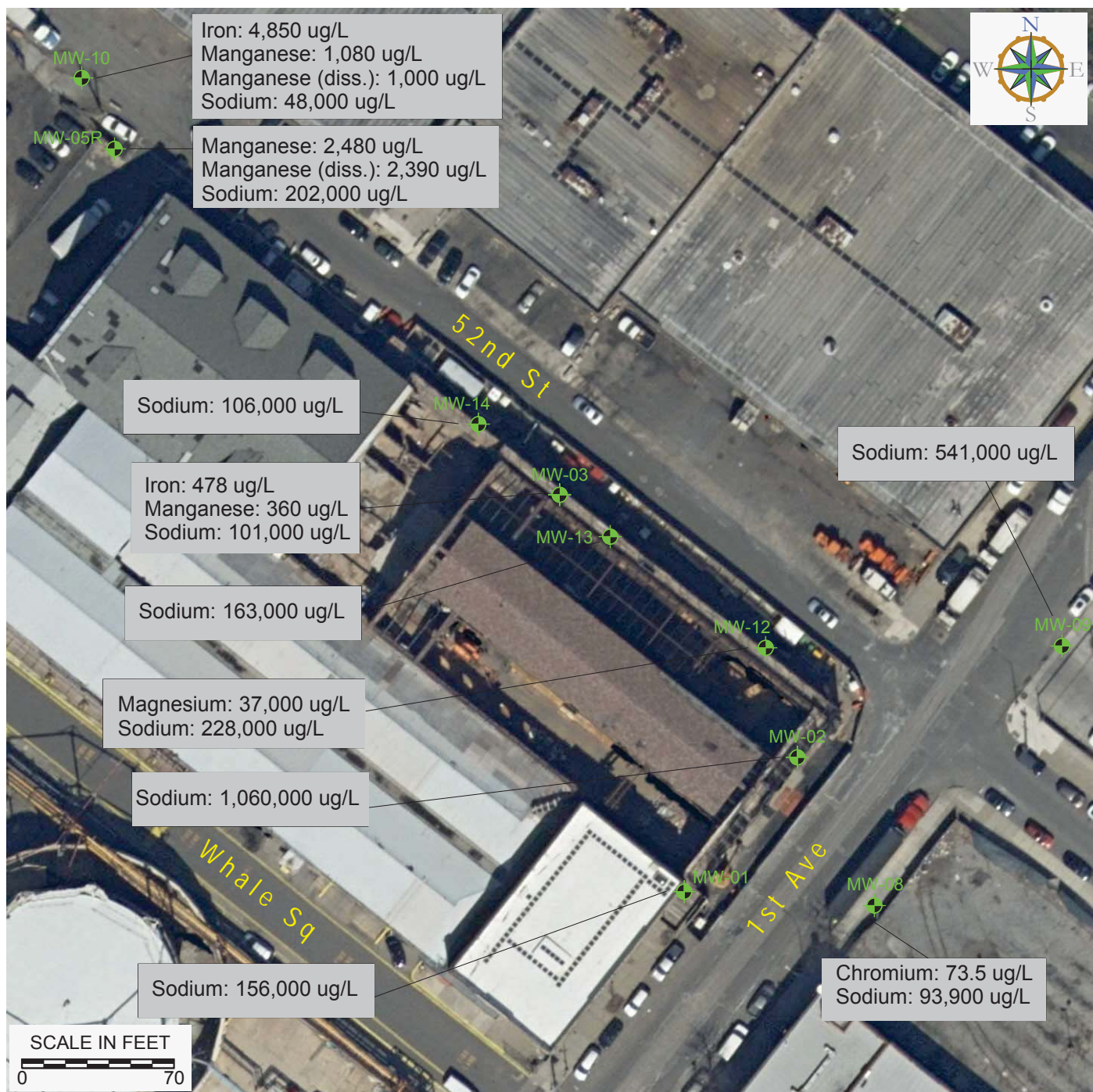


ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Groundwater Analytical Results
Monitoring Wells
Total VOC's, Total SVOC's
July-October 2017

Empire Electric
5200 First Avenue
Brooklyn, NY
NYSDEC Site No. 224015

Figure 15



Monitoring Well

Test America, Inc. Analytical Results

Only parameters with values exceeding
TOGS 1.1.1 standards/guidance values are
posted.

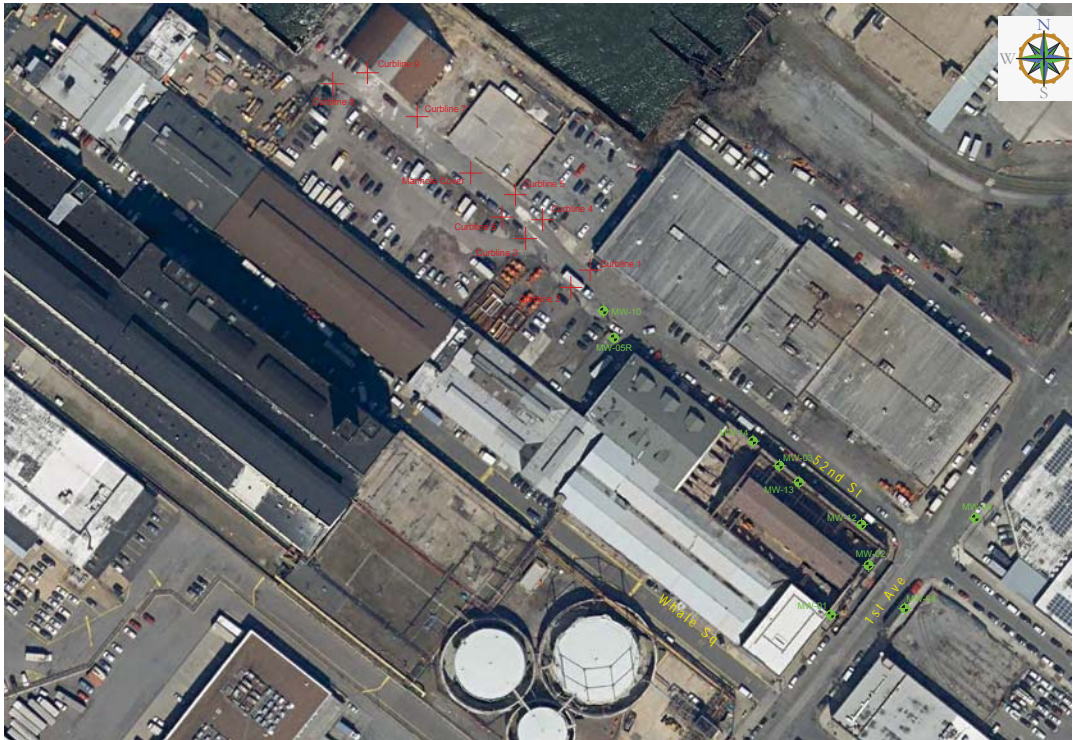


ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

**Groundwater Analytical Results
Monitoring Wells
Metals
July-October 2017**

Empire Electric
5200 First Avenue
Brooklyn, NY
NYSDEC Site No. 224015

Figure 16



Monitoring Well
Survey Station
Survey station coordinates
are summarized in Tables
32-33



Appendix A: Boring Logs

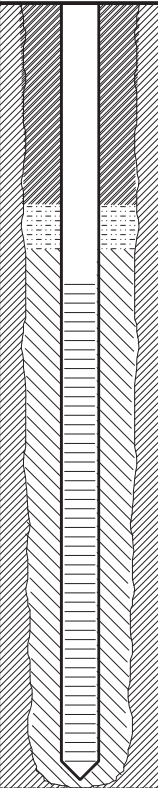


Page 1 of 2

WELL CONSTRUCTION

PROJECT/SITE NAME	DEC-BROOKLYN5200
SITE ADDRESS	Empire Electric Company
	5200 1st Avenue
	Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	MW-05R
DRILLING METHOD	Hollow Stem Auger (BK-81 Rig)
DRILLING COMPANY	AARCO Environmental
HEAD DRILLER	T. Kelly
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	6"
SAMPLE METHOD	Split-Spoon Sampler (SS)
DEPTH-TO-WATER	13.02'
TOTAL WELL DEPTH	24'

CASING	
Type <u>PVC</u>	Diameter <u>2"</u> Length <u>14'</u>
SCREEN	
Type <u>PVC</u>	Diameter <u>2"</u> Slot <u>0.010"</u> Length <u>10'</u>
GRAVEL PACK	<u>Grout (0'-9' BGS) & Well gravel (12'-24'BGS)</u>
CASING SEAL	<u>Bentonite (Hydrated Pellets) (9'-12' BGS)</u>
SECURITY	<u>8"x12" Steel Bolt-Down Manhole cover</u> <u>2" locking well cap</u>
FINISH	<u>2'x2' concrete pad</u>
COMMENTS	<u>MW-05 is 9.5' SW of SW curb of 52nd St.,</u> <u>29.25' NW of NW corner of building #2 52nd</u> <u>St., and 19.5' S of utility pole #6.</u>

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
		0'-5'	Post hole; cleared.				
		5'-7'	0.25'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 1.20'-Brown fine sand, trace medium sand, trace coarse sand, moist, no odor.	SS	5'-7'	324 ppm	73
		7'-9'	0.30'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 0.80'-Brown fine sand, trace medium sand, trace coarse sand, moist, no odor.	SS	7'-9'	25.6 ppm	55
		9'-11'	0.25'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 1.25'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, moist, no odor.	SS	9'-11'	68.4 ppm	75
13.02'		11'-13'	0.25'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 0.25'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, moist, no odor. 0.65'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, wet, no odor.	SS	11'-13'	149.3 ppm	58
		13'-15'	1.70'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, wet no odor. 0.30'-Black fine sand, trace silt, trace medium sand, trace coarse sand, wet, odor.	SS	13'-15'	3.9 ppm	100
		15'-17'	0.90'-Brown fine sand, trace silt, trace medium sand, wet, no odor. 0.05'-Black fine sand and medium sand, trace coarse sand, wet, odor.	SS	15'-17'	6.7 ppm	48
TWD		17'-19'	1.40'-Brown fine sand, trace medium sand, trace coarse sand, wet, odor.	SS	17'-19'	87.1 ppm	70
24'		19'-21'	2.00'-Brown fine sand, trace medium sand, trace coarse sand, wet, odor.	SS	19'-21'	120.4 ppm	100
		NOT TO SCALE					

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Page 2 of 2

Boring I.D. MW-05R

[illegible]

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-2	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-3	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	1'		

[illegible]

"Trace", 1 - 10%	"Some", 20 - 30%
"Little", 10 - 20%	"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-4	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	1'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-5	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%	"Some", 20 - 30%
"Little", 10 - 20%	"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-6	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	1'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-7	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%	"Some", 20 - 30%
"Little", 10 - 20%	"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-11	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%	"Some", 20 - 30%
"Little", 10 - 20%	"And", 30 - 50%

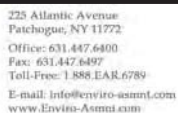
DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-12	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%	"Some", 20 - 30%
"Little", 10 - 20%	"And", 30 - 50%



Page 1 of 1

WELL CONSTRUCTION

PROJECT/SITE NAME	DEC-Brooklyn5200
SITE ADDRESS	Empire Electric Company
	5200 1st Avenue
	Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	SB-13
DRILLING METHOD	S/S Hand Auger
DRILLING COMPANY	EAR
HEAD DRILLER	J. Lohan
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	4"
SAMPLE METHOD	S/S Hand Auger (HA)
DEPTH-TO-WATER	~1.5
TOTAL WELL DEPTH	3'

CASING
Type PVC Diameter 1" Length 3'

SCREEN
Type PVC Diameter 1" Slot 10 Length 2'




GRAVEL PACK Well Gravel (1'-3')

CASING SEAL Bentonite (0'-1.0')

SECURITY	PVC dome cap
----------	--------------

FINISH	NA
1	1
2	2
3	3
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12	12
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97	97
98	98
99	99
100	100

COMMENTS Well casing extended above grade

Backfill/Gravel  Bentonite  Grout 

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-13	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	Resampling for OC analysis
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~1.5'		
TOTAL BORING DEPTH	5'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-14	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

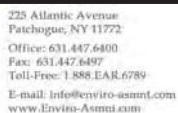
[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%



Page 1 of 1

DRILLING DETAILS

WELL CONSTRUCTION

PROJECT/SITE NAME	DEC-Brooklyn5200
SITE ADDRESS	Empire Electric Company
	5200 1st Avenue
	Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	SB-15
DRILLING METHOD	S/S Hand Auger
DRILLING COMPANY	EAR
HEAD DRILLER	J. Lohan
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	4"
SAMPLE METHOD	S/S Hand Auger (HA)
DEPTH-TO-WATER	~3.9
TOTAL WELL DEPTH	6.5

CASING
Type PVC Diameter 1" Length 6'

SCREEN
Type PVC Diameter 1" Slot 10 Length 2'

GRAVEL PACK Well Gravel (4.5'-6.5')




CASING SEAL Bentonite (0'-4.5')

SECURITY	PVC dome cap
----------	--------------

FINISH	NA
--------	----

COMMENTS Well casing extended above grade

[illegible]

Backfill/Gravel  Bentonite  Grout 

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-15	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	Resampling for OC analysis
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3.5'		
TOTAL BORING DEPTH	5'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-16	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-17	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

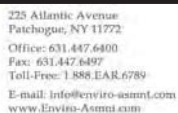
[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%



Page 1 of 1

DRILLING DETAILS

WELL CONSTRUCTION

PROJECT/SITE NAME	DEC-Brooklyn5200
SITE ADDRESS	Empire Electric Company
	5200 1st Avenue
	Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	SB-18
DRILLING METHOD	S/S Hand Auger
DRILLING COMPANY	EAR
HEAD DRILLER	J. Lohan
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	4"
SAMPLE METHOD	S/S Hand Auger
DEPTH-TO-WATER	~4.9
TOTAL WELL DEPTH	5.5

CASING
Type PVC Diameter 1" Length 5'

SCREEN
Type PVC Diameter 1" Slot 10 Length 2'

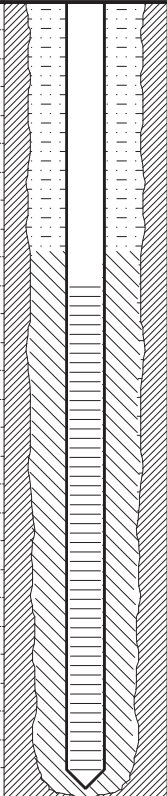
GRAVEL PACK Well Gravel (3.5'-5.5')




CASING SEAL Bentonite (0'-3.5')

SECURITY PVC dome cap

FINISH NA

COMMENTS Well casing extended above grade

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
		0'-1'	Brown fine sand, little medium sand, trace coarse sand, trace gravel; moist, no odor	HA	0'-1'	1.0 ppm	-
		1'-2'	Brown fine sand, little medium sand, trace coarse sand, trace gravel; moist, no odor	HA	1'-2'	3.0 ppm	-
		2'-3'	Brown fine sand, trace medium sand; moist, no odor	HA	2'-3'	1.2 ppm	-
TWD 5.5'		Drilling Notes: Well set at 5.5' BGS per EA representative					
	NOT TO SCALE						

Backfill/Gravel  Bentonite  Grout 

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-1	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-1	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	Resampling for OC analysis
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3.5'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-31	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-32	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-33	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%

DRILLING LOG - Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME	DEC-BROOKLYN5200	SOIL SAMPLING	
SITE ADDRESS	Empire Electric	Type	S/S hand auger.
	5200 First Avenue		
	Brooklyn, NY		
SITE ID NUMBER	224015	GROUNDWATER SAMPLING	
BORING I.D.	SB-34	Type	
PURPOSE	Investigation		
DRILLING METHOD	Hand Auger		
DRILLING COMPANY	EAR	BACKFILL	Native
HEAD DRILLER	J. Lohan	FINISH	Match existing (no finish, in dirt)
LOGGED BY	J. Lohan	COMMENTS	
BOREHOLE DIAMETER	4"		
DEPTH-TO-WATER	~3'-5'		
TOTAL BORING DEPTH	3'		

[illegible]

"Trace", 1 - 10%

"Little", 10 - 20%

"Some", 20 - 30%

"And", 30 - 50%



Page 1 of 1

DRILLING DETAILS

WELL CONSTRUCTION

PROJECT/SITE NAME	DEC-Brooklyn5200
SITE ADDRESS	Empire Electric Company
	5200 1st Avenue
	Brooklyn, NY
SITE ID NUMBER	224015
WELL ID	SB-35
DRILLING METHOD	Direct Push (Geoprobe 7822DT)
DRILLING COMPANY	AARCO Environmental
HEAD DRILLER	A. Hutchinson
LOGGED BY	J. Lohan
BOREHOLE DIAMETER	3"
SAMPLE METHOD	Macro Core (MC)
DEPTH-TO-WATER	~5.5'
TOTAL WELL DEPTH	7'

CASING

Type	NA	Diameter	NA	Length	NA
------	----	----------	----	--------	----

SCREEN
Type NA Diameter NA Slot NA Length NA

GRAVEL PACK NA

CASING SEAL NA

SECURITY	NA
----------	----

FINISH	<u>Backfilled with native cuttings</u>
--------	--

COMMENTS	After making two additional attempts, during which rig hit refusal again at ~7' BGS, NYSDEC directed that no further attempts be made at this location.
----------	---

[illegible]

Backfill/Gravel



Bentonite



Grout





225 Atlantic Avenue
Patchogue, NY 11772
Office: 631.447.6400
Fax: 631.447.6497
Toll-Free: 1.888.ENVIRO-ASMTL
E-mail: info@enviro-asmtl.com
www.Enviro-Asmtl.com

Installation Date 09/27/17

Page 1 of 1

DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS

PROJECT/SITE NAME DEC-Brooklyn5200
SITE ADDRESS Empire Electric Company
5200 1st Avenue
Brooklyn, NY
SITE ID NUMBER 224015
WELL ID SB-36
DRILLING METHOD Direct Push (Geoprobe 7822DT)
DRILLING COMPANY AARCO Environmental
HEAD DRILLER A. Hutchinson
LOGGED BY J. Lohan
BOREHOLE DIAMETER 3"
SAMPLE METHOD Macro Core (MC)
DEPTH-TO-WATER ~5.5'
TOTAL WELL DEPTH 8'

WELL CONSTRUCTION

CASING

Type PVC Diameter 2" Length 4'

SCREEN

Type PVC Diameter 2" Slot 10 Length 5'

GRAVEL PACK Pre-Packed Screen (3'-8') Well Gravel (2.5'-3')

CASING SEAL Bentonite (0'-2.5')

SECURITY 2" locking well cap

FINISH Clean Fill

COMMENTS Well casing extended above grade

Depth
Below
Grade

Well Design

Soil Lithology/Field Observations

Depth

Description/Classification

Sample
Type

Screening
Interval

PID
Reading

Percent
Recovery

0'-4'

2.65' Tan Fine sand, trace medium sand, trace coarse sand; dry to moist, no staining, no odor.

MC

0'-4'

0.9ppm

66

4'-8'

1.10' Tan Fine sand, trace medium sand, trace coarse sand; moist, no staining no odor.
2.20' Brown fine sand, trace medium sand, trace coarse sand; wet no staining odor.

MC

4'-8'

94.2 ppm

82

~5.5'

TWD
8'

NOT TO SCALE

Drilling Notes:
Refusal at ~8.5'.

Backfill/Gravel



Bentonite

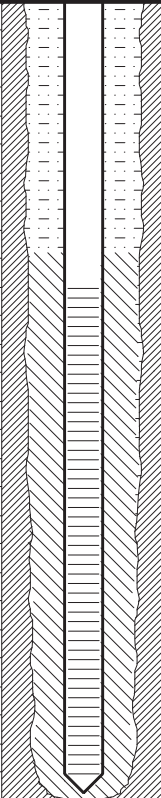


Grout



DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS		WELL CONSTRUCTION	
PROJECT/SITE NAME	<u>DEC-Brooklyn5200</u>	CASING	
SITE ADDRESS	<u>Empire Electric Company</u>	Type <u>PVC</u> Diameter <u>2"</u> Length <u>19'</u>	
	<u>5200 1st Avenue</u>		
	<u>Brooklyn, NY</u>		
SITE ID NUMBER	<u>224015</u>	SCREEN	
WELL ID	<u>SB-37D</u>	Type <u>PVC</u> Diameter <u>2"</u> Slot <u>10</u> Length <u>5'</u>	
DRILLING METHOD	<u>Direct Push (Geoprobe 7822DT)</u>	GRAVEL PACK	<u>Pre-Packed Screen (19'-24') Well Gravel (17'-19')</u>
DRILLING COMPANY	<u>AARCO Environmental</u>	CASING SEAL	<u>Bentonite (0'-17')</u>
HEAD DRILLER	<u>A. Hutchinson</u>	SECURITY	<u>2" locking well cap</u>
LOGGED BY	<u>J. Lohan</u>		
BOREHOLE DIAMETER	<u>3"</u>	FINISH	<u>Clean Fill</u>
SAMPLE METHOD	<u>Macro Core (MC)</u>	COMMENTS	<u>Well casing extended above grade</u>
DEPTH-TO-WATER	<u>5.23'</u>		
TOTAL WELL DEPTH	<u>24'</u>		

Depth Below Grade	Well Design	Soil Lithology/Field Observations						
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery	
 5.23'		0'-4'	0.65' Tan fine sand, trace medium sand, trace coarse sand; dry, no staining, no odor.	MC	0'-4'	68.4 ppm	73	
			1.25' Brown fine sand, trace medium sand, trace coarse sand; dry, no staining, no odor.					
			0.40' Brown fine sand, trace medium sand, trace coarse sand; moist, no staining, no odor.					
			0.40' Black fine sand, trace medium sand, trace coarse sand; moist, no staining, no odor.					
			0.20' Crushed concrete.					
			4'-8'	2.75' Brown fine sand, trace medium sand, trace coarse sand; wet, no stain, odor.	MC	4'-8'	101.9 ppm	69
			8'-12'	0.60' Brown silty fine sand, trace medium sand; wet, no staining, odor.	MC	8'-12'	41.1 ppm	74
				2.35' Brown silty fine sand, trace medium sand; wet, no staining, faint odor.				
			12'-16'	1.50' Brown/black silty fine sand, trace medium sand; wet, no staining, odor.	MC	12'-16'	90.2 ppm	95
				1.30' Brown silty fine sand, trace medium sand; wet, no staining, faint odor.				
TWD 24'			1.00' Brown fine and medium sand, some coarse sand; no staining, no odor.					
		16'-20'	4.00' Brown fine sand, some medium sand, trace coarse sand; wet, no staining, odor.	MC	16'-20'	79.2 ppm	100	
		20'-24'	3.40' Brown fine and medium sand, little coarse sand; wet, no staining, faint odor.	MC	20'-24'	92.8 ppm	85	
			Drilling Notes: NA					
	NOT TO SCALE							

Backfill/Gravel



Bentonite



Grout



DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS		WELL CONSTRUCTION	
PROJECT/SITE NAME	DEC-Brooklyn5200	CASING	
SITE ADDRESS	Empire Electric Company	Type	PVC
	5200 1st Avenue	Diameter	2"
	Brooklyn, NY	Length	6'
SITE ID NUMBER	224015	SCREEN	
WELL ID	SB-37S	Type	PVC
DRILLING METHOD	Direct Push (Geoprobe 7822DT)	Diameter	2"
DRILLING COMPANY	AARCO Environmental	Slot	10
HEAD DRILLER	A. Hutchinson	Length	5'
LOGGED BY	J. Lohan	GRAVEL PACK	Pre-Packed Screen (6'-11) Well Gravel (4'-6')
BOREHOLE DIAMETER	3"	CASING SEAL	Bentonite (0'-4')
SAMPLE METHOD	Macro Core (MC)	SECURITY	2" locking well cap
DEPTH-TO-WATER	5.34'	FINISH	Clean Fill
TOTAL WELL DEPTH	11'	COMMENTS	Well casing extended above grade

[illegible]

Backfill/Gravel



Bentonite

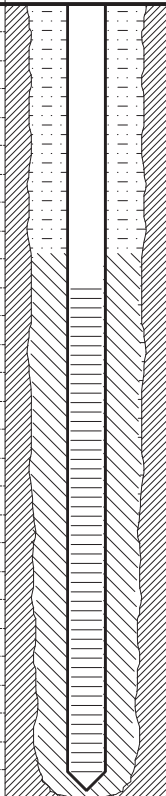


Grout



DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS		WELL CONSTRUCTION	
PROJECT/SITE NAME	<u>DEC-Brooklyn5200</u>	CASING	
SITE ADDRESS	<u>Empire Electric Company</u>	Type <u>PVC</u> Diameter <u>2"</u> Length <u>6'</u>	
	<u>5200 1st Avenue</u>		
	<u>Brooklyn, NY</u>	SCREEN	
SITE ID NUMBER	<u>224015</u>	Type <u>PVC</u> Diameter <u>2"</u> Slot <u>10</u> Length <u>5'</u>	
WELL ID	<u>SB-38</u>	GRAVEL PACK	<u>Pre-Packed Screen (6'-11') Well Gravel (4.5'-6')</u>
DRILLING METHOD	<u>Direct Push (Geoprobe 7822DT)</u>	CASING SEAL	<u>Bentonite (0'-4.5')</u>
DRILLING COMPANY	<u>AARCO Environmental</u>	SECURITY	<u>2" locking well cap</u>
HEAD DRILLER	<u>A. Hutchinson</u>		
LOGGED BY	<u>J. Lohan</u>	FINISH	<u>Clean Fill</u>
BOREHOLE DIAMETER	<u>3"</u>	COMMENTS	<u>Well casing extended above grade</u>
SAMPLE METHOD	<u>Macro Core (MC)</u>		
DEPTH-TO-WATER	<u>7.13'</u>		
TOTAL WELL DEPTH	<u>11'</u>		

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
 <							

Backfill/Gravel



Bentonite



Grout





Appendix B: Daily Field Reports

**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Thursday, 7/6/17

Weather: scattered showers, 70°+ F

EAR Personnel Onsite: John Lohan (geologist), Michael Ford (foreman), Edgar Lucero (technician)

Onsite Time: 0800

Offsite Time: 1530

On arrival to site met with EA rep. V. Barber and attended site orientation/tailgate safety meeting.

Sample locations were labeled sequentially as soil borings: SB-1 through SB-30. Labeled locations are illustrated in the attached map.

EAR measured out proposed sampling locations. It was determined that the proposed 3x3 meter grid would place the entire southernmost row of sampling locations (SB-21 through SB-30) well over concrete slabs. This row was thus removed from the sampling plan per V. Barber. Three additional points (SB-1, SB-10, and SB-20) were also removed from plan as these locations were inaccessible due to concrete/granite debris.

EAR completed soil sampling activities at a total of eleven locations: SB-2 through SB-9 and SB-11 through SB-13. At each sampling location, borings were advanced to three feet below grade surface (BGS) using a stainless-steel hand auger. Soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, and 2-3 feet BGS at each location.

At locations SB-3, SB-4, and SB-6, the crew was unable to advance tooling beyond 2-feet below grade. At these three locations, four additional attempts were made at 6-12 inches from the original borehole in each of the cardinal directions.

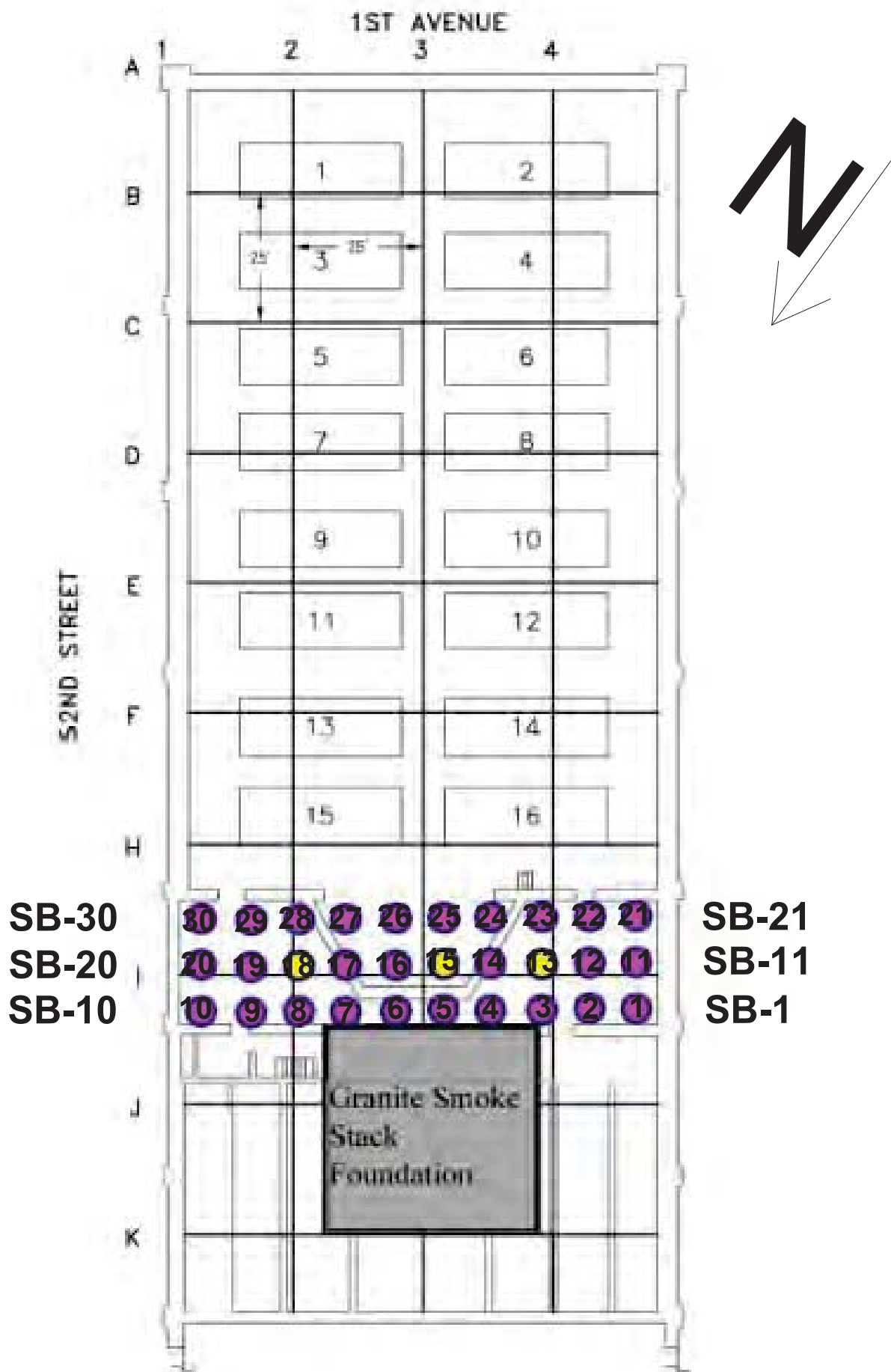
At SB-13, EAR advanced a 2-foot length of 1-inch diameter, 20-slot PVC screen to 3-feet below grade in order to collect a groundwater sample. Upon attempting to purge the temporary well, all water was stripped and location failed to recharge sufficiently while crew was onsite. Well to be allowed to recharge overnight and sampled on 7/7 or reset at deeper depth.



All boring and sampling equipment contacting soil and/or groundwater was decontaminated between each sample. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

EAR collected a total of 30 soil samples (including three blind duplicates). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082 at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 2 of 3

Name (for report and invoice) <u>Earl Hoffman</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC - Brooklyn 15200</u>	
Company <u>EAR</u>		P.O. # <u>546 # 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address <u>225 Atlantic Ave</u>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hr</u>		Regulatory Program: <u>NYS DEC</u> DKQP: <input type="checkbox"/>	
City <u>Patchogue</u> State <u>NY</u>		LAB USE ONLY Project No:		Job No:	
Phone <u>(631) 447-6400</u> Fax		Sample Identification		Sample Numbers	
Date	Time	Matrix	No. of Cont.		
<u>7/6/17</u>	<u>1050</u>	<u>Soil</u>	<u>1</u>	<u>X</u>	
	<u>1055</u>			<u>X</u>	
	<u>1100</u>			<u>H</u>	
	<u>1103</u>			<u>X</u>	
	<u>1105</u>			<u>X</u>	
	<u>1108</u>		<u>✓</u>	<u>H</u>	
	<u>1145</u>		<u>3</u>	<u>X</u>	<u>X</u>
	<u>1148</u>		<u>1</u>	<u>X</u>	
	<u>1151</u>		<u>✓</u>	<u>H</u>	
	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>X</u>	
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil: <u>1</u>			
6 = Other _____, 7 = Other _____		Water:			

Special Instructions Category B deliverables requested

Water Metals Filtered (Yes/No)?

Relinquished by <u>[Signature]</u>	Company <u>EAR</u>	Date / Time <u>7/6/17 11:45</u>	Received by 1) <u>[Signature]</u>	Company
Relinquished by 2) _____	Company	Date / Time 	Received by 2) _____	Company
Relinquished by 3) _____	Company	Date / Time 	Received by 3) _____	Company
Relinquished by 4) _____	Company	Date / Time 	Received by 4) _____	Company

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

TAL - 0016 (0715)

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 3 of 3

Name (for report and invoice) <u>Jon Hoffmann</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC - BROOKLYN 5200</u>	
Company <u>EAR</u>		P.O. # <u>Stc # 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address <u>225 Atlantic Ave</u>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hr</u>		Regulatory Program: <u>NYS DEC</u> DKQP: <input type="checkbox"/>	
City <u>Patchogue</u> State <u>NY</u>		LAB USE ONLY Project No: Job No: Sample Numbers		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)	
Phone <u>(631) 447-6400</u> Fax					
Sample Identification	Date	Time	Matrix	No. of Cont.	
SB-11-0-1	7/6/17	1154	Soil	1	X
SB-11-1-2		1155			X
SB-11-2-3		1157			H
SB-12-0-1		1201			X
SB-12-1-2		1203			X
SB-12-2-3		1205			H
SB-13-0-1		1209		✓	X
SB-13-1-2		1211		3	X X
SB-13-2-3		1213		1	X
SB-2	✓	✓	✓	1	X
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____					Soil: <u>1</u> Water: <u>✓</u>

Special Instructions Category B Deliverables requested

Water Metals Filtered (Yes/No)?

Relinquished by <u>Jon Hoffmann</u>	Company <u>EAR</u>	Date / Time <u>7/6/17 1445</u>	Received by 1) <u>[Signature]</u>	Company <u>[Signature]</u>
Relinquished by 2) _____	Company	Date / Time 	Received by 2) _____	Company
Relinquished by 3) _____	Company	Date / Time 	Received by 3) _____	Company
Relinquished by 4) _____	Company	Date / Time 	Received by 4) _____	Company

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

TAL - 0016 (0715)

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 2

Name (for report and invoice) <u>Earl Holdings</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>NEC-Brooklyn 5200</u>																	
Company <u>EAR</u>		P. O. # <u>Site # 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>						Regulatory Program: <u>NYS DEC</u>				DKQP: <input type="checkbox"/>							
Address <u>225 Atlantic Ave</u>		City <u>Patchogue</u>		State <u>NY</u>		Phone <u>(631) 447-6400</u>		Fax		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hrs</u>										LAB USE ONLY Project No:	
Sample Identification		Date	Time	Matrix	No. of Cont.	ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)										Job No:					
SB-2-0-1		7/6/17	953	Soil	3	X	X														
SB-2-1-2			953		1	X															
SB-2-2-3			959		1	H															
SB-3-0-1			1005		1	X															
SB-4-0-1			1010		1	X															
SB-5-0-1			1016		1	X															
SB-5-1-2			1028		1	X															
SB-5-2-3			1032		1	H															
SB-6-0-1			1038		1	X															
SB-X						X															
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____										Soil: <u>1</u>								Water: <u>/</u>			

Special Instructions <u>Category B values requested</u>		Water Metals Filtered (Yes/No)?	
Relinquished by <u>Earl Holdings</u>	Company <u>EAR</u>	Date / Time <u>7/6/17 1445</u>	Received by <u>1)</u>
Relinquished by <u>2)</u>	Company	Date / Time <u>1</u>	Received by <u>2)</u>
Relinquished by <u>3)</u>	Company	Date / Time <u>1</u>	Received by <u>3)</u>
Relinquished by <u>4)</u>	Company	Date / Time <u>1</u>	Received by <u>4)</u>

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

TAL-0016 (07/15)

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

DEL-Brooklyn, NY

7/2/11

Start: 500 011. For lunch 1500-1530 At 1530 End 1900

Purpose: Conduct soil & Gr Sampling to 3 bgs @ proposed locations.

On Site: MF/EL/SPL (EAR, Tech/Foreman/Geo)

Vinnie Barber (EA, on site rep)

Equip: 16F150, walking wheel, PID, YSI, GP,

generator, Camera (VCR)

Weather: T70s, S. mixed showers

Notes

- Travelled w/ MF/EL to/from site
- PID zero & span calibrated prior to use
- Went through orientation/^{toolbox}tail gate safety meeting w/ on site H&S officer
- Did quick site walk w/ V. Barber
- Access to work zone is via secured ladder's
- After measuring out proposed sampling area, noted that there is not enough room for the proposed 3 rows of 12 points on a 3x3 meter grid, as the 5 most row is located over slabs of concrete. Spoke w/ V. Barber, who said to cut the (12) points. Also mentioned how some of the side points were covered by \rightarrow ~~pile~~ SPL
- 1 of 6
- 39

SB-1 bladed, granite

SB-2

1-1 @ 953 *MS/MSD *

Brown F sand, little M: moist, no S/O

1-2 @ 955 *Dmg! *P-X *

Brown same ✓ at

1-3 @ 977

Brown same ✓, wet

SB-3

1-1 @ 1003

Brown same; moist ✓

1-2 @ —

- attempted 4 times, rejection each time core clog/

SB-4

1-1 @ 1010

Bi F sand, little M, little F gravel; moist

1-2 @ ✓

- 4 injections, concrete/rein

SB-5

1-1 @ 1016

Brown same

2 of 6

40

PID 11/11/11

PID 12/11/11

PID 13/11/11

PID 23/11/11

PID 12/11/11

PID 26

SPL

DEC-Brown

SB-5 cont

1-2 @ 1075 10 attempts

Brown same

2-3 @ 1032

Black same

SB

1-1 @ 1238

Brown same, slightly to right; moist

1-2 @ 1210

Black same, times

SB-7

1-1 @ 1050

Brown same

1-2 @ 1055

Brown same

2-3 @ 1100

Brown same

SB-8

1-1 @ 1105

Brown F sand, H-M, moist

1-2 @ 1105

Brown same, moist

3 of 6

41

PID 2.2 ppm

PID 1.5 ppm

PID 1.3 ppm

PID 2.2 ppm

PID 1.4 ppm

PID 3.5 ppm

PID 2.8 ppm

PID 3.8 ppm

JPL

SB-8 cont

2-3 @ 1105

Brown same, moist

SB-9

1-1 @ 1145 *MS/MSD *

Brown same

1-2 @ 1148 *Dup = SB-Y *

Brown same

2-3 @ 1151

Brown same

SB-10 - blocked by granite slab

SB-11

1-1 @ 1154

Brown same

1-2 @ 1155

Brown same

2-3 @ 1157

Brown same

SB-12

1-1 @ 1201 *Dup = SB-Z *

Brown same; wet

4 of 6

42

PID 2.2 ppm

PID 3.3

PID 1.6

PID 2.3

PID 2.8 ppm

PID 5.0 ppm

PID 1.1 ppm

PID 14.6

JPL

DEC-Biosyn5200

10-12 cont

1-2 @ 1203 *MS/MSD*

Brown same, wet

2-3 @ 1205

Brown same, wet

13-13

2-1 @ 1204

Brown same, moist, fi odor

1-2 @ 1211

Brown same, wet, odor

2-3 @ 1213

Brown same, wet, odor

GWS SB-13

DTV: 1.31' bgs, TWD: 3.01' bgs

-Poor recharge, could not collect sample

→ was installed to 3.01' bgs w/ 1' PVC,
gravel pack to 1' bgs & bentonite 1'-70' bgs

7/6/17

PID 0.1 ppm

PID 6.1 ppm

PID 21.3 ppm

PID 42.6 ppm

PID 71.2 ppm

Notes Cont from p.39

large slabs of granite, v. Barber said to strip
those points as well.

- AS discussed w/ I. Hofmann, will not spend
too much time on any 1 point, due to the
volume of points, if we keep hitting rejection
we will move on to the next point.

- Test America Corrier on site ~ 1920-1945
to pick up samples & drop off extra cooler &
bottles & bubble bags.

- A total of 27 desiccant samples were
collected w/ 3 Jugs & 3 MS/MSDs

- AS discussed w/ I. Hofmann, will not collect
VST readings tomorrow, & will collect GWS
samples w/o purging

**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Friday, 7/17

Weather: overcast, scattered showers. Heavy rain at 10:30

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Edgar Lucero (technician)

Onsite Time: 07:00 (JPL), 07:30 (BCC, EL)

Offsite Time: 15:30 (JPL), 12:00 (BCC, EL)

Attended site tailgate safety meeting on arrival.

EAR completed soil sampling activities at a total of two locations: SB-15 and SB-18.

As requested by the onsite EA rep, the boring at SB-15 was advanced to 6.5 feet below grade surface (BGS) using a stainless-steel hand auger. Soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, 2-3 feet BGS, and 5.5-6.5 feet BGS at this location. SB-18 was advanced to approximately 5.5-feet BGS using a stainless-steel hand auger. Soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, and 2-3 feet BGS at this location.

At SB-15, EAR advanced a 2-foot length of 1-inch diameter, 20-slot PVC screen to approximately 6-feet below grade in order to collect a groundwater sample. At SB-18, EAR advanced a 2-foot length of 1-inch diameter, 20-slot PVC screen to approximately 5-feet below grade.

Groundwater samples were collected at SB-13 (installed 7/6) and SB-15 using peristaltic pumps. Due to very poor recharge at both locations, water samples were collected without a prior purge.

Heavy rain from ~10:30-11:00 resulted in flooding of the work zone. Further sampling activities were cancelled for the day by EA. EAR personnel EL and BCC left site at 12:00. JPL remained onsite until 15:30 in order to relinquish samples to the laboratory courier.

All boring and sampling equipment contacting soil and/or groundwater was decontaminated between each sample. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.



EAR collected a total of 8 soil samples (including one blind duplicate) and 3 aqueous samples (including one rinsate blank¹). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082 at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.

¹ One rinsate blank collected 7/6/17 was also submitted to the lab on 7/7/17.

DEC-Brooklyn 5200

7/7/17

Start: 500 on 700 Lunch 1500-1530 off 1530 EN 1530

Purpose: continue soil & GW sampling

On Site: BCC/EL/SPL (EAR, Tech/Foreman/Geo)

V. Butler (EA on site rep)

Equip: PIV (Rav 4), camera (PAP), PFD #18, GP, Generator

Weather: overcast, ↑ humidity, scattered light rain
Heavy rain @ ~1025

Notes

- V. Butler on site upon arrival
- BCC/EL on site 730
- Sat in for end of PAL (construction company) morning safety meeting
- PFD Calibration checked prior to use
- Sampling equipment cleaned w/ Hexane & Liguidax & rinsed w/ distilled H₂O between samples
- Heavy rain ~1025 → ~1100, caused flooding in work zone (crew was ^{not in} evacuated from work zone during this time). As discussed w/ V. Butler & I. Hofmann no more sampling can/will be conducted today.

10f3

45

SPL

SB-13

GPS @ 10

DTW: 1.48 TWD: 3.01

SB-15

0-1' @ 910 * MSHSD *

PFD 5:50 pm

Brown F sand, little M, little gravel, wet, odor

1-2' @ 914 * DUPE = SB-XX *

PFD 142 pm

Brown same; wet, strong odor

2-3' @ 918

PFD 1201 pm

Brown same; wet, strong odor

5.5'-6.5' @ 928

PFD 107 pm

Brown silty fine sand; wet, strong odor

GPS @ 950

DTW: 3.95 TWD: 6.33

SB-18

0-1' @ 958

PFD 1.0 pm

Brown F sand, little M, little gravel; moist, no odor

1-2' @ 1000

PFD 3.0 pm

Brown same; moist, no odor

2-3' @ 1000

PFD 1.2 pm

Brown F sand, little M; moist, no odor

20f3

46

SPL

DEC-Brooklyn5200

7/7/17

~~7/10/17~~

NOTES CONT

- After majority of rain had passed (~1105) went into work zone to pack up all remaining equipment.
- After packing up EL/BCC left site @ ~1200 to return to office. JPL to remain for carrier on site pick up
- Carrier (T.A.) on site by 1450, off by 1505 to pick up samples

3 of 3

47

JPL

DEC-Brooklyn5200

7/10/17

Start: 500 ON: 730 Lunch: 1230-1400 Off: 1450 End:

Purpose: Finish Soil & SW Sampling

On Site: SPL/EL/BCC (EAB, Geo/Foreman/Tech)

V. Barber (EA, on site Rep)

Equip: TGA 150, PID #18, Camera (Rep), GPS, Generator

Weather: 70s, Partly Cloudy

NOTES

- Vinnie Barber on site upon arrival/departure
- PID Calibration checked prior to use
- Sampling equipment cleaned w/ Hexane & Ignitor. Distilled H₂O between samples
- After completion of sampling, sample locations were marked w/ lengths of caution tape, half buried in hole, half streaming above grade. AS requested by V. Barber.

1 of 5

48

JPL

TestAmerica

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CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 2 of 2

Name (for report and invoice) <i>Iron Hoffman</i>		Samplers Name (Printed) <i>EAR</i>		Site/Project Identification <i>DEC-Brooklyn 5200</i>																			
Company <i>EAR</i>		P. O. # <i># 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>						Regulatory Program: <i>NYSDEC</i>				DKQP: <input type="checkbox"/>									
Address <i>225 Atlantic Ave</i>		City <i>Patchogue</i>		State <i>NY</i>		Phone <i>(631) 447-1400</i>		Fax		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 Hr</i>						ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)						LAB USE ONLY Project No:	
Sample Identification		Date		Time		Matrix		No. of Cont.								Job No:							
<i>SB-15-2-1</i>		<i>7/7/17</i>		<i>910</i>		<i>Soil</i>		<i>3</i>		<i>RE-B'S V.1 5200</i>													
<i>SB-15-1-2</i>		<i>7/7/17</i>		<i>910</i>		<i>Soil</i>		<i>1</i>		<i>Y</i>													
<i>SB-15-2-3</i>		<i>7/7/17</i>		<i>928</i>		<i>Soil</i>		<i>1</i>		<i>Y</i>													
<i>SB-18-0-1</i>		<i>7/7/17</i>		<i>958</i>		<i>Soil</i>		<i>1</i>		<i>X</i>													
<i>SB-18-1-2</i>		<i>7/7/17</i>		<i>1000</i>		<i>Soil</i>		<i>1</i>		<i>X</i>													
<i>SB-18-2-3</i>		<i>7/7/17</i>		<i>1210</i>		<i>Soil</i>		<i>1</i>		<i>H</i>													
<i>SB-15-5.5-6.5</i>		<i>7/7/17</i>		<i>928</i>		<i>Soil</i>		<i>1</i>		<i>X</i>													
<i>SB-XX</i>		<i>7/7/17</i>		<i>Soil</i>		<i>1</i>		<i>1</i>		<i>X</i>													
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____										Soil: <i>1</i>													
										Water: <i>1</i>													

Special Instructions *Category B deliverables requested.*

Water Metals Filtered (Yes/No)?

Relinquished by <i>John Yohn</i>	Company <i>EAR</i>	Date / Time <i>7/7/17 1500</i>	Received by <i>1</i>	Company <i>1</i>
Relinquished by <i>2)</i>	Company	Date / Time <i>1</i>	Received by <i>2)</i>	Company
Relinquished by <i>3)</i>	Company	Date / Time <i>1</i>	Received by <i>3)</i>	Company
Relinquished by <i>4)</i>	Company	Date / Time <i>1</i>	Received by <i>4)</i>	Company

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

TAL-0010 (0715)

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



Page 1 of 2

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Special Instructions Catechry B deliverables requested

Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
1) <i>[Signature]</i>	EAR	7/7/17 1500	1) <i>[Signature]</i>	1) <i>[Signature]</i>
2)			2)	
3)			3)	
4)			4)	

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

TAL-0016 (0715)

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



**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Monday, 7/10/17

Weather: 70°F+, partly cloudy

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Edgar Lucero (technician)

Onsite Time: 07:30

Offsite Time: 14:00

EAR completed soil sampling activities at a total of eight locations: SB-14, SB-16, SB-17, SB-19, SB-31, SB-32, SB-33, and SB-34.

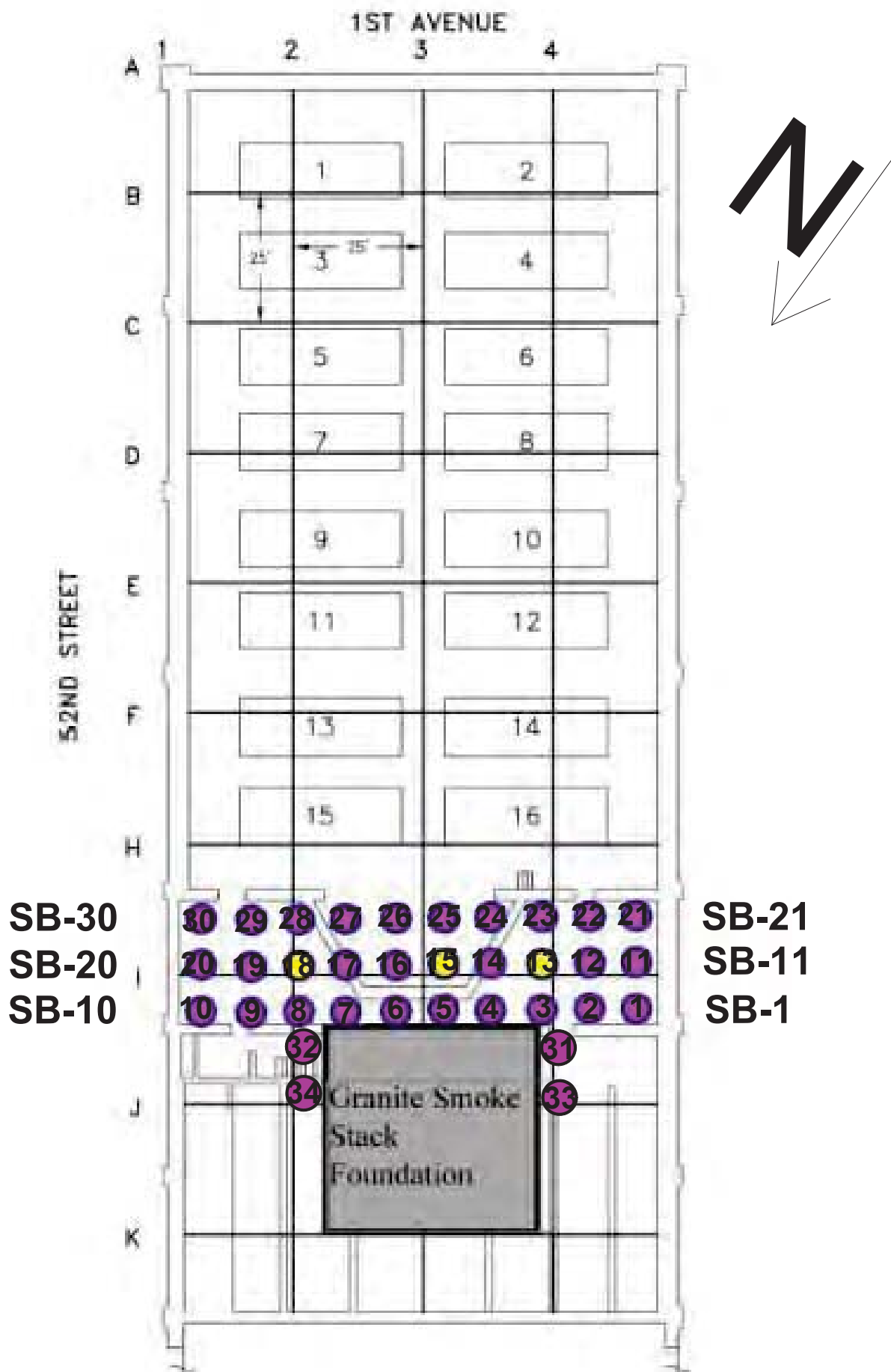
All of the above borings were advanced to 3-feet below grade surface (BGS) using a stainless-steel hand auger. Soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, and 2-3 feet BGS at these locations. SB-31 through SB-34 were added to the sampling plan in the field by the onsite EA representative. Locations are illustrated in the attached map.

A groundwater sample was collected at SB-18 (installed 7/7) using a peristaltic pump. Due to very poor recharge, the water sample was collected without a prior purge.

All boring and sampling equipment contacting soil and/or groundwater was decontaminated between each sample. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

EAR collected a total of 27 soil samples (including three blind duplicates) and 2 aqueous samples (including one rinsate blank). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082 at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.



DEC-Brooklyn 5200

7/10/17

NOTES CONT

- After majority of rain had passed (~1105) went into work zone to pack up all remaining equipment.
- After packing up EL/BCC left site @ ~1200 to return to office. JPL to remain for carrier on site pick up.
- Carrier (T.A.) on site by 1450. Off by 1505 to pick up samples.

3 of 3

47

JPL

DEC-Brooklyn 5200

7/10/17

Start: 500 ON: 730 Lunch: 1330-1400 Off: 1400 End:

Purpose: Finish Soil & GW Sampling

On Site: JPL/EL/BCC (EAB, Geo/Foreman/Tech)

V. Barber (EA, on site Rep)

Equip: 16 F150, PID #18, Camera (Rep), GPS, Generator

Weather: 70s, partly cloudy

NOTES

- Vinnie Barber on site upon arrival/departure
- PID calibration checked prior to use
- Sampling equipment cleaned w/ Hexane & Ignitor. Existed H₂O between samples
- After completion of sampling, sample locations were marked w/ lengths of caution tape, half buried in hole, half streaming above grade. AS requested by V. Barber.

1 of 5

48

JPL

DEC-Brooklyn 5200

7/6/17

SB-14

0-1 @ 825 MS/MSD PID 61.2 ppm

Brown F Sand, some M, HC, H gravel; moist, no odor

1-2 @ 831 Dup = SB-15 PID 4.1 ppm

Brown F Sand, HM, H gravel, moist, no odor

2-3 @ 834 PID 17.3 ppm

Brown Same J; moist, odor

SB-15

0-1 @ 837 PID 1.2 ppm

Brown Same J; moist, no odor

1-2 @ 840 PID 3.9 ppm

Brown Same J; moist, no odor

2-3 @ 845 PID 1.3 ppm

Brown Same J; moist, no odor

SB-16

0-1 @ 848 PID 6.2 ppm

Brown Same J; moist, no odor

1-2 @ 851 PID 6.3 ppm

Brown Same J; moist, no odor

2-3 @ 854 PID 7.2 ppm

Brown Same J; moist, no odor

2 of 35

49

SPL

SB-19

0-1 @ 912 MS/MSD PID 0.3 ppm

Brown F Sand, some M, HC, H gravel; moist, no odor

1-2 @ 915 Dup = SB-22 PID 0.0 ppm

Brown F Sand, HM, H gravel; moist

2-3 @ 917 PID 0.3 ppm

Brown Same J; moist, no odor

SB-31

0-1 @ 922 PID 0.6 ppm

Brown Same J; moist, no odor

1-2 @ 924 PID 2.6 ppm

Brown Same J; moist, no odor

2-3 @ 931 PID 0.2 ppm

Brown Same J; moist, no odor

SB-32

0-1 @ 935 PID 3.8 ppm

Brown Same J; moist, no odor

1-2 @ 936 PID 1.6 ppm

Brown Same J; moist, no odor

2-3 @ 937 PID 1.9 ppm

Brown Same J; moist, no odor

3 of 35

50

SPL

DEC-Bucklin 5200

SB-18-GW

Sample @ 950

DTW: 4.97 TWD 5.21'

H1117

SB-33

0-1 @ 1006 * MS/MS * PID 1.2

Brown same ↑, moist, no odor

1-2 @ 1007 * D.p = SB-XXX * PID 0.5

Brown same ↑, moist, no odor

2-3 @ 1008 PID 1.3

Brown same ↑, moist, no odor

SB-34

0-1 @ 1030 PID 4.1

Brown same ↑, moist, no odor

1-2 @ 1033 PID 2.7

Brown same ↑, moist, no odor

2-3 @ 1036 PID 0.9

Brown same ↑, moist, no odor

4 of 95

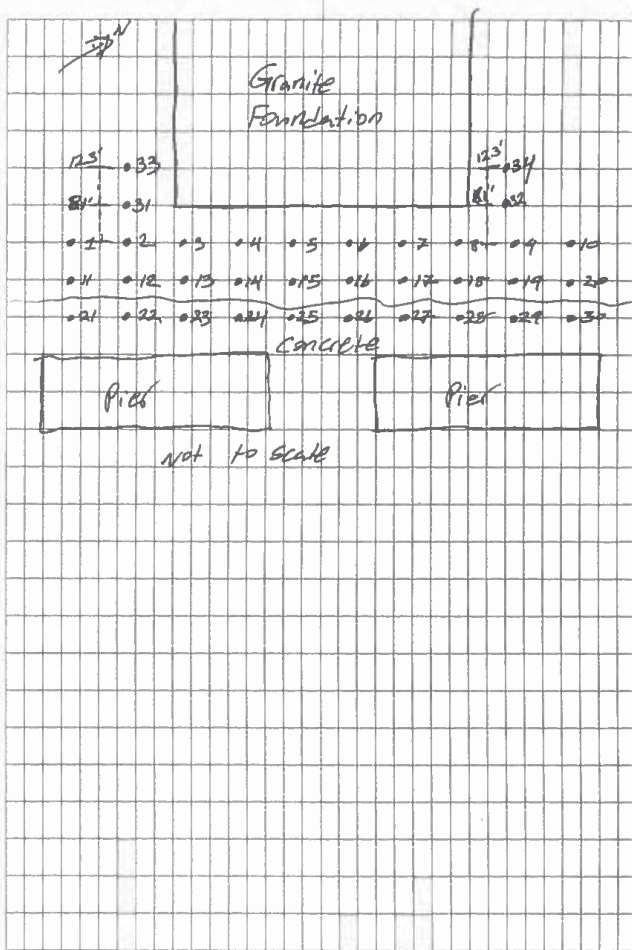
51

SPL

5 of 5

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JP2



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CHAIN OF CUSTODY / ANALYSIS REQUEST

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Page 1 of 3

Name (for report and invoice) <u>Jan Hoffman</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC-Brooklyn 5200</u>																							
Company <u>EAR</u>		P.O. # <u>Sta # 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>						Regulatory Program: <u>NYS DEC</u>				DKQP: <input type="checkbox"/>													
Address <u>225 Atlantic Ave</u>		City <u>Patchogue</u>		State <u>NY</u>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hr</u>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)										LAB USE ONLY Project No:									
Phone <u>(631) 447-6400</u>		Fax																Job No:									
																		Sample Numbers									
Sample Identification		Date		Time		Matrix		No. of Cont.																			
<u>SB-14-0-1</u>		<u>7/10/17</u>		<u>825</u>		<u>Soil</u>		<u>3</u>		<u>X</u>																	
<u>SB-14-1-2</u>				<u>831</u>				<u>1</u>		<u>X</u>																	
<u>SB-14-2-3</u>				<u>834</u>				<u>1</u>		<u>X</u>																	
<u>SB-17-0-1</u>				<u>837</u>				<u>1</u>		<u>X</u>																	
<u>SB-17-1-2</u>				<u>840</u>				<u>1</u>		<u>X</u>																	
<u>SB-17-2-3</u>				<u>845</u>				<u>1</u>		<u>H</u>																	
<u>SB-11-0-1</u>				<u>848</u>				<u>1</u>		<u>X</u>																	
<u>SB-11-1-2</u>				<u>851</u>				<u>1</u>		<u>X</u>																	
<u>SB-16-2-3</u>				<u>854</u>				<u>1</u>		<u>H</u>																	
<u>SB-YY</u>		<u>✓</u>		<u>✓</u>		<u>✓</u>		<u>✓</u>		<u>X</u>																	
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____														Soil: <input type="checkbox"/>		Water: <input type="checkbox"/>											

Special Instructions Category B deliverables requested

Water Metals Filtered (Yes/No)? ☐

Relinquished by <u>[Signature]</u>	Company <u>EAR</u>	Date / Time <u>7/10/17 1300</u>	Received by 1) <u>[Signature]</u>	Company <u>[Signature]</u>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

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

TAL - 0016 (07/15)

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

TestAmerica

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CHAIN OF CUSTODY / ANALYSIS REQUEST

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Page 2 of 3

Name (for report and invoice) <u>Jan Hoffman</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC - Brooklly 15200</u>															
Company <u>EAR</u>		P.O. # <u>224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>					Regulatory Program: <u>NYSDDEC</u>					DKQP: <input type="checkbox"/>					
Address <u>225 Atlantic Ave</u>		City <u>Patchogue</u>		State <u>NY</u>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hr</u>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)										LAB USE ONLY Project No:	
Phone <u>(631) 447-6100</u>		Fax																Job No:	
																		Sample Numbers	
Sample Identification		Date	Time	Matrix	No. of Cont.														
<u>SB-19-0-1</u>		<u>7/10/17</u>	<u>912</u>	<u>Soil</u>	<u>3</u>	<u>X</u>	<u>X</u>												
<u>SB-19-1-2</u>			<u>915</u>		<u>1</u>	<u>X</u>													
<u>SB-19-2-3</u>			<u>917</u>			<u>H</u>													
<u>SB-31-0-1</u>			<u>922</u>			<u>X</u>													
<u>SB-31-1-2</u>			<u>924</u>			<u>X</u>													
<u>SB-31-2-3</u>			<u>931</u>			<u>H</u>													
<u>SB-32-0-1</u>			<u>935</u>			<u>X</u>													
<u>SB-32-1-2</u>			<u>936</u>			<u>X</u>													
<u>SB-32-2-3</u>			<u>937</u>			<u>H</u>													
<u>SB-22</u>		<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>X</u>													
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____										Soil: <u>1</u>									
										Water: <u>1</u>									

Special Instructions Category B deliverables requested

Water Metals Filtered (Yes/No)?

Relinquished by <u>Jan Hoffman</u>	Company <u>EAR</u>	Date / Time <u>7/10/17 1300</u>	Received by 1) <u>[Signature]</u>	Company <u>[Signature]</u>
Relinquished by 2) _____	Company	Date / Time 	Received by 2) _____	Company
Relinquished by 3) _____	Company	Date / Time 	Received by 3) _____	Company
Relinquished by 4) _____	Company	Date / Time 	Received by 4) _____	Company

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

TAL - 0016 (0715)

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 3 of 3

Name (for report and invoice) <u>Jan Hoffman</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC - Brooklyn 5200</u>	
Company <u>EAR</u>		P.O. # <u>SL# 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address <u>225 Atlantic Ave</u>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hr</u>		Regulatory Program: <u>NYS DEC</u>	
City <u>Batavia</u> State <u>NY</u>		Phone <u>(315) 447-6400</u> Fax		LAB USE ONLY Project No:	
				Job No:	
				Sample Numbers	
Sample Identification	Date	Time	Matrix	No. of Cont.	ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)
SB-33-0-1	7/10/17	1006	Soil	3	X
SB-33-1-2		1007		1	X
SB-33-2-3		1008		1	H
SB-34-0-1		1030		1	X
SB-34-1-2		1033		1	X
SB-34-2-3		1036		1	H
Rinse blank		800	Aq	4	X
SB-18-GW	✓	950	Aq	4	X
SB-XXX	7/10/17		Soil	1	X
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____					Soil: <input type="checkbox"/> Water: <input type="checkbox"/>

Special Instructions Category B deliverables requested

Water Metals Filtered (Yes/No)?

Relinquished by <u>Jan Hoffman</u>	Company <u>EAR</u>	Date / Time <u>7/10/17 1130</u>	Received by <u>[Signature]</u>	Company <u>[Signature]</u>
Relinquished by	Company	Date / Time	Received by	Company
2)			2)	
Relinquished by	Company	Date / Time	Received by	Company
3)			3)	
Relinquished by	Company	Date / Time	Received by	Company
4)			4)	

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

TAL - 0016 (0715)

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

**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Friday, 7/21/17

Weather: 90°F+, sunny

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician)

Onsite Time: 08:00

Offsite Time: 16:00

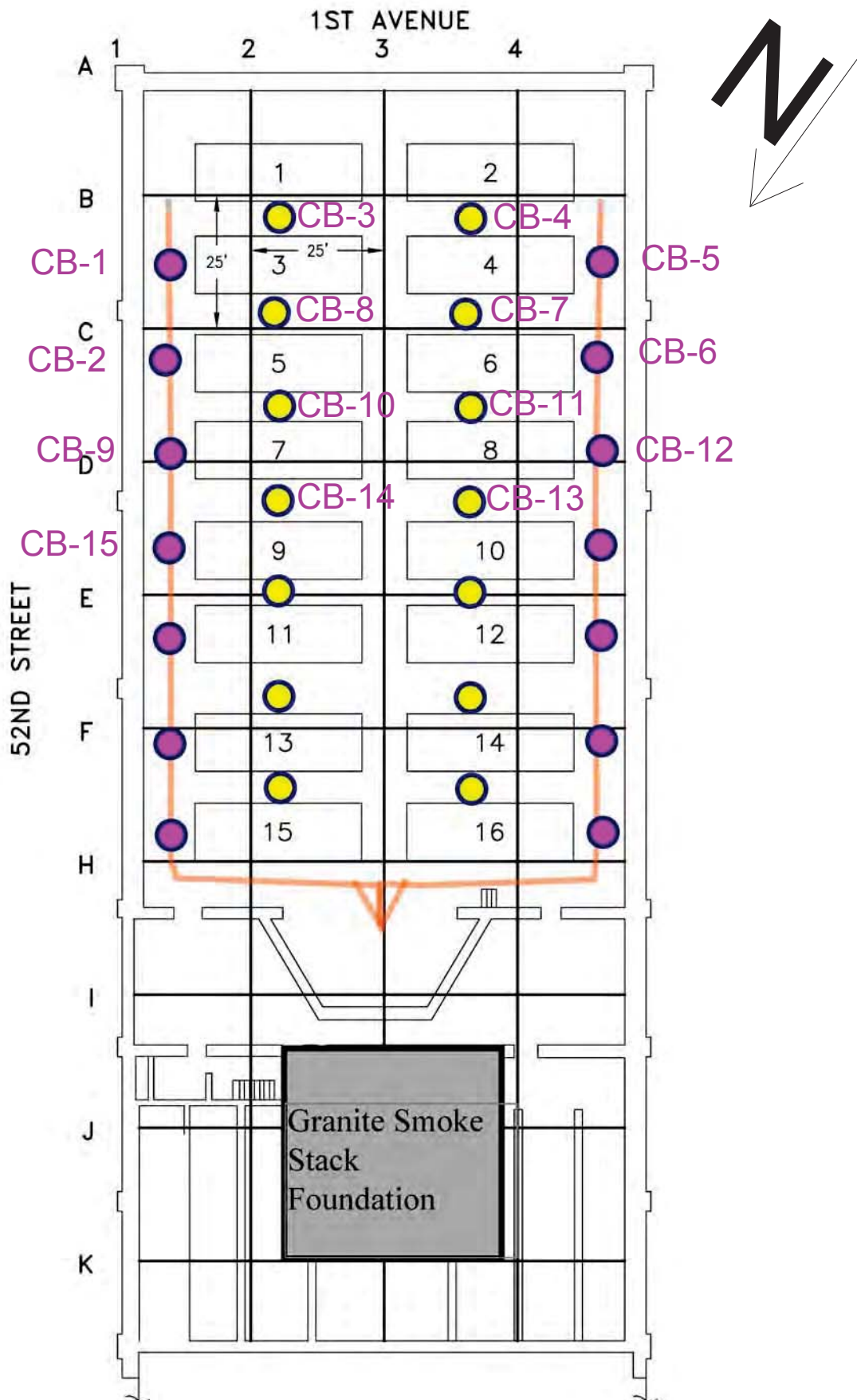
EAR completed concrete sampling activities at a total of fifteen locations: CB-1 through CB-15.

To collect the above samples, a drill with a carbide masonry bit was advanced to 6-inches below grade surface (BGS). At all locations, concrete samples (pulverized concrete drill spoils) were collected from 0-3 inches BGS and 3-6 inches BGS. Locations are illustrated in the attached map.

All boring and sampling equipment was decontaminated between each sample. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

EAR collected a total of 33 concrete samples (including three blind duplicates) and 1 aqueous sample (rinsate blank). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082 at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.



DEC-Brooklyn5200 7/21/17
 Start: 500 on: 800 Lunch: 1530-1600 off: 600 End: 1945

Purpose: Conduct concrete sampling for analysis for PCBs
 on site: - BCC/AD/SPL (EAR, Foreman/Tech/Enviro Tech)

Equip: 16 F150, PID #18, Generator, Hammer drill

Weather: 90's, sunny

NOTES

- Vinnie B on site upon arrival
- PID zero & span calibrated prior to use
 Ambient PID readings = 0.0ppm
- concrete samples were collected using Bosch hammer drill equipped w/ a masonry drill bit. Half Hays (the cooking kind) w/ hoses cut in them were used to collect the powder generated.
- All pertinent equipment (drill bit, half Hays etc) were washed w/ Hexane, Liquinox, & Distilled H₂O, before start of sampling, between samples, & after completion of days sampling.
- Rinse blank collected @ 830
- Decon water deposited into PAL on site container

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JPL

CB-1_0-3	@ 910	* Dup = CB-X *	PID 0.0ppm
CB-1_3-6	@ 920		PID 0.0ppm
CB-2_0-3	@ 930		PID 0.0ppm
CB-2_3-6	@ 930		PID 0.0ppm
CB-3_0-3	@ 942		PID 0.0ppm
CB-3_3-6	@ 950		PID 0.0ppm
CB-4_0-3	@ 1001		PID 0.0ppm
CB-4_3-6	@ 1010		PID 0.0ppm
* Water break *			
CB-5_0-3	@ 1045	* MS/MSD *	PID 0.0ppm
CB-5_3-6	@ 1050		PID 0.0ppm
CB-6_0-3	@ 1055		PID 0.0ppm
CB-6_3-6	@ 1100		PID 0.0ppm
CB-7_0-3	@ 1104	* Dup = CB-Y *	PID 0.0ppm
CB-7_3-6	@ 1107		PID 0.0ppm
CB-8_0-3	@ 1113	* MS/MSD	PID 3.7ppm
CB-8_3-6	@ 1118		PID 0.0ppm
* Water break *			

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JPL

5200
 DEC-Brooklyn ~~5200~~ 7/21/17

CB-9_03	@ 1208 *MS/MSD*	PSD 30.9 ppm
CB-9_3-b	@ 1214	PSD 45.8 ppm
CB-10_03	@ 1218 *Dup=CB-Z*	PSD 0.0 ppm
CB-10_3-b	@ 1222	PSD 0.0 ppm
CB-11_03	@ 1226	PSD 0.0 ppm
CB-11_3-b	@ 1229	PSD 0.0 ppm
CB-12_03	@ 1235	PSD 0.0 ppm
CB-12_3-b	@ 1242	PSD 0.0 ppm
* water break *		
CB-13_03	@ 1322	PSD 0.0 ppm
CB-13_3-b	@ 1328	PSD 0.0 ppm
CB-14_03	@ 1333	PSD 0.0 ppm
CB-14_3-b	@ 1338	PSD 0.0 ppm
CB-15_03	@ 1345	PSD 0.0 ppm
CB-15_3-b	@ 1350	PSD 0.0 ppm

NOTES CONT

- Due to ↑ heat, coupled w/ poor ventilation in work zone (no breeze) frequent water breaks were taken to rehydrate/avoid heat exhaustion.

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JPL

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 1 of 4

Name (for report and invoice) <u>Ian Hoffmann</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC-Brooklyn 115200</u>	
Company <u>EAR</u>		P.O. # <u># 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address <u>225 Atlantic Ave</u>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hr</u>		Regulatory Program: <u>NYSDEC</u> DKQP: <input type="checkbox"/>	
City <u>Patchogue</u> State <u>NY</u>		LAB USE ONLY Project No:		Job No:	
Phone <u>(631) 447-6400</u> Fax		ANALYSIS REQUESTED (ENTER % BELOW TO INDICATE REQUEST)		Sample Numbers	
Sample Identification	Date	Time	Matrix	No. of Cont.	
<u>CB-1-0-3</u>	<u>7/21/17</u>	<u>910</u>	<u>Soil</u>	<u>1</u>	<u>X</u>
<u>CB-1-3-6</u>		<u>920</u>		<u>1</u>	<u>H</u>
<u>CB-2-0-3</u>		<u>930</u>		<u>1</u>	<u>X</u>
<u>CB-2-3-6</u>		<u>935</u>		<u>1</u>	<u>H</u>
<u>CB-3-0-3</u>		<u>942</u>		<u>1</u>	<u>X</u>
<u>CB-3-3-6</u>		<u>950</u>		<u>1</u>	<u>H</u>
<u>CB-4-0-3</u>		<u>1001</u>		<u>1</u>	<u>X</u>
<u>CB-4-3-6</u>		<u>1010</u>		<u>1</u>	<u>H</u>
<u>CB-5-0-3</u>		<u>1045</u>		<u>3</u>	<u>X</u>
<u>CB-5-3-6</u>	<u>✓</u>	<u>1050</u>	<u>✓</u>	<u>1</u>	<u>H</u>
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____				Soil: <u>1</u>	
				Water: <u>✓</u>	

Special Instructions category B deliverables requested

Water Metals Filtered (Yes/No)?

Relinquished by <u>John Yohn</u>	Company <u>EAR</u>	Date / Time <u>7/21/17 1440</u>	Received by 1)	Company
Relinquished by	Company	Date / Time	Received by	Company
2)			2)	
Relinquished by	Company	Date / Time	Received by	Company
3)			3)	
Relinquished by	Company	Date / Time	Received by	Company
4)			4)	

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

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

TAL - 0016 (0715)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 2 of 4

Name (for report and invoice) Jan Plotmann		Samplers Name (Printed) EAR		Site/Project Identification DEC-Brooklyn 5200	
Company EAR		P.O. # Site # 224015		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:	
Address 225 Atlantic Ave		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> 72 Hr		ANALYSIS REQUESTED (ENTER X BELOW TO INDICATE REQUEST)	
City Patchogue State NY				LAB USE ONLY Project No:	
Phone 631-447-6400 Fax				Job No:	
				Sample Numbers	
Sample Identification	Date	Time	Matrix	No. of Cont.	
CB-6-0-3	7/21/17	1055	Soil	1	X
CB-6-3-6		1100		1	H
CB-7-0-3		1104		1	X
CB-7-3-6		1107		1	H
CB-8-0-3		1113		3	X
CB-8-3-6		1118		1	H
CB-9-0-3		1208		3	X
CB-9-3-6		1214		1	H
CB-10-0-3		1218		1	X
CB-10-3-6		1222		1	H
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other, 7 = Other				Soil: 1	
				Water: /	

Special Instructions Category B deliverables requested

Water Metals Filtered (Yes/No)?

Relinquished by John Yahn	Company EAR	Date / Time 7/21/17 11440	Received by 1)	Company
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0408)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 3 of 4

Name (for report and invoice) <u>Jon Hofmann</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC-B-001-5200</u>	
Company <u>EAR</u>		P.O. # <u>site # 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address <u>225 Atlantic Ave.</u>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hr</u>		Regulatory Program: <u>NYDEC</u> DKQP: <input type="checkbox"/>	
City <u>Paterson</u> State <u>NY</u>		Phone <u>631-447-6400</u> Fax <u></u>		LAB USE ONLY Project No: Job No: Sample Numbers	
Sample Identification	Date	Time	Matrix	No. of Cont.	ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)
CB-11-0-3	7/21/17	1226	soil	1	X
CB-11-3-6		1229			H
CB-12-0-3		1235			X
CB-12-3-6		1242			H
CB-13-0-3		1322			X
CB-13-3-6		1328			H
CB-14-0-3		1333			X
CB-14-3-6		1338			H
CB-15-0-3		1345			X
CB-15-3-6		1350			H
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____				Soil: <input checked="" type="checkbox"/>	Water: <input checked="" type="checkbox"/>

Special Instructions Category B deliverables requested

Water Metals Filtered (Yes/No)?

Relinquished by <u>John Keh</u>	Company <u>EAR</u>	Date / Time <u>7/21/17 1440</u>	Received by 1) <u></u>	Company <u></u>
Relinquished by 2) <u></u>	Company <u></u>	Date / Time <u></u>	Received by 2) <u></u>	Company <u></u>
Relinquished by 3) <u></u>	Company <u></u>	Date / Time <u></u>	Received by 3) <u></u>	Company <u></u>
Relinquished by 4) <u></u>	Company <u></u>	Date / Time <u></u>	Received by 4) <u></u>	Company <u></u>

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

TAL - 0016 (0715)

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 4 of 4

Name (for report and invoice) <i>Jon Hoffman</i>		Samplers Name (Printed) <i>EAR</i>		Site/Project Identification <i>DEC-Breaking 5200</i>	
Company <i>EAR</i>		P. O. # <i>Site # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address <i>225 Atlantic Ave.</i>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 Hr</i>		Regulatory Program: <i>NY DEC</i> DKQP: <input type="checkbox"/>	
City <i>Potchoke, NY</i>		State <i>NY</i>		LAB USE ONLY Project No:	
Phone <i>631 447-6400</i>		Fax		Job No:	
Sample Identification		Date	Time	Matrix	No. of Cont.
<i>CB-X</i>	<i>7/21/17</i>	<i>✓</i>	<i>Soil</i>	<i>1</i>	<i>X</i>
<i>CB-Y</i>	<i>↓</i>	<i>✓</i>	<i>↓</i>	<i>1</i>	<i>X</i>
<i>CB-Z</i>	<i>↓</i>	<i>✓</i>	<i>↓</i>	<i>1</i>	<i>Y</i>
<i>Reset Blank Rise blank</i>	<i>↓</i>	<i>830</i>	<i>Aq</i>	<i>4</i>	<i>X</i>
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil:			
6 = Other _____, 7 = Other _____		Water:			

Special Instructions *Category B Volatiles requested*

Water Metals Filtered (Yes/No)?

Relinquished by <i>John Zehn</i>	Company <i>EAR</i>	Date / Time <i>7/21/17 11:40</i>	Received by 1) _____	Company
Relinquished by	Company	Date / Time	Received by	Company
2)			2)	
Relinquished by	Company	Date / Time	Received by	Company
3)			3)	
Relinquished by	Company	Date / Time	Received by	Company
4)			4)	

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

TAL - 0016 (0715)

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



**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Monday, 7/24/17

Weather: 70°F+, light rain with periods of heavy rain

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician)

Onsite Time: 08:30

Offsite Time: 14:30

Due to rain and standing water in the proposed concrete sampling area, no work was conducted within the excavation. Instead, EAR conducted groundwater sampling activities at existing monitoring wells.

EAR completed groundwater sampling activities at a total of three locations: MW-3, MW-12, and MW-14. Locations are illustrated in the attached map.

MW-13 could not be located by either EAR or the onsite contractor. Relatively new asphalt paving was observed in the area, so it is possible that this well has been paved over. The MW-10 manhole was found damaged. Upon opening this manhole, field personnel found no well casing in the manhole.

Groundwater samples were collected utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Upon opening each well, total VOC's were monitored at the wellhead using a photo-ionization detector (PID). Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and oxidation reduction potential (ORP) were recorded as well.

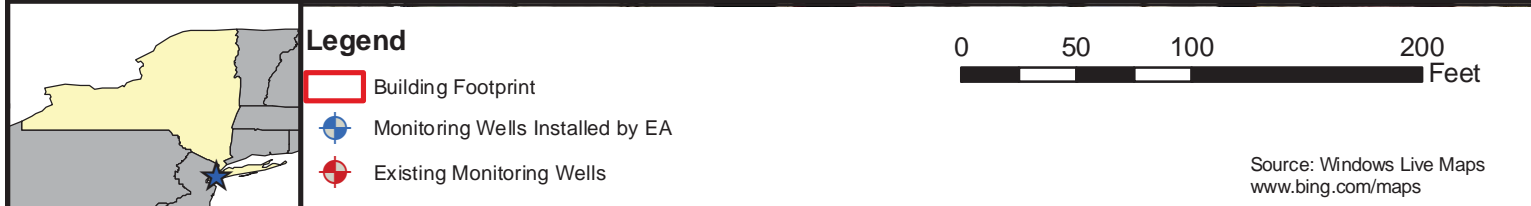
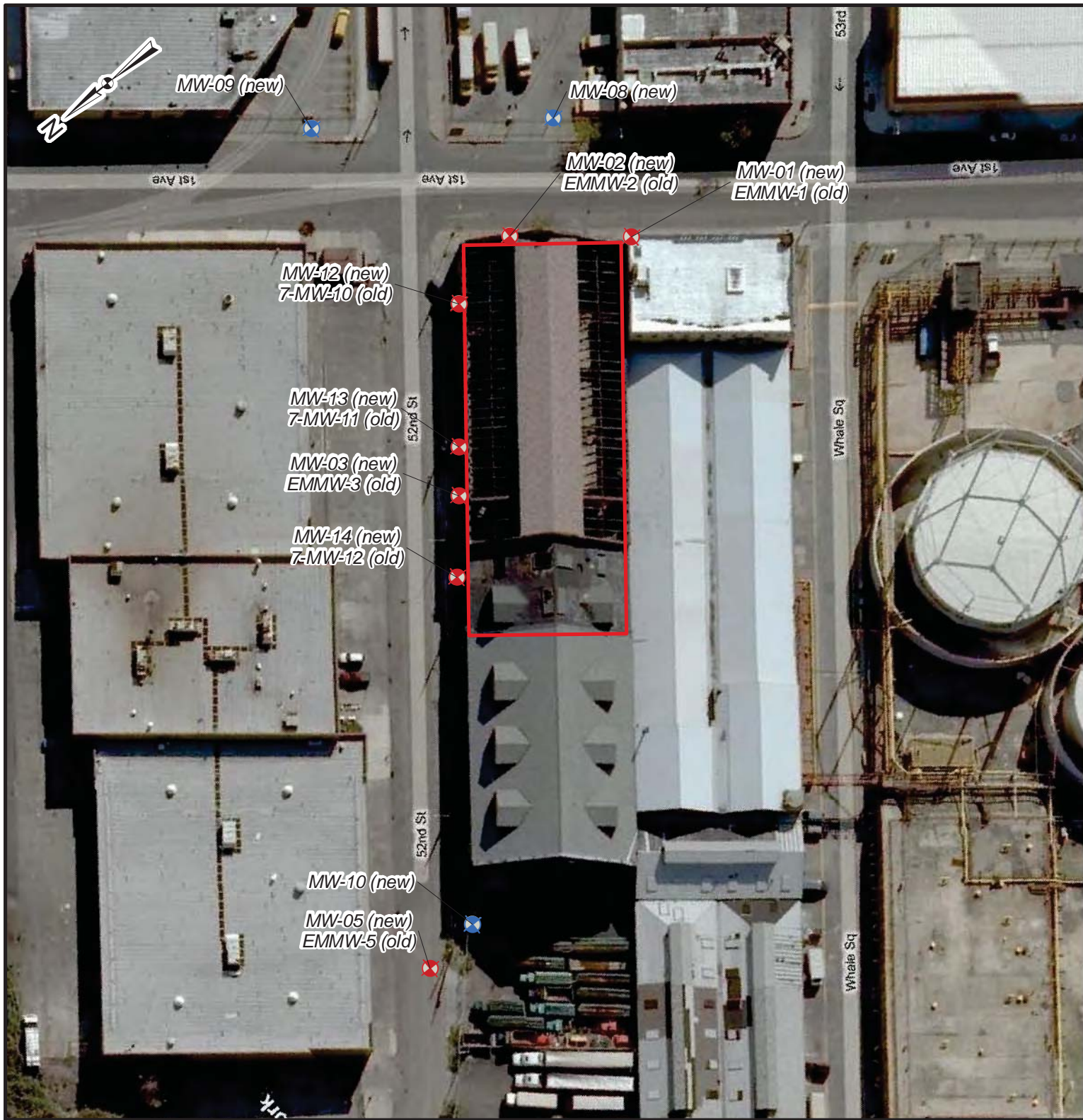
Downhole equipment such as water level meters were decontaminated between each well location. Decontamination consisted of gross contaminant removal, Liquinox wash, and distilled water rinse.



EAR collected a total of 4 aqueous samples (including one rinsate blank). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCB's via 8082, TAL metals via



6020/7470, total cyanide via 9012, and PFA's via modified 537. All samples were submitted for analysis at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.



 		EMPIRE ELECTRIC WORK ASSIGNMENT BROOKLYN, NEW YORK				FIGURE 2 GROUNDWATER SAMPLE LOCATIONS	
PROJECT MGR: DFC	DESIGNED BY: MJS	CREATED BY: MJS	CHECKED BY: SEF	SCALE: AS SHOWN	DATE: JULY 2009	PROJECT NO: 14474.26	FILE NO: GIS/PROJECTS/ FIGURE2.MXD

Site DEC-Brooklyn5200
Date 7/24/17
Techs AD/BCC/JPL

Start Time See W.O. Equipment See W.O.
End Time _____

[illegible]

Well Size (inches)	0.5	0.75	1	1.5	2	4	6	8
Multiplier based on 4 well volume	0.06	0.11	0.18	0.42	0.7	2.65	6	10.4
Multiplier based on 1 well volume	0.015	0.0275	0.045	0.105	0.175	0.663	1.5	2.6

pH range = 5 - 9
Temperature range = 10 - 19 (except for VERY warm days - please try to keep purge container cool/shaded area)
DO range = less than 12 (unless very close to a sparge well)

If readings are not in this range please try to recalibrate (except for temp, which cannot be calibrated). If they remain out of range, please do not write the value on the sheet - it is an equipment error

PLEASE CONTACT THE PMs IF THERE IS A PROBLEM. THIS DATA IS IMPORTANT AND INCORRECT DATA IS WORSE THAN NO DATA. WE REALLY APPRECIATE YOUR WORK TO KEEP E.A.R. A TOP COMPANY IN THE FIELD

Purge a minimum of 1 well volume & then wait for stabilization

Tolerance for stability:
Specific Conductance (3%)
temperature (3%)
pH +/- 0.1 units

Record DO & ORP but DO NOT use for stability

DEC-Brooklyn 5200 7/24/17

CB-9_0-3	@ 1208	* MS/MSD *	PID 30.9 ppm
CB-9_3-6	@ 1211		PID 45.8 ppm
CB-10_0-3	@ 1218	* Dup = CB-2 *	PID 0.0 ppm
CB-10_3-6	@ 1222		PID 0.0 ppm
CB-11_0-3	@ 1226		PID 0.0 ppm
CB-11_3-6	@ 1229		PID 0.0 ppm
CB-12_0-3	@ 1235		PID 0.0 ppm
CB-12_3-6	@ 1242		PID 0.0 ppm
* later break *			
CB-13_0-3	@ 1322		PID 0.0 ppm
CB-13_3-6	@ 1328		PID 0.0 ppm
CB-14_0-3	@ 1333		PID 0.0 ppm
CB-14_3-6	@ 1338		PID 0.0 ppm
CB-15_0-3	@ 1345		PID 0.0 ppm
CB-15_3-6	@ 1350		PID 0.0 ppm

Notes cont

- Due to ↑ heat, coupled w/ poor ventilation in work zone (no breeze) frequent water breaks were taken to rehydrate/avoid heat exhaustion.

3 of 3

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JPL

DEC-Brooklyn 5200 7/24/17

Start: 5:15 on: 8:30 Lunch: 12:30-1:45 off: 11:30 End: 16

Purpose: Continue concrete sampling & conduct GW Sampling

On Site: SPL/BW/AD (EAR, Emilio S. / Foreman / Tech)

Vinnie Barber (EA, On Site (BP))

Equip: 1x F150, PID #18, GP, Generator, Walking Wheel

Weather: 70's, light to heavy rain on 7/24 ~ 11:30

Notes

- Traffic due to rain delayed on site arrival.
- Travelled to/From site w/ BBE/AD
- PID calibration checked prior to use
- Ambient PID = 0.0 ppm
- Due to rain & standing water in proposed work zone, due to said rain, concrete sampling will not be conducted today. Instead will conduct GWS & locate monitoring wells.
- See associated GWS sheet for sample times, labelings, YSI readings, etc
- Work halted from ~ 1000 on 7/24 due to heavy rain & strong winds creating unsafe work conditions.

1 of 2

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JPL

DEC-Brooklyn 5200

7/24/17

NOTES CONT

- In total 3 wells were sampled: MW-12, 03, & 14.
- MW-13 could not be located, P.A.L. even moved steel plates so we could check underneath.
- MW-10 is damaged & is not able to be sampled.
- All other wells were located.
- Sampling equipment was cleaned w/ Liquinox between wells.
- Purge water was disposed in on site P.A.L. drum, w/ permission.
- T.A. Courier on site ~1355 ~1405 to pick up samples.
- PFA samples were bagged & chained separately, Courier expressly informed about PFA samples.

2 of 2

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JPL

TestAmerica

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Special Instructions Category B deliverables requested

Water Metals Filtered (Yes/No)?

Special Instructions				
Relinquished by John Yahn	Company EAR	Date / Time 7/24/17 1400	Received by 1) [Signature]	Company T. A.
Relinquished by	Company	Date / Time	Received by	Company
2)			2)	
Relinquished by	Company	Date / Time	Received by	Company
3)			3)	
Relinquished by	Company	Date / Time	Received by	Company
4)			4)	

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

TAL - 0016 (0814)

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 1 of 1

Name (for report and invoice) <i>Ian Hoffmann</i>		Samplers Name (Printed) <i>EAR</i>		Site/Project Identification <i>DEC- Brooklyn 5200</i>	
Company <i>EAR</i>		P.O.# <i>Spill # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:	
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 Hr</i>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)	
City <i>Patchogue</i>		State <i>NY</i>		LAB USE ONLY Project No:	
Phone <i>(631) 447-6400</i>		Fax		Job No:	
Sample Identification		Date	Time	Matrix	No. of Cont.
<i>MW-12</i>	<i>7/24/17</i>	<i>935</i>	<i>Ag</i>	<i>2</i>	<i>X</i>
<i>MW-03</i>	<i>↓</i>	<i>1200</i>	<i>↓</i>	<i>↓</i>	<i>X</i>
<i>MW-14</i>	<i>↓</i>	<i>1300</i>	<i>↓</i>	<i>↓</i>	<i>X</i>
<i>Rinse blank</i>	<i>7/24/17</i>	<i>1340</i>	<i>Ag</i>	<i>2</i>	<i>X</i>
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____		Soil: <i>/</i>		Water: <i>I</i>	

Special Instructions *Category B deliverables requested*

Water Metals Filtered (Yes/No)?

Relinquished by <i>[Signature]</i>	Company <i>EAR</i>	Date / Time <i>7/24/17 1400</i>	Received by 1) <i>[Signature]</i>	Company <i>[Signature]</i>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

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

TAL - 0016 (0814)

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



**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Tuesday, 7/25/17

Weather: lower 70's (F), overcast

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician)

Onsite Time: 07:00

Offsite Time: 14:30

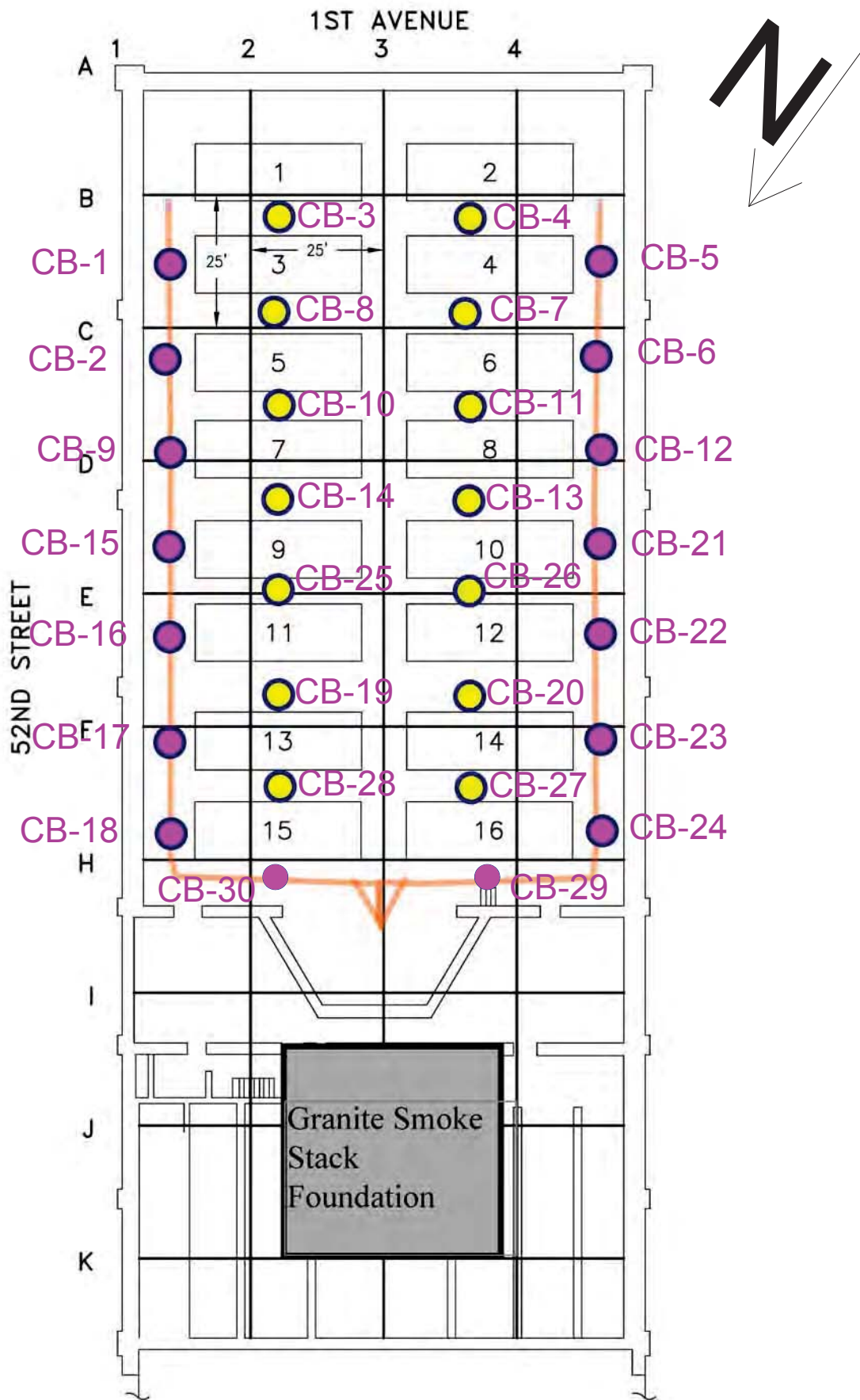
EAR completed concrete sampling activities at a total of sixteen locations: CB-16 through CB-30, and CB-9. Locations CB-29 and CB-30 were added to the sampling plan in the field by EA representative V. Barber. Location CB-9 was revisited in order to collect a sample for analysis of VOC's. Locations are illustrated in the attached map.

To collect the above samples, a drill with a carbide masonry bit was advanced to 6-inches below grade surface (BGS). At all locations, concrete samples (pulverized concrete drill spoils) were collected from 0-3 inches BGS and 3-6 inches BGS.

All boring and sampling equipment was decontaminated between each sample. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

EAR collected a total of 34 concrete samples (including three blind duplicates) and 1 aqueous sample (rinsate blank). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082. Due to elevated PID readings at CB-9 (3-6 inches BGS) and CB-22 (0-3 inches BGS), samples from these locations were also submitted for analysis of VOC's via EPA Method 8260. All samples were submitted for an expedited 72-hour analytical turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.



DEL-Brooklyn 5200

7/24/17

NOTES CONT

- In total 3 wells were sampled: MW-12, 03, & 14.
- MW-13 could not be located, P.A.L. even moved steel plates so we could check underneath.
- MW-10 is damaged & is not able to be sampled.
- All other wells were located.
- Sampling equipment was cleaned w/ Liquinox between wells.
- Purge water was disposed in on site P.A.L. drum, w/ permission.
- T.A. Counsel on site ~1355-~1405 to pick up samples.
- PFA samples were bagged & chained separately, Courier expressly informed about PFA samples.

2 of 2

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JPL

DEL-Brooklyn 5200

7/25/17

Start: 515 ed: 700 Lunch: 1400-1430 off: 1430 End: 1800

Purpose: Continue Concrete Sampling, & conduct Soil Sampling.

Onsite: JPL/AD/BCC (EAR, Enviro Sci /
Vinnie Barber (EA, on site rep)

Equip: 16 F150, PID # ~~189~~ Hammer drill, Generator
19

Weather: V-TOS, overcast, breeze in afternoon

NOTES:

- Travel to/from site w/ BCC/AD
- PID Calibration checked prior to use
Ambient PID = 0.1ppm
- Rinse blank collected @ 800
- V Barber on site upon arrival
- Concrete samples were collected in same as described on 7/21/17 (pg. 65), using hammer drill, Liquinox & Hexane, & half traps
- Decon water deposited into P.A.L. on site container
- 2 locations, ~~CB-9~~ & CB-22, were selected for VOC sampling/analysis due to elevated PID readings, as per I. Hahnman

1 of 4

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JPL

DEC-Brooklyn 5200

7/25/17

CB-16_0-3	@ 830	*MS/MSD *	PID	0.1ppm
CB-16_3-6	@ 835		PID	0.1ppm
CB-17_0-3	@ 839	*Dup = CB-XX*	PID	0.1ppm
CB-17_3-6	@ 845		PID	0.1ppm
CB-18_0-3	@ 851		PID	0.1ppm
CB-18_3-6	@ 858		PID	0.1ppm
CB-19_0-3	@ 901		PID	0.1ppm
CB-19_3-6	@ 908		PID	0.1ppm
CB-20_0-3	@ 911		PID	0.1ppm
CB-20_3-6	@ 915		PID	0.1ppm
CB-21_0-3	@ 922	*MS/MSD *	PID	0.1ppm
CB-21_3-6	@ 930		PID	0.1ppm
CB-22_0-3	@ 935	*Dup = CB-VV*	PID	23.7ppm
CB-22_3-6	@ 944		PID	3.4ppm
CB-23_0-3	@ 1045		PID	0.1ppm
CB-23_3-6	@ 1050		PID	0.1ppm

2 of 4

b9

JPL

CB-24_0-3	@ 1057		PID	0.1ppm
CB-24_3-6	@ 1102		PID	0.1ppm
CB-25_0-3	@ 1109		PID	0.1ppm
CB-25_3-6	@ 1114		PID	0.1ppm
CB-26_0-3	@ 1120	*MS/MSD *	PID	0.1ppm
CB-26_3-6	@ 1125		PID	0.1ppm
CB-27_0-3	@ 1131	*Dup = CB-ZZ *	PID	0.1ppm
CB-27_3-6	@ 1136		PID	0.1ppm
CB-28_0-3	@ 1142		PID	0.1ppm
CB-28_3-6	@ 1149		PID	0.1ppm
CB-29_0-3	@ 1208		PID	70.4ppm
- for VOCs via 8260				
CB-9_3-6	@ 1215		PID	2.3ppm
- for VOCs via 8260				
CB-29_0-3	@ 1245		PID	11.4ppm
CB-29_3-6	@ 1250		PID	2.4ppm

3 of 4

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JPL

DEC-Brooklyn 5200

7/25/17

CB-30_0-3 @ 1257

PID 0.1ppm

CB-30_3-b @ 1302

PID 0.2ppm

~~CB-31_0-3 @ 1257~~

~~PID~~

~~CB-31_3-b @ 1302~~

~~PID~~

- Proposed location was steel, could not
drill through. AS per V. Barber point was
removed.

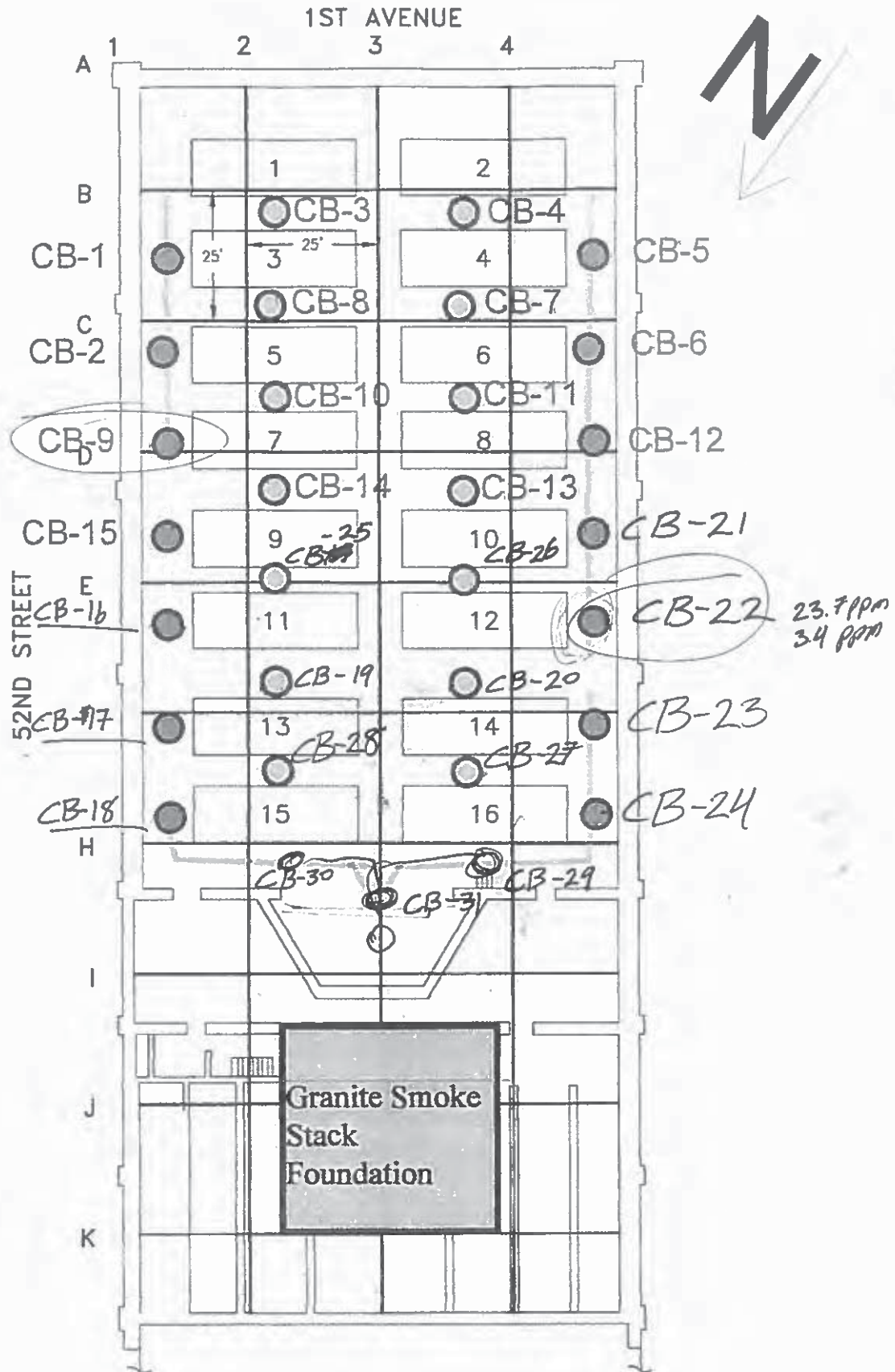
Notes Cont

- After collecting VOC samples, 3 additional
points were added by V. Barber for PCBs;
CB-29, 30, & 31. CB-31 was removed from
sample plan because location was steel.
- See associated map for sample locations
- Consier on site 1425 → 1430 to pick up
samples.

40PL

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SPL



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 1 of 4

Name (for report and invoice) <u>Ian Hofmann</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC - Brooklyn 5200</u>	
Company <u>EAR</u>		P.O.# <u>Spill # 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address <u>225 Atlantic Ave</u>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hr</u>		Regulatory Program: <u>NYSDEC</u>	
City <u>Patchogue</u>	State <u>NY</u>	LAB USE ONLY			
Phone <u>(631) 447-6400</u>	Fax	Project No:			
		Job No:			
		Sample Numbers			
Sample Identification	Date	Time	Matrix	No. of Cont.	
<u>CB-16-0-3</u>	<u>7/25/17</u>	<u>830</u>	<u>Soil</u>	<u>3</u>	<u>X</u>
<u>CB-16-3-6</u>		<u>835</u>		<u>1</u>	<u>H</u>
<u>CB-17-0-3</u>		<u>839</u>			<u>X</u>
<u>CB-17-3-6</u>		<u>845</u>			<u>H</u>
<u>CB-18-0-3</u>		<u>851</u>			<u>X</u>
<u>CB-18-3-6</u>		<u>858</u>			<u>H</u>
<u>CB-20-0-3</u>		<u>911</u>			<u>X</u>
<u>CB-20-3-6</u>		<u>915</u>			<u>H</u>
<u>CB-19-0-3</u>		<u>904</u>			<u>X</u>
<u>CB-19-3-6</u>	<u>↓</u>	<u>908</u>	<u>↓</u>	<u>↓</u>	<u>H</u>
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil:			
6 = Other _____, 7 = Other _____		Water:			

Special Instructions Category B deliverables requested

Water Metals Filtered (Yes/No)?

Relinquished by <u>John John</u>	Company <u>EAR</u>	Date / Time <u>7/25/17 1430</u>	Received by 1) <u>[Signature]</u>	Company <u>T.A.</u>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

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

TAL - 0016 (0814)

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 2 of 4

Name (for report and invoice) <u>Ian Hafmann</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC Brooklyn 5200</u>	
Company <u>EAR</u>		P.O.# <u>Spill # 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address <u>225 Atlantic Ave</u>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72HR</u>		ANALYSIS REQUESTED (ENTER X BELOW TO INDICATE REQUEST)	
City <u>Patchogue</u> State <u>NY</u>		LAB USE ONLY Project No:		Job No:	
Phone <u>(631) 447-6400</u> Fax		Sample Identification		Sample Numbers	
Date	Time	Matrix	No. of Cont.		
<u>7/25/17</u>	<u>922</u>	<u>Soil</u>	<u>3</u>	<u>X</u>	<u>X</u>
	<u>930</u>			<u>H</u>	
	<u>938</u>			<u>X</u>	
	<u>944</u>			<u>H</u>	
	<u>1045</u>			<u>X</u>	
	<u>1050</u>			<u>H</u>	
	<u>1057</u>			<u>X</u>	
	<u>1102</u>			<u>H</u>	
	<u>1109</u>			<u>X</u>	
	<u>1114</u>			<u>H</u>	
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil: <u>1</u> <u>1</u>			
6 = Other _____, 7 = Other _____		Water: <u>/</u>			

Special Instructions Category B deliverables requested

Water Metals Filtered (Yes/No)?

Relinquished by <u>Adam Yohn</u>	Company <u>EAR</u>	Date / Time <u>7/25/17, 1430</u>	Received by 1) <u>[Signature]</u>	Company <u>T. [Signature]</u>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

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

TAL - 0016 (0814)

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



CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 3 of 4

Special Instructions Category B deliverables requested

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

TAL - 0016 (0814)

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CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 4 of 4

Name (for report and invoice) <u>Ian Halmain</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC - Brooklyn 5200</u>		
Company <u>EAR</u>		P.O.# <u>Site# 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: _____		
Address <u>225 Atlantic Ave</u>		Analysis Turnaround Time Standard <input type="checkbox"/>		LAB USE ONLY Project No: Job No: Sample Numbers		
City <u>Patchogue</u> State <u>NY</u>		Rush Charges Authorized For: 2 Week <input type="checkbox"/>				
Phone <u>(631) 447-6400</u> Fax _____		1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hr</u>				
Sample Identification		Date	Time	Matrix	No. of Cont.	ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)
<u>CB-22-0-3</u>	<u>7/25/17</u>	<u>1208</u>	<u>Soil</u>	<u>1</u>	<u>1</u>	<u>X</u>
<u>CB-9-3-6</u>		<u>1215</u>	<u>Soil</u>	<u>1</u>	<u>1</u>	<u>X</u>
<u>Rinse blank</u>		<u>800</u>	<u>Ag</u>	<u>4</u>	<u>1</u>	<u>X</u>
<u>CB-XX</u>		<u>1</u>	<u>Soil</u>	<u>1</u>	<u>1</u>	<u>X</u>
<u>CB-YY</u>		<u>1</u>	<u>Soil</u>	<u>1</u>	<u>1</u>	<u>X</u>
<u>CB-ZZ</u>		<u>1</u>	<u>Soil</u>	<u>1</u>	<u>1</u>	<u>X</u>
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH				Soil: <u>1</u> <u>6</u>		
6 = Other <u>Terra Core</u> , 7 = Other _____				Water: <u>1</u>		

Special Instructions Category B deliverables requested

Water Metals Filtered (Yes/No)? _____

Relinquished by <u>[Signature]</u>	Company <u>EAR</u>	Date / Time <u>7/25/17 1430</u>	Received by 1) <u>[Signature]</u>	Company <u>[Signature]</u>
Relinquished by 2) _____	Company	Date / Time 	Received by 2) _____	Company
Relinquished by 3) _____	Company	Date / Time 	Received by 3) _____	Company
Relinquished by 4) _____	Company	Date / Time 	Received by 4) _____	Company

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

TAL - 0016 (0814)

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

**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Wednesday, 7/26/17

Weather: 70°F+, sunny

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician)

Onsite Time: 07:15

Offsite Time: 14:30

EAR completed follow-up soil sampling activities at a total of three locations: SB-13, SB-15, and SB-19. Although originally directed to collect follow-up soil samples at SB-12, samples were collected at SB-13 as SB-12 was under standing water. Locations are illustrated in the attached map.

Per directives from the onsite EA representative, borings at the above locations were to be advanced to 4-feet below grade surface (BGS) using a stainless-steel hand auger. At SB-13 and SB-15, soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, 2-3 feet BGS, and 3-4 feet BGS. At SB-19, boring could not be advanced beyond 3.5 feet BGS. At this location, soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, and 2-3 feet BGS.

At each of the above locations, the interval exhibiting the highest PID reading was retained for lab analysis. EAR submitted a total of 4 soil samples (including one blind duplicate). All soil samples were preserved via EPA 5035 compliant means and submitted to Test America, Inc. (lab provided field courier pickup) for analysis of VOC's via EPA Method 8260 at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

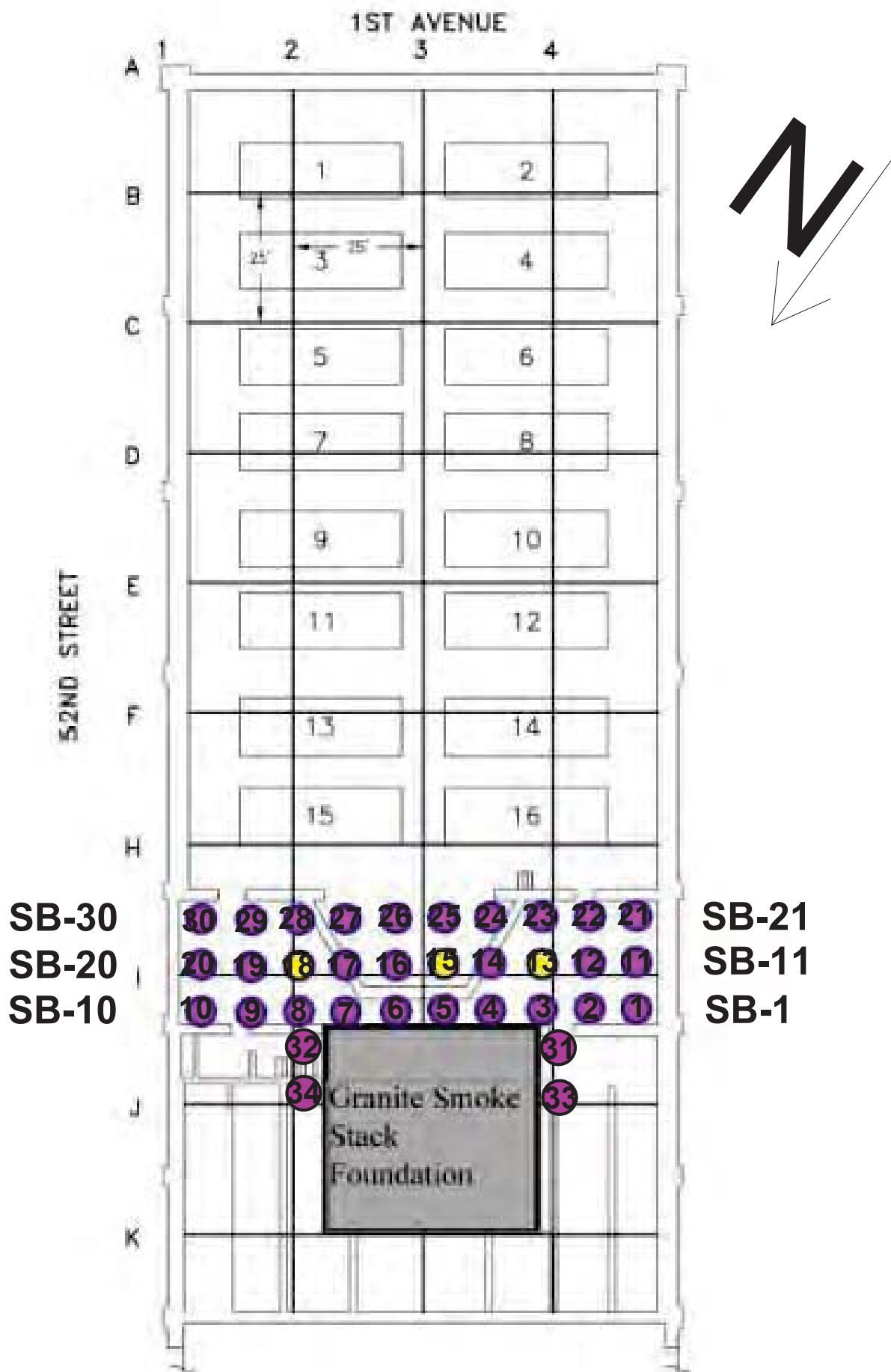
EAR collected groundwater samples at temporary wells installed at SB-13, SB-15, and SB-18 using a peristaltic pump. A new length of HDPE tubing was used at each location. Due to poor recharge at these locations, the water samples were collected following a purge of one well volume. No prior screening was conducted.

EAR collected a total of 4 aqueous samples (including one rinsate blank from soil sampling equipment). All groundwater samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, TAL metals via 6020/7470, total cyanide via 9012, and PFA's via modified 537. All samples were submitted for analysis at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.



All boring and sampling equipment contacting soil and/or groundwater was decontaminated between each sample. Decontamination consisted of gross contaminant removal followed by Liquinox wash and distilled water rinse.

Geologist's field notes and chain of custody forms are attached.



DEC-Brooklyn 5200

CB-30_0-3 @ 1257

CB-30_3-6 @ 1302

CB-31_0-3 @ ~~1257~~

CB-31_3-6 @ ~~1302~~

- Proposed location was steel, could not drill through. AS per V. Barber point was removed.

Notes Cont

- After collecting VOC samples, 3 additional points were added by V. Barber for PCBs; CB-29_3-6, #31. CB-31 was removed from sample plan because location was steel.
- See associated map for sample locations
- Courier on site 1425 - 1430 to pick up samples.

40PL

71

SPL

7/25/17

PID 0.1ppm

PID 0.2ppm

PID

PID

DEC-Brooklyn 5200

7/26/17

Start: 530 on: 715 Lunch: 1400-1430 off: 1430 End

Purpose: conduct soil sampling @ 3 locations.
GWS @ 3 previously installed temp MW's
on site: SPL/BCL/AD (EAR, Enviro Sci/Foreman/Tech)
V Barber (EA, on site rep)
Equip: 16 F150, PID # 19, Generator, GP, SS hand auger, Post hole digger, WLM
Weather: 70's, Sunny

Notes:

- V Barber on site upon arrival/departure
- PID calibration checked prior to use
- Ambient PID = 0.0ppm
- AS discussed w/ I. Hoffmann, due to small size of water column in SB-13, 15, & 18, they will be purged for 1 well volume then sampled, w/o monitoring for stability.
- AS discussed w/ I. Hoffmann, since SB-12 is covered in standing water; preventing soil sampling, SB-13 will be used instead
- AS per V Barber, will collect a 4'-5' bg sample during soil sampling where possible.

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JPL

DEC-Brooklyn 5200

7/26/17

SB-19

0'-1' @ 836

PID 0.3ppm

Brown F sand, some M, trc, tr gravel, moist, no odor

*1'-2' * @ 839

PID 0.3ppm

Brown F sand, trms, tr gravel, moist, no odor

2'-3' @ 843

PID 0.2ppm

Brown same ↑

4'-5' @ ~~843~~

PID

Rejection 4 times @ ~3.5'

SB-15

0'-1' @ 930

PID 4.5 ppm

Brown F sand, little M, little C, to gravel, moist, faint odor

1'-2' @ 938

PID 45.3 ppm

Brown same ↑, odor

2'-3' @ 945

PID 58.7 ppm

Brown same; odor

*4'-5' * @ 952 *MS/MSD *

PID 65.6 ppm

Brown silty F sand, tr M, tr C, wet, odor

SB-15-GW @ 909

DTW: 3.51 TWD: 6.26

2 of

73

JPL

SB-13

0'-1' @ 1055

PID 2.8 ppm

Brown F sand, tr M; moist, no odor

1'-2' @ 1102

PID 5.3 ppm

Brown same ↑, wet

2'-3' @ 1114

PID 0.4 ppm

Brown same ↑, wet

*4'-5' * @ 1125 *Dup = SB-X*

PID 72.1 ppm

Brown same ↑, wet, odor

SB-13-GW @ 902

DTW: ~~0.22~~ 0.99 TWD: ~~5.23~~ 3.05'

SB-18-GW @ 916

DTW: 4.73 TWD: 5.23

NOTES CONT

- Soil Sampling Equipment (hand auger) washed w/ ligumox & distilled H₂O between samples & fresh section of tubing used @ each well.

- AS discussed w/ I. Hoffmann (who contacted H. engineers) rinsate blank not needed for GW sampling

- T.A. called on site 1427 → 1432, to pick up day's samples

3 of 3

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JPL



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

Page 1 of 1

Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
John Xeln	EAR	7/26/17 1430	1)	PT
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

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

TAL - 0016 (0814)

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 1 of 1

Name (for report and invoice) <i>Ian Hoffman</i>		Samplers Name (Printed) <i>EAR</i>		Site/Project Identification <i>DEC-Brooklyn 15200</i>											
Company <i>EAR</i>		P.O. # <i>SP11 # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:						Regulatory Program: <i>NYSDEC</i>				DKQP: <input type="checkbox"/>	
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)										LAB USE ONLY Project No: Job No: Sample Numbers	
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72HR</i>													
Phone <i>(631) 447-6400</i> Fax															
Sample Identification	Date	Time	Matrix	No. of Cont.	8260C	MS/MSD	8270D	8081B	7470A + 6020A	9012B					
<i>SB-19-1-2</i>	<i>7/26/17</i>	<i>839</i>	<i>Soil</i>	<i>1</i>	<i>X</i>										
<i>SB-15-4-5</i>	<i>7/26/17</i>	<i>952</i>	<i>↓</i>	<i>3</i>	<i>X</i>	<i>X</i>									
<i>SB-13-4-5</i>	<i>7/26/17</i>	<i>9125</i>	<i>↓</i>	<i>1</i>	<i>X</i>										
<i>SB-13-GW</i>	<i>7/26/17</i>	<i>902</i>	<i>Ag</i>	<i>10</i>	<i>4</i>		<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>					
<i>SB-15-GW</i>	<i>7/26/17</i>	<i>909</i>	<i>↓</i>	<i>10</i>	<i>4</i>		<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>					
<i>SB-18-GW</i>	<i>7/26/17</i>	<i>916</i>	<i>↓</i>	<i>10</i>	<i>4</i>		<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>					
<i>Rinseblank soil</i>	<i>7/26/17</i>	<i>800</i>	<i>Ag</i>	<i>4</i>	<i>X</i>										
<i>SB-x</i>	<i>7/26/17</i>	<i>✓</i>	<i>Soil</i>	<i>1</i>	<i>X</i>										
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____					Soil: _____ Water: _____										

Special Instructions *Category B deliverables requested*

Water Metals Filtered (Yes/No)?

Relinquished by <i>[Signature]</i>	Company <i>EAR</i>	Date / Time <i>7/26/17 11430</i>	Received by 1) <i>[Signature]</i>	Company <i>T. J.</i>
Relinquished by 2) _____	Company	Date / Time 	Received by 2) _____	Company
Relinquished by 3) _____	Company	Date / Time 	Received by 3) _____	Company
Relinquished by 4) _____	Company	Date / Time 	Received by 4) _____	Company

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

TAL - 0016 (0715)

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



**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Thursday, 7/27/17

Weather: 70°F+, sunny in am, overcast in pm

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician)

Onsite Time: 07:15

Offsite Time: 14:30

EAR conducted groundwater sampling activities at a total of four locations: MW-01, MW-02, MW-08, and MW-09. EAR attempted sampling at MW-05 but was unable to advance a water level meter probe or sampling tubing beyond 7-feet below grade. When retrieved, the water level meter probe and tubing were muddy, suggesting that the well has filled with dirt/soil. Locations are illustrated in the attached map.

Groundwater samples were collected utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and oxidation reduction potential (ORP) were recorded as well.

Downhole equipment such as water level meters were decontaminated between each well location. Decontamination consisted of gross contaminant removal, Liquinox wash, and distilled water rinse.

EAR collected a total of 5 aqueous samples (including one blind duplicate). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCB's via 8082, TAL metals via 6020/7470, total cyanide via 9012, and PFA's via modified 537. All samples were submitted for analysis at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.



Photo 1: water level meter probe tip upon retrieval from MW-05.



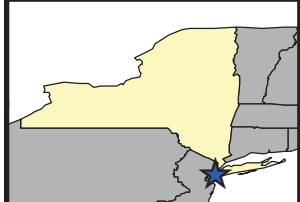
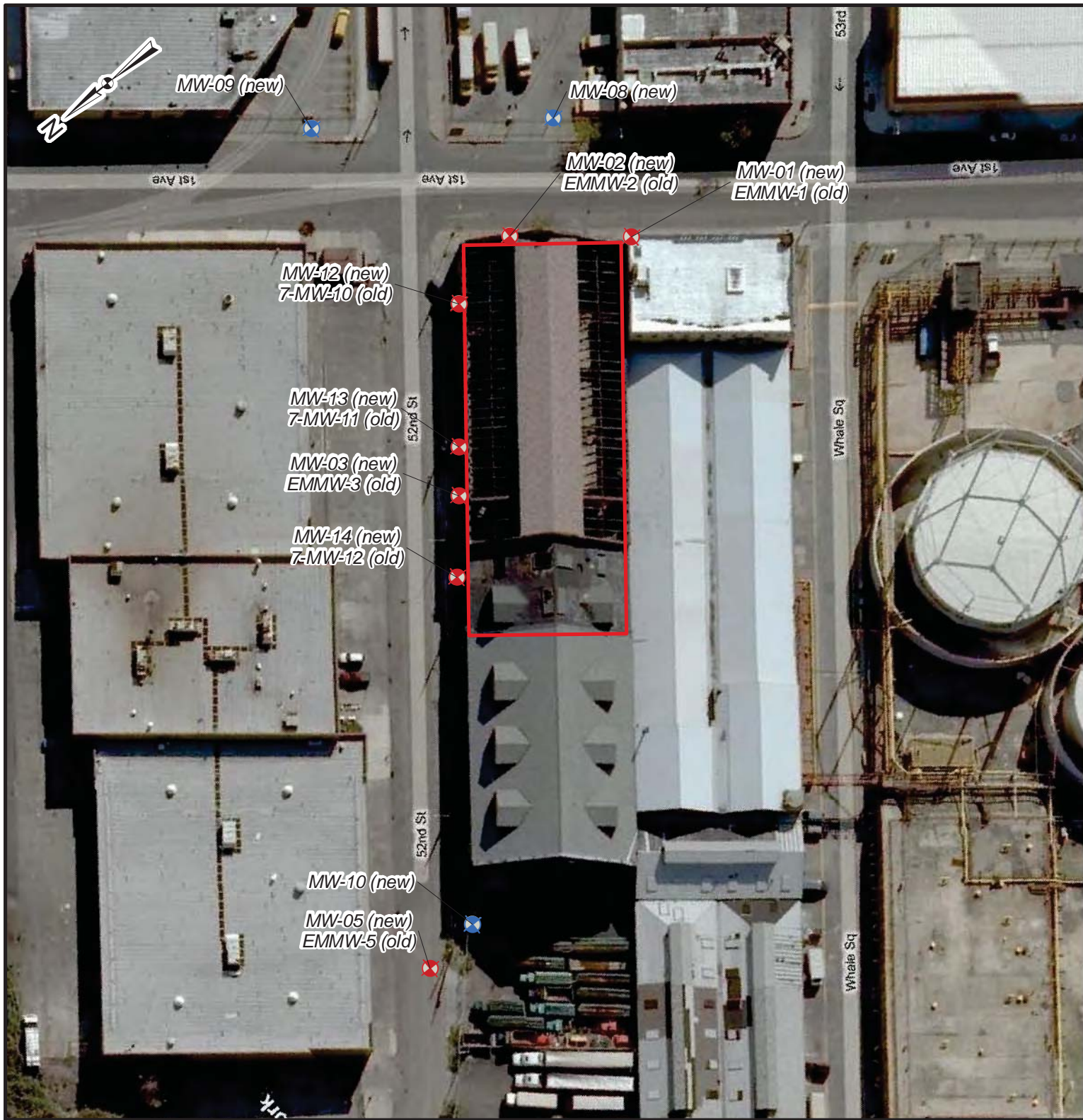
Photo 2: MW-05 well head





Photo 3: MW-10 well head. Casing/riser could not be found in manhole, even after exploratory digging.





Legend

- Building Footprint
- ✕ Monitoring Wells Installed by EA
- ✕ Existing Monitoring Wells

0 50 100 200 Feet

Source: Windows Live Maps
www.bing.com/maps



EMPIRE ELECTRIC WORK ASSIGNMENT BROOKLYN, NEW YORK

FIGURE 2 GROUNDWATER SAMPLE LOCATIONS

PROJECT MGR:
DFC

DESIGNED BY:
MJS

CREATED BY:
MJS

CHECKED BY:
SEF

SCALE:
AS SHOWN

DATE:
JULY 2009

PROJECT NO:
14474.26

FILE NO:
GIS/PROJECTS/
FIGURE2.MXD

DEC-Brooklyn 5200

7/27/17

Start 530 On: 715 Lunch 1400-1430 Off: 1430 End:

Purpose: Complete GWS

On site: SPL/AD/TZP (EAR, Enviro Sci/Foreman/tech)

Equip: 16 F150, GP, YSI, generator, WLM

Weather: ↑70's, Sunny → overcast

Notes:

- Travel to/from site w/ AD/TZP
- Vinnie Barber on site upon arrival/departure
- Sampling equipment (YSI) cleaned w/ Liquinox & distilled water between wells
- See associated GWS sheet for field
- * Screening data, dups & MS/MSD info
- MW-13 could not be located: no sampling conducted
- MW-10 is damaged: no sampling conducted
- MW-05 obstruction @ ~7' bgl: no sampling conducted
- MW-03, 12, & 14 sampled on 7/24/17
- T.A. Conner on site 1406 → 1412 to pick up samples.

1 of 1

75

SPL

Site DEC-Brooklyn5200
Date 7/27/14
Techs AD/T2P/SPL

Start Time: See W.O.
End Time: _____

Equipment See
W.O.

[illegible]

Well Size (inches)	0.5	0.75	1	1.5	2	4	6	8
Multiplier based on 4 well volume	0.06	0.11	0.18	0.42	0.7	2.65	6	10.4
Multiplier based on 1 well volume	0.015	0.0275	0.045	0.105	0.175	0.663	1.5	2.6

* MW-02 = MW-X
* MW-01 selected for MS/MSD

DO range = less than 12 (unless very close to a sparge well)

PLEASE CONTACT THE PMs IF THERE IS A PROBLEM. THIS DATA IS IMPORTANT AND INCORRECT DATA IS WORSE THAN NO DATA. WE REALLY APPRECIATE YOUR WORK TO KEEP E.A.R. A TOP COMPANY IN THE FIELD

Record DO & ORP but DO NOT use for stability

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 1 of 1

Name (for report and invoice) <i>Jon Hoffman</i>		Samplers Name (Printed) <i>EAR</i>		Site/Project Identification <i>DEC-Brooklyn 5200</i>										
Company <i>EAR</i>		P.O. # <i># 221015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>										
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 Hr</i>		ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)										
City <i>Patchogue</i> State <i>NY</i>				<div style="display: flex; justify-content: space-between;"> <div> <div>LAB USE ONLY</div> <div>Project No:</div> <div>Job No:</div> <div>Sample Numbers</div> </div> <div> <div>8260C</div> <div>8270D</div> <div>8081B</div> <div>8082A</div> <div>7470A + 6020A</div> <div>9012B</div> <div>MS/MSD</div> </div> </div>										
Phone <i>(631) 447-6400</i> Fax														
Sample Identification	Date	Time	Matrix	No. of Cont.	8260C	8270D	8081B	8082A	7470A + 6020A	9012B	MS/MSD			
<i>MW-02</i>	<i>7/27/17</i>	<i>808</i>	<i>Aq</i>	<i>12</i>	<i>4</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>				
<i>MW-01</i>	<i> </i>	<i>910</i>	<i> </i>	<i>36</i>	<i>4</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>24</i>			
<i>MW-08</i>	<i> </i>	<i>1045</i>	<i> </i>	<i>12</i>	<i>4</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>				
<i>MW-09</i>	<i>✓</i>	<i>1200</i>	<i>✓</i>	<i>12</i>	<i>4</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>				
<i>MW-X</i>	<i>7/27/17</i>	<i>✓</i>	<i>Aq</i>	<i>12</i>	<i>4</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>				
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____				Soil: <i>✓</i>		<i>✓</i>		<i>✓</i>		<i>✓</i>				
				Water: <i>2</i>		<i>1</i>		<i>1</i>		<i>1</i>		<i>4</i>		<i>5</i>

Special Instructions *Category B deliverables requested*

Water Metals Filtered (Yes/No)?

Relinquished by <i>John X</i>	Company <i>EAR</i>	Date / Time <i>7/27/17 11410</i>	Received by <i>John X</i>	Company <i>EAR</i>
Relinquished by <i>John X</i>	Company <i>EAR</i>	Date / Time <i>7/27/17 11410</i>	Received by <i>T. A</i>	Company <i>T. A</i>
Relinquished by <i>3)</i>	Company	Date / Time	Received by <i>3)</i>	Company
Relinquished by <i>4)</i>	Company	Date / Time	Received by <i>4)</i>	Company

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

TAL - 0016 (0715)

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sacramento

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

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice) <u>Jon Hafmann</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC - Brooklyn 5200</u>	
Company <u>EAR</u>		P.O. # <u>Spill # 221015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address <u>225 Atlantic Ave</u>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hr</u>		Regulatory Program: <u>NYSDEC</u> DKQP: <input type="checkbox"/>	
City <u>Patchogue</u> State <u>NY</u>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)		LAB USE ONLY	
Phone <u>(631) 447-6400</u> Fax				Project No:	
				Job No:	
				Sample Numbers	
Sample Identification	Date	Time	Matrix	No. of Cont.	
<u>MW-02</u>	<u>7/27/17</u>	<u>808</u>	<u>Ag</u>	<u>2</u>	<u>X</u>
<u>MW-01</u>	<u>↓</u>	<u>910</u>	<u>↓</u>	<u>6</u>	<u>2</u>
<u>MW-08</u>	<u>↓</u>	<u>1045</u>	<u>↓</u>	<u>2</u>	<u>X</u>
<u>MW-09</u>	<u>↓</u>	<u>1200</u>	<u>↓</u>	<u>2</u>	<u>X</u>
<u>MW-X</u>	<u>7/27/17</u>	<u>✓</u>	<u>Ag</u>	<u>2</u>	<u>X</u>
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil: <input type="checkbox"/>			
6 = Other _____, 7 = Other _____		Water: <input type="checkbox"/>			

Special Instructions

Category B deliverables requested

Water Metals Filtered (Yes/No)?

Relinquished by <u>John Lehn</u>	Company <u>EAR</u>	Date / Time <u>7/27/17 11410</u>	Received by 1) <u>~</u>	Company <u>T.A</u>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

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

TAL - 0016 (0715)

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



**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Wednesday, 8/9/17

Weather: 60°F+, sunny

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Edgar Lucero (technician)

Onsite Time: 07:45

Offsite Time: 13:00

EAR conducted concrete sampling activities at one location: CB-10. This location had been scarified on a prior date.

To collect the above sample, a drill with a carbide masonry bit was advanced to 3-inches below the scarified surface (BGS). EAR collected a total of 1 concrete sample which was submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082.

EAR collected groundwater samples at temporary wells installed at SB-13, SB-15, and SB-18 using a peristaltic pump. A new length of HDPE tubing was used at each location. Due to poor recharge at these locations, the water samples were collected following a purge of one well volume. No prior screening was conducted.

EAR collected a total of 5 aqueous samples (including one blind duplicate and one rinsate blank from concrete sampling equipment). All groundwater samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of TAL metals via 6020/7470 (lab filtered) and PCB's via 8082 (lab filtered). All samples were submitted for analysis at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

All groundwater sampling equipment contacting groundwater was decontaminated between each sample. Decontamination consisted of gross contaminant removal followed by Liquinox wash and distilled water rinse. All concrete sampling equipment was decontaminated prior to use via gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

Geologist's field notes and chain of custody forms are attached.

Sun-Fairport 279

8/8/17

Notes cont

- Concrete around holding tank broken/removed by 1500
- Tank pulled using excavator & chains by 1525. ~ 5' long
- Oil staining & odor observed in soil around tank, soil to be staged w/ rest on plastic wrap w/ that from the lift
- Holding tank excavation dug down to 5.5' where soil showed no more sign of oil staining/impact
- End point sample collected from 5.5' @ 1550
- confirmed w/ Bob that no more digging will be done & that contaminated soil will be properly staged before leaving.

* Hydraulic Lift - Endpoint @ 1355 PID 894ppm
- Black F sand, little M, trc; wet, stained odor

Holding Tank Endpoint @ 1559 PID 13.5
- Tan F sand, some M, trc; moist, no stain, no odor

3043

79

JPL

DEL Brooklyn 5200

8/9/17

Start: 530 ON: 745 Lunch 1230-1300 OFF: 1300 End:

Purpose: Collect 1 Concrete sample, & 3 GW samples from temp wells
ON SITE: SPL/BCC/EL (EAR, ENVIS Sci/Tech/Foreman)
Vinnie Barber (EA on site Rep)
Equip: 16F150, PID #19, GP, Generator, Hammer drill, WLM
Weather: 76os, Sunny

Notes:

- Travel to/from site w/ BCC/EL
- V. Barber on site upon arrival/departure
- PID Calibration checked prior to use
Ambient PID = 0.1ppm
- Concrete samples were collected using same method as described on 7/21/17 (pg. 63), using hammer drill, liquidator, hexane, & half trays
- As discussed w/ I. Hoffmann, GW points will be purged 1 well volume, then sampled w/o YSI readings
- Fresh section of Hope tubing used @ each GW point. WLM decaned between points

1 of

80

JPL

DEC-Brooklyn 5200

8/9/17

CB-10R

@ 935 *MS/MSD*

PID 1.2ppm

0"-3"

* SB-13 GW @ ~~1000~~ 1120

DTW 4.79

TWD 5.23

SB-15 GW @ 1040 *MS/MSD* SB-15 GW = SB-X

DTW 3.53

TWD 6.98

SB-18 GW @ H2O 1000

DTW 1.17

TWD 3.05

Notes cont

- T.A. Courier on site 1223 → 1228

to pick up Samples

*

2 of 2

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JPL

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice) <u>Ian Hofmann</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC-Brooklyn 5200</u>	
Company <u>EAR</u>		P.O.# <u>Site # 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address <u>225 Atlantic Ave</u>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hr</u>		Regulatory Program: <u>NYSDEC</u> DKQP: <input type="checkbox"/>	
City <u>Patchogue</u> State <u>NY</u>		ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)		LAB USE ONLY	
Phone <u>(631) 447-6400</u> Fax		<u>PCBs via EPA 8082</u> <u>Filtered PCBs</u> <u>MS/MSD</u> <u>Filtered TAL</u> <u>Metals + Mercury</u>		Project No:	
				Job No:	
				Sample Numbers	
Sample Identification	Date	Time	Matrix	No. of Cont.	
<u>CB-10K</u>	<u>8/9/17</u>	<u>935</u>	<u>Soil</u>	<u>3</u>	<u>X</u>
<u>SB-18-GW</u>	<u>↓</u>	<u>1000</u>	<u>Aq</u>	<u>4</u>	<u>X</u>
<u>SB-15-GW</u>	<u>↓</u>	<u>1040</u>	<u>↓</u>	<u>12</u>	<u>X</u>
<u>SB-13-GW</u>	<u>↓</u>	<u>1120</u>	<u>↓</u>	<u>4</u>	<u>X</u>
<u>Rinseblank-Soil</u>	<u>8/9/17</u>	<u>900</u>	<u>Aq</u>	<u>2</u>	<u>X</u>
<u>SB-X</u>	<u>8/9/17</u>	<u>↓</u>	<u>Aq</u>	<u>4</u>	<u>X</u>
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____					Soil: <u>1</u> Water: <u>1</u>

Special Instructions SB-18, 15, 13, & X need to be filtered. Category B deliverables requested Water Metals Filtered (Yes/No)?

Relinquished by <u>[Signature]</u>	Company <u>EAR</u>	Date / Time <u>8/9/17 11230</u>	Received by <u>[Signature]</u>	Company <u>TAN XC</u>
Relinquished by	Company	Date / Time	Received by	Company
2)			2)	
Relinquished by	Company	Date / Time	Received by	Company
3)			3)	
Relinquished by	Company	Date / Time	Received by	Company
4)			4)	

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

TAL - 0016 (0715)

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



**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Tuesday, 8/29/17

Weather: 65°F+, cloudy

EAR Personnel Onsite: Bruce Campbell (skilled laborer), Edgar Lucero (skilled laborer)

Onsite Time: 07:00

Offsite Time: 10:00

EAR personnel removed broken manhole and skirt at monitoring well MW-02. An asphalt/concrete saw was used to cut an approximately 16-inch by 16-inch opening around the well such that the damaged manhole and skirt could be removed. Following removal of the damaged manhole and skirt, the well riser was cut down approximately 2-inches in order to allow room in the manhole vault for the locking well cap and keep manhole lid flush with grade.

EAR installed a new 8-inch diameter, steel, bolt-down manhole and restored the cut to grade with 5,000 psi concrete mixed onsite.

A NYCDOT sidewalk opening permit (attached) was obtained by EAR prior to beginning the work.

Photographs are attached.

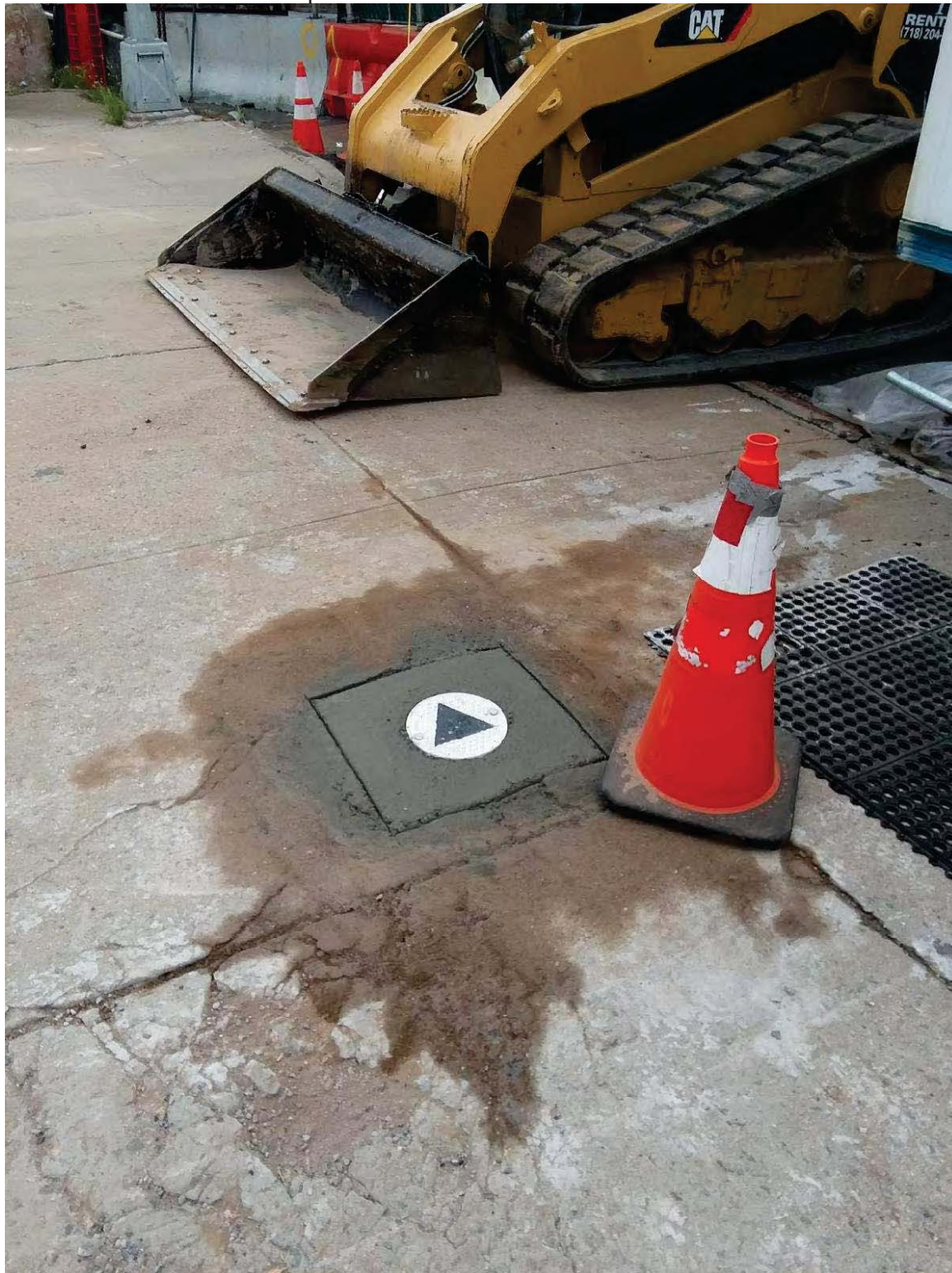


Photo 1: MW-02 damaged manhole removed and well casing cut down





Photo 2: MW-02 manhole replaced and restored





NYC Department of Transportation

Office of Permit Management PROTECTED STREET OPENING PERMIT

PERMIT#: B01-2017236-C56



ISSUED DATE: 8/24/2017 PERMIT VALID FROM: 8/24/2017 TO: 8/31/2017
BOROUGH: BROOKLYN PERMIT TYPE: 0152P - SPILL RESPONSE/CLEANUP -
INSTALLATIONS P
FEES (NON-REFUNDABLE): ROADWAY TYPE:
ADMINISTR \$135.00 SIDEWALK TYPE: CONCRETE
ATION FEE
TOTAL : \$135.00 FEE
WAIVED/CONTRACT

CONF # B201723694

PERMISSION HEREBY GRANTED TO:

NAME: LONG ISLAND ENVIRONMENTAL ASSESSMENT INC. LICENSE #: None
CONTACT NAME: VIGLIOTTA DAVID CONTRACT #: C100611
PHONE: 5164476400 SPONSORING AGENCY: NYS DEPT
ENVIRON
CONSERVATION
ADDRESS: 225 - ATLANTIC AVE PATCHOGUE NY 11772

TO OPEN THE SIDEWALK AT:

HOUSE#:
ON STREET: 1 AVENUE
FROM STREET: 52 STREET
TO STREET: 53 STREET
LOCATION DETAILS: Sidewalk on the North-West side of street
FOR PURPOSE OF: NYCDEC Contract No. C100611 - Well repair
RELATED AGENCY #:
FOR MAX. LENGTH OF: 2 FT
INSPECT DIST: 33 COMM. BOARD: 07
RECORDED: None SEQUENCE #: 0001
TRACKING #: 2017082300649393

Note: If House Number is not provided Permittee shall use "Location Details" box to indicate a specific location of the work area within a block (for all non-Contract work, i.e. Contract #: None).

PERMITTEE SHALL COMPLY WITH ALL APPLICABLE LAWS, RULES AND SPECIFICATIONS OF THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION AND WITH THE TERMS AND CONDITIONS OF THE PERMIT. FAILURE TO COMPLY MAY RESULT IN REVOCATION OF THE PERMIT BY THE COMMISSIONER.

TAMPERING WITH OR KNOWINGLY MAKING A FALSE ENTRY IN OR FALSELY ALTERING THIS PERMIT MAY RESULT IN A RESTRICTION IN OBTAINING FUTURE NYCDOT PERMITS.



NYC Department of Transportation

Office of Permit Management PROTECTED STREET OPENING PERMIT

PERMIT#: B01-2017236-C56



NYS LAW

CALL NEW YORK 811, INC. AT 1-800-272-4480 OR 811 BEFORE STREET OPENING EXCAVATIONS. NEW YORK STATE INDUSTRIAL CODE RULE 753 MANDATES 2-10 BUSINESS DAYS NOTICE PRIOR TO DIGGING.

PERMITTEE SHALL COMPLY WITH ALL OF THE FOLLOWING STIPULATIONS

SPECIFIC STIPULATION	
	SIDEWALK ONLY NO ROADWAY WORK, REPAIR ALL SCARRING YP 8/24/17. AL: MUST COORDINATE WITH THE ONGOING CONSTRUCTION PRIOR TO MOBILIZING.
013	MAINTAIN A MINIMUM 5 FOOT CLEAR PEDESTRIAN WALK ON THE SIDEWALK
016	FULL WIDTH OF SIDEWALK SHALL BE OPENED TO PEDESTRIANS WHEN SITE IS UNATTENDED EXCEPT FOR CONCRETE CURING WHEN THAT PORTION OF THE SIDEWALK MAY REMAIN CLOSED PROVIDED ALL OTHER STIPULATIONS ON THIS PERMIT ARE COMPLIED WITH. THIS EXCEPTION DOES NOT APPLY IF STIPULATION 014 IS ALSO APPLIED TO THIS PERMIT.
019	WORK 7AM - 6PM, MONDAY THROUGH FRIDAY
038	ALL TEMPORARY TRAFFIC CONTROL DEVICES, INCLUDING BUT NOT LIMITED TO SIGNS, CHANNELIZING DEVICES, FENCING AND MARKINGS SHALL BE PROVIDED, INSTALLED, MAINTAINED AND REMOVED BY THE PERMITTEE IN ACCORDANCE WITH THE MOST RECENT VERSION OF PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD). OBTAIN THE MUTCD AT HTTP://MUTCD.FHWA.DOT.GOV .
091	THIS PERMIT ACTIVITY MAY NOT START UNTIL THE PERMITTEE COORDINATES ALL WORK WITH ANY ONGOING CONSTRUCTION AND WITH THE PROJECT/RESIDENT ENGINEER FOR ANY ONGOING CAPITAL PROJECTS.
103	PARKING OF NON-COMMERCIAL VEHICLES ON THE STREET (ROADWAY AND SIDEWALK) WITHIN WORK ZONES IS PROHIBITED.
NOISE1	BY SUBMITTING THIS APPLICATION AND/OR RENEWAL REQUEST, THE PERMITTEE CERTIFIES ITS COMPLIANCE WITH ALL APPLICABLE CITYWIDE CONSTRUCTION NOISE MITIGATION REQUIREMENTS INCLUDING, BUT NOT LIMITED TO THE DEVELOPMENT OF A COMPLIANT NOISE MITIGATION OR ALTERNATIVE NOISE MITIGATION PLAN. PLEASE CONTACT THE NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION (WWW.NYC.GOV/DEP) FOR FURTHER INFORMATION.
SCHOOL	NO WORK TO BE PERFORMED WITHIN BLOCK FRONTING SCHOOL INCLUDING INTERSECTIONS FOR ONE HOUR PRIOR TO SCHOOL START TIME THROUGH ONE HOUR AFTER END OF SCHOOL TIME. PERMITTEE MUST NOTIFY SCHOOL PRINCIPAL IN WRITING 48 HOURS PRIOR TO BEGINNING ANY WORK. THIS STIP VOIDS ANY/ ALL OTHER CONFLICTING STIPS ON THIS PERMIT UNLESS ACCOMPANIED WITH VARIANCE STIP VAR001.
TMC001	CONTRACTORS WHO AT ANY TIME DURING THEIR PERMITTED WORK ENCOUNTER TRAFFIC SURVEILLANCE CAMERAS, DETECTION EQUIP OR ANY TYPE OF COMMUNICATION EQUIPMENT (WIRELESS OR HARD-WIRED) ON ANY NYCDOT FACILITY, THAT IS NOT INCLUDED ON THE DESIGN/BUILD DWGS, SHALL IMMEDIATELY NOTIFY NYCDOT TRAFFIC MANAGEMENT AT TMC@DOT.NYC.GOV & 718-433-3390/40 AND AWAIT DIRECTION PRIOR TO CONTINUING WORK.
WAGE01	NYC ADMINISTRATIVE CODE, 19-142, WORKERS ON EXCAVATIONS: A PERSON TO WHOM A PERMIT MAY BE ISSUED, TO USE OR OPEN A STREET, SHALL BE REQUIRED, BEFORE SUCH PERMIT MAY BE ISSUED, TO AGREE THAT NONE BUT COMPETENT WORKERS, SKILLED IN THE WORK REQUIRED OF THEM, SHALL BE EMPLOYED THEREON, (CONT. ON STIP WAGE02)
WAGE02	...AND THAT THE PREVAILING SCALE OF UNION WAGES SHALL BE THE PREVAILING WAGE FOR SIMILAR TITLES AS ESTABLISHED BY THE FISCAL OFFICER PURSUANT TO SEC. TWO HUNDRED TWENTY OF THE LABOR LAW, PAID TO THOSE SO EMPLOYED.

**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Wednesday, 9/20/17

Weather: 70's (F), overcast, gusty

EAR Personnel Onsite: John Lohan (geologist)

Drilling Subcontractor: Aarco

Onsite Time: 08:15

Offsite Time: 14:15

EAR and Aarco were onsite to install monitoring wells to replace MW-10 and MW-13. Prior to EAR's arrival onsite, EA had located the MW-10 casing sunken approximately 6-inches below grade. EAR gauged the well and noted a total well depth matching that recorded on drilling log for MW-10.

EAR/Aarco moved to begin installation of the MW-13. After hitting refusal at first location at approximately 4.5 feet below grade, rig was relocated for second attempt. When hand digging to clear the location, MW-13 was located.

Onsite NYSDEC representative Charlie Post directed EAR/Aarco to install new manholes and concrete pads at MW-10 & MW-13 and re-develop the wells. As well development activities were not schedule for 9/20, no turbidimeter was available. NYSDEC directed EAR/Aarco to develop the wells, to the extent feasible, until purge waters were visibly clear.

MW-10 and MW-13 were developed via pumping using inertia method. MW-13 was purged of approximately 20 gallons (12.5 well volumes). MW-10 was purged of approximately 10 gallons (5.5 well volumes). Purge water generated was co-mingled with PAL's aqueous wastes.

At each location, EAR/Aarco installed 8-inch diameter steel, bolt-down manholes set in 12-inch by 12-inch concrete pads.

Geologist's field notes are attached.



AARCO Environmental Services Corp.

DAILY JOB REPORT

Customer: EXR Date: 9/20/17 Weather: Overcast
Job Location: 5200 First Ave Job #: 15-235223 Day of Week: Wednesday

Description of Work:

Set up Rig Drill to 4 1/2 ft 2 SPRT Full SPRT SPOONS taken
Hand clear to 4 1/2 ft REFUSE
Develop 2 - 2" wells 1hr 15 Time Developing
Replace 2 mandibles w/ Pads

MW 13 + MW 10 ~~more~~ more located previously Assumed WST/Albany

Manifest # _____ Approval # _____ Gallons/Yards _____

Manifest # _____ Approval # _____ Gallons/Yards _____

Start Time: 500AM Leave Shop: 530AM

Arrive on Job Site: 830AM Leave Job Site (1): 130PM Total Hrs On-Site: _____

Arrive at Shop: _____ Clock Out Time: _____ Total Hrs for Day: _____

Overtime approved by: _____)

Employee:	Prevailing Wage Yes or No:	PW Category:
<u>Tim Kelly</u>	<u>Yes</u>	_____
<u>Scott Decker</u>	<u>Yes</u>	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Equipment Used:	Material Used:
<u>BK81</u>	<u>4 Bags Concrete</u>
<u>D474</u>	<u>2 Mandibles</u>
_____	<u>1 J Plug - 2"</u>
_____	_____
_____	_____
_____	_____
_____	_____

Aarco Signature: X [Signature]

Client Signature: X [Signature]

DEC-Island Park 3880

8/18/17

Start: 700 Off 845 Lunch:

Off: 1045 End:

Purpose: Continue O+D of Well abandonment

On Site: JPL/DG/AD/EL

Equip: ObF 250, Camera

Weather: 60-65 F, overcast, rain

Notes:

- Travel to ~~from~~ site w/ AD & off site w/ DG
- DG/EL on site & BSG
- MW-6 well removed, pad broken, & restored w/ concrete by ~1040
- MW-5 well removed, pad broken, & restored w/ concrete by ~1040
- Heavy rain ~1000-1015
- drying concrete pads were covered w/ plastic held down w/ cones to prevent water damage
- DG spoke w/ SL (EAR, PM) & agreed/decided to call site activities for the day
- AD/EL off site in F550 @ 1049 to dispose of accumulated debris.

I of 1

8F

JPL

DEC-Brooklyn 5200

9/20/17

Start: 500 on: 815 Lunch 1345-1415 off: 1415 End 1730

Purpose: O+D well installation to 24' bgs, conduct

on site: JPL (EAR, Geo) Tim Kelly/Scott D (AARCO, Hdrn/assist)

Equip: 16 Transit, WLM, walking wheel, camera (P&P)

Weather: 70's, overcast, gusty

Notes

- Heavy traffic on 495 expressway delayed on site arrival time
- AARCO on site upon arrival, arrived ~5 min before myself
- Vinnie had located the original MW-10 before our arrival, it was sunken ~6" below grade & buried w/ dirt. 2" dia, DTW: 13.38 TWB: 23.92
- AS per I. Hoffmann & Vinnie will redrill existing well & restore pad rather than install new well.
- Charley, (DEC, PM) on site ~1000 -> ~1115

I of 3

8F

JPL

DEC-Brooklyn 5200
MW-13R

9/20/12

0-2 @ 956

Fe: 4.1 ppm

0.6/2

0.25 Brown F sand, trM, moist, no SP

0.35 Gray M sand, some F, trC, tr asphalt, dry, no S/O

2-4 @ 1001

Fe: 4.2 ppm

0.6/2

0.30 Gray same O

0.20 Brown F sand, some M, dry

0.10 Gray M sand, some F, trC, tr asphalt, dry

4-6 @ —

Fe: /

- Hit rejection @ ~ 4.5' bgs, moved boring
~ 8' closer to 1st Ave

- While prepping new location for Post boring
AARCO found the old MW-13 2" dia, DTW: 17.02,
TWD: 26.07. 1 well volume = ~ 1.58 gal. Purged ~ 20
gal by ~ 1140, by hand using check valve

- As stated by Charley (DEC Rep on site)
development of MW-13 & MW-10 can be done
w/o the use of a turbidimeter or VSI
for field screening, & that ~~since it~~ ~~these~~ it is
acceptable if these pre-existing wells can't be
made as clear as well like since the slot size of
the screens are in question.

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JPL

Notes Cont

MW-13 development

Dia: 2" TWD: 26.07 DTW: 17.02

Water column: 9.05' 1 well volume: ~ 1.58 gal

- Water started as deep brown color w/ ↑
Sediment content. Started to clear up a little
then Δ in color plateaued after ~ 8 gal, a light
brown color w/ some sediment.

- After purging ~ 20 gal (~ 12.5 well volumes)
there had been no notable Δ in color since the
8 gal mark, development finished. by ~ 1140

- MW-13 restored w/ bolt down manhole, 12" skirt,
set in 12" x 12" concrete pad by 1215

MW-10 development

Dia: 2" TWD: 23.92' DTW: 13.38'

Water column: 10.54' 1 well volume: 1.84 gal

- Water started as solid black, but quickly
cleared up, becoming transparent w/ only
a few flakes of sediment.

- After purging 10 gal (~ 5.5 well volumes) well
considered developed @ 1245

- MW-10 restored w/ bolt down, steel manhole
w/ 12" skirt, set in 12" x 12" concrete pad

- AARCO off site by 1230

3 of 3

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JPL



**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Thursday, 9/21/17

Weather: 70's (F), overcast

EAR Personnel Onsite: John Lohan (geologist), Bruce Campbell (foreman), Blake Campbell (technician)

Onsite Time: 07:00

Offsite Time: 12:00

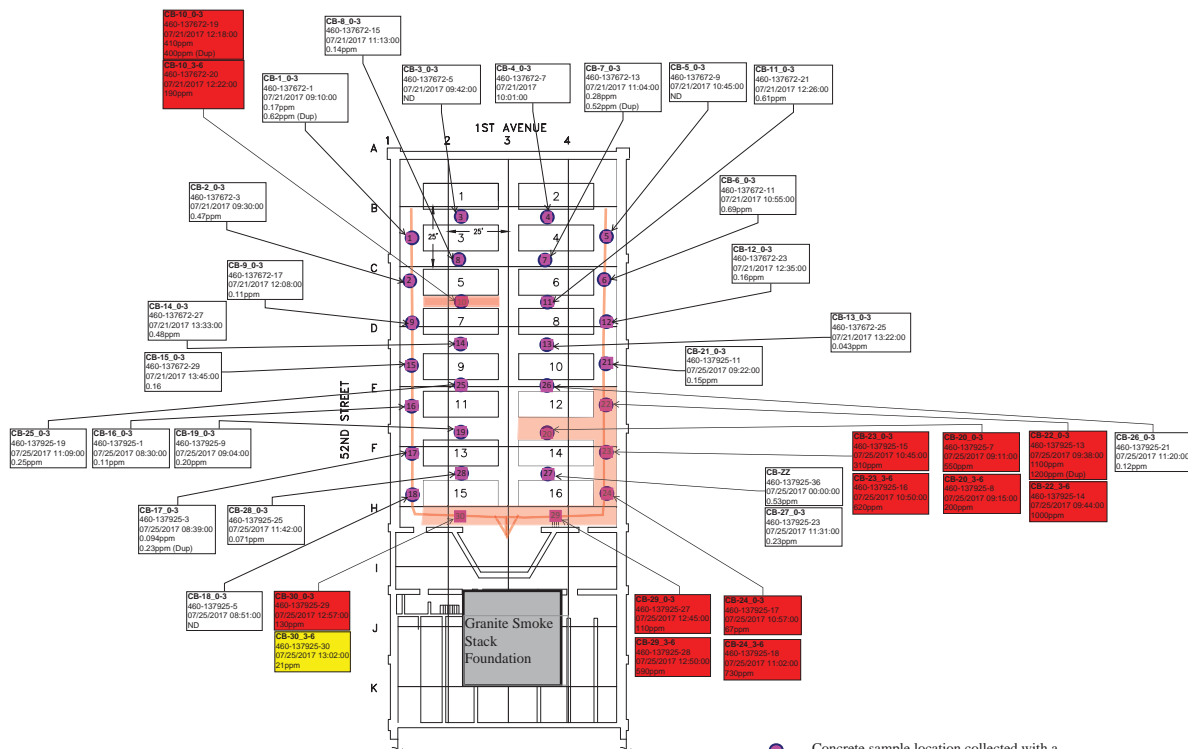
EAR completed concrete sampling activities at a total of six post-scarification locations: CB-20, CB-22, CB-23, CB-24, CB-29, CB-30. Locations are illustrated in the attached map.

To collect the above samples, a drill with a carbide masonry bit was advanced to 3-inches below grade surface (BGS). At all locations, concrete samples (pulverized concrete drill spoils) were collected from 0-3 inches BGS.

All boring and sampling equipment was decontaminated between each sample. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

EAR collected a total of 7 concrete samples (including one blind duplicate) and 1 aqueous sample (rinsate blank). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082. All samples were submitted for an expedited 24-hour analytical turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.



DATE	FOR	WIDE	DATE
10/13			
DATE	DESCRIPTION	REVISIONS	

PCB CONCRETE SAMPLE LOCATIONS

PREPARED BY:
KALINCHENKO, P.C.
AN AFFILIATE OF
E&A
ENGINEERING, P.C.
AND SCIENCE AND
TECHNOLOGY



CADD/SP	
E.A. #	1490706
FILE	1490706_Concrete.dwg
DRAWN BY	JRM
DATE	OCTOBER 2013
SCALE	AS SHOWN
CS	

DEC-Brooklyn 5200

9/2/17

Start: 500 Off: 700 Lunch:

Off: 1200 End:

Purpose: Conduct Post-Scarification Sampling from 0"-3" bg @ 6 locations

On Site: JPL/BC/BCC (EAR, Geo/Foreman/Tech)

Equip: 16 F150, Bosche Hammer drill, Honda 2000i generator, PID

Weather: 70's, overcast

NOTES

- Drove to/from site w/ BC/BCC
- Vinnie B. on site upon arrival
- BC went through Safety orientation while I discussed scope of work w/ Vinnie
- As per Vinnie, concrete samples will be biased towards the trench where possible (All samples except CB-20PS-0-3), where there is the ↑ chance of finding any remaining contamination.
- Concrete sampling was conducted using Bosche hammer drill, w/ a ~~new~~ half tray (chaffing dish) used @ each location to collect the powdered concrete
- Hammer Drill bit deconed w/ liguinox & hexane before sampling & after each sample was collected

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JPL

CB-30PS_0-3	@ 8/25	*MS/MSD*	PID 0.9 ppm
CB-29PS_0-3	@ 840	*Dup = CB-X*	PID 0.1 ppm
CB-24PS_0-3	@ 910		PID 0.1 ppm
CB-22PS_0-3	@ 930		PID 0.9 ppm
CB-20PS_0-3	@ 950		PID 0.2 ppm
CB-23PS_0-3	@ 1030		PID 0.1 ppm
Rinse Blank	@ 800		

Notes cont

- PID zero & span calibrated prior to use
- Rinse Blank collected @ 800
- T.A. pick up was on site @ 1145-1150
- Samples relinquished to T.A.

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JPL

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 1 of 1

Name (for report and invoice) <i>Tan Hofmann</i>		Samplers Name (Printed) <i>EAR</i>		Site/Project Identification <i>DEC-Brooklyn 5200</i>	
Company <i>EAR</i>		P. O. # <i>SIC # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>24</i>		Regulatory Program: <i>NYSDEC</i>	
City <i>Patchogue</i>		State <i>NY</i>		DKQP: <input type="checkbox"/>	
Phone <i>(631) 447-6400</i>		Fax		LAB USE ONLY	
				Project No:	
				Job No:	
				Sample Numbers	

Sample Identification	Date	Time	Matrix	No. of Cont.	ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)
<i>CB-30PS-0-3</i>	<i>9/21/17</i>	<i>825</i>	<i>Soil</i>	<i>3</i>	<i>PCBS via 8082 MS/MSD</i>
<i>CB-29PS-0-3</i>	<i>↓</i>	<i>840</i>	<i>↓</i>	<i>1</i>	
<i>CB-24PS-0-3</i>	<i>↓</i>	<i>910</i>	<i>↓</i>	<i>1</i>	
<i>CB-22PS-0-3</i>	<i>↓</i>	<i>930</i>	<i>↓</i>	<i>1</i>	
<i>CB-20PS-0-3</i>	<i>↓</i>	<i>950</i>	<i>↓</i>	<i>1</i>	
<i>CB-23PS-0-3</i>	<i>↓</i>	<i>1030</i>	<i>↓</i>	<i>1</i>	
<i>Rinse Blank</i>	<i>9/21/17</i>	<i>800</i>	<i>Ag</i>	<i>2</i>	<i>X</i>
<i>CB-X</i>	<i>9/21/17</i>	<i>✓</i>	<i>Soil</i>	<i>1</i>	<i>X</i>

Preservation Used: 1 = ICE, 2 = HCl, 3 = H₂SO₄, 4 = HNO₃, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil: *1*
Water: *✓*

Special Instructions *Category B deliverables requested*

Water Metals Filtered (Yes/No)?

Relinquished by <i>John Zolner</i>	Company <i>EAR</i>	Date / Time <i>9/21/17 11:50</i>	Received by <i>1)</i>	Company <i>T. A.</i>
Relinquished by <i>2)</i>	Company	Date / Time <i>1</i>	Received by <i>2)</i>	Company
Relinquished by <i>3)</i>	Company	Date / Time <i>1</i>	Received by <i>3)</i>	Company
Relinquished by <i>4)</i>	Company	Date / Time <i>1</i>	Received by <i>4)</i>	Company

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

TAL - 0016 (0715)

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

**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Monday, 9/25/17

Weather: 70's (F), overcast

EAR Personnel Onsite: John Lohan (geologist), Don Griffing (traffic control), Blake Campbell (traffic control)

Drilling Subcontractor: Aarco

Onsite Time: 08:30

Offsite Time: 15:30

EAR and Aarco were onsite to install one monitoring well to replace MW-05. Rig positioning did not require traffic control. As such, EAR traffic control personnel left the site after meeting w/ EA representative (V. Barber) to review focused excavation area.

During advancement of the borehole, soil samples were collected continuously from grade surface to 25-feet below grade surface (BGS) using a split-spoon sampler (2-foot intervals). The samples were inspected lithological changes and physical evidence of contamination. Soil samples collected from the water table interface (11-13 feet BGS, 149.3 ppm) and at the interval exhibiting the highest PID reading (19-21 feet BGS, 120.4 ppm) were retained and submitted to Test America for analysis of TCL+30/TAL parameters with a 72-hr analytical turnaround time requested.

MW-05R was installed to specifications using hollow-stem augering techniques. Well is constructed of 14-feet of 2-inch diameter, 10-slot, schedule 40 PVC screen installed from 14 feet to 24 feet BGS, and 14-feet of 2-inch diameter, schedule 40 PVC riser. Gravel pack was installed from 24-feet to 12-feet BGS, with a bentonite seal from 12-feet to 9-feet BGS. Bentonite grout was installed from 9-feet BGS to near grade. The surface was finished with an 8-inch diameter, steel, bolt-down manhole set in a 24-inch by 24-inch concrete pad. The well casing was secured with a locking J-plug. Well is located 10.5-feet west of the 52nd Street west curbline, 17.5-feet north of MW-10, and 29.4-feet north of the northwest corner of the Block 803, Lot 6 building.

MW-05R was developed via pumping using a submersible pump. The well was pumped of at least 5 well volumes and two consecutive samples yielded turbidity readings less than 50 nephelometric turbidity units (NTU). Generated purge water (~40 gallons) was comingled with PAL aqueous wastes.



1 drum of mixed drill cuttings and decontamination rinsate was generated and staged onsite for EAR characterization, transportation, and disposal.

Geologist's field notes and chain of custody form are attached. A drill log for MW-05R is currently being prepared and will be submitted under separate cover.

DEC-Brooklyn 5200

9/25/17 1445

Start: 530 PM 830 Lunch: 1530-1530 Off: 1530 End: 2000

Purpose: O/D MW installation by AARCO, & well development

On site: JPL (EAR, Geo) DG/BCC (EAR, Flaggers)

Tim Kelly/Scott D. (AARCO, Hdriller/Assist)

Equip: 16 Transit, PID #18, Turbidimeter, YSI, WZM, Walking wheel, Camera (P/P)

Weather: 78°S, Sunny

Notes

- Vinnie B on site upon arrival/departure
- AARCO on site upon arrival
- DG/BCC on site ~830
- As discussed w/ Vinnie B & I. Hoffmann, was determined that traffic control was not needed for well installation, & wasn't set up.
- DG/BCC off site by 1000.
- PID was zero & span calibrated prior to use.
- Well is to be advanced by AARCO, using a BK-81 drill rig implementing hollow stem Augers & Split Spoon Sampling (continuous) from post hole to target depth (24' by)
- Split spoons

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JPL

MW-05R

0-5' aug Post Hole - cleared

5-7 @ 957 Split Spoon (SS)

PID 32.4 ppm

1.45/2

0.25 Black F sand, tr M, HC; moist, no S/O

1.20 Brown same

7-9 @ 1000

SS

PID 25.6 ppm

1.10/2

0.30 Black same

0.80 Brown same

9-11 @ 1103

SS

PID 68.4 ppm

1.5/2

0.25 Black same

1.25 Brown F sand, tr silt, tr M, HC; moist, no S/O

11-13 @ 1010

SS

PID 149.3 ppm

1.05/2

0.25 Black F sand, tr M, tr C; moist, no S/O

0.25 Brown F, tr silt, tr M, HC; moist, no S/O

0.65 Brown same; wet, no S/O

13-15 @ 1020

SS

PID 3.9 ppm

2/2

1.70 Brown same

0.30 Black same; wet, no stain, faint white odor, like a mild bathroom cleaner (solvent?)

2 of 5

94

JPL

DEL-Brooklyn 5200

9/25/17

MW-05R Cont

15-17' @ 1027

SS

PID 6.7 ppm

0.95 / 2

0.90 Brown F sand, tr silt, tr M, wet, no S/O

0.03 Black F/M sand, trc, wet, no stain, some mild detergent odor (PERC)

17-19' @ 1038

SS

PID 87.1 ppm

1.4 / 2

1.40 Brown F sand, tr M, trc, wet, stain on last 0.40', Odor - PERC

19-21' @ 1045

SS

PID 20.4 ppm

2 / 2

2.0 Brown same M, wet, stained, PERC odor

21-23' @ 1058

SS

PID 54.1 ppm

0.55 / 2

0.55 Brown sand, F sand, little M, trc, wet light stain, PERC odor

23-25' @ 1102

PID 30.3 ppm

2 / 2

2.00 Brown F sand, little M, trc, tr silt, wet, no stain faint odor (PERC)

- AS discussed w/ I. Hoffmann, the 11-13 & 19-21 intervals were selected for lab analysis labeled:

MW-05R 11-13 & MW-05R 19-21 respectively

3 of 5

95

SP2

Notes Cont

- AS per the well design, MW-05R was installed using ~14' of 2" Sch 40 PVC & 10' section of PVC 10 slot screen. Gravel pack was installed to 12' bg, w/ a bentonite seal from 12'-9' bg, & brought to grade w/ bentonite grout. The well was finished w/ an 8" steel bolt down manhole, & locking 5-Ping cap, & set in approx 2'x2' concrete pad.

- PVC was installed, & gravel pack, bentonite, & grout were in place by 11:55

- THD: 24.08' DTH: 13.02' Water column: 11.06'

1 well volume: 1.93 gal

- Well development was conducted via a whorl pump, & measured using 5 gal buckets. Screening via Turbidimeter & YSI only started once water began to clear up (~20 gal)

Time	Run	pH	sp cond	Temp	Turbidity
1302	~25 gal	7.31	1011	16.84	80.40
1311	~30 gal	7.21	1224	17.10	60.8
1318	~35 gal	7.22	1447	17.38	21.0
1325	~40 gal	7.28	1642	17.94	20.3

- Post well development concrete pad was installed

- 1 drum of drill cuttings was generated. decon water was added to drum. drum staged onsite behind work fence.

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SP2

DEC- Brooklyn 5200

9/25/17

NOTES CONT

- purge water from well development added to PAL onsite containers.
- AARCO packed/cleaned up & off site by 1430.
- T.A. carries on site 1448-1452 to pick up the day's samples

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SPL



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

Page 1 of 1

Name (for report and invoice) Ian Hofmann			Samplers Name (Printed) EAR			Site/Project Identification DEC-BROOKLYN 05200			
Company EAR			P. O. # 224015			State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>			
Address 225 Atlantic Ave			Analysis Turnaround Time Standard <input type="checkbox"/>			Regulatory Program: NYS DEC			
City Patchogue			Rush Charges Authorized For: 2 Week <input type="checkbox"/>			LAB USE ONLY Project No:			
State NY			1 Week <input type="checkbox"/>			Job No:			
Phone (631) 447-6400			Other <input checked="" type="checkbox"/> 72 Hr			Sample Numbers			
Fax									
Sample Identification			Date	Time	Matrix	No. of Cont.			
MW-05R-11-13			9/25/17	1010	Sq'l	6	X	X	X
MW-05R-19-21			↓	1045	↓	6	X	X	X
Trip Blank			9/25/17	—	Aq.	2	X		
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH			Soil:			1 1 1			
6 = Other _____, 7 = Other _____			Water:			2			

Special Instructions Category B deliverables requested

Water Metals Filtered (Yes/No)?

Relinquished by John Yeh	Company EAR	Date / Time 9/25/17 1450	Received by 1) [Signature]	Company T A
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

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

TAL - 0016 (0715)

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



AARCO Environmental Services Corp.

DAILY JOB REPORT

Customer: EAR Date: 9/25/17 Weather: Hot Humid
Job Location: 5200 First Ave Bldg Job #: 15-235223 Day of Week: Monday

Description of Work:

1-Hand clear to 56ft Big Drill w/ 4" Auger And Sample w/ ~~10~~ Split Spoons
From 56ft - 24ft Set 2" well in Bone Hole Sand Pack Bentonite Seal
Grout to Grade Manhole cover w/ Pad 10 Split Spoons Taken
1 Hand clear Refusal At 40ft unknown obstruction 1 Drum Filled Soil
Develop 2" well w/ whale Pump Approx 45 min Clean work Area

Manifest # _____ Approval # _____ Gallons/Yards _____

Manifest # _____ Approval # _____ Gallons/Yards _____

Start Time: 5:00 AM Leave Shop: 5:30 AM

Arrive on Job Site: 7:00 AM Leave Job Site (1): 2:30 PM Total Hrs On-Site: _____

Arrive at Shop: _____ Clock Out Time: _____ Total Hrs for Day: _____

Overtime approved by: _____)

Employee:	Prevailing Wage Yes or No:	PW Category:
<u>Tim Kelly</u>	<u>Yes</u>	<u>Driller</u>
<u>Scott Decker</u>	<u>Yes</u>	<u>Helper</u>

Equipment Used:	Material Used:
<u>2 1/2" Bgs</u>	<u>1 Drum</u>
	<u>2 Bgs concrete</u>
	<u>1 1/2 Bgs Bentonite powder</u>
	<u>1 Bg Portland cement</u>
	<u>1 Bg Bentonite chips</u>
	<u>8 Bgs Sand</u>
	<u>10ft Gravel 10 slot</u>
	<u>14ft Riser</u>
	<u>1 Cap</u>
	<u>1 Plug</u>
	<u>1 Manhole cover</u>

Aarco Signature: X

Client Signature: X

**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Wednesday, 9/27/17

Weather: 80's (F), humid, sun and clouds

EAR Personnel Onsite: John Lohan (geologist)

Drilling Subcontractor: Aarco

Onsite Time: 07:45

Offsite Time: 16:00

EAR and Aarco were onsite to conduct soil probing and temporary well installations. A track-mounted Geoprobe model 7822DT was used to advance the borings.

Following review of the proposed boring locations, the rig was set up at SB-35D (see attached map). After rig hit refusal at approximately 7-feet below grade, the boring was relocated approximately 6-feet west. Rig hit refusal again at 7-feet below grade at this new location and again at a third alternate location. Obstruction is believed to be a concrete slab. Per onsite EA and NYSDEC representatives (V. Barber and C. Post, respectively), no further attempts were made at this location.

At location SB-36D, rig hit refusal at approximately 8.5-feet below grade. The boring was relocated and rig again hit refusal at 8.5-feet below grade. As directed by NYSDEC (C. Post), the temporary well was installed at this depth and only the 6-8 foot interval sample was submitted for laboratory analysis. The temporary well was constructed of a 2-inch diameter, 5-foot pre-packed screen, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 1-foot above grade. No. 0 gravel pack was installed to 2.5-feet below grade, and a bentonite seal was installed from 2.5-feet below grade to surface.

At location SB-37D, a wood pile was encountered at approximately 12-feet below grade. Drilling activities were stopped for the day. Advancement of SB-37D will be reattempted on 9/28 at a new location.

One (1) soil sample (SB-36D_6-8) as submitted to Test America, Inc. for the full suite of analyses to include: TCL VOC+10, TCL SVOC+20, PCBs, PESTS, TAL METALS, TOTAL CYANIDE. Sample was submitted for an expedited 72-hr turnaround time with NYSDEC ASP Category B deliverables requested.



All downhole tooling was decontaminated between sample intervals via Alconox scrub, followed by hexane wipe-down, and de-ionized water rinse. Decontamination rinsates were intermingled with PAL aqueous wastes.

Geologist's field notes and chain of custody form are attached.

DEC-Brooklyn 5200

9/25/17

Notes cont.

- Gauge water from well development added to PAL onsite containers.
- AARCO packed/cleaned up & off site by 1430.
- T.A. carried off site 1448-1452 to pick up the day's samples

Location

- 10.5' V
- 17.5' E
- 29.4' NW

5 of 5

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SPL

Brooklyn 5200

9/27/17

Start: 430 ON: 745 LUNCH: 1500-1530 OFF: 1600 EOD: 2045

Purpose: 94D ^{Advancement} ~~Installation~~ of 8 soil borings, #8

Corresponding Piezometers by AARCO

ON SITE: SPL (EAR, Geo)

Equip: 16 Transit, PID #18, Camera (RED)

Weather: mid to ↑ 80's, humid, Sunny to partially cloudy

NOTES:

- Accident on LTR (BQE) delayed on site time
- Vinnie B on site upon arrival (EA onsite Rep)
- PID zero & span calibrated prior to use
 - Ambient PID = 0.0ppm
- Discussed scope of work w/ Vinnie B, & had brief walk about through work zone, reviewing proposed locations
- AARCO on site ~805, delayed by same accident on BQE
- Reviewed scope of work w/ AARCO crew, & Vinnie including decon procedure
- AARCO is using a Geoprobe model 7822DT to advance borings & set piezometers
- notes cont on pg 103

1 of 6

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SPL

DEC-Brooklyn 5200

9/27/17

SB-35D

0-4' @ 945

PID 0.9ppm

3.10/4

0.35 Tan F sand (fill)

0.50 Brown F Sand, trm, dry, no odor/stain

0.40 Crushed red brick + concrete

1.85 Brown F Sand, trm, dry, no S/O

4-8' @ 957

PID 1.1ppm

2.15/4

2.15 Brown F Sand trm, trc, wet, no S/O

- Hit refusal @ ~ 7' bg, moved ~ 6' W

0-4' @ 1005

2.10/4

- Hit refusal @ ~ 7'. Moving location ~ 5' S

0-4' @ 1016

PID

2.90/4

0.55 Tan F, little trm, trc; dry no S/O (fill)

2.35 Brown F sand, trm, trc; moist no S/O

- Hit rejection @ ~ 7' bg

- Informed Jan of hitting 3 refusals, then spoke w/ Vinnie B. (EA) & Charlie (NYSDEC), who had arrived on site. AS per Vinnie, the refusal is most likely due to a concrete slab laid down when building was first constructed. AS per Vinnie & Charlie, no further attempts to advance SB-35D or S will

2 of 6

99

JPL

SB-35D cont

be made @ this time, & we'll move onto the next boring.

SB-36D

0-4' @ 1100

4.8ppm

2/4

2.00 - Tan F Sand, trm, trc, tr F mica

4-8' @ 1105

64.2ppm

2.50/4

0.50 Brown F Sand, trm, trc, moist, no S/O

0.1.20 Brown F Sand, trm, wet faint odor

0.80 D Brown Silty F Sand, trm, wet, faint odor

- Hit refusal @ ~ 8.5' - concrete

- Vinnie, using 5k lb steel, extended the layer of clean fill SB that rig could be moved ~ 8' further West

0-4' @ 1133

PID 0.9

2.65/4

2.65 Tan F sand, trm, trc; dry - moist, no S/O

4-8' @ 1140

PID 94.2ppm

3.30/4

1.10 Tan

2.20 Brown F Sand, trm, trc; wet, no stain, odor

- Refusal hit @ ~ 8.5' bg.

3 of 6

100

JPL

DEC-Brooklyn 5200

9/27/17

SB-36D cont

- Informed Vinnie & Charlie about refusal, & they came into workzone to see. As per Vinnie & Charlie SB-36 will be set @ ~ 8' bg, where we hit refusal, & only the end point sample will be sent in for lab analysis (VOCs, SVOCs, TAL Metals, PCB, Pesticides, total cyanide). No other ^{Antennas} samples from SB-36D will be sent for analysis. Also, ^{all} refusals will be marked w/ a metal rod for future reference (except for those from SB-35D).

- ~~test~~ consists of AS discussed w/ I. Hoffmann. Perimeter ~~test~~ consists of a 2" sch 40 PVC w/ a prepacked screen, #5' long, & associated riser to ~ 1' above grade (~3' to grade + ~1' stick up). In addition to the prepacked screen N.O. sand will be installed to ~ 2.5' bg, w/ a bentonite seal from 2.5' bg to grade.

4 of 6

101

SPL

SB-37D

0-4 @ 1332

PID 94 ppm

2.45/4

0.65 Tan F sand, trm, trc; dry naslo (fwd)

1.80 Brown F sand, trm; moist naslo

4-8 @ 1340

PID 62 ppm

1.75/4

0.55 Brown Same

1.20 Brown Same, wet, + 3' piece of wood

Piling

8-12 @ 1345

PID 84 ppm

2.25/4

2.25 Wood ^{piling} hitting ground/in pieces

- AS per Vinnie B. boring went into an old wood piling. They should only be ~ 12" in dia. We will move ~ 1' closer to the granite foundation & try again.

- Work stopped @ ~ 1400. Crew was working in heat/sunlight in Tyvek suits & I felt that to keep operating posed risk of heat exhaustion.

5 of 6

102

SPL

DEC-Brooklyn5200

9/27/17

Notes Cont

- While operating the rig, & in the work zone Tyvek suits & over boots were used by all AARCO & EAR personnel.
- All PPE & IDW (Investigation derived waste) was put into EAR'S IDW drum already strapped on site
- Between samples & boring locations AARCO decontaminated all sampling equipment using Alconox, Hexane, & washing with water
- AARCO off site ~ 1430
- Vinnie B off site ~ 1525
- Charlie (DEC) on site ~ 1000, off ~ 1400 (rough estimates, did not personally see Charlie arrive/leave)
- T.A Pick up on site 1600-1605 to get the day's samples

Granite
foundation

SB-35
X
D return

SB-36
X return

X

SB-37
X return

6046

103

SPL

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 1 of 1

Name (for report and invoice) <i>Ian Hofmann</i>		Samplers Name (Printed) <i>EAR</i>		Site/Project Identification <i>DEC-B100K175200</i>															
Company <i>EAR</i>		P. O. # <i>Site #224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>						Regulatory Program: <i>NYS DEC</i>				DKQP: <input type="checkbox"/>					
Address <i>225 Atlantic Ave</i>		City <i>Patchogue</i>		State <i>NY</i>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 Hr</i>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)										LAB USE ONLY Project No:	
Phone <i>(631) 447/6400</i>		Fax						<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">8260c</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SVX, TAL Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PCB, Residues</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Cyanide</div> </div>										Job No:	
Sample Identification		Date	Time	Matrix	No. of Cont.											Sample Numbers			
<i>SB-36D-b-8</i>		<i>9/27/17</i>	<i>1140</i>	<i>soil</i>	<i>6</i>	<i>X</i>	<i>X</i>												
<i>Trip Blank</i>		<i>9/27/17</i>	<i>/</i>	<i>Aq</i>	<i>2</i>	<i>X</i>													
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH						Soil: <i>1</i>													
6 = Other _____, 7 = Other _____						Water: <i>2</i>													

Special Instructions <i>Category B deliverables requested</i>			Water Metals Filtered (Yes/No)?		
Relinquished by <i>John John</i>	Company <i>EAR</i>	Date / Time <i>9/27/17 1:00</i>	Received by <i>1)</i>	Company <i>1)</i>	
Relinquished by <i>2)</i>	Company	Date / Time <i> </i>	Received by <i>2)</i>	Company	
Relinquished by <i>3)</i>	Company	Date / Time <i> </i>	Received by <i>3)</i>	Company	
Relinquished by <i>4)</i>	Company	Date / Time <i> </i>	Received by <i>4)</i>	Company	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)



AARCO Environmental Services Corp.

DAILY JOB REPORT

Customer: EAR Date: 9/27/17 Weather: 85°F

Job Location: 5200 First Ave, Brooklyn Job #: _____ Day of Week: Wednesday

Description of Work:

- 6 environmental borings w/ 4' macro
 - 3 to 7 1/2 (refusal)
 - 2 to 8 (refusal)
 - 1 to 16 - drilled through wood & client told me to move
- Installed 1 gwnw to 8' Bsg w/ 5' pre packed screen.

Manifest # _____ Approval # _____ Gallons/Yards _____

Manifest # _____ Approval # _____ Gallons/Yards _____

Start Time: 5:00 Leave Shop: 5:30

Arrive on Job Site: 8:00 Leave Job Site (1): 2:30 Total Hrs On-Site: 6.5

Arrive at Shop: _____ Clock Out Time: _____ Total Hrs for Day: _____

Overtime approved by: _____)

Employee:	Prevailing Wage Yes or No:	PW Category:
<u>Adam Hutchinson</u>	<u>/</u>	<u>/</u>
<u>Will Scheiner</u>		

Equipment Used:	Material Used:
<u>D214</u>	<u>1/2 bag bentonite</u>
<u>7822 DT</u>	<u>1 bag of sand</u>
	<u>1, 5' pre pack screen</u>
	<u>1 riser</u>

Aarco Signature: X [Signature]

Client Signature: X [Signature]



**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Thursday, 9/28/17

Weather: 70's-80's (F)

EAR Personnel Onsite: John Lohan (geologist)

Drilling Subcontractor: Aarco

Onsite Time: 06:30

Offsite Time: 16:30

EAR and Aarco were onsite to continue soil probing and temporary well installations. A track-mounted Geoprobe model 7822DT was used to advance the borings.

Probing began at a new location for SB-37. Probe hit refusal at 8-feet below grade (BG) and was relocated again. The boring was advanced to 24-feet BG. A temporary well (SB-37D) was installed which was constructed of a 2-inch diameter, 5-foot pre-packed screen, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 2-feet above grade. No. 0 gravel pack was installed to 17-feet BG, and a bentonite seal was installed from 17-feet BG to surface. A complementary, shallow well (SB-37S) was installed adjacent to SB-37D to a total depth of 11-feet BG. SB-37S was constructed of a 2-inch diameter, 5-foot pre-packed screen, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 2.5-feet above grade. No. 0 gravel pack was installed to 4-feet BG, and a bentonite seal was installed from 4-feet BG to surface.

At location SB-38, probe was able to advance to 28-feet BG. However, when attempting to advance larger diameter rods for the installation of the temporary well, rig hit refusal at approximately 11.5 feet BG. This corresponds to the depth interval at which concrete was observed during sampling activities (see geologist's notes). Per onsite EA representative, the temporary well was set at 11.5-feet BG and was constructed of a 2-inch diameter, 5-foot pre-packed screen, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 2.5-feet above grade. No. 0 gravel pack was installed to 4.5-feet BG, and a bentonite seal was installed from 4.5-feet BG to surface.

Twelve (12) soil samples were submitted to Test America, Inc. for analysis of PCB's via EPA Method 8082. Six (6) of the twelve samples (those corresponding to depth intervals of the water table interface, approximate depth of upcoming focused soil excavation, and boring terminus) were also submitted for the full suite of analyses to include: TCL VOC+10, TCL SVOC+20, PESTS, TAL METALS, TOTAL CYANIDE. One (1) aqueous sample (rinse blank) was



submitted for analysis of PCB's via EPA Method 8082. All samples were submitted for expedited turnaround times with NYSDEC ASP Category B deliverables requested.

A total of four (4) temporary wells were installed 9/27-9/28/17:

SB-36 (installed to 8.5-feet BG)

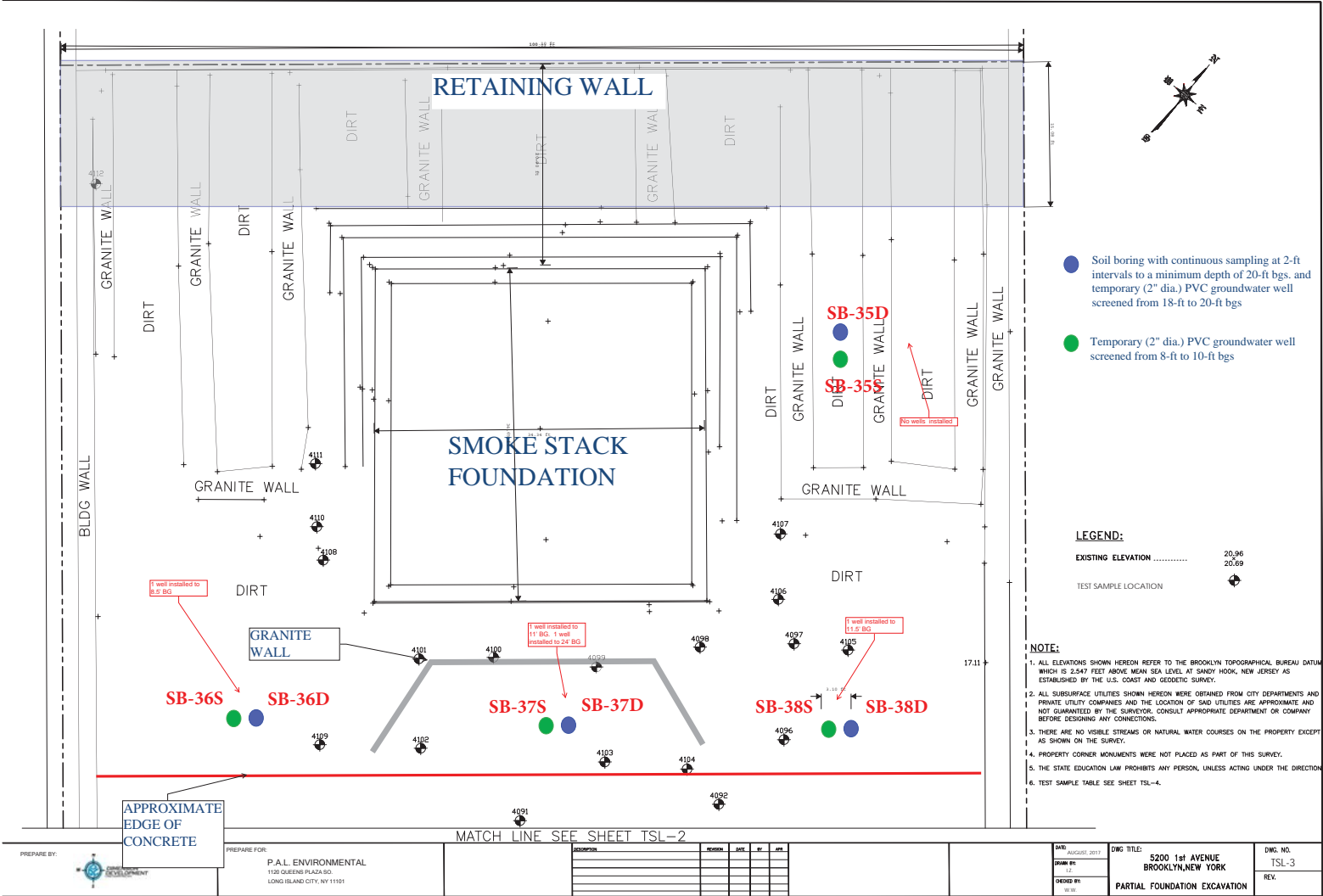
SB-37S (installed to 11-feet BG)

SB-37D (installed to 24-feet BG)

SB-38 (installed to 11.5-feet BG)

All downhole tooling was decontaminated between sample intervals via Alconox scrub, followed by hexane wipe-down, and de-ionized water rinse. Decontamination rinsates were intermingled with PAL aqueous wastes.

Geologist's field notes and chain of custody form are attached.



DEC-Brooklyn 52.00

Notes Cont

- While operating the rig, & in the workzone Tyvek suits & overboots were used by all AARCO & EAR personnel.
- All PPE & IDW (Investigation derived waste) was put into EAR'S IDW drum already staged on site
- Between samples & boring locations AARCO decontaminated all sampling equipment using Alconox, Hexane, & washing with water
- AARCO off site ~ 1430
- Vinnie B off site ~ 1525
- Charlie (DEC) on site ~ 1000, off ~ 1400. (rough estimates, did not personally see Charlie arrive/leave)
- T.A. Pick up on site 1600-1605 to get the days samples

Granite foundation

SB-35
to return

SB-36
to return
X

SB-37
to return

606

103

SPL

9/27/17

DEC-Brooklyn 52.00

9/28/17

Shift: 415 on: 630 Lunch 1400-1430 off: 1630 End: 2100

Purpose: Continue o/s of Soil boring advancement & Piezometer installation

on site: SPL (EAR, Geo), Adam Hutchinson / Nick Turro (AARCO, Hdr./Assist)

Equip: 16 Transit, PID #18, WLM, Camera (P&P), Tape measure,

Weather: 70's - 80's

Notes:

- Vinnie B. (EA on site rep) on site ~ 645
- PID calibration checked prior to use
 - Ambient PID = 0.1 ppm
- AARCO on site ~ 730, off by 1600
- Charlie P. (DEC) on site ~ 1000, off site ~ 1330 (Like on 9/27 these are rough estimates, did not see when Charlie arrived/left)
- AARCO using Geoprobe model 7822 DT to collect 4' macro core samples via direct push, & 3 3/4" rods to install Temp Piezometers
- between samples & between points, AARCO decontaminated equipment using Alconox wash, Hexane wipe down & rinsed w/ water

106

104

SPL

DEC-Brooklyn 5200

9/28/17

SB-37D

0-4' @ 870 Macro core (MC) PID 1.1 ppm

3.75/4

0.80 Tan F Sand, trM sand; dry no s/o (fill)

2.95 Brown F Sand, trM, trC; moist, no s/o

4-8' @ 825 MC PID 1.9 ppm

4.00/4

0.35 Tan fill

0.15 Brown F Sand, trM, trC; moist no s/o

3.50 Brown Same J; wet, sheen, odor.

- Hit rejection @ ~ 8' by closed

- Discussed situation w/ Vinnie & Charlie, relocated to where the trench discharges.

0-4' @ 845 MC PID 68.4 ppm

3.70/4

0.65 Tan Fill

1.25 Brown F Sand, trM, trC; dry no s/o

0.40 Brown Same J; moist no s/o

0.40 Black Same J; wet, no stain, odor (~0.20 concrete sand)

4-8' @ 850 MC PID 101.9 ppm

3.9/4

0.15 backfill (fill)

2.75 Brown F Sand, trM, trC; wet, no stain, odor

8-12' @ 857 PID 41.1 ppm

2.95/4

2 of 6

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JPL

SB-37D Cont

0.60 Brown silty F Sand, trM; wet, no stain, odor

2.35 Brown Same J; wet, no stain, faint odor

12-16' @ 905 PID 90.2 ppm

3.8/4

1.50 Brown/black silty F Sand, trM; wet, no stain, odor

2.30 Brown Same J; wet, no stain, faint odor

1.00 Brown F+M Sand, some C; wet, no s/o (sample)

16-20' @ 912 PID 79.8 ppm

4.0/4

4.00 Brown F Sand, some M, little C; wet, no stain, odor

20-24' @ 928 PID 92.8 ppm

3.40/4

3.40 F+M Sand, little C; wet, no stain, faint odor

- SB-37D Set @ ~ 24' by (a foot was added to compensate for the amount of fill encountered @ the top). The

Piezometer consists of 5' of 10 slot prepacked screen, Sch 40, 2" dia, & ~ 19' of riser + ~ 2' of stick up. Sand installed to ~ 17' by, & bentonite from ~ 17'-20' by

- SB-37D Set 16' by (again 1' added bk of fill).

5' of 2" dia, Sch 40, prepacked 10 slot screen w/ ~ 6' of riser & 2.5' of stick up. Sand installed to ~ 4' by & bentonite from 4'-8' by

3 of 6

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JPL

DEC-Brooklyn 5200
SB-38D

9/28/17

0-4 @ 1223 MC PID 0.3 ppm
3.00 1/4

1.40/1/4 Tan F sand, trmsand, dry most (Fill)

1.60 Brown F sand, trM; moist, no S/O

4-8 @ 1225 MC

2.7/4

1.00 Brown same; moist, no S/O

1.70 Brown same J; wet no S/O

8-12 @ 1235 MC PID 0.8 ppm

4 1/4

2.4 Brown same J; wet

0.60 Brown F sand, trM, little gravel; wet

0.95 Concrete, crushed

12-16 @ 1246 MC PID 0.4 ppm

4/4

2.00 Brown F sand, little gravel, trM; wet

1.40 Concrete

0.60 Wood (from piling?)

16-20 @ 1303 MC PID 7.1 ppm

3.8 1/4

1.95 Brown/gray F sand, trM, tr concrete, tr wood

1.85 Brown F sand, some M, trC; wet no S/O

20-24 @ 1320 MC PID 0.4 ppm

3.6/4

4 of 6

107

SPL

SB-38D cont

3.60 Red/brown F sand, little M, trC; wet, no S/O

24-28 @ 1340 MC PID 3.4 ppm

1/4

- Sample fell out of sleeve. Will redrill

24-28 @ 1340 MC PID 3.4 ppm

3.8/4

3.80 Red/brown same J 3.7/4

- When advancing the rods (3" dia) to set the deeper piezometer, AARCO hit refusal @ ~16.5' bg, which corresponds to where we saw concrete first appear in the macro cores. AARCO could not advance past the concrete so, as per Vinnie, we will set a single piezometer @ ~11.5' bg.

- SB-38 Set @ 11.5' bg, consists of a 5' section of 2" dia, Sch 40 prepacked screen, 6' of Sch 40 PVC riser with ~2.5' of stick up, and gravel installed to 4.5' bg & bentonite from 4.5' bg to grade.

- As discussed w/ Charlie, SB-38D 24-28 will not be selected for any lab analysis.

5 of 6

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JPL

DEC-Brooklyn 5200

9/28/17

Notes Cont

- Before starting on SB-38D, as requested by Vinnie, AARCO collected a single macro core from manhole in trench line to ~~test~~ determine if it has a bottom. Concrete refusal @ ~3' bg. contents not described.
- Also as per Vinnie, one extra advancement was performed in vicinity of SB-37D, but closer to the granite ~~stone~~ chimney foundation, just to determine where we'd hit refusal. No samples collected, direct push. Refusal @ 8' bg.
- Test America Courier on Site 1410 to collect samples. only samples from SB-37D were relinquished. The others (from SB-38D) were not ready & were brought to EAR & relinquished to EAR sample fridge for pick up on 9/29/17, by T.A. Courier
- AARCO finished final decan & packed up probe by ~1545. off site by 1600

6 of 6

109

SPL

DEC-Brooklyn 5200

9/29/17

Start: 430 or 630 lunch 1300-1330 off 1330 End

Purpose: O+D development of piezometers installed from 9/27 -> 28/17 by AARCO

on site: SPL (EAR, Geo) Adam, Hutchinson (AARCO)

Equip: 16 Trans. t, WLM, YSI, camera (PSP), Turbidimeter (Pine rental)

Weather: ↑ 60's, Partly Cloudy

Notes

- Vinnie B. off site 1245
- AARCO on site @ 700, off @ 1300
- Turbidimeter calibration checked prior to use, all calibration vials registered within 0.5 NTU of labeled value
- As discussed w/ I. Hofmann, since the installed piezometers frequently need to recharge, YSI will not be used for field screening as the readings wouldn't be able to stabilize before needing to recharge.
- Piezometer development to be performed by AARCO via whale pump
- As discussed w/ I. Hofmann, will not spend more than ~1 hour developing any 1 well, to make sure we get to all ~~points~~ today

1 of 4

110

SPL



AARCO Environmental Services Corp.

DAILY JOB REPORT

Customer: EAR Date: 9/28/17 Weather: 78°F Sunny

Job Location: 5200 1st Ave, Brooklyn Job #: 15-235269 Day of Week: Thursday

Description of Work:

Decor all
tooling with
alcanox &
Hexane

- Environmental boring w/ 4' macro to 8' BSG + hit refusal
- Environmental boring w 4' macro to 24' BSG
 - one boring to 3 1/2' BSG + refusal
- Converted boring to 23' GWMW w/ 5' pre packed screen
 - Backfilled w 0 sand + bentonite to grade
- Installed a 10' GWMW with 5' pre pack screen
 - Backfilled + bentonite to grade
- Environmental boring to 24' BSG w/ 4' Macro
 - 1 more boring to 8' + hit refusal
- Converted into 11 1/2' GWMW w/ 5' pre pack screen

Manifest # _____ Approval # _____ Gallons/Yards _____

Manifest # _____ Approval # _____ Gallons/Yards _____

Start Time: 5:00 Leave Shop: 5:30

Arrive on Job Site: 7:30 Leave Job Site (1): 4:00p Total Hrs On-Site: 8.5

Arrive at Shop: _____ Clock Out Time: _____ Total Hrs for Day: _____

Overtime approved by: _____

Employee:

Prevailing Wage
Yes or No:

PW Category:

Adam Hutchinson
Nick Turco

/

/

Equipment Used:

Material Used:

D616
7822DT

3- 5' pre pack screens
4- 2" riser
5- Bags of 0 sand
1/2 bucket of bentonite clay

Aarco Signature: X [Signature]

Client Signature: X [Signature]

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 1 of

Name (for report and invoice) <u>Ian Hofmann</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC - Brooklyn 5200</u>	
Company <u>EAR</u>		P. O. # <u>Site 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address <u>225 Atlantic Ave</u>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hr</u>		Regulatory Program: <u>NYS DEC</u> DKQP: <input type="checkbox"/>	
City <u>Patchogue</u> State <u>NY</u>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)		LAB USE ONLY	
Phone <u>(631) 447-6400</u> Fax <u> </u>				Project No:	
				Job No:	
				Sample Numbers	
Sample Identification	Date	Time	Matrix	No. of Cont.	
SB-37D-0-4	9/28/17		Soil	1	X
SB-37D-4-8				7	X X X
SB-37D-8-12				7	X X X
SB-37D-12-16				1	
SB-37D-16-20				1	
SB-37D-20-24				7	X X X
R-ASE Blank	9/28/17	800	Aq	2	X
Trip Blank	9/28/17	---	Aq	2	X
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil:		1 6 1 1	
6 = Other <u>TERRA CORE</u> , 7 = Other <u> </u>		Water:		1 2	

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by <u>[Signature]</u>	Company <u>EAR</u>	Date / Time <u>9/28/17 11:10</u>	Received by <u>[Signature]</u>	Company <u>Tanya</u>
Relinquished by	Company	Date / Time	Received by	Company
2)			2)	
Relinquished by	Company	Date / Time	Received by	Company
3)			3)	
Relinquished by	Company	Date / Time	Received by	Company
4)			4)	

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

TAL - 0016 (0715)

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice) Ian Hofmann		Samplers Name (Printed) EAR		Site/Project Identification DEC-Brooklyn 5200	
Company EAR		P.O.# Site 224015		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address 225 Atlantic Ave		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> 24 Hr		Regulatory Program: NYSDEC DKQP: <input type="checkbox"/>	
City Patchogue State NY		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)			
Phone (631) 447-6400 Fax		<div style="text-align: center;"> 1-Day RUSH </div>			
Sample Identification	Date	Time	Matrix	No. of Cont.	LAB USE ONLY Project No: 141934 Job No: 141934 Sample Numbers
SB-38D_24	9/28/17	1223	Soil	1	1
SB-38D_12-16	↓	1246	↓	1	2
SB-38D_16-20	↓	1303	↓	1	3
Rinse Blank	9/28/17	800	Aq	2	X
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other _____, 7 = Other _____ Soil: 1 Water: 1					



460-141934 Chain of Custody

Special Instructions Category B deliverables requested		Water Metals Filtered (Yes/No)?	
Relinquished by John Yeh	Company EAR	Date / Time 9/28/17 12030	Received by 1) EAR Sample Fridge
Relinquished by 2) EAR Sample Fridge	Company EAR	Date / Time 9/28/17 0650	Received by 2) D. J. C. C.
Relinquished by 3) D. J. C. C.	Company EAR	Date / Time 9/28/17 0650	Received by 3) T. A.
Relinquished by 4) F. A.	Company EAR	Date / Time 9/28/17 1717	Received by 4) Van Linn

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

TAL - 0016 (0715)

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

2.4/2.4 IRH4 NUCS


TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

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

Page 1 of 1

Name (for report and invoice) Tan Hoffmann		Samplers Name (Printed) EAR		Site/Project Identification DEC-Brooklyn 5200	
Company EAR		P.O.# Site #224015		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address 225 Atlantic Ave		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> 72HR		Regulatory Program: NYSDEC DKQP: <input type="checkbox"/>	
City Patchogue State NY		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)			
Phone (631) 447-6400 Fax		<div style="display: flex; justify-content: space-around;"> <div>8260C</div> <div>8082A</div> <div>9012B</div> <div>8270D 1010C</div> <div>8081B</div> </div> <div style="text-align: center; font-weight: bold; font-size: 1.5em;">SHORT HOLD</div>			
LAB USE ONLY Project No: 141938					
Sample Identification	Date	Time	Matrix	No. of Cont.	Sample Numbers
SB-38D 4-8	9/28/17	1228	Soil	7	1
SB-38D 8-12	↓	1235	↓	7	2
SB-38D 20-24	↓	1320	↓	7	3
 460-141940 Chain of Custody					
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other Tetracone , 7 = Other				Soil: 6 1 1	
				Water: 1	

Special Instructions

Category B deliverables requested

Water Metals Filtered (Yes/No)?

Relinquished by John Yeh	Company EAR	Date / Time 9/28/17 2030	Received by 1) EAR Sample Fridge	Company EAR
Relinquished by 2) EAR Sample Fridge	Company EAR	Date / Time 9/29/17 0650	Received by 2) EAR Sample Fridge	Company EAR
Relinquished by 3) EAR Sample Fridge	Company EAR	Date / Time 9/29/17 0650	Received by 3) EAR Sample Fridge	Company EAR
Relinquished by 4) EAR Sample Fridge	Company EAR	Date / Time 9/29/17 0650	Received by 4) EAR Sample Fridge	Company EAR

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

TAL - 0016 (0715)

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

2.7/2.4 ± RT 4 NOL

**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Friday, 9/29/17

Weather: 60's (F), partly cloudy

EAR Personnel Onsite: John Lohan (geologist)

Drilling Subcontractor: Aarco

Onsite Time: 06:30

Offsite Time: 13:30

EAR and Aarco were onsite to develop onsite temporary wells installed 9/27-9/28/17. All wells were developed via pumping using a submersible pump. All wells exhibited poor recharge at flow rates from 0.1 to 0.5 gallons per minute. Wells had to be rested periodically to allow for recharge. Due to poor recharge, water quality parameters using a YSI with flow-through cell could not be collected. Turbidity was monitored using a Hach 2100Q nephelometer.

MW-38 was purged of approximately 13 well volumes. Minimal improvement in turbidity was visually observed. Turbidity readings remained out of range of the instrument after 13 well volumes.

MW-36 was purged of 5 well volumes. Minimal improvement of turbidity was visually observed. Turbidity remained over 800 NTU after purging 5 well volumes. Very poor recharge was observed at this location.

MW-37S was purged of approximately 12 well volumes, whereupon turbidity levels were below 50 NTU. MW-37D was purged of approximately 6 well volumes, whereupon turbidity levels were below 50 NTU.

Purge water generated from the development activities were comingled with PAL's onsite wastewater.

Geologist's field notes are attached.

DEC-Brooklyn 5200

9/28/17

Notes Cont

- Before starting on SB-38D, as requested by Vinnie, AARCO collected a single macro core from manhole in trench line to ~~test~~ determine if it has a bottom. Concrete refusal @ ~3' b.g. contents not described.

- Also as per Vinnie, one extra advancement was performed in vicinity of SB-37D, but closer to the granite ~~stone~~ chimney foundation, just to determine where we'd hit refusal. No samples collected, direct refusal.

Refusal @ 8' b.g.

- Test America courier on site 1410 to collect samples. Only samples from SB-37D were requested. The others (from SB-38D) were not ready & were brought to EAR & relinquished to EAR sample fridge for pick up on 9/29/17, by T.A. Cousior.

- AARCO finished final decan & packed up probe by ~1545. off site by 1600.

6066

109

SPL

DEC-Brooklyn 5200

9/29/17

Start: 430 on 630 Lunch 1300-1330 off 1330 End

Purpose: O+D development of piezometers installed from 9/27 -> 28/17 by AARCO

On Site: SPL (EAR, Gao) Adam Hutchinson (AARCO)

Equip: 16 Transit, WLM, YSI, Camera (RDP), Turbidimeter (Pine rental)

Weather: ↑ 60's, Partly Cloudy

NOTES

- Vinnie B. on site ~645

- AARCO on site @ 700, off @ 1300

- Turbidimeter calibration checked prior to use, all calibration vials registered within 0.5 NTU of labeled value.

- As discussed w/ I. Hofmann, since the installed piezometers frequently need to recharge, YSI will not be used for field screening as the readings wouldn't be able to stabilize before needing to recharge.

- Piezometer development to be performed by AARCO via whale pump

- As discussed w/ I. Hofmann, will not spend more than ~1 hour developing any 1 well, to make sure we get to all ~~points~~ today

1044

110

SPL

DEL-Brooklyn 5200

9/29/17

SB-38D

TWD: 10.97' DTW: 7.13' Stick up: 2.70'
 Water column: 3.84' 1 well volume: 0.67 gal
 Start: 0806 (NTU) 5 well volume: 3.36 gal

Time	Purge	Turbidity	- Purges for 20-25 seconds
912	~8 gal	overrange	before running dry, purging
917	~8.5 gal	overrange	~1/3 → 1/2 gallon at a time,
923	~9.0	overrange	using 5 min intervals

 TWD (End): 10.99' DTW (End): 6.40'

- Water started dark brown & cleared to light brown after ~ 7 gal, then plateaued.

SB-36D

TWD: 8.14' DTW: 5.40' Stick up: 0.35'
 Water column: 2.74' 1 well volume: 0.47
 Start @ 935 (NTU) 5 well volume: 2.39

Time	Purge	Turbidity	- Purges for ~ 10 seconds
1019	2.40 gal	802	before running dry, purging
1024	2.5 gal	820	~ 1/4 gallon, at a time, over
1029	2.75 gal	808	5 min intervals

- Water started as dark brown & cleared up to light brown after ~ 2 gal, then plateaued.

TWD (End): 8.14' DTW (End): 7.79'

2 of 4

III

SPL

SB-37S

TWD: 10.21' DTW: 5.34' Stick up: 2.31'
 Water column: 4.87' 1 well volume: 0.85 gal
 Start: 1045 (NTU) 5 well volume: 4.26 gal

Time	Purge	Turbidity	- Purges for ~ 1 min
1103	~8.0 gal	36.4	before running dry, purging
1110	~9.0 gal	8.12	~ 1 gallon at a time, w/ 5
1118	~10 gal	17.2	min recharge period

- water started dark reddish brown, light brown @ ~ 6 gal, & ~~clearly~~ transparent @ ~ 8 gal

TWD (End): 10.20' DTW (End): 8.14'

SB-37D

TWD: 23.55' DTW: 15.23' Stick up: 1.82'
 Water column: 18.50' 1 well volume: 3.20 gal
 Start: 1135 (NTU) 5 well volume: 16.0 gal

Time	Purge	Turbidity	- Purges for ~ 2 min
1223	~16 gal	87.6	before running dry, purging
1230	~18.5	48.1	2 → 2.5 gallons at a time,
1238	~21	47.7	w/ 5 min recharge period

- water started dark reddish brown, light brown @ ~ 10 gal, & transparent @ ~ 16 gal

- water has sweet, solvent odor

TWD (End): 23.55' DTW (End): 12.25'

3 of 4

III

SPL

DEC-Brooklyn 5200

9/29/17

ABLES Cont

- Before purging each point, & while they were recharging, the points were agitated to suspend any sediments sitting @ the bottom.
- Purge water disposed of in onsite PAL storage container.

4 of 4

ILB

JAL



AARCO Environmental Services Corp.

DAILY JOB REPORT

Customer: EAR Date: 9/29/17 Weather: 72°F Partly Cloudy
Job Location: 5200 1st Ave, Brooklyn Job #: 15-235269 Day of Week: Friday

Description of Work:

- Developed 4 gwnw's
- Filled 1 drum w/purge water

Manifest # _____ Approval # _____ Gallons/Yards _____

Manifest # _____ Approval # _____ Gallons/Yards _____

Start Time: 4:00a Leave Shop: 5:15a

Arrive on Job Site: 7:00a Leave Job Site (1): 1:00p Total Hrs On-Site: 6

Arrive at Shop: _____ Clock Out Time: _____ Total Hrs for Day: _____

Overtime approved by: _____)

Employee:	Prevailing Wage Yes or No:	PW Category:
<u>Adam Hutchinson</u>	<u>/</u>	<u>/</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Equipment Used:	Material Used:
<u>GMC</u>	<u>approx 60' of tubing</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Aarco Signature: X [Signature]

Client Signature: X [Signature]

**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Monday, 10/2/17

Weather: 60's-70's°F+, clear

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician), Mike Ford (survey team), Donald Griffing (survey team)

Onsite Time: 08:45

Offsite Time: 13:00

EAR conducted groundwater sampling activities at a total of three locations: MW-05R, MW-10, and MW-13. A survey team was also onsite to complete well survey/tie-in activities.

Groundwater samples were collected utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and oxidation reduction potential (ORP) were recorded as well.

Downhole equipment such as water level meters were decontaminated between each well location. Decontamination consisted of gross contaminant removal, Liquinox wash, and distilled water rinse.

EAR collected a total of 4 aqueous samples (including one blind duplicate). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCB's via 8082, TAL metals via 6020/7470 (filtered and unfiltered), and total cyanide via 9012. All samples were submitted for analysis at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.

Sig: DEL-Brooklyn 5200
Date: 10/2/17
Techs: BCC/AD/SPL

Start Time: 530
End Time: 1545

Equipment: see W.O.

[check units on YSI and confirm that parameter is in the correct units]

[illegible]

Well Size (inches)	0.5	0.75	1	1.5	2	4	6	8
Multiplier based on 4 well volume	0.06	0.11	0.18	0.42	0.7	2.65	6	10.4
Multiplier based on 1 well volume	0.015	0.0275	0.045	0.105	0.175	0.663	1.5	2.6

☆ MS/MSD collected

DO range = less than 12 (unless very close to a sparge well)

* MW-05R = MW-X

If readings are not in this range please try to recalibrate (except for temp, which cannot be calibrated). If they remain out of range, please do not write the value on the sheet - it is an equipment error

PLEASE CONTACT THE PMs IF THERE IS A PROBLEM. THIS DATA IS IMPORTANT AND INCORRECT DATA IS WORSE THAN NO DATA. WE REALLY APPRECIATE YOUR WORK TO KEEP E.A.R. A TOP COMPANY IN THE FIELD

Tolerance for stability:
Specific Conductance (3%)
temperature (3%)
pH +/- 0.1 units

Record DO & ORP but DO NOT use for stability



**Empire Electric
NYSDEC Site No. 224015
Daily Field Report**

Date: Tuesday, 10/3/17

Weather: 60+°F+, sun & clouds

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician)

Onsite Time: 08:45

Offsite Time: 13:30

EAR conducted groundwater sampling activities at a total of four locations: MW-36, MW-37S, MW-37D, and MW-38. A follow-up post-scarification concrete sample was collected at CB-30.

At CB-30, a drill with a carbide masonry bit was advanced to 3-inches below grade surface (BGS), and pulverized concrete drill spoils were collected for laboratory analysis. All drilling and sampling equipment was decontaminated prior to and following sample collection. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

Groundwater samples were collected utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and oxidation reduction potential (ORP) were recorded as well.

Downhole equipment such as water level meters were decontaminated between each well location. Decontamination consisted of gross contaminant removal, Liquinox wash, and distilled water rinse.

EAR collected a total of 4 aqueous samples and 1 concrete sample. All aqueous samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCB's via 8082, TAL metals via 6020/7470 (filtered and unfiltered), and total cyanide via 9012. Concrete sample was submitted for analysis of PCB's via 8082. All samples were submitted for analysis at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.



Geologist's field notes and chain of custody forms are attached.

Groundwater Sampling Sheet: Stabilization Purge Method

See DEC-Brooklyn 5200
Date 10/3/17
Techs AD/BCC/SPL

Start Time: 0530

Equipment: See W.O.

End Time _____

[check units on YSI and confirm that parameter is in the correct units]

[illegible]

Well Size (inches)	0.5	0.75	1	1.5	2	4	6	8
Multiplier based on 4 well volume	0.06	0.11	0.18	0.42	0.7	2.65	6	10.4
Multiplier based on 1 well volume	0.015	0.0275	0.045	0.105	0.175	0.663	1.5	2.6

Guidelines for Field Screening Values:

pH range = 5 - 9

Temperature range = 10 - 18 (except for VERY warm days - please try to keep purge container cool/shaded area)

DO range = less than 12 (unless very close to a sparge well)

If readings are not in this range please try to recalibrate (except for temp, which cannot be calibrated). If they remain out of range, please do not write the value on the sheet - it is an equipment error

PLEASE CONTACT THE PMs IF THERE IS A PROBLEM. THIS DATA IS IMPORTANT AND INCORRECT DATA IS WORSE THAN NO DATA. WE REALLY APPRECIATE YOUR WORK TO KEEP E.A.R. A TOP COMPANY IN THE FIELD

Purge a minimum of 1 well volume & then wait for stabilization

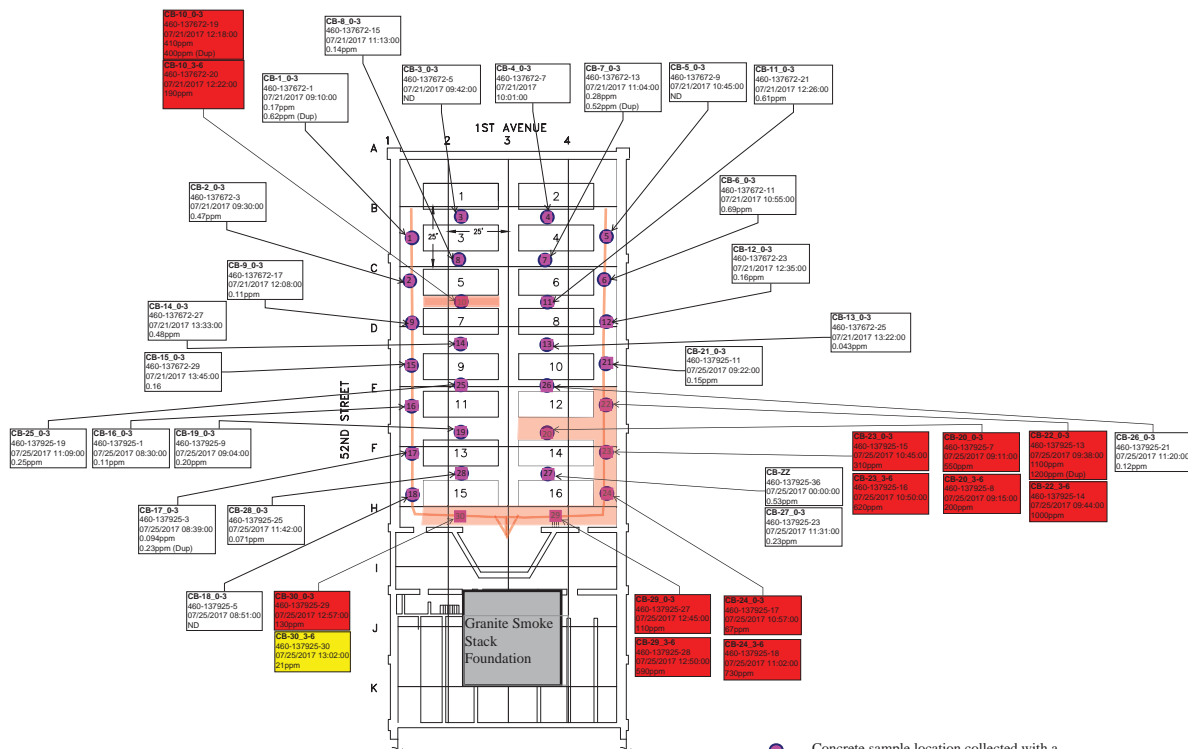
Tolerance for stability:

Specific Conductance (3%)

temperature (3%)

pH \pm 0.1 units

Record DO & ORP but DO NOT use for stability



NEW YORK STATE
Department of Environmental Conservation

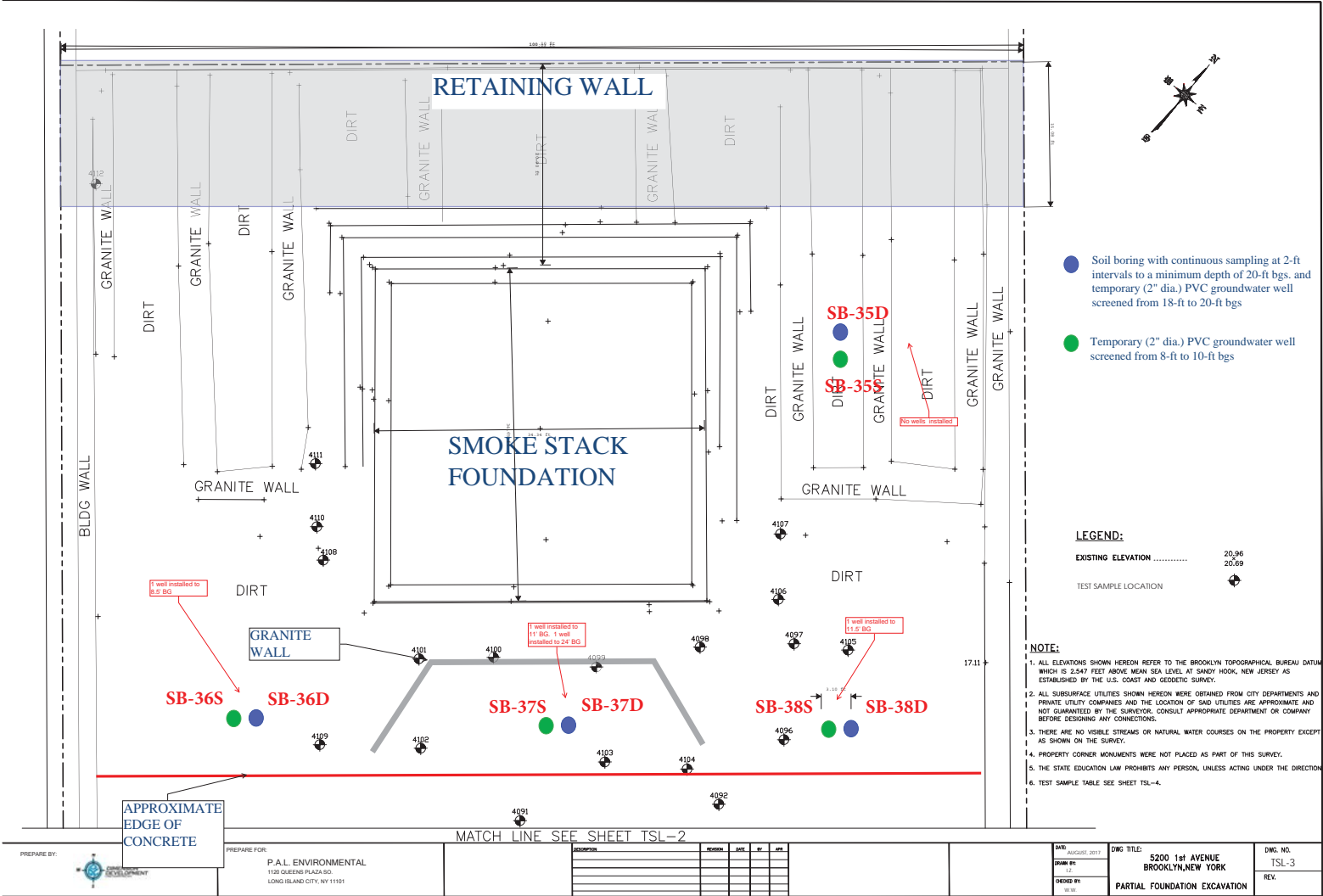
10/13 FOR WIDE DUE

NO.	DATE	DESCRIPTION
1	10/13/2017	REVISIONS

PCB CONCRETE
SAMPLE LOCATIONS

PREPARED BY:
KALINCHENKO, P.C.
AN AFFILIATE OF
E&A TECHNOLOGY

CARTRIDGE
E.A. # 1490706
FILE # 1490706 Contract.dwg
DRAWN BY JRM
DATE OCTOBER 2013
SCALE AS SHOWN
SHEET # 1





Appendix C: QA/QC Summary

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



Soil, Concrete, and Groundwater Analytical Results (ug/Kg, ug/L)
Relative Percent Difference Analysis of Blind Duplicate Samples
TestAmerica, Inc.
Methods: SW8082A

	Location	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268
Original Sample	CB-1_0-3	<73	<73	<73	<73	<73	<73	170	<73	<73
Blind Duplicate	CB-X	<71	<71	<71	<71	<71	<71	620	<71	<71
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	113.9%	0.0%	0.0%
Original Sample	CB-29PS	<140	<140	<140	<140	<140	<140	1,600	<140	<140
Blind Duplicate	CB-X	<140	<140	<140	<140	<140	<140	1,700	<140	<140
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.1%	0.0%	0.0%
Original Sample	CB-17_0-3	<71	<71	<71	<71	<71	<71	94	<71	<71
Blind Duplicate	CB-XX	<72	<72	<72	<72	<72	<72	230	<72	<72
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	84.0%	0.0%	0.0%
Original Sample	CB-7_0-3	<71	<71	<71	<71	<71	<71	280	<71	<71
Blind Duplicate	CB-Y	<70	<70	<70	<70	<70	<70	520	<70	<70
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	0.0%
Original Sample	CB-22_0-3	<70000	<70000	<70000	<70000	<70000	<70000	1100000	<70000	<70000
Blind Duplicate	CB-YY	<70000	<70000	<70000	<70000	<70000	<70000	1200000	<70000	<70000
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.7%	0.0%	0.0%
Original Sample	CB-10_0-3	<38000	<38000	<38000	<38000	<38000	<38000	410,000	<38000	<38000
Blind Duplicate	CB-Z	<76000	<76000	<76000	<76000	<76000	<76000	400,000	<76000	<76000
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	0.0%	0.0%
Original Sample	CB-27_0-3	<71	<71	<71	<71	<71	<71	230	<71	<71
Blind Duplicate	CB-ZZ	<71	<71	<71	<71	<71	<71	530	<71	<71
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	78.9%	0.0%	0.0%
Original Sample	SB-2_1-2	<160	<160	<160	<160	<160	<160	2,000	<160	<160
Blind Duplicate	SB-X	<160	<160	<160	<160	<160	<160	2,900	<160	<160
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	36.7%	0.0%	0.0%
Original Sample	SB-15_1-2	<790000	<790000	<790000	<790000	<790000	<790000	12000000	<790000	<790000
Blind Duplicate	SB-XX	<780000	<780000	<780000	<780000	<780000	<780000	15000000	<780000	<780000
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	22.2%	0.0%	0.0%
Original Sample	SB-33_1-2	<850	<850	<850	<850	<850	<850	12,000	<850	<850
Blind Duplicate	SB-XXX	<150	<150	<150	<150	<150	<150	2,100	<150	<150
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	140.4%	0.0%	0.0%
Original Sample	SB-9_1-2	<71	<71	<71	<71	<71	<71	1,500	<71	<71
Blind Duplicate	SB-Y	<72	<72	<72	<72	<72	<72	170	<72	<72
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	159.3%	0.0%	0.0%
Original Sample	SB-14_1-2	<15000	<15000	<15000	<15000	<15000	<15000	99,000	<15000	<15000
Blind Duplicate	SB-YY	<7400	<7400	<7400	<7400	<7400	<7400	140,000	<7400	<7400
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	34.3%	0.0%	0.0%
Original Sample	SB-12_0-1	<20000	<20000	<20000	<20000	<20000	<20000	340,000	<20000	<20000
Blind Duplicate	SB-Z	<200000	<200000	<200000	<200000	<200000	<200000	1100000	<200000	<200000
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	105.6%	0.0%	0.0%
Original Sample	SB-19_1-2	<74	<74	<74	<74	<74	<74	1,100	<74	<74
Blind Duplicate	SB-ZZ	<73	<73	<73	<73	<73	<73	430	<73	<73
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.6%	0.0%	0.0%
Original Sample	SB-15_GW*	<2	<2	<2	<2	<2	<2	1.4 J	<2	<2
Blind Duplicate	SB-X*	<4	<4	<4	<4	<4	<4	5.7	<4	<4
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n/a	0.0%	0.0%

Notes:

* - Indicates an aqueous sample

n/a - Not applicable due to estimated value

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



Soil and Groundwater Analytical Results (ug/Kg, ug/L)
Relative Percent Difference Analysis of Blind Duplicate Samples
TestAmerica, Inc.
Methods: SW8260C

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	SB-13_4-5	SB-X		MW-02*	MW-X*		MW-05R*	MW-X*	
	7/26/2017	7/26/2017		7/27/2017	7/27/2017		10/2/2017	10/2/2017	
Date Collected	11:25 AM	12:00 AM		8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Time Collected	Soil	Soil		Water	Water		Water	Water	
Matrix									
1,1 Dichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1 Dichloroethene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1,1 Trichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1,2 Trichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1,2,2 Tetrachloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2 Dibromoethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2 Dichlorobenzene	390 J	710 J	n/a	<1	<1	0.0%	38	42	10.0%
1,2 Dichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2 Dichloropropane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2,3 Trichlorobenzene	29,000	43,000	38.9%	<1	<1	0.0%	1,400	1,400	0.0%
1,2,4 Trichlorobenzene	120,000	170,000	34.5%	<1	<1	0.0%	5,500	5,300	3.7%
1,3 Dichlorobenzene	210 J	710 J	n/a	<1	<1	0.0%	89	89	0.0%
1,4 Dichlorobenzene	890	1,800	67.7%	<1	<1	0.0%	140	160	13.3%
1,4-Dioxane	<24000	<42000	0.0%	<0.4	<0.4	0.0%	<1300	<1300	0.0%
2-Hexanone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
4-Methyl-2-Pentanone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Acetone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Benzene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Bromochloromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Bromodichloromethane	<480	<850	0.0%	0.19 J	0.20 J	n/a	<25	<25	0.0%
Bromoform	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Bromomethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
c 1,3 Dichloropropene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Carbon Disulfide	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Carbon Tetrachloride	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Chlorobenzene	<480	<850	0.0%	<1	<1	0.0%	8.40 J	8.50 J	n/a
Chloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Chloroform	<480	<850	0.0%	3.6	3.6	0.0%	<25	<25	0.0%
Chloromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
cis-1,2-Dichloroethene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Cyclohexane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Cyclohexane, methyl-	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Dibromochloromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Dibromochloropropane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Dichlorodifluoromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Ethylbenzene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Freon 113	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Isopropylbenzene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
m + p Xylene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Methyl acetate	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Methyl Ethyl Ketone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Methylene Chloride	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
o-Xylene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Styrene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
t 1,3 Dichloropropene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
t butylmethylether	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Tetrachloroethene	<480	<850	0.0%	6.9	7	1.4%	<25	<25	0.0%
Toluene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Total BTEX	<2400	<4250	0.0%	<5	<5	0.0%	<125	<125	0.0%
trans-1,2-Dichloroethene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



Soil and Groundwater Analytical Results (ug/Kg, ug/L)
Relative Percent Difference Analysis of Blind Duplicate Samples
TestAmerica, Inc.
Methods: SW8260C

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	SB-13_4-5	SB-X		MW-02*	MW-X*		MW-05R*	MW-X*	
	7/26/2017	7/26/2017		7/27/2017	7/27/2017		10/2/2017	10/2/2017	
	11:25 AM	12:00 AM		8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Matrix	Soil	Soil		Water	Water		Water	Water	
Trichloroethylene	<480	<850	0.0%	0.71 J	0.80 J	n/a	<25	<25	0.0%
Trichlorofluoromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Vinyl Chloride	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%

Notes:

* - Indicates an aqueous sample

n/a - Not applicable due to estimated value

TICs not included in RPD analysis

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



Groundwater Analytical Results (ug/L)
Relative Percent Difference Analysis of Blind Duplicate Samples
TestAmerica, Inc.
Methods: SW8270D

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	MW-02	MW-X		MW-05R	MW-X	
	7/27/2017	7/27/2017		10/2/2017	10/2/2017	
	8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Matrix	Water	Water		Water	Water	
1,1-Biphenyl	<10	<10	0.0%	<10	<10	0.0%
1,2,4,5-Tetrachlorobenzene	<10	<10	0.0%	24	24	0.0%
2,3,4,6-Tetrachlorophenol	<10	<10	0.0%	<10	<10	0.0%
2,4,5-Trichlorophenol	<10	<10	0.0%	1.80 J	1.60 J	n/a
2,4,6-Trichlorophenol	<10	<10	0.0%	<10	<10	0.0%
2,4-Dichlorophenol	<10	<10	0.0%	<10	<10	0.0%
2,4-Dimethylphenol	<10	<10	0.0%	<10	<10	0.0%
2,4-Dinitrophenol	<21	<20	0.0%	<21	<21	0.0%
2,4-Dinitrotoluene	<2.1	<2	0.0%	<2.1	<2.1	0.0%
2,6-Dinitrotoluene	<2.1	<2	0.0%	<2.1	<2.1	0.0%
2-Chloronaphthalene	<10	<10	0.0%	<10	<10	0.0%
2-Chlorophenol	<10	<10	0.0%	<10	<10	0.0%
2-Methyl-4,6-dinitrophenol	<21	<20	0.0%	<21	<21	0.0%
2-Methylnaphthalene	<10	<10	0.0%	<10	<10	0.0%
2-Nitroaniline	<10	<10	0.0%	<10	<10	0.0%
2-Nitrophenol	<10	<10	0.0%	<10	<10	0.0%
3,3-Dichlorobenzidine	<10	<10	0.0%	<10	<10	0.0%
3-Nitroaniline	<10	<10	0.0%	<10	<10	0.0%
4-Bromophenyl-phenylether	<10	<10	0.0%	<10	<10	0.0%
4-Chloro-3-methylphenol	<10	<10	0.0%	<10	<10	0.0%
4-Chloroaniline	<10	<10	0.0%	<10	<10	0.0%
4-Chlorophenyl-phenylether	<10	<10	0.0%	<10	<10	0.0%
4-Nitroaniline	<10	<10	0.0%	<10	<10	0.0%
4-Nitrophenol	<21	<20	0.0%	<21	<21	0.0%
Acenaphthene	<10	<10	0.0%	<10	<10	0.0%
Acenaphthylene	<10	<10	0.0%	<10	<10	0.0%
Acetophenone	<10	<10	0.0%	<10	<10	0.0%
Anthracene	<10	<10	0.0%	<10	<10	0.0%
Atrazine	<2.1	<2	0.0%	<2.1	<2.1	0.0%
Benzaldehyde	<10	<10	0.0%	<10	<10	0.0%
Benzo(a)anthracene	<1	<1	0.0%	<1	<1	0.0%
Benzo(a)pyrene	<1	<1	0.0%	<1	<1	0.0%
Benzo(b)fluoranthene	<1	<1	0.0%	<1	<1	0.0%
Benzo(g,h,i)perylene	<10	<10	0.0%	<10	<10	0.0%
Benzo(k)fluoranthene	<1	<1	0.0%	<1	<1	0.0%
bis(2-Chloroethoxy)methane	<10	<10	0.0%	<10	<10	0.0%
bis(2-Chloroethyl)ether	<1	<1	0.0%	<1	<1	0.0%
bis(2-Chloroisopropyl)ether	<10	<10	0.0%	<10	<10	0.0%
bis(2-Ethylhexyl)phthalate	<2.1	<2	0.0%	1.30 J	1.30 J	n/a
Butylbenzylphthalate	<10	<10	0.0%	<10	<10	0.0%
Caprolactam	<10	<10	0.0%	<10	<10	0.0%
Carbazole	<10	<10	0.0%	<10	<10	0.0%
Chrysene	<2.1	<2	0.0%	<2.1	<2.1	0.0%

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



Groundwater Analytical Results (ug/L)
Relative Percent Difference Analysis of Blind Duplicate Samples
TestAmerica, Inc.
Methods: SW8270D

Location Date Collected Time Collected Matrix	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	MW-02	MW-X		MW-05R	MW-X	
	7/27/2017	7/27/2017		10/2/2017	10/2/2017	
	8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Matrix	Water	Water		Water	Water	
Dibenzo(a,h)anthracene	<1	<1	0.0%	<1	<1	0.0%
Dibenzofuran	<10	<10	0.0%	<10	<10	0.0%
Diethylphthalate	<10	<10	0.0%	<10	<10	0.0%
Dimethylphthalate	<10	<10	0.0%	<10	<10	0.0%
Di-n-butylphthalate	<10	<10	0.0%	<10	<10	0.0%
Di-n-octylphthalate	<10	<10	0.0%	<10	<10	0.0%
Fluoranthene	<10	<10	0.0%	<10	<10	0.0%
Fluorene	<10	<10	0.0%	<10	<10	0.0%
Hexachlorobenzene	<1	<1	0.0%	<1	<1	0.0%
Hexachlorobutadiene	<1	<1	0.0%	<1	<1	0.0%
Hexachlorocyclopentadiene	<10	<10	0.0%	<10	<10	0.0%
Hexachloroethane	<1	<1	0.0%	<1	<1	0.0%
Indeno(1,2,3-cd)pyrene	<1	<1	0.0%	<1	<1	0.0%
Isophorone	<10	<10	0.0%	<10	<10	0.0%
Naphthalene	<10	<10	0.0%	<10	<10	0.0%
Nitrobenzene	<1	<1	0.0%	<1	<1	0.0%
N-Nitrosodi-N-Propylamine	<1	<1	0.0%	<1	<1	0.0%
N-Nitrosodiphenylamine	<10	<10	0.0%	<10	<10	0.0%
o-cresol	<10	<10	0.0%	<10	<10	0.0%
p-cresol	<10	<10	0.0%	<10	<10	0.0%
Pentachlorophenol	<21	<20	0.0%	<21	<21	0.0%
Phenanthrene	<10	<10	0.0%	<10	<10	0.0%
Phenol (total)	<10	<10	0.0%	<10	<10	0.0%
Pyrene	<10	<10	0.0%	<10	<10	0.0%

Notes:

n/a - Not applicable due to estimated value

TICs not included in RPD analysis

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



Groundwater Analytical Results (ug/L)
Relative Percent Difference Analysis of Blind Duplicate Samples
TestAmerica, Inc.
Methods: SW6020A, SW7470A

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	MW-02	MW-X		MW-05R	MW-X		SB-15_GW	SB-X	
	7/27/2017	7/27/2017		10/2/2017	10/2/2017		8/9/2017	8/9/2017	
	8:08 AM	12:00 AM		10:50 AM	12:00 AM		10:40 AM	12:00 AM	
Matrix	Water	Water		Water	Water		Water	Water	
Aluminum	73.4	65.5	11.4%	130	140	7.4%	<40	<40	0.0%
Antimony	1 J	0.90 J	n/a	0.64 J	0.81 J	n/a	<2	<2	0.0%
Arsenic	<2	<2	0.0%	<2	1 J	n/a	5.4	7	25.8%
Barium	128	122	4.8%	89	92.8	4.2%	140	142	1.4%
Beryllium	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%
Cadmium	<2	<2	0.0%	<2	<2	0.0%	<2	<2	0.0%
Calcium	59,100	56,200	5.0%	65,000	65,900	1.4%	46,800	49,900	6.4%
Chromium (total)	9.7	9.4	3.1%	<4	<4	0.0%	<4	<4	0.0%
Cobalt	<4	<4	0.0%	<4	<4	0.0%	<4	<4	0.0%
Copper	2 J	1.70 J	n/a	<4	<4	0.0%	1.50 J	<4	n/a
Iron	135	97.90 J	n/a	188	204	8.2%	44.80 J	131	n/a
Lead	<1.2	<1.2	0.0%	<1.2	<1.2	0.0%	<1.2	<1.2	0.0%
Magnesium	7,340	7,060	3.9%	10,500	10,500	0.0%	9,380	10,200	8.4%
Manganese	13.6	4.90 J	n/a	2,480	2,470	0.4%	575	656	13.2%
Mercury	<0.2	<0.2	0.0%	<0.2	<0.2	0.0%	<0.2	<0.2	0.0%
Nickel	<4	<4	0.0%	2.50 J	2.30 J	n/a	<4	<4	0.0%
Potassium	8,020	7,600	5.4%	12,400	12,400	0.0%	22,300	24,000	7.3%
Selenium	<10	<10	0.0%	<10	<10	0.0%	1.20 J	1.50 J	n/a
Silver	<2	<2	0.0%	<2	<2	0.0%	<2	<2	0.0%
Sodium	1060000	1030000	2.9%	202,000	203,000	0.5%	30,700	32,500	5.7%
Thallium	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%
Vanadium	<4	<4	0.0%	<4	<4	0.0%	9.2	12.7	32.0%
Zinc	<16	<16	0.0%	<16	<16	0.0%	<16	<16	0.0%

Notes:

Analytical results for samples collected 8/9/17 are for dissolved metals.

n/a - Not applicable due to estimated value(s)

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Rinsate Blank Sample Analytical Summary (ug/L)

TestAmerica, Inc.

Methods: SW8082A

Location	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK
Date Collected	7/6/2017	7/7/2017	7/10/2017	7/21/2017	7/25/2017	8/9/2017	9/21/2017	9/28/2017
Time Collected	8:30 AM	8:30 AM	8:00 AM	8:30 AM	8:00 AM	9:00 AM	8:00 AM	8:00 AM
Aroclor 1016	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1221	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1232	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1242	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1248	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1254	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1260	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1262	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1268	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Polybrominated biphenyls (total)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4

Rinsate Blank Sample Analytical Summary (ng/L)

TestAmerica, Inc.

Methods: E537-LL

Location	RINSE BLANK
Date Collected	7/24/2017
Time Collected	1:40 PM
Perfluorobutanesulfonic acid (PFBS)	<2
Perfluoroheptanoic acid (PFHpA)	<2
Perfluorohexanesulfonic acid (PFHxS)	<2
perfluorononanoic acid (PFNA)	<2
perfluorooctanesulfonic acid (PFOS)	<2
perfluorooctanoic acid (PFOA)	<2

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



Rinsate Blank Sample Analytical Summary

(ug/L)

TestAmerica, Inc.

Methods: SW8260C

Location	RINSE BLANK
Date Collected	7/24/2017
Time Collected	1:40 PM
1,1 Dichloroethane	<1
1,1 Dichloroethene	<1
1,1,1 Trichloroethane	<1
1,1,2 Trichloroethane	<1
1,1,2,2 Tetrachloroethane	<1
1,2 Dibromoethane	<1
1,2 Dichlorobenzene	<1
1,2 Dichloroethane	<1
1,2 Dichloropropane	<1
1,2,3 Trichlorobenzene	<1
1,2,4 Trichlorobenzene	<1
1,3 Dichlorobenzene	<1
1,4 Dichlorobenzene	<1
1,4-Dioxane	<50
2-Hexanone	<5
4-Methyl-2-Pentanone	<5
Acetone	<5
Benzene	0.29 J
Bromochloromethane	<1
Bromodichloromethane	<1
Bromoform	<1
Bromomethane	<1
c 1,3 Dichloropropene	<1
Carbon Disulfide	<1
Carbon Tetrachloride	<1
Chlorobenzene	<1
Chloroethane	<1
Chloroform	<1
Chloromethane	<1
cis-1,2-Dichloroethene	<1
Cyclohexane	<1
Cyclohexane, methyl-	<1

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



Rinsate Blank Sample Analytical Summary
(ug/L)

TestAmerica, Inc.

Methods: SW8260C

Location	RINSE BLANK
Date Collected	7/24/2017
Time Collected	1:40 PM
Dibromochloromethane	<1
Dibromochloropropane	<1
Dichlorodifluoromethane	<1
Ethylbenzene	0.55 J
Freon 113	<1
Isopropylbenzene	<1
m + p Xylene	1.7
Methyl acetate	<5
Methyl Ethyl Ketone	<5
Methylene Chloride	<1
o-Xylene	0.51 J
Styrene	<1
t 1,3 Dichloropropene	<1
t butylmethylether	<1
Tetrachloroethene	<1
Toluene	3
Total BTEX	6
trans-1,2-Dichloroethene	<1
Trichloroethylene	<1
Trichlorofluoromethane	<1
Vinyl Chloride	<1

Notes:

J - Indicates an estimated value below laboratory reporting limits.

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



Soil and Groundwater Analytical Results (ug/Kg, ug/L)
Relative Percent Difference Analysis of Blind Duplicate Samples
TestAmerica, Inc.
Methods: SW8260C

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	SB-13_4-5	SB-X		MW-02*	MW-X*		MW-05R*	MW-X*	
Date Collected	7/26/2017	7/26/2017		7/27/2017	7/27/2017		10/2/2017	10/2/2017	
Time Collected	11:25 AM	12:00 AM		8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Matrix	Soil	Soil		Water	Water		Water	Water	
1,1 Dichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1 Dichloroethene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1,1 Trichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1,2 Trichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1,2,2 Tetrachloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2 Dibromoethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2 Dichlorobenzene	390 J	710 J	n/a	<1	<1	0.0%	38	42	10.0%
1,2 Dichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2 Dichloropropane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2,3 Trichlorobenzene	29,000	43,000	38.9%	<1	<1	0.0%	1,400	1,400	0.0%
1,2,4 Trichlorobenzene	120,000	170,000	34.5%	<1	<1	0.0%	5,500	5,300	3.7%
1,3 Dichlorobenzene	210 J	710 J	n/a	<1	<1	0.0%	89	89	0.0%
1,4 Dichlorobenzene	890	1,800	67.7%	<1	<1	0.0%	140	160	13.3%
1,4-Dioxane	<24000	<42000	0.0%	<0.4	<0.4	0.0%	<1300	<1300	0.0%
2-Hexanone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
4-Methyl-2-Pentanone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Acetone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Benzene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Bromochloromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Bromodichloromethane	<480	<850	0.0%	0.19 J	0.20 J	n/a	<25	<25	0.0%
Bromoform	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Bromomethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
c 1,3 Dichloropropene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Carbon Disulfide	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Carbon Tetrachloride	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Chlorobenzene	<480	<850	0.0%	<1	<1	0.0%	8.40 J	8.50 J	n/a
Chloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Chloroform	<480	<850	0.0%	3.6	3.6	0.0%	<25	<25	0.0%
Chloromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
cis-1,2-Dichloroethene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Cyclohexane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Cyclohexane, methyl-	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Dibromochloromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Dibromochloropropane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Dichlorodifluoromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Ethylbenzene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Freon 113	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Isopropylbenzene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
m + p Xylene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Methyl acetate	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Methyl Ethyl Ketone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Methylene Chloride	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
o-Xylene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Styrene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
t 1,3 Dichloropropene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
t butylmethylether	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Tetrachloroethene	<480	<850	0.0%	6.9	7	1.4%	<25	<25	0.0%
Toluene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Total BTEX	<2400	<4250	0.0%	<5	<5	0.0%	<125	<125	0.0%
trans-1,2-Dichloroethene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



Soil and Groundwater Analytical Results (ug/Kg, ug/L)
Relative Percent Difference Analysis of Blind Duplicate Samples
TestAmerica, Inc.
Methods: SW8260C

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	SB-13_4-5	SB-X		MW-02*	MW-X*		MW-05R*	MW-X*	
	7/26/2017	7/26/2017		7/27/2017	7/27/2017		10/2/2017	10/2/2017	
	11:25 AM	12:00 AM		8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Matrix	Soil	Soil		Water	Water		Water	Water	
Trichloroethylene	<480	<850	0.0%	0.71 J	0.80 J	n/a	<25	<25	0.0%
Trichlorofluoromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Vinyl Chloride	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%

Notes:

* - Indicates an aqueous sample

n/a - Not applicable due to estimated value

TICs not included in RPD analysis

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



Groundwater Analytical Results (ug/L)
Relative Percent Difference Analysis of Blind Duplicate Samples
TestAmerica, Inc.
Methods: SW8270D

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	MW-02	MW-X		MW-05R	MW-X	
	7/27/2017	7/27/2017		10/2/2017	10/2/2017	
	8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Matrix	Water	Water		Water	Water	
1,1-Biphenyl	<10	<10	0.0%	<10	<10	0.0%
1,2,4,5-Tetrachlorobenzene	<10	<10	0.0%	24	24	0.0%
2,3,4,6-Tetrachlorophenol	<10	<10	0.0%	<10	<10	0.0%
2,4,5-Trichlorophenol	<10	<10	0.0%	1.80 J	1.60 J	n/a
2,4,6-Trichlorophenol	<10	<10	0.0%	<10	<10	0.0%
2,4-Dichlorophenol	<10	<10	0.0%	<10	<10	0.0%
2,4-Dimethylphenol	<10	<10	0.0%	<10	<10	0.0%
2,4-Dinitrophenol	<21	<20	0.0%	<21	<21	0.0%
2,4-Dinitrotoluene	<2.1	<2	0.0%	<2.1	<2.1	0.0%
2,6-Dinitrotoluene	<2.1	<2	0.0%	<2.1	<2.1	0.0%
2-Chloronaphthalene	<10	<10	0.0%	<10	<10	0.0%
2-Chlorophenol	<10	<10	0.0%	<10	<10	0.0%
2-Methyl-4,6-dinitrophenol	<21	<20	0.0%	<21	<21	0.0%
2-Methylnaphthalene	<10	<10	0.0%	<10	<10	0.0%
2-Nitroaniline	<10	<10	0.0%	<10	<10	0.0%
2-Nitrophenol	<10	<10	0.0%	<10	<10	0.0%
3,3-Dichlorobenzidine	<10	<10	0.0%	<10	<10	0.0%
3-Nitroaniline	<10	<10	0.0%	<10	<10	0.0%
4-Bromophenyl-phenylether	<10	<10	0.0%	<10	<10	0.0%
4-Chloro-3-methylphenol	<10	<10	0.0%	<10	<10	0.0%
4-Chloroaniline	<10	<10	0.0%	<10	<10	0.0%
4-Chlorophenyl-phenylether	<10	<10	0.0%	<10	<10	0.0%
4-Nitroaniline	<10	<10	0.0%	<10	<10	0.0%
4-Nitrophenol	<21	<20	0.0%	<21	<21	0.0%
Acenaphthene	<10	<10	0.0%	<10	<10	0.0%
Acenaphthylene	<10	<10	0.0%	<10	<10	0.0%
Acetophenone	<10	<10	0.0%	<10	<10	0.0%
Anthracene	<10	<10	0.0%	<10	<10	0.0%
Atrazine	<2.1	<2	0.0%	<2.1	<2.1	0.0%
Benzaldehyde	<10	<10	0.0%	<10	<10	0.0%
Benzo(a)anthracene	<1	<1	0.0%	<1	<1	0.0%
Benzo(a)pyrene	<1	<1	0.0%	<1	<1	0.0%
Benzo(b)fluoranthene	<1	<1	0.0%	<1	<1	0.0%
Benzo(g,h,i)perylene	<10	<10	0.0%	<10	<10	0.0%
Benzo(k)fluoranthene	<1	<1	0.0%	<1	<1	0.0%
bis(2-Chloroethoxy)methane	<10	<10	0.0%	<10	<10	0.0%
bis(2-Chloroethyl)ether	<1	<1	0.0%	<1	<1	0.0%
bis(2-Chloroisopropyl)ether	<10	<10	0.0%	<10	<10	0.0%
bis(2-Ethylhexyl)phthalate	<2.1	<2	0.0%	1.30 J	1.30 J	n/a
Butylbenzylphthalate	<10	<10	0.0%	<10	<10	0.0%
Caprolactam	<10	<10	0.0%	<10	<10	0.0%
Carbazole	<10	<10	0.0%	<10	<10	0.0%
Chrysene	<2.1	<2	0.0%	<2.1	<2.1	0.0%

Empire Electric
5200 1st Avenue
Brooklyn, NY
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Groundwater Analytical Results (ug/L)
Relative Percent Difference Analysis of Blind Duplicate Samples
TestAmerica, Inc.
Methods: SW8270D

Location Date Collected Time Collected Matrix	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	MW-02	MW-X		MW-05R	MW-X	
	7/27/2017	7/27/2017		10/2/2017	10/2/2017	
	8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Matrix	Water	Water		Water	Water	
Dibenzo(a,h)anthracene	<1	<1	0.0%	<1	<1	0.0%
Dibenzofuran	<10	<10	0.0%	<10	<10	0.0%
Diethylphthalate	<10	<10	0.0%	<10	<10	0.0%
Dimethylphthalate	<10	<10	0.0%	<10	<10	0.0%
Di-n-butylphthalate	<10	<10	0.0%	<10	<10	0.0%
Di-n-octylphthalate	<10	<10	0.0%	<10	<10	0.0%
Fluoranthene	<10	<10	0.0%	<10	<10	0.0%
Fluorene	<10	<10	0.0%	<10	<10	0.0%
Hexachlorobenzene	<1	<1	0.0%	<1	<1	0.0%
Hexachlorobutadiene	<1	<1	0.0%	<1	<1	0.0%
Hexachlorocyclopentadiene	<10	<10	0.0%	<10	<10	0.0%
Hexachloroethane	<1	<1	0.0%	<1	<1	0.0%
Indeno(1,2,3-cd)pyrene	<1	<1	0.0%	<1	<1	0.0%
Isophorone	<10	<10	0.0%	<10	<10	0.0%
Naphthalene	<10	<10	0.0%	<10	<10	0.0%
Nitrobenzene	<1	<1	0.0%	<1	<1	0.0%
N-Nitrosodi-N-Propylamine	<1	<1	0.0%	<1	<1	0.0%
N-Nitrosodiphenylamine	<10	<10	0.0%	<10	<10	0.0%
o-cresol	<10	<10	0.0%	<10	<10	0.0%
p-cresol	<10	<10	0.0%	<10	<10	0.0%
Pentachlorophenol	<21	<20	0.0%	<21	<21	0.0%
Phenanthrene	<10	<10	0.0%	<10	<10	0.0%
Phenol (total)	<10	<10	0.0%	<10	<10	0.0%
Pyrene	<10	<10	0.0%	<10	<10	0.0%

Notes:

n/a - Not applicable due to estimated value

TICs not included in RPD analysis

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



Groundwater Analytical Results (ug/L)
Relative Percent Difference Analysis of Blind Duplicate Samples
TestAmerica, Inc.
Methods: SW6020A, SW7470A

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	MW-02	MW-X		MW-05R	MW-X		SB-15_GW	SB-X	
	7/27/2017	7/27/2017		10/2/2017	10/2/2017		8/9/2017	8/9/2017	
	8:08 AM	12:00 AM		10:50 AM	12:00 AM		10:40 AM	12:00 AM	
Matrix	Water	Water		Water	Water		Water	Water	
Aluminum	73.4	65.5	11.4%	130	140	7.4%	<40	<40	0.0%
Antimony	1 J	0.90 J	n/a	0.64 J	0.81 J	n/a	<2	<2	0.0%
Arsenic	<2	<2	0.0%	<2	1 J	n/a	5.4	7	25.8%
Barium	128	122	4.8%	89	92.8	4.2%	140	142	1.4%
Beryllium	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%
Cadmium	<2	<2	0.0%	<2	<2	0.0%	<2	<2	0.0%
Calcium	59,100	56,200	5.0%	65,000	65,900	1.4%	46,800	49,900	6.4%
Chromium (total)	9.7	9.4	3.1%	<4	<4	0.0%	<4	<4	0.0%
Cobalt	<4	<4	0.0%	<4	<4	0.0%	<4	<4	0.0%
Copper	2 J	1.70 J	n/a	<4	<4	0.0%	1.50 J	<4	n/a
Iron	135	97.90 J	n/a	188	204	8.2%	44.80 J	131	n/a
Lead	<1.2	<1.2	0.0%	<1.2	<1.2	0.0%	<1.2	<1.2	0.0%
Magnesium	7,340	7,060	3.9%	10,500	10,500	0.0%	9,380	10,200	8.4%
Manganese	13.6	4.90 J	n/a	2,480	2,470	0.4%	575	656	13.2%
Mercury	<0.2	<0.2	0.0%	<0.2	<0.2	0.0%	<0.2	<0.2	0.0%
Nickel	<4	<4	0.0%	2.50 J	2.30 J	n/a	<4	<4	0.0%
Potassium	8,020	7,600	5.4%	12,400	12,400	0.0%	22,300	24,000	7.3%
Selenium	<10	<10	0.0%	<10	<10	0.0%	1.20 J	1.50 J	n/a
Silver	<2	<2	0.0%	<2	<2	0.0%	<2	<2	0.0%
Sodium	1060000	1030000	2.9%	202,000	203,000	0.5%	30,700	32,500	5.7%
Thallium	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%
Vanadium	<4	<4	0.0%	<4	<4	0.0%	9.2	12.7	32.0%
Zinc	<16	<16	0.0%	<16	<16	0.0%	<16	<16	0.0%

Notes:

Analytical results for samples collected 8/9/17 are for dissolved metals.

n/a - Not applicable due to estimated value(s)

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

Rinsate Blank Sample Analytical Summary (ug/L)

TestAmerica, Inc.

Methods: SW8082A

Location	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK
Date Collected	7/6/2017	7/7/2017	7/10/2017	7/21/2017	7/25/2017	8/9/2017	9/21/2017	9/28/2017
Time Collected	8:30 AM	8:30 AM	8:00 AM	8:30 AM	8:00 AM	9:00 AM	8:00 AM	8:00 AM
Aroclor 1016	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1221	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1232	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1242	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1248	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1254	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1260	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1262	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1268	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Polybrominated biphenyls (total)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4

Rinsate Blank Sample Analytical Summary (ng/L)

TestAmerica, Inc.

Methods: E537-LL

Location	RINSE BLANK
Date Collected	7/24/2017
Time Collected	1:40 PM
Perfluorobutanesulfonic acid (PFBS)	<2
Perfluoroheptanoic acid (PFHpA)	<2
Perfluorohexanesulfonic acid (PFHxS)	<2
perfluorononanoic acid (PFNA)	<2
perfluorooctanesulfonic acid (PFOS)	<2
perfluorooctanoic acid (PFOA)	<2

Empire Electric
5200 1st Avenue
Brooklyn, NY
Spill # 224015



Rinsate Blank Sample Analytical Summary

(ug/L)

TestAmerica, Inc.

Methods: SW8260C

Location	RINSE BLANK
Date Collected	7/24/2017
Time Collected	1:40 PM
1,1 Dichloroethane	<1
1,1 Dichloroethene	<1
1,1,1 Trichloroethane	<1
1,1,2 Trichloroethane	<1
1,1,2,2 Tetrachloroethane	<1
1,2 Dibromoethane	<1
1,2 Dichlorobenzene	<1
1,2 Dichloroethane	<1
1,2 Dichloropropane	<1
1,2,3 Trichlorobenzene	<1
1,2,4 Trichlorobenzene	<1
1,3 Dichlorobenzene	<1
1,4 Dichlorobenzene	<1
1,4-Dioxane	<50
2-Hexanone	<5
4-Methyl-2-Pentanone	<5
Acetone	<5
Benzene	0.29 J
Bromochloromethane	<1
Bromodichloromethane	<1
Bromoform	<1
Bromomethane	<1
c 1,3 Dichloropropene	<1
Carbon Disulfide	<1
Carbon Tetrachloride	<1
Chlorobenzene	<1
Chloroethane	<1
Chloroform	<1
Chloromethane	<1
cis-1,2-Dichloroethene	<1
Cyclohexane	<1
Cyclohexane, methyl-	<1

Empire Electric
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Brooklyn, NY
Spill # 224015



Rinsate Blank Sample Analytical Summary
(ug/L)

TestAmerica, Inc.

Methods: SW8260C

Location	RINSE BLANK
Date Collected	7/24/2017
Time Collected	1:40 PM
Dibromochloromethane	<1
Dibromochloropropane	<1
Dichlorodifluoromethane	<1
Ethylbenzene	0.55 J
Freon 113	<1
Isopropylbenzene	<1
m + p Xylene	1.7
Methyl acetate	<5
Methyl Ethyl Ketone	<5
Methylene Chloride	<1
o-Xylene	0.51 J
Styrene	<1
t 1,3 Dichloropropene	<1
t butylmethylether	<1
Tetrachloroethene	<1
Toluene	3
Total BTEX	6
trans-1,2-Dichloroethene	<1
Trichloroethylene	<1
Trichlorofluoromethane	<1
Vinyl Chloride	<1

Notes:

J - Indicates an estimated value below laboratory reporting limits.

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Appendix E

Site Management Form

SITE-WIDE INSPECTION**Day:** _____ **Date:** _____

NYSDEC		Temperature: (F)	F	(am)	F	(pm)
Site Owner: _____ Current Site Use: _____		Wind Direction/Speed:		(am)		(pm)
EMPIRE ELECTRIC SITE		Weather:	(am)			
NYSDEC Site # 224015			(pm)			
East Patchogue, New York		Arrive at site		(am)		
		Leave site:		(pm)		

Site Security**Evidence of vandalism (fence, gate, wells):****Evidence of digging:****General site condition (fence, gate, wells, vegetative cover):****Additional Comments:****Site Drainage****Evidence of ponding within retention area:****Evidence of site runoff:**

SITE-WIDE INSPECTION

Day: _____ Date: _____

Additional Comments:**Site Monitoring Wells****Are there any new cracks in the concrete collars of the site related MWs?****Are monitoring wells locked?****Do monitoring wells have caps?**