



Geotechnical
Environmental
Water Resources
Ecological

**Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street, and
Portions of 210 39th Street and
3904 Central Avenue**

Sea Isle City Former MGP Site

Sea Isle City, Cape May County, New Jersey
SRP ID No.: G000006130

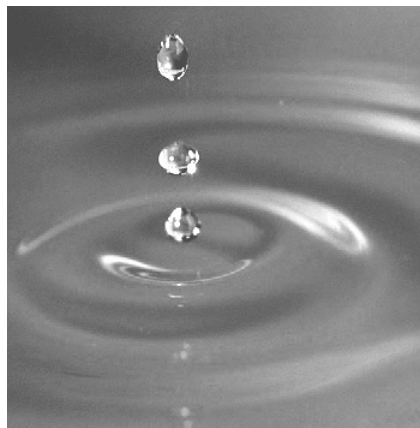
Prepared for:

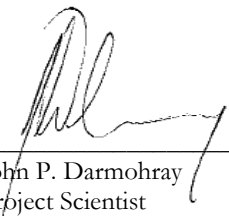
Jersey Central Power & Light Company
300 Madison Avenue
Morristown, New Jersey 07962

Submitted by:

GEI Consultants, Inc.
18000 Horizon Way, Suite 200
Mount Laurel, New Jersey 08054
856-608-6860

November 2014
Project 013660-6-2000




John P. Darmohray
Project Scientist

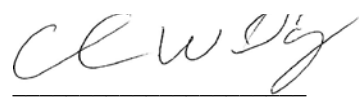

Christopher W. Dailey, P.E.
Vice President

Table of Contents

Abbreviations and Acronyms	iii
Executive Summary	v
1. Introduction	1
1.1 Purpose	1
1.2 Background	2
2. Site Description	3
2.1 Site Description	3
2.2 Site History	3
2.3 Nature and Extent of Contamination	4
2.4 Previous Remedial Actions	5
3. Physical Setting	8
3.1 Topography and Regional Drainage	8
3.2 Regional Geology	8
3.3 Regional Hydrogeology	8
3.4 Water Use	9
3.5 Subject Properties Geology	9
3.5.1 Subject Properties Soils	9
3.5.2 Subject Properties Hydrogeology	9
4. Receptor Evaluation	10
5. Remediation Activities	11
5.1 Site Preparation	11
5.2 Monitoring	13
5.3 Permits	14
5.4 Soil Excavation	16
5.5 Remaining Soil Impacts	18
5.6 Subsurface Features	18
5.7 Post-Excavation Soil Sampling	19
5.8 Post-Excavation Soil Sample Results	19
5.9 Quality Assurance and Quality Control	21
5.10 Material Transportation and Treatment	21
5.11 Waste Characterization	21
5.12 Excavation Backfilling	22
5.13 Site Restoration	23

6. Project Costs	25
7. Work Plan Variances	26
8. Conclusions	27

Table

1. Post-Excavation Soil Sample Analytical Results

Figures

1. Site Location Map
2. Pre-construction Site Plan
- 3A. Excavation Limits, Sample Locations and Results Area 1
- 3B. Excavation Limits, Sample Locations and Results Area 2
- 4A. Post Construction Site Plan Area 1
- 4B. Post Construction Site Plan Area 2

Appendices

- A. Remedial Action Report Form / Case Inventory Document
- B. Receptor Evaluation
- C. Local Construction Permits
- D. Vibration Monitoring Daily Reports
- E. Regulatory Permits
- F. Monitoring Well Documentation
- G. Air Monitoring Reports
- H. Photolog
- I. Variance Request
- J. Documentation and Calculation for Spatially Weighted Average
- K. Data Usability Summary Form and EDD Submission Emails
- L. Soil Laboratory Analytical Results
- M. Clean Earth Disposal Manifests and Certificates of Destruction
- N. Clean Fill Documentation Letter and Delivery Tickets

JPD:CWD/klg

H:\WPROC\Project\JCP&L\Sea Isle City\Remediation 2013-2014\2012-2014 RAR\RAR - 40th Street_FINAL_November 2014.docx

Abbreviations and Acronyms

ACM	Asbestos Containing Material
AOC	Area of Concern
BEE	Baseline Ecological Evaluation
bgs	Below ground surface
BTEX	Benzene, toluene, ethylbenzene and xylenes
CAFRA	Coastal Area Facilities Review Act
CASCD	Cape Atlantic Soil Conservation District
CID	Case Inventory Document
CMCMUA	Cape May County Municipal Utilities Authority
Code	Code Environmental Services
DPW	Department of Public Works
EAT	Enviro-Air Technologies
Emilcott	Emilcott Associates
EPH	extractable petroleum hydrocarbons
gpm	gallons per minute
GEI	GEI Consultants, Inc.
GWQS	Groundwater Quality Standards
IAL	Integrated Analytical Laboratories
In/sec	Inches per second
JCP&L	Jersey Central Power & Light Company
LSRP	Licensed Site Remediation Professional
MGP	Manufactured Gas Plant
mg/kg	Milligrams per kilogram
NFA	No Further Action
N.J.A.C.	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
NJDOT	New Jersey Department of Transportation
NJNG	New Jersey Natural Gas
PAHs	Polycyclic Aromatic Hydrocarbons
PAMS	Perimeter air monitoring system
PCBs	Polychlorinated biphenyls
PDI	Pre-Design Investigation
PID	Photo-ionization detector
QA	Quality Assurance
QC	Quality Control
RA	Remedial Action
RAO	Remedial Action Outcome

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

RAR	Remedial Action Report
RAWP	Remedial Action Work Plan
RDCSRS	Residential Direct Contact Soil Remediation Standards
RI	Remedial Investigation
SCC	Soil Cleanup Criteria
Shade	Shade Environmental
SRI	Supplemental Remedial Investigation
SRIR	Supplemental Remedial Investigation Report
SVOCs	Semi-Volatile Organic Compounds
SWA	Spatially Weighted Averaging
TCLP	Toxicity Characteristic Leachate Procedure
TRC	TRC Solutions
USEPA	United States Environmental Protection Agency
USGS	United States Geologic Survey
Vargo	Vargo Associates
VI	Vapor Intrusion
VOCs	Volatile Organic Compounds
Walter's	Walter's Marine Construction, Inc.
yds ³	Cubic Yards

Executive Summary

This Remedial Action Report (RAR) was prepared by GEI Consultants, Inc. (GEI) on behalf of Jersey Central Power & Light Company (JCP&L). The RAR is written in accordance with the New Jersey Administrative Code (N.J.A.C.), Section 7:26E 5.7 of the Technical Requirements for Site Remediation. The report documents the soil removal Remedial Action (RA) performed at the 205, 207, 209, 211, 219, 223 and 227 40th Street properties and portions of the 210 39th Street and 3904 Central Avenue properties in Sea Isle City, Cape May County, New Jersey. These properties are identified as Block 39.04, Lots 9, 10.01, 10.02, 11.01, 11.02, 12.01, 12.02, 13, 14, 15, 16, 22, 23, 110 and 120 on the current tax map of Sea Isle City. The 210 39th Street and 3904 Central Avenue properties are part of the parcel that comprised the Sea Isle City former manufactured gas plant (MGP) site. The remaining referenced parcels are residential properties that are located to southwest of the MGP site.

The soil removal RA was implemented over two construction seasons. The first RA occurred between November 26, 2012 and July 3, 2013. Code Environmental Services, under the oversight of GEI, conducted the soil remediation activities. The second RA occurred between November 4, 2013 and May 21, 2014, and was conducted by Enviro-Air Technologies, Inc., under the oversight of GEI. As part of the two RAs, a rectangular-shaped area measuring approximately 33,225 square feet was excavated to depths of 12 to 15 feet below ground surface. A total of 17,222 cubic yards (yds³) of soil was excavated. A total of 336,045 gallons of water were pumped from the project site and excavations during dewatering activities, treated and discharged to the sanitary sewer. The excavation was backfilled with 13,803.3 tons of New Jersey Department of Transportation (NJDOT) approved I-5 material and 16,689.94 tons of NJDOT approved I-8 material. Surface restoration included the placement of 1,345.99 tons of topsoil and grass cover. The clean fill was provided by Daley's Pit of South Seaville, Cape May County, New Jersey. Prior to backfilling, 24 post-excavation bottom soil samples were collected. Post-excavation sample locations were selected based on field observations and the size of the excavation and were biased to areas where MGP-impacts previously were observed. The soil samples were submitted under chain of custody to Integrated Analytical Laboratories of Randolph, New Jersey, a New Jersey-certified laboratory (Cert. #14751). Seventeen of the 24 samples were analyzed for benzene, ethylbenzene, toluene, and total xylenes and all 24 samples were analyzed for polycyclic aromatic hydrocarbons analysis by the United States Environmental Protection Agency Methods 8260B and 8270C, respectively.

Using a spatially weighted average approach based on Thiessen Polygons, the evaluation of the post-excavation soil samples confirmed that the soils remaining at the bottom of the

excavation are in compliance with the May 7, 2012 Residential Direct Contact Soil Remediation Standards (RDCSRS). Horizontal delineation of the impacts had been performed in the spring and fall of 2012, as the excavation support sheeting made it impossible to collect sidewall samples during the soil excavation work. The excavation limits were established to ensure compliance with the RDCSRS. GEI submitted a variance request to allow the analytical results for the peripheral samples collected during the supplemental remedial investigation, in lieu of post-excavation sidewall samples, as part of the September 2012 Remedial Action Work Plan. This method was approved by the New Jersey Department of Environmental Protection in previous RA phases of the ongoing Sea Isle City Site Remediation Project. The LSRP granted a variance for a small area of impacted soil outside the excavation limits that remains following remediation activities. It was demonstrated that these impacts achieve the objectives of an unrestricted use remediation and further the attainment of the purpose of this remedial phase. Based on the post-excavation soil analytical results and demonstrated attainment, no further remedial action for soils is required for the properties remediated as part of this RA.

1. Introduction

1.1 Purpose

This Remedial Action Report (RAR) documents the removal of 17,222 cubic yards (yds³) of manufactured gas plant (MGP) impacted soils from residential properties identified as 205, 207, 209, 211, 219, 223 and 227 40th Street and portions of 210 39th Street and 3904 Central Avenue, Sea Isle City, Cape May County, New Jersey.

The soil removal Remedial Action (RA) at these properties was conducted in association with remediation activities being implemented at, and in the vicinity of, the Sea Isle City former MGP site. The former MGP site includes three parcels identified on the Sea Isle City, New Jersey tax map as Block 39.04, Lots 22, 23, and 24. The off-site residential parcels, which were remediated during two separate construction seasons, are identified on the Sea Isle City, New Jersey tax map as Block 39.04, Lots 9, 10.01, 10.02, 11.01, 11.02, 12.01, 12.02, 13, 14, 15, 16, 110 and 120 and small portions of the former MGP site designated as Lots 22 and 23, abutting certain of these residential properties to the south. Subsurface soil at these properties contained MGP-related compounds at concentrations that exceeded the New Jersey Department of Environmental Protection (NJDEP) Residential Direct Contact Soil Remediation Standard (RDCSRS), dated May 7, 2012. This RAR documents the removal of impacted soil exceeding the RDCSRS in accordance with the work scope presented and subsequently approved by Robert P. Blauvelt, Licensed Site Remediation Professional (LSRP) (LSRP License No. 575013), in the September 2012 Remedial Action Work Plan (RAWP). Using compliance averaging, the analytical results of the confirmatory soil samples collected from the base of the excavations, when compared to the RDCSRS, demonstrate compliance attainment with the approved RAWP. The LSRP granted a variance for a small area of impacted soil outside the excavation limits that remains following remediation activities. It was demonstrated that these impacts achieve the objectives of an unrestricted use remediation and further the attainment of the purpose of this remedial phase. Based on the above-referenced findings, no further action regarding MGP-related soil contamination at 205, 207, 209, 211, 219, 223, 227 40th Street and the small portions 210 39th Street and 3904 Central Avenue is required. The official closure instrument will be a Response Action Outcome (RAO), to be issued by Mr. Robert P. Blauvelt, LSRP. The RAO will be an Area of Concern (AOC)-Specific Unrestricted Use RAO for MGP-related soil contamination at the 205, 207, 209, 211, 219, 223 and 227 40th Street properties based on the analytical results, which demonstrates attainment of the NJDEP's RDCSRS through compliance averaging.

The 2012-2013 construction activities (Remediation Area 1) were conducted by Code Environmental Services (Code) of Carteret, New Jersey. Enviro-Air Technologies (EAT) of Coopersburg, Pennsylvania conducted the 2013-2014 construction activities (Remediation Area 2). Perimeter air monitoring during soil disturbance activities was performed by TRC Solutions (TRC) of Lowell, Massachusetts during the 2012-2013 season and by Emilcott Associates (Emilcott) of Morristown, New Jersey during the 2013-2014 season. Oversight and documentation of remediation activities was provided by GEI during both construction seasons. The Remedial Action Report Form and the Case Inventory Document (CID) are provided in Appendix A.

1.2 Background

The Sea Isle City former MGP site is located west of the intersection of Central Avenue and 39th Street in Sea Isle City, Cape May County, New Jersey. A location map of the former MGP site is provided as Figure 1. Several Remedial Investigation (RI) phases previously have been conducted to identify and delineate the extent of MGP impacts at the former MGP site and on adjacent off-site properties. In April 2008, a Supplemental Remedial Investigation Report (SRIR) was submitted to the NJDEP. The SRIR expanded on the findings of previous investigations conducted at and around the site performed by GEI, Ebasco, Enserch, and Foster-Wheeler. Additional RI work was summarized in addenda to the SRIR dated April 2010 and August 2010. The most recent RI was completed in the spring of 2012, to verify the limits of this RA. Based on analytical results from previous investigations, soil and groundwater delineation for MGP impacts associated with the Sea Isle City former MGP site has been completed.

As part of the investigations conducted prior to the start of this RA, soil borings were advanced on the former MGP site, within the 39th Street, 40th Street, and Central Avenue rights-of-way, on City-owned property south of the former MGP site, and on privately-owned residential properties in the vicinity of the former MGP site. In preparation for the remediation of the former MGP site and off-site properties, several pre-design investigation (PDI) engineering studies including geotechnical investigations consisting of cone penetrometer explorations, standard penetration tests, sieve tests, a pump test, and slug tests were performed to provide additional information for the final design of the RAs implemented at the former MGP site and at off-site residential properties. Groundwater sampling has identified impacts in the shallow aquifer adjacent to the north of the former MGP site.

2. Site Description

Several phases of RI have been conducted at the site and on properties adjacent to and in the vicinity of the site. The most recent RI was completed in the fall of 2012 and Remedial Investigation Report Transmittal Form was submitted by the LSRP on March 13, 2014 to demonstrate the RI was complete. A brief discussion of previous investigation work is provided in Section 2.4.

2.1 Site Description

The area of this RA was previously developed with seven residential dwellings and associated storage sheds and garages. This area is located south and southwest of the former MGP site. With the exception of a small strip of land that abutted certain of the off-site residential properties to the south and was remediated as part of this RA, the former MGP site had been remediated previously and was used as an equipment storage yard and staging area for the RA.

Residential dwellings are located northwest of the remediation area. The Sea Isle City public works facility, water supply well and water tower, are located to the east across Central Avenue. Residential dwellings, associated garages, and a public parking area are located to the south on 40th Street. Residential dwellings are present to the west. A plan showing the project area and portions of the surrounding properties prior to implementation of the RA is presented as Figure 2.

The site is located in the approximate center of a barrier island. The Atlantic Ocean is approximately 1,500 feet east of the site. Tidal marshes are located approximately 1,500 feet west of the site.

2.2 Site History

The following site history description was excerpted from the Supplemental Remedial Investigation (SRI) Report prepared by Foster-Wheeler in February 2000.

Manufactured Gas Plant operations were conducted at the site during the late 1800s and early 1900s. Historical data indicate that in the late 1800s, and at least as early as 1889, the plant was owned and operated by the Sea Shore Gas Company. In 1920, the Sea Shore Gas Company sold the plant to the American Gas Generator Company, who in turn sold it to Friars Gas Company in 1921. It was resold in 1921 to the City of Sea Isle. In 1926, JCP&L purchased the facility. The facility, exclusive of the gas holder and oil tank, was demolished

in 1942. In 1952, JCP&L sold the property to the New Jersey Natural Gas Company (NJNG). The locations of the former coal gas plant oil tank and gas holder were determined from aerial photographs. The locations of the other original plant components (i.e., gas house, etc.), however, are not specifically known.

In 1978, NJNG sold the property to a private individual who subdivided the property into the current three lots. The lots were then sold separately to private individuals prior to the early 1980s. Following this transaction, residential dwellings were constructed on Lots 22 and 23 by the respective property owners. The single story dwelling constructed on Lot 23 was supported by approximately 27 wood pilings driven into the subgrade; it was subsequently demolished in 1988. In contrast, the 2-story dwelling constructed on Lot 22 was elevated above grade by concrete columns. Lot 24 has reportedly been vacant since the dismantling of the former gas plant.

Since the preparation of the Foster-Wheeler synopsis, JCP&L acquired ownership of the three parcels that comprised the former MGP site. The residential structure that existed on Lot 22 was removed in April 2008 in preparation of a soil removal RA, which was conducted between September 2008 and May 2009. JCP&L subsequently acquired ownership of several other off-site residential properties adjacent to and in the vicinity of the former MGP site on which MGP-impacted soils were detected. In September 2010, JCP&L implemented a second soil removal RA which included the western portion of the MGP site not addressed during the prior RA, the residential property (214 39th Street) adjacent to the west side of the MGP site and two residential properties (213 and 217 39th Street) to the north of the MGP site. In December 2011, JCP&L implemented a third soil removal RA that included the residential property located at 218 39th Street, and the remaining portion of the 214 39th Street residential property.

2.3 Nature and Extent of Contamination

The results from the RIs indicated that contamination associated with the former MGP extended beyond the limits of the former plant parcels. Contamination consists of exceedances of the NJDEP RDCSRS for polycyclic aromatic hydrocarbon (PAH) and benzene, toluene, ethylbenzene, and xylenes (BTEX) compounds. PAH compounds and benzene are the primary contaminants of concern. PAH exceedances were found in areas on the north side of 39th Street and the south side of 40th Street, as well as on the block between 39th and 40th Streets, from Central Avenue to approximately 340 feet west of Central Avenue.

In addition to soil exceedances, free and residual product has been identified in the vicinity of the former MGP site. Several of the parcels where product had been identified previously have been remediated. These parcels include the former plant parcels (Block 39.04, Lots 22,

23, and 24), 213 39th Street (Block 38.04, Lots 17 and 18), 214 39th Street (Block 39.04, Lots 33 and 34), and 218 39th Street (Block 39.04, Lots 31 and 32). Product has also been identified at 205 40th Street (Block 39.04, Lots 11.02 and 12.02), 207 40th Street (Block 39.04, Lots 11.01 and 12.01), 209 40th Street (Block 39.04, Lots 10.01 and 10.02) and 211 40th Street (Block 39.04, Lot 9), which were remediated during this current phase of construction and are discussed in this RAR.

2.4 Previous Remedial Actions

Previous RAs were conducted to remediate contamination associated with the former MGP site.

In 1987, a RA was conducted on Block 39.04, Lot 24 to remove an underground storage tank containing sand and a black viscous substance. Impacted soil and groundwater encountered within the excavation were also removed. This remediation also included the placement of a 6-inch layer of clean fill over Lot 24.

Between 1988 and 1989, JCP&L provided health and safety oversight and material disposal during a utility reconstruction project conducted by Sea Isle City. MGP-impacted soil and groundwater, which were identified through field observations, were removed from portions of the utility trenches along 39th Street, Central Avenue, and 40th Street and transported to a treatment/recycling facility.

A RA was completed in 1990 and involved the installation of an asphalt cover and perimeter fence on Block 39.04, Lots 23 and 24. In 1991, a shallow excavation and installation of geotextile fabric and sand, stone, soil, and/or concrete cover were completed on Block 39.04, Lot 22.

In 2003, a RA was conducted on Block 40.04, Lot 22 (210 40th Street) to remove soil containing MGP-related contamination. Approximately 550 tons of soil were removed. The remediation achieved complete removal of MGP-related soil contamination from the property. The NJDEP issued a No Further Action (NFA) letter for this property in June 2006.

With the exception of a small strip of land on Lots 22 and 23 which abutted the residential properties to the south, between 2007 and 2009, a RA was conducted at the parcels comprising the site (Block 39.04, Lots 22, 23, and 24) to remove soil containing MGP-related contamination. A total of 7,814 tons of soil was removed for off-site thermal treatment. The excavation support sheeting was purposely left in place on the southern and western limits of the excavation area for use during future planned RA phases. Low

permeability barriers were installed on the northern and eastern limits of the excavation area to prevent migration of MGP impacts back onto the site following remediation, as no additional excavation work was planned for the public right of way areas to the north and east of the site. The NJDEP approved the Remedial Action Report submitted for this phase, in a letter dated March 16, 2010.

In February 2008, JCP&L assisted the City and implemented a RA at the Sea Isle City Department of Public Works lot to the east of the former MGP site. The work was performed due to construction activities that were occurring at the lot, which uncovered the presence of hydrocarbon-impacted soils and subsequently an underground storage tank. Although a direct nexus with the site did not exist and a MGP origin of hydrocarbon impacts could not be established, JCP&L assisted the City with the remediation of this occurrence. A combined total of 140.62 tons of soils were shipped off-site by Freehold Cartage, Inc. for disposal at the Environmental Recovery facility located in Lancaster, Pennsylvania and CWM Chemical Services, L.L.C. facility located in Model City, New York. Approximately 2,100 gallons of ground water was transported by Freehold Cartage, Inc. for treatment and disposal at the E.I. Dupont Denemours & Company Chamber Works facility located in Deepwater, New Jersey. The excavation was backfilled with 129.61 tons of clean fill. Seven post-excavation soil samples were collected by GEI and submitted under chain of custody to a New Jersey-certified laboratory. The soil samples were analyzed for volatile organic compounds (VOC) and PAH compounds. The analytical results of all post-excavation soil samples were in compliance with the applicable NJDEP Soil Cleanup Criteria (SCC), the applicable action level at the time of the RA. The NJDEP issued a NFA letter for the RA work conducted by JCP&L on January 30, 2009.

The RA performed in 2010 and 2011 completed most the soil excavation work at the site parcels, with the exception of small strips along the south side of the site as well as along the east side of the abutting 214 39th Street (Lot 22) property. The RA also included excavation of the soil at the 213 and 217 39th Street properties on the north side of 39th Street. At the 213 and 217 39th Street properties, the excavation extended to depths of 12 to 13 feet below ground surface (bgs.) Post-excavation bottom samples in compliance with the RDCSRS were obtained from the base of the excavation. A total of 1,152.8 tons of soil were removed from these two properties and transported to Clean Earth of New Castle for thermal treatment. Excavation of the soil at the site and at the 214 39th Street property extended to depths of 12 to 17 feet bgs. Excavation work below 12 to 13 feet was performed while the deep aquifer depressurization system was in operation. When the deep depressurization system was shut down due to naturally occurring hydrogen sulfide odors associated with the aquifer which could not be abated, the excavation depth limit was approximately 13 feet bgs. Post-excavation soil samples from the 2010-2011 RA were compared to the 2008 RDCSCC as approved in the RAWP. Bottom samples from one excavation cell revealed the presence

of PAH compounds at concentrations above the RDCSRS, but below the RDCSCC as was approved in the RAW. A total of 9,047.2 tons of soil was excavated from the 210 and 214 39th Street properties and transported to Clean Earth of New Castle for thermal treatment. The NJDEP issued an NFA letter for MGP-related soil impacts at the 213-217 39th Street properties on January 12, 2012.

The 2011-2012 RA involved the excavation at the 218 39th Street property and also included a small strip of the 214 39th Street parcel along the boundary between 214 and 218 39th Street. Soil excavation work was limited to 12 to 13 feet bgs, with post-excavation soil samples collected and analyzed for PAH compounds. A total of 3,264 tons of impacted soil was excavated and transported to Clean Earth of New Castle, for thermal desorption. A total of 3,582 tons of clean fill material was transported to the site from Daley's Pit of South Seaville, New Jersey for backfill.

3. Physical Setting

3.1 Topography and Regional Drainage

Sea Isle City is located on a barrier island within the Coastal Plain geologic region of southern New Jersey. Topographic elevations range from approximately 5 to 10 feet above mean sea level relative to the North American Vertical Datum.

The former MGP site is depicted on the United States Geologic Survey (USGS), Sea Isle City, New Jersey Quadrangle 7.5-minute series provided as Figure 1. The former MGP site is located approximately 1,500 feet to the west-northwest of the Atlantic Ocean and approximately 1,500 feet southeast of Ludlam Bay.

3.2 Regional Geology

Sea Isle City is situated on approximately 6,000 feet of Mid-Atlantic Coastal Plain sediments overlying Precambrian Age bedrock. Native surface soil on the barrier island is comprised of recent marsh and alluvial deposits. The marsh and alluvial deposits are underlain by the Cape May Formation, comprised of Quarternary Period marine and deltaic sand and clay. The Cohansey Sand, a Miocene Age sand unit with thick clay lenses predominant along the coast, underlies the Cape May Formation.

The Kirkwood Formation, a Miocene Age system comprised of interbedded clay and sand approximately 250 feet in thickness, underlies the Cape May Formation. Tertiary and Cretaceous Age sediments underlie the Kirkwood Formation to a depth of approximately 6,000 feet.

3.3 Regional Hydrogeology

Shallow groundwater on the barrier island occurs in unconsolidated Coastal Plain sediments in a brackish water table aquifer. Recharge to shallow groundwater occurs from precipitation. Because the surficial marsh deposits are relatively impermeable, the shallow groundwater is not considered an extensive aquifer system.

Water in the deltaic and marine Cape May Formation is saline. The unconfined aquifer, known as the Cohansey Aquifer in the area of Atlantic City, extends downward to the upper confining unit of the underlying Kirkwood Formation. The Cohansey sand unit is underlain by an approximately 375-foot thick layer, containing a 30-foot thick sand interval (“Rio Grande” or “250-foot horizon”) in the middle of the clay layer. Beneath the clay layer is the

Kirkwood Formation “Atlantic City 800-foot sand” aquifer. Water in the Atlantic City 800-foot sand aquifer is used as a water supply.

3.4 Water Use

There are no surface or near-surface fresh water sources at or in the vicinity of the former MGP site. Surrounding surface water bodies are tidal. The potable well (Well #7) located at the Department of Public Works (DPW) property across Central Avenue from the former MGP site is screened in the Kirkwood Formation (Atlantic City 800-foot-sand) strata. Only the Atlantic City 800-foot-sand formation is used as a water supply source in Sea Isle City.

Well #7 was installed in 1996. The intake section of Well #7 is located between 720 and 902 feet bgs. The static water level was reported as 58.83 feet bgs. The reported level during pumping is 71.67 feet bgs. The reported well yield is 800 gallons per minute (gpm), with a reported pump capacity of 700 gpm. The zone of withdrawal of Well #7 is vertically isolated from the former MGP site by several hundred feet of deposits, including approximately 350 feet of clay confining beds.

3.5 Subject Properties Geology

3.5.1 Subject Properties Soils

Soils observed in the excavation during implementation of the RA consisted of brown to light brown sand with silt to a depth of 4 to 5 feet bgs, grayish sand with silt from 5 to 8 feet, and a sphagnum peat layer below 8 feet.

The soils in this area have been classified by the United States Department of Agriculture Soil Conservation Service as Urban land-Psamments, wet substratum, 0 to 8 percent slopes, rarely flooded. The formation consists of approximately 60 percent urban land and 30 percent Psamments. Urban land consists of surfaces covered by concrete, pavement, buildings, and other structures underlain by disturbed and natural soil material. Depth to the seasonal high water table is 12 to 24 inches bgs.

3.5.2 Subject Properties Hydrogeology

During excavation activities, groundwater was encountered at depths of 2 to 4 feet bgs. Based on the topography at the subject properties and groundwater elevation measurements previously collected at and in the vicinity of the former MGP site, groundwater at the subject properties flows to the south-southeast, toward Central Avenue.

4. Receptor Evaluation

Pursuant to N.J.A.C. 7:26E 1.12, an updated Receptor Evaluation was completed. A Baseline Ecological Evaluation (BEE) was conducted in 2004, and a vapor intrusion (VI) investigation was conducted in 2007. NJDEP provided comments regarding the BEE in a letter dated May 24, 2004. In their letter, the NJDEP agreed that while contaminants of ecological concern were present on the former MGP site, the soil and groundwater contamination was limited to residential lots and city streets, and there were no environmentally sensitive natural resources at or within the immediate surrounding areas of the former MGP site. The results of the investigation confirmed that the former MGP site had not contributed to VI issues at the nearby residences.

GEI has conducted a well search for the area. The well search determined that the Sea Isle City public water supply well discussed above is the only potable water well within a 2,000 foot radius of the former MGP site. Eight public community supply wells, one irrigation well, and two domestic wells were identified within a one-mile radius of the MGP site during the well search. One public water supply well is located adjacent to the east of the project area, while the remaining public water supply wells appear to be located over ½ mile to the south-southwest. The public water supply wells are screened well below the shallow groundwater impacts associated with the former MGP site, and are separated from the impacts by low permeability clay layers. The irrigation well is located at 8005 Central Avenue, which is over 1 mile from the project area. The two domestic wells are listed as being located in Dennis Township. They therefore appeared to be miss-plotted, as the coordinates for both wells are within a wetlands area to the northwest of the project area and residential properties in Dennis Township are more than 1 mile away from the project area. The completed Receptor Evaluation Form, well search data, and a figure showing receptors within a 200-foot radius are included as Appendix B of this RAR.

5. Remediation Activities

The following section details the RA implemented at the 205, 207, 209, 211, 219, 223, 227 40th Street properties, portions of the 40th Street right-of-way abutting these properties to the south and portions of the 210 39th Street and 3904 Central Avenue properties that abutted the 205, 207, 209, and 211 properties to the north. The RA was implemented over two construction phases from November 26, 2012, through completion of restoration activities on May 21, 2014, with a summer stoppage of work from July to September of 2013. The RA work area was divided into two zones. Remediation Area 1, which includes the 211, 219, 223 and 227 40th Street residential properties, as well as portions of the 40th Street right-of-way abutting these properties, was completed during the 2012-2013 construction season. Excavation cells in this area included cells J1 through J3, K1 through K3, L1 through L3 and M1 through M3. Remediation Area 2 includes the 205, 207, 209, and a small section of the 211 40th Street properties, portions of the 40th Street right-of-way abutting these properties, and portions of the 210 39th Street and 3904 Central Avenue properties and was completed during the 2013-2014 construction season. Excavation cells in this area included cells J5 through J8, K5 through K8, and L5 through L8. Please see Figure 3A for the locations of the Remediation Area 1 properties and excavation cells, and Figure 3B for the locations of the Remediation Area 2 properties and excavation cells.

5.1 Site Preparation

Prior to demolition, utilities servicing 205, 207, 209, 211, 219, 223 and 227 40th Street were disconnected. These utilities included water, sanitary sewer, natural gas, electric, cable and telephone. Overhead electric lines were either removed or rerouted by Atlantic City Electric. After disconnecting the utilities, the structures were abated of asbestos containing material (ACM) by Shade Environmental (Shade) of Maple Shade, New Jersey. Shade performed this work during both construction seasons, under the direct supervision of Code for Remediation Area 1 and EAT for Remediation Area 2. The Asbestos Abatement Notification and post-abatement testing results are included with the demolition permits in Appendix C of this RAR. After completion and inspection of the ACM abatement, the 219, 223 and 227 40th Street structures were demolished by Walter's Marine Construction, Inc. (Walter's) of Ocean View, New Jersey, under the direct supervision of Code. A total of 90.06 tons of demolition debris were transported to the Cape May County Municipal Utilities Authority (CMCMUA) landfill for disposal during the Remediation Area 1 RA. The 205, 207 and 209 40th Street properties were demolished by Earthtech Contracting, Inc. of Ocean View, New Jersey, under the direct supervision of EAT. A total of 175.5 tons of demolition debris were transported to CMCMUA landfill for disposal during the Remediation Area 2 RA. A total of 19.49 tons of material from asbestos abatement activities were transported to the CMCMUA

landfill for disposal. Copies of the disposal tickets for waste transported to the CMCMUA landfill are included in Appendix M of this report.

Rather than demolish the existing structure at 211 40th Street, JCP&L chose to save the building and relocate it to another JCP&L-owned property. After the utilities, deck, stairs and other appurtenances were removed, the structure was detached and raised from the foundation and relocated to the JCP&L-owned parcel at 214 39th Street. The raising of the structure was conducted by JL Davis House Movers of Ocean View, New Jersey, under the direct supervision of Code. Prior to relocating the structure, a pile foundation designed by a New Jersey licensed Structural Engineer in accordance with the construction code requirements and approved by Sea Isle City was installed. After the structure was secured to the foundation the deck was reconstructed, the plumbing and other utility services were installed, and interior repairs were made by AK Painting of Galloway, NJ all under the direct supervision of Code. After completion the relocated structure was inspected and approved by the Sea Isle City building inspector and a Certificate of Occupancy issued.

Prior to implementation of the RA in Remediation Area 2, a video inspection of the condition of the storm sewer located beneath the curbing along the west side of Central Avenue in close proximity to the planned excavation was completed by Russell Reid of Keasby, New Jersey. The storm sewer was re-inspected at the conclusion of the remediation to determine if any damage to the sewer line had occurred. Comparison of the videos indicated no changes in the condition of the pipe resulting from remediation activities.

After demolition of the residential structures within each respective Remediation Area, a perimeter sheet pile wall was installed and used as an excavation support system and a barrier against the infiltration of groundwater into the excavation. The sheet piles were advanced by Walter's. The steel sheet piles were driven to a depth of 35 feet bgs around the perimeter of the excavation. Interior sheeting was installed to depths of 25 feet bgs or 35 feet bgs and tied to the perimeter sheeting to form individual excavation cells measuring no larger than 1,600 square feet. Walers and bracing were installed as additional interior support to prevent deflection of the sheeting. The sheeting design was prepared and approved by a New Jersey-licensed professional engineer. SwellSeal[®] was applied to the joints of sheeting to reduce inflow of ground water. The SwellSeal[®] expands upon contact with moisture, thereby providing a seal which restricts water flow through the joints.

During RA implementation in Remediation Area 2, a temporary enclosure was erected over the excavation area and equipped with an air handling/treatment system to control potential fugitive emissions and odors during the excavation and backfilling operations. The enclosure was originally set on the eastern half of Remediation Area 2 and, once this portion was completed, the enclosure was relocated over the western half. The enclosure and anchoring

system design were prepared by All Site Structure Rentals of Las Vegas, Nevada to comply with the requirements of the project specifications. The air handling system was designed and installed by Tigg Corporation of Oakdale, Pennsylvania. Upon completion of the RA, the air handling unit, enclosure with associated anchors, walers and bracing and most of the steel sheeting was removed. Sheeting that could not be removed was left in place as discussed in Section 7.

During RA implementation within Remediation Area 1, the temporary enclosure was not used and excavation and backfilling were performed in the open air. The enclosure was deemed to be not necessary due to the lateral distance of the properties from the MGP site, and the relatively low concentrations of MGP impacts and/or organic vapors in the soil in this area as determined from the prior RI and Pre-Design Investigation. However as a preventative measure a ready supply of foam suppressant and equipment to deliver the foam was positioned in the work area and ready for use, if required.

5.2 Monitoring

InstanTel[®] Blastmates were installed at selected properties in close proximity to the work areas and were operated and monitored daily for vibrations associated with the construction activities. The vibration monitoring equipment was programmed so that a visual alarm would be triggered if the vibrations reached 0.3 inches per second (in/sec), an indication that the Action Level of 0.5 in/sec was being approached, and an audio alarm would sound if the vibrations reached 0.5 in/sec. In response to the audio alarm, the contractor would adjust the frequency used by the hydraulic hammer during sheeting installation or removal. The vibration monitor with the visual/audio alarm system was utilized at the closest residential property to where the work was being conducted.

Vibrations were detected at nearby structures when sheeting and earthwork was conducted. The vibration monitoring did record exceedances of 0.5 in/sec, the project Action Limit, for 5 seconds or less during the installation and removal of the sheeting. Copies of the daily reports for vibration monitoring are included in Appendix D.

Additionally, Vargo Associates (Vargo), a New Jersey-licensed surveyor, conducted elevation monitoring of specific points located in the vicinity of the construction areas and on the sheet pile wall for detection of settlement or deflection. The monitoring points included, but were not limited to, the pavement adjacent to the excavation along 40th Street and Central Avenue, at the DPW water tower and office building, and at the residential properties located at 146, 147, 210, 218, 220, 222, 226, 230 and 231 40th Street, and 214, 218, 222, 226 and 230 39th Street. The results of the surveyed measurements collected at the structures

indicated that no movement had occurred, with the exception of Central Avenue adjacent to the excavation area and at the 231 40th Street property.

During installation of the sheeting in Remediation Area 1, 0.25 inches of settlement at the northeast corner of the residence at the 231 40th Street property was detected. Visual evidence of movement included separation of the sidewalk from the structure's foundation wall and its inclination toward the work area, the out-of-plumb alignment of the gate leading to the back yard which could not be properly closed, and widening of an existing stair-step crack in the foundation wall at the northeast corner of the structure.

As a result of these observations, a New Jersey licensed Structural Engineer, conducted an inspection of the northwest corner of the foundation and an examination of the tops of the piles supporting the foundation wall to evaluate the cause and extent of the damage. The inspection concluded that the pile tips supporting the foundation wall were substantially deteriorated and were no longer providing adequate contact or support with the foundation to prevent movement. As a result, vibrations from the construction activities caused this portion of the foundation wall to settle and widen the previously existing stair-step cracks. The damage to the foundation wall was repaired at the conclusion of Remediation Area 1 construction activities. The repairs are discussed in more detail in Section 5.12.

Prior to RA implementation in Remediation Area 2, two inclinometers were installed to a depth of approximately 60 feet bgs. The two inclinometers, I-12 and I-13, were centrally located with respect to the remediation area along 40th Street and also along Central Avenue to monitor movement of the soils outside the perimeter sheet pile wall. These inclinometers were checked on a daily basis during earthwork activities with a Digitilt Slope Indicator. The inclinometers showed inward deflection of the sheeting lines along both Central Avenue and 40th Street. EAT used bottle jacks to arrest the sheeting deflections when the inclinometers began to approach the action levels for horizontal movement. Both inclinometers were abandoned in place at the conclusion of the RA by a New Jersey licensed driller.

During Remediation Area 2 excavation activities associated with the removal of the sheet pile wall along the east side of the excavation, settlement was detected at the monitoring points located within Central Avenue. A peak settlement of 2.16 inches was measured on the roadway surface. Actions taken to repair Central Avenue are discussed in Section 5.12.

5.3 Permits

The following permits were obtained, as required for the completion of the RA.

Local Construction Permits

Sea Isle City issued a construction permit to relocate the 211 40th Street structure to 214 39th Street and for the replacement the deck and installation of the foundation. After completion of the relocation and restoration repairs, the City conducted an inspection and provided a Certificate of Occupancy for the property. The City also issued a construction permit to erect the temporary enclosure over the excavation area in Remediation Area 2. The City also issued demolition permits for the structures at the 205, 207, 209, 219, 223 and 227 40th Street properties. Local construction permits are included in Appendix C of this RAR.

Dewatering – Discharge to Sanitary Sewer

Groundwater that entered the excavation by seepage or storm water runoff was removed from the excavation using sump pumps, the locations of which were changed based on the area being excavated. The fluids were conveyed to a 20,000-gallon holding tank, treated using a combination of a baffled wier tank, bag filters and granular activated carbon units, and discharged to the sanitary sewer system. The required approvals to discharge the treated effluent to the sanitary sewer were obtained as discussed below.

Discharge to the sanitary sewer is subject to approval by Sea Isle City (conveyance system), the CMCMUA (treatment system), and the NJDEP (permit for discharge to CMCMUA, as the CMCMUA is not a “delegated authority”). The NJDEP Bureau of Pretreatment and Residuals indicated that a discharge under 25,000 gallons per day would not require an NJDEP permit. JCP&L obtained approval from both the CMCMUA and Sea Isle City for discharge of treated water to the sanitary sewer. In accordance with the conditions of the permit to discharge, sampling of the treated effluent was performed as required by both Code and EAT to verify compliance with CMCMUA discharge standards. Results of the effluent sampling and discharge totals were provided on a monthly basis to the CMCMUA.

Coastal Area Facilities Review Act Permit

GEI applied for a Coastal Area Facilities Review Act (CAFRA) General Permit #15 for the planned remediation activities. The permit application for Remediation Area 1 was submitted to the NJDEP Division of Land Use on August 14, 2012. The NJDEP approved the CAFRA General Permit #15 and issued a permit for Remediation Area 1 on December 4, 2012. Per NJDEP requirements, the CAFRA permit was recorded at the Cape May County Clerk’s Office. A CAFRA permit application for the work to be conducted at Remediation Area 2 was submitted to the NJDEP Division of Land Use on September 10, 2013. The NJDEP approved the CAFRA General Permit #15 and issued a permit on November 13, 2013. The CAFRA General Permit #15 was recorded at the Cape May County Clerk’s Office. Copies of the two approved CAFRA General Permit #15 are included as Appendix E in this RAR.

Soil Erosion and Sediment Control Plan

A soil erosion and sediment control plan was prepared by GEI and submitted for approval to the Cape-Atlantic Soil Conservation District (CASCD) on October 3, 2012 for Remediation Area 1. The CASCD approved the application on November 30, 2012. A soil erosion and sediment control plan application for Remediation Area 2 was prepared by GEI and submitted to the CASCD on October 24, 2013. Additional information regarding the permit application was provided on November 7, 2013. The CASCD approved the application on November 14, 2013. Copies of the permits are included in Appendix E of this RAR.

Well installation/Abandonment

At the conclusion of activities in Remediation Area 1, Code utilized the services of B&B Drilling of Netcong, New Jersey, a New Jersey licensed well driller, to abandon former depressurization wells TW-1, which is erroneously presented as DW-4 on the well abandonment form, DW-1, DW-2, DW-3 and the correct DW-4. These wells were used in previous phases of the remediation to relieve soil heaving caused by upward pressure resulting from the removal of the soil to depths of nearly 20 feet bgs. Inclinometers I-12 and I-13 were installed by Ameridrill Inc. (Ameridrill) of Levittown, Pennsylvania, a New Jersey licensed well driller at the beginning of activities in Remediation Area 2 and subsequently abandoned in place by Ameridrill at the conclusion of the RA. Copies of the installation and abandonment applications are included in Appendix F of this RAR. The final reports have been provided to the NJDEP Bureau of Water Allocation by the driller that abandoned the wells and inclinometers.

5.4 Soil Excavation

The soil removal excavation activities were conducted over two construction seasons. Code conducted excavation and backfilling activities in Remediation Area 1 from January 16, 2013 through May 8, 2013. EAT conducted excavation and backfilling activities in Remediation Area 2 from January 27, 2014 through April 11, 2014. Monitoring of air quality within the excavation area was conducted in accordance with the project protocols and action levels established in the site-specific Health and Safety Plan prepared and implemented by the Health and Safety Officer for each contractor. Perimeter air monitoring was also conducted in the immediate vicinity of the excavation as protection to the surrounding community by TRC Solutions (TRC) during Remediation Area 1 activities and by Emilcott Associates (Emilcott) during the Remediation Area 2 activities.

The perimeter air monitoring system (PAMS) consisted of four individual monitoring stations (one at each corner surrounding the work area), which monitored ambient air at the excavation boundary for particulate matter (PM10) and total VOCs. Operation of the PAMS

was initiated 30 minutes prior to the start of daily construction activity and continued at least 30 minutes after work activities ceased for the day. No exceedances of the action levels attributable to the excavation of the soil or backfilling of the excavation were detected at the excavation boundary during either construction period. Copies of the air monitoring reports are included in Appendix G.

The excavation area was separated into twenty four excavation cells, twelve for each construction season. Excavation cells in Remediation Area 1 included cells J1 through J3, K1 through K3, L1 through L3 and M1 through M3. Excavation cells in Remediation Area 2 included cells J5 through J8, K5 through K8, and L5 through L8. The total excavation area of the 24 cells measured approximately 33,225 square feet from which soil was removed to depths of 12 to 15 feet bgs, as shown on Figures 3A and 3B. A total of 17,222 yds³ of soil was excavated. A photolog of the RA is presented in Appendix H.

During excavation, groundwater was encountered at depths ranging from near surface to 2 feet bgs during activities in Remediation Area 1 and from 2 to 4 feet bgs during activities in Remediation Area 2. Substantially more water needed to be handled from Remediation Area 1 because of flooding at the project area from Super Storm Sandy in October 2012 and a subsequent Nor'easter that inundated the project area again shortly thereafter. In addition to being required to remove, treat and discharge surface accumulations, the heavy precipitation and subsequent flooding oversaturated the subsurface soils substantially increasing the moisture content. That required additional handling of the soils, including the incorporation of amendments and prolonged staging during excavation to reduce moisture levels.

Groundwater was removed from the excavation using the dewatering system described in Section 5.3. Surface accumulations were collected by direct pumping of the water to the on-site holding tank. During implementation of the two RAs, approximately 336,045 gallons of surface and groundwater were removed from the project area and excavations. This water was treated, and discharged to the sanitary sewer.

Due to the saturated soil conditions encountered during the RAs, Clean Earth of New Castle, the thermal treatment/recycle facility, required the contractors to use an additive to decrease the moisture content of the soil to comply with the facilities acceptance criteria. Code used Calciment[®], which was the product recommended by the disposal facility. EAT used Graymont high calcium lime kiln dust. Both of these additives cause an exothermic reaction which allows moisture to be released while not changing the properties of the soil so that the acceptance criteria of the soil can be met and allow for its thermal treatment.

5.5 Remaining Soil Impacts

A small area, measuring 1,155 square feet, on the north side of the 223 40th Street property was documented to have MGP-impacted soil in the Phase IV RAWP dated September 2012. Specifically, a single soil sample from boring (SB-451) was reported to have MGP compounds at concentrations above the RDCSRS at a depth of 8.5-9.0 feet bgs. This area was east of a detached garage associated with the 223 40th Street property, and south of the northern property boundary bordering 222 39th Street. The area was depicted to be outside the proposed excavation limits for the Phase IV RAWP.

Boring B-460 was advanced to the north of boring B-451 during the initial phase of the Phase IV RA to delineate MGP impacts associated with boring B-451 to the North. However, a sample collected from boring B-460 at a depth of 10.5-11.0 feet bgs also reported the existence of MGP compounds in the soil at concentrations above the RDCSRS. The impacts detected at borings B-451 and B-460 appear to correlate to the location of the organic layer which begins at the same depth interval at both sample locations and is 4 to 6 feet below the water table. This layer is part of an estuary that had crossed the properties. The estuary was subsequently filled in as part of the redevelopment of the island in the 1940s and 50s. A figure with the analytical results indicating the extent of residual impacts associated with borings B-451 and B-460 is provided in Appendix I.

Delineation of MGP compounds associated with the borings B-451 and B-460 can be demonstrated by the surrounding borings starting from boring B-450 along the excavated area and continuing clockwise to borings B-452, B-72, B-448, B-449, and ending along the excavated area at boring B-276. Analytical results of the samples from these borings reported polycyclic aromatic hydrocarbons (PAHs) as either non-detected or detected at concentrations below the RDCSRS. Figures 1 and 2 included in Appendix I depict the location of the impacted borings as well as the surrounding borings that were used to complete delineation. Appendix I includes copies of the boring logs for the above referenced borings.

The LSRP has issued a variance to allow MGP impacts to remain in place as delineated without a deed notice or engineering control. Details of the Technical Basis for this variance are provided in Appendix I.

5.6 Subsurface Features

During excavation in Remediation Area 2, buried concrete was discovered at a depth of 10 to 12 feet bgs along the northern edge of excavation cells J6 and J7. The source of the concrete could not be identified and association with former MGP structures could not be confirmed.

foundation elements etc.) were encountered during the excavation. This concrete was removed and disposed of appropriately.

5.7 Post-Excavation Soil Sampling

Upon completion of excavation activities, post-excavation soil samples were collected from the base of the excavation. The sample nomenclature describes the sample location according to a grid system. Twenty four post-excavation bottom soil samples were collected for confirmatory laboratory analysis.

The sample collection locations were biased to the area in each excavation cell where the previously existing soils exhibited the greatest visual, olfactory, or instrumental (elevated photo-ionization detector [PID readings]) evidence of contamination, in accordance with the requirements of section 6.3.4 of the *Technical Guidance for Site Investigation of Soil, Remedial Investigation of Soil, and Remedial Action Verification for Soil*, dated August 1, 2012 (Technical Guidance) and the RAWP. If soil impacts were observed to be uniform in occurrence throughout the cell being excavated and no localized “hot spots” were detected and the bottom of the excavated cell also was generally uniform in appearance, the bottom sample was collected from the center of the excavation cell.

In accordance with the requirements of the Technical Guidance, bottom samples were collected within 24 hours of completion of excavation within a given cell from the zero to six-inch interval at the excavation floor.

The soil samples were collected using decontaminated hand sampling tools and placed into laboratory-supplied glassware. The 24 soil samples were analyzed for PAHs, and 17 soil samples were additionally analyzed for BTEX. The samples were transported under chain of custody to Integrated Analytical Laboratories (IAL) of Randolph, New Jersey, a New Jersey-certified laboratory (Cert. # 14751).

5.8 Post-Excavation Soil Sample Results

The post-excavation soil sample results were evaluated using the Technical Guidance for the Attainment of Remediation Standards and Site-Specific Criteria, dated September 24, 2012. Two functional areas were created for evaluating the post-excavation analytical results. Functional Area I included the properties and excavation cells comprising Remediation Area 1 and Functional Area II included the properties and excavation cells comprising Remediation Area 2. Each functional area comprised approximately 0.38 acres and was evaluated independently.

Functional Area I included portions of Block 39.04, Lots 9, 10.01, 13, 14, 15, 16, 110, and 120 and included excavation cells J1 through J3, K1 through K3, L1 through L3 and M1 through M3. A total of 12 post-excavation samples were collected from Functional Area I and compared to the RDCSRS. The analytical results from Functional Area I were below the RDCSRS for each of the compounds analyzed. These results demonstrate compliance attainment for Functional Area I.

Functional Area II included portions of Block 39.04, Lots 10.01, 10.02, 11.01, 11.02, 12.01, 12.02, 22 and 23 and included excavation cells J5 through J8, K5 through K8, and L5 through L8. Twelve post-excavation samples were collected from Functional Area II and compared to the RDCSRS. The PAH results were below the RDCSRS; however, one of the analytical results for benzene remained slightly above the RDCSRS for benzene of 2 mg/kg and two of the samples were above 2 mg/kg, but below 2.5 mg/kg and were rounded down to 2 mg/kg to demonstrate compliance. Additional excavation at this location was not possible because the maximum depth of the excavation of 15 feet had been reached. Therefore, statistical evaluation of the samples was completed using compliance averaging techniques, as discussed below.

The analytical results from Functional Area II were further evaluated using the Spatially Weighted Averaging (SWA) approach from Appendix A of NJDEP's September 24, 2012 Technical Guidance for the Attainment of Remediation Standards and Site-Specific Criteria. This evaluation demonstrates that the SWA concentration for benzene in Functional Area II is 1.48 mg/kg which is below the NJDEP RDCSRS for benzene of 2 mg/kg. The associated calculations and documentation for the SWA evaluation are provided in Appendix J.

The SWA method was used to demonstrate that the analytical result from the one post-excavation bottom sample that exceeded the RDCSRS for benzene, when averaged with all other analytical results from within the functional area, are below the RDCSRS and therefore could be used to demonstrate compliance attainment for that functional area.

Table 1 provides a summary of the post-excavation soil sample analytical results. A copy of the Laboratory Analytical Reports is provided in Appendix L. Figures 3A and 3B depict the post-excavation sample locations and results.

During Remediation Area 2 excavation activities, groundwater levels were determined to range from 2 to 3 feet bgs. Soil in this area was excavated to a minimum depth of 12 feet bgs. As a result of the excavations being below the groundwater table, issues associated with impacts to groundwater are not applicable.

5.9 Quality Assurance and Quality Control

Quality Assurance and Quality Control (QA/QC) procedures were implemented during the RA to document the analytical methods, precision, accuracy, completeness, comparability, and representativeness of the data generated. Analytical methods and QA sample frequencies used during sampling consisted of the following:

Soil Sample Analysis:

- PAHs: EPA Method 8270
- BTEX: EPA Method 8260

Soil QA Samples:

- One replicate PAH sample per 20 samples
- One equipment blank PAH sample per 20 samples
- One matrix spike/matrix spike duplicate analysis per 20 samples

The electronic data deliverables (EDD) were submitted to the NJDEP on June 25, 2013 and July 14, 2014. On June 27, 2013 and July 16, 2014, the NJDEP informed GEI via e-mail that the submittals had been processed, had passed, and had been logged into the NJDEP system. Analytical data was reviewed and validated by GEI. The Data Usability Summary Form and EDD submission e-mails are included as Appendix K.

5.10 Material Transportation and Treatment

The soils excavated during the RA were transported to Clean Earth of New Castle, Delaware in accordance with applicable regulations. 30,499.37 tons of soil were transported for thermal treatment. Copies of the signed waste manifests acknowledging receipt of the transported soils at the disposal facility and certificates of thermal desorption of the soil are provided in Appendix M.

5.11 Waste Characterization

In situ characterization of the soil to be excavated was performed because no on-site staging areas were available for stockpiling and sampling; in addition, this was done to obtain facility approval in advance of RA implementation and to allow direct loading of soil during excavation. To ensure the uninterrupted transportation of soil from the site, the waste classification sampling was performed to satisfy the acceptance criteria of the Clean Earth of New Castle facility. Composite samples were collected from soil borings and analyzed for:

Toxicity Characteristic Leachate Procedure (TCLP) Volatile Organic Compounds
TCLP Semi-Volatile Organic Compounds (SVOCs)

BTEX

PAH

Pesticides/Polychlorinated Biphenyls (PCBs)

TCLP Herbicides

TCLP Pesticides/PCBs

TCLP Metals

Total Petroleum Hydrocarbons

Thermal treatment and recycling of the soil was performed at the Clean Earth of New Castle facility located at 94 Pyles Lane, in New Castle, Delaware. The facility operates under Delaware Resource Recovery Facility Permit No. SW-95/07. The permit is valid until February 29, 2016.

5.12 Excavation Backfilling

The excavation was backfilled using certified clean fill material provided by Daley's Pit located in South Seaville, New Jersey. The excavations were backfilled with 13,803.3 tons of NJDOT approved I-5 material, 16,689.94 tons of NJDOT approved I-8 material, and 1,345.99 tons of topsoil for a total of 31,839.23 tons of clean fill to backfill the excavation in compacted lifts. In accordance with the requirements of The Alternative Fill Guidance for SRP Sites, dated December 29, 2011, to the extent practicable, the fill material used to backfill the excavated areas was similar in physical properties to the material removed; however, the fill was more permeable than the soil removed. The backfill was more granular than the *in situ* soils, which consisted primarily of silty organic material. Because of the need to compact the backfill in the excavation to maintain stability, NJDOT I-5 and I-8 material was used as backfill. Grain size analyses were performed periodically on the imported fill to insure the material met the NJDOT requirements for I-8 and I-5. In order to provide a separation barrier between the southern boundary of the excavated area and the 40th Street right-of-way after the Area 1 remediation, sections of plywood covered with 20 mil thick High Density Polyethylene sheeting were placed to a depth of 12 feet bgs.

The backfill samples were analyzed for extractable petroleum hydrocarbons (EPH), VOCs with a forward library search of 15 tentatively identified compounds (+15), SVOCs with a forward library search +15, PCBs, pesticides, and target analyte list metals. There were no exceedances of NJDEP Soil Remediation Standards. Aluminum exceeded the Default Impact to Groundwater Screening Level of 3,900 milligrams per kilogram (mg/kg) in the top soil. However, as per NJDEP guidance, the IGW pathway for contaminants that have groundwater quality standards (GWQS) based on secondary (aesthetic) considerations need

not be evaluated. These metals include aluminum, manganese, silver, and zinc as well as sodium and iron. The GWQS values based on secondary considerations are not based on health considerations, but primarily on such things as taste, odor and appearance. Additionally, these elements may be found as background (mineralogic) constituents. The one exception is if their presence is due to a site discharge which, at the Sea Isle City former MGP site, is not the case.

Facility permits, clean fill certification letters, clean fill analytical results, letters approving the use of the fill by the LSRP of record, and delivery tickets are provided in Appendix N. The Post Construction Site Plans are presented as Figures 4A and 4B.

5.13 Site Restoration

Upon completion of the RA, the three residential properties, 214 39th Street, 231 40th Street and 207 40th Street, and the area where the RA took place were restored in accordance with the requirements of the RAWP and in accordance with the requests of the individual property owners. The restoration activities at each of these properties are discussed below.

Restoration activities at the 214 39th Street property included: landscaping, interior repairs and painting, utility replacement, surface grading, and driveway and sidewalk reinstallation. Additionally, approximately 2 inches of decorative stone was placed over the non-paved and non-landscaped areas. The front of the property was restored with a slight slope to allow for surface water drainage toward 39th Street.

The 231 40th Street property required repair of the foundation in the northeast corner of the structure and replacement of the sidewalk along the east side of the residence due to settlement that occurred during remediation activities. The repairs, the design of which was prepared by a Structural Engineer, required temporary shoring of the northeast corner of the building. After shoring the structure, the foundation pilings were exposed by excavating the soil and removing and replacing the deteriorated portions of the piles. The contractor then underpinned the existing footing and installed a new footing along the northern 8 feet of the eastern foundation block wall, and then reconstructed the northern 8.5 feet of the eastern foundation block wall. The contractor also installed a near-surface drainage system along the eastern property boundary to assist in alleviating the pooling of water encountered during heavy rainfall. The new drainage system allowed for excess trapped storm water to drain to 40th Street from the 231 40th street property.

The 207 40th Street property was restored to allow for construction of a new residence. Upon completion of the grading of backfill, a woven geotextile was placed over the entire property and covered with densely graded aggregate. A silt trapping mulch sock was placed around

the perimeter of the property to control soil erosion. These property restoration and erosion prevention measures were required and approved by the CASCD. The aggregate, mulch sock and geotextile fabric will be removed prior to the start of building construction.

As previously stated, during the remediation the western section of Central Avenue adjacent to the work area and the curbing settled approximately 2.5 inches. This occurrence was brought to the attention of Sea Isle City officials. The area was inspected by the City Engineer, who provided specifications for repaving. In addition, special care had to be taken due to the shallow storm sewer pipe that was located along the Central Avenue curb line. EAT, under the observation of both GEI and the City Engineer, initiated the required repairs to the damaged portions of Central Avenue. These repairs included milling the road surface to a depth of 1.5 inches, followed by the placement of 2 inches of base course and two inches of surface course. The existing curbing along the west side of Central Avenue where the settlement had occurred was removed and restored as part of these repairs. The sidewalk in this area was replaced as part of the previously planned restoration activities. These repairs were completed along Central Avenue, extending from the Central Avenue truck entrance into the site south to the intersection of 40th Street. Replacement of the roadway extended from the western curb line to the center of Central Avenue.

6. Project Costs

The components of the RA implemented by JCP&L at the former 205, 207, 209, 211, 219, 223 and 227 40th Street properties included: site preparation, sheeting installation and removal, soil excavation, soil transportation and treatment/recycle; groundwater dewatering, treatment and disposal, backfill purchase and placement; property restoration, perimeter air monitoring, remediation contractor oversight, analytical testing, and report preparation. The cost of the RA implemented by JCP&L is approximately \$6,917,377.

7. Work Plan Variances

Changes from the Work Plan included the following:

- Reconfiguration of the excavation cells planned for Remediation Area 1 while keeping the area within each excavation cell less than 1,600 square feet,
- The use of CASCD approved mulch filled silt sacks in place of silt fencing or hay bales along the perimeter of the work zone in Remediation Area 2,
- The temporary low-permeability barrier originally planned to be placed along the eastern and southern perimeters of Remediation Area 2 were not installed because there was no evidence of MGP impacts in the soil borings collected in the vicinity of those areas, and these areas are hydraulically downgradient of the area of soil remediation. This change was approved by the LSRP, and
- The number of clean fill samples collected and analyzed for compliance with the NJDEP Alternative and Clean Fill Guidance requirements was reduced. This change was approved by the LSRP.

Finally, some of the steel sheeting that was used to form the northern boundary of the excavation area was left in place because the contractor was not able to remove them without causing extensive damage to both the sheeting and to the equipment, and due to the vibrations generated. This sheeting had been originally installed during remediation performed at the site in 2008. Repeated attempts to remove this sheeting were causing the sheeting to snap and the hydraulic hammer to lose its grip. This presented safety issues for the workers. Therefore some of the sheeting was left in place. However, the sheeting remaining in the ground was cut approximately 5 feet bgs and weep holes were installed to reduce the likelihood of groundwater mounding and allow for the continued flow of ground water across the area.

8. Conclusions

A RA was conducted at Block 39.04, Lots 10.01, 10.02, 11.01, 11.02, 12.01, 12.02, 13, 14, 15, 16, portions of Lots 22 and 23, and 120 (205, 207, 209, 211, 219, 223 and 227 40th Street and 210 39th Street and 3904 Central Avenue) to remove MGP-impacted soils. This work was performed over two construction phases between September 2012 and May 2014. An area measuring approximately 18,000 square feet was excavated to depths of 12 to 15 feet bgs.

Approximately 17,222 yds³ (30,499.37 tons) of soil was excavated during the RA. Twenty-four post-excavation soil samples were collected using laboratory supplied bottles and submitted under chain of custody to IAL for analysis. Soil samples were analyzed for PAHs with 17 also analyzed for BTEX. The remediated area was separated into two functional areas. The analytical results from Functional Area I (Remediation Area 1) were below the RDCSRS; therefore compliance attainment was achieved. For Functional Area II (Remediation Area 2), GEI utilized a spatially weighted average to demonstrate that the analytical results were in compliance with the NJDEP RDCSRS and remediation was attained. Excavated soils and groundwater from dewatering operations were disposed in accordance with applicable regulations, and the excavation was backfilled with clean fill.

Based on the results of the spatially weighted average of the analytical results for the post-excavation soil samples collected the MGP-impacted soils identified at the referenced residential properties have been remediated and the remaining soils are in compliance with the RDCSRS. An AOC-Specific Unrestricted Use RAO for MGP-related soil contamination at the 205, 207, 209, 211, 219, 223 and 227 40th Street (Block 39.04, Lots 10.01, 10.02, 11.01, 11.02, 12.01, 12.02, 13, 14, 15, 16 and 120) properties will be issued by the project LSRP, Mr. Robert Blauvelt, License No. 575013.

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Table

Table 1
Analytical Soil Results
Sea Isle City Former MGP Site
Sea Isle City, New Jersey

Validated

Location Name				PXB-K1	PXB-M1	PXB-L1	PXB-K2	PXB-M2	PXB-L2	PXB-M3	PXB-K3	PXB-L3	PXB-DUP
Sample Depth				12-12.5	12-12.5	12-12.5	12-12.5	12-12.5	12-12.5	12-12.5	12-12.5	12-12.5	12-12.5
Sample Date	RDCSRS	Default IGW		1/19/2013	1/22/2013	1/29/2013	2/19/2013	2/22/2013	3/1/2013	3/21/2013	3/22/2013	3/28/2013	3/28/2013
Analyte	CAS no.	mg/kg	mg/kg										
Volatiles (mg/kg)													
Benzene	71-43-2	2	5	NA	NA	NA	NA	NA	NA	NA	0.00089 U	0.000262 U	0.000284 U
Toluene	108-88-3	6300	91000	NA	NA	NA	NA	NA	NA	NA	0.00089 U	0.000243 U	0.000263 U
Ethylbenzene	100-41-4	7800	111000	NA	NA	NA	NA	NA	NA	NA	0.00089 U	0.000272 U	0.000392 J
Total Xylenes	1330-20-7	12000	170000	NA	NA	NA	NA	NA	NA	NA	0.00178 U	0.00078 U	0.00084 U
Total BTEX (ND=0)	TBTEX_ND0	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs (mg/kg)													
Acenaphthene	83-32-9	3400	74	0.059 U	0.019 J	0.057 U	0.041 U	0.038 U	0.043 U	0.04 U	0.043 U	0.042 U	0.041 U
Acenaphthylene	208-96-8	NE	NE	0.059 U	0.041 U	0.057 U	0.041 U	0.038 U	0.043 U	0.04 U	0.043 U	0.042 U	0.041 U
Anthracene	120-12-7	17000	1500	0.059 U	0.041 U	0.057 U	0.041 U	0.038 U	0.043 U	0.04 U	0.043 U	0.042 U	0.041 U
Benzo[g,h,i]perylene	191-24-2	380000	NE	0.059 U	0.041 U	0.057 U	0.041 U	0.038 U	0.042 J	0.04 U	0.043 U	0.042 U	0.041 U
Fluoranthene	206-44-0	2300	840	0.059 U	0.041 U	0.057 U	0.041 U	0.038 U	0.099	0.04 U	0.043 U	0.042 U	0.041 U
Fluorene	86-73-7	2300	110	0.059 U	0.041 U	0.057 U	0.041 U	0.038 U	0.043 U	0.04 U	0.043 U	0.042 U	0.041 U
2-Methylnaphthalene	91-57-6	230	5	0.059 U	0.041 U	0.057 U	0.041 U	0.038 U	0.043 U	0.04 U	0.043 U	0.042 U	0.041 U
Naphthalene	91-20-3	6	16	0.059 U	0.016 J	0.057 U	0.041 U	0.038 U	0.043 U	0.04 U	0.043 U	0.042 U	0.041 U
Phenanthrene	85-01-8	NE	NE	0.059 U	0.015 J	0.057 U	0.041 U	0.038 U	0.045	0.04 U	0.043 U	0.042 U	0.041 U
Pyrene	129-00-0	1700	550	0.059 U	0.044	0.057 U	0.041 U	0.038 U	0.191	0.04 U	0.043 U	0.042 U	0.041 U
Benzo[a]anthracene	56-55-3	0.6	0.5	0.059 U	0.063	0.057 U	0.041 U	0.038 U	0.081	0.04 U	0.043 U	0.042 U	0.041 U
Benzo[a]pyrene	50-32-8	0.2	0.2	0.059 U	0.041 U	0.057 U	0.041 U	0.038 U	0.047	0.04 U	0.043 U	0.042 U	0.041 U
Benzo[b]fluoranthene	205-99-2	0.6	2	0.059 U	0.041 U	0.057 U	0.041 U	0.038 U	0.044	0.04 U	0.043 U	0.042 U	0.041 U
Benzo[k]fluoranthene	207-08-9	6	16	0.059 U	0.041 U	0.057 U	0.041 U	0.038 U	0.034 J	0.04 U	0.043 U	0.042 U	0.041 U
Chrysene	218-01-9	62	52	0.059 U	0.041 U	0.057 U	0.041 U	0.038 U	0.098	0.04 U	0.043 U	0.042 U	0.041 U
Dibenz[a,h]anthracene	53-70-3	0.2	0.5	0.059 U	0.041 U	0.057 U	0.041 U	0.038 U	0.043 U	0.04 U	0.043 U	0.042 U	0.041 U
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	5	0.059 U	0.041 U	0.057 U	0.041 U	0.038 U	0.036	0.04 U	0.043 U	0.042 U	0.041 U
Total PAH (17) (ND=0)	TPAH17_ND0	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other													
Total Organic Carbon	TOC	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

mg/kg - milligrams/kilogram or parts per million (ppm)

PAHs - polycyclic aromatic hydrocarbons

NE - not established

NA - not analyzed

RDCSRS - Residential Direct Contact Soil Remediation Standard as described in Title 7 of the New Jersey Administrative Code: N.J.A.C. 7:26D.

U - analyzed for, but not detected above the reported sample quantitation limit

J - positively identified; the associated numerical value is an approximate concentration

PXB-DUP - Parent sample is PXB-L3

BOLD - Analytical results exceed the RDCSRS

Table 1
Analytical Soil Results
Sea Isle City Former MGP Site
Sea Isle City, New Jersey

Validated

Location Name				PXB-J3A	PXB-J1	PXB-J2	PXB-J5	PXB-J6	PXB-J7	PXB-J8	PXB-K5	PXB-K5	PXB-K5
Sample Depth				13.5-14	12-12.5	13.5-14	15-15.5	15-15.5	12-12.5	12-12.5	12-12.5	13-13.5	15-15.5
Sample Date	RDCSRS	Default IGW		4/10/2013	4/15/2013	4/19/2013	3/31/2014	3/13/2014	3/6/2014	2/25/2014	3/25/2014	3/27/2014	3/27/2014
Analyte	CAS no.	mg/kg	mg/kg										
Volatiles (mg/kg)													
Benzene	71-43-2	2	5	0.039	0.000284 U	0.00169	1.2	2.37	1.6	0.00101 U	8.3	10.6	5.55
Toluene	108-88-3	6300	91000	0.000318 U	0.000263 U	0.000373 J	0.135 U	0.307 U	0.24 U	0.00101 U	0.118 U	0.077 J	0.041 J
Ethylbenzene	100-41-4	7800	111000	0.000356 U	0.000294 U	0.000507 J	1.29	2.07	0.24 U	0.00101 U	0.396	0.891	0.256
Total Xylenes	1330-20-7	12000	170000	0.001 U	0.00084 U	0.001 U	2.18	3.02	0.481 U	0.00202 U	1.32	1.82	0.666
Total BTEX (ND=0)	TBTEX_ND0	NE		NA	NA	NA	4.67	7.46	1.6	ND	10.016	13.388	6.513
PAHs (mg/kg)													
Acenaphthene	83-32-9	3400	74	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.041 U	0.041 U	0.041 U	0.044 U	NA
Acenaphthylene	208-96-8	NE	NE	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.041 U	0.041 U	0.041 U	0.044 U	NA
Anthracene	120-12-7	17000	1500	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.041 U	0.025 J	0.041 U	0.044 U	NA
Benzo[g,h,i]perylene	191-24-2	380000	NE	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.041 U	0.041 U	0.041 U	0.044 U	NA
Fluoranthene	206-44-0	2300	840	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.041 U	0.041 U	0.041 U	0.044 U	NA
Fluorene	86-73-7	2300	110	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.041 U	0.041 U	0.041 U	0.044 U	NA
2-Methylnaphthalene	91-57-6	230	5	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.041 U	0.041 U	0.041 U	0.044 U	NA
Naphthalene	91-20-3	6	16	0.048 U	0.045 U	0.022 J	0.049 U	0.044 U	0.041 U	0.041 U	0.041 U	0.044 U	NA
Phenanthrene	85-01-8	NE	NE	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.041 U	0.041 U	0.041 U	0.044 U	NA
Pyrene	129-00-0	1700	550	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.041 U	0.041 U	0.041 UJ	0.044 U	NA
Benzo[a]anthracene	56-55-3	0.6	0.5	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.041 U	0.03 J	0.041 U	0.044 U	NA
Benzo[a]pyrene	50-32-8	0.2	0.2	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.041 U	0.041 U	0.041 U	0.044 U	NA
Benzo[b]fluoranthene	205-99-2	0.6	2	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.041 U	0.041 U	0.041 UJ	0.044 U	NA
Benzo[k]fluoranthene	207-08-9	6	16	0.048 U	0.045 U	0.041 U	0.16	0.044 U	0.121	0.041 U	0.041 U	0.035 J	NA
Chrysene	218-01-9	62	52	0.048 U	0.045 U	0.041 U	5.14	1.16	0.116	0.063	0.305	0.101	NA
Dibenz[a,h]anthracene	53-70-3	0.2	0.5	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.064	0.066	0.041 U	0.04 J	NA
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	5	0.048 U	0.045 U	0.041 U	0.049 U	0.044 U	0.038 J	0.044 J	0.041 U	0.044 U	NA
Total PAH (17) (ND=0)	TPAH17_ND0	NE	NE	NA	NA	NA	5.3	1.16	0.339	0.228	0.305	0.176	NA
Other													
Total Organic Carbon	TOC	NE	NE	NA	NA	NA	NA	8090	NA	NA	NA	NA	NA

mg/kg - milligrams/kilogram or parts per million (ppm)

PAHs - polycyclic aromatic hydrocarbons

NE - not established

NA - not analyzed

RDCSRS - Residential Direct Contact Soil Remediation Standard as described in Title 7 of the New Jersey Administrative Code: N.J.A.C. 7:26D.

U - analyzed for, but not detected above the reported sample quantitation limit

J - positively identified; the associated numerical value is an approximate concentration

PXB-DUP - Parent sample is PXB-L3

BOLD - Analytical results exceed the RDCSRS

Table 1
Analytical Soil Results
Sea Isle City Former MGP Site
Sea Isle City, New Jersey

Validated

Location Name				PXB-K6	PXB-K6	PXB-K7	PXB-K8	PXB-K8D	PXB-L5	PXB-L6	PXB-L7	PXB-L8
Sample Depth				13.5-14	15-15.5	12-12.5	12-12.5	12-12.5	12*-12.5	13-13.5	12-12.5	12-12.5
Sample Date	RDCSRS	Default IGW		4/9/2014	4/9/2014	2/28/2014	2/10/2014	2/10/2014	4/3/2014	3/19/2014	2/3/2014	2/19/2014
Analyte	CAS no.	mg/kg	mg/kg									
Volatiles (mg/kg)												
Benzene	71-43-2	2	5	2.12	NA	1.38	0.728 J	0.233 J	0.348	0.841	0.00389	0.016
Toluene	108-88-3	6300	91000	0.117 U	NA	0.119 U	0.148 U	0.077 U	0.117 U	0.219 U	0.00117 U	0.00129 U
Ethylbenzene	100-41-4	7800	111000	0.518	NA	0.119 U	0.148 U	0.077 U	0.093 J	0.219 U	0.000566 J	0.00129 U
Total Xylenes	1330-20-7	12000	170000	0.511	NA	0.237 U	0.297 U	0.153 U	0.233 U	0.438 U	0.00234 U	0.00258 U
Total BTEX (ND=0)	TBTEX_ND0	NE		3.149	NA	1.38	0.728	0.233	0.441	0.841	0.004456	0.016
PAHs (mg/kg)												
Acenaphthene	83-32-9	3400	74	0.316	0.043 U	0.064	0.121	0.121	0.05	0.132	0.112	0.045 U
Acenaphthylene	208-96-8	NE	NE	0.043 U	0.043 U	0.039 U	0.041 U	0.042 U	0.043 U	0.039 U	0.041 U	0.045 U
Anthracene	120-12-7	17000	1500	0.043 U	0.043 U	0.039 U	0.066	0.065	0.043 U	0.039 U	0.043	0.045 U
Benzo[g,h,i]perylene	191-24-2	380000	NE	0.043 U	0.043 U	0.039 U	0.042	0.038 J	0.043 U	0.039 U	0.041 U	0.045 U
Fluoranthene	206-44-0	2300	840	0.043 U	0.043 U	0.039 U	0.028 J	0.029 J	0.043 U	0.039 U	0.041 U	0.045 U
Fluorene	86-73-7	2300	110	0.043 U	0.043 U	0.039 U	0.041 U	0.042 U	0.043 U	0.039 U	0.041 U	0.045 U
2-Methylnaphthalene	91-57-6	230	5	0.043 U	0.043 U	0.039 U	0.041 U	0.042 U	0.043 U	0.039 U	0.041 U	0.045 U
Naphthalene	91-20-3	6	16	0.043 U	0.043 U	0.039 U	0.032 J	0.042 U	0.043 U	0.039 U	0.041 U	0.045 U
Phenanthrene	85-01-8	NE	NE	0.043 U	0.028 J	0.039 U	0.04 J	0.039 J	0.043 U	0.039 U	0.041 U	0.045 U
Pyrene	129-00-0	1700	550	0.043 U	0.043 U	0.039 U	0.041 U	0.042 U	0.043 U	0.039 U	0.041 U	0.045 U
Benzo[a]anthracene	56-55-3	0.6	0.5	0.043 U	0.043 U	0.039 U	0.07	0.073	0.043 U	0.039 U	0.042	0.045 U
Benzo[a]pyrene	50-32-8	0.2	0.2	0.113	0.043 U	0.027 J	0.078	0.08	0.043 U	0.062	0.067	0.045 U
Benzo[b]fluoranthene	205-99-2	0.6	2	0.043 U	0.043 U	0.039 U	0.041 U	0.042 U	0.043 U	0.039 U	0.041 U	0.045 U
Benzo[k]fluoranthene	207-08-9	6	16	2.33	0.043 U	0.139	0.16	0.161	0.184	0.039 U	0.155	0.045 U
Chrysene	218-01-9	62	52	12.6	0.044	0.039 U	0.293	0.326	0.952	0.039 U	0.346	0.045 U
Dibenz[a,h]anthracene	53-70-3	0.2	0.5	0.043 U	0.043 U	0.039 U	0.227	0.236	0.043 U	0.122	0.16	0.045 U
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	5	0.043 U	0.031 J	0.039 U	0.133	0.12	0.043 U	0.039 U	0.097 J	0.045 UJ
Total PAH (17) (ND=0)	TPAH17_ND0	NE	NE	12.6	0.059	0.23	1.29	1.288	1.186	0.316	1.022	ND
Other												
Total Organic Carbon	TOC	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA

mg/kg - milligrams/kilogram or parts per million (ppm)

PAHs - polycyclic aromatic hydrocarbons

NE - not established

NA - not analyzed

RDCSRS - Residential Direct Contact Soil Remediation Standard as described in Title 7 of the New Jersey Administrative Code: N.J.A.C. 7:26D.

U - analyzed for, but not detected above the reported sample quantitation limit

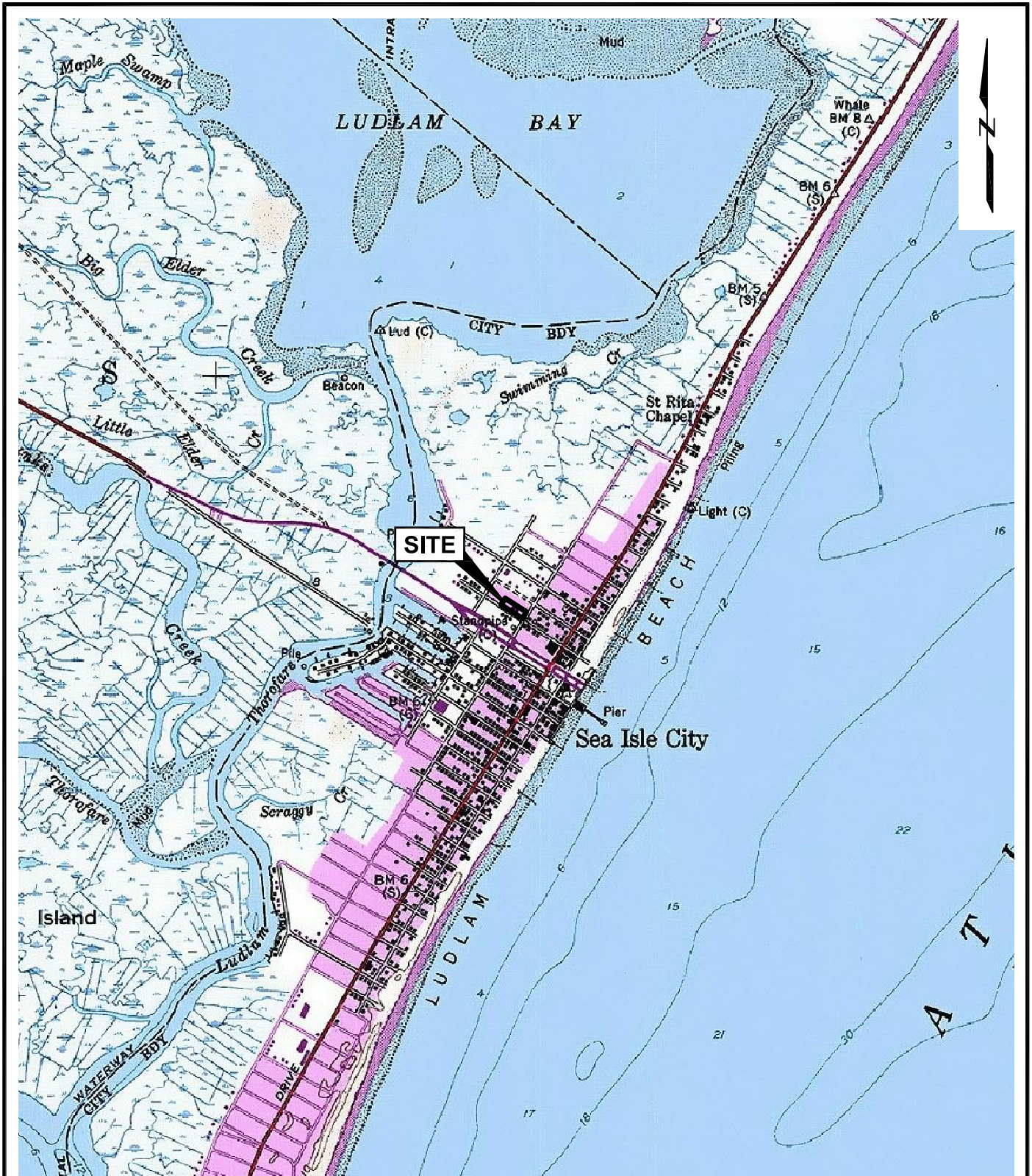
J - positively identified; the associated numerical value is an approximate concentration

PXB-DUP - Parent sample is PXB-L3

BOLD - Analytical results exceed the RDCSRS


Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

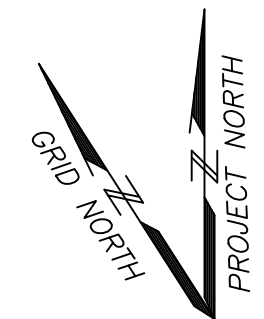
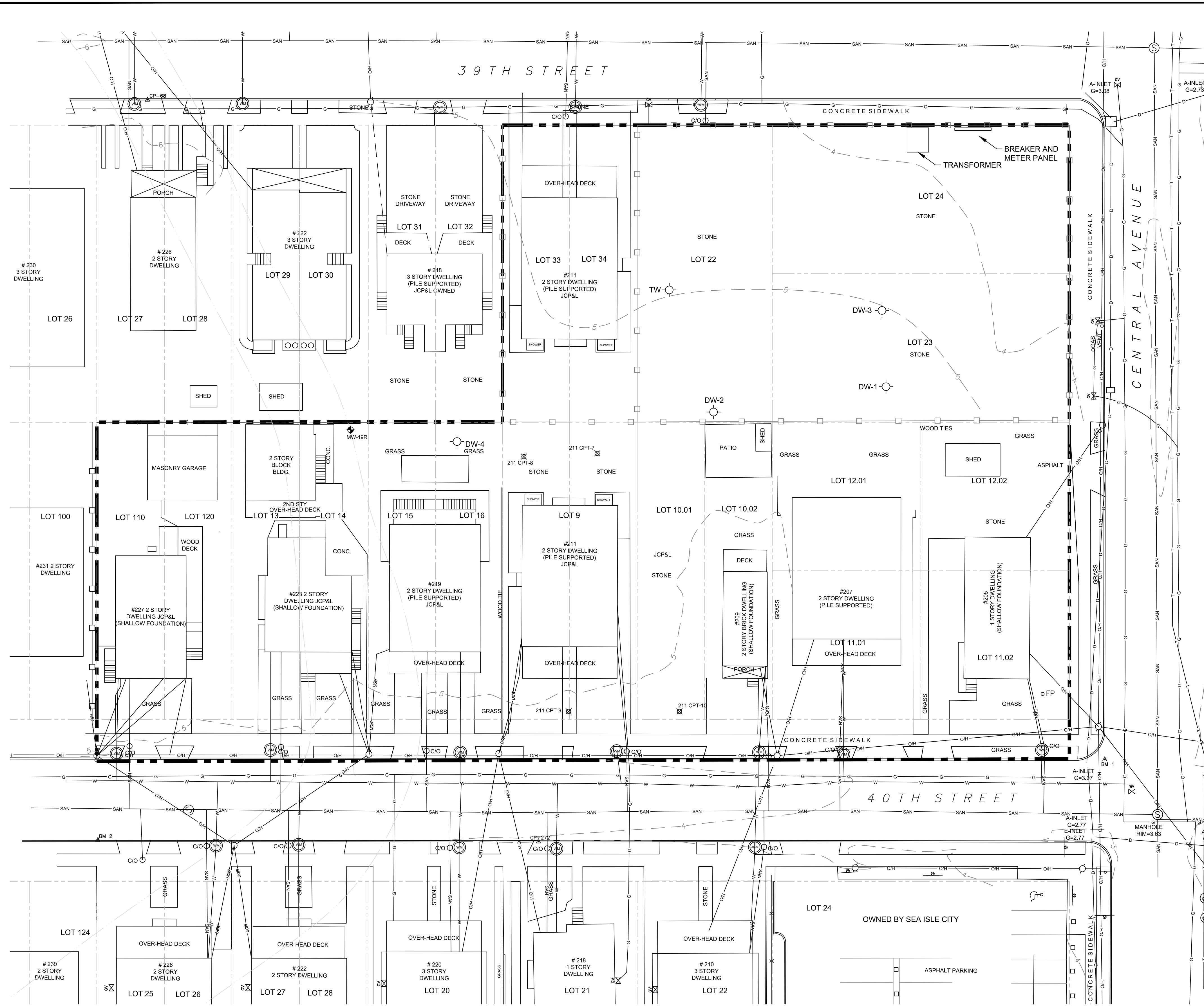
Figures



SOURCE:
 Map created with TOPO! ©2001 National Geographic (www.nationalgeographic.com/topo)



<p>39th Street Remedial Action Report Sea Isle City Former MGP Sea Isle City, New Jersey</p>	<p>GEI  Consultants</p>	<p>SITE LOCATION MAP</p>
<p>Jersey Central Power & Light Company Morristown, New Jersey</p>	<p>PI # G00006130 Project 013660</p>	<p>November 2014 Fig. 1</p>



- LEGEND**
- PROJECT BOUNDARY
 - - - OFF SITE PROPERTY LINE (APPROXIMATE)
 - - - FORMER ESTUARY/TIDELANDS (APPROXIMATE)
 - - - GRADE CONTOUR
 - [] - VINYL FENCE
 - x - WOOD FENCE
 - [] - CONCRETE CURB
 - [] - WATER UTILITY (UNDERGROUND)
 - [] - GAS UTILITY (UNDERGROUND)
 - [] - SANITARY (WASTE WATER)
 - [] - ELECTRIC/COMMUNICATIONS UTILITY (OVER-HEAD)
 - [] - STORM SEWER (UNDERGROUND)
 - [] - BURIED ELECTRIC/COMMUNICATIONS UTILITY (UNDERGROUND)
 - [] - STRUCTURE
 - [] - UTILITY POLE
 - [] - CLEAN-OUT
 - [] - WATER METER
 - [] - WATER VALVE
 - [] - GAS VALVE
 - [] - CONTROL POINT/BENCH MARK
 - [] - STEPS
 - [] - MANHOLE
 - [] - TREE
- EXPLORATION LEGEND**
- [] - MW-19R MONITORING WELL
 - [] - DW-1 DEPRESSURIZATION WELL

A. BASE MAP SURVEY NOTES:

- HORIZONTAL DATUM: NEW JERSEY STATE PLANE COORDINATE SYSTEM (NAD 1983) IN FEET, REFERENCED TO N.J.G.C.S. MONUMENT SITES (PID JU2339).
- VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 IN FEET (REFERENCED N.J.G.C.S. MONUMENT #853 5163 A TIDAL (PID JU2400) PUBLISHED ELEVATION = 4.60').
- FEMA FLOOD INSURANCE RATE MAP FOR SEA ISLE CITY, CAPE MAY COUNTY, NEW JERSEY INDICATES THAT THE SITE IS LOCATED IN ZONE A7, REFERENCE MAP #345318 0001 C, DATED 12/06/83
- PROPERTY LINES BEYOND SITE ARE BASED ON TAX MAP DATA AND WERE NOT SURVEYED. THIS DATA IS FOR ILLUSTRATION PURPOSES.
- SUBSURFACE UTILITIES IN PUBLIC RIGHT-OF-WAY ARE BASED ON SURFACE FEATURES AND OBSERVED UTILITY MARKINGS.
- SUBSURFACE UTILITIES ON PRIVATE PROPERTY HAVE NOT BEEN SURVEYED. SUBSURFACE UTILITIES ON PRIVATE PROPERTY HAVE BEEN EXTENDED TO DWELLING BASED ON SUBSURFACE UTILITIES IN PUBLIC RIGHT-OF-WAY. LOCATIONS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED BY CONTRACTOR.

B. EXISTING CONDITIONS NOTES:

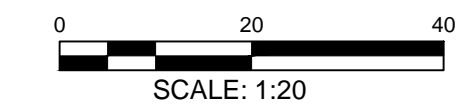
- STORM SEWERS APPENDED BY GEI. STORM SEWER NOT SURVEYED. SOURCE: SEA ISLE CITY DEPARTMENT OF PUBLIC WORKS. (PLAN AND PROFILE, CENTRAL AVENUE, CITY OF SEA ISLE CITY, CAPE MAY COUNTY, NEW JERSEY, DATED APRIL 1990, PREPARED BY WALKER, PREVITI, HOLMES, & ASSOCIATES OF MARMORA, NEW JERSEY)
- FENCE AROUND LOTS 22, 23, AND 24 BASED ON SURVEY BY GIBSON ASSOCIATES.
- FORMER STREAM APPENDED BY GEI. FORMER STREAM NOT SURVEYED. STREAM LOCATION BASED ON TIDE LAND SEARCH CERTIFICATE PROVIDED BY WESTERN TECHNOLOGIES GROUP, LLC (06/12/12).
- SITE IS LOCATED IN A RESIDENTIAL NEIGHBORHOOD, IN A SHORE RESORT COMMUNITY.
- PROJECT AREA CONSISTS OF BLOCK 39.04, LOTS 9, 10.01, 10.02, 11.01, 11.02, 12.01, 12.02, 13, 14, 15, 16, 120, 22, 23, 24, 33, AND 34 WHICH ARE OWNED BY JCP&L.

TABLE 1 - BENCHMARK DATA TABLE

BENCHMARK NO	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM 1	MAG. NAIL	118,051.77	437,511.38	3.18
BM 2	BOX CUT	118,228.33	437,181.85	4.65
CP-68	MAG. NAIL	118,448.90	437,345.63	5.72
CP-272	MAG. NAIL	118,139.65	437,318.71	4.64

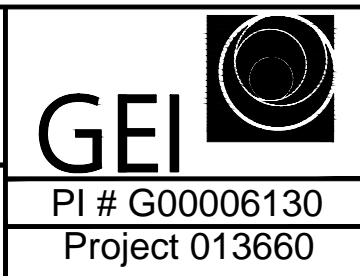
TABLE 2 - BASEMAP SOURCES

LOTS	SURVEYOR	TITLE	DATE
BL 39.04 L22, 23, 24	VARGO ASSOC.	OUTBOUND AND TOPOGRAPHICAL SURVEY	11/27/2002
BL 40.04 L23 & 24	VARGO ASSOC.	MAP OF SURVEY TAX LOTS 23 & 24, BLOCK 40.04	5/14/2009
BL 39.04 L33 & 34	VARGO ASSOC.	MAP OF SURVEY TAX LOTS 33 & 34, BLOCK 39.04	5/14/2009
BL 39.04 L31 & 32	VARGO ASSOC.	MAP OF SURVEY TAX LOTS 31 & 32, BLOCK 39.04	5/14/2009
BL 38.04 L17 & 18	VARGO ASSOC.	MAP OF SURVEY TAX LOTS 17 & 18, BLOCK 38.04	5/14/2009
BL 38.04 L15 & 16	VARGO ASSOC.	MAP OF SURVEY TAX LOTS 15 & 16, BLOCK 38.04	5/14/2009
BL 39.04	GIBSON ASSOC.	PLAN OF EXISTING CONDITIONS L22, 23 & 24 BLOCK 39.04	6/30/2009
BL 39.04	GIBSON ASSOC.	AS BUILT FOR 2008 REMEDIATION	6/30/2009
BL 39.04 L16,17,18,22, 23, 33,34	VARGO ASSOC.	DEPTH OF EXCAVATION	5/12/2011
BL 39.04 L13,13,110,120	VARGO ASSOC.	MAP OF SURVEY TAX LOTS 13, 14, 110 & 120 BLOCK 39.04	5/29/2012



39th Street Remedial Action Report
 Sea Isle City Former MGP
 Sea Isle City, Cape May County, New Jersey

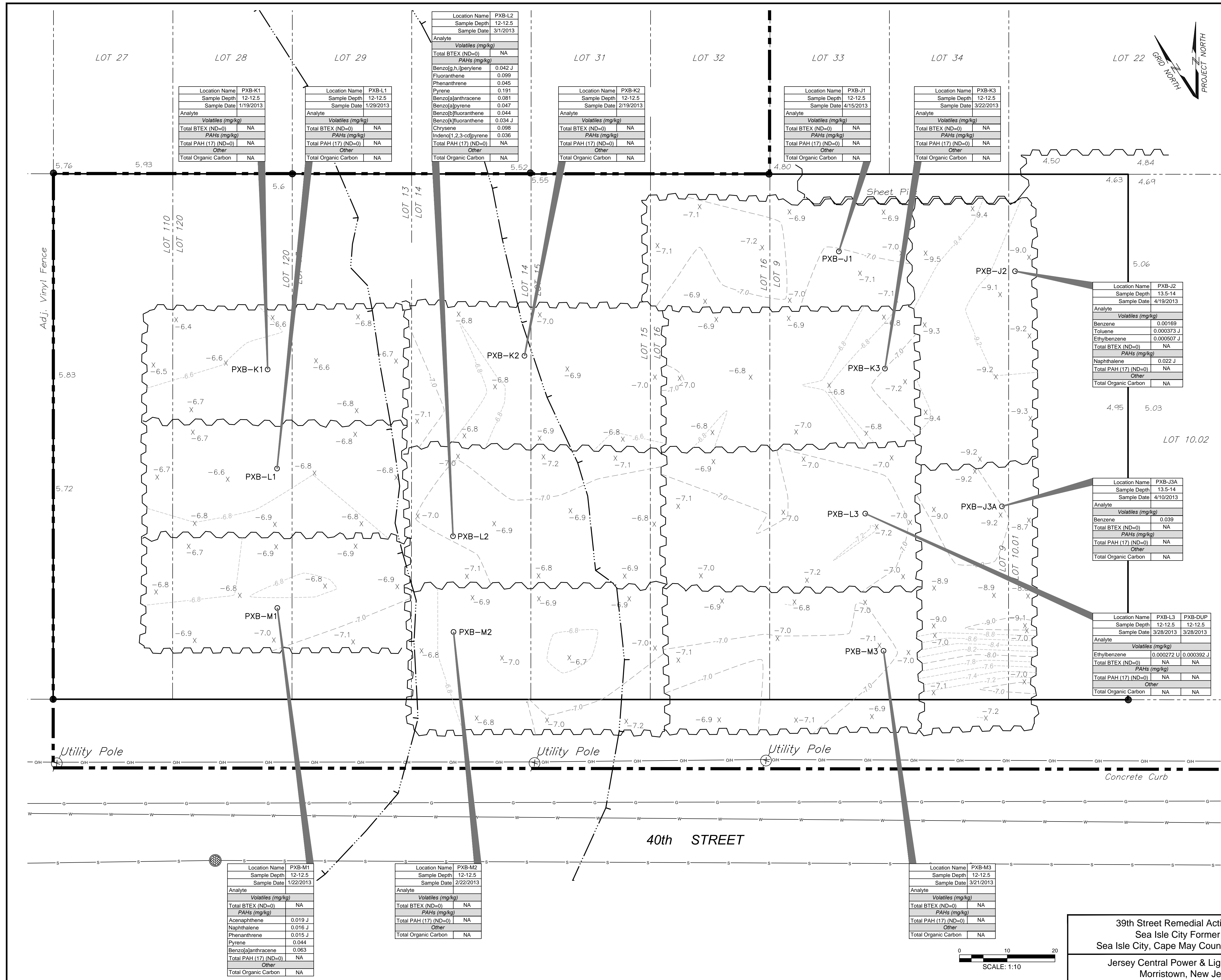
Jersey Central Power & Light Company
 Morristown, New Jersey



PRE-CONSTRUCTION
 SITE PLAN

November 2014

Fig. 2



LEGEND

- X -7.1
- PXB-J1 o
- 6.8---
- OH
- W
- S
- G
- RIPARIAN LINE
- MANHOLE
- PROJECT BOUNDARY

ANALYTICAL BOX NOTES

mg/kg MILLIGRAMS/KILOGRAM OR PARTS PER MILLION (ppm)
 PAHs POLYCYCLIC AROMATIC HYDROCARBONS
 NE NOT ESTABLISHED
 NA NOT ANALYZED
 RDCSRs RESIDENTIAL DIRECT CONTACT SOIL REMEDIATION STANDARD AS DESCRIBED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE: N.J.A.C. 7:26D.
 U ANALYZED FOR, BUT NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTITATION LIMIT
 J POSITIVELY IDENTIFIED; THE ASSOCIATED NUMERICAL VALUE IS AN APPROXIMATE CONCENTRATION

Analyte	CAS no.	RDCSRs (mg/kg)	Default IGW (mg/kg)
Volatiles (mg/kg)			
Benzene	71-43-2	2	5
Toluene	108-88-3	6300	91000
Ethylbenzene	100-41-4	7800	111000
Total Xylenes	1330-20-7	12000	170000
Total BTEX (ND=0)	TBTEX_ND0	NE	NE
PAHs (mg/kg)			
Acenaphthene	83-32-9	3400	74
Acenaphthylene	208-96-8	NE	NE
Anthracene	120-12-7	17000	1500
Benzo[a,h]perylene	191-24-2	380000	NE
Fluoranthene	206-44-0	2300	840
Fluorene	86-73-7	2300	110
2-Methylnaphthalene	91-57-6	230	5
Naphthalene	91-20-3	6	16
Phenanthrene	85-01-8	NE	NE
Pyrene	129-00-0	1700	550
Benzo[a]anthracene	96-55-3	0.6	0.5
Benzo[a]pyrene	50-32-8	0.2	0.2
Benzo[b]fluoranthene	205-99-2	0.6	2
Benzo[k]fluoranthene	207-08-9	6	16
Chrysene	218-01-9	62	52
Dibenz[a,h]anthracene	53-70-3	0.2	0.5
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	5
Total PAH (17) (ND=0)	TPAH17_ND0	NE	NE
Other			
Total Organic Carbon	TOC	NE	NE

SOURCE:
 POST EXCAVATION SAMPLE LOCATIONS, SITUATE IN BLOCK 39.04, LOTS 9, 10.01, 13, 14, 15, 16, 110, & 120, CITY OF SEA ISLE CITY, CAPE MAY COUNTY, NJ; PREPARED BY STEPHEN C. MARTINELLI, LAND SURVEYING / PLANNING, SCALE: 1" = 20', DATE: 11/27/2012

Location Name	PXB-K1
Sample Depth	12-12.5
Sample Date	1/19/2013
Analyte	
Volatiles (mg/kg)	
Total BTEX (ND=0)	NA
PAHs (mg/kg)	NA
Total PAH (17) (ND=0)	NA
Other	NA
Total Organic Carbon	NA

Location Name	PXB-L1
Sample Depth	12-12.5
Sample Date	1/29/2013
Analyte	
Volatiles (mg/kg)	
Total BTEX (ND=0)	NA
PAHs (mg/kg)	NA
Total PAH (17) (ND=0)	NA
Other	NA
Total Organic Carbon	NA

Location Name	PXB-L2
Sample Depth	12-12.5
Sample Date	3/1/2013
Analyte	
Volatiles (mg/kg)	
Total BTEX (ND=0)	NA
PAHs (mg/kg)	NA
Benzo[a,h]perylene	0.042 J
Fluoranthene	0.099
Phenanthrene	0.045
Pyrene	0.191
Benzo[a]anthracene	0.081
Benzo[a]pyrene	0.047
Benzo[b]fluoranthene	0.044
Benzo[k]fluoranthene	0.034 J
Chrysene	0.098
Indeno[1,2,3-cd]pyrene	0.036
Total PAH (17) (ND=0)	NA
Other	NA
Total Organic Carbon	NA

Location Name	PXB-K2
Sample Depth	12-12.5
Sample Date	2/19/2013
Analyte	
Volatiles (mg/kg)	
Total BTEX (ND=0)	NA
PAHs (mg/kg)	NA
Total PAH (17) (ND=0)	NA
Other	NA
Total Organic Carbon	NA

Location Name	PXB-J1
Sample Depth	12-12.5
Sample Date	4/15/2013
Analyte	
Volatiles (mg/kg)	
Total BTEX (ND=0)	NA
PAHs (mg/kg)	NA
Total PAH (17) (ND=0)	NA
Other	NA
Total Organic Carbon	NA

Location Name	PXB-K3
Sample Depth	12-12.5
Sample Date	3/22/2013
Analyte	
Volatiles (mg/kg)	
Total BTEX (ND=0)	NA
PAHs (mg/kg)	NA
Total PAH (17) (ND=0)	NA
Other	NA
Total Organic Carbon	NA

Location Name	PXB-J2
Sample Depth	13.5-14
Sample Date	4/19/2013
Analyte	
Volatiles (mg/kg)	
Benzene	0.00169
Toluene	0.000373 J
Ethylbenzene	0.000507 J
Total BTEX (ND=0)	NA
PAHs (mg/kg)	
Naphthalene	0.022 J
Total PAH (17) (ND=0)	NA
Other	NA
Total Organic Carbon	NA

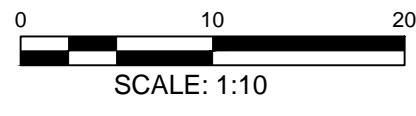
Location Name	PXB-J3A
Sample Depth	13.5-14
Sample Date	4/10/2013
Analyte	
Volatiles (mg/kg)	
Benzene	0.039
Total BTEX (ND=0)	NA
PAHs (mg/kg)	
Total PAH (17) (ND=0)	NA
Other	NA
Total Organic Carbon	NA

Location Name	PXB-L3	PXB-DUP
Sample Depth	12-12.5	12-12.5
Sample Date	3/28/2013	3/28/2013
Analyte		
Volatiles (mg/kg)		
Ethylbenzene	0.000272 U	0.000392 J
Total BTEX (ND=0)	NA	NA
PAHs (mg/kg)		
Total PAH (17) (ND=0)	NA	NA
Other	NA	NA
Total Organic Carbon	NA	NA

Location Name	PXB-M1
Sample Depth	12-12.5
Sample Date	1/22/2013
Analyte	
Volatiles (mg/kg)	
Total BTEX (ND=0)	NA
PAHs (mg/kg)	NA
Acenaphthene	0.019 J
Naphthalene	0.016 J
Phenanthrene	0.015 J
Pyrene	0.044
Benzo[a]anthracene	0.063
Total PAH (17) (ND=0)	NA
Other	NA
Total Organic Carbon	NA

Location Name	PXB-M2
Sample Depth	12-12.5
Sample Date	2/22/2013
Analyte	
Volatiles (mg/kg)	
Total BTEX (ND=0)	NA
PAHs (mg/kg)	NA
Total PAH (17) (ND=0)	NA
Other	NA
Total Organic Carbon	NA

Location Name	PXB-M3
Sample Depth	12-12.5
Sample Date	3/21/2013
Analyte	
Volatiles (mg/kg)	
Total BTEX (ND=0)	NA
PAHs (mg/kg)	NA
Total PAH (17) (ND=0)	NA
Other	NA
Total Organic Carbon	NA



39th Street Remedial Action Report
 Sea Isle City Former MGP
 Sea Isle City, Cape May County, New Jersey
 Jersey Central Power & Light Company
 Morristown, New Jersey

GEI
 PI # G00006130
 Project 013660

EXCAVATION LIMITS SAMPLE
 LOCATIONS AND RESULTS
 AREA 1
 November 2014 Fig. 3A

LOT 34

Location Name	PXB-J5
Sample Depth	15-15.5
Sample Date	3/1/2014
Analyte	
Volatiles (mg/kg)	
Benzene	1.2
Ethylbenzene	1.29
Total Xylenes	2.18
Total BTEX (ND=0)	4.67
PAHs (mg/kg)	
Benzo(k)fluoranthene	0.16
Chrysene	5.14
Total PAH (17) (ND=0)	5.3
Other	
Total Organic Carbon	NA

Location Name	PXB-J6
Sample Depth	15-15.5
Sample Date	3/13/2014
Analyte	
Volatiles (mg/kg)	
Benzene	2.37
Ethylbenzene	2.07
Total Xylenes	3.02
Total BTEX (ND=0)	7.46
PAHs (mg/kg)	
Chrysene	1.16
Total PAH (17) (ND=0)	1.16
Other	
Total Organic Carbon	8090

Location Name	PXB-J7
Sample Depth	12-12.5
Sample Date	3/6/2014
Analyte	
Volatiles (mg/kg)	
Benzene	1.6
Total BTEX (ND=0)	1.6
PAHs (mg/kg)	
Benzo(k)fluoranthene	0.121
Chrysene	0.116
Dibenz(a,h)anthracene	0.064
Indeno(1,2,3-cd)pyrene	0.038 J
Total PAH (17) (ND=0)	0.339
Other	
Total Organic Carbon	NA

Location Name	PXB-K7
Sample Depth	12-12.5
Sample Date	2/28/2014
Analyte	
Volatiles (mg/kg)	
Benzene	1.38
Total BTEX (ND=0)	1.38
PAHs (mg/kg)	
Acenaphthene	0.064
Benzo(a)pyrene	0.027 J
Benzo(k)fluoranthene	0.139
Total PAH (17) (ND=0)	0.23
Other	
Total Organic Carbon	NA

Location Name	PXB-J8
Sample Depth	12-12.5
Sample Date	2/25/2014
Analyte	
Volatiles (mg/kg)	
Total BTEX (ND=0)	ND
PAHs (mg/kg)	
Anthracene	0.025 J
Benzo(a)anthracene	0.03 J
Chrysene	0.063
Dibenz(a,h)anthracene	0.066
Indeno(1,2,3-cd)pyrene	0.044 J
Total PAH (17) (ND=0)	0.228
Other	
Total Organic Carbon	NA

Location Name	PXB-K5	PXB-K5	PXB-K5
Sample Depth	12-12.5	13-13.5	15-15.5
Sample Date	3/25/2014	3/27/2014	3/27/2014
Analyte			
Volatiles (mg/kg)			
Benzene	0.118 U	0.077 J	0.041 J
Ethylbenzene	0.396	0.891	0.256
Total Xylenes	1.32	1.82	0.666
Total BTEX (ND=0)	10.016	13.388	6.513
PAHs (mg/kg)			
Benzo(k)fluoranthene	0.041 U	0.035 J	NA
Chrysene	0.305	0.101	NA
Dibenz(a,h)anthracene	0.041 U	0.04 J	NA
Total PAH (17) (ND=0)	0.305	0.176	NA
Other			
Total Organic Carbon	NA	NA	NA

Location Name	PXB-K8D
Sample Depth	12-12.5
Sample Date	2/10/2014
Analyte	
Volatiles (mg/kg)	
Benzene	0.233 J
Total BTEX (ND=0)	0.233
PAHs (mg/kg)	
Acenaphthene	0.121
Anthracene	0.065
Benzo(g,h,i)perylene	0.038 J
Fluoranthene	0.029 J
Phenanthrene	0.039 J
Benzo(a)anthracene	0.073
Benzo(a)pyrene	0.08
Benzo(k)fluoranthene	0.161
Chrysene	0.326
Dibenz(a,h)anthracene	0.236
Indeno(1,2,3-cd)pyrene	0.12
Total PAH (17) (ND=0)	1.288
Other	
Total Organic Carbon	NA

Location Name	PXB-K9
Sample Depth	12-12.5
Sample Date	2/10/2014
Analyte	
Volatiles (mg/kg)	
Benzene	0.728 J
Total BTEX (ND=0)	0.728
PAHs (mg/kg)	
Acenaphthene	0.121
Anthracene	0.066
Benzo(g,h,i)perylene	0.042
Fluoranthene	0.028 J
Phenanthrene	0.032 J
Other	
Total Organic Carbon	NA

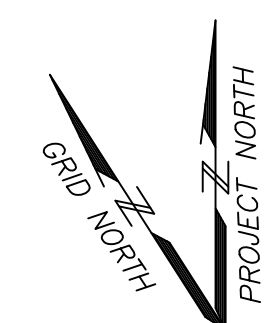
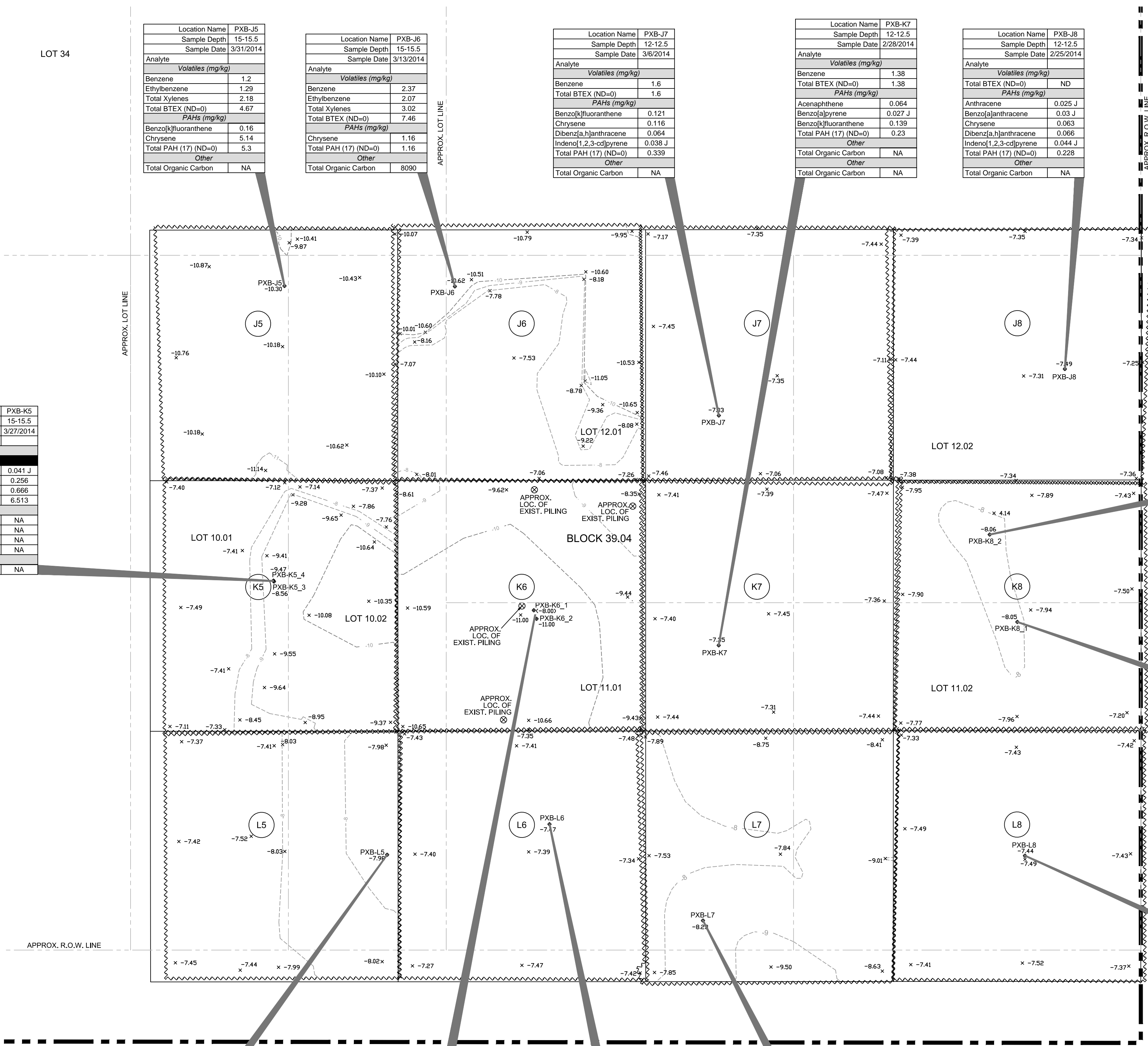
Location Name	PXB-L8
Sample Depth	12-12.5
Sample Date	2/19/2014
Analyte	
Volatiles (mg/kg)	
Benzene	0.016
Total BTEX (ND=0)	0.016
PAHs (mg/kg)	
Total PAH (17) (ND=0)	ND
Other	
Total Organic Carbon	NA

Location Name	PXB-L5
Sample Depth	12-12.5
Sample Date	4/3/2014
Analyte	
Volatiles (mg/kg)	
Benzene	0.348
Ethylbenzene	0.093 J
Total BTEX (ND=0)	0.441
PAHs (mg/kg)	
Acenaphthene	0.05
Benzo(k)fluoranthene	0.184
Chrysene	0.952
Total PAH (17) (ND=0)	1.186
Other	
Total Organic Carbon	NA

Location Name	PXB-K6	PXB-K6
Sample Depth	13.5-14	15-15.5
Sample Date	4/9/2014	4/9/2014
Analyte		
Volatiles (mg/kg)		
Benzene	2.12	NA
Ethylbenzene	0.518	NA
Total Xylenes	0.511	NA
Total BTEX (ND=0)	3.149	NA
PAHs (mg/kg)		
Acenaphthene	0.316	0.043 U
Phenanthrene	0.043 U	0.028 J
Benzo(a)pyrene	0.113	0.043 U
Benzo(k)fluoranthene	2.33	0.043 U
Chrysene	12.6	0.044
Indeno(1,2,3-cd)pyrene	0.043 U	0.031 J
Total PAH (17) (ND=0)	12.6	0.059
Other		
Total Organic Carbon	NA	NA

Location Name	PXB-L6
Sample Depth	13-13.5
Sample Date	3/19/2014
Analyte	
Volatiles (mg/kg)	
Benzene	0.841
Total BTEX (ND=0)	0.841
PAHs (mg/kg)	
Acenaphthene	0.132
Benzo(a)pyrene	0.062
Dibenz(a,h)anthracene	0.122
Total PAH (17) (ND=0)	0.316
Other	
Total Organic Carbon	NA

Location Name	PXB-L7
Sample Depth	12-12.5
Sample Date	2/3/2014
Analyte	
Volatiles (mg/kg)	
Benzene	0.00389
Ethylbenzene	0.000566 J
Total BTEX (ND=0)	0.004456
PAHs (mg/kg)	
Acenaphthene	0.112
Anthracene	0.043
Benzo(a)anthracene	0.042
Benzo(a)pyrene	0.067
Benzo(k)fluoranthene	0.155
Chrysene	0.346
Dibenz(a,h)anthracene	0.16
Indeno(1,2,3-cd)pyrene	0.097 J
Total PAH (17) (ND=0)	1.022
Other	
Total Organic Carbon	NA

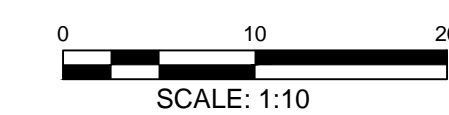


- LEGEND**
- 7.8 x SPOT ELEVATION
 - (L5) EXCAVATION CELL LABEL
 - PXB-L7 -8.23 ⊕ POST EXCAVATION CONFIRMATORY SAMPLE LOCATION / ELEVATION
 - 4.3 x PRE-EXCAVATION SPOT ELEVATION
 - ~ ~ ~ ~ ~ EXISTING SHEETING
 - - - - - APPROXIMATE LOT LINE / R.O.W. LINE
 - - - - - APPROXIMATE CELL LIMIT
 - - - - - CONTOUR
 - - - - - PROJECT BOUNDARY

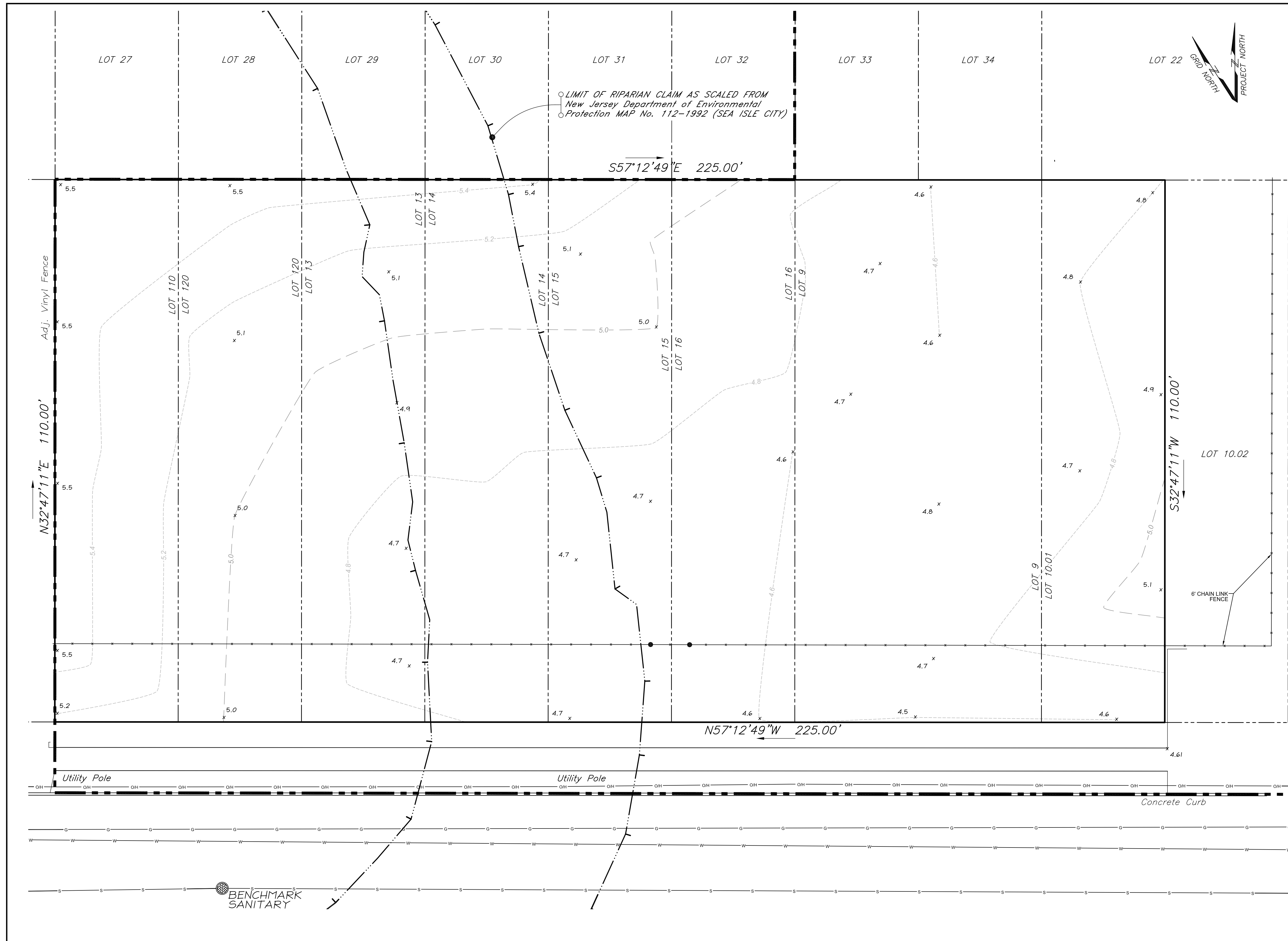
- ANALYTICAL BOX NOTES**
- mg/kg MILLIGRAMS/KILOGRAM OR PARTS PER MILLION (ppm)
 - PAHs POLYCYCLIC AROMATIC HYDROCARBONS
 - NE NOT ESTABLISHED
 - NA NOT ANALYZED
 - RDCRS RESIDENTIAL DIRECT CONTACT SOIL REMEDIATION STANDARD AS DESCRIBED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE: N.J.A.C. 7:26D.
 - U ANALYZED FOR, BUT NOT DETECTED ABOVE THE REPORTED SAMPLE QUANTIFICATION LIMIT
 - J POSITIVELY IDENTIFIED; THE ASSOCIATED NUMERICAL VALUE IS AN APPROXIMATE CONCENTRATION
 - █ EXCEEDS NJDEP RDCRS

Analyte	CAS no.	RDCRS (mg/kg)	Default IGW (mg/kg)
Volatiles (mg/kg)			
Benzene	71-43-2	2	5
Toluene	108-88-3	6300	91000
Ethylbenzene	100-41-4	7800	111000
Total Xylenes	1330-20-7	12000	170000
Total BTEX (ND=0)	TBTEX_ND0	NE	
PAHs (mg/kg)			
Acenaphthene	83-32-9	3400	74
Acenaphthylene	208-96-8	NE	NE
Anthracene	120-12-7	17000	1500
Benzo(g,h,i)perylene	191-24-2	380000	NE
Fluoranthene	206-44-0	2300	840
Fluorene	86-73-7	2300	110
2-Methylnaphthalene	91-57-6	230	5
Naphthalene	91-20-3	6	16
Phenanthrene	85-01-8	NE	NE
Pyrene	129-00-0	1700	550
Benzo(a)anthracene	56-55-3	0.6	0.5
Benzo(a)pyrene	50-32-8	0.2	0.2
Benzo(k)fluoranthene	205-99-2	0.6	2
Benzo(l)fluoranthene	207-08-9	6	16
Chrysene	218-01-9	62	52
Dibenz(a,h)anthracene	53-70-3	0.2	0.5
Indeno(1,2,3-cd)pyrene	193-39-5	0.6	5
Total PAH (17) (ND=0)	TPAH17_ND0	NE	NE
Other			
Total Organic Carbon	TOC	NE	NE

SOURCE:
 PLAN OF EXCAVATION DEPTHS AND VOLUME REPORT, SEA ISLE CITY FORMER MANUFACTURED GAS PLANT SITE, PHASE V REMEDIAL ACTION; PREPARED BY TAYLOR WISEMAN & TAYLOR - ENGINEERS / SURVEYORS / SCIENTISTS, SCALE: 1" = 10', DATE: 11/26/2013

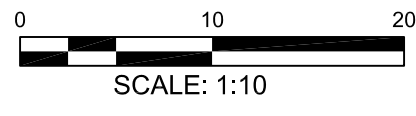


39th Street Remedial Action Report Sea Isle City Former MGP Sea Isle City, Cape May County, New Jersey Jersey Central Power & Light Company Morristown, New Jersey	 PI # G00006130 Project 013660	EXCAVATION LIMITS SAMPLE LOCATIONS AND RESULTS AREA 2
		November 2014 Fig. 3B



- LEGEND**
- x4.5 FINAL ELEVATIONS
 - 6.8- CONTOUR
 - OH OVERHEAD WIRES
 - W WATER MAIN
 - S SEWER MAIN
 - G GAS MAIN
 - RIPARIAN LINE
 - MANHOLE
 - PROJECT BOUNDARY

SOURCE:
FINAL AS-BUILT RESTORATION PLAN, SITUATE IN BLOCK 39.04, LOTS 9, 10.01, 13, 14, 15, 16, 110, & 120, CITY OF SEA ISLE CITY, CAPE MAY COUNTY, NJ; PREPARED BY STEPHEN C. MARTINELLI, LAND SURVEYING / PLANNING, SCALE: 1" = 20', DATE: 11/27/2012



39th Street Remedial Action Report
Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey

Jersey Central Power & Light Company
Morristown, New Jersey

GEI

PI # G00006130
Project 013660

POST CONSTRUCTION
SITE PLAN
AREA 1

November 2014 Fig. 4A



LEGEND

CP ○	CATHODIC PROTECTION
GV □	GAS VALVE
GW ↓	GUY WIRE
SCO ○	SANITARY CLEAN OUT
UP 06021 ○	UTILITY POLE & POLE I.D. #
UPL 0621 ○	UTILITY POLE WITH LIGHT & POLE I.D. #
WM ○	WATER METER
WS ○	WATER SERVICE
4.5 ×	SPOT ELEVATION - PERVIOUS SURFACE
4.56 ×	SPOT ELEVATION - IMPERVIOUS SURFACE
K4.22 ×	TOP OF CURB ELEVATION
DK4.22 ×	TOP OF DEPRESSED CURB ELEVATION
G3.71 ×	GUTTER ELEVATION
TW5.67 ×	TOP OF WALL ELEVATION
—●—	CHAIN LINK FENCE LINE
—○—	VINYL FENCE LINE
—○—	CHAIN LINK & VINYL FENCE LINE
- - -	CONTOUR
- - -	APPROX. PROPERTY LINE (SEE NOTE #10)
— — —	PROJECT BOUNDARY

SOURCE:
 PLAN OF POST EXCAVATION / SITE RESTORATION, SEA ISLE CITY FORMER MANUFACTURED GAS PLANT SITE, PHASE V REMEDIAL ACTION; PREPARED BY TAYLOR WISEMAN & TAYLOR - ENGINEERS / SURVEYORS / SCIENTISTS, SCALE: 1" = 10', DATE: 5/28/2014

39th Street Remedial Action Report Sea Isle City Former MGP Sea Isle City, Cape May County, New Jersey		POST CONSTRUCTION SITE PLAN AREA 2	
		Jersey Central Power & Light Company Morristown, New Jersey	PI # G00006130 Project 013660	August 2014	Fig. 4B

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix A

Remedial Action Report Form / Case Inventory Document



New Jersey Department of Environmental Protection
Site Remediation Program

REMEDIAL ACTION REPORT FORM

Date Stamp
 (For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Sea Isle City Former Manufactured Gas Plant Site

List all AKAs: JCP&L Sea Isle City Coal Gas Plant

Street Address: 205, 207, 209, 211, 219, 223 and 227 40th Street; and portions of the 40th Street right-of-way

Municipality: Sea Isle City (Township, Borough or City)

County: Cape May County Zip Code: 08243

Program Interest (PI) Number(s): G000006130

Case Tracking Number(s) for this submission: _____

Date Remediation Initiated Pursuant to N.J.A.C. 7:26C-2: 06/30/1992

State Plane Coordinates for a central location at the site: Easting: 43767 Northing: 118290

Municipal Block(s) and Lot(s):

Block #: <u>39.04</u>	Lot #: <u>9</u>	Block #: <u>39.04</u>	Lot #: <u>11.02, 12.02</u>
Block #: <u>39.04</u>	Lot #: <u>10.01</u>	Block #: <u>39.04</u>	Lot #: <u>13,14</u>
Block #: <u>39.04</u>	Lot #: <u>10.02</u>	Block #: <u>39.04</u>	Lot #: <u>15,16</u>
Block #: <u>39.04</u>	Lot #: <u>11.01, 12.01</u>	Block #: <u>39.04</u>	Lot #: <u>120</u>

SECTION B. SUBMISSION STATUS

1. Indicate how the Electronic Data Deliverable (EDD) for this submission is being provided to the NJDEP:

- Via Email at srpedd@dep.state.nj.us (attach NJDEP confirmation email); or
- CD (attach to this submission)
- Not Applicable – No EDD

2. Complete the following Submission and Permit Status Table:

	N/A	Included in this Submission	Previously Submitted	Date of Submission	Date of Revised Submission	Date of Previous NJDEP Approval	Date of Document Withdrawal
Alternative Soil Remediation Standard and/or Screening level Application Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Case Inventory Document		<input checked="" type="checkbox"/>					
Discharge to Ground Water Permit by Rule Authorization Request	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
IEC Engineered System Response Action Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Immediate Environmental Concern Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
LNAPL Interim Remedial Measure Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Preliminary Assessment Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Public Notification	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	08/30/2011			
Receptor Evaluation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Remedial Action Report	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Remedial Action Work Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10/04/2012			
Remedial Investigation Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	04/07/2008	04/28/2010	08/06/2010	

Response Action Outcome	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Site Investigation Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	08/01/1995			
Technical Impracticability Determination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Vapor Concern Mitigation Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Permit Application – list:	<input checked="" type="checkbox"/>						
CAFRA		<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Soil Erosion and Sediment Control		<input checked="" type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>				
Radionuclide Remedial Investigation Workplan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Radionuclide Remedial Investigation Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Radionuclide Remedial Action Workplan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Radionuclide Remedial Action Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

SECTION C. SITE USE

Current Site Use (check all that apply)

- Industrial
- Residential
- Commercial
- School or child care
- Other: _____
- Agricultural
- Park or recreational use
- Vacant
- Government

Intended Future Site Use (check all that apply)

- Industrial
- Residential
- Commercial
- School or child care
- Other: _____
- Park or recreational use
- Vacant
- Government
- Future site use unknown

SECTION D. CASE TYPE: (check all that apply)

- Administrative Consent Order (ACO)
- Brownfield Development Area (BDA)
- Child Care Facility
- Chrome Site (Chromate chemical production waste)
- Coal Gas
- Due Diligence with RAO
- Hazardous Discharge Remediation Fund (HDSRF) Grant/Loan
- ISRA
- Landfill (SRP subject only)
- Regulated Underground Storage Tank (UST)
- Remediation Agreement (RA)/ Remediation Certification
- School Development Authority (SDA)
- School facility
- Spill Act Defense – Government Entity
- Spill Act Discharge
- UST Grant/Loan
- Other: _____

Federal Case (check all that apply)

- RCRA GPRA 2020
- CERCLA/NPL
- USDOD
- USDOE

1. Is the party conducting remediation a government entity? Yes No
 If "Yes," check one: Federal State Municipal County

SECTION E. PUBLIC FUNDS

Did the remediation utilize public funds? Yes No

If "Yes," check applicable:

- UST Grant
- HDSRF Grant
- Spill Fund
- UST Loan
- HDSRF Loan
- Schools Development Authority
- Brownfield Reimbursement Program
- Landfill Reimbursement Program
- Environmental Infrastructure Trust

SECTION F. SCOPE OF REMEDIAL ACTION REPORT

1. Does the RAR address:
 - Area(s) of Concern (AOCs) Only
 - Entire Site (Based on a completed and submitted Preliminary Assessment/Site Investigation)
2. Total number of contaminated AOCs associated with the case: 1

3. Total number of contaminated AOCs addressed in this submission: 1
4. Are there any outstanding contaminated AOCs associated with the case where the remedial action has NOT been performed?..... Yes No

When answering the remaining questions on this form consider only the AOCs addressed in this submission.

SECTION G. GENERAL

1. Does this submission include Remedial Action Permit Application(s) that require Site Remediation Program approval? Yes No
2. Was a remediation initiated after May 6, 2010, for new construction or a change in the use of the site proposed for the purpose of residential use, use as a licensed child care center or use as a school? Yes No
 If "Yes," was an unrestricted use or a presumptive remedy implemented? Yes No
3. Was an alternative remedy approved by the NJDEP? Yes No
 If "Yes," provide the date of the approval: _____
4. Has the remediation varied from the Technical Rules?..... Yes No
 If "Yes," provide the citation(s) from which the remediation has varied and the page(s) in the attached document where the rationale for the variance is provided.
 N.J.A.C. 7:26E- 7:26E-5.2(a)4 Page Appendix I
 N.J.A.C. 7:26E- _____ Page _____
 N.J.A.C. 7:26E- _____ Page _____
5. Were the laboratory Reporting Limits below applicable remediation standards/screening levels criteria required for the contaminants of concern for the AOCs addressed in this submission?..... Yes No
6. Have past NJDEP-documented deficiencies been addressed in this submission? Yes No N/A
7. Did the remediation deviate from that proposed in the Remedial Action Workplan? Yes No
 If "Yes," specify the section/page(s) in the report where the deviation(s) are discussed:
Section 7
8. Did the remedial action render the property unusable for future redevelopment or for recreational use (N.J.A.C. 7:26C-6.4(b)? Yes No

SECTION H. SITE CONDITIONS

1. At any time, was there any radiological contamination detected at the AOCs addressed in this submission? Yes No
2. At any time, did any of the AOCs addressed in this submission contain Ordnance and Explosives/ Unexploded Ordnance (OE/UXO)? Yes No
3. Did the remedial action involve containment of free product?..... Yes No
4. Has dioxin been detected at levels above NJDEP's interim direct contact soil screening level of 50 ppt dioxin TEQ (TCDD Toxicity Equivalence Quotient) in any AOCs addressed in this submission?..... Yes No
5. Have any of the following contaminants *ever* been detected in sediment above the ecological screening levels at the AOCs addressed in this submission?..... Yes No
 If "Yes," check all that apply:
 Arsenic Dioxin Mercury PCBs Pesticides
6. Is remediation complete in all affected media at the AOCs addressed in this submission? Yes No
7. Did contaminants from the AOCs addressed in this submission discharge to surface water? Yes No
8. Did contaminants from the AOCs addressed in this submission discharge to an Environmentally Sensitive Natural Resource (ESNR)? Yes No

9. Are any of the following conditions currently present for the AOCs addressed in this submission? (check all that apply):

Groundwater:

- Contaminated ground water in the overburden aquifer
- Contaminated ground water in a confined aquifer
- Contaminated ground water in the bedrock aquifer
- Contaminated ground water in multiple aquifer units
- Multiple distinct ground water plumes
- Contaminated ground water migrating off-site
- Natural background ground water contamination
- Contaminated ground water discharging to surface water or Environmentally Sensitive Natural Resource (ESNR)
- Residual or free product
- Radionuclides

Soil:

- On-site discharge(s) impacting soil off-site
- Chromate Chemical Production Waste/COPR
- Munitions and explosives of concern
- Contaminated soil in the saturated zone
- Historic pesticide impacts to soil
- Residual or free product
- Radionuclides
- Historic Fill
- Natural background only above Impact to Ground Water Cleanup Criteria
- Natural background above Direct Contact Remediation Standards
- Soil contamination in an ESNR

SECTION I. APPLICABLE REMEDIATION STANDARDS

1. Were Default Remediation Standards used for all contaminants? Yes No

If "Yes," check all that apply:

- Direct Contact
- Impact to Ground Water Soil Screening Levels
- Ecological Screening Levels

2. Has compliance averaging been utilized to determine compliance with the Soil Remediation Standards? Yes No

If "Yes," check all that apply:

Compliance Averaging Method Utilized

Pathway	Arithmetic Mean	95 Percent UCL	Spatially Weighted Average	75 Percent/10X Procedure
<input checked="" type="checkbox"/> Ingestion-Dermal Pathway	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Inhalation Pathway	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Impact to Ground Water Pathway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Has a compliance option been utilized to determine compliance with the Impact to Ground Water Pathway? (If "Yes," check all that apply)..... Yes No

- Immobile Compounds
- Data evaluation for metals and semi-volatiles
- Data evaluation for volatile organics derived from discharges of petroleum mixtures

4. Was an interim standard used for a contaminant where a standard does not exist? Yes No

5. Were Alternate Remediation Standards used for the Ingestion/Dermal Pathway? Yes No

6. Were Alternate Remediation Standards used for the Inhalation Pathway?..... Yes No

7. Were Site Specific Standards used for the Impact to Ground Water Pathway? Yes No

If "Yes," check all that apply:

- Soil-Water Partitioning Equation SPLP Sesoil Sesoil/AT123D
- DAF Modification

8. Were Site Specific Ecological Remediation Goals used?..... Yes No

9. What is the ground water classification for this site as per N.J.A.C. 7:9C? (check all that apply)

- Class I-A Class II-A
- Class I-PL Pinelands Protection Area Class III-A
- Class I-PL Pinelands Preservation Area Class III-B

SECTION J. ALTERNATIVE AND CLEAN FILL USE

- 1. Was alternative fill used? Yes No
- 2. Was clean fill used? Yes No
- 3. Was material sent off-site for use as alternative and/or clean fill? Yes No
If "Yes," specify the section/page in the RAR where it states the SRP site receiving this alternative and/or clean fill: _____
- 4. Was material sent off-site for use as alternative and/or clean fill at a non-SRP site? Yes No
If "Yes," specify the section/page in the RAR where it states the non-SRP site receiving this alternative and/or clean fill: _____
- 5. Was alternative fill used in excess of the amount required for the remedial action? Yes No
If "Yes," was the NJDEP's preapproval obtained pursuant to N.J.A.C. 7:26E-5.2(b)3? Yes No

SECTION K. REMEDIAL ACTION REPORT INFORMATION

Soils

- 1. Did the remedy include a remedial action for soils? Yes No
If "No," skip to **Ground Water**
- 2. Is a restricted use required? Yes No
If "Yes," indicate the type of restriction being implemented. _____
- 3. If applicable, has consent from all involved property owners been obtained (i.e., for institutional or engineering controls)? Yes No
- 4. Was an engineering control required? Yes No
If "Yes," indicate the receptor(s) each engineering control is intended to protect. (check all that apply)
 Human Ecological Offsite Impacts

Ground Water

- 5. Did the remedy include a remedial action for ground water? Yes No
If "No," skip to **Ecological**
- 6. Is a restricted use required for ground water? Yes No
- 7. Is a revised CEA required? Yes No
- 8. Do any contaminant levels in ground water currently exceed the vapor intrusion ground water trigger? Yes No

Ecological

- 9. Did the remedy include a remedial action for Environmentally Sensitive Natural Resources (ESNRs)? Yes No
If "No," skip to **Indoor Air**
- 10. Was post-remedial sampling performed to determine whether contaminant levels currently meet ecological screening levels or ecological remediation goals? Yes No
- 11. Did the remedial action require filling of State open waters or wetlands? Yes No
- 12. Have ecological risk-based remediation goals been developed? Yes No
If "Yes," have the ecological risk-based remediation goals been approved by NJDEP? Yes No
- 13. Have Risk Management Decision (RMD) goals been developed? Yes No
If "Yes," have the RMD goals been approved by NJDEP? Yes No

Indoor Air

14. Have any vapor intrusion engineering controls/mitigation systems been installed in order to mitigate a vapor condition in a structure? Yes No

If "Yes," check each type of engineering control that was implemented:

- Subsurface Depressurization System
- Subsurface Ventilation System
- Soil Vapor Extraction System
- HVAC Positive Pressure
- Other (specify): _____

SECTION L. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Jersey Central Power & Light Company

Representative First Name: Frank Representative Last Name: Lawson

Title: Supervisor - Site Remediation

Phone Number: (973) 401-8309 Ext: _____ Fax: (973) 644-4165

Mailing Address: 300 Madison Avenue PO Box 1911

City/Town: Morristown State: New Jersey Zip Code: 07962

Email Address: flawson@firstenergycorp.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature:  Date: 11-17-14

Name/Title: Frank D. Lawson PG / Supervisor - Site Remediation

No changes to contact information since last submission

SECTION M. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 575013
First Name: Robert P. Last Name: Blauvelt
Phone Number: (973) 873-7127 Ext: _____ Fax: (973) 509-9625
Mailing Address: 1 Greenwood Avenue - Suite 200
City/Town: Montclair State: New Jersey Zip Code: 07042
Email Address: rblauvelt@geiconsultants.com


This statement shall be signed by the LSRP who is submitting this notification in accordance with section 14 of P.L.2009 c.60 (N.J.S.A. 58:10C-14), and paragraphs (1) and (2) of subsection b. of section 30 of P.L.2009 c.60 (N.J.S.A. 58:10B-1.3b(1) and (2)).

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:

- directly oversaw and supervised all of the referenced remediation, and/or*
- personally reviewed and accepted all of the referenced remediation presented herein.*

*I believe that the information contained herein, and including all attached documents, is true, accurate and complete.
It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.
My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.
I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.*

LSRP Signature:  Date: 11/13/14
LSRP Name/Title: Robert P. Blauvelt, Senior Consultant
Company Name: GEI Consultants, Inc.

No changes to contact information since last submission

Completed forms should be sent to:
Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

(sic)

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix B

Receptor Evaluation



New Jersey Department of Environmental Protection
Site Remediation Program

RECEPTOR EVALUATION (RE) FORM

Date Stamp
 (For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Sea Isle City Former Manufactured Gas Plant Site

List all AKAs: JCP&L Sea Isle City Coal Gas Plant

Street Address: 210 39th Street

Municipality: Sea Isle City (Township, Borough or City)

County: Cape May Zip Code: 08243

Program Interest (PI) Number(s): G000006130 Case Tracking Number(s): _____

Indicate the type of submission:

The Receptor Evaluation submittal was prepared for the former manufactured gas plant (MGP) site.

Initial RE Submission

Updated RE Submission

Indicate the reason for submission of an updated RE form

Submission of an Immediate Environmental Concern (IEC) source control report;

Submission of a Remedial Investigation Report;

Submission of a Remedial Action Report;

Check if included in updated RE

The known concentration or extent of contamination in any medium has increased;

A new AOC has been identified;

A new receptor is identified;

A new exposure pathway has been identified.

SECTION B. ON SITE AND SURROUNDING PROPERTY USE

1. Identify any sensitive populations/uses that are currently on-site or surrounding property usage within 200 feet of the site boundary (check all that apply):

	On-site	Off-site
None of the following	<input type="checkbox"/>	<input type="checkbox"/>
Residences or residential property	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public or Private Schools grades K-12	<input type="checkbox"/>	<input type="checkbox"/>
Child care centers	<input type="checkbox"/>	<input type="checkbox"/>
Public parks, playgrounds or other recreation areas	<input type="checkbox"/>	<input type="checkbox"/>
Other sensitive population use(s) Explain _____	<input type="checkbox"/>	<input type="checkbox"/>

If any of the above applies, attach a list of addresses, facility names, type of use, and a map depicting each location relative to the site. See Attachment A for list of properties within 200 feet, and Attachment 2 for figure

2. Current site uses (check all that apply):

- | | | | |
|---|---|---|---------------------------------------|
| <input type="checkbox"/> Industrial | <input checked="" type="checkbox"/> Residential | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> School or child care | <input type="checkbox"/> Government | <input type="checkbox"/> Park or recreational use | |
| <input checked="" type="checkbox"/> Vacant | <input type="checkbox"/> Other: _____ | | |

3. Planned future site uses and off-site use within 200 ft of site boundary (check all that apply):

- | | | | |
|---|--|---|---------------------------------------|
| <input type="checkbox"/> Industrial | <input checked="" type="checkbox"/> Residential | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> School or child care | <input type="checkbox"/> Government | <input type="checkbox"/> Park or recreational use | |
| <input type="checkbox"/> Vacant | <input checked="" type="checkbox"/> Other: <u>Sea Isle City Dept. of Public Works Building</u> | | |

Provide a map depicting the location of the proposed changes in land use. See Attachment A

SECTION C. DESCRIPTION OF CONTAMINATION

1. Identify if any of the following exist at the site (check all that apply):

- Free product [N.J.A.C. 7:26E-1.8] identified is LNAPL* or DNAPL**. Date identified: _____
- Residual product [N.J.A.C. 7:26E-1.8]
- Other high concentration source materials not identified above (e.g., buried drums, containers, unsecured friable asbestos)

Explain: Free & residual product and buried materials removed during previous RAs

* LNAPL – measured thickness of .01 feet or more

**DNAPL – See US EPA DNAPL Overview

2. Soil Migration Pathway

Has soil contamination been delineated to the applicable Direct Contact Soil Remediation Standard? See Attached RAR Yes No

Are all soils either below the applicable Direct Contact Criteria or under an institutional control (i.e. deed notice)? Yes No

3. If this evaluation is submitted with a technical document that includes contaminant summary information, proceed to Section D. Otherwise attach a brief summary of all currently available data and information to be included in the site investigation or remedial investigation report.

SECTION D. GROUND WATER USE

1. Has the requirement for ground water sampling been triggered? Yes No Unknown
If "No," proceed to Section F. If "Unknown," explain: _____

2. Is Ground water contaminated above the Ground Water Remediation Standards [N.J.A.C.7:9C]? Yes No Unknown

Or Awaiting laboratory data with the expected due date: _____

If "Yes," provide the date that the laboratory data was available and confirmed contamination above the Ground Water Remediation Standards. Date: above applicable action levels
Sampling performed in 1989 as part of RI revealed benzene and toluene concentrations

If "Unknown," explain: _____

If "No," or awaiting laboratory data proceed to Section F.

3. Has ground water contamination been delineated to the applicable Remediation Standard? Yes No

4. Has a well search been completed? Yes No
See Attachment C for 1 mile well search report

Date of most recent or updated well search: 06/19/2013

Identify if any of the following conditions exist based on the well search [N.J.A.C.7:26E-1.14(a)] (check all that apply):

- Potable wells located within 500 feet from the downgradient edge of the currently known extent of contamination.
- Potable well located 250 feet upgradient or 500 feet side gradient of the currently known extent of contamination.
- Ground water contamination is located within a Tier 1 wellhead protection area (WHPA).

5. Is a completed Well Search Spreadsheet or historical well search table attached and has an electronic copy of the spreadsheet been submitted to sprgis_wrs@dep.state.nj.us. Yes No

If "No," explain: _____

6. Are any private potable or irrigation wells located within 1/2 mile of the currently known extent of contamination? Yes No

If "Yes," was a door to door survey completed? Yes No

If survey was not completed explain: Domestic potable water well listed on search, but coordinates are incorrect
Residential properties in Dennis Township located over 1/2 mile from Site.

7. Has sampling been conducted of potable well(s) and /or non-potable use well(s)? Yes No

If "No," provide justification then proceed to Section E.

Public Water Supply Well operated by Sea Isle City. Sampled regularly. No MGP-related impacts reported.

- 8 Has contamination been identified in potable well(s) above Ground Water Remediation Standards that is not suspected to be from the site? (If "Yes," provide justification) Yes No
-
- 9 Has contamination been identified in potable well(s) that is above the Ground Water Remediation Standards or Federal Drinking Water Standards? Yes No
- Provide date laboratory data was received: _____
- Or awaiting laboratory data with the expected due date: _____
- If "Yes" for potable well contamination **not attributable to background**, follow the IEC Guidance Document at <http://www.nj.gov/dep/srp/guidance/index.html#iec> for required actions and answer the following:
- Has an engineered system response action been completed on all receptors? Yes No
- Provide a brief narrative description:
- Date completed: _____ NJDEP Case Manager: _____
10. Were Non-potable use well(s) sampled and results were above Class II Ground Water Remediation Standards? Yes No
- Provide date laboratory data was received: _____ Address listed for irrigation well (8005 Central Avenue) located over 1 mile from Site.
- Or awaiting laboratory data with the expected due date: _____
11. Has the ground water use evaluation been completed? Yes No

SECTION E. VAPOR INTRUSION (VI)

1. Contaminants present in ground water exceed the Vapor Intrusion Ground Water Screening Levels that trigger a VI evaluation. (see NJDEP Vapor Intrusion Technical Guidance). ... Yes No Unknown
- Or Awaiting laboratory data and the expected due date: _____
- Provide the date that the laboratory data was available and confirmed contamination above the Vapor Intrusion Trigger Levels. Date: 09/27/2007 Groundwater samples collected 9/20/2007 and analyzed 9/27/2007.
2. Other existing conditions that trigger a VI evaluation. (see NJDEP Vapor Intrusion Technical Guidance)
- Wet basement or sump containing free product or ground water containing volatile organics
 - Methane generating conditions causing oxygen deficient or explosion concern
 - Other human or safety concern from the VI pathway (i.e. elemental mercury, unsaturated contamination, elevated soil-gas or indoor vapor (explain):

If you answered "No," or awaiting laboratory data to Question 1., *and* did not check any boxes in Question 2, proceed to Section F, "Ecological Receptors", otherwise complete the rest of this section.

3. Has ground water contamination been delineated to the applicable Ground Water Vapor Screening Level? Yes No
4. Was a site specific screening level, modeling or other alternative approach employed for the VI pathway? Yes No
5. Identify and locate on a scaled map any buildings/sensitive populations that exist within the following distances from ground water contamination with concentrations above the Vapor Intrusion Ground Water Screening Levels or specific threats (check all that apply):
- 30 feet of petroleum free product or dissolved petroleum hydrocarbon contamination in ground water
 - 100 feet of any non-petroleum free product or any non-petroleum dissolved volatile organic ground water contamination
 - No buildings exist within the specified distances
- Vapor intrusion investigation performed by Haley & Aldrich in 2007 at selected properties. No exceedances of RIASL identified. NJDEP Approved VI Complete.
6. The vapor intrusion pathway is a concern at or adjacent to the site (if "No," attach justification) Yes No

7. Has soil gas sampling of the building(s) been conducted?..... Yes No N/A
If "No," or "N/A," proceed to #10
8. Has indoor air sampling been conducted at the identified building(s)? Yes No
If "No," proceed to #10
9. Has indoor air contamination been identified but not suspected to be from the site?
(if "Yes," attach justification) Yes No
10. Indoor air results were above the NJDEP's Rapid Action Levels. Yes No
Provide the date that the laboratory data was available and confirmed contamination above the Rapid Action Levels. Date: _____
Or Awaiting laboratory data with the expected due date: _____
If "Yes" to #8 above, follow the IEC Guidance Document at <http://www.nj.gov/dep/srp/guidance/index.html#iec> for required actions.
The IEC engineering system response for control was implemented for all identified structures Yes No
Date: _____ NJDEP Case Manager: _____
11. Indoor air sampling was conducted and results were above the NJDEP's Indoor Air Screening Levels but at or below the Rapid Action Levels..... Yes No
Provide the date that the laboratory data was available. Date: _____
Or Awaiting laboratory data with the expected due date: _____
If "Yes" to #10 above, answer the following:
Has the Vapor Concern (VC) Response Action Form notifying the NJDEP of the exceedances been submitted? Yes No
Date: _____
Has a plan to mitigate and monitor the exposure been submitted? Yes No
Date: _____
Has the Mitigation Response Action Report been submitted? Yes No
Date: _____
12. Has the vapor intrusion investigation been completed?..... Yes No
If "No", is the vapor intrusion investigation stepping out as part of the site investigation or remedial investigation. (If "No," attach justification) Yes No

SECTION F. ECOLOGICAL RECEPTORS

1. Has an Ecological Evaluation (EE) has been conducted? [N.J.A.C. 7:26E-1.16] Yes No
Date conducted: _____ BEE submitted by GEI to NJDEP in 2004. In letter dated 5/24/04 NJDEP concurred with GEI conclusion that no further ecological evaluation was needed for the site.
2. Do the results of an EE trigger a remedial investigation of ecological receptors? [N.J.A.C. 7:26E-4.8]. Yes No
3. Has a remedial investigation of ecological receptors been conducted? Yes No
Date conducted: _____
4. Provide the name(s) of any surface water body on or within 200 feet of the site:
No bodies of water within 200' of the site _____
5. Is free product or residual product located within 100 feet from an ecological receptor? Yes No
6. Available data indicate an impact on: Ecological receptor(s) Surface water Sediment
If this evaluation is submitted with a technical document that includes contaminant summary information, proceed to Section G. Otherwise attach a description of the type of contamination and provide a schedule and a description of all actions to be taken to mitigate exposure

SECTION G. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Jersey Central Power & Light Company

Representative First Name: Frank Representative Last Name: Lawson

Title: Supervisor - Site Remediation

Phone Number: (973) 401-8309 Ext: _____ Fax: (973) 644-4165

Mailing Address: 300 Madison Ave., P.O. Box 1911

City/Town: Morristown State: New Jersey Zip Code: 07962

Email Address: flawson@firstenergycorp.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature:  Date: 11-17-14

Name/Title: Frank D Lawson PG / Supervisor - Site Remediation **No Changes Since Last Submittal**

SECTION H. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 575013

First Name: Robert P.

Last Name: Blauvelt

Phone Number: (973) 873-7127

Ext: _____

Fax: (973) 509-9625

Mailing Address: 1 Greenwood Avenue, Suite 210

City/Town: Montclair

State: New Jersey

Zip Code: 07042

Email Address: rblauvelt@geiconsultants.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:

directly oversaw and supervised all of the referenced remediation, and/or

personally reviewed and accepted all of the referenced remediation presented herein.

I believe that the information contained herein, and including all attached documents, is true, accurate and complete.

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature: _____



Date: _____

11/13/14

LSRP Name/Title: Robert Blauvelt / Senior Consultant

No Changes Since Last Submittal

Company Name: GEI Consultants, Inc

Completed forms should be sent to the municipal clerk, designate health department, and:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

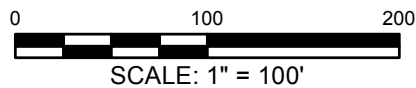
(sic)



SOURCE:

1. Parcel lines and data are provided by NJ Office of Information Technology (NJGIT), Office of Geographic Information Systems (OGIS), and are shown for graphical purposes only. This map is not to be considered a legal tax map
2. 2011 ESRI World Imagery

Source: Esri, DigitalGlobe, GeoEye, IGN, CNES/Airbus DS, USDA, USGS, AEY, IGP, swisstopo, and the GIS User C



LEGEND

- Approximate Site Boundary
- Residential Properties

Remedial Investigation Report
Sea Isle City Former MGP Site
Sea Isle City, New Jersey

Jersey Central Power & Light Company
Morristown, New Jersey



Project 013660

**SENSITIVE RECEPTORS
FIGURE**

November 2014

Fig. 1

Properties within 200' of Sea Isle City Former MGP Parcel

Property	Address	Municipality	Block	Lot	Owner	Mailing address			
Residence	3817 Central Avenue 1st Floor	Sea Isle City	38.03	1, 2.01, & 3.01	Shirley McCleary	15 Indian Springs Road	Clementon	NJ	08021
Residence	3817 Central Avenue 2nd Floor	Sea Isle City	38.03	1, 2.01, & 3.01	Christopher & Kathleen Bateman, et al	128 Gentry Drive	Swedesboro	NJ	08085
Residence	135 39th Street East	Sea Isle City	38.03	2.02 & 3.02	Brian DeMaris	72 Shawnee Drive	North East	MD	21901
Residence	135 39th Street West	Sea Isle City	38.03	2.02 & 3.02	Chris Vennitti & Thomas McNicholas	42717 Twin Leaf Drive	Brambleton	VA	20148
Residence	3815 Central Avenue 1st Floor	Sea Isle City	38.03	4 & 5	Doris J. Kerker	7103 Oxford Avenue	Philadelphia	PA	19111
Residence	3815 Central Avenue 2nd Floor	Sea Isle City	38.03	4 & 5	George J. & Margaret M. Walls	45 Ralston Avenue	Havertown	PA	19083
Residence	3811 Central Avenue	Sea Isle City	38.03	6.01 & 7.01	Heather R. Clipner & Lohn Swartz	149 Cedar Brook Road	Sicklerville	NJ	08081
Residence	235 39th Street East	Sea Isle City	38.04	5 & 6	Joseph & Jennifer McAllister	692 Lindsay Way	Horsham	PA	19044
Residence	235 39th Street West	Sea Isle City	38.04	5 & 6	Terence C. & Patricia A. Dun	87 Harvest Road	Levittown	PA	19056
Residence	233 39th Street East	Sea Isle City	38.04	7 & 8	Edward F. & Judith A. Keebler	233 39th Street East	Sea Isle City	NJ	08243
Residence	233 39th Street West	Sea Isle City	38.04	7 & 8	Atlee D. Metz Jr. & Carolyn H. Metz	122 Bavington Road	Perkiomenville	PA	18074
Residence	229 39th Street East	Sea Isle City	38.04	9 & 10	John J. & Joanne B. Orzechowski	2140 Curtis Avenue	Abington	PA	19001
Residence	229 39th Street West	Sea Isle City	38.04	9 & 10	Anne Pashuck Haran Peter J. McWilliams Jr. & Sally A. McWilliams	9 Bellmore Avenue PO Box 82	Point Lookout	NY	11569
Residence	225 39th Street East	Sea Isle City	38.04	11 & 12	McWilliams	40 Nature Lane	Sewell	NJ	08080
Residence	225 39th Street West	Sea Isle City	38.04	11 & 12	Vito & Antonia Pellerito	2 West Avenue	Bridgeton	NJ	08302
Residence	221 39th Street East	Sea Isle City	38.04	13 & 14	Veronica McLaren	1104 Yeadon Avenue	Yeadon	PA	19050
Residence	221 39th Street West	Sea Isle City	38.04	13 & 14	Ronald C. DelViscio, Jr. & N. Butterfly	612 Roxborough Avenue	Philadelphia	PA	19128
Residence	217 39th Street East	Sea Isle City	38.04	15 & 16	Gregory E. & Carol E. McLaren	1066 Wellington Road	Jenkintown	PA	19046
Residence	217 39th Street West	Sea Isle City	38.04	15 & 16	William F. & Dawn E. Boone	521 Fountain Street	Philadelphia	PA	19128
Residence	213 39th Street 1st Floor	Sea Isle City	38.04	17 & 18	Robery J. & Anne D. Hallinan	639 Country Club Lane	Havertown	PA	19083
Residence	213 39th Street 2nd Floor	Sea Isle City	38.04	17 & 18	Edmons S. & Jennifer L. Conner	524 Queen Anne Drive	Fairless Hills	PA	19032
Residence	209 39th Street	Sea Isle City	38.04	19 & 20	Daniel E. & Anne M. Organ	209 39th Street	Sea Isle City	NJ	08243
Residence	3820 Central Avenue	Sea Isle City	38.04	41, 42, & 43	Donald R. Hatton	1032 Loney Street	Philadelphia	PA	19111
Residence	3816 Central Avenue North	Sea Isle City	38.04	44 & 45	Robert A. & Sallee Lord	4340 Michener Drive	Doylestown	PA	18092
Residence	3816 Central Avenue South	Sea Isle City	38.04	44 & 45	Elizabeth K. Killhour	2076 Wharton Road	Glenaside	PA	19038
Residence	3808 Central Avenue North	Sea Isle City	38.04	47 & 48	Diana Giampietro	10829 Heflin Road	Philadelphia	PA	19154
Residence	3808 Central Avenue South	Sea Isle City	38.04	47 & 48	Michael J & Denice J. Catalano, et al	2620 Conewage Road	Diver	PA	17315
Residence	210 38th Street East	Sea Isle City	38.04	39 & 40	William F. & Barbara A. Donovan	3638 Salina Road	Philadelphia	PA	19154
Residence	210 38th Street West	Sea Isle City	38.04	39 & 40	Joseph W. & Kathleen L. Reuben	112 Grasmere Road	Bala Cynwyd	PA	19004
Residence	214 38th Street	Sea Isle City	38.04	37 & 38	Thomas C. Lutz & Rosemary E. Lutz	3116 Waterford Court	Cinnaminson	NJ	08077
Residence	220 38th Street	Sea Isle City	38.04	35 & 36	7500 Central Avenue, LLC	161 Walton Place	Lansdowne	PA	19050
Residence	224 38th Street East	Sea Isle City	38.04	33 & 34	Robert & Kristine Christie	8 Bittersweet Drive	Doylestown	PA	18901
Residence	224 38th Street West	Sea Isle City	38.04	33 & 34	William Maher, et al	224 W. 38th Street	Sea Isle City	NJ	08243
Residence	226 38th Street East	Sea Isle City	38.04	31 & 32	Samuel M. & Deborah A. Sarin	14 Edgewater Avenue	Glenlock	NJ	08032
Residence	226 38th Street West	Sea Isle City	38.04	31 & 32	Amelia Scarpato	2300 S. 20th Street	Philadelphia	PA	19145
Residence	230 38th Street East	Sea Isle City	38.04	29 & 30	Christopher & Laura Ebersole, et al	736 Deer Creek Drive	King of Prussia	PA	19406

Properties within 200' of Sea Isle City Former MGP Parcel

Property	Address	Municipality	Block	Lot	Owner	Mailing address		
Residence	230 38th Street West	Sea Isle City	38.04	29 & 30	Ronald F. Berardocco	418 Alliston Road	Springfield	PA 19064
Public works	147 40th Street	Sea Isle City	39.03	1 & 2	City of Sea Isle City	4416 Landis Avenue	Sea Isle City	NJ 08243
Public works	142 39th Street	Sea Isle City	39.03	13 & 14	City of Sea Isle City	4416 Landis Avenue	Sea Isle City	NJ 08243
Residence	137 40th Street	Sea Isle City	39.03	3.01	Richard E. Houseworth, Jr.	137 40th Street	Sea Isle City	NJ 08243
Residence	138 39th Street Unit A	Sea Isle City	39.03	15 & 16.01	Jeffery H. Donahue	124 West Jersey Avenue	Sea Isle City	NJ 08243
Residence	138 39th Street Unit B	Sea Isle City	39.03	15 & 16.01	Michael A. Gillan	243 Fawnhill Road	Broomall	PA 19008
Residence	237 40th Street	Sea Isle City	39.04	6, 7, & 8	Robert P. & Patricia A. White	514 Long Lane	Hatboro	PA 19040
Residence	231 40th Street East	Sea Isle City	39.04	90 & 100	George R. & Nancy M. Tuckey	1428 Valley Forge Road RD 1	Norristown	PA 19403
Residence	231 40th Street West	Sea Isle City	39.04	90 & 100	Joseph & Nancy Smith	231 40th Street West	Sea Isle City	NJ 08243
Residence	234 39th Street	Sea Isle City	39.04	123 & 124	Michael F. & Catherine R. Condon	234 39th Street	Sea Isle City	NJ 08243
Residence	230 39th Street East	Sea Isle City	39.04	25 & 26	Marc & Jamie B. Burick	51 Savage Drive	Langhorne	PA 19053
Residence	230 39th Street West	Sea Isle City	39.04	25 & 26	John S. & Gloria D. Ritchie	230 39th Street W. PO Box 16	Sea Isle City	NJ 08243
Residence	226 39th Street	Sea Isle City	39.04	27 & 28	David L. Lentz et al	2 Pleasant Mill Court	Medford	NJ 08055
Residence	222 39th Street East	Sea Isle City	39.04	29 & 30	Salvatore & Colleen Marinari	908 Baker Drive	Norristown	PA 19403
Residence	222 39th Street West	Sea Isle City	39.04	29 & 30	Milton T. & Donna Lee Hysore	736 Borough Line Road	Collegeville	PA 19426
Residence	207 40th Street East	Sea Isle City	39.04	11.01 & 12.01	Glenn R. & Nancy T. Watts	186 Park Avenue	Ambler	PA 19002
Residence	207 40th Street West	Sea Isle City	39.04	11.01 & 12.01	Jersey Central Power & Light Co.	800 Cabin Hill Drive	Greensburg	PA 15601
Residence	146 40th Street North	Sea Isle City	40.03	13	Joseph & Karol Eden	3806 Ronald Drive	Philadelphia	PA 19154
Residence	146 40th Street South	Sea Isle City	40.03	13	Dennis R. & Mary J. Kee	146 40th Street South	Sea Isle City	NJ 08243
Residence	218 40th Street	Sea Isle City	40.04	21	Gary M. Muhlbaier & Ronald Muhlbaier	5 Hollybrook Court	Sewell	NJ 08080
Residence	210 40th Street East	Sea Isle City	40.04	22	Michael A. & Lisa A. Carr	5281 Rogers Circle	Plymouth Meeting	PA 19462
Residence	210 40th Street West	Sea Isle City	40.04	22	Francis X & Frances A. Hendrick	306 Addison Place	West Chester	PA 19382
Residence	222 40th Street East	Sea Isle City	40.04	27 & 28	Kevin J. & Loretta A. Larkin	222 40th Street East	Sea Isle City	NJ 08243
Residence	222 40th Street West	Sea Isle City	40.04	27 & 28	Walter T. Zakorchemny	222 40th Street West	Sea Isle City	NJ 08243
Residence	226 40th Street East	Sea Isle City	40.04	25 & 26	John J. Walls	300 Darlington Road	Wawa	PA 19063
Residence	226 40th Street West	Sea Isle City	40.04	25 & 26	James & Janice Schultz	1358 Oldsman Creek Road	Swedesboro	NJ 08085
Residence	230 40th Street	Sea Isle City	40.03	123 & 124	Kenneth G. & Lee Ann Gardy	1488 Spiegle Avenue	Westville	NJ 08093

Download Document	Permit Number	Well Use	Potentially Potable	Document	Date (permitted/ drilled/ sealed)	Physical Address	County	Municipality	Block	Lot	Location Method	Easting (X)	Northing (Y)	Distance (feet)	Depth (ft)	Capacity (gal/min)
REDACTED	E201214399	Public Community Replacement	Yes	Permit	10/11/2012	REDACTED	Cape May	Sea Isle City	50.03	REDACTED	Digital Image	0	0	3256	830	880
REDACTED	E201214399	Public Community Replacement	Yes	Record	2/5/2013	REDACTED	Cape May	Sea Isle City	50.03	REDACTED	GPS	0	0	3242	845	
REDACTED	3600028902	Public Community	Yes	Permit	3/16/2005	REDACTED	Cape May	Sea Isle City	54.03	REDACTED	Prop Loc - Hard Copy	0	0		830	800
REDACTED	3600028902	Public Community	Yes	Record	5/19/2005	REDACTED	Cape May	Sea Isle City	54.03	REDACTED	Hard Copy Map	0	0		820	790
	3600005266	Domestic	Yes	Permit	5/5/1985		Cape May	Dennis Twp	256	2907	Prop Loc - Hard Copy	438214	122101		50	15
	3600005427	Domestic	Yes	Permit	5/5/1985		Cape May	Dennis Twp	245	1401	Prop Loc - Hard Copy	431920	124745		50	15
	3600007498	Domestic	Yes	Permit	9/5/1986		Cape May	Dennis Twp	256	2919	Prop Loc - Hard Copy	438214	122101		50	15
	3600008269	Domestic Replacement	Yes	Permit	3/26/1987	ROUTE 9	Cape May	Dennis Twp	251	8	Prop Loc - Hard Copy	433016	122112		50	10
	3600017055	Domestic	Yes	Permit	8/17/1993	1342 STAGECOACH ROAD	Cape May	Dennis Twp	256.05	36.2	Prop Loc - Hard Copy	432388	122822		55	10
	3600017055	Domestic	Yes	Record	4/28/1993	1342 STAGECOACH ROAD	Cape May	Dennis Twp	256.05	36.2	Prop Loc - Hard Copy	432388	122822		53	15
	3600017049	Domestic	Yes	Permit	8/11/1993	4 ALEXANDRIA WAY	Cape May	Dennis Twp	256.05	36.01	Prop Loc - Hard Copy	431364	122824		60	15
	3600017049	Domestic	Yes	Record	8/16/1993	4 ALEXANDRIA WAY	Cape May	Dennis Twp	256.05	36.01	Prop Loc - Hard Copy	431364	122824		60	10
	3600018136	Irrigation	Yes	Permit	8/4/1994	8005 CENTRAL AVENUE	Cape May	Sea Isle City	80.03	257	Prop Loc - Hard Copy	441832	120070		20	12
	3600018136	Irrigation	Yes	Record	8/16/1994	8005 CENTRAL AVENUE	Cape May	Sea Isle City	80.03	257	Prop Loc - Hard Copy	441832	120070		18	0
REDACTED	5700000010	Public Community	Yes	Decommissioning	2/17/2013	REDACTED	Cape May	Sea Isle City	50.03	REDACTED	Prop Loc - Hard Copy	0	0		871	400
REDACTED	5700000010	Public Community	Yes	Permit	10/29/1930	REDACTED	Cape May	Sea Isle City		REDACTED	Prop Loc - Hard Copy	0	0		871	400
REDACTED	5700000010	Public Community	Yes	Record	10/30/1930	REDACTED	Cape May	Sea Isle City		REDACTED	Prop Loc - Hard Copy	0	0		871	400
REDACTED	5700000009	Public Community	Yes	Permit	1/1/1926	REDACTED	Cape May	Sea Isle City		REDACTED	Prop Loc - Hard Copy	0	0		864	0
REDACTED	5700000009	Public Community	Yes	Record	1/2/1926	REDACTED	Cape May	Sea Isle City		REDACTED	Prop Loc - Hard Copy	0	0		864	0
REDACTED	3700000064	Public Community	Yes	Decommissioning	1/11/2008	REDACTED	Cape May	Sea Isle City	54.03	REDACTED	Prop Loc - Hard Copy	0	0			
REDACTED	3700000064	Public Community	Yes	Permit	3/29/1954	REDACTED	Cape May	Sea Isle City		REDACTED	Prop Loc - Hard Copy	0	0		750	700
REDACTED	3700000064	Public Community	Yes	Record		REDACTED	Cape May	Sea Isle City		REDACTED	Prop Loc - Hard Copy	0	0			

Download Document	Permit Number	Well Use	Potentially Potable	Document	Date (permitted/ drilled/ sealed)	Physical Address	County	Municipality	Block	Lot	Location Method	Easting (X)	Northing (Y)	Distance (feet)	Depth (ft)	Capacity (gal/min)
REDACTED	3600020238	Public Community Replacement	Yes	Permit	4/22/1996	REDACTED	Cape May	Sea Isle City	39.03	REDACTED	Prop Loc - Hard Copy	0	0		877	700
REDACTED	3600020238	Public Community Replacement	Yes	Record	5/27/1996	REDACTED	Cape May	Sea Isle City	39.03	REDACTED	Prop Loc - Hard Copy	0	0		889	700
REDACTED	3600010378	Public Community	Yes	Permit	7/22/1988	REDACTED	Cape May	Sea Isle City	80.04	REDACTED	Prop Loc - Hard Copy	0	0		875	700
REDACTED	3600010378	Public Community	Yes	Record		REDACTED	Cape May	Sea Isle City	80.04	REDACTED	Prop Loc - Hard Copy	0	0			
REDACTED	5600000098	Public Community	Yes	Permit	1/1/1896	REDACTED	Cape May	Sea Isle City		REDACTED	Prop Loc - Hard Copy	0	0		854	
REDACTED	5600000098	Public Community	Yes	Record	1/2/1896	REDACTED	Cape May	Sea Isle City		REDACTED	Prop Loc - Hard Copy	0	0		854	

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix C

Local Construction Permits

New Jersey Department of Health and Senior Services
PO Box 369, 3635 Quakerbridge Road
Trenton, NJ 08625-0369
Telephone: 609-631-6749 Fax: 609-588-7618

*Office
Log 2*

NOTIFICATION OF NON-FRIABLE ASBESTOS WORK ACTIVITIES

Must be submitted 10 days prior to the beginning of work. Please type or print legibly.

Type of Notification (check one) and Date Submitted

Initial Amended Cancellation Emergency (must include justification) Date of Notification: 11 / 14 / 2012

Building Information

Name of Building Owner/Operator: Jersey Central Power and Light
Street Address: 300 Madison Ave City: Morristown State: NJ Zip: 07962
Name of Contact: Ken Sullivan Telephone No.: 732-969-2700

Facility Information

Name of Facility Where Work Activity is to Take Place: Residence
Describe Facility Use: Residence
Street Address: 227 40th Street City: Sea Isle City State: NJ Zip: 08243
County Name: Cape May County Code (state use only): _____
Scheduled Start Date: 11 / 26 / 2012 Scheduled Completion Date: 12 / 22 / 2012

Occupancy Status During Activity (check only one):

- Facility Closed/Vacated During Entire Activity
 Activity Performed Outside Normal Facility Hours—Describe: _____
 Other—Describe: _____

Scope of Work (check all that apply):

- Floor Tile Square Footage: _____ Percentage Asbestos: _____
 Mastic Square Footage: _____ Percentage Asbestos: _____
 Other: Exterior Windows and Doors Square Footage: 400 LF Percentage Asbestos: _____

Contractor Information

Company Name: Shade Environmental, LLC Telephone No.: 856-755-0099
Street Address: 623 Cutler Ave City: Maple Shade State: NJ Zip: 08052
New Jersey Asbestos License Number (if applicable): 00842
Monitoring Firm (if applicable): _____ Telephone No.: _____

Signature

Completed By (type or print legibly): William J Lynch Title: Owner
Signature: *Will J. Lynch* Date: November 14, 2012

New Jersey Department of Health and Senior Services

PO Box 369, 3635 Quakerbridge Road

Trenton, NJ 08625-0369

Telephone: 609-631-6749 Fax: 609-588-7618

CONTRACTOR INFORMATION FOR NON-FRIABLE ASBESTOS WORK ACTIVITIES—Exemption Request

Please Type or Print Legibly

Type of Exemption Request

Floor Tile Roofing Siding Transite Other, explain: Exterior Windows and doors

General Information

Name of Company: Shade Environmental, LLC

Type of Company: Corporation Individual Partnership LLC

Mailing Address: 623 Cutler Ave City: Maple Shade State: NJ Zip: 08052

Company Name: Shade Environmental, LLC Telephone No.: 856-755-0099

Fax No.: 856-482-5879 Telephone No.: 856-755-0099 Federal I.D. Number: 87-0721731

Corporation Number (if applicable): n/a Date Incorporated: ___/___/___ State Incorporated In: ___

Primary Company Contact

Name: William J Lynch Title: Owner Telephone No.: 856-755-0099

Address: 623 Cutler Ave City: Maple Shade State: NJ Zip: 08052

Company (as identified above) Information

How long has the company/agency been in existence? 8 Years 9 Months

Has the company's name changed within the past two (2) years? No Yes If yes, explain below:

Is the company/agency an affiliate or subsidiary of any other organization? No Yes*

*If you answered yes to the above question, list the name(s) and address(es) fo the related organization(s) and explain the relationship on a separate piece of paper.

List all owners, partners, shareholders (10% or more), officers, and directors of the company (use a separate piece of paper if necessary):

Name (Last, First, Middle Initial)	Address	Office/Title	% Ownership
Diana B. Lynch	623 Cutler Ave Maple Shade, NJ 08052	Owner	80%
William J Lynch	623 Cutler Ave Maple Shade, NJ 08052	Owner	20%

Go To Page 2 to Complete This Application

CONTRACTOR INFORMATION FOR NON-FRIABLE ASBESTOS WORK ACTIVITIES (cont'd)

Company's History of Legal Actions

If you answer "yes" to any of the following questions, you must provide a detailed statement to fully explain the circumstances, and attach the statement to this form.

Has the company or any person identified on this form:

been subject to, or has pending, any disciplinary action(s), suspension(s), or citation(s) of violation(s) by any administrative, governmental or regulatory agency, including, but not limited to, OSHA, EPA, NJDOLWD, NJDEP, NJDCA or NJDHSS? No Yes

now or has been subject to any order resulting from any criminal, civil or administrative proceeding brought against such company, persons or parties by any administrative, governmental or regulatory agency? No Yes

been denied any license/certification/approval, or had it suspended or revoked by any administrative, governmental or regulatory agency? No Yes

been disbarred, suspended or disqualified by any federal, state or municipal agency? No Yes

been a defendant in any civil or criminal litigation? No Yes

Historical Data (check most appropriate)

I intend to use the data provided by the RFCI which indicates that no significant exposure exists during the removal of asbestos containing floor tiles, when their methodology is applied to their described situation.

The RFCI data is not applicable to the floor tile removal I am undertaking. Attached is data for the removal method which will be employed. This data represents airborne asbestos levels generated during and after the removal, and is proof that no significant exposure exists.

I am undertaking the removal of (check one): transite roofing siding
Attached is historical or current data for this type of removal which indicates that no significant exposure exists during or after the removal of the material.

Statement and Signature

I agree that the information contained herein is accurate, true and complete, to the best of my knowledge. I understand that if such information contained herein is found to be false, I may be subject to the penalty provisions of N.J.A.C. 8:60.

I understand that this information is subject to verification and that I agree to provide any additional documentation, as required. For the same purpose, I also understand that outside sources may be contacted, therefore I hereby give permission for disclosure of any information which may be needed to determine if the contents of this document is valid and/or eligible. I also understand that failure to provide full disclosure of any of the requested or required information may result in the rejection of this request. I also understand that completion of this form does not guarantee approval of this Request.

By signing this form, I understand that, should this request be approved, I am required to follow any and all procedures prescribed by the New Jersey Department of Health and Senior Services in regulation and/or guidance documents as provided.

I am authorized to sign for and in behalf of persons listed as owners, partners, shareholders, officers and directors of the company identified in this document.

Name (Print): William J. Lynch Title: Owner

Signature:  Date: November 14, 2012



Date Issued
Control #
Permit #

CONSTRUCTION PERMIT NOTICE

Block 39.04 Lot 15 Qualification Code _____

Work Site Location: 219-40TH STREET

AUTHORIZED FOR: WALTERS MARINE CONSTRUCTION

- | | |
|---|--|
| <input type="checkbox"/> BUILDING | <input type="checkbox"/> ELECTRICAL |
| <input type="checkbox"/> PLUMBING | <input type="checkbox"/> FIRE PROTECTION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input checked="" type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> OTHER _____ | |

Description of Work: _____

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.



Date Issued
Control #
Permit #

CONSTRUCTION PERMIT NOTICE

Block 39.04 Lot 13 Qualification Code _____

Work Site Location: 223-40TH STREET

AUTHORIZED FOR: WALTERS MARINE CONSTRUCTION

- | | |
|---|--|
| <input type="checkbox"/> BUILDING | <input type="checkbox"/> ELECTRICAL |
| <input type="checkbox"/> PLUMBING | <input type="checkbox"/> FIRE PROTECTION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input checked="" type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> OTHER _____ | |

Description of Work: _____

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.



Date Issued
Control #
Permit #

CONSTRUCTION PERMIT NOTICE

Block 39.04 Lot 110 Qualification Code _____

Work Site Location: 227-40TH STREET

AUTHORIZED FOR: WALTERS MARINE CONSTRUCTION

- | | |
|---|--|
| <input type="checkbox"/> BUILDING | <input type="checkbox"/> ELECTRICAL |
| <input type="checkbox"/> PLUMBING | <input type="checkbox"/> FIRE PROTECTION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input checked="" type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> OTHER _____ | |
-

Description of Work: _____

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.

Zoning Certificate

Date 12-3-12 NS 7295

Name of Applicant JCPdL

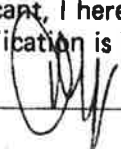
Address 214 39

Type of Building Two Family

Size of Building 35 ft. x 52.4 ft.; size of lot 50 ft. x 110 ft.

Lot number 33 Block number 39.04

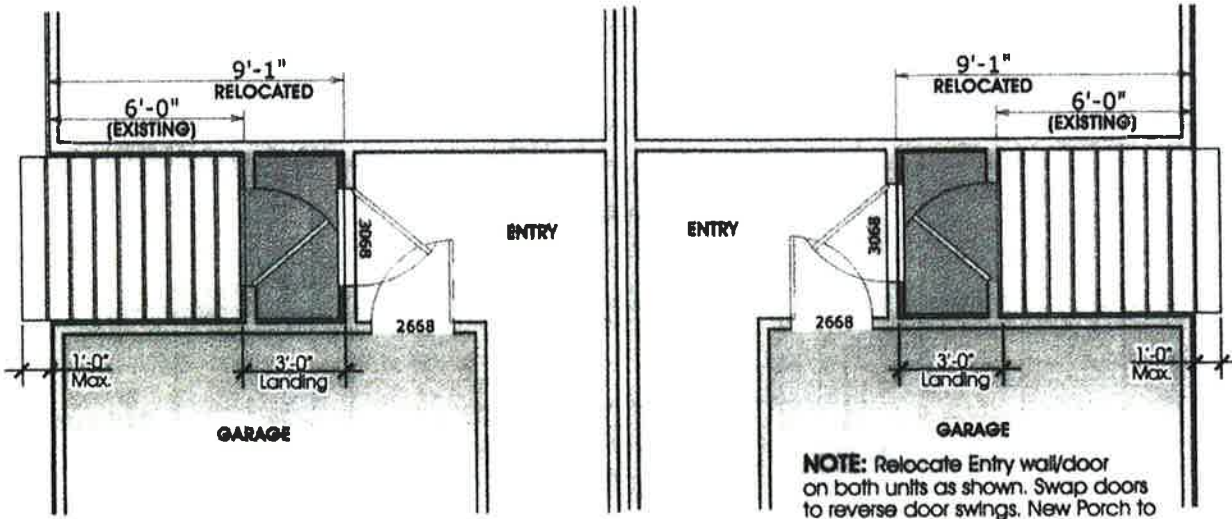
Having examined the plans, plot plan, grade, etc., of above applicant, I herewith certify that same is in compliance with the Sea Isle City Zoning Ordinance, and the application is hereby APPROVED.



Zoning Officer

Having examined the plans, plot plan, grade, etc., of above applicant, I find that these DO NOT COMPLY with the Sea Isle City Zoning Ordinance and the application is DENIED for the following reasons:

Zoning Officer



NOTE: Relocate Entry wall/door on both units as shown. Swap doors to reverse door swings. New Porch to be 3'-0" deep (minimum). Stairs to extend 1'-0" beyond foundation wall (maximum).

5 PLAN - ENTRY DOOR RELOCATION

Scale: 3/16" = 1'-0"

CITY OF SEA ISLE 12-652

INSPECTION OFFICE _____ DATE _____

PERMIT ELEC. _____

ZONE _____

BLDG. _____

PLBG. _____

FIRE _____

RELEASED _____

CONSTRUCTION OFFICIAL



10/26/12 - Issued for construction permitting
7/27/12 - Issued to Client

KONA & ASSOCIATES
ENGINEERING / PLANNING / DESIGN / CONSTRUCTION MANAGEMENT
P.O. Box 806 - Tuckahoe, New Jersey • 08850
Phone (609) 907-8618 • Fax (609) 698-9081

Charles Kona
CHARLES KONA
N.J. Eng. License No. 240302581400

BUILDING ALTERATIONS
214 39th Street
Block 39.04 / Lots 33 & 34
SEA ISLE CITY
CAPE MAY COUNTY, NEW JERSEY

APPROVED	CHECKED	DRAWN	SHEET
CK	CK	JLS	1/1
DATE	SCALE	PROJECT	
07/27/12	As Noted		



Date Issued 2-1-13
Control # C-13434
Permit # 13-032

CONSTRUCTION PERMIT NOTICE

Block 39.04 Lot 9 Qualification Code _____

Work Site Location: 211-40TH STREET

AUTHORIZED FOR: O;NEILL BUILDERS

- | | |
|---|--|
| <input type="checkbox"/> BUILDING | <input type="checkbox"/> ELECTRICAL |
| <input type="checkbox"/> PLUMBING | <input type="checkbox"/> FIRE PROTECTION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input type="checkbox"/> DEMOLITION |
| <input checked="" type="checkbox"/> OTHER _____ | |

Description of Work: MOVE TWO FAMILY HOME FROM 211-40TH ST TO
214-39TH STREET

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.



Date Issued 3/12/13
Control #
Permit # 13-141

CONSTRUCTION PERMIT NOTICE

Block 38.04 Lot 15 Qualification Code C-B

Work Site Location: 217-39TH ST - EAST

AUTHORIZED FOR: MIKE O'NEILL BUILDERS

- | | |
|---|--|
| <input type="checkbox"/> BUILDING | <input type="checkbox"/> ELECTRICAL |
| <input type="checkbox"/> PLUMBING | <input type="checkbox"/> FIRE PROTECTION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input type="checkbox"/> DEMOLITION |
| <input checked="" type="checkbox"/> OTHER _____ | |

Description of Work: REPLACEMENT OF EXISTING DECKS WITH NEW IN SAME FOOTPRINT

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.



Date Issued
Control #
Permit #

13-057

CONSTRUCTION PERMIT NOTICE

Block 39.04 Lot 33 Qualification Code _____

Work Site Location: 214-39TH STREET

AUTHORIZED FOR: CODE ENVIRONMENTAL SERVICES

- | | |
|--|---|
| <input checked="" type="checkbox"/> BUILDING | <input checked="" type="checkbox"/> ELECTRICAL |
| <input checked="" type="checkbox"/> PLUMBING | <input checked="" type="checkbox"/> FIRE PROTECTION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> OTHER _____ | |

Description of Work: RECONNECTIONS FOR TWO FAMILY HOME THAT WAS
MOVED TO THIS PROPERTY FROM 211-40TH STREET

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.



Date Issued 1-2-14
Control #
Permit # 0264704 14-001

CONSTRUCTION PERMIT NOTICE

Block 39.04 Lot 11.01, ETC Qualification Code _____

Work Site Location: 205-209 40TH STREET

AUTHORIZED FOR: ENVIRO-AIR TECHNOLOGIES, INC.

- | | |
|---|--|
| <input type="checkbox"/> BUILDING | <input type="checkbox"/> ELECTRICAL |
| <input type="checkbox"/> PLUMBING | <input type="checkbox"/> FIRE PROTECTION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input type="checkbox"/> DEMOLITION |
| <input checked="" type="checkbox"/> OTHER _____ | |

Description of Work: ERECT TEMPORARY ENCLOSURE FOR THE NEXT PHASE OF
THE JCP&L REMEDIAL ACTION

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.

U.C.C. F180
(rev. 3/03)

SEA ISLE CITY CONST'R
4501 PARK ROAD
SEA ISLE CITY, NJ 08243

Date Issued 1/2/14
Control # C-14437
Permit # 14-001

UCC NEW JERSEY
CONSTRUCTION
PERMIT

IDENTIFICATION Block 39.04 Lot 11.01 Qual _____

Work Site Location 205-209 40TH ST

Contractor ENVIRO-AIR TECHNOLOGIES, INC

Owner in Fee JCP&L

Address 1009 NATALIE LANE

Address 800 CABIN HILL DRIVE
GREENSBURG, PA 15601-

Telephone (610) 966-0740

Telephone (973) 401-8309

Lic. No. or Bldrs. Reg. No. _____

Federal Emp. No. -

Is hereby granted permission to perform the following work:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> BUILDING | <input type="checkbox"/> PLUMBING | <input type="checkbox"/> LEAD HAZARD ABATEMENT |
| <input type="checkbox"/> ELECTRICAL | <input type="checkbox"/> FIRE PROTECTION | <input type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input type="checkbox"/> ASBESTOS ABATEMENT | <input type="checkbox"/> OTHER _____ |
- (Subchapter 8 only)

PAYMENTS (Office Use Only)

Building	<u>4,533</u>
Electrical	<u>0</u>
Plumbing	<u>0</u>
Fire Protection	<u>0</u>
Elevator Devices	<u>0</u>
Other	_____
DCA State Permit Fee	<u>561</u>
Cert. of Occupancy	<u>0</u>
Other	_____
Total	<u>5,094</u>
Check No.	<u>1824</u>
Cash	_____
Collected By	<u>T.F.</u>

DESCRIPTION OF WORK:

ERECT TEMPORARY ENCLOSURE FOR THE NEXT PHASE OF JCP&L REMEDIAL ACTION.
ALL EXCAVATION WILL BE PERFORMED WITHIN THE ENCLOSURE. THE PROPERTIES
INVOLVED ARE 205-40TH ST, 207-40TH ST & 209-40TH ST.

NOTE: If construction does not commence within one (1) year of date of issuance,
or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$ 45,000

Construction Official

1/2/14
Date



CONSTRUCTION PERMIT APPLICATION

Applicant Completes: Sections I, II, III (optional), IV, VI, and VII

I. IDENTIFICATION

1. Proposed Work Site at: 205 40th ST

2. Name of Owner in Fee: SEPEL
 Tel. (609) 390-4656 e-mail _____
 Address 800 Cabin Hill Dr, Greensburg, PA 15601
street municipality zip code

3. Ownership in Fee: Public Private

4. Principal Contractor: **EarthTech Contracting Inc.** Tel. (____) _____
 Address 155 Rt. 50 e-mail _____
Greenfield, NJ 08230
609-390-2127

License No. OR, if new home, Builder Reg. No. _____ Exp. Date _____
 Home Improvement Contractor Registration No. or Exemption Reason (if applicable): 311100039300
 Federal Emp. ID No. 22-3486075 FAX: (609) 3902447

5. Architect or Engineer _____ Contact _____
 Address _____ e-mail _____
 Tel. (____) _____ FAX: (____) _____

6. Responsible Person in Charge once Work has Begun Robert Breunig
 Tel. (____) _____ FAX: (609) 3902447

V. FEE SUMMARY (for office use only)

	Update	Update
1. Building	\$	
2. Electrical		
3. Plumbing		
4. Fire Protection		
5. Elevator Devices		
6. Subtotal		
7. Less 20% for State Plan Review	\$	
8. Subtotal	\$	
9. State Permit Surcharge Fee		
10. Subtotal	\$	
11. Cert. of Occupancy		
12. Other		
13. TOTAL	\$	

VI. BUILDING/SITE CHARACTERISTICS (office use only)

1. Number of Stories _____

2. Height of Structure _____ ft.

3. Area — Largest Floor _____ sq. ft.

4. New Building Area _____ sq. ft.

5. Volume of New Structure _____ cu. ft.

6. Max. Live Load _____

7. Max. Occupancy Load _____

8. If Industrialized Building: State Approved _____ HUD _____

9. Total Land Area Disturbed _____ sq. ft.

10. Flood Hazard Zone _____

11. Base Flood Elevation _____ ft.

12. Wetlands yes _____ no _____

IIa. PROPOSED WORK

Minor Work New Building Addition Demolition

Repair Alteration Renovation Reconstruction

Asbestos Abat. -Subch. 8 Lead Hazard Abatement Radon Remediation Annual Permit

IIb. SUBCODES (Check all that apply)

	FOR OFFICE USE ONLY (Optional)								
	Est. Cost	Plans Rec'd by	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates Approval	Rejection	Re-viewer
<input type="checkbox"/> Building									
<input type="checkbox"/> Electrical									
<input type="checkbox"/> Plumbing									
<input type="checkbox"/> Fire Protection									
<input type="checkbox"/> Elevator									
TOTAL COST	<u>10877.00</u>								

VII. DESCRIPTION OF BUILDING USE

A. RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

4. No. of dwelling units: Total Units Income-restricted

Gained, Sale	_____
Gained, Rental	_____
Lost, Sale	_____
Lost, Rental	_____

B. NON-RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

C. MIXED USE -List secondary use(s): _____

D. Construct. Classification: Present _____ Proposed _____

III. PLAN REVIEW (optional)

DO YOU WANT:

1. Partial Releases

2. Prototype Processing

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

1. Elevators/Escalators/Lifts/ Dumbwaiters/Moving Walks

2. High Pressure Boilers

3. Pressure Vessels

4. Refrigeration Systems

5. Cross-Connections/Backflow Preventers

6. Hazardous Uses/Places of Assembly

7. Sprinklers/Standpipes

8. Smoke Control Systems in Open Wells

9. Underground Storage Tanks

10. Swimming Pools, Spas and Hot Tubs

11. LPGas Tanks

12. Fire Alarm

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

A. I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

B. I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(f)1.ix:
I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

C. I further certify that I will perform or supervise the following work:
C.1. Building C.2. Fire Protection

I further certify that I will perform the following work:
C.3. Electrical C.4. Plumbing

D. I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Check if contractor.

Agent Name EarthTech Contracting Inc.
Address 155 Rt. 50
Greenfield, NJ 08230
Telephone () 609-390-2127
Signature _____

III. LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:17.

OFFICE DATE RECEIVED: _____

VIII. PRIOR APPROVALS CHECKLIST (office use only)	LOCAL APPROVAL		COUNTY APPROVAL		REGIONAL APPROVAL		STATE APPROVAL		COMMENTS
	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	
<input type="checkbox"/> Zoning Officer									
<input type="checkbox"/> Planning Board									
<input type="checkbox"/> Zoning Board									
<input type="checkbox"/> Sewer Authority									
<input type="checkbox"/> Water Authority									
<input type="checkbox"/> Police Department									
<input type="checkbox"/> Health Department									
<input type="checkbox"/> Soil Conservation									
<input type="checkbox"/> N.J. Department of Community Affairs									
<input type="checkbox"/> N.J. Department of Transportation									
<input type="checkbox"/> N.J. Department of Environmental Protection									
<input type="checkbox"/> Utility Dig No. 132981076									
<input type="checkbox"/>									
<input type="checkbox"/>									

IX. SUBCODES AND SPECIAL REGULATIONS APPLICABLE (office use only—optional)

Name of Code & Edition	Name of Code & Edition	Other
Building _____	Energy _____	_____
Electrical _____	Barrier Free _____	_____
Plumbing _____	Flood Hazard _____	_____
Fire Protection _____	As Built Elevation Cert. _____	_____
Mechanical _____	Other _____	_____

X. CERTIFICATES ISSUED (office use only)

	No.	DATE ISSUED	DATE EXPIRED	DATE REISSUED	DATE EXPIRED
<input type="checkbox"/> Temporary Certificate of Occupancy	_____	_____	_____	_____	_____
<input type="checkbox"/> Temporary Certificate of Compliance	_____	_____	_____	_____	_____
<input type="checkbox"/> Continued Certificate of Occupancy	_____	_____	_____	_____	_____
<input type="checkbox"/> Certificate of Compliance	_____	_____	_____	_____	_____
<input type="checkbox"/> Certificate of Occupancy	_____	_____	_____	_____	_____
<input type="checkbox"/> Certificate of Approval	_____	_____	_____	_____	_____
<input type="checkbox"/> Lead Abatement Clearance Certificate	_____	_____	_____	_____	_____

CONSTRUCTION OFFICE
4416 LANDIS AVENUE
SEA ISLE CITY, NJ 08243



**BUILDING
SUBCODE
TECHNICAL SECTION**



Date Received _____
Date Issued _____
Control # _____
Permit # _____

A. IDENTIFICATION—APPLICANT; COMPLETE ALL APPLICABLE INFORMATION, WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 39.04 Lot 11.02
Work Site Location 205-40th ST

Owner in Fee SLP=L
Address 800 Cabin Hill Dr, Greentown, PA 15601

Tele. (610) 390-4656
Contractor EarthTech Contracting Inc.

Address 155 Rt. 50
Greenfield, NJ 08230

Tele. (_____) 609-390-2127 Fax (610) 3402447

Lic. No. or Bldrs. Reg. No. 13440039300

Federal Emp. No. 22 3480075

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Signature _____

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

Demolition

TYPE OF WORK:

- New Building
- Addition
- Alteration
 - , Roofing
 - Siding
 - Fence _____ Height (exceeds 6')
 - Sign _____ Sq. Ft.
 - Pool
 - Asbestos Abatement Subchapter 8
 - Lead Haz. Abatement NJAC 5:17
 - Other _____
- Demolition

FEE (Office Use Only)

\$ _____

JOB SUMMARY (Office Use Only)

PLAN REVIEW	Date	Initial	INSPECTIONS	Dates (Month/Day)			Initial
<input type="checkbox"/> No Plans Required	_____	_____	Type:	Failure	Failure	Approval	_____
<input type="checkbox"/> All	_____	_____	Footing	_____	_____	_____	_____
<input type="checkbox"/> Footing	_____	_____	Foundation	_____	_____	_____	_____
<input type="checkbox"/> Foundation	_____	_____	Slab	_____	_____	_____	_____
<input type="checkbox"/> Frame	_____	_____	Frame	_____	_____	_____	_____
<input type="checkbox"/> Other	_____	_____	Barrier-Free	_____	_____	_____	_____
Joint Plan Review Required:			Insulation	_____	_____	_____	_____
<input type="checkbox"/> Elec. <input type="checkbox"/> Plumb. <input type="checkbox"/> Fire <input type="checkbox"/> Elevator			Finishes	_____	_____	_____	_____
SUBCODE APPROVAL			Energy	_____	_____	_____	_____
<input type="checkbox"/> CO <input type="checkbox"/> CCO <input type="checkbox"/> CA			Mechanical	_____	_____	_____	_____
Date: _____			TCO	_____	_____	_____	_____
Approved by: _____			Other	_____	_____	_____	_____
_____			Final	_____	_____	_____	_____
			Barrier-Free	_____	_____	_____	_____

B. BUILDING CHARACTERISTICS

Use Group Present _____ Proposed _____
Constr. Class Present _____ Proposed _____
No. of Stories _____
Height of Structure _____ Ft.
Area — Largest Floor _____ Sq. Ft.
New Bldg. Area/All Floors _____ Sq. Ft.
Volume of New Structure _____ Cu. Ft.

Est. Cost of Bldg. Work:
1. New Bldg. \$ _____
2. Alteration \$ _____
3. Total (1+ 2) \$ 10877.00

Administrative Surcharge \$ _____
Minimum Fee \$ _____
DCA Training Fee \$ _____
TOTAL FEE \$ _____

FOR DEMOLITION PERMITS

ASBESTOS ABATEMENT STATEMENT

ASBESTOS ABATEMENT: Before a structure can be demolished or removed, the Owner or Agent shall document that the requirements of USEPA 40 CFR 61 subpart M have been or shall be met. A permit to demolish or remove the structure shall not be issued until the Owner or Agent notifies the enforcing agency that all friable asbestos or asbestos-containing material that will become friable during demolition or removal has been or will be properly abated prior to demolition.

PLEASE COMPLETE THE FORM BELOW TO ACKNOWLEDGE RECEIPT OF THE ASBESTOS ABATEMENT STATEMENT & TO VERIFY REMOVAL OF ASBESTOS FROM THE PROPERTY. PLEASE RETURN THIS FORM [REDACTED] WITH THE DEMOLITION PERMIT APPLICATION. A DEMOLITION PERMIT WILL NOT BE ISSUED UNTIL THE FORM IS RECEIVED. THANK YOU

CONTRACTOR: EarthTech Contracting Inc.

CONTRACTOR ADDRESS: 155 Rt. 50
Greenfield, NJ 08230

CONTRACTOR TELEPHONE#: 609-390-2127

CONTRACTOR LICENSE#: 13VH00039300

DEMOLITION SITE: 205 40th St

TOWN: Sea Isle City

ASBESTOS REMOVAL CONTRACTOR: Shade Environmental

ADDRESS: 623 Cutter Ave, Maple Shade, NJ 08052

TELEPHONE NUMBER: (856) 755-0099

LICENSE#: 00842

ASBESTOS OR ASBESTOS CONTAINING MATERIAL ON PROPERTY:

YES: NO:

SIGNED _____ DATED: _____

South Jersey Gas Company
OPENING PERMIT NOTIFICATION

MUNICIPALITY : Sea Isle City DATE : 11/12/2013

LOCATION OF JOB : 205 40th St

CONTRACTOR'S NAME : _____ PHONE # : _____

CONTRACTOR'S ADDRESS : _____

TYPE OF WORK TO BE PREFORMED : _____

PROPOSED STARTING DATE : _____ APPLICANT'S SIGNATURE : _____

STATE LAW REQUIRES THAT SOUTH JERSEY GAS COMPANY BE NOTIFIED AT LEAST THREE FULL WORKING DAYS (EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS) PRIOR TO START OF WORK.

SOUTH JERSEY GAS USE ONLY :

LOCATION OF UNDERGROUND GAS FACILITIES TO BE INDICATED BY STAKES OR YELLOW PAINTING ON PAVEMENT WITH "G" MARKING.

NOTIFICATION CERTIFICATION

ACTION TAKEN :

- LOCATION MARKED
- LOCATION MARKED-CALL BEFORE DIGGING
- SERVICE ABANDONED
- GRADING OF GAS BOXES REQUIRED
- NO GAS LINES IN AREA

COMPANY LOCATION :

- 111 N FRANKLIN AVE
PLEASANTVILLE / 609-645-2690
- 142 S MAIN ST
GLASSBORO / 609-881-7000
- 1203 N HIGH ST
MILLVILLE / 609-327-1200
- 305 CENTER AVE
WATERFORD / 856-768-2900
- 1708 ROUTE 9 N
CAPE MAY / 609-465-2900

OTHER :
Gas retired at property

IN PERSON / MAILED / FAXED TO
EarthTech

ADDRESS / FAX #
609-390-2447

SOUTH JERSEY GAS COMPANY REPRESENTATIVE : J Murphy / Enr

DATE : 11/12/2013



West Creek Operations
457 Main St.
West Creek, NJ 08092

October 29, 2013

RELEASE

This is to certify that Atlantic City Electric equipment has been removed from:

205 40th St
Sea Isle City, NJ 08243
Acct# 3435967-9997

ATLANTIC CITY ELECTRIC

BY
A handwritten signature in black ink that reads 'G Michele Brown'. The signature is written in a cursive style with a large, stylized 'G'.

G. Michele Brown
District Service Representative



October 28, 2013

VIA FAX: EARTHTECH CONTRACTING, INC (609-390-2447)

EARTHTECH CONTRACTING, INC.

155 RT 50

GREENFIELD, NJ 08230

RE: Comcast Service Wire Disconnection and Removal – 205 40TH ST, SEA ISLE CITY, NJ 08243

Dear EARTHTECH,

I am in receipt of your request dated **10/25/13** regarding the disconnection of cable services from the location referenced above. This letter is to confirm that Comcast service has been disconnected and the service wire and existing cable facilities have been removed from the location.

Should you have any questions or require additional information regarding this matter, please contact me at 856-694-6006. Thank you.

Sincerely,

Kim Slater



Date: 10-30-13

Attention: TONI MALTESE-EARTHTECH
CONTRACTING, INC.

Property address:
205 W. 40TH STREET SEA ISLE CITY NJ

To Whom It May Concern,

Verizon Communications has removed its
wires/drops and/or equipment from the
aforementioned location to be demolished or
renovated.

Thank You,
Michael DeTata
Local Manager
Verizon NJ

10217

C SMITH PLUMBING
State License # 7186
138-56th St.
Sea Isle City, NJ 08243

ORDER INFO

customer's order no. 610-966-0740 phone 609-263-6861 date 11-1-13

name ENVIRO-AIR TECHNOLOGIES, INC

address 1009 NATALIE LANE

city, state, zip COOPERSBURG PA 18036

sold by cash charge check shipping information
 c.o.d. on acct. # _____

quantity	description	price	amount
1	#205 - 40 th STREET		
2	#207 " " E+W		
3	#209 " "		
4			
5	pulled and capped		
6			
7	water & sewers		
8			
9	at curb		
10		parts 18.00	
11		labor 810.00	
12		tax 56.70	
13			
14			

total 984.70

total 984.70

received by _____



keep this slip for reference

DCS808UV/10-10

OT AN
LECTRICIAN'S
R PLUMBER'S
CENSE

**State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs**

THIS IS TO CERTIFY THAT THE
Division of Consumer Affairs

HAS REGISTERED

Earthtech Contracting Inc
Robert Breunig
155 Route 50
Ocean View NJ 08230-1299

FOR PRACTICE IN NEW JERSEY AS A(N): Home Improvement Contractor

New Jersey Office of the Attorney General
Division of Consumer Affairs
THIS IS TO CERTIFY THAT THE
Division of Consumer Affairs
HAS REGISTERED
Earthtech Contracting Inc
Home Improvement Contractor

NOT AN ELECTRICIAN'S OR PLUMBER'S LICENSE

12/27/2012 TO 12/31/2013

VALID

SIGNATURE

13VH00039300

License/Registration/Certificate #

ACTING DIRECTOR

12/27/2012 TO 12/31/2013
VALID

13VH00039300

LICENSE,REGISTRATION,CERTIFICATION #

ACTING DIRECTOR

Signature of Licensee/Registrant/Certificate Holder

PLEASE DETACH HERE
IF YOUR LICENSE/REGISTRATION/
CERTIFICATE ID CARD IS LOST
PLEASE NOTIFY:

Division of Consumer Affairs
P.O. Box 46016
Newark, NJ 07101

PLEASE DETACH HERE

Earthtech Contracting Inc

YOUR LICENSE,REGISTRATION,CERTIFICATE NUMBER IS **13VH 00039300** . PLEASE USE IT IN ALL
CORRESPONDENCE TO THE DIVISION OF CONSUMER AFFAIRS USE THIS SECTION TO REPORT ADDRESS
CHANGES YOU ARE REQUIRED TO REPORT ANY ADDRESS CHANGES IMMEDIATELY TO THE ADDRESS NOTED
BELOW

EXPIRATION DATE 2013

**Division of Consumer Affairs
P.O. Box 46016
Newark, NJ 07101**

PRINT YOUR NEW **ADDRESS OF RECORD** BELOW
YOUR ADDRESS OF RECORD IS THE ADDRESS THAT WILL PRINT ON
YOUR LICENSE,REGISTRATION,CERTIFICATE AND IT MAY BE MADE
AVAILABLE TO THE PUBLIC

HOME
BUSINESS

PRINT YOUR NEW **MAILING ADDRESS** BELOW
YOUR MAILING ADDRESS IS THE ADDRESS THAT WILL BE USED BY THE
DIVISION OF CONSUMER AFFAIRS TO SEND YOU ALL CORRESPONDENCE

HOME
BUSINESS

TELEPHONE
INCLUDE AREA CODE

TELEPHONE
INCLUDE AREA CODE

If the law governing your profession requires the current license/registration/certificate to be displayed, it should be within reasonable proximity of your original license/registration/certificate at your principal office or place of business.



CERTIFICATE OF LIABILITY INSURANCE

EARTH-2 OP ID: AB

DATE (MM/DD/YYYY)
04/03/13

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER BEAM Insurance, Inc. 122 N. York Road, Suite 5 Hatboro, PA 19040 L. Robert Begley, CPCU, CIC	215-682-9950	CONTACT NAME:	
	215-682-9948	PHONE (A/C, No, Ext):	FAX (A/C, No):
		E-MAIL ADDRESS:	
		INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED EARTHTECH CONTRACTING, INC. 155 ROUTE 50 OCEAN VIEW, NJ 08230		INSURER A: GREAT DIVIDE INSURANCE	25224
		INSURER B:	
		INSURER C:	
		INSURER D:	
		INSURER E:	
		INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY		GLPO1548105-12	03/30/13	03/30/14	EACH OCCURRENCE \$ 1,000,000	
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000	
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR					MED EXP (Any one person) \$ 5,000	
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY \$ 1,000,000
	<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC					GENERAL AGGREGATE \$ 2,000,000	
							PRODUCTS - COMP/OP AGG \$ 2,000,000
A	AUTOMOBILE LIABILITY		BAP1548104-11	03/30/13	03/30/14	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000	
	<input checked="" type="checkbox"/> ANY AUTO					BODILY INJURY (Per person) \$	
	<input type="checkbox"/> ALL OWNED AUTOS	<input type="checkbox"/> SCHEDULED AUTOS				BODILY INJURY (Per accident) \$	
	<input checked="" type="checkbox"/> HIRED AUTOS	<input checked="" type="checkbox"/> NON-OWNED AUTOS				PROPERTY DAMAGE (Per accident) \$	
	UMBRELLA LIAB	<input type="checkbox"/> OCCUR				EACH OCCURRENCE \$	
	EXCESS LIAB	<input type="checkbox"/> CLAIMS-MADE				AGGREGATE \$	
	DED	RETENTION \$				\$	
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY					WC STATUTORY LIMITS OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	<input type="checkbox"/> Y/N	N/A			E.L. EACH ACCIDENT \$	
	If yes, describe under DESCRIPTION OF OPERATIONS below					E.L. DISEASE - EA EMPLOYEE \$	
						E.L. DISEASE - POLICY LIMIT \$	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

EVIDENCE OF COVERAGE

CERTIFICATE HOLDER

EARTH1

EARTHTECH CONTRACTING, INC.
155 ROUTE 50
OCEAN VIEW, NJ 08230

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

L. Robert Begley

© 1988-2010 ACORD CORPORATION. All rights reserved.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

08/05/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER The Barclay Group 857 Cooper St Deptford, NJ 08096 (856) 848-8455	CONTACT NAME: PHONE (A/C, No, Ext): (877) 234-4420 FAX (A/C, No): (877) 234-4421	
	E-MAIL ADDRESS: PRODUCER CUSTOMER ID #	
INSURED EarthTech Contracting, Inc. dba EarthTech Contracting, Inc. 155 Route 50 Greenfield, NJ 08230-1299 CTL 1273 766465	INSURER(S) AFFORDING COVERAGE	
	INSURER A: Continental Indemnity Co. NAIC # 28258	
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY						
	<input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR	<input type="checkbox"/>	<input type="checkbox"/>				EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$
	GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC						
	AUTOMOBILE LIABILITY						
	<input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	<input type="checkbox"/>	<input type="checkbox"/>				COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$	<input type="checkbox"/>	<input type="checkbox"/>				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under SPECIAL PROVISIONS below	Y/N N	N/A	46-816967-01-05	08/18/2013	08/18/2014	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE-EA EMPLOYEE \$ 1,000,000 E.L. DISEASE-POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach Acord 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

EarthTech Contracting, Inc.
 155 Route 50
 Greenfield, NJ 08230-1299

Attn: Project Manager

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

OP-0091510



CONSTRUCTION PERMIT APPLICATION

Applicant Completes: Sections I, II, III (optional), IV, VI, and VII

V. FEE SUMMARY (for office use only)		Update	Update
1. Building	\$		
2. Electrical			
3. Plumbing			
4. Fire Protection			
5. Elevator Devices			
6. Subtotal			
7. Less 20% for State Plan Review	\$		
8. Subtotal	\$		
9. State Permit Surcharge Fee			
10. Subtotal	\$		
11. Cert. of Occupancy			
12. Other			
13. TOTAL	\$		

I. IDENTIFICATION

1. Proposed Work Site at: 207 W. 40th St

2. Name of Owner in Fee: J.P.E.L.
 Tel. (609) 390-4656 e-mail _____
 Address 800 Cabin Hill Dr, Greendbury, PA 15601
street municipality zip code

3. Ownership in Fee: Public _____ Private _____

4. Principal Contractor: Earthtech Contracting Inc. Tel. (____) _____
 Address 155 Rt. 50 e-mail _____
Greenfield, NJ 08230
609-390-2127

License No. OR, if new home, Builder Reg. No. _____ Exp. Date _____

Home Improvement Contractor Registration No. or Exemption Reason (if applicable): 131100039300

Federal Emp. ID No. 22-3486075 FAX: (609) 3902447

5. Architect or Engineer _____ Contact _____
 Address _____ e-mail _____
 Tel. (____) _____ FAX: (____) _____

6. Responsible Person in Charge once Work has Begun Robert Breunig
 Tel. (____) _____ FAX: (609) 3902447

VI. BUILDING/SITE CHARACTERISTICS (office use only)

1. Number of Stories _____

2. Height of Structure _____ ft.

3. Area - Largest Floor _____ sq. ft.

4. New Building Area _____ sq. ft.

5. Volume of New Structure _____ cu. ft.

6. Max. Live Load _____

7. Max. Occupancy Load _____

8. If Industrialized Building: State Approved _____ HUD _____

9. Total Land Area Disturbed _____ sq. ft.

10. Flood Hazard Zone _____

11. Base Flood Elevation _____ ft.

12. Wetlands yes _____ no _____

IIa. PROPOSED WORK

Minor Work New Building Addition Demolition

Repair Alteration Renovation Reconstruction

Asbestos Abat. -Subch. 8 Lead Hazard Abatement Radon Remediation Annual Permit

IIb. SUBCODES (Check all that apply)

	Est. Cost	FOR OFFICE USE ONLY (Optional)							
		Plans Rec'd by	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates Approval	Rejection	Re-viewer
<input type="checkbox"/> Building									
<input type="checkbox"/> Electrical									
<input type="checkbox"/> Plumbing									
<input type="checkbox"/> Fire Protection									
<input type="checkbox"/> Elevator									
TOTAL COST	<u>18837.00</u>								

VII. DESCRIPTION OF BUILDING USE

A. RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

4. No. of dwelling units: Total Units Income-restricted

Gained, Sale _____
 Gained, Rental _____
 Lost, Sale _____
 Lost, Rental _____

B. NON-RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

C. MIXED USE -List secondary use(s): _____

D. Construct. Classification: Present _____ Proposed _____

III. PLAN REVIEW (optional)

DO YOU WANT:

1. Partial Releases

2. Prototype Processing

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

1. Elevators/Escalators/Lifts/ Dumbwaiters/Moving Walks

2. High Pressure Boilers

3. Pressure Vessels

4. Refrigeration Systems

5. Cross-Connections/Backflow Preventers

6. Hazardous Uses/Places of Assembly

7. Sprinklers/Standpipes

8. Smoke Control Systems in Open Wells

9. Underground Storage Tanks

10. Swimming Pools, Spas and Hot Tubs

11. LPGas Tanks

12. Fire Alarm

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

A. I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

B. I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(f)1.ix: I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

C. I further certify that I will perform or supervise the following work:
C.1. Building C.2. Fire Protection

I further certify that I will perform the following work:
C.3. Electrical C.4. Plumbing

D. I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Check if contractor.

Agent Name EarthTech Contracting Inc.

Address 155 Rt. 50

Greenfield, NJ 08230

Telephone () 609-390-2127

Signature _____

III. LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:17.

OFFICE DATE RECEIVED: _____

VIII. PRIOR APPROVALS CHECKLIST (office use only)	LOCAL APPROVAL		COUNTY APPROVAL		REGIONAL APPROVAL		STATE APPROVAL		COMMENTS
	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	
<input type="checkbox"/> Zoning Officer									
<input type="checkbox"/> Planning Board									
<input type="checkbox"/> Zoning Board									
<input type="checkbox"/> Sewer Authority									
<input type="checkbox"/> Water Authority									
<input type="checkbox"/> Police Department									
<input type="checkbox"/> Health Department									
<input type="checkbox"/> Soil Conservation									
<input type="checkbox"/> N.J. Department of Community Affairs									
<input type="checkbox"/> N.J. Department of Transportation									
<input type="checkbox"/> N.J. Department of Environmental Protection									
<input type="checkbox"/> Utility Dig No. 132981076									
<input type="checkbox"/>									
<input type="checkbox"/>									

IX. SUBCODES AND SPECIAL REGULATIONS APPLICABLE (office use only—optional)

Name of Code & Edition	Name of Code & Edition	
Building _____	Energy _____	Other _____
Electrical _____	Barrier Free _____	_____
Plumbing _____	Flood Hazard _____	_____
Fire Protection _____	As Built Elevation Cert. _____	_____
Mechanical _____	Other _____	_____

X. CERTIFICATES ISSUED (office use only)

	No.	DATE ISSUED	DATE EXPIRED	DATE REISSUED	DATE EXPIRED
<input type="checkbox"/> Temporary Certificate of Occupancy	No. _____	_____	_____	_____	_____
<input type="checkbox"/> Temporary Certificate of Compliance	No. _____	_____	_____	_____	_____
<input type="checkbox"/> Continued Certificate of Occupancy	No. _____	_____	_____	_____	_____
<input type="checkbox"/> Certificate of Compliance	No. _____	_____	_____	_____	_____
<input type="checkbox"/> Certificate of Occupancy	No. _____	_____	_____	_____	_____
<input type="checkbox"/> Certificate of Approval	No. _____	_____	_____	_____	_____
<input type="checkbox"/> Lead Abatement Clearance Certificate	No. _____	_____	_____	_____	_____

CONSTRUCTION OFFICE
4416 LANDIS AVENUE
SEA ISLE CITY, NJ 08243



**BUILDING
SUBCODE
TECHNICAL SECTION**



Date Received _____
Date Issued _____
Control # _____
Permit # _____

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 39.01 Lot 11.01
Work Site Location 207 40th St West

Owner in Fee JPL & L
Address 800 Cabin Hill Dr Greenburg, PA 15601

Tele. (1209) 340-4656

Contractor EarthTech Contracting Inc.

Address 155 Rt. 50
Greenfield, NJ 08230

Tele. () 609-390-2127 Fax (209) 3402442

Lic. No. or Bldrs. Reg. No. 12VH00029300

Federal Emp. No. 22-3486075

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Signature _____

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK
Demolition

JOB SUMMARY (Office Use Only)

PLAN REVIEW	Date	Initial	INSPECTIONS	Dates (Month/Day)			
				Failure	Failure	Approval	Initial
<input type="checkbox"/> No Plans Required	___	___	Type:	___	___	___	___
<input type="checkbox"/> All	___	___	Footing	___	___	___	___
<input type="checkbox"/> Footing	___	___	Foundation	___	___	___	___
<input type="checkbox"/> Foundation	___	___	Slab	___	___	___	___
<input type="checkbox"/> Frame	___	___	Frame	___	___	___	___
<input type="checkbox"/> Other	___	___	Barrier-Free	___	___	___	___
Joint Plan Review Required:			Insulation	___	___	___	___
<input type="checkbox"/> Elec. <input type="checkbox"/> Plumb. <input type="checkbox"/> Fire <input type="checkbox"/> Elevator			Finishes	___	___	___	___
SUBCODE APPROVAL			Energy	___	___	___	___
<input type="checkbox"/> CO <input type="checkbox"/> CCO <input type="checkbox"/> CA			Mechanical	___	___	___	___
Date: _____			TCO	___	___	___	___
Approved by: _____			Other	___	___	___	___
			Final	___	___	___	___
			Barrier-Free	___	___	___	___

TYPE OF WORK:

- New Building
- Addition
- Alteration
 - Roofing
 - Siding
 - Fence _____ Height (exceeds 6')
 - Sign _____ Sq. Ft.
 - Pool
 - Asbestos Abatement Subchapter 8
 - Lead Haz. Abatement NJAC 5:17
 - Other _____
- Demolition

FEE (Office Use Only)

\$ _____

B. BUILDING CHARACTERISTICS

Use Group Present _____ Proposed _____
Constr. Class Present _____ Proposed _____
No. of Stories _____
Height of Structure _____ Ft.
Area — Largest Floor _____ Sq. Ft.
New Bldg. Area/All Floors _____ Sq. Ft.
Volume of New Structure _____ Cu. Ft.

Est. Cost of Bldg. Work:

1. New Bldg. \$ _____
2. Alteration \$ _____
3. Total (1+ 2) \$ 18837.00

Administrative Surcharge \$ _____
Minimum Fee \$ _____
DCA Training Fee \$ _____
TOTAL FEE \$ _____

FOR DEMOLITION PERMITS

ASBESTOS ABATEMENT STATEMENT

ASBESTOS ABATEMENT: Before a structure can be demolished or removed, the Owner or Agent shall document that the requirements of USEPA 40 CFR 61 subpart M have been or shall be met. A permit to demolish or remove the structure shall not be issued until the Owner or Agent notifies the enforcing agency that all friable asbestos or asbestos-containing material that will become friable during demolition or removal has been or will be properly abated prior to demolition.

PLEASE COMPLETE THE FORM BELOW TO ACKNOWLEDGE RECEIPT OF THE ASBESTOS ABATEMENT STATEMENT & TO VERIFY REMOVAL OF ASBESTOS FROM THE PROPERTY. PLEASE RETURN THIS FORM [REDACTED] WITH THE DEMOLITION PERMIT APPLICATION. A DEMOLITION PERMIT WILL NOT BE ISSUED UNTIL THE FORM IS RECEIVED. THANK YOU

CONTRACTOR: EarthTech Contracting Inc.

155 Rt. 50

CONTRACTOR ADDRESS: Greenfield, NJ 08230

CONTRACTOR TELEPHONE#: 609-390-2127

CONTRACTOR LICENSE#: 13VH00039300

DEMOLITION SITE: 207 40th St West

TOWN: Sea Isle City

ASBESTOS REMOVAL CONTRACTOR: N/A

ADDRESS: _____

TELEPHONE NUMBER: _____

LICENSE#: _____

ASBESTOS OR ASBESTOS CONTAINING MATERIAL ON PROPERTY:

YES: _____ NO:

SIGNED _____ DATED: _____

South Jersey Gas Company
OPENING PERMIT NOTIFICATION

MUNICIPALITY : Sea Isle City DATE : 11/12/2013

LOCATION OF JOB : 207 W 40th St

CONTRACTOR'S NAME : _____ PHONE # : _____

CONTRACTOR'S ADDRESS : _____

TYPE OF WORK TO BE PERFORMED : _____

PROPOSED STARTING DATE : _____ APPLICANT'S SIGNATURE : _____

STATE LAW REQUIRES THAT SOUTH JERSEY GAS COMPANY BE NOTIFIED AT LEAST THREE FULL WORKING DAYS (EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS) PRIOR TO START OF WORK.

SOUTH JERSEY GAS USE ONLY :

LOCATION OF UNDERGROUND GAS FACILITIES TO BE INDICATED BY STAKES OR YELLOW PAINTING ON PAVEMENT WITH "G" MARKING.

NOTIFICATION CERTIFICATION

ACTION TAKEN :

- LOCATION MARKED
- LOCATION MARKED-CALL BEFORE DIGGING
- SERVICE ABANDONED
- GRADING OF GAS BOXES REQUIRED
- NO GAS LINES IN AREA

COMPANY LOCATION :

- 111 N FRANKLIN AVE
PLEASANTVILLE / 609-645-2690
- 142 S MAIN ST
GLASSBORO / 609-881-7000
- 1203 N HIGH ST
MILLVILLE / 609-327-1200
- 305 CENTER AVE
WATERFORD / 856-768-2900
- 1708 ROUTE 9 N
CAPE MAY / 609-465-2900

OTHER :

Gas retired at property

IN PERSON / MAILED / FAXED TO

EarthTech

ADDRESS / FAX #

609-390-2447

SOUTH JERSEY
GAS COMPANY
REPRESENTATIVE :

J Murphy / Gmf

DATE : 11/12/2013



A P&H Company

West Creek Operations
457 Main St.
West Creek, NJ 08092

October 29, 2013

RELEASE

This is to certify that Atlantic City Electric equipment has been removed from:

207 40th St Ws
Sea Isle City, NJ 08243
Acct# 3667409-9992

ATLANTIC CITY ELECTRIC

BY

A handwritten signature in cursive script that reads "G Michele Brown".

G. Michele Brown
District Service Representative



Date: 10-30-13

Attention: TONI MALTESE-EARTHTECH
CONTRACTING, INC.

Property address:
207 W. 40TH STREET SEA ISLE CITY NJ

To Whom It May Concern,

Verizon Communications has removed its
wires/drops and/or equipment from the
aforementioned location to be demolished or
renovated.

Thank You,
Michael DeTata
Local Manager
Verizon NJ



October 28, 2013

VIA FAX: EARTHTECH CONTRACTING, INC (609-390-2447)

EARTHTECH CONTRACTING, INC.

155 RT 50

GREENFIELD, NJ 08230

RE: Comcast Service Wire Disconnection and Removal – 207 40TH ST, SEA ISLE CITY, NJ 08243

Dear EARTHTECH,

I am in receipt of your request dated **10/25/13** regarding the disconnection of cable services from the location referenced above. This letter is to confirm that Comcast service has been disconnected and the service wire and existing cable facilities have been removed from the location.

Should you have any questions or require additional information regarding this matter, please contact me at 856-694-6006. Thank you.

Sincerely,

Kim Slater

102617

C SMITH PLUMBING
State License # 7186
138-56th St.
Sea Isle City, NJ 08243

ORDER INFO	customer's order no.	Ph 609-263-6861 610-966-0740	date	11-1-13
	name	ENVIRO-AIR TECHNOLOGIES, INC		
	address	1009 NATALIE LANE		
	city, state, zip	COOPERSTOWN PA 18036		
	sold by	cash <input type="checkbox"/> charge <input type="checkbox"/> check <input type="checkbox"/> shipping information	c.o.d. <input type="checkbox"/> on acct. <input type="checkbox"/> # _____	

quantity	description	price	amount
1	#205 - 40 th STREET		
2	#207 " " E+W		
3	#209 " "		
4			
5	pulled and capped		
6			
7	Water & Sewers		
8			
9	at curb		
10		Parts 18.00	
11		labor 810.00	
12		tax 56.70	
13			
14			
			9284.70
			9284.70

received by

total



keep this slip for reference

DC5808UV/10-10



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

04/03/13

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER BEAM Insurance, Inc. 122 N. York Road, Suite 5 Hatboro, PA 19040 L. Robert Begley, CPCU, CIC	215-682-9950	CONTACT NAME:	
	215-682-9948	PHONE (A/C, No, Ext):	FAX (A/C, No):
		E-MAIL ADDRESS:	
		INSURER(S) AFFORDING COVERAGE	NAIC #
		INSURER A : GREAT DIVIDE INSURANCE	25224
INSURED EARTHTECH CONTRACTING, INC. 155 ROUTE 50 OCEAN VIEW, NJ 08230	INSURER B :		
	INSURER C :		
	INSURER D :		
	INSURER E :		
	INSURER F :		


COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY		GLPO1548105-12	03/30/13	03/30/14	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR					MED EXP (Any one person) \$ 5,000
						PERSONAL & ADV INJURY \$ 1,000,000
						GENERAL AGGREGATE \$ 2,000,000
						PRODUCTS - COM/POP AGG \$ 2,000,000
A	AUTOMOBILE LIABILITY		BAP1548104-11	03/30/13	03/30/14	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO					BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS	<input type="checkbox"/> SCHEDULED AUTOS				BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS	<input checked="" type="checkbox"/> NON-OWNED AUTOS				PROPERTY DAMAGE (Per accident) \$
						\$
						\$
	UMBRELLA LIAB	<input type="checkbox"/> OCCUR				EACH OCCURRENCE \$
	EXCESS LIAB	<input type="checkbox"/> CLAIMS-MADE				AGGREGATE \$
	DED	RETENTION \$				\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY					WC STATUTORY LIMITS OTH-ER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	<input type="checkbox"/> Y/N	N/A			E.L. EACH ACCIDENT \$
	If yes, describe under DESCRIPTION OF OPERATIONS below					E.L. DISEASE - EA EMPLOYEE \$
						E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

EVIDENCE OF COVERAGE

CERTIFICATE HOLDER EARTHTECH CONTRACTING, INC. 155 ROUTE 50 OCEAN VIEW, NJ 08230	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

08/05/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER The Barclay Group 857 Cooper St Deptford, NJ 08096 (856) 848-8455	CONTACT NAME:	
	PHONE (A/C, No, Ext): (877) 234-4420	FAX (A/C, No): (877) 234-4421
E-MAIL ADDRESS:		
PRODUCER CUSTOMER ID #		
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURED EarthTech Contracting, Inc. dba EarthTech Contracting, Inc. 155 Route 50 Greenfield, NJ 08230-1299 CTL 1273 766465	INSURER A: Continental Indemnity Co. 28258	
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY						EACH OCCURRENCE \$
	COMMERCIAL GENERAL LIABILITY	<input type="checkbox"/>	<input type="checkbox"/>				DAMAGE TO RENTED PREMISES (Ea occurrence) \$
	CLAIMS MADE <input type="checkbox"/> OCCUR <input type="checkbox"/>						MED EXP (Any one person) \$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY \$
	POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC <input type="checkbox"/>						GENERAL AGGREGATE \$
							PRODUCTS - COMP/OP AGG \$
							\$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident) \$
	ANY AUTO <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				BODILY INJURY (Per person) \$
	ALL OWNED AUTOS <input type="checkbox"/>						BODILY INJURY (Per accident) \$
	SCHEDULED AUTOS <input type="checkbox"/>						PROPERTY DAMAGE (Per accident) \$
	HIRED AUTOS <input type="checkbox"/>						\$
	NON-OWNED AUTOS <input type="checkbox"/>						\$
							\$
	UMBRELLA LIAB <input type="checkbox"/>						EACH OCCURRENCE \$
	EXCESS LIAB <input type="checkbox"/>						AGGREGATE \$
	DEDUCTIBLE <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				\$
	RETENTION \$ <input type="checkbox"/>						\$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/ EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under SPECIAL PROVISIONS below	Y/N <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	46-816967-01-05	08/18/2013	08/18/2014	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE-EA EMPLOYEE \$ 1,000,000 E.L. DISEASE-POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach Acord 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

EarthTech Contracting, Inc.
155 Route 50
Greenfield, NJ 08230-1299

Attn: Project Manager

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

OP-0091510

NOT AN
ELECTRICIAN'S
OR PLUMBER'S
LICENSE

**State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs**

THIS IS TO CERTIFY THAT THE
Division of Consumer Affairs

HAS REGISTERED

Earthtech Contracting Inc
Robert Breunig
155 Route 50
Ocean View NJ 08230-1299

FOR PRACTICE IN NEW JERSEY AS A(N): Home Improvement Contractor

New Jersey Office of the Attorney General
Division of Consumer Affairs
THIS IS TO CERTIFY THAT THE
Division of Consumer Affairs
HAS REGISTERED
Earthtech Contracting Inc
Home Improvement Contractor

NOT AN ELECTRICIAN'S OR PLUMBER'S LICENSE
12/27/2012 TO 12/31/2013
VALID

SIGNATURE



ACTING DIRECTOR

13VH00039300

License/Registration/Certificate #

12/27/2012 TO 12/31/2013
VALID

13VH00039300

LICENSE/REGISTRATION/CERTIFICATION #



ACTING DIRECTOR

Signature of Licensee/Registrant/Certificate Holder

PLEASE DETACH HERE

IF YOUR LICENSE/REGISTRATION/
CERTIFICATE ID CARD IS LOST
PLEASE NOTIFY:

Division of Consumer Affairs
P.O. Box 46016
Newark, NJ 07101

PLEASE DETACH HERE

Earthtech Contracting Inc

EXPIRATION DATE 2013

YOUR LICENSE/REGISTRATION/CERTIFICATE NUMBER IS 13VH 00039300 . PLEASE USE IT IN ALL
CORRESPONDENCE TO THE DIVISION OF CONSUMER AFFAIRS USE THIS SECTION TO REPORT ADDRESS
CHANGES YOU ARE REQUIRED TO REPORT ANY ADDRESS CHANGES IMMEDIATELY TO THE ADDRESS NOTED
BELOW

Division of Consumer Affairs
P.O. Box 46016
Newark, NJ 07101

PRINT YOUR NEW ADDRESS OF RECORD BELOW
YOUR ADDRESS OF RECORD IS THE ADDRESS THAT WILL PRINT ON
YOUR LICENSE/REGISTRATION/CERTIFICATE AND IT MAY BE MADE
AVAILABLE TO THE PUBLIC.

HOME
BUSINESS

PRINT YOUR NEW MAILING ADDRESS BELOW
YOUR MAILING ADDRESS IS THE ADDRESS THAT WILL BE USED BY THE
DIVISION OF CONSUMER AFFAIRS TO SEND YOU ALL CORRESPONDENCE

HOME
BUSINESS

TELEPHONE
INCLUDE AREA CODE

TELEPHONE
INCLUDE AREA CODE

If the law governing your profession requires the current license/registration/certificate to be displayed, it should be within reasonable proximity of your original license/registration/certificate at your principal office or place of business.



CONSTRUCTION PERMIT APPLICATION

Applicant Completes: Sections I, II, III (optional), IV, VI, and VII

I. IDENTIFICATION

1. Proposed Work Site at: 209 40th St

2. Name of Owner in Fee: JCP & L
 Tel. (609 390-2656) e-mail _____
 Address PO Box 1911, Morristown, NJ 07962
street municipality zip code

3. Ownership in Fee: Public _____ Private _____

4. Principal Contractor: EarthTech Contracting Inc. Tel. (_____) _____
 Address 155 Rt. 50 e-mail _____
Greenfield, NJ 08230
609-390-2127
 License No. OR, if new home, Builder Reg. No. _____ Exp. Date _____
 Home Improvement Contractor Registration No. or Exemption Reason (if applicable): 1304023930
 Federal Emp. ID No. 223482075 FAX: (609 3902442)

5. Architect or Engineer _____ Contact _____
 Address _____ e-mail _____
 Tel. (_____) _____ FAX: (_____) _____

6. Responsible Person in Charge once Work has Begun Ruben Brenny
 Tel. (_____) _____ FAX: (609 3902442) _____

V. FEE SUMMARY (for office use only)

	Update	Update
1. Building	\$ _____	_____
2. Electrical	_____	_____
3. Plumbing	_____	_____
4. Fire Protection	_____	_____
5. Elevator Devices	_____	_____
6. Subtotal	_____	_____
7. Less 20% for State Plan Review	\$ _____	_____
8. Subtotal	\$ _____	_____
9. State Permit Surcharge Fee	_____	_____
10. Subtotal	\$ _____	_____
11. Cert. of Occupancy	_____	_____
12. Other	_____	_____
13. TOTAL	\$ _____	_____

VI. BUILDING/SITE CHARACTERISTICS

1. Number of Stories _____

2. Height of Structure _____ ft.

3. Area — Largest Floor _____ sq. ft.

4. New Building Area _____ sq. ft.

5. Volume of New Structure _____ cu. ft.

6. Max. Live Load _____

7. Max. Occupancy Load _____

8. If Industrialized Building: State Approved _____ HUD _____

9. Total Land Area Disturbed _____ sq. ft.

10. Flood Hazard Zone _____

11. Base Flood Elevation _____ ft.

12. Wetlands yes _____ no _____

(office use only)

IIa. PROPOSED WORK

- Minor Work New Building Addition Demolition
 Repair Alteration Renovation Reconstruction
 Asbestos Abat. -Subch. 8 Lead Hazard Abatement Radon Remediation Annual Permit

IIb. SUBCODES

- (Check all that apply)
- Building
 Electrical
 Plumbing
 Fire Protection
 Elevator

FOR OFFICE USE ONLY (Optional)

Est. Cost	Plans Rec'd by	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates		Re-viewer
						Approval	Rejection	

TOTAL COST 4803.00

VII. DESCRIPTION OF BUILDING USE

A. RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

4. No. of dwelling units: Total Units Income-restricted

Gained, Sale	_____
Gained, Rental	_____
Lost, Sale	_____
Lost, Rental	_____

B. NON-RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

C. MIXED USE -List secondary use(s): _____

D. Construct. Classification: Present _____ Proposed _____

III. PLAN REVIEW (optional)

- DO YOU WANT:
- Partial Releases
 Prototype Processing

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

- Elevators/Escalators/Lifts/ Dumbwaiters/Moving Walks Refrigeration Systems Smoke Control Systems in Open Wells Fire Alarm
 High Pressure Boilers Cross-Connections/Backflow Preventers Underground Storage Tanks
 Pressure Vessels Hazardous Uses/Places of Assembly Swimming Pools, Spas and Hot Tubs
 _____ Sprinklers/Standpipes LPGas Tanks

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

- A. I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

- B. I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(f)1.ix:

I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

- C. I further certify that I will perform or supervise the following work:

- C.1. Building C.2. Fire Protection

I further certify that I will perform the following work:

- C.3. Electrical C.4. Plumbing

- D. I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Check if contractor.

Agent Name EarthTech Contracting Inc.

Address 155 Rt. 50

Greenfield, NJ 08230

Telephone () 609-390-2127

Signature _____

III. LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:17.

OFFICE DATE RECEIVED: _____

VIII. PRIOR APPROVALS CHECKLIST (office use only)	LOCAL APPROVAL		COUNTY APPROVAL		REGIONAL APPROVAL		STATE APPROVAL		COMMENTS
	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	
<input type="checkbox"/> Zoning Officer									
<input type="checkbox"/> Planning Board									
<input type="checkbox"/> Zoning Board									
<input type="checkbox"/> Sewer Authority									
<input type="checkbox"/> Water Authority									
<input type="checkbox"/> Police Department									
<input type="checkbox"/> Health Department									
<input type="checkbox"/> Soil Conservation									
<input type="checkbox"/> N.J. Department of Community Affairs									
<input type="checkbox"/> N.J. Department of Transportation									
<input type="checkbox"/> N.J. Department of Environmental Protection									
<input type="checkbox"/> Utility Dig No. 132981026									
<input type="checkbox"/>									
<input type="checkbox"/>									

IX. SUBCODES AND SPECIAL REGULATIONS APPLICABLE (office use only—optional)

Name of Code & Edition		Name of Code & Edition		Other
Building _____	Energy _____	Barrier Free _____	Flood Hazard _____	As Built Elevation Cert. _____
Electrical _____	Other _____	Other _____	Other _____	Other _____
Plumbing _____				
Fire Protection _____				
Mechanical _____				

X. CERTIFICATES ISSUED (office use only)

	No.	DATE ISSUED	DATE EXPIRED	DATE REISSUED	DATE EXPIRED
<input type="checkbox"/> Temporary Certificate of Occupancy	_____	_____	_____	_____	_____
<input type="checkbox"/> Temporary Certificate of Compliance	_____	_____	_____	_____	_____
<input type="checkbox"/> Continued Certificate of Occupancy	_____	_____	_____	_____	_____
<input type="checkbox"/> Certificate of Compliance	_____	_____	_____	_____	_____
<input type="checkbox"/> Certificate of Occupancy	_____	_____	_____	_____	_____
<input type="checkbox"/> Certificate of Approval	_____	_____	_____	_____	_____
<input type="checkbox"/> Lead Abatement Clearance Certificate	_____	_____	_____	_____	_____

CONSTRUCTION OFFICE
4416 LANDIS AVENUE
SEA ISLE CITY, NJ 08243



**BUILDING
SUBCODE
TECHNICAL SECTION**



Date Received
Date Issued
Control #
Permit #

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 39-04 Lot 10-02
Work Site Location 209 40th ST

Owner in Fee JPE
Address PO Box 1911, Morristown, NJ 07962

Tele. (609) 390-4656

Contractor EarthTech Contracting Inc.
Address 150 Rt. 50

Greenfield, NJ 08230

Tele. () 609-390-2127 Fax (609) 390-2447

Lic. No. or Bkdrs. Reg. No. 12A00029300

Federal Emp. No. 22-3486075

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Signature _____

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK
Demolition

JOB SUMMARY (Office Use Only)

PLAN REVIEW	Date	Initial	INSPECTIONS	Dates (Month/Day)			
<input type="checkbox"/> No Plans Required	___	___	Type:	Failure	Failure	Approval	Initial
<input type="checkbox"/> All	___	___	Footing	___	___	___	___
<input type="checkbox"/> Footing	___	___	Foundation	___	___	___	___
<input type="checkbox"/> Foundation	___	___	Slab	___	___	___	___
<input type="checkbox"/> Frame	___	___	Frame	___	___	___	___
<input type="checkbox"/> Other	___	___	Barrier-Free	___	___	___	___
Joint Plan Review Required:			Insulation	___	___	___	___
<input type="checkbox"/> Elec. <input type="checkbox"/> Plumb. <input type="checkbox"/> Fire <input type="checkbox"/> Elevator			Finishes	___	___	___	___
SUBCODE APPROVAL			Energy	___	___	___	___
<input type="checkbox"/> CO <input type="checkbox"/> OCC <input type="checkbox"/> CA			Mechanical	___	___	___	___
Date: _____			TCO	___	___	___	___
Approved by: _____			Other	___	___	___	___
			Final	___	___	___	___
			Barrier-Free	___	___	___	___

TYPE OF WORK:

- New Building
- Addition
- Alteration
 - , Roofing
 - Siding
 - Fence _____ Height (exceeds 6')
 - Sign _____ Sq. Ft.
 - Pool
 - Asbestos Abatement Subchapter 8
 - Lead Haz. Abatement NJAC 5:17
 - Other _____
- Demolition

FEE (Office Use Only)

\$ _____

B. BUILDING CHARACTERISTICS

Use Group Present _____ Proposed _____
Constr. Class Present _____ Proposed _____
No. of Stories _____
Height of Structure _____ Ft.
Area — Largest Floor _____ Sq. Ft.
New Bldg. Area/All Floors _____ Sq. Ft.
Volume of New Structure _____ Cu. Ft.

Est. Cost of Bldg. Work:

1. New Bldg. \$ _____
2. Alteration \$ _____
3. Total (1+ 2) \$ 4803.00

Administrative Surcharge \$ _____
Minimum Fee \$ _____
DCA Training Fee \$ _____
TOTAL FEE \$ _____

FOR DEMOLITION PERMITS

ASBESTOS ABATEMENT STATEMENT

ASBESTOS ABATEMENT: Before a structure can be demolished or removed, the Owner or Agent shall document that the requirements of USEPA 40 CFR 61 subpart M have been or shall be met. A permit to demolish or remove the structure shall not be issued until the Owner or Agent notifies the enforcing agency that all friable asbestos or asbestos-containing material that will become friable during demolition or removal has been or will be properly abated prior to demolition.

PLEASE COMPLETE THE FORM BELOW TO ACKNOWLEDGE RECEIPT OF THE ASBESTOS ABATEMENT STATEMENT & TO VERIFY REMOVAL OF ASBESTOS FROM THE PROPERTY. PLEASE RETURN THIS FORM [REDACTED] WITH THE DEMOLITION PERMIT APPLICATION. A DEMOLITION PERMIT WILL NOT BE ISSUED UNTIL THE FORM IS RECEIVED. THANK YOU

CONTRACTOR: EarthTech Contracting Inc.
155 Rt. 50

CONTRACTOR ADDRESS: Greenfield, NJ 08230

CONTRACTOR TELEPHONE#: 609-390-2127

CONTRACTOR LICENSE#: 130440039300

DEMOLITION SITE: 209 40th St

TOWN: Sea Isle City

ASBESTOS REMOVAL CONTRACTOR: Shade Environmental LLC

ADDRESS: 623 Cutler Ave, Maple Shade, NJ 08052

TELEPHONE NUMBER: (856) 455-0099

LICENSE#: 00842

ASBESTOS OR ASBESTOS CONTAINING MATERIAL ON PROPERTY:

YES: NO:

SIGNED _____ DATED: _____

South Jersey Gas Company
OPENING PERMIT NOTIFICATION

MUNICIPALITY : Sea Isle City DATE : 11/12/2013

LOCATION OF JOB : 209 W 40th St

CONTRACTOR'S NAME : _____ PHONE # : _____

CONTRACTOR'S ADDRESS : _____

TYPE OF WORK TO BE PERFORMED : _____

PROPOSED STARTING DATE : _____ APPLICANT'S SIGNATURE : _____

STATE LAW REQUIRES THAT SOUTH JERSEY GAS COMPANY BE NOTIFIED AT LEAST THREE FULL WORKING DAYS (EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS) PRIOR TO START OF WORK.

SOUTH JERSEY GAS USE ONLY :

LOCATION OF UNDERGROUND GAS FACILITIES TO BE INDICATED BY STAKES OR YELLOW PAINTING ON PAVEMENT WITH "G" MARKING.

NOTIFICATION CERTIFICATION

ACTION TAKEN :

- LOCATION MARKED
- LOCATION MARKED-CALL BEFORE DIGGING
- SERVICE ABANDONED
- GRADING OF GAS BOXES REQUIRED
- NO GAS LINES IN AREA

OTHER :

Gas retired at property

COMPANY LOCATION :

- 111 N FRANKLIN AVE
PLEASANTVILLE / 609-645-2690
- 142 S MAIN ST
GLASSBORO / 609-881-7000
- 1203 N HIGH ST
MILLVILLE / 609-327-1200
- 305 CENTER AVE
WATERFORD / 856-768-2900
- 1708 ROUTE 9 N
CAPE MAY / 609-465-2900

IN PERSON / MAILED / FAXED TO

EarthTech

ADDRESS / FAX #

609-390-2447

SOUTH JERSEY
GAS COMPANY
REPRESENTATIVE :

J Murphy / Gmf

DATE : 11/12/2013



A P&H Company

West Creek Operations
457 Main St.
West Creek, NJ 08092

October 29, 2013

RELEASE

This is to certify that Atlantic City Electric equipment has been removed from:

209 40th St
Sea Isle City, NJ 08243
Acct# 0708695-99996

ATLANTIC CITY ELECTRIC

BY

A handwritten signature in black ink that reads 'G. Michele Brown'.

G. Michele Brown
District Service Representative



Date: 10-30-13

Attention: TONI MALTESE-EARTHTECH
CONTRACTING, INC.

Property address:
209 W. 40TH STREET SEA ISLE CITY NJ

To Whom It May Concern,

Verizon Communications has removed its
wires/drops and/or equipment from the
aforementioned location to be demolished or
renovated.

Thank You,
Michael DeTata
Local Manager
Verizon NJ



October 28, 2013

VIA FAX: EARTHTECH CONTRACTING, INC (609-390-2447)

**EARTHTECH CONTRACTING, INC.
155 RT 50
GREENFIELD, NJ 08230**

RE: Comcast Service Wire Disconnection and Removal – 209 40TH ST, SEA ISLE CITY, NJ 08243

Dear EARTHTECH,

I am in receipt of your request dated **10/25/13** regarding the disconnection of cable services from the location referenced above. This letter is to confirm that Comcast service has been disconnected and the service wire and existing cable facilities have been removed from the location.

Should you have any questions or require additional information regarding this matter, please contact me at 856-694-6006. Thank you.

Sincerely,

Kim Slater

102-17

C SMITH PLUMBING
State License # 7186
138-56th St.
Sea Isle City, NJ 08243

ORDER INFO

customer's order no. 610-966-0740 phone 609-263-6861 date 11-1-13

name ENVIRO-AIR TECHNOLOGIES, INC

address 1009 NATALIE LANE

city, state, zip COOPERSBURG PA 18036

sold by COOPERSBURG PA 18036

cash charge check shipping information
 c.o.d. on acct. # _____

quantity	description	price	amount
1	#205 - 40 th STREET		
2	#207 " " E+W		
3	#209 " "		
4			
5	pulled and capped		
6			
7	Water & Sewers		
8			
9	at curb		
10		Parts 18.00	
11		labor 810.00	
12		tax 56.70	
13			
14			
			9084.70

received by: [Signature]

keep this slip for reference

DCS808UV/10-10



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

04/03/13

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER BEAM Insurance, Inc. 122 N. York Road, Suite 5 Hatboro, PA 19040 L. Robert Begley, CPCU, CIC	215-682-9950 215-682-9948	CONTACT NAME: PHONE (A/C, No, Ext): E-MAIL ADDRESS:	FAX (A/C, No):
INSURED EARTHTECH CONTRACTING, INC. 155 ROUTE 50 OCEAN VIEW, NJ 08230		INSURER(S) AFFORDING COVERAGE INSURER A : GREAT DIVIDE INSURANCE INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :	
		NAIC # 25224	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADOL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC		GLPO1548105-12	03/30/13	03/30/14	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		BAP1548104-11	03/30/13	03/30/14	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/> N/A				WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

EVIDENCE OF COVERAGE

CERTIFICATE HOLDER

EARTH1

EARTHTECH CONTRACTING, INC.
155 ROUTE 50
OCEAN VIEW, NJ 08230

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
08/05/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER The Barclay Group 857 Cooper St Deptford, NJ 08096 (856) 848-8455	CONTACT NAME: PHONE (A/C, No, Ext): (877) 234-4420 FAX (A/C, No): (877) 234-4421	
	E-MAIL ADDRESS:	
	PRODUCER CUSTOMER ID #	
	INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED EarthTech Contracting, Inc. dba EarthTech Contracting, Inc. 155 Route 50 Greenfield, NJ 08230-1299 CTL 1273 766465	INSURER A: Continental Indemnity Co. 28258	
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$ \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N (Mandatory in NH) If yes, describe under SPECIAL PROVISIONS below	N/A		46-816967-01-05	08/18/2013	08/18/2014	<input checked="" type="checkbox"/> WWC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE-EA EMPLOYEE \$ 1,000,000 E.L. DISEASE-POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach Acord 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER**CANCELLATION**
EarthTech Contracting, Inc.
 155 Route 50
 Greenfield, NJ 08230-1299

 Attn: Project Manager

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

OP-0091510

NOT AN
ELECTRICIAN'S
OR PLUMBER'S
LICENSE

State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Division of Consumer Affairs

HAS REGISTERED

Earthtech Contracting Inc
Robert Breunig
155 Route 50
Ocean View NJ 08230-1299

FOR PRACTICE IN NEW JERSEY AS A(N): Home Improvement Contractor

New Jersey Office of the Attorney General
Division of Consumer Affairs
THIS IS TO CERTIFY THAT THE
Division of Consumer Affairs
HAS REGISTERED
Earthtech Contracting Inc
Home Improvement Contractor

NOT AN ELECTRICIAN'S OR PLUMBER'S LICENSE

12/27/2012 TO 12/31/2013
VALID

SIGNATURE

ACTING DIRECTOR

13VH00039300

License/Registration/Certificate #

12/27/2012 TO 12/31/2013
VALID

13VH00039300
LICENSE/REGISTRATION/CERTIFICATION #

ACTING DIRECTOR

Signature of Licensee/Registrant/Certificate Holder

PLEASE DETACH HERE

IF YOUR LICENSE/REGISTRATION/
CERTIFICATE ID CARD IS LOST
PLEASE NOTIFY:

Division of Consumer Affairs
P.O. Box 46016
Newark, NJ 07101

PLEASE DETACH HERE

Earthtech Contracting Inc

EXPIRATION DATE 2013

YOUR LICENSE/REGISTRATION/CERTIFICATE NUMBER IS 13VH 00039300 . PLEASE USE IT IN ALL
CORRESPONDENCE TO THE DIVISION OF CONSUMER AFFAIRS USE THIS SECTION TO REPORT ADDRESS
CHANGES YOU ARE REQUIRED TO REPORT ANY ADDRESS CHANGES IMMEDIATELY TO THE ADDRESS NOTED
BELOW

Division of Consumer Affairs
P.O. Box 46016
Newark, NJ 07101

PRINT YOUR NEW ADDRESS OF RECORD BELOW

YOUR ADDRESS OF RECORD IS THE ADDRESS THAT WILL PRINT ON
YOUR LICENSE/REGISTRATION/CERTIFICATE AND IT MAY BE MADE
AVAILABLE TO THE PUBLIC

HOME
BUSINESS

PRINT YOUR NEW MAILING ADDRESS BELOW

YOUR MAILING ADDRESS IS THE ADDRESS THAT WILL BE USED BY THE
DIVISION OF CONSUMER AFFAIRS TO SEND YOU ALL CORRESPONDENCE

HOME
BUSINESS

TELEPHONE
INCLUDE AREA CODE

TELEPHONE
INCLUDE AREA CODE

If the law governing your profession requires the current license/registration/certificate to be displayed, it should be
within reasonable proximity of your original license/registration/certificate at your principal office or place of
business.



Date Issued 4/18/13
Control # C-14382
Permit # 13-911

CONSTRUCTION PERMIT NOTICE

Block 39.04 Lot 10.02 Qualification Code _____

Work Site Location: 209 - 40th Street

AUTHORIZED FOR: EARTHTECH

- | | |
|---|--|
| <input type="checkbox"/> BUILDING | <input type="checkbox"/> ELECTRICAL |
| <input type="checkbox"/> PLUMBING | <input type="checkbox"/> FIRE PROTECTION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input checked="" type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> OTHER _____ | |

Description of Work: Demo of Single Family Dwelling

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.

SEA ISLE CITY CONST'R
4501 PARK ROAD
SEA ISLE CITY, NJ 08243

Date Issued 11/18/13
Control # C-14382
Permit # 13-911

UCC NEW JERSEY
CONSTRUCTION
PERMIT

IDENTIFICATION Block 39.04 Lot 10.02 Qual _____

Work Site Location 209 40TH STREET

Contractor EARTHTECH - ROBERT BREUNIG

Owner in Fee J C P & L

Address 155 ROUTE 50

Address P. O. BOX 1911

GREENFIELD, NJ 08230-

MORRISTOWN, NJ 07962-

Telephone (609) 390-2127

Telephone (609) 390-4656

Lic. No. or Bldrs. Reg. No. 13VH00039300

Federal Emp. No. 22-3486075

Is hereby granted permission to perform the following work:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> BUILDING | <input type="checkbox"/> PLUMBING | <input type="checkbox"/> LEAD HAZARD ABATEMENT |
| <input type="checkbox"/> ELECTRICAL | <input type="checkbox"/> FIRE PROTECTION | <input checked="" type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input type="checkbox"/> ASBESTOS ABATEMENT | <input type="checkbox"/> OTHER _____ |
- (Subchapter 8 only)

DESCRIPTION OF WORK:

DEMOLITION OF SINGLE FAMILY DWELLING

PAYMENTS (Office Use Only)	
Building	<u>500</u>
Electrical	<u>0</u>
Plumbing	<u>0</u>
Fire Protection	<u>0</u>
Elevator Devices	<u>0</u>
Other	_____
DCA State Permit Fee	<u>0</u>
Cert. of Occupancy	<u>0</u>
Other	_____
Total	<u>500</u>
Check No. <u>5391</u>	
Cash	_____
Collected By <u>GF</u>	

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$ 4,893

Construction Official

11/15/13
Date

SEA ISLE CITY CONST'R
 4501 PARK ROAD
 SEA ISLE CITY, NJ 08243

UCC NEW JERSEY
 BUILDING
 SUBCODE
 TECHNICAL SECTION

Date Received 11/13/13
 Date Issued 11/18/13
 Control # C-14382
 Permit # 13-911

A. IDENTIFICATION-APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000

Block 39.04 Lot 10.02 Qual _____
 Work Site Location 209 40TH STREET

Owner in Fee J C P & L
 Address P. O. BOX 1911
MORRISTOWN, NJ 07962-

Tele. (609) 390-4656
 Contractor EARTHTECH - ROBERT BREUNIG

Address 155 ROUTE 50
GREENFIELD, NJ 08230-

Tele. (609) 390-2127 Fax (609) 390-2447

Lic. No. or Bldrs. Reg. No. 13VH00039300

Federal Emp. No. 22-3486075

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner
 of record and am authorized to make this application.

Signature _____

D. TECHNICAL SITE DATA
 DESCRIPTION OF WORK

DEMOLITION OF SINGLE FAMILY DWELLING

JOB SUMMARY (Office Use Only)		INSPECTIONS		Dates (Month/Day)	
PLAN REVIEW	Date Initial	Type:	Failure	Failure	Approval Initial
<input type="checkbox"/> No Plans Req	<u>11-13-13</u>	Footing	_____	_____	_____
<input type="checkbox"/> All	_____	Footing Bond	_____	_____	_____
<input type="checkbox"/> Foot/Found	_____	Foundation	_____	_____	_____
<input type="checkbox"/> Struct/Frame	_____	Slab	_____	_____	_____
<input type="checkbox"/> Exterior	_____	Frame	_____	_____	_____
<input type="checkbox"/> Interior	_____	Truss/Brac	_____	_____	_____
Joint Plan Review Required:		BarrierFree	_____	_____	_____
<input type="checkbox"/> Elect	<input type="checkbox"/> Plumb	<input type="checkbox"/> Fire	Insulation	_____	_____
SUBCODE APPR - PERM	<input type="checkbox"/> Elev	Finishes-Bas	_____	_____	_____
Date: _____		Finishes-Fin	_____	_____	_____
Approved By: _____		Energy	_____	_____	_____
SUBCODE APPR - CERTIF		Mechanical	_____	_____	_____
<input type="checkbox"/> CO	<input type="checkbox"/> CCO	<input type="checkbox"/> CA	TCO	_____	_____
Date: _____		Other	_____	_____	_____
Approved By: _____		Final	_____	_____	_____
		BarrierFree	_____	_____	_____

TYPE OF WORK	FEE (Office Use Only)
<input type="checkbox"/> New Building	\$ _____ 0
<input type="checkbox"/> Addition	_____ 0
<input type="checkbox"/> Rehabilitation	_____ 0
<input type="checkbox"/> Roofing	_____ 0
<input type="checkbox"/> Siding	_____ 0
<input type="checkbox"/> Fence _____ 0 Height (exceeds 6')	_____ 0
<input type="checkbox"/> Sign _____ 0 Sq. Ft.	_____ 0
<input type="checkbox"/> Pool - Above Ground	_____ 0
<input type="checkbox"/> Pool - In Ground	_____ 0
<input type="checkbox"/> Asbestos Abatement Subchapter 8	_____ 0
<input type="checkbox"/> Lead Haz. Abatement NJAC 5:17	_____ 0
<input type="checkbox"/> Other _____	_____ 0
Other _____	_____ 0
Other _____	_____ 0
<input checked="" type="checkbox"/> Demolition	_____ 500

B. BUILDING CHARACTERISTICS

Use Group	Present R-5	Proposed R-5	Est. Cost of Bldg. Work:
Constr. Class Present	_____	Proposed _____	1. New Bldg. \$ _____ 0
No. of Stories	_____ 0		2. Alteration \$ _____ 4,893
Height of Structure	_____ 0 Ft.		3. Total (1+2) \$ _____ 4,893
Area Largest Floor	_____ 0 Sq. Ft.		Industrialized Building:
New Bldg. Area/All Floors	_____ 0 Sq. Ft.		<input type="checkbox"/> State Approved
Volume of New Structure	_____ 0 Cu. Ft.		<input type="checkbox"/> HUD
Total Land Area Disturbed	_____ 0 Sq. Ft.		

Administrative Surcharge	\$ _____ 0
Paid <input type="checkbox"/> Check # _____	Minimum Fee \$ _____ 0
Collected by: _____	TOTAL FEE \$ _____ 500
State Permit Surcharge Fee	\$ _____ 0



Date Issued 11/18/13
Control # C-14383
Permit # 13-910

CONSTRUCTION PERMIT NOTICE

Block 39.04 Lot 11.01 Qualification Code _____

Work Site Location: 207 - 40th Street
East / West Duplex

AUTHORIZED FOR: EARTHTECH

BUILDING

ELECTRICAL

PLUMBING

FIRE PROTECTION

ELEVATOR DEVICES

DEMOLITION

OTHER _____

Description of Work: Demo of 2 Family Dwelling

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.

SEA ISLE CITY CONST'R
4501 PARK ROAD
SEA ISLE CITY, NJ 08243

Date Issued 11/18/13
Control # C-14383
Permit # 13-910

UCC NEW JERSEY
CONSTRUCTION
PERMIT

IDENTIFICATION Block 39.04 Lot 11.01 Qual _____

Work Site Location 207 40TH ST - E & W

Contractor EARTHTECH - ROBERT BREUNIG

Owner in Fee J C P & L

Address 155 ROUTE 50

Address 800 CABIN HILL DRIVE

GREENFIELD, NJ 08230-

GREENSBURG, PA 15601-

Telephone (609) 390-2127

Telephone (609) 390-4656

Lic. No. or Bldrs. Reg. No. 13VH00039300

Federal Emp. No. 22-3486075

Is hereby granted permission to perform the following work:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> BUILDING | <input type="checkbox"/> PLUMBING | <input type="checkbox"/> LEAD HAZARD ABATEMENT |
| <input type="checkbox"/> ELECTRICAL | <input type="checkbox"/> FIRE PROTECTION | <input checked="" type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input type="checkbox"/> ASBESTOS ABATEMENT | <input type="checkbox"/> OTHER _____ |
- (Subchapter 8 only)

DESCRIPTION OF WORK:

DEMOLITION OF TWO FAMILY DUPLEX DWELLING

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$ 18,837

Construction Official

11/15/13
Date

PAYMENTS (Office Use Only)

Building	<u>500</u>
Electrical	<u>0</u>
Plumbing	<u>0</u>
Fire Protection	<u>0</u>
Elevator Devices	<u>0</u>
Other	_____
DCA State Permit Fee	<u>0</u>
Cert. of Occupancy	<u>0</u>
Other	_____
Total	<u>500</u>
Check No. <u>5391</u>	
Cash	_____
Collected By <u>GF</u>	

SEA ISLE CITY CONST'R
 4501 PARK ROAD
 SEA ISLE CITY, NJ 08243

UCC NEW JERSEY
 BUILDING
 SUBCODE
 TECHNICAL SECTION

Date Received 11/13/13
 Date Issued 11/18/13
 Control # C-14383
 Permit # 13-910

A. IDENTIFICATION-APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000

Block 39.04 Lot 11.01 Qual _____
 Work Site Location 207 40TH ST - E & W

Owner in Fee J C P & L
 Address 800 CABIN HILL DRIVE
GREENSBURG, PA 15601-

Tele. (609 390-4656)
 Contractor EARTHTECH - ROBERT BREUNIG
 Address 155 ROUTE 50
GREENFIELD, NJ 08230-

Tele. (609 390-2127) Fax (609 390-2447)
 Lic. No. or Bldrs. Reg. No. 13VH00039300
 Federal Emp. No. 22-3486075

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Signature _____

D. TECHNICAL SITE DATA
 DESCRIPTION OF WORK

DEMOLITION OF TWO FAMILY DUPLEX DWELLING

JOB SUMMARY (Office Use Only)		INSPECTIONS		Dates (Month/Day)		
PLAN REVIEW	Date Initial	Type:	Failure	Failure	Approval	Initial
<input type="checkbox"/> No Plans Req	<u>11-15-13</u>	Footing	_____	_____	_____	_____
<input type="checkbox"/> All	_____	Footing Bond	_____	_____	_____	_____
<input type="checkbox"/> Foot/Found	_____	Foundation	_____	_____	_____	_____
<input type="checkbox"/> Struct/Frame	_____	Slab	_____	_____	_____	_____
<input type="checkbox"/> Exterior	_____	Frame	_____	_____	_____	_____
<input type="checkbox"/> Interior	_____	Truss/Brac	_____	_____	_____	_____
Joint Plan Review Required:		BarrierFree	_____	_____	_____	_____
<input type="checkbox"/> Elect <input type="checkbox"/> Plumb <input type="checkbox"/> Fire		Insulation	_____	_____	_____	_____
SUBCODE APPR - PERM <input type="checkbox"/> Elev		Finishes-Bas	_____	_____	_____	_____
Date: _____		Finishes-Fin	_____	_____	_____	_____
Approved By: _____		Energy	_____	_____	_____	_____
SUBCODE APPR - CERTIF		Mechanical	_____	_____	_____	_____
<input type="checkbox"/> CO <input type="checkbox"/> CCO <input type="checkbox"/> CA		TCO	_____	_____	_____	_____
Date: _____		Other	_____	_____	_____	_____
Approved By: _____		Final	_____	_____	_____	_____
		BarrierFree	_____	_____	_____	_____

TYPE OF WORK	FEE (Office Use Only)
<input type="checkbox"/> New Building	\$ _____ 0
<input type="checkbox"/> Addition	_____ 0
<input type="checkbox"/> Rehabilitation	_____ 0
<input type="checkbox"/> Roofing	_____ 0
<input type="checkbox"/> Siding	_____ 0
<input type="checkbox"/> Fence <u>0</u> Height (exceeds 6')	_____ 0
<input type="checkbox"/> Sign <u>0</u> Sq. Ft.	_____ 0
<input type="checkbox"/> Pool - Above Ground	_____ 0
<input type="checkbox"/> Pool - In Ground	_____ 0
<input type="checkbox"/> Asbestos Abatement Subchapter 8	_____ 0
<input type="checkbox"/> Lead Haz. Abatement NJAC 5:17	_____ 0
<input type="checkbox"/> Other _____	_____ 0
Other _____	_____ 0
Other _____	_____ 0
<input checked="" type="checkbox"/> Demolition	_____ 500

B. BUILDING CHARACTERISTICS

Use Group Present R-5 Proposed R-5
 Constr. Class Present _____ Proposed _____
 No. of Stories 0
 Height of Structure 0 Ft.
 Area Largest Floor 0 Sq. Ft.
 New Bldg. Area/All Floors 0 Sq. Ft.
 Volume of New Structure 0 Cu. Ft.
 Total Land Area Disturbed 0 Sq. Ft.

Est. Cost of Bldg. Work:
 1. New Bldg. \$ 0
 2. Alteration \$ 18,837
 3. Total (1+2) \$ 18,837
 Industrialized Building:
 State Approved
 HUD

Administrative Surcharge \$ _____ 0
 Paid Check # _____ Minimum Fee \$ _____ 0
 Collected by: _____ TOTAL FEE \$ _____ 500
 State Permit Surcharge Fee \$ _____ 0



Date Issued 11/18/13
Control # C-14384
Permit # 13-909

CONSTRUCTION PERMIT NOTICE

Block 39.04 Lot 11.02 Qualification Code _____

Work Site Location: 205 - 40th Street

AUTHORIZED FOR: EARTHTECH

- | | |
|---|--|
| <input type="checkbox"/> BUILDING | <input type="checkbox"/> ELECTRICAL |
| <input type="checkbox"/> PLUMBING | <input type="checkbox"/> FIRE PROTECTION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input checked="" type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> OTHER _____ | |

Description of Work: Demo of Single Family Dwelling

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.

SEA ISLE CITY CONST'R
4501 PARK ROAD
SEA ISLE CITY, NJ 08243

Date Issued 11/18/13
Control # C-14384
Permit # 13-909

UCC NEW JERSEY
CONSTRUCTION
PERMIT

IDENTIFICATION Block 39.04 Lot 11.02 Qual _____
Work Site Location 205 40TH ST Contractor EARTHTECH - ROBERT BREUNIG
Address 155 ROUTE 50
Owner in Fee J C P & L Address GREENFIELD, NJ 08230-
Address 800 CABIN HILL DRIVE Telephone (609) 390-2127
Address GREENSBURG, PA 15601- Lic. No. or Bldrs. Reg. No. 13VH00039300
Telephone (609) 390-4656 Federal Emp. No. 22-3486075

Is hereby granted permission to perform the following work:

BUILDING PLUMBING LEAD HAZARD ABATEMENT
 ELECTRICAL FIRE PROTECTION DEMOLITION
 ELEVATOR DEVICES ASBESTOS ABATEMENT OTHER _____
(Subchapter 8 only)

DESCRIPTION OF WORK:

DEMOLITION OF SINGLE FAMILY DWELLING

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$ 6,877

Construction Official

Date

11/15/13

PAYMENTS (Office Use Only)
Building 500
Electrical 0
Plumbing 0
Fire Protection 0
Elevator Devices 0
Other _____
DCA State Permit Fee 0
Cert. of Occupancy 0
Other _____
Total 500
Check No. 5391
Cash _____
Collected By GF

SEA ISLE CITY CONST'R
 4501 PARK ROAD
 SEA ISLE CITY, NJ 08243

UCC NEW JERSEY
 BUILDING
 SUBCODE
 TECHNICAL SECTION

Date Received 11/13/13
 Date Issued 11/18/13
 Control # C-14384
 Permit # 13-909

A. IDENTIFICATION-APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000

Block 39.04 Lot 11.02 Qual _____
 Work Site Location 205 40TH ST

Owner in Fee J C P & L
 Address 800 CABIN HILL DRIVE
GREENSBURG, PA 15601-

Tele. (609) 390-4656

Contractor EARTHTECH - ROBERT BREUNIG

Address 155 ROUTE 50
GREENFIELD, NJ 08230-

Tele. (609) 390-2127 Fax (609) 390-2447

Lic. No. or Bldrs. Reg. No. 13VH00039300

Federal Emp. No. 22-3486075

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Signature _____

D. TECHNICAL SITE DATA
 DESCRIPTION OF WORK

DEMOLITION OF SINGLE FAMILY DWELLING

JOB SUMMARY (Office Use Only)		INSPECTIONS		Dates (Month/Day)			
PLAN REVIEW	Date Initial	Type:	Failure	Failure	Approval	Initial	
<input type="checkbox"/> No Plans Req	<u>11-13-13</u>	Footing	_____	_____	_____	_____	
<input type="checkbox"/> All	_____	Footing Bond	_____	_____	_____	_____	
<input type="checkbox"/> Foot/Found	_____	Foundation	_____	_____	_____	_____	
<input type="checkbox"/> Struct/Frame	_____	Slab	_____	_____	_____	_____	
<input type="checkbox"/> Exterior	_____	Frame	_____	_____	_____	_____	
<input type="checkbox"/> Interior	_____	Truss/Brac	_____	_____	_____	_____	
Joint Plan Review Required:		BarrierFree	_____	_____	_____	_____	
<input type="checkbox"/> Elect	<input type="checkbox"/> Plumb	<input type="checkbox"/> Fire	Insulation	_____	_____	_____	
SUBCODE APPR - PERM <input type="checkbox"/> Elev		Finishes-Bas	_____	_____	_____	_____	
Date: _____		Finishes-Fin	_____	_____	_____	_____	
Approved By: _____		Energy	_____	_____	_____	_____	
SUBCODE APPR - CERTIF		Mechanical	_____	_____	_____	_____	
<input type="checkbox"/> CO	<input type="checkbox"/> CCO	<input type="checkbox"/> CA	TCO	_____	_____	_____	
Date: _____		Other	_____	_____	_____	_____	
Approved By: _____		Final	_____	_____	_____	_____	
		BarrierFree	_____	_____	_____	_____	

TYPE OF WORK	FEE (Office Use Only)
<input type="checkbox"/> New Building	\$ _____ 0
<input type="checkbox"/> Addition	_____ 0
<input type="checkbox"/> Rehabilitation	_____ 0
<input type="checkbox"/> Roofing	_____ 0
<input type="checkbox"/> Siding	_____ 0
<input type="checkbox"/> Fence _____ 0 Height (exceeds 6')	_____ 0
<input type="checkbox"/> Sign _____ 0 Sq. Ft.	_____ 0
<input type="checkbox"/> Pool - Above Ground	_____ 0
<input type="checkbox"/> Pool - In Ground	_____ 0
<input type="checkbox"/> Asbestos Abatement Subchapter 8	_____ 0
<input type="checkbox"/> Lead Haz. Abatement NJAC 5:17	_____ 0
<input type="checkbox"/> Other _____	_____ 0
Other _____	_____ 0
Other _____	_____ 0
<input checked="" type="checkbox"/> Demolition	_____ 500

B. BUILDING CHARACTERISTICS

Use Group	Present R-5	Proposed R-5	Est. Cost of Bldg. Work:
Constr. Class Present	_____	Proposed _____	1. New Bldg. \$ _____ 0
No. of Stories	_____ 0		2. Alteration \$ _____ 6,877
Height of Structure	_____ 0 Ft.		3. Total (1+2) \$ _____ 6,877
Area Largest Floor	_____ 0 Sq. Ft.		Industrialized Building:
New Bldg. Area/All Floors	_____ 0 Sq. Ft.		<input type="checkbox"/> State Approved
Volume of New Structure	_____ 0 Cu. Ft.		<input type="checkbox"/> HUD
Total Land Area Disturbed	_____ 0 Sq. Ft.		

Administrative Surcharge	\$ _____ 0
Paid <input type="checkbox"/> Check # _____	Minimum Fee \$ _____ 0
Collected by: _____	TOTAL FEE \$ _____ 500
State Permit Surcharge Fee	\$ _____ 0



Date Issued 4/18/13
Control # C-14382
Permit # 13-911

CONSTRUCTION PERMIT NOTICE

Block 39.04 Lot 10.02 Qualification Code _____

Work Site Location: 209 - 40th Street

AUTHORIZED FOR: EARTHTECH

- | | |
|---|--|
| <input type="checkbox"/> BUILDING | <input type="checkbox"/> ELECTRICAL |
| <input type="checkbox"/> PLUMBING | <input type="checkbox"/> FIRE PROTECTION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input checked="" type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> OTHER _____ | |

Description of Work: Demo of Single Family Dwelling

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.

SEA ISLE CITY CONST'R
4501 PARK ROAD
SEA ISLE CITY, NJ 08243

Date Issued 11/18/13
Control # C-14382
Permit # 13-911

UCC NEW JERSEY
CONSTRUCTION
PERMIT

IDENTIFICATION Block 39.04 Lot 10.02 Qual _____

Work Site Location 209 40TH STREET

Contractor EARTHTECH - ROBERT BREUNIG

Owner in Fee J C P & L

Address 155 ROUTE 50

Address P. O. BOX 1911

GREENFIELD, NJ 08230-

MORRISTOWN, NJ 07962-

Telephone (609) 390-2127

Telephone (609) 390-4656

Lic. No. or Bldrs. Reg. No. 13VH00039300

Federal Emp. No. 22-3486075

Is hereby granted permission to perform the following work:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> BUILDING | <input type="checkbox"/> PLUMBING | <input type="checkbox"/> LEAD HAZARD ABATEMENT |
| <input type="checkbox"/> ELECTRICAL | <input type="checkbox"/> FIRE PROTECTION | <input checked="" type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input type="checkbox"/> ASBESTOS ABATEMENT | <input type="checkbox"/> OTHER _____ |
- (Subchapter 8 only)

PAYMENTS (Office Use Only)

Building	<u>500</u>
Electrical	<u>0</u>
Plumbing	<u>0</u>
Fire Protection	<u>0</u>
Elevator Devices	<u>0</u>
Other	_____
DCA State Permit Fee	<u>0</u>
Cert. of Occupancy	<u>0</u>
Other	_____
Total	<u>500</u>
Check No. <u>5391</u>	
Cash	_____
Collected By <u>GF</u>	

DESCRIPTION OF WORK:

DEMOLITION OF SINGLE FAMILY DWELLING

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$ 4,893

Construction Official

Date

SEA ISLE CITY CONST'R
 4501 PARK ROAD
 SEA ISLE CITY, NJ 08243

UCC NEW JERSEY
 BUILDING
 SUBCODE
 TECHNICAL SECTION

Date Received 11/13/13
 Date Issued 11/18/13
 Control # C-14382
 Permit # 13-911

A. IDENTIFICATION-APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000

Block 39.04 Lot 10.02 Qual _____
 Work Site Location 209 40TH STREET

Owner in Fee J C P & L
 Address P. O. BOX 1911
MORRISTOWN, NJ 07962-

Tele. (609) 390-4656
 Contractor EARTHTECH - ROBERT BREUNIG

Address 155 ROUTE 50
GREENFIELD, NJ 08230-

Tele. (609) 390-2127 Fax (609) 390-2447

Lic. No. or Bldrs. Reg. No. 13VH00039300

Federal Emp. No. 22-3486075

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner
 of record and am authorized to make this application.

Signature _____

D. TECHNICAL SITE DATA
 DESCRIPTION OF WORK

DEMOLITION OF SINGLE FAMILY DWELLING

JOB SUMMARY (Office Use Only)		INSPECTIONS		Dates (Month/Day)	
PLAN REVIEW	Date Initial	Type:	Failure	Failure	Approval Initial
<input type="checkbox"/> No Plans Req	<u>11-13-13</u>	Footing	_____	_____	_____
<input type="checkbox"/> All	_____	Footing Bond	_____	_____	_____
<input type="checkbox"/> Foot/Found	_____	Foundation	_____	_____	_____
<input type="checkbox"/> Struct/Frame	_____	Slab	_____	_____	_____
<input type="checkbox"/> Exterior	_____	Frame	_____	_____	_____
<input type="checkbox"/> Interior	_____	Truss/Brac	_____	_____	_____
Joint Plan Review Required:		BarrierFree	_____	_____	_____
<input type="checkbox"/> Elect	<input type="checkbox"/> Plumb	<input type="checkbox"/> Fire	Insulation	_____	_____
SUBCODE APPR - PERM	<input type="checkbox"/> Elev	Finishes-Bas	_____	_____	_____
Date: _____		Finishes-Fin	_____	_____	_____
Approved By: _____		Energy	_____	_____	_____
SUBCODE APPR - CERTIF		Mechanical	_____	_____	_____
<input type="checkbox"/> CO	<input type="checkbox"/> CCO	<input type="checkbox"/> CA	TCO	_____	_____
Date: _____		Other	_____	_____	_____
Approved By: _____		Final	_____	_____	_____
		BarrierFree	_____	_____	_____

TYPE OF WORK	FEE (Office Use Only)
<input type="checkbox"/> New Building	\$ _____ 0
<input type="checkbox"/> Addition	_____ 0
<input type="checkbox"/> Rehabilitation	_____ 0
<input type="checkbox"/> Roofing	_____ 0
<input type="checkbox"/> Siding	_____ 0
<input type="checkbox"/> Fence _____ 0 Height (exceeds 6')	_____ 0
<input type="checkbox"/> Sign _____ 0 Sq. Ft.	_____ 0
<input type="checkbox"/> Pool - Above Ground	_____ 0
<input type="checkbox"/> Pool - In Ground	_____ 0
<input type="checkbox"/> Asbestos Abatement Subchapter 8	_____ 0
<input type="checkbox"/> Lead Haz. Abatement NJAC 5:17	_____ 0
<input type="checkbox"/> Other _____	_____ 0
Other _____	_____ 0
Other _____	_____ 0
<input checked="" type="checkbox"/> Demolition	_____ 500

B. BUILDING CHARACTERISTICS

Use Group	Present R-5	Proposed R-5	Est. Cost of Bldg. Work:
Constr. Class Present	_____	Proposed _____	1. New Bldg. \$ _____ 0
No. of Stories	_____ 0		2. Alteration \$ _____ 4,893
Height of Structure	_____ 0	Ft.	3. Total (1+2) \$ _____ 4,893
Area Largest Floor	_____ 0	Sq. Ft.	Industrialized Building:
New Bldg. Area/All Floors	_____ 0	Sq. Ft.	<input type="checkbox"/> State Approved
Volume of New Structure	_____ 0	Cu. Ft.	<input type="checkbox"/> HUD
Total Land Area Disturbed	_____ 0	Sq. Ft.	

Administrative Surcharge	\$ _____ 0
Paid <input type="checkbox"/> Check # _____	Minimum Fee \$ _____ 0
Collected by: _____	TOTAL FEE \$ _____ 500
State Permit Surcharge Fee	\$ _____ 0



Date Issued 11/18/13
Control # C-14383
Permit # 13-910

CONSTRUCTION PERMIT NOTICE

Block 39.04 Lot 11.01 Qualification Code _____

Work Site Location: 207 - 40th Street
East / West Duplex

AUTHORIZED FOR: EARTHTECH

- | | |
|---|--|
| <input type="checkbox"/> BUILDING | <input type="checkbox"/> ELECTRICAL |
| <input type="checkbox"/> PLUMBING | <input type="checkbox"/> FIRE PROTECTION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input checked="" type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> OTHER _____ | |

Description of Work: Demo of 2 Family Dwelling

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.

SEA ISLE CITY CONST'R
4501 PARK ROAD
SEA ISLE CITY, NJ 08243

Date Issued 11/18/13
Control # C-14383
Permit # 13-910

UCC NEW JERSEY
CONSTRUCTION
PERMIT

IDENTIFICATION Block 39.04 Lot 11.01 Qual _____

Work Site Location 207 40TH ST - E & W

Contractor EARTHTECH - ROBERT BREUNIG

Owner in Fee J C P & L

Address 155 ROUTE 50

Address 800 CABIN HILL DRIVE

GREENFIELD, NJ 08230-

GREENSBURG, PA 15601-

Telephone (609) 390-2127

Telephone (609) 390-4656

Lic. No. or Bldrs. Reg. No. 13VH00039300

Federal Emp. No. 22-3486075

Is hereby granted permission to perform the following work:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> BUILDING | <input type="checkbox"/> PLUMBING | <input type="checkbox"/> LEAD HAZARD ABATEMENT |
| <input type="checkbox"/> ELECTRICAL | <input type="checkbox"/> FIRE PROTECTION | <input checked="" type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input type="checkbox"/> ASBESTOS ABATEMENT | <input type="checkbox"/> OTHER _____ |
- (Subchapter 8 only)

DESCRIPTION OF WORK:

DEMOLITION OF TWO FAMILY DUPLEX DWELLING

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$ 18,837

Construction Official

11/15/13
Date

PAYMENTS (Office Use Only)

Building	<u>500</u>
Electrical	<u>0</u>
Plumbing	<u>0</u>
Fire Protection	<u>0</u>
Elevator Devices	<u>0</u>
Other	_____
DCA State Permit Fee	<u>0</u>
Cert. of Occupancy	<u>0</u>
Other	_____
Total	<u>500</u>
Check No. <u>5391</u>	
Cash	_____
Collected By <u>GF</u>	

SEA ISLE CITY CONST'R
 4501 PARK ROAD
 SEA ISLE CITY, NJ 08243

UCC NEW JERSEY
 BUILDING
 SUBCODE
 TECHNICAL SECTION

Date Received 11/13/13
 Date Issued 11/18/13
 Control # C-14383
 Permit # 13-910

A. IDENTIFICATION-APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000

Block 39.04 Lot 11.01 Qual _____
 Work Site Location 207 40TH ST - E & W

Owner in Fee J C P & L
 Address 800 CABIN HILL DRIVE
GREENSBURG, PA 15601-

Tele. (609 390-4656)
 Contractor EARTHTECH - ROBERT BREUNIG

Address 155 ROUTE 50
GREENFIELD, NJ 08230-

Tele. (609 390-2127) Fax (609 390-2447)

Lic. No. or Bldrs. Reg. No. 13VH00039300

Federal Emp. No. 22-3486075

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner
 of record and am authorized to make this application.

Signature _____

D. TECHNICAL SITE DATA
 DESCRIPTION OF WORK

DEMOLITION OF TWO FAMILY DUPLEX DWELLING

JOB SUMMARY (Office Use Only)		INSPECTIONS		Dates (Month/Day)	
PLAN REVIEW	Date Initial	Type:	Failure	Failure	Approval Initial
<input type="checkbox"/> No Plans Req	<u>11-15-13</u>	Footing	_____	_____	_____
<input type="checkbox"/> All	_____	Footing Bond	_____	_____	_____
<input type="checkbox"/> Foot/Found	_____	Foundation	_____	_____	_____
<input type="checkbox"/> Struct/Frame	_____	Slab	_____	_____	_____
<input type="checkbox"/> Exterior	_____	Frame	_____	_____	_____
<input type="checkbox"/> Interior	_____	Truss/Brac	_____	_____	_____
Joint Plan Review Required:		BarrierFree	_____	_____	_____
<input type="checkbox"/> Elect	<input type="checkbox"/> Plumb	<input type="checkbox"/> Fire	Insulation	_____	_____
SUBCODE APPR - PERM	<input type="checkbox"/> Elev	Finishes-Bas	Finishes-Fin	_____	_____
Date: _____		Energy	_____	_____	_____
Approved By: _____		Mechanical	_____	_____	_____
SUBCODE APPR - CERTIF		TCO	_____	_____	_____
<input type="checkbox"/> CO	<input type="checkbox"/> CCO	<input type="checkbox"/> CA	Other	_____	_____
Date: _____		Final	_____	_____	_____
Approved By: _____		BarrierFree	_____	_____	_____

TYPE OF WORK	FEE (Office Use Only)
<input type="checkbox"/> New Building	\$ _____ 0
<input type="checkbox"/> Addition	_____ 0
<input type="checkbox"/> Rehabilitation	_____ 0
<input type="checkbox"/> Roofing	_____ 0
<input type="checkbox"/> Siding	_____ 0
<input type="checkbox"/> Fence <u>0</u> Height (exceeds 6')	_____ 0
<input type="checkbox"/> Sign <u>0</u> Sq. Ft.	_____ 0
<input type="checkbox"/> Pool - Above Ground	_____ 0
<input type="checkbox"/> Pool - In Ground	_____ 0
<input type="checkbox"/> Asbestos Abatement Subchapter 8	_____ 0
<input type="checkbox"/> Lead Haz. Abatement NJAC 5:17	_____ 0
<input type="checkbox"/> Other _____	_____ 0
Other _____	_____ 0
Other _____	_____ 0
<input checked="" type="checkbox"/> Demolition	_____ 500

B. BUILDING CHARACTERISTICS

Use Group Present R-5 Proposed R-5
 Constr. Class Present _____ Proposed _____
 No. of Stories 0
 Height of Structure 0 Ft.
 Area Largest Floor 0 Sq. Ft.
 New Bldg. Area/All Floors 0 Sq. Ft.
 Volume of New Structure 0 Cu. Ft.
 Total Land Area Disturbed 0 Sq. Ft.

Est. Cost of Bldg. Work:
 1. New Bldg. \$ 0
 2. Alteration \$ 18,837
 3. Total (1+2) \$ 18,837

Industrialized Building:
 State Approved
 HUD

Administrative Surcharge \$ _____ 0
 Paid Check # _____ Minimum Fee \$ _____ 0
 Collected by: _____ TOTAL FEE \$ _____ 500
 State Permit Surcharge Fee \$ _____ 0



Date Issued 11/18/13
Control # C-14384
Permit # 13-909

CONSTRUCTION PERMIT NOTICE

Block 39.04 Lot 11.02 Qualification Code _____

Work Site Location: 205 - 40th Street

AUTHORIZED FOR: EARTHTECH

- | | |
|---|--|
| <input type="checkbox"/> BUILDING | <input type="checkbox"/> ELECTRICAL |
| <input type="checkbox"/> PLUMBING | <input type="checkbox"/> FIRE PROTECTION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input checked="" type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> OTHER _____ | |

Description of Work: Demo of Single Family Dwelling

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.

SEA ISLE CITY CONST'R
4501 PARK ROAD
SEA ISLE CITY, NJ 08243

Date Issued 11/18/13
Control # C-14384
Permit # 13-909

UCC NEW JERSEY
CONSTRUCTION
PERMIT

IDENTIFICATION Block 39.04 Lot 11.02 Qual _____

Work Site Location 205 40TH ST

Contractor EARTHTECH - ROBERT BREUNIG

Owner in Fee J C P & L

Address 155 ROUTE 50

Address 800 CABIN HILL DRIVE

GREENFIELD, NJ 08230-

GREENSBURG, PA 15601-

Telephone (609) 390-2127

Telephone (609) 390-4656

Lic. No. or Bldrs. Reg. No. 13VH00039300

Federal Emp. No. 22-3486075

Is hereby granted permission to perform the following work:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> BUILDING | <input type="checkbox"/> PLUMBING | <input type="checkbox"/> LEAD HAZARD ABATEMENT |
| <input type="checkbox"/> ELECTRICAL | <input type="checkbox"/> FIRE PROTECTION | <input checked="" type="checkbox"/> DEMOLITION |
| <input type="checkbox"/> ELEVATOR DEVICES | <input type="checkbox"/> ASBESTOS ABATEMENT | <input type="checkbox"/> OTHER _____ |
- (Subchapter 8 only)

DESCRIPTION OF WORK:

DEMOLITION OF SINGLE FAMILY DWELLING

PAYMENTS (Office Use Only)

Building	<u>500</u>
Electrical	<u>0</u>
Plumbing	<u>0</u>
Fire Protection	<u>0</u>
Elevator Devices	<u>0</u>
Other	_____
DCA State Permit Fee	<u>0</u>
Cert. of Occupancy	<u>0</u>
Other	_____
Total	<u>500</u>
Check No. <u>5391</u>	_____
Cash	_____
Collected By <u>GF</u>	_____

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$ 6,877

Construction Official

Date

11/15/13

SEA ISLE CITY CONST'R
 4501 PARK ROAD
 SEA ISLE CITY, NJ 08243

UCC NEW JERSEY
 BUILDING
 SUBCODE
 TECHNICAL SECTION

Date Received 11/13/13
 Date Issued 11/18/13
 Control # C-14384
 Permit # 13-909

A. IDENTIFICATION-APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000

Block 39.04 Lot 11.02 Qual _____
 Work Site Location 205 40TH ST

Owner in Fee J C P & L
 Address 800 CABIN HILL DRIVE
GREENSBURG, PA 15601-

Tele. (609) 390-4656

Contractor EARTHTECH - ROBERT BREUNIG

Address 155 ROUTE 50
GREENFIELD, NJ 08230-

Tele. (609) 390-2127 Fax (609) 390-2447

Lic. No. or Bldrs. Reg. No. 13VH00039300

Federal Emp. No. 22-3486075

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Signature _____

D. TECHNICAL SITE DATA
 DESCRIPTION OF WORK

DEMOLITION OF SINGLE FAMILY DWELLING

JOB SUMMARY (Office Use Only)		INSPECTIONS		Dates (Month/Day)			
PLAN REVIEW	Date Initial	Type:	Failure	Failure	Approval	Initial	
<input type="checkbox"/> No Plans Req	<u>11-13-13</u>	Footing	_____	_____	_____	_____	
<input type="checkbox"/> All	_____	Footing Bond	_____	_____	_____	_____	
<input type="checkbox"/> Foot/Found	_____	Foundation	_____	_____	_____	_____	
<input type="checkbox"/> Struct/Frame	_____	Slab	_____	_____	_____	_____	
<input type="checkbox"/> Exterior	_____	Frame	_____	_____	_____	_____	
<input type="checkbox"/> Interior	_____	Truss/Brac	_____	_____	_____	_____	
Joint Plan Review Required:		BarrierFree	_____	_____	_____	_____	
<input type="checkbox"/> Elect	<input type="checkbox"/> Plumb	<input type="checkbox"/> Fire	Insulation	_____	_____	_____	
SUBCODE APPR - PERM <input type="checkbox"/> Elev		Finishes-Bas	_____	_____	_____	_____	
Date: _____		Finishes-Fin	_____	_____	_____	_____	
Approved By: _____		Energy	_____	_____	_____	_____	
SUBCODE APPR - CERTIF		Mechanical	_____	_____	_____	_____	
<input type="checkbox"/> CO	<input type="checkbox"/> CCO	<input type="checkbox"/> CA	TCO	_____	_____	_____	
Date: _____		Other	_____	_____	_____	_____	
Approved By: _____		Final	_____	_____	_____	_____	
		BarrierFree	_____	_____	_____	_____	

TYPE OF WORK	FEE (Office Use Only)
<input type="checkbox"/> New Building	\$ _____ 0
<input type="checkbox"/> Addition	_____ 0
<input type="checkbox"/> Rehabilitation	_____ 0
<input type="checkbox"/> Roofing	_____ 0
<input type="checkbox"/> Siding	_____ 0
<input type="checkbox"/> Fence _____ 0 Height (exceeds 6')	_____ 0
<input type="checkbox"/> Sign _____ 0 Sq. Ft.	_____ 0
<input type="checkbox"/> Pool - Above Ground	_____ 0
<input type="checkbox"/> Pool - In Ground	_____ 0
<input type="checkbox"/> Asbestos Abatement Subchapter 8	_____ 0
<input type="checkbox"/> Lead Haz. Abatement NJAC 5:17	_____ 0
<input type="checkbox"/> Other _____	_____ 0
Other _____	_____ 0
Other _____	_____ 0
<input checked="" type="checkbox"/> Demolition	_____ 500

B. BUILDING CHARACTERISTICS

Use Group	Present R-5	Proposed R-5	Est. Cost of Bldg. Work:
Constr. Class Present	_____	Proposed _____	1. New Bldg. \$ _____ 0
No. of Stories	_____ 0		2. Alteration \$ _____ 6,877
Height of Structure	_____ 0 Ft.		3. Total (1+2) \$ _____ 6,877
Area Largest Floor	_____ 0 Sq. Ft.		Industrialized Building:
New Bldg. Area/All Floors	_____ 0 Sq. Ft.		<input type="checkbox"/> State Approved
Volume of New Structure	_____ 0 Cu. Ft.		<input type="checkbox"/> HUD
Total Land Area Disturbed	_____ 0 Sq. Ft.		

Administrative Surcharge	\$ _____ 0
Paid <input type="checkbox"/> Check # _____	Minimum Fee \$ _____ 0
Collected by: _____	TOTAL FEE \$ _____ 500
State Permit Surcharge Fee	\$ _____ 0

ENVIRO-AIR RECORD OF SUBMITTAL

Submitted to: GEI Consultants

Date submitted: 11/18/2013

Project Name: Sea Isle City Former Manufactured Gas Plant
2013-2014 Remedial Action

Project Number: 13-0027

Submittal ID#: 150(A)

Specification Section #: 013000

Specification Para. # or table: 1.10A

Information submitted as:

Drawing _____

Sample _____

Guarantee _____

Manufacturer's data _____

Certificate _____

Test report x _____

Other _____

Description of submittal: Report on the final clearance air monitoring for the asbestos abatement
conducted at 205 & 209 West 40th St. Sea Isle

The following submittal is: Approved _____ Returned for revision _____
Approved as noted _____ Not approved _____

Notes: Report Conducted by TTI Environmental, Inc
November 4-15, 2013

Date approved: _____

Approved by: _____

Approval Signature: _____

Copies to: Ken Seborowski Brian Mannino
Chris Dailey
John Darmohray



A Service Disabled Veteran
Owned Small Business

TTI Environmental Incorporated
1253 N. Church Street
Moorestown, New Jersey 08057
Tel: 856-840-8800
Fax: 856-840-8815

PROJECT REPORT

on the

FINAL CLEARANCE AIR MONITORING

for the

ASBESTOS ABATEMENT

conducted on

November 4 – 15, 2013

at the

205 & 209 West 40th Street
Sea Isle, New Jersey

for

Enviro-Air Technologies, Inc.
P.O. Box 172
Coopersburg, PA 18036

TTI Project No. 13-1214

November 18, 2013



TABLE OF CONTENTS

	<u>Page</u>
I. SUMMARY AND CONCLUSIONS	3
II. INTRODUCTION	4

List of Appendices

- Appendix A: Permits and Notifications
- Appendix B: Air Sampling Data and Analytical Results
- Appendix C: Daily Inspection Reports



Inspections, On-Site Supervision
and Air Monitoring
205 & 209 West 40th Street
Sea Isle, New Jersey
TTI Project No. 13-1214
November 18, 2013
Page 3 of 4

I. SUMMARY AND CONCLUSIONS


The asbestos abatement project was conducted by Shade Environmental, LLC (License No. 00842) on November 4 – 15, 2013 and included the removal of the following asbestos-containing materials:

205 West 40 th Street, Sea Isle, New Jersey	209 West 40 th Street, Sea Isle, New Jersey
· 1,140 SF Transite Siding	· 382.5 SF Linoleum, Floor Tile & Mastic
· 545 SF Caulk	· 50 SF Linoleum, Floor Tile & Mastic
· 724 SF Floor Tile	· 50 SF Floor Tile/Linoleum
· 4,475 SF Sheetrock Compound	· 1,400 SF Transite Type Siding

The TTI Industrial Hygiene Technician (IHT) conducted final inspections of the work areas. At the time of the final inspections, the work areas were found to be in compliance with the project scope of work.

Post abatement air sampling results analyzed by aggressive Transmission Electron Microscopy (TEM) were below the EPA 40 CFR Part 763 Final Rule Asbestos Hazard Emergency Response Act (AHERA) final clearance limit of <70 structures per millimeter squared (s/mm^2) in accordance with the NJAC 5:23-8.21(f) for TEM clearance. The interior air sampling was performed after the abatement activities were completed within each property.

All post abatement air sampling results analyzed by Phase Contrast Microscopy (PCM) were below the New Jersey Department of Community Affairs (NJDCA) established limit of 0.01 fibers per cubic centimeter (f/cc) in accordance with the NJAC 5:23-8.21(g). The exterior air sampling was performed after the exterior transite siding abatement activities were completed and were collected within 100 feet of the property.



Michael Stocku
Project Manager



Inspections, On-Site Supervision
and Air Monitoring
205 & 209 West 40th Street
Sea Isle, New Jersey
TTI Project No. 13-1214
November 18, 2013
Page 4 of 4

II. INTRODUCTION

The asbestos abatement project at 205 & 209 West 40th Street, Sea Isle, New Jersey required the services of an Environmental Consultant to provide an IHT to provide post abatement air clearance sampling for the project on behalf of the owner.

At the request of Mr. Shawn O'Donnell of Enviro-Air Technologies, Inc., TTI was retained as the ASCM for the above referenced project to conduct the following:

- Conduct post abatement air clearance sampling during the project in accordance with local, state and federal requirements. Analysis was conducted per National Institute of Occupational Safety and Health (NIOSH) Method 7400 using PCM techniques and/or AHERA method 40 CFR 763 final rule by TEM. The PCM results were to be compared with the New Jersey Department of Community Affairs (NJDC) post-abatement limit of 0.01 f/cc and the TEM results were to be compared with the AHERA clearance limit of <math><70 \text{ s/mm}^2</math>.

Airborne asbestos sampling data, PCM and TEM analysis results and daily inspection reports are included in the appendices to document adherence to the project requirements during the abatement project.



APPENDIX A:

Permits and Notifications



**State of New Jersey
NOTIFICATION OF ASBESTOS ABATEMENT
(Pursuant to NJAC 8:60 and 12:120)**

Date of Notification (1) October 18, 2013		Name of Building Owner/Operator (2) Enviro-Air Technologies, Inc. Check # <u>0139</u>							
Agencies Notified <input checked="" type="checkbox"/> EPA <input checked="" type="checkbox"/> DEP <input checked="" type="checkbox"/> DOL <input checked="" type="checkbox"/> DOH <input checked="" type="checkbox"/> DCA	Type Notification <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Amended Amendment # _____ <input type="checkbox"/> Emergency (including justification) <input type="checkbox"/> Cancellation	Street Address PO Box 172							
		City, State, Zip Code Coopersburg, PA 18036							
		Name of Contact Shawn O'Donnell	Telephone Number 610-966-0740						
FACILITY INFORMATION									
Name of Facility Where Abatement is Taking Place (3) Residence		Type of Facility (4) <input type="checkbox"/> School (K-12) <input type="checkbox"/> Subchapter B (Other than K-12) <input checked="" type="checkbox"/> Other (i.e. private & commercial buildings, homes, etc.)							
Street Address 209 West 40th Street		Square Feet 5,000	# of Floors 2						
City (5) Sea Isle		Bldg. Age 100							
County (6) Cape May	County Code (7) <i>(STATE USE ONLY)</i> _____	Current Use (Prior if being demolished) Residence							
Name of Monitoring Firm Hired by Building Owner (8) TTI Environmental		ASCM No. _____	Name of Abatement Contractor (9) Shade Environmental, LLC						
Street Address 1253 N. Church Street		Street Address 623 Cutler Ave.							
City, State, Zip Code Moorestown, NJ 08057		City, State, Zip Code Maple Shade, NJ 08052							
Project Manager for Monitoring Firm _____		Telephone No. 856-840-8800	Telephone No. 856-755-0099						
Start Date (10) November 4, 2013		Scheduled Completion Date (11) November 15, 2013	Name of OSHA Monitor EMSL						
Occupancy Status During Abatement (Check Only One) <input checked="" type="checkbox"/> Facility Closed/Vacated During Entire Period of Abatement <input type="checkbox"/> Abatement Performed Outside of Normal Facility Hours <input type="checkbox"/> Other - Describe: _____		Street Address 107 Haddon Ave							
		City, State, Zip Code Westmont, New Jersey 08108							
Scope of Work (Check All That Apply)									
<input checked="" type="checkbox"/> ≥3 sf or ≥3 lf <input checked="" type="checkbox"/> ≥160 sf or ≥260 lf		<input checked="" type="checkbox"/> Renovation <input type="checkbox"/> Demolition	<input checked="" type="checkbox"/> Full Containment with Negative Pressure <input type="checkbox"/> Mini-Enclosure <input type="checkbox"/> Glovebag Procedure <input type="checkbox"/> Non-Exempted (*) and Non-Friable Procedure						
Location of Asbestos-Containing Material (ACM) <u>TO BE ABATED</u> In Facility (13)	Is Location Normally Used Solely by Maintenance/Custodial Staff? (12)			Description of Asbestos Containing Material (ACM) (i.e. thermal systems insulation, surfacing, VAT, or other miscellaneous)	Amount (Specify SF or LF)	Abatement Type			
	Yes	No	N/A			Removal	Repair	Encapsulate	Enclosure
1st Floor Living Room/Kitchen		X		Linoleum, Floor Tile and Mastic	382.5 SF	XXX			
Hallway/Storage		X		Linoleum, Floor Tile and Mastic	50 SF	XXX			
1st Floor Laundry/Restroom		X		Floor Tile/Linoleum	50 SF	XXX			
Exterior		X		Transito Type Siding	1,400 SF	XXX			
Name of Registered Waste Hauler Freehold		NJDEP Waste Hauler ID No. 22253	Cubic Yards of Waste 80	Name of Registered Landfill Grows Landfill					
City, State Mount Holly, New Jersey 08060			Disposal Date 11/15/2013	City, State Tullytown, PA.					
Completed by Christina Lynch		Title Operations Manager	Signature 			Date 10/18/2013			



**State of New Jersey
NOTIFICATION OF ASBESTOS ABATEMENT
(Pursuant to NJAC 8:60 and 12:120)**

Date of Notification (1) October 18, 2013		Name of Building Owner/Operator (2) Enviro-Air Technologies, Inc. Check # 0138								
Agencies Notified <input checked="" type="checkbox"/> EPA <input checked="" type="checkbox"/> DEP <input checked="" type="checkbox"/> DOL <input checked="" type="checkbox"/> DOH <input type="checkbox"/> DCA	Type Notification <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Amended Amendment # _____ <input type="checkbox"/> Emergency (including justification) <input type="checkbox"/> Cancellation	Street Address PO Box 172								
		City, State, Zip Code Coopersburg, PA 18036								
		Name of Contact Shawn O'Donnell	Telephone Number 610-966-0740							
FACILITY INFORMATION										
Name of Facility Where Abatement is Taking Place (3) Residence		Type of Facility (4) <input type="checkbox"/> School (K-12) <input type="checkbox"/> Subchapter 8 (Other than K-12) <input checked="" type="checkbox"/> Other (i.e. private & commercial buildings, homes, etc.)								
Street Address 205 West 40th Street		Square Feet 5,000	# of Floors 2							
City (5) Sea Isle		Bldg. Age 100								
County (6) Cape May	County Code (7) (STATE USE ONLY) _____	Current Use (Prior if being demolished) Residence								
Name of Monitoring Firm Hired by Building Owner (8) TTI Environmental		ASCM No. _____	Name of Abatement Contractor (9) Shade Environmental, LLC							
Street Address 1253 N. Church Street		Street Address 623 Cutler Ave.								
City, State, Zip Code Moorestown, NJ 08057		City, State, Zip Code Maple Shade, NJ 08052								
Project Manager for Monitoring Firm _____		Telephone No. 856-840-8800	Telephone No. 856-755-0099							
		License No. 00842								
Start Date (10) November 4, 2013	Scheduled Completion Date (11) November 15, 2013	Name of OSHA Monitor EMSL								
Occupancy Status During Abatement (Check Only One) <input checked="" type="checkbox"/> Facility Closed/Vacated During Entire Period of Abatement <input type="checkbox"/> Abatement Performed Outside of Normal Facility Hours <input type="checkbox"/> Other - Describe: _____		Street Address 107 Haddon Ave								
		City, State, Zip Code Westmont, New Jersey 08108								
Scope of Work (Check All That Apply)										
<input checked="" type="checkbox"/> ≥3 sf or ≥3 lf <input checked="" type="checkbox"/> ≥160 sf or ≥260 lf		<input checked="" type="checkbox"/> Renovation <input type="checkbox"/> Demolition								
		<input checked="" type="checkbox"/> Full Containment with Negative Pressure <input type="checkbox"/> Mini-Enclosure <input type="checkbox"/> Glovebag Procedure <input type="checkbox"/> Non-Exempted (*) and Non-Friable Procedure								
Location of Asbestos-Containing Material (ACM) TO BE ABATED In Facility (13)	Is Location Normally Used Solely by Maintenance/Custodial Staff? (12)			Description of Asbestos Containing Material (ACM) (i.e. thermal systems insulation, surfacing, VAT, or other miscellaneous)	Amount (Specify SF or LF)	Abatement Type				
	Yes	No	N/A			Removal	Repair	Encapsulate	Enclosure	
Exterior		X		Transite Siding	1,140 SF	xxx				
Exterior		X		Caulk	545 SF	xxx				
Throughout		X		Floor Tile	724 SF	xxx				
Throughout		X		Sheetrock Compound	4,475	xxx				
Name of Registered Waste Hauler Freehold		NJDEP Waste Hauler ID No. 22253	Cubic Yards of Waste 80	Name of Registered Landfill Grows Landfill						
City, State Mount Holly, New Jersey 08060			Disposal Date 11/15/2013	City, State Tullytown, PA.						
Completed by Christina Lynch		Title Operations Manager	Signature 	Date 10/18/2013						



APPENDIX B:

Air Sampling Data and Analytical Results

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077
 Phone/Fax (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> cinnaslab@EMSL.com

EMSL Order: 041330917
 CustomerID: TTIE54
 CustomerPO: 014235
 ProjectID:

Attn: **Michael Stocku** Phone: (856) 840-8800
TTI Environmental Inc. Fax: (856) 840-8815
1253 North Church Street Received: 11/14/13 1:51 PM
Moorestown, NJ 08057 Analysis Date: 11/14/2013
 Collected: 11/14/2013

Project: 13-1214/Enviro Air Tech/305-309 40th St, Seaside

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM)
Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

Sample	Location	Volume (Liters)	Area Analyzed (mm ²)	Non Asb	Asbestos Type(s)	# Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥ 0.5μ < 5μ	≥ 5μ		(S/mm ²)	(S/cc)
01	305 West 40th St, Sea Isle NJ	1250.00	0.0660	0	None Detected			0.0047	<15.00	<0.0047
041330917-0001										
02	305 West 40th St, Sea Isle NJ	1250.00	0.0660	0	None Detected			0.0047	<15.00	<0.0047
041330917-0002										
03	305 West 40th St, Sea Isle NJ	1220.00	0.0660	0	None Detected			0.0048	<15.00	<0.0048
041330917-0003										
04	305 West 40th St, Sea Isle NJ	1220.00	0.0660	0	None Detected			0.0048	<15.00	<0.0048
041330917-0004										
05	305 West 40th St, Sea Isle NJ	1220.00	0.0660	0	None Detected			0.0048	<15.00	<0.0048
041330917-0005										
06	305 West 40th St, Sea Isle NJ	1250.00	0.0660	0	None Detected			0.0047	<15.00	<0.0047
041330917-0006										
07	305 West 40th St, Sea Isle NJ	1250.00	0.0660	0	None Detected			0.0047	<15.00	<0.0047
041330917-0007										
08	305 West 40th St, Sea Isle NJ	1230.00	0.0660	0	None Detected			0.0047	<15.00	<0.0047
041330917-0008										
09	305 West 40th St, Sea Isle NJ	1230.00	0.0660	0	None Detected			0.0047	<15.00	<0.0047
041330917-0009										

Analyst(s)
 Chris Little (10)

Stephen Siegel
 Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMSL is not responsible for data reported in structures/cc, which is dependent on volume collected by non-laboratory personnel. Samples received in good condition unless otherwise noted. The test results meet the requirements of NELAC unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.
 Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from 11/14/2013 18:10:37



EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> cinnaslab@EMSL.com

EMSL Order: 041330917
CustomerID: TTIE54
CustomerPO: 014235
ProjectID:

Attn: **Michael Stocku**
TTI Environmental Inc.
1253 North Church Street
Moorestown, NJ 08057

Phone: (856) 840-8800
Fax: (856) 840-8815
Received: 11/14/13 1:51 PM
Analysis Date: 11/14/2013
Collected: 11/14/2013

Project: 13-1214/Enviro Air Tech/305-309 40th St, Seaside

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM)
Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

Sample	Location	Volume (Liters)	Area Analyzed (mm ²)	Non Asb	Asbestos Type(s)	# Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥ 0.5μ < 5μ	≥5μ		(S/mm ²)	(S/cc)
10	305 West 40th St, Sea Isle NJ	1220.00	0.0660	0	None Detected			0.0048	<15.00	<0.0048

041330917-0010

Analyst(s)

Chris Little (10)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMSL is not responsible for data reported in structures/cc, which is dependent on volume collected by non-laboratory personnel. Samples received in good condition unless otherwise noted. The test results meet the requirements of NELAC unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from 11/14/2013 18:10:37



1253 North Church Street, Moorestown, NJ 08057
856-840-8800 Fax 856-840-8815

SAMPLING DATA AND CHAIN OF CUSTODY RECORD

PCM **TEM** (Circle One) PRES DURINGS **POST** (Circle One)

PROJECT #: 13-1214		CLIENT: Enviro-Air Tech		TTI PROJECT MANAGER: O Gullardi, O Stocku								
SAMPLER(S): M. Yearta		CLIENT CONTACT: Shawn O'Donnell		FACILITY: 305-309 West 40th St. Sea Isle		SAMPLING DATE: 11-14-12						
SAMPLE #	PUMP #	SAMPLE LOCATION	TIMES			FLOW RATE			TOTAL VOLUME	FIBER COUNT (fibers/field)	FIBER DENSITY (f/mm ²)	FIBER CONCENTRATION (fibers/cc)
			START	STOP	TOTAL	INITIAL	FINAL	AVERAGE				
01		305 West 40th St. Sea Isle NJ	7:40	9:45	125	10.0	10.0	10.0	1250			
02		↓ ↓ ↓ ↓	7:40	9:45	125	10.0	10.0	10.0	1250			
03		↓ ↓ ↓ ↓	7:42	9:45	122	10.0	10.0	10.0	1220			
04		↓ ↓ ↓ ↓	7:42	9:45	122	10.0	10.0	10.0	1220			
05		↓ ↓ ↓ ↓	7:42	9:45	122	10.0	10.0	10.0	1220			
06		309 West 40th St. Sea Isle NJ	9:55	12:00	125	10.0	10.0	10.0	1250			
07		↓ ↓ ↓ ↓	9:55	12:00	125	10.0	10.0	10.0	1250			
08		↓ ↓ ↓ ↓	9:57	12:00	123	10.0	10.0	10.0	1230			
09		↓ ↓ ↓ ↓	9:57	12:00	123	10.0	10.0	10.0	1230			
10		↓ ↓ ↓ ↓	9:58	12:00	122	10.0	10.0	10.0	1220			

Relinquished by: (Signature) <i>[Signature]</i>	Date: 11-14-12	Time: 1:51 PM	Received by: (Signature) <i>[Signature]</i>	Date: 11-14-12	Time: 1:51 PM	Comments: See all results and COC to lab@ttenv.com
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	
Analyst: (Signature)	Date:	Time:	Rotometer #:	C.R. # 014255		
			Filter Manufacturer:	FOR TEM ANALYSIS ONLY. DO NOT ANALYZE BLANKS.		
			Lot #:	T.A.T. 24hr		



1253 North Church Street, Moorestown, NJ 08057
856-840-8800 Fax 856-840-8815

SAMPLING DATA AND CHAIN OF CUSTODY RECORD

PCM TEM (Circle One) PRES DURINGS POST

PROJECT #: 13-1214 CLIENT: *Environ Air Tech* TTI PROJECT MANAGER: Gullard Stocku
 SAMPLER(S): *10 Jetta* CLIENT CONTACT: *Sharon O'Connell* FACILITY: *315 N. 10th St. Sample 11* SAMPLING DATE: *11-14-13*

SAMPLE #	PUMP #	SAMPLE LOCATION	TIMES			FLOW RATE			TOTAL VOLUME	FIBER COUNT (fibers/field)	FIBER DENSITY (f/mm ²)	FIBER CONCENTRATION (fibers/cc)
			START	STOP	TOTAL	INITIAL	FINAL	AVERAGE				
11		Back Door (Side) of 305 W 40th	7:55	11:55	240	3.5	3.5	3.5	840	5/100	<7.01	<0.002
12		CENTRAL AVE Side	7:55	11:55	240	3.5	3.5	3.5	840	3.5/100	<7.01	<0.002
13		10th ST. Side	7:55	11:55	240	3.5	3.5	3.5	840	5/100	<7.01	<0.002
14		41ST ST. Side	7:55	11:55	240	3.5	3.5	3.5	840	4.5/100	<7.01	<0.002
15		CENTRAL AVE Side ↓ ↓	7:55	11:55	240	3.5	3.5	3.5	840	3.5/100	<7.01	<0.002
16		BLANK	-	-	-	-	-	-	-	2/100	-	-
17		BLANK	-	-	-	-	-	-	-	5/100	-	-

Relinquished by: (Signature) <i>M. Gullard</i>	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Analyst: (Signature) <i>M. Gullard</i>	Date: <i>11-14-13</i>	Time:	Rotometer #:	FOR TEM ANALYSIS ONLY - DO NOT ANALYZE BLANKS	
			Filter Manufacturer:		
			Lot #:		

Comments:
e-mail all results and COC to
lh@lab@ttienv.com



APPENDIX C:

Daily Inspection Reports



DAILY INSPECTION REPORT

SEATTLE, NJ

Client: <u>Environ. Air Tech.</u>	Project: <u>305 + 309 W. 40th St.</u>	Project No.: <u>12-1214</u>
Date: <u>Wed, 11-14-12</u>	Shift: <u>7AM -</u>	Page: <u>1 of 1</u>
Area:	Activity: <u>TEM finals throughout the (2) Properties.</u>	

7:00 A.M. PT Environ, Maryellen Yeotta arrives on-site. Shade Environ. Super, Scott Brown & workers at 305 West 40th St. have generator setup for me to run TEM finals inside residence at 305 W. 40th St. Shade Environ. will be removing transit site skid from outside house. Super has bag poly on ground surrounding property & workers in hazmat suits & 1/2 face resp.

7:30 I calibrate pumps & start TEM finals inside 305 W. 40th St.

7:50: I calibrate low-vol pumps and run PCM samples during transit removal.

10:40 TEM's collected from 305 West 40th St. Shade has moved generator to 309 W. 40th St. so I start TEM finals inside 309 W. 40th St. Crew continues removing transit from 305 W. 40th St.

11:30 Workers have completed removal of all transit from house at 305 W. 40th - area has been closed.

12:15 p.m. All TEM finals collected & PCM samples. I depart site for EMSL to drop TEM's off for 24 hr. T.A.T.

SIGNATURE: M. Yeotta

ENVIRO-AIR RECORD OF SUBMITTAL

Submitted to: GEI Consultants

Date submitted: 10/21/2013

Project Name: Sea Isle City Former Manufactured Gas Plant
2013-2014 Remedial Action

Project Number: 13-0027

Submittal ID#: 160-1

Specification Section #: 013300

Specification Para. # or table: 1.11A

Information submitted as:

Drawing _____

Sample _____

Guarantee _____

Manufacturer's data _____

Certificate x _____

Test report _____

Other x _____

Description of submittal: Asbestos license & insurance certificate for Shade Environmental
NJ Notifications of asbestos abatement for 209 & 205 W. 40th Street

The following submittal is: Approved _____ Returned for revision _____
Approved as noted _____ Not approved _____

Notes:

Date approved: _____

Approved by: _____

Approval Signature: _____

Copies to: Ken Seborwoski Brian Mannino

Chris Dailey

John Darmohray

STATE OF NEW JERSEY
DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
DIVISION OF PUBLIC SAFETY & OCCUPATIONAL SAFETY & HEALTH
ASBESTOS CONTROL & LICENSING SECTION

ASBESTOS LICENSE

LICENSE NUMBER: 00842

ISSUE DATE 6/06/13

EXPIRATION DATE: 6/07/14

THIS LICENSE has been issued in accordance with and is subject to the provisions of the Asbestos Control and Licensing Act,
N.J.S.A. 34:5A-32 et seq.

Employer: Shade Environmental, LLC

Address: 623 Cutler Ave

Maple Shade NJ 08052

Responsible Individual: Type "A" LICENSE to perform any type of asbestos work

This license is VALID ONLY FOR THE EMPLOYER NAMED HEREIN and must be readily available at the work site for inspection by the
Commissioners of Labor and Workforce Development and Health & Senior Services and the contracting agency.

William J Lynch, Vice President

Harold J. Wirth

Commissioner





CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
10/21/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

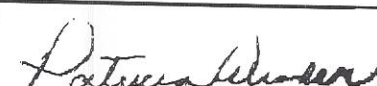
PRODUCER CHATHAM AGENCY INC. PO Box 387 Fort Washington PA 19034-	CONTACT NAME: PHONE (A/C No Ext): (215) 628-9910 E-MAIL ADDRESS:	FAX (A/C No): (215) 628-9920
	INSURER(S) AFFORDING COVERAGE	
INSURED Shade Environmental, LLC 623 Cutler Avenue Maple Shade NJ 08052-	INSURER A: Starr Indemnity & Liability Co	
	INSURER B: Federal Insurance Company	
	INSURER C:	
	INSURER D:	
	INSURER E:	
INSURER F:		NAIC #

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**


THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR	HOLD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Includes Asbestos/Mold <input checked="" type="checkbox"/> Pollution Liability GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	Y	Y	SISIIEIL70135013	07/23/2013	07/23/2014	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Per occurrence) \$ 50,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
A	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	Y	Y	SISIIEIL70135013	07/23/2013	07/23/2014	COMBINED SINGLE LIMIT (Per accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$	Y	Y	SIBIIXNV71065713 Incl. Asbestos/Mold Poll.	07/23/2013	07/23/2014	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	WC 0044727365	07/25/2013	07/25/2014	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

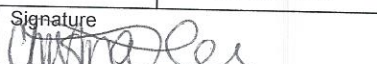
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
Project: 205 and 209 West 40th Street, Sea Isle NJ. Job #4468. Enviro-Air Technologies, Inc is included as additional insureds as per written contract.

CERTIFICATE HOLDER (610) 966-0740 Shawn O'Donnell Enviro-Air Technologies, Inc PO Box 172 Coopersburg PA 18036-	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
---	--

**State of New Jersey
NOTIFICATION OF ASBESTOS ABATEMENT
(Pursuant to NJAC 8:60 and 12:120)**

Date of Notification (1) October 18, 2013		Name of Building Owner/Operator (2) Enviro-Air Technologies, Inc. Check # Q139								
Agencies Notified <input checked="" type="checkbox"/> EPA <input type="checkbox"/> DEP <input checked="" type="checkbox"/> DOL <input checked="" type="checkbox"/> DOH <input type="checkbox"/> DCA	Type Notification <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Amended Amendment # _____ <input type="checkbox"/> Emergency (including justification) <input type="checkbox"/> Cancellation	Street Address PO Box 172								
		City, State, Zip Code Coopersburg, PA 18036								
		Name of Contact Shawn O'Donnell	Telephone Number 610-966-0740							
FACILITY INFORMATION										
Name of Facility Where Abatement is Taking Place (3) Residence		Type of Facility (4) <input type="checkbox"/> School (K-12) <input type="checkbox"/> Subchapter 8 (Other than K-12) <input checked="" type="checkbox"/> Other (i.e. private & commercial buildings, homes, etc.)								
Street Address 209 West 40th Street		Square Feet 5,000	# of Floors 2							
City (5) Sea Isle		Bldg. Age 100								
County (6) Cape May	County Code (7) (STATE USE ONLY) _____	Current Use (Prior if being demolished) Residence								
Name of Monitoring Firm Hired by Building Owner (8) TTI Environmental		ASCM No. _____	Name of Abatement Contractor (9) Shade Environmental, LLC							
Street Address 1253 N. Church Street		Street Address 623 Cutler Ave.								
City, State, Zip Code Moorestown, NJ 08057		City, State, Zip Code Maple Shade, NJ 08052								
Project Manager for Monitoring Firm _____		Telephone No. 856-840-8800	Telephone No. 856-755-0099							
Start Date (10) November 4, 2013		Scheduled Completion Date (11) November 15, 2013	License No. 00842							
Occupancy Status During Abatement (Check Only One) <input checked="" type="checkbox"/> Facility Closed/Vacated During Entire Period of Abatement <input type="checkbox"/> Abatement Performed Outside of Normal Facility Hours <input type="checkbox"/> Other - Describe: _____		Name of OSHA Monitor EMSL								
		Street Address 107 Haddon Ave								
		City, State, Zip Code Westmont, New Jersey 08108								
Scope of Work (Check All That Apply)										
<input checked="" type="checkbox"/> ≥3 sf or ≥3 lf <input checked="" type="checkbox"/> ≥160 sf or ≥260 lf		<input checked="" type="checkbox"/> Renovation <input type="checkbox"/> Demolition	<input checked="" type="checkbox"/> Full Containment with Negative Pressure <input type="checkbox"/> Mini-Enclosure <input type="checkbox"/> Glovebag Procedure <input type="checkbox"/> Non-Exempted (*) and Non-Friable Procedure							
Location of Asbestos-Containing Material (ACM) TO BE ABATED In Facility (13)	Is Location Normally Used Solely by Maintenance/Custodial Staff? (12)			Description of Asbestos Containing Material (ACM) (i.e. thermal systems insulation, surfacing, VAT, or other miscellaneous)	Amount (Specify SF or LF)	Abatement Type				
	Yes	No	N/A			Removal	Repair	Encapsulate	Enclosure	
1st Floor Living Room/Kitchen		X		Linoleum, Floor Tile and Mastic	382.5 SF	XXX				
Hallway/Storage		X		Linoleum, Floor Tile and Mastic	50 SF	XXX				
1st Floor Laundry/Restroom		X		Floor Tile/Linoleum	50 SF	XXX				
Exterior		X		Transite Type Siding	1,400 SF	XXX				
Name of Registered Waste Hauler Freehold		NJDEP Waste Hauler ID No. 22253	Cubic Yards of Waste 80	Name of Registered Landfill Grows Landfill						
City, State Mount Holly, New Jersey 08060		Disposal Date 11/15/2013		City, State Tullytown, PA.						
Completed by Christina Lynch		Title Operations Manager	Signature 	Date 10/18/2013						

**State of New Jersey
NOTIFICATION OF ASBESTOS ABATEMENT
(Pursuant to NJAC 8:60 and 12:120)**

Date of Notification (1) October 18, 2013		Name of Building Owner/Operator (2) Enviro-Air Technologies, Inc. Check # 0138							
Agencies Notified <input checked="" type="checkbox"/> EPA <input type="checkbox"/> DEP <input checked="" type="checkbox"/> DOL <input checked="" type="checkbox"/> DOH <input type="checkbox"/> DCA	Type Notification <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Amended Amendment # _____ <input type="checkbox"/> Emergency (including justification) <input type="checkbox"/> Cancellation		Street Address PO Box 172						
			City, State, Zip Code Coopersburg, PA 18036						
			Name of Contact Shawn O'Donnell	Telephone Number 610-966-0740					
FACILITY INFORMATION									
Name of Facility Where Abatement is Taking Place (3) Residence		Type of Facility (4) <input type="checkbox"/> School (K-12) <input type="checkbox"/> Subchapter 8 (Other than K-12) <input checked="" type="checkbox"/> Other (i.e. private & commercial buildings, homes, etc.)							
Street Address 205 West 40th Street		Square Feet 5,000	# of Floors 2						
City (5) Sea Isle		Bldg. Age 100							
County (6) Cape May	County Code (7) (STATE USE ONLY) _____	Current Use (Prior if being demolished) Residence							
Name of Monitoring Firm Hired by Building Owner (8) TTI Environmental		ASCM No. _____	Name of Abatement Contractor (9) Shade Environmental, LLC						
Street Address 1253 N. Church Street		Street Address 623 Cutler Ave.							
City, State, Zip Code Moorestown, NJ 08057		City, State, Zip Code Maple Shade, NJ 08052							
Project Manager for Monitoring Firm _____	Telephone No. 856-840-8800	Telephone No. 856-755-0099	License No. 00842						
Start Date (10) November 4, 2013	Scheduled Completion Date (11) November 15, 2013	Name of OSHA Monitor EMSL							
Occupancy Status During Abatement (Check Only One) <input checked="" type="checkbox"/> Facility Closed/Vacated During Entire Period of Abatement <input type="checkbox"/> Abatement Performed Outside of Normal Facility Hours <input type="checkbox"/> Other - Describe: _____		Street Address 107 Haddon Ave							
		City, State, Zip Code Westmont, New Jersey 08108							
Scope of Work (Check All That Apply)									
<input checked="" type="checkbox"/> ≥3 sf or ≥3 lf	<input checked="" type="checkbox"/> Renovation	<input checked="" type="checkbox"/> Full Containment with Negative Pressure							
<input checked="" type="checkbox"/> ≥160 sf or ≥260 lf	<input type="checkbox"/> Demolition	<input type="checkbox"/> Mini-Enclosure							
		<input type="checkbox"/> Glovebag Procedure							
		<input type="checkbox"/> Non-Exempted (*) and Non-Friable Procedure							
Location of Asbestos-Containing Material (ACM) TO BE ABATED In Facility (13)	Is Location Normally Used Solely by Maintenance/Custodial Staff? (12)			Description of Asbestos Containing Material (ACM) (i.e. thermal systems insulation, surfacing, VAT, or other miscellaneous)	Amount (Specify SF or LF)	Abatement Type			
	Yes	No	N/A			Removal	Repair	Encapsulate	Enclosure
Exterior		X		Transite Siding	1,140 SF	XXX			
Exterior		X		Caulk	545 SF	XXX			
Throughout		X		Floor Tile	724 SF	XXX			
Throughout		X		Sheetrock Compound	4,475	XXX			
Name of Registered Waste Hauler Freehold		NJDEP Waste Hauler ID No. 22253	Cubic Yards of Waste 80	Name of Registered Landfill Grows Landfill					
City, State Mount Holly, New Jersey 08060			Disposal Date 11/15/2013	City, State Tullytown, PA.					
Completed by Christina Lynch		Title Operations Manager	Signature 	Date 10/18/2013					

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix D

Vibration Monitoring Daily Reports

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 11/25/13
Report No. 1
Page: 1 of 2
GEI Project No. 013660-2-3010

Time of Arrival: 7:00 am **Departure:** 3:30 pm **Weather:** Overcast, 10's – 30's °F

Persons Contacted, Company

Shawn O'Donnell, EAT

GEI Representative

John Darmohray

Purpose of Site Visit: Baseline vibration monitoring

Observations

1. Vibration levels were collected to show background levels prior to the installation of Sheet Piles
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 11/25/13
Report No. 1
Page: 2 of 2
GEI Project No. 013660-2-3010

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	11:07	14:27	0.082	7.7	13:21
B	Northeast corner of 40 th and Central	11:16	14:42	0.023	7.6	12:57
C	214 39th Street, near southeast corner	7:17	13:27	0.020	7.5	9:01
D	137 40th Street, near southwest corner	7:05	13:20	0.025	7.4	10:21
E	217 39th Street, near southeast corner	6:58	13:12	0.026	9.8	8:00

By: John Darmohray **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 12/03/13
Report No. 2
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 3:30 pm **Weather:** Overcast, 40's – 50's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of Sheet Piles along 40th Street
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 12/03/13
Report No. 2
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:35	15:32	0.141	7.3	10:17
B	Northeast corner of 40 th and Central	6:42	15:36	0.145	7.4	13:11
C	214 39th Street, near southeast corner	6:47	15:43	0.015	7.3	14:34
D	137 40th Street, near southwest corner	6:37	15:34	0.038	7.6	14:21
E	217 39th Street, near southeast corner	6:51	15:41	0.056	7.4	7:32

By:	Alexander Erb	Reviewed By:	
------------	----------------------	---------------------	--

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 12/04/13
Report No. 3
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 3:45 pm **Weather:** Overcast, 40's – 50's °F

Persons Contacted, Company

Shawn O'Donnell, EAT

GEI Representative

Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of Sheet Piles along Central Ave
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 12/04/13
Report No. 3
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:46	16:00	0.041	7.3	13:19
B	Northeast corner of 40 th and Central	7:09	15:52	0.117	7.4	13:19
C	214 39th Street, near southeast corner	6:56	15:50	0.048	7.4	15:07
D	137 40th Street, near southwest corner	6:50	15:55	0.041	7.7	13:24
E	217 39th Street, near southeast corner	6:59	15:49	0.027	7.4	15:07

By:	Alexander Erb	Reviewed By:
------------	----------------------	---------------------

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 12/05/13
Report No. 4
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 3:45 pm **Weather:** Foggy, 50's – 60's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of Sheet Piles along Central Ave and driving Sheet Piles to ground surface
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the gate entrance of the Water Tower along Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.

3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 12/05/13
Report No. 4
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:37	16:11	0.084	N/A	15:34
B	Gate entrance of Water Tower along Central Ave	7:02	16:05	0.187	7.4	11:06
C	214 39th Street, near southeast corner	6:51	16:14	0.051	7.5	16:05
D	137 40th Street, near southwest corner	6:41	16:17	0.032	7.5	14:13
E	217 39th Street, near southeast corner	6:48	16:14	0.025	7.4	7:11

By:	Alexander Erb	Reviewed By:	
------------	----------------------	---------------------	--

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 12/06/13
Report No. 5
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 2:30 pm **Weather:** Rain & Thunderstorms, 40's – 50's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of interior Sheet Piles driven East to West in the Site Area
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.

3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 12/06/13
Report No. 5
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:36	14:19	0.167	7.5	13:44
B	Northeast corner of 40 th and Central	6:57	14:23	0.165	7.4	12:55
C	214 39th Street, near southeast corner	6:44	14:18	0.089	7.5	08:38
D	137 40th Street, near southwest corner	6:39	14:17	0.065	7.7	07:55
E	217 39 th Street, near southeast corner	6:48	14:20	0.027	7.4	12:54

By:	Alexander Erb	Reviewed By:	
------------	----------------------	---------------------	--

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 12/09/13
Report No. 6
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 12:00 pm **Weather:** Rain, 40's – 50's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of interior Sheet Piles driven East to West in the Site Area
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.

3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 12/09/13
Report No. 6
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:36	11:15	0.091	7.3	10:55
B	Northeast corner of 40 th and Central	7:10	11:11	0.068	7.4	08:30
C	214 39th Street, near southeast corner	6:46	11:06	0.103	7.5	10:05
D	137 40th Street, near southwest corner	6:54	11:10	0.060	7.6	07:16
E	217 39 th Street, near southeast corner	6:49	11:08	0.030	7.4	10:03

By:	Alexander Erb	Reviewed By:	
------------	----------------------	---------------------	--

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 12/10/13
Report No. 7
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 1:00 pm **Weather:** Sleet/Snow, 30's – 40's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of interior Sheet Piles to develop walls of most eastern excavation cells within the Site Area
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 12/10/13
Report No. 7
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:45	13:15	0.0658	7.3	11:31
B	Northeast corner of 40 th and Central	7:07	13:11	0.138	7.6	11:07
C	214 39th Street, near southeast corner	6:53	13:06	0.101	7.4	11:31
D	137 40th Street, near southwest corner	6:48	13:11	0.053	N/A	11:06
E	217 39 th Street, near southeast corner	6:56	13:09	0.025	1024	13:09

By:	Alexander Erb	Reviewed By:	
------------	----------------------	---------------------	--

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 12/11/13
Report No. 8
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 3:30 pm **Weather:** Sunny, 20's – 30's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of interior Sheet Piles to develop walls of most eastern excavation cells within the Site Area
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 12/11/13
Report No. 8
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:37	15:30	0.042	7.3	15:11
B	Northeast corner of 40 th and Central	6:58	15:25	0.065	7.4	09:10
C	214 39th Street, near southeast corner	6:44	15:19	0.063	8.8	12:44
D	137 40th Street, near southwest corner	6:40	15:27	0.034	7.5	12:34
E	217 39 th Street, near southeast corner	6:48	15:22	0.024	7.4	12:36

By: Alexander Erb

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 12/12/13
Report No. 9
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 4:00 pm **Weather:** Overcast/ Partly Cloudy, 20's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of south interior Sheet Piles parallel to 40th street within the Site Area
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 12/12/13
Report No. 9
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:41	16:01	0.115	7.3	15:36
B	Northeast corner of 40 th and Central	7:30	15:56	0.133	7.4	14:55
C	214 39th Street, near southeast corner	6:48	15:51	0.051	7.4	7:26
D	137 40th Street, near southwest corner	6:43	15:56	0.034	N/A	14:37
E	217 39 th Street, near southeast corner	6:51	15:54	0.087	7.3	10:38

By: Alexander Erb

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 12/13/13
Report No. 10
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 3:30 pm **Weather:** Sunny, 20's-30's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of interior Sheet Piles to develop walls of the southernmost excavation cells within the Site Area
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 12/13/13
Report No. 10
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:33	15:02	0.131	N/A	10:28
B	Northeast corner of 40 th and Central	6:52	14:58	0.073	7.4	13:50
C	214 39th Street, near southeast corner	6:37	14:53	0.068	7.4	14:44
D	137 40th Street, near southwest corner	6:44	14:57	0.050	7.4	14:23
E	217 39 th Street, near southeast corner	6:41	14:55	0.055	7.4	14:39

By: Alexander Erb **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 12/16/13
Report No. 11
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 3:30 pm **Weather:** Sunny, 30's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of interior Sheet Piles to develop walls of the northernmost excavation cells within the Site Area
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 12/16/13
Report No. 11
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:01	15:38	0.084	N/A	15:21
B	Northeast corner of 40 th and Central	6:43	15:35	0.385*	7.6	14:48
C	214 39th Street, near southeast corner	6:51	15:30	0.080	7.5	14:17
D	137 40th Street, near southwest corner	6:42	15:35	0.027	N/A	08:06
E	217 39 th Street, near southeast corner	6:49	15:32	0.027	7.4	14:04

**Monitor located at the NE corner of 40th and Central was disturbed by a local resident, causing the peak reading.*

By:	Alexander Erb	Reviewed By:	
------------	----------------------	---------------------	--

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 12/17/13
Report No. 12
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 3:30 pm **Weather:** Cloudy, 30's – 40's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of interior Sheet Piles to develop remaining walls of the northernmost excavation cells within the Site Area
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.

3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 12/17/13
Report No. 12
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:57	15:03	0.041	7.3	14:07
B	Northeast corner of 40 th and Central	6:45	15:00	0.046	7.5	13:42
C	214 39th Street, near southeast corner	6:39	14:55	0.096	7.5	10:54
D	137 40th Street, near southwest corner	6:44	15:00	0.029	7.6	13:40
E	217 39 th Street, near southeast corner	6:42	14:58	0.036	7.4	08:51

By: Alexander Erb

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 12/18/13
Report No. 13
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 5:00 pm **Weather:** Sunny, 20's – 30's °F

Persons Contacted, Company

Shawn O'Donnell, EAT

GEI Representative

Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of interior Sheet Piles to develop remaining walls of the excavation cells within the Site Area
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 12/18/13
Report No. 13
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:07	16:45	0.127	7.3	16:12
B	Northeast corner of 40 th and Central	6:53	16:42	0.112	7.4	07:44
C	214 39th Street, near southeast corner	6:45	16:39	0.160	7.3	15:16
D	137 40th Street, near southwest corner	6:52	16:41	0.052	7.5	15:00
E	217 39 th Street, near southeast corner	6:48	15:31	0.037	7.6	15:02

By: Alexander Erb	Reviewed By:
--------------------------	---------------------

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 12/19/13
Report No. 14
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 4:00 pm **Weather:** Sunny, 30's – 50's °F

Persons Contacted, Company

Shawn O'Donnell, EAT

GEI Representative

Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of interior Sheet Piles to develop remaining walls of the excavation cells within the Site Area and pulling up the western exterior wall.
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 12/19/13
Report No. 14
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:59	15:47	0.230	7.2	13:12
B	Northeast corner of 40 th and Central	6:46	15:44	0.096	7.4	14:06
C	214 39th Street, near southeast corner	6:40	15:35	0.456	7.3	12:01
D	137 40th Street, near southwest corner	6:45	15:43	0.051	7.5	14:15
E	217 39 th Street, near southeast corner	6:43	15:41	0.040	7.3	14:26

By: Alexander Erb

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 12/20/13
Report No. 15
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 4:00 pm **Weather:** Cloudy, 40's – 50's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Alexander Erb

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE14094, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 12/20/13
Report No. 15
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:00	16:19	0.112	7.3	07:50
B	Northeast corner of 40 th and Central	6:48	16:12	0.080	7.4	09:33
C	214 39th Street, near southeast corner	6:42	16:09	0.191	7.5	09:47
D	137 40th Street, near southwest corner	6:48	16:14	0.055	7.5	11:39
E	217 39 th Street, near southeast corner	6:45	16:12	0.060	7.4	09:48

By:	Alexander Erb	Reviewed By:	
------------	----------------------	---------------------	--

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 1/6/14
Report No. 16
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:35 am **Departure:** 12:00 pm **Weather:** Cloudy, 40's – 50's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.

3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 1/6/14
Report No. 16
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:51	9:42	0.05	17	06:51
B	Northeast corner of 40 th and Central	7:34	9:58	0.015	100	07:35
C	214 39th Street, near southeast corner	7:08	9:50	0.025	100	07:09
D	137 40th Street, near southwest corner	7:11	10:02	0.030	85	10:00
E	217 39 th Street, near southeast corner	7:24	10:04	0.066	64	07:24

By: Peyton Wells	Reviewed By:
-------------------------	---------------------

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 1/8/14
Report No. 17
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:35 am **Departure:** 6:30 pm **Weather:** Sunny, 20's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 1/8/14
Report No. 17
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:41	18:22	0.160	7.2	06:41
B	Northeast corner of 40 th and Central	6:59	17:48	0.214	10	07:00
C	214 39th Street, near southeast corner	6:56	18:11	0.051	39	07:05
D	137 40th Street, near southwest corner	7:01	18:05	0.38	18	7:03
E	217 39 th Street, near southeast corner	7:15	17:54	0.045	38	07:26

By: Peyton Wells

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thurs, 1/9/14
Report No. 18
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 6:45 pm **Weather:** Sunny, 30's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thurs, 1/9/14
Report No. 18
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:32	17:37	0.027	7.3	09:16
B	Northeast corner of 40 th and Central	7:29	17:48	0.070	7.5	13:55
C	214 39th Street, near southeast corner	7:23	17:29	0.070	7.6	11:10
D	137 40th Street, near southwest corner	7:33	17:55	0.023	7.4	12:30
E	217 39 th Street, near southeast corner	7:36	17:33	0.026	7.6	08:37

By: Peyton Wells	Reviewed By:
-------------------------	---------------------

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 1/10/14
Report No. 19
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 5:45 pm **Weather:** Sunny, 36°F - 50°F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 1/10/14
Report No. 19
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	-	-	-	-	-
B	Northeast corner of 40 th and Central	-	-	-	-	-
C	214 39th Street, near southeast corner	~7:00	~16:00	0.100	-	14:42
D	137 40th Street, near southwest corner	-	-	-	-	-
E	217 39 th Street, near southeast corner	-	-	-	-	-

By: Peyton Wells

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Sat, 1/11/14
Report No. 20
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:45 am **Departure:** 1:30 pm **Weather:** Rainy, 60's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Sat, 1/11/14
Report No. 20
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:38	11:56	0.043	7.6	11:02
B	Northeast corner of 40 th and Central	7:55	12:16	0.081	7.4	11:44
C	214 39th Street, near southeast corner	7:50	12:01	0.071	7.6	11:00
D	137 40th Street, near southwest corner	7:58	12:18	0.038	7.5	08:46
E	217 39 th Street, near southeast corner	8:03	12:09	0.015	7.7	08:03

By: Peyton Wells

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 1/13/14
Report No. 21
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:45 am **Departure:** 1:30 pm **Weather:** Sunny, 40's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 1/13/14
Report No. 21
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:29	13:12	0.050	7.2	08:14
B	Northeast corner of 40 th and Central	6:47	13:35	0.074	7.5	11:15
C	214 39th Street, near southeast corner	6:40	13:16	0.071	7.5	11:40
D	137 40th Street, near southwest corner	7:03	13:13	0.021	7.3	08:08
E	217 39 th Street, near southeast corner	6:49	13:33	0.029	7.7	09:49

By: Peyton Wells

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 1/14/14
Report No. 22
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 2:00 pm **Weather:** Rainy, 40's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 1/14/14
Report No. 22
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:48	13:12	0.058	7.7	10:30
B	Northeast corner of 40 th and Central	6:53	13:06	0.063	7.7	10:46
C	214 39th Street, near southeast corner	6:32	13:09	0.046	7.6	6:54
D	137 40th Street, near southwest corner	6:51	13:04	0.072	7.6	12:35
E	217 39 th Street, near southeast corner	6:40	13:18	0.026	7.6	09:13

By: Peyton Wells

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 1/15/14
Report No. 23
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 1:40 pm **Weather:** Cloudy, 40's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 1/15/14
Report No. 23
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:44	13:17	0.046	7.2	07:00
B	Northeast corner of 40 th and Central	6:34	13:10	0.045	7.7	12:23
C	214 39th Street, near southeast corner	6:27	13:07	0.096	7.4	9:20
D	137 40th Street, near southwest corner	6:36	13:05	0.035	7.4	12:30
E	217 39 th Street, near southeast corner	6:30	13:21	0.027	7.6	07:27

By: Peyton Wells

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thurs, 1/16/14
Report No. 24
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 1:40 pm **Weather:** Cloudy, 30's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thurs, 1/16/14
Report No. 24
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:30	13:16	0.027	7.5	11:03
B	Northeast corner of 40 th and Central	6:34	13:14	0.031	7.7	12:05
C	214 39th Street, near southeast corner	6:28	13:11	0.046	7.6	08:12
D	137 40th Street, near southwest corner	6:38	13:07	0.021	7.5	12:05
E	217 39 th Street, near southeast corner	6:42	13:19	0.026	7.5	09:24

By: Peyton Wells

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 1/17/14
Report No. 25
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 1:30 pm **Weather:** Cloudy, 30's - 40's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 1/17/14
Report No. 25
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:37	12:43	0.022	7.2	07:42
B	Northeast corner of 40 th and Central	6:44	12:55	0.041	8.1	10:46
C	214 39th Street, near southeast corner	6:35	12:47	0.031	7.5	11:17
D	137 40th Street, near southwest corner	6:46	12:53	0.088	7.6	08:11
E	217 39 th Street, near southeast corner	6:42	12:50	0.021	7.4	08:11

By: Peyton Wells

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 1/20/14
Report No. 26
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 2:00 pm **Weather:** Cloudy, 40's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 1/20/14
Report No. 26
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:52	13:28	0.081	7.6	11:48
B	Northeast corner of 40 th and Central	6:55	13:33	0.076	8.1	07:44
C	214 39th Street, near southeast corner	7:05	13:35	0.062	7.6	07:53
D	137 40th Street, near southwest corner	6:58	13:25	0.027	7.5	08:08
E	217 39 th Street, near southeast corner	6:47	13:38	0.030	7.4	07:57

By: Peyton Wells

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 1/21/14
Report No. 27
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 10:15 am **Weather:** Cloudy, 30's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 1/21/14
Report No. 27
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:52	10:12	0.030	7.5	07:01
B	Northeast corner of 40 th and Central	6:39	10:08	0.078	7.6	07:28
C	214 39th Street, near southeast corner	6:42	10:05	0.072	7.6	08:23
D	137 40th Street, near southwest corner	6:55	10:07	0.022	7.6	07:28
E	217 39 th Street, near southeast corner	6:47	10:14	0.066	7.6	08:32

By: Peyton Wells

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thu, 1/23/14
Report No. 28
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 1:30 pm **Weather:** Sunny, 20's °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thu, 1/23/14
Report No. 28
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:55	13:12	0.065	7.5	07:30
B	Northeast corner of 40 th and Central	6:49	13:02	0.071	8.1	08:45
C	214 39th Street, near southeast corner	6:58	13:05	0.073	7.5	10:27
D	137 40th Street, near southwest corner	7:07	13:07	0.061	7.5	08:45
E	217 39 th Street, near southeast corner	7:03	13:14	0.026	7.6	08:37

By:	Peyton Wells	Reviewed By:
------------	---------------------	---------------------

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 1/24/14
Report No. 29
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 1:30 pm **Weather:** Sunny, 18 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 1/24/14
Report No. 29
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:48	13:01	0.055	7.5	08:30
B	Northeast corner of 40 th and Central	6:50	13:04	0.061	7.5	08:13
C	214 39th Street, near southeast corner	6:59	13:09	0.047	7.6	08:05
D	137 40th Street, near southwest corner	6:53	13:06	0.061	7.6	07:43
E	217 39 th Street, near southeast corner	7:02	13:11	0.096	7.5	07:51

By: Peyton Wells

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 1/27/14
Report No. 30
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:50 am **Departure:** 7:00 pm **Weather:** Sunny, 35 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 1/27/14
Report No. 30
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:12	16:23	0.0814	7.2	12:45
B	Northeast corner of 40 th and Central	7:05	16:35	0.0667	7.4	13:49
C	214 39th Street, near southeast corner	7:05	16:35	0.0234	73	15:16
D	137 40th Street, near southwest corner	7:08	16:34	0.0374	14.3	7:09
E	217 39 th Street, near southeast corner	7:08	16:37	0.017	27	13:05

By: Mikhail Potros **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 1/28/14
Report No. 31
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:40 am **Departure:** 5:30 pm **Weather:** Cloudy, 18 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 1/28/14
Report No. 31
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:19	16:39	0.054	7.6	11:57
B	Northeast corner of 40 th and Central	7:05	16:41	0.0807	7.9	07:53
C	214 39th Street, near southeast corner	7:13	16:33	0.0708	7.5	12:00
D	137 40th Street, near southwest corner	7:01	16:43	0.0803	7.4	11:59
E	217 39 th Street, near southeast corner	9:12	16:35	0.014	7.7	09:32

By: Mikhail Potros

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 1/29/14
Report No. 32
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 6:00 pm **Weather:** Snow, 23 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 1/29/14
Report No. 32
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:45	16:53	0.081	7.4	8:47
B	Northeast corner of 40 th and Central	7:48	17:08	0.139	8.1	8:13
C	214 39th Street, near southeast corner	7:59	17:00	0.051	7.7	7:54
D	137 40th Street, near southwest corner	7:50	17:06	0.038	7.5	7:54
E	217 39 th Street, near southeast corner	8:02	10:18	0.023	20.9	8:02

By: Mikhail Potros	Reviewed By:
---------------------------	---------------------

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thurs, 1/30/14
Report No. 33
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 6:00 pm **Weather:** Sunny, 28 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thurs, 1/30/14
Report No. 33
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:01	16:45	0.050	7.4	13:12
B	Northeast corner of 40 th and Central	7:14	16:55	0.060	8.1	9:09
C	214 39th Street, near southeast corner	7:09	16:50	0.027	7.8	15:05
D	137 40th Street, near southwest corner	7:13	16:53	0.032	7.9	13:15
E	217 39 th Street, near southeast corner	* Unit Malfunction. No Data Collected for the Day.				

By: Mikhail Potros	Reviewed By:
---------------------------	---------------------

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 1/31/14
Report No. 34
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 6:00 pm **Weather:** Sunny, 36 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 1/31/14
Report No. 34
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:50	16:24	0.067	7.4	08:25
B	Northeast corner of 40 th and Central	6:59	16:33	0.123	7.9	13:46
C	214 39th Street, near southeast corner	6:53	16:28	0.0622	7.8	15:25
D	137 40th Street, near southwest corner	6:57	16:32	0.052	7.6	13:20
E	217 39 th Street, near southeast corner	* Unit Malfunction. No Data Collected for the Day.				

By: Mikhail Potros **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 2/3/14
Report No. 35
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 6:00 pm **Weather:** Rainy, 37 °F

Persons Contacted, Company
Shawn O'Donnell EAT

GEI Representative
Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 2/3/14
Report No. 35
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:40	16:10	0.077	7.4	13:52
B	Northeast corner of 40 th and Central	*Unit malfunction due to flooding from heavy rain				
C	214 39th Street, near southeast corner	6:45	16:15	0.065	7.5	16:15
D	137 40th Street, near southwest corner	6:50	16:18	0.062	7.6	15:36
E	217 39 th Street, near southeast corner	*Unit malfunction due to flooding from heavy rain				

By: Mikhail Potros **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 2/4/14
Report No. 36
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 6:00 pm **Weather:** Cloudy, 38 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during the installation of inclinometers and excavating along the west exterior sheetpile wall.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed near the northeast corner of 40th Street and Central Avenue. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 2/4/14
Report No. 36
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:35	16:57	0.0877	7.4	14:54
B	Northeast corner of 40 th and Central	6:52	17:06	0.279	7.5	15:20
C	214 39th Street, near southeast corner	6:40	17:02	0.279	7.5	15:20
D	137 40th Street, near southwest corner	6:46	17:05	0.0367	7.6	16:36
E	217 39 th Street, near southeast corner	6:42	17:01	0.098	7.6	6:42

By: Mikhail Potros **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 2/5/14
Report No. 37
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 6:00 pm **Weather:** Rainy, 43 °F

Persons Contacted, Company

Shawn O'Donnell EAT

GEI Representative

Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 2/5/14
Report No. 37
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:47	17:06	0.125	7.6	07:50
B	Central Ave between 40 th Street and 39 th Street	6:54	17:09	0.153	8.1	17:09
C	214 39th Street, near southeast corner	6:57	17:11	0.260	7.9	12:54
D	137 40th Street, near southwest corner	7:01	17:15	0.048	7.6	12:23
E	217 39 th Street, near southeast corner	6:55	17:10	0.043	7.4	17:10

By: Mikhail Potros

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 2/6/14
Report No. 38
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 6:00 pm **Weather:** Cloudy, 30 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 2/6/14
Report No. 38
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:42	16:42	0.555	7.6	09:59
B	Central Ave between 40 th Street and 39 th Street	7:47	16:42	0.096	7.8	16:42
C	214 39th Street, near southeast corner	7:50	16:37	0.128	7.6	12:58
D	137 40th Street, near southwest corner	7:53	16:40	0.040	7.9	14:16
E	217 39 th Street, near southeast corner	7:48	16:36	0.030	7.5	14:15

*Note Utility work being performed near the vicinity of seismograph A.

By: Mikhail Potros

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 2/7/14
Report No. 39
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 6:00 pm **Weather:** Cloudy, 23 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 2/7/14
Report No. 39
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:41	16:14	0.63	7.5	14:55
B	Central Ave between 40 th Street and 39 th Street	6:47	16:18	0.156	7.6	8:33
C	214 39th Street, near southeast corner	6:50	16:19	0.138	7.6	14:41
D	137 40th Street, near southwest corner	6:53	16:17	0.047	7.5	14:55
E	217 39 th Street, near southeast corner	6:48	16:19	0.063	7.7	16:19

By: Mikhail Potros

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 2/10/14
Report No. 40
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 6:00 pm **Weather:** Clear, 24 °F

Persons Contacted, Company

Shawn O'Donnell, EAT

GEI Representative

Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 2/10/14
Report No. 40
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:48	17:13	0.253	7.7	12:13
B	Central Ave between 40 th Street and 39 th Street	6:53	17:13	0.126	7.4	11:48
C	214 39th Street, near southeast corner	6:56	17:22	0.060	7.5	16:51
D	137 40th Street, near southwest corner	7:00	17:25	0.076	7.6	12:36
E	217 39 th Street, near southeast corner	6:54	17:21	0.029	7.6	15:58

By: Mikhail Potros

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 2/11/14
Report No. 41
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 6:00 pm **Weather:** Cloudy, 29 °F

Persons Contacted, Company

Shawn O'Donnell, EAT

GEI Representative

Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 2/11/14
Report No. 41
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:39	15:56	0.058	7.4	09:17
B	Central Ave between 40 th Street and 39 th Street	6:43	15:56	0.267	7.8	15:45
C	214 39th Street, near southeast corner	6:45	16:02	0.036	7.6	11:10
D	137 40th Street, near southwest corner	6:49	16:05	0.048	7.6	14:20
E	217 39 th Street, near southeast corner	6:44	16:00	0.030	7.4	1252

By: Mikhail Potros **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 2/12/14
Report No. 42
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 6:00 pm **Weather:** Cloudy, 26 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by Instatel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 2/12/14
Report No. 42
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:36	15:23	0.110	9.2	15:01
B	Central Ave between 40 th Street and 39 th Street	6:40	15:25	0.065	7.7	15:03
C	214 39th Street, near southeast corner	6:43	15:31	0.049	7.6	15:02
D	137 40th Street, near southwest corner	6:46	15:34	0.036	7.6	13:40
E	217 39 th Street, near southeast corner	6:41	15:30	0.030	7.7	15:01

By: Mikhail Potros **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 2/14/14
Report No. 43
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 6:00 pm **Weather:** Sunny, 35 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 2/14/14
Report No. 43
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	6:50	15:03	0.078	7.6	09:00
B	Central Ave between 40 th Street and 39 th Street	6:54	15:03	0.071	7.1	09:59
C	214 39th Street, near southeast corner	6:56	15:08	0.066	7.6	13:35
D	137 40th Street, near southwest corner	6:55	15:07	0.022	7.7	14:36
E	217 39 th Street, near southeast corner	7:00	15:12	0.041	7.9	14:47

By: Mikhail Potros

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 2/17/14
Report No. 44
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 4:30 pm **Weather:** Sunny, 30 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 2/17/14
Report No. 44
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:09	15:21	0.081	7.7	13:20
B	Central Ave between 40 th Street and 39 th Street	07:08	15:20	0.076	7.7	07:18
C	214 39th Street, near southeast corner	07:03	15:16	0.045	7.6	13:43
D	137 40th Street, near southwest corner	07:07	15:21	0.053	8.1	11:51
E	217 39 th Street, near southeast corner	07:02	15:17	0.083	7.6	12:37

By:

Mikhail Potros

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 2/18/14
Report No. 45
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 4:30 pm **Weather:** Sunny, 40 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 2/18/14
Report No. 45
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:10	15:25	0.089	7.7	11:20
B	Central Ave between 40 th Street and 39 th Street	07:07	15:23	0.077	7.7	07:34
C	214 39th Street, near southeast corner	07:04	15:19	0.045	7.6	12:19
D	137 40th Street, near southwest corner	07:06	15:227	0.055	8.1	09:49
E	217 39 th Street, near southeast corner	07:03	15:16	0.096	7.6	11:31

By: Luke Cuccurullo

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 2/19/14
Report No. 46
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 4:30 pm **Weather:** Sunny, 40 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
John Darmohray

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 2/19/14
Report No. 46
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:10	15:05	0.088	7.7	11:19
B	Central Ave between 40 th Street and 39 th Street	07:12	15:29	0.079	7.9	11:19
C	214 39th Street, near southeast corner	07:05	15:21	0.052	7.8	11:18
D	137 40th Street, near southwest corner	07:08	15:22	0.061	7.1	09:08
E	217 39 th Street, near southeast corner	07:14	15:14	0.091	7.2	11:19

By: Luke Cuccurullo

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 2/20/14
Report No. 47
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 17:30 pm **Weather:** Sunny am. Cloudy pm. 50 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 2/20/14
Report No. 47
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:19	16:11	0.071	7.6	10:08
B	Central Ave between 40 th Street and 39 th Street	07:10	16:05	0.148	7.8	12:11
C	214 39th Street, near southeast corner	07:13	16:07	0.052	7.5	15:35
D	137 40th Street, near southwest corner	07:17	16:11	0.054	7.9	12:53
E	217 39 th Street, near southeast corner	07:11	16:05	0.034	7.6	14:33

By: Luke Cuccurullo **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 2/21/14
Report No. 48
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 17:30 pm **Weather:** Sunny am. 45°F - 50 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 2/21/14
Report No. 48
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	-	-	-	-	-
B	Central Ave between 40 th Street and 39 th Street	~ 07:00	~ 16:00	0.180	-	11:58
C	214 39th Street, near southeast corner	-	-	-	-	-
D	137 40th Street, near southwest corner	-	-	-	-	-
E	217 39 th Street, near southeast corner	-	-	-	-	-

By: Luke Cuccurullo	Reviewed By:
----------------------------	---------------------

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 2/24/14
Report No. 49
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 17:00 pm **Weather:** Clear 37 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 2/24/14
Report No. 49
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:06	16:21	0.071	10.8	11:33
B	Central Ave between 40 th Street and 39 th Street	06:59	16:15	0.116	7.6	11:34
C	214 39th Street, near southeast corner	07:02	16:18	0.046	7.8	10:12
D	137 40th Street, near southwest corner	07:05	15:38	0.060	7.8	11:49
E	217 39 th Street, near southeast corner	07:00	16:16	0.026	7.7	07:13

By: Steve Thomas

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 2/25/14
Report No. 50
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 17:00 pm **Weather:** Cloudy am. Light Snow pm. 30 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Youness Sharifi

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 2/25/14
Report No. 50
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:01	15:36	0.0711	7.6	14:37
B	Central Ave between 40 th Street and 39 th Street	7:04	15:34	0.234	7.6	11:50
C	214 39th Street, near southeast corner	7:06	15:28	0.0822	7.6	13:35
D	137 40th Street, near southwest corner	7:04	15:33	0.0532	7.9	9:43
E	217 39 th Street, near southeast corner	7:05	15:29	0.0269	7.2	9:51

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 2/26/14
Report No. 51
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 17:00 pm **Weather:** Cloudy 27 °F - 33 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Youness Sharifi

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 2/26/14
Report No. 51
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	-	-	-	-	-
B	Central Ave between 40 th Street and 39 th Street	~ 7:00	~ 15:30	0.234	-	07:57
C	214 39th Street, near southeast corner	-	-	-	-	-
D	137 40th Street, near southwest corner	-	-	-	-	-
E	217 39 th Street, near southeast corner	-	-	-	-	-

By: Youness Sharifi	Reviewed By:
----------------------------	---------------------

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thu, 2/27/14
Report No. 52
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 17:00 pm **Weather:** Light Snow am. Windy pm. 36 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thu, 2/27/14
Report No. 52
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:24	16:22	0.15	7.6	08:18
B	Central Ave between 40 th Street and 39 th Street	07:16	16:16	0.12	7.9	07:35
C	214 39th Street, near southeast corner	07:20	16:18	0.081	7.6	13:03
D	137 40th Street, near southwest corner	07:23	16:21	0.064	7.8	08:19
E	217 39 th Street, near southeast corner	07:18	16:16	0.044	7.8	16:16

By: Youness Sharifi **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 2/28/14
Report No. 53
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 14:30 pm **Weather:** Windy 21 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 2/28/14
Report No. 53
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:09	14:12	0.081	7.5	08:39
B	Central Ave between 40 th Street and 39 th Street	07:03	14:08	0.076	7.8	11:56
C	214 39th Street, near southeast corner	07:05	14:09	0.048	7.5	12:34
D	137 40th Street, near southwest corner	07:08	14:12	0.060	7.9	08:40
E	217 39 th Street, near southeast corner	07:05	14:07	0.031	7.7	12:33

By: Luke Cuccurullo

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 3/5/14
Report No. 54
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 17:00 pm **Weather:** Clear 37 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 3/5/14
Report No. 54
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	-	-	-	-	-
B	Central Ave between 40 th Street and 39 th Street	07:22	16:53	0.111	7.9	08:09
C	214 39th Street, near southeast corner	07:14	16:50	0.105	7.6	15:48
D	137 40th Street, near southwest corner	07:18	16:55	0.042	7.9	08:05
E	217 39 th Street, near southeast corner	07:12	16:50	0.027	7.6	10:50

By: Luke Cuccurullo **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 3/6/14
Report No. 55
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 16:30 pm **Weather:** Windy 30 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 3/6/14
Report No. 55
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	-	-	-	-	-
B	Central Ave between 40 th Street and 39 th Street	07:07	16:19	0.101	7.6	07:26
C	214 39th Street, near southeast corner	07:11	16:21	0.147	11.5	16:03
D	137 40th Street, near southwest corner	07:14	16:24	0.051	8.1	08:30
E	217 39 th Street, near southeast corner	07:08	16:19	0.032	7.9	09:09

By: Luke Cuccurullo

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 3/7/14
Report No. 56
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 17:00 pm **Weather:** Cloudy am. Rain pm. 35 °F

Persons Contacted, Company

Shawn O'Donnell, EAT

GEI Representative

Steve Thomas

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used, recent changes are *italicized* below:
 - A: Unit BE18562, installed facing west on the *southwest corner of the 220 40th Street dwelling*. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 3/7/14
Report No. 56
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	220 40th street, near southwest corner	12:05	15:26	0.285	7.6	14:26
B	Central Ave between 40 th Street and 39 th Street	07:11	15:18	0.160	7.6	11:41
C	214 39th Street, near southeast corner	07:14	15:21	0.181	7.5	11:44
D	137 40th Street, near southwest corner	07:18	15:24	0.046	7.8	7:23
E	217 39 th Street, near southeast corner	07:12	15:18	0.042	7.8	9:50

By: Steve Thomas

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 3/11/14
Report No. 57
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 17:00 pm **Weather:** Cloudy am. Sunny pm. 58 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
John Darmohray

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used, recent changes are *italicized* below:
 - A: Unit BE18562, installed facing north on the northeast corner of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 3/11/14
Report No. 57
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:05	17:02	0.118	7.7	11:10
B	220 40 th Street, near southwest corner	07:06	17:03	0.297	7.8	11:10
C	214 39th Street, near southeast corner	07:12	17:10	0.191	7.7	10:06
D	137 40th Street, near southwest corner	07:15	17:14	0.057	7.7	7:23
E	217 39 th Street, near southeast corner	07:11	17:08	0.062	7.8	7:18

By: Steve Thomas **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 3/12/14
Report No. 58
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 16:45 pm **Weather:** Cloudy am. Rainy pm. 55 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Peyton Wells

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used, recent changes are *italicized* below:
 - A: Unit BE18562, installed facing north on the northeast corner of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 3/12/14
Report No. 58
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:10	15:53	0.136	7.4	12:46
B	220 40 th Street, near southwest corner	07:32	15:56	0.246	8.3	8:46
C	214 39th Street, near southeast corner	07:15	16:00	0.169	7.4	12:56
D	137 40th Street, near southwest corner	07:18	16:03	0.041	7.9	8:57
E	217 39 th Street, near southeast corner	07:12	15:59	0.046	7.5	12:55

By: Steve Thomas

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 3/13/14
Report No. 59
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 18:00 pm **Weather:** Windy 36 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 3/13/14
Report No. 59
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:18	16:32	0.161	7.6	16:32
B	220 40 th street, near southeast corner	07:23	16:36	0.129	7.6	12:05
C	214 39th Street, near southeast corner	07:13	16:27	0.0860	7.8	16:21
D	137 40th Street, near southwest corner	07:17	16:31	0.0415	7.9	08:30
E	217 39 th Street, near southeast corner	06:11	16:25	0.0274	7.6	09:52

By: Luke Cuccurullo **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 3/14/14
Report No. 60
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 15:00 pm **Weather:** Clear 45 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 3/14/14
Report No. 60
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:10	14:49	0.0815	7.7	09:42
B	220 40 th street, near southeast corner	07:02	14:51	0.198	7.7	10:30
C	214 39th Street, near southeast corner	07:06	14:45	0.115	7.6	12:06
D	137 40th Street, near southwest corner	07:09	14:48	0.0394	8.2	09:42
E	217 39 th Street, near southeast corner	07:04	14:43	0.0274	7.6	10:33

By: Luke Cuccurullo **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 3/19/14
Report No. 61
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 16:30 pm **Weather:** Cloud 48 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 3/19/14
Report No. 61
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:15	16:10	0.103	7.6	08:40
B	220 40 th street, near southeast corner	07:03	16:12	0.098	7.8	07:50
C	214 39th Street, near southeast corner	07:10	16:06	0.157	7.7	08:06
D	137 40th Street, near southwest corner	07:14	16:09	0.032	7.3	13:05
E	217 39 th Street, near southeast corner	07:07	16:04	0.040	7.6	09:02

By: Luke Cuccurullo

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thu, 3/20/14
Report No. 62
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 16:30 pm **Weather:** Cloud 48-55 °F

Persons Contacted, Company

Shawn O'Donnell, EAT

GEI Representative

Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thu, 3/20/14
Report No. 62
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:03	16:28	0.092	7.5	08:10
B	220 40 th street, near southeast corner	07:01	16:30	0.316	7.9	14:18
C	214 39th Street, near southeast corner	-	-	-	-	-
D	137 40th Street, near southwest corner	07:10	16:27	0.034	8.2	08:14
E	217 39 th Street, near southeast corner	07:04	16:23	0.061	14	15:09

By: Luke Cuccurullo

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 3/21/14
Report No. 63
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 17:00 pm **Weather:** Clear 52 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE10943, installed on Central Avenue between 40th Street and 39th Street. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 3/21/14
Report No. 63
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:07	14:57	0.111	7.6	09:49
B	220 40 th street, near southeast corner	06:57	15:00	0.319	7.8	09:50
C	214 39th Street, near southeast corner	07:02	14:52	0.147	7.7	09:04
D	137 40th Street, near southwest corner	07:06	14:56	0.030	8.1	09:20
E	217 39 th Street, near southeast corner	07:04	14:52	0.030	7.5	11:31

By: Luke Cuccurullo	Reviewed By:
----------------------------	---------------------

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 3/24/14
Report No. 64
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 17:30 pm **Weather:** Cloudy am. Sunny pm. 35 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Steve Thomas

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 3/24/14
Report No. 64
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:02	16:38	0.068	7.5	8:44
B	220 40th street, near southwest corner	7:01	16:36	0.073	8.2	12:58
C	214 39th Street, near southeast corner	07:07	16:41	0.242	7.4	13:28
D	137 40th Street, near southwest corner	07:02	16:44	0.033	8.1	8:44
E	217 39 th Street, near southeast corner	07:04	16:38	0.026	7.6	13:11

By: Steve Thomas **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 3/25/14
Report No. 65
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 17:30 pm **Weather:** Clear am. Flurries pm. 34 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 3/25/14
Report No. 65
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	06:55	15:56	0.109	7.4	13:13
B	220 40th street, near southwest corner	07:01	16:00	0.049	7.4	08:49
C	214 39th Street, near southeast corner	07:04	16:03	0.103	7.4	14:04
D	137 40th Street, near southwest corner	07:07	16:06	0.042	7.9	13:46
E	217 39 th Street, near southeast corner	07:01	16:00	0.140	7.6	7:01

By: Steve Thomas	Reviewed By:
-------------------------	---------------------

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 3/26/14
Report No. 66
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:30 am **Departure:** 17:30 pm **Weather:** Clear and Windy 34 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Mikhail Potros

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 3/26/14
Report No. 66
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:08	16:00	0.230	7.6	08:23
B	220 40th street, near southwest corner	07:05	15:57	0.145	8.6	13:19
C	214 39th Street, near southeast corner	07:14	16:02	0.075	7.7	16:02
D	137 40th Street, near southwest corner	07:17	16:05	0.038	7.9	08:45
E	217 39 th Street, near southeast corner	07:10	16:00	0.059	7.9	16:00

By: Steve Thomas

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thurs, 3/27/14
Report No. 67
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 18:00 pm **Weather:** Clear and Windy 34 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Youness Sharifi

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thurs, 3/27/14
Report No. 67
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:01	16:42	0.111	7.6	12:17
B	220 40th street, near southwest corner	7:02	16:44	0.105	8.1	07:02
C	214 39th Street, near southeast corner	7:11	16:44	0.0951	7.5	7:57
D	137 40th Street, near southwest corner	7:08	16:46	0.0618	8.1	12:50
E	217 39 th Street, near southeast corner	07:11	16:41	0.0495	7.5	10:03

By: Youness Sharifi **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 3/28/14
Report No. 68
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 16:30 pm **Weather:** Cloudy and Windy 43 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Youness Sharifi

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 3/28/14
Report No. 68
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:02	15:42	0.171	7.6	10:46
B	220 40th street, near southwest corner	7:01	15:44	0.156	7.7	7:22
C	214 39th Street, near southeast corner	7:06	15:37	0.205	7.5	15:12
D	137 40th Street, near southwest corner	7:09	15:39	0.0495	7.9	11:54
E	217 39 th Street, near southeast corner	7:03	15:34	0.335	7.6	10:01

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 3/31/14
Report No. 69
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 17:00 pm **Weather:** Clear and Windy 55 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 3/31/14
Report No. 69
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:13	16:50	0.119	7.8	10:40
B	220 40th street, near southwest corner	07:02	16:51	0.051	7.8	08:26
C	214 39th Street, near southeast corner	07:07	16:45	0.157	7.7	08:01
D	137 40th Street, near southwest corner	07:11	16:48	0.036	8.2	07:28
E	217 39 th Street, near southeast corner	07:04	16:32	0.036	7.6	09:28

By:

Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 4/1/14
Report No. 70
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 17:00 pm **Weather:** Clear 48 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tues, 4/1/14
Report No. 70
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:11	16:36	0.163	7.6	07:35
B	220 40th street, near southwest corner	07:04	16:17	0.329	7.8	11:54
C	214 39th Street, near southeast corner	07:07	16:33	0.121	7.6	11:31
D	137 40th Street, near southwest corner	07:10	16:36	0.038	8.3	008:33
E	217 39 th Street, near southeast corner	07:04	16:31	0.029	7.6	09:30

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 4/2/14
Report No. 71
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 17:00 pm **Weather:** Clear 61 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 4/2/14
Report No. 71
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:08	16:40	0.128	9.9	10:28
B	220 40th street, near southwest corner	06:59	16:40	0.202	7.7	11:28
C	214 39th Street, near southeast corner	07:03	16:35	0.118	7.7	16:05
D	137 40th Street, near southwest corner	07:06	16:38	0.041	8.2	15:59
E	217 39 th Street, near southeast corner	07:00	16:36	0.030	7.6	07:17

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thurs, 4/3/14
Report No. 72
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 16:00 pm **Weather:** Clear 53 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thurs, 4/3/14
Report No. 72
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:13	16:09	0.131	7.7	13:49
B	220 40th street, near southwest corner	07:03	16:10	0.208	8.1	09:53
C	214 39th Street, near southeast corner	07:08	16:04	0.119	7.8	07:55
D	137 40th Street, near southwest corner	07:11	16:07	0.051	7.9	13:49
E	217 39 th Street, near southeast corner	07:05	16:03	0.032	7.6	13:52

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri 4/4/14
Report No. 73
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 15:00 pm **Weather:** Clear 48 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri 4/4/14
Report No. 73
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:12	14:46	0.073	7.6	11:57
B	220 40th street, near southwest corner	07:04	14:41	0.041	8.9	08:40
C	214 39th Street, near southeast corner	07:08	14:44	0.086	7.7	11:57
D	137 40th Street, near southwest corner	07:10	14:45	0.039	8.3	7:34
E	217 39 th Street, near southeast corner	07:04	14:55	0.117	8.1	11:29

By: Youness Sharifi **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon 4/7/14
Report No. 74
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 7:00 am **Departure:** 15:00 pm **Weather:** Rainy 52 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon 4/7/14
Report No. 74
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:12	16:46	0.076	7.8	17:35
B	220 40th street, near southwest corner	07:02	16:55	0.061	7.7	08:03
C	214 39th Street, near southeast corner	07:07	16:42	0.247	7.7	15:14
D	137 40th Street, near southwest corner	07:10	16:44	0.0415	8.3	10:11
E	217 39 th Street, near southeast corner	07:04	16:39	0.047	7.5	07:52

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 4/8/14
Report No. 75
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 16:30 pm **Weather:** Cloudy and Windy 43 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Youness Sharifi

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 4/8/14
Report No. 75
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:04	15:19	0.0822	7.7	7:49
B	220 40th street, near southwest corner	7:02	15:21	0.0541	7.7	11:12
C	214 39th Street, near southeast corner	7:06	15:19	0.200	7.9	11:12
D	137 40th Street, near southwest corner	7:09	15:22	0.0316	7.8	8:55
E	217 39 th Street, near southeast corner	7:02	15:18	0.0381	7.6	7:56

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 4/9/14
Report No. 76
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 16:00 pm **Weather:** Sunny, 60 °F

Persons Contacted, Company

Shawn O'Donnell, EAT

GEI Representative

Youness Sharifi

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 4/9/14
Report No. 76
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:00	15:34	0.0718	7.6	9:29
B	220 40th street, near southwest corner	7:05	15:33	0.0771	7.8	11:23
C	214 39th Street, near southeast corner	7:08	15:37	0.0880	7.7	11:23
D	137 40th Street, near southwest corner	7:04	15:36	0.0552	7.9	10:34
E	217 39 th Street, near southeast corner	7:05	15:36	0.0350	7.4	14:21

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thu, 4/10/14
Report No. 77
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 16:00 pm **Weather:** Sunny, 57 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thu, 4/10/14
Report No. 77
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:10	15:26	0.083	7.7	10:19
B	220 40th street, near southwest corner	07:02	15:28	0.056	8.1	14:14
C	214 39th Street, near southeast corner	07:06	15:21	0.095	7.8	08:57
D	137 40th Street, near southwest corner	07:08	15:25	0.032	8.2	08:46
E	217 39 th Street, near southeast corner	07:03	15:18	0.199	7.6	10:53

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 4/11/14
Report No. 78
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 16:30 pm **Weather:** Sunny, 68 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Youness Sharifi

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 4/11/14
Report No. 78
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:10	15:34	0.0778	7.6	8:45
B	220 40th street, near southwest corner	7:09	15:37	0.0757	8.2	14:26
C	214 39th Street, near southeast corner	7:17	15:30	0.321	7.5	12:36
D	137 40th Street, near southwest corner	7:13	15:27	0.0391	8.1	7:43
E	217 39 th Street, near southeast corner	7:14	15:29	0.0339	7.5	8:00

By: Youness Sharifi **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 4/21/14
Report No. 79
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 16:30 pm **Weather:** Sunny, 55 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Youness Sharifi

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 4/21/14
Report No. 79
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:10	15:56	0.259	7.6	8:58
B	DPW, Central Ave and 40th	7:16	15:44	0.230	7.9	7:40
C	214 39th Street, near southeast corner	7:19	15:50	0.354	7.7	13:42
D	137 40th Street, near southwest corner	7:14	15:53	0.0406	8.2	7:42
E	217 39 th Street, near southeast corner	7:17	15:47	0.0599	8.3	10:11

By: Youness Sharifi **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 4/22/14
Report No. 80
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 16:30 pm **Weather:** Sunny, 66 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Youness Sharifi

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 4/22/14
Report No. 80
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:05	15:38	0.165	7.7	8:05
B	DPW, Central Ave and 40th	7:02	15:34	0.250	7.9	8:29
C	214 39th Street, near southeast corner	7:06	15:32	0.158	7.8	9:39
D	137 40th Street, near southwest corner	7:00	15:36	0.0381	8.1	13:40
E	217 39 th Street, near southeast corner	7:02	15:30	0.0332	7.6	9:36

By: Youness Sharifi **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 4/23/14
Report No. 81
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 16:30 pm **Weather:** Sunny, 55 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Youness Sharifi

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Wed, 4/23/14
Report No. 81
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:19	15:26	0.201	7.6	7:36
B	DPW, Central Ave and 40th	7:26	15:22	0.146	8.1	12:49
C	214 39th Street, near southeast corner	7:29	15:21	0.167	7.5	8:19
D	137 40th Street, near southwest corner	7:24	15:23	0.125	7.9	13:07
E	217 39 th Street, near southeast corner	7:28	15:17	0.0354	7.6	11:02

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 4/24/14
Report No. 82
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 16:30 pm **Weather:** Sunny, 58 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Youness Sharifi

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thur, 4/24/14
Report No. 82
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:02	16:13	0.149	7.6	7:29
B	DPW, Central Ave and 40th	7:07	16:09	0.0955	8.5	10:31
C	214 39th Street, near southeast corner	7:10	16:06	0.220	7.6	15:01
D	137 40th Street, near southwest corner	7:06	16:10	0.0350	7.9	15:44
E	217 39 th Street, near southeast corner	7:09	16:05	0.237	7.6	11:36

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 4/25/14
Report No. 83
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 16:30 pm **Weather:** Sunny, 48 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Youness Sharifi

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 4/25/14
Report No. 83
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	7:10	15:27	0.139	7.7	7:28
B	DPW, Central Ave and 40th	7:15	15:20	1.55	7.7	9:47
C	214 39th Street, near southeast corner	7:19	15:20	0.118	7.5	13:26
D	137 40th Street, near southwest corner	7:13	15:24	0.0495	7.9	7:50
E	217 39 th Street, near southeast corner	7:15	15:18	0.0269	7.6	7:42

By: Youness Sharifi **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 4/28/14
Report No. 84
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 16:30 pm **Weather:** Sunny, 39-57 °F Partly Cloudy

Persons Contacted, Company

Shawn O'Donnell, EAT

GEI Representative

Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTel, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 4/28/14
Report No. 84
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:14	16:40	0.105	7.7	08:07
B	DPW, Central Ave and 40th	07:17	16:35	0.295	7.9	13:48
C	214 39th Street, near southeast corner	07:10	15:24	1.13	7.7	16:37
D	137 40th Street, near southwest corner	7:13	16:39	0.034	8.1	7:30
E	217 39 th Street, near southeast corner	07:06	16:34	0.056	7.6	15:21

By: Youness Sharifi **Reviewed By:**

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 4/29/14
Report No. 85
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 16:00 pm **Weather:** Windy, 48 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Tue, 4/29/14
Report No. 85
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:15	15:29	0.147	7.6	11:16
B	Central Ave between 40 th Street and 39 th Street	07:07	15:22	0.052	7.9	07:34
C	214 39th Street, near southeast corner	07:10	15:25	0.275	7.6	11:08
D	137 40th Street, near southwest corner	07:13	15:16	0.031	7.8	11:03
E	217 39 th Street, near southeast corner	07:06	15:21	0.034	7.6	10:34

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thu, 5/1/14
Report No. 86
Page: 1 of 2
GEI Project No. 013660-6-4000

U donTime of Arrival: 6:45 am

Departure: 17:00 pm

Weather: Rainy am, 64 °F

Persons Contacted, Company

Shawn O'Donnell, EAT

GEI Representative

Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Thu, 5/1/14
Report No. 86
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:11	16:54	0.128	7.7	11:50
B	Central Ave between 40 th Street and 39 th Street	07:01	16:47	0.186	8.1	12:00
C	214 39th Street, near southeast corner	07:06	16:50	0.253	7.7	15:53
D	137 40th Street, near southwest corner	07:08	16:52	0.027	8.1	09:40
E	217 39 th Street, near southeast corner	07:01	16:46	0.025	7.6	15:58

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 5/2/14
Report No. 87
Page: 1 of 2
GEI Project No. 013660-6-4000

U donTime of Arrival: 6:45 am

Departure: 16:00 pm

Weather: Clear, 64 °F

Persons Contacted, Company

Shawn O'Donnell, EAT

GEI Representative

Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Fri, 5/2/14
Report No. 87
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:05	15:26	0.060	7.6	09:53
B	Central Ave between 40 th Street and 39 th Street	07:13	15:30	0.186	7.6	11:44
C	214 39th Street, near southeast corner/ Onsite	07:08	15:20	0.480	7.6	14:53
D	137 40th Street, near southwest corner	07:17	15:33	0.032	7.8	09:54
E	217 39 th Street, near southeast corner	07:04	15:27	0.027	7.5	11:26

By: Youness Sharifi

Reviewed By:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 5/5/14
Report No. 88
Page: 1 of 2
GEI Project No. 013660-6-4000

Time of Arrival: 6:45 am **Departure:** 16:00 pm **Weather:** Clear, 69 °F

Persons Contacted, Company
Shawn O'Donnell, EAT

GEI Representative
Luke Cuccurullo

Purpose of Site Visit: Vibration monitoring

Observations

1. Vibration levels were collected to show vibration levels during excavation activities and bracing installation.
2. Five seismic monitors were used:
 - A: Unit BE18562, installed east of the north facing side of 210 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - B: Unit BE18562, installed facing west on the southwest corner of the 220 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - C: Unit BE11245, installed near the southeast corner of the north facing side of 214 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - D: Unit BE13636, installed near southwest corner of 137 40th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
 - E: Unit BE13499, installed near southeast corner of 217 39th Street dwelling. Unit was calibrated on August 3, 2013 by InstanTEL, Inc., and is scheduled for its next calibration on August 3 2014.
3. Each seismograph geophone was weighed with a gravel bag weighing approximately 10 pounds.

The seismographs recorded maximum peak particle velocities in 5-second intervals during the monitoring periods. The results of the vibration monitoring are summarized in the following table:

FIELD OBSERVATION REPORT

Project: Sea Isle City Former MGP Site
Client: JCP&L
Contractor: EAT
Subcontractor: None

Date: Mon, 5/5/14
Report No. 88
Page: 2 of 2
GEI Project No. 013660-6-4000

Seismograph ID	Location	Monitoring Period		Maximum Ground Vibrations		
		Beginning	End	Peak Particle Velocity (in/sec)	Frequency (Hz)	Time
A	210 40th street, near northeast corner	07:26	15:55	0.086	7.6	11:15
B	Central Ave between 40 th Street and 39 th Street	07:11	15:47	0.454	7.8	11:36
C	214 39th Street, near southeast corner/ Onsite	07:19	15:46	0.507	9.2	08:39
D	137 40th Street, near southwest corner	07:13	15:52	0.034	7.9	12:10
E	217 39 th Street, near southeast corner	07:06	15:42	0.038	7.6	15:16

By: Youness Sharifi

Reviewed By:

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix E

Regulatory Permits


Bk D3519 Pg 108 of 34

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF LAND USE REGULATION

Mail Code 401-04P, P.O. Box 420, Trenton, New Jersey 08625-0420
Telephone: (609) 633-3801



PERMIT

In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the limitations, terms and conditions listed below and on the attached pages. For the purpose of this document, "permit" means "approval, certification, registration, authorization, waiver, etc." Violation of any term, condition or limitation of this permit is a violation of the implementing rules and may subject the permittee to enforcement action.		Approval Date December 4, 2012
		Expiration Date December 3, 2017
Permit Number(s) 0509-10-0027.2 CAF120001GP 15	Type of Approval(s) Coastal GP 15 Investigation/Remediation of Hazardous Substances	Enabling Statute(s) N.J.S.A. 13:9B FWW N.J.S.A. 12:5-3
Permittee: Jersey Central Power & Light Co. 300 Madison Ave., P. O. Box 1911 Morristown, NJ 07962-1911	Site Location: Block 39.04: Lots 9, 13, 14, 15, 16, 110 & 120 Municipality: Sea Isle City County: Cape May	
Description of Authorized Activities Perform remediation of hazardous substances pursuant to a Remedial Action Work Plan (RAWP) submitted by the LSRP consisting of the following: Installation of approximately 575 L.F. of steel perimeter sheeting; excavation of approximately 16,350 sq. ft. area of soil (7,270 c.y.) and backfilling with clean fill materials. All work to be performed as shown on the referenced authorized approved plans.		
Prepared by:  David Q. Risold 12-4-12 Date:	Received and/or Recorded by County Clerk	
This permit is not valid unless authorizing signature appears on the last page.		

Bk D3519 Pg109 #34

CONDITIONS APPLICABLE TO ALL LAND USE PERMITS:

1. In accordance with the applicable regulations, any person who is aggrieved by this decision or any of the conditions of this approval may request a hearing within 30 days after notice of the decision is published in the DEP Bulletin. This request must include a completed copy of the Administrative Hearing Request Checklist. The DEP Bulletin is available through the Department's website at <http://www.nj.gov/dep/bulletin> and the Checklist is available through Division's website at <http://www.nj.gov/dep/landuse/forms/lurpaabr.pdf>. In addition to your hearing request, you may file a request with the Office of Dispute Resolution to engage in alternative dispute resolution. Please see the website www.nj.gov/dep/odr for more information about this process;
2. The permittee, its contractors and subcontractors shall comply with all conditions of this permit, supporting documents and approved drawings; and
 - i. Plans and specification in the application and conditions imposed by this permit shall remain in full force and effect so long as the proposed development or any portion thereof is in existence, unless modified by the Department in writing;
 - ii. If this permit contains a condition that must be satisfied prior to the commencement of construction, the permittee must comply with such condition(s) within the time required by the permit or, if no time specific requirement is imposed, then within six months of the effective date of the permit, or provide evidence satisfactory to the Department that such condition(s) cannot be satisfied; and
 - iii. Any noncompliance with this permit constitutes a violation, and is grounds for enforcement action, as well as suspension and/or termination of the permit. This approval does not in any way affect the right of the State to seek and collect monetary penalties or to take other enforcement action, should it be determined that a violation has occurred onsite;
3. It shall not be a defense for this permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit;
4. The permittee shall take all reasonable steps to prevent, minimize or correct any adverse impact on the environment resulting from activities conducted pursuant to the permit, or from noncompliance with the permit;
5. The issuance of this permit shall in no way expose the State of New Jersey or the Department to liability for the sufficiency or correctness of the design of any construction, structure or structures. Neither the State nor the Department shall, in any way, be liable for the loss of life or property which may occur by virtue of the activity of development resulting from any permit;
6. The permittee shall immediately inform the Department of any unanticipated adverse effects on the environment not described in the application or in the conditions of this permit. The Department may, upon discovery of such unanticipated adverse effects, and upon the failure

Bk D3519 Pg 110 #34

of the permittee to submit a report thereon, notify the permittee of its intent to suspend the permit;

7. This permit can be modified, suspended or terminated for cause. The filing of a request to modify an issued permit by the permittee, or a notification of planned changes or anticipated noncompliance does not stay any condition of this permit;
8. This permit does not convey any property rights of any sort, or any exclusive privilege;
9. A copy of the permit and other authorizing documents including all approved plans and drawings shall be maintained at the authorized site at all times and made available to Department representatives or their designated agents immediately upon request.
 - i. The permittee shall also furnish to the Department within a reasonable time any information that the Department requests to determine compliance with this permit or to determine whether cause exists for suspension or termination of this permit; and
 - ii. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by the permit;
10. The permittee shall allow an authorized representative of the Department, upon notification under current rule and upon the presentation of credentials, to:
 - i. Enter upon the permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of this permit;
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit; and
 - iii. Inspect at reasonable times any facilities, equipment, practices or operations regulated or required under the permit. Failure to allow reasonable access under this section shall be considered a violation of this chapter and subject the permittee to enforcement action;
 - iv. Sample or monitor at reasonable times for the purposes of assuring compliance with applicable rules;
11. No change in plans or specifications upon which this permit is issued shall be made except with the prior written permission of the Department;
12. The permittee shall provide reports to the Department as follows:
 - i. Monitoring results shall be reported at the intervals specified elsewhere in this permit;
 - ii. The permittee shall immediately report to the Department by telephone at (877) 927-6337 any noncompliance that may endanger health or the environment. In addition, the permittee shall report all noncompliance to Bureau of Coastal and Land Use Compliance and Enforcement, 401 E. State Street, 4th Floor, P.O. Box 422, Mail Code: 401-04C, Trenton, NJ 08625, in writing within five business days of the time the permittee becomes aware of the noncompliance. The written notice shall include: a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated length of time it

is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. Such notice shall not, however, serve as a defense to enforcement action if the project is found to be in violation of this chapter;

- iii. Where the permittee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application or in any report to the Department, it shall promptly submit such facts or information;

13. Development which requires soil disturbance, the creation of drainage structures, or changes in natural contours shall conduct operations in accordance with the latest revised version of "Standards for Soil Erosion Sediment Control in New Jersey," promulgated by the New Jersey State Soil Conservation Committee, pursuant to the Soil Erosion and Sediment Control Act of 1975, N.J.S.A. 4:24-42 et seq. and N.J.A.C. 2:90-1.3 through 1.14, and must obtain any required approvals from the local Soil Conservation District;

14. If any condition of this permit is determined to be legally unenforceable, modifications and additional conditions may be imposed by the Department as necessary to protect the public interest;

15. This permit is not transferable to any person unless the transfer is approved by the Department;

16. The permittee must obtain any and all other Federal, State and/or local approvals. Authorization to undertake a regulated activity under these rules does not indicate that the activity also meets the requirements of any other rule, plan or ordinance. It is the applicant's responsibility to obtain all necessary approvals for a proposed project;

17. While the regulated activities are being undertaken, neither the permittee nor its agents shall cause or permit any unreasonable interference with the free flow of a regulated feature by placing or dumping any materials, equipment, debris or structures within or adjacent to the regulated area. Upon completion or abandonment of the work, the permittee and/or its agents shall remove and dispose of in a lawful manner all excess materials, debris, equipment, silt fences and other temporary soil erosion and sediment control devices from all regulated areas. Only clean non-toxic fill shall be used where necessary;

18. All excavated material or dredged material shall be disposed of in a lawful manner. (For example, it should be placed outside of any flood hazard area, riparian zone, regulated water, freshwater/coastal wetlands and adjacent transition area, and in such a way as to not interfere with the positive drainage of the receiving area);

19. This permit or Verification shall be recorded in its entirety in the office of the County Clerk or the Registrar of Deeds and Mortgages for each county where this project is located. Verified notice of this action shall be forwarded to the Department immediately thereafter.

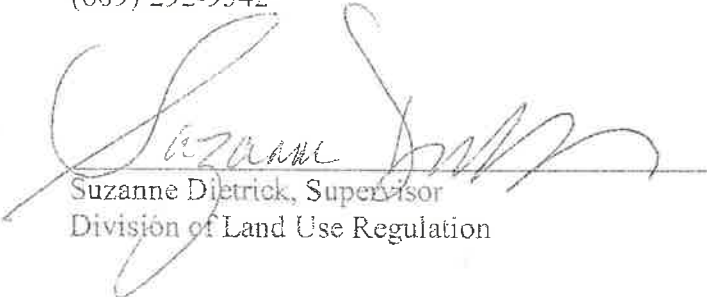
CONDITIONS APPLICABLE TO (FLOOD HAZARD RULES) (FRESHWATER WETLANDS RULES) (COASTAL RULES):

The total amount of disturbance associated with this authorization shall not exceed 0.375 of an acre (16,350) of uplands.

CONDITIONS APPLICABLE TO SPECIFIC PROJECT:

The drawings hereby approved are depicted on sheets 1-4 prepared by GEI Consultants dated August 1, 2012, entitled: SEA ISLE FORMER MPG SITE Existing Conditions & Exploration Plan; Remedial Excavation Plan (sheet 2); Restoration Plan (sheet 3) and Restoration Details (sheet 4).

If you need clarification on any section of this permit or conditions, please contact David Q. (609) 292-9342


Suzanne Dietrick, Supervisor
Division of Land Use Regulation

12/4/12
Date

Original sent to Agent to record
C: Applicant
Municipal Construction Official
Municipal Clerk

Bk D3519 Pg112 #34
RECORDED COUNTY OF CAPE MAY
Rita Marie Fuliniti, County Clerk
Recording Fee 70.00
Date 12-22-2012 @ 09:30a




STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF LAND USE REGULATION

Mail Code 401-06C, P.O. Box 420, Trenton, New Jersey 08625-0420
Telephone: (609) 633-3801



PERMIT

<p>In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the limitations, terms and conditions listed below and on the attached pages. For the purpose of this document, "permit" means "approval, certification, registration, authorization, waiver, etc." Violation of any term, condition or limitation of this permit is a violation of the implementing rules and may subject the permittee to enforcement action.</p>		Approval Date November 13, 2013
		Expiration Date November 12, 2018
Permit Number(s) 0509-10-0027.3 /CAF130001GP 15 SRP PI #G000006130	Type of Approval(s) Coastal GP 15 Investigation/Remediation of Hazardous Substances	Enabling Statute(s) N.J.S.A 13:9B FWW N.J.S.A. 12:5-3
<p>Permittee: Jersey Central Power & Light Co. 300 Madison Ave. P. O. Box 1911 Morristown, NJ 07962-1911</p>	<p>Site Location: Block 39.04; Lots 10.01, 10.02, 11.01, 12.01, 12.02 Municipality: Sea Isle City County: Cape May</p>	
<p>Description of Authorized Activities Perform remediation of hazardous substances pursuant to SRP PI #G000006130/ Remedial Action Work Plan submitted by the LSRP consisting of the following:</p> <p>Perform site preparation, including demolition of structures, removal of concrete pavement and sidewalk or asphalt pavements, deck and stairs within the boundaries of approximately a 76,800 Sq. Ft. area; and install approximately 1,120 L.F. of steel perimeter sheeting; excavation of approximately 14,700 tons of soil and associated dewatering; install various monitoring devices; and perform restoration including backfilling with clean fill materials. All work to be performed as shown on the referenced approved plans.</p>		
<p>Prepared by:  David Q. Risilla</p> <p>Date: _____</p>	<p>Received and/or Recorded by County Clerk</p>	
<p>This permit is not valid unless authorizing signature appears on the last page.</p>		

CONDITIONS APPLICABLE TO ALL LAND USE PERMITS:

1. In accordance with the applicable regulations, any person who is aggrieved by this decision or any of the conditions of this approval may request a hearing within 30 days after notice of the decision is published in the DEP Bulletin. This request must include a completed copy of the Administrative Hearing Request Checklist. The DEP Bulletin is available through the Department's website at <http://www.nj.gov/dep/bulletin> and the Checklist is available through Division's website at <http://www.nj.gov/dep/landuse/forms/lurpaahr.pdf>. In addition to your hearing request, you may file a request with the Office of Dispute Resolution to engage in alternative dispute resolution. Please see the website www.nj.gov/dep/odr for more information about this process;
2. The permittee, its contractors and subcontractors shall comply with all conditions of this permit, supporting documents and approved drawings; and
 - i. Plans and specification in the application and conditions imposed by this permit shall remain in full force and effect so long as the proposed development or any portion thereof is in existence, unless modified by the Department in writing;
 - ii. If this permit contains a condition that must be satisfied prior to the commencement of construction, the permittee must comply with such condition(s) within the time required by the permit or, if no time specific requirement is imposed, then within six months of the effective date of the permit, or provide evidence satisfactory to the Department that such condition(s) cannot be satisfied; and
 - iii. Any noncompliance with this permit constitutes a violation, and is grounds for enforcement action, as well as suspension and/or termination of the permit; This approval does not in any way affect the right of the State to seek and collect monetary penalties or to take other enforcement action, should it be determined that a violation has occurred onsite;
3. It shall not be a defense for this permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit;
4. The permittee shall take all reasonable steps to prevent, minimize or correct any adverse impact on the environment resulting from activities conducted pursuant to the permit, or from noncompliance with the permit;
5. The issuance of this permit shall in no way expose the State of New Jersey or the Department to liability for the sufficiency or correctness of the design of any construction, structure or structures. Neither the State nor the Department shall, in any way, be liable for the loss of life or property which may occur by virtue of the activity of development resulting from any permit;
6. The permittee shall immediately inform the Department of any unanticipated adverse effects on the environment not described in the application or in the conditions of this permit. The Department may, upon discovery of such unanticipated adverse effects, and upon the failure

of the permittee to submit a report thereon, notify the permittee of its intent to suspend the permit;

7. This permit can be modified, suspended or terminated for cause. The filing of a request to modify an issued permit by the permittee, or a notification of planned changes or anticipated noncompliance does not stay any condition of this permit;

8. This permit does not convey any property rights of any sort, or any exclusive privilege;

9. A copy of the permit and other authorizing documents including all approved plans and drawings shall be maintained at the authorized site at all times and made available to Department representatives or their designated agents immediately upon request.

- i. The permittee shall also furnish to the Department within a reasonable time any information that the Department requests to determine compliance with this permit or to determine whether cause exists for suspension or termination of this permit; and
- ii. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by the permit;

10. The permittee shall allow an authorized representative of the Department, upon notification under current rule and upon the presentation of credentials, to:

- i. Enter upon the permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of this permit;
- ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit; and
- iii. Inspect at reasonable times any facilities, equipment, practices or operations regulated or required under the permit. Failure to allow reasonable access under this section shall be considered a violation of this chapter and subject the permittee to enforcement action;
- iv. Sample or monitor at reasonable times for the purposes of assuring compliance with applicable rules;

11. No change in plans or specifications upon which this permit is issued shall be made except with the prior written permission of the Department;

12. The permittee shall provide reports to the Department as follows:

- i. Monitoring results shall be reported at the intervals specified elsewhere in this permit;
- ii. The permittee shall immediately report to the Department by telephone at (877) 927-6337 any noncompliance that may endanger health or the environment. In addition, the permittee shall report all noncompliance to Bureau of Coastal and Land Use Compliance and Enforcement, 401 E. State Street, 4th Floor, P.O. Box 422, Mail Code: 401-04C, Trenton, NJ 08625, in writing within five business days of the time the permittee becomes aware of the noncompliance. The written notice shall include: a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated length of time it

- is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. Such notice shall not, however, serve as a defense to enforcement action if the project is found to be in violation of this chapter;
- iii. Where the permittee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application or in any report to the Department, it shall promptly submit such facts or information;
13. Development which requires soil disturbance, the creation of drainage structures, or changes in natural contours shall conduct operations in accordance with the latest revised version of "Standards for Soil Erosion Sediment Control in New Jersey," promulgated by the New Jersey State Soil Conservation Committee, pursuant to the Soil Erosion and Sediment Control Act of 1975, N.J.S.A. 4:24-42 et seq. and N.J.A.C. 2:90-1.3 through 1.14. and must obtain any required approvals from the local Soil Conservation District;
14. If any condition or this permit is determined to be legally unenforceable, modifications and additional conditions may be imposed by the Department as necessary to protect the public interest;
15. This permit is not transferable to any person unless the transfer is approved by the Department;
16. The permittee must obtain any and all other Federal, State and/or local approvals. Authorization to undertake a regulated activity under these rules does not indicate that the activity also meets the requirements of any other rule, plan or ordinance. It is the applicant's responsibility to obtain all necessary approvals for a proposed project;
17. While the regulated activities are being undertaken, neither the permittee nor its agents, shall cause or permit any unreasonable interference with the free flow of a regulated feature by placing or dumping any materials, equipment, debris or structures within or adjacent to the regulated area. Upon completion or abandonment of the work, the permittee and/or its agents shall remove and dispose of in a lawful manner all excess materials, debris, equipment, silt fences and other temporary soil erosion and sediment control devices from all regulated areas. Only clean non-toxic fill shall be used where necessary;
18. All excavated material or dredged material shall be disposed of in a lawful manner. (For example, it should be placed outside of any flood hazard area, riparian zone, regulated water, freshwater/coastal wetlands and adjacent transition area, and in such a way as to not interfere with the positive drainage of the receiving area);
19. This permit or Verification shall be recorded in its entirety in the office of the County Clerk or the Registrar of Deeds and Mortgages for each county where this project is located. Verified notice of this action shall be forwarded to the Department immediately thereafter.

CONDITIONS APPLICABLE TO (FLOOD HAZARD RULES) (FRESHWATER WETLANDS RULES) (COASTAL RULES):

The total amount of disturbance associated with this authorization shall not exceed 1.7 acre (76,800 sq. ft.) of uplands.

CONDITIONS APPLICABLE TO SPECIFIC PROJECT:

The drawings hereby approved are depicted on sheets 1-4 prepared by GEI Consultants dated August 19, 2013, entitled: "SEA ISLE FORMER MPG SITE. Sea Isle City, New Jersey, Existing Conditions & Exploration Location Plan; Remedial Excavation Plan (sheet 2); Restoration Plan (sheet 3) and Restoration Details (sheet 4)".

If you need clarification on any section of this permit or its conditions, please contact David Q. Risilia at (609) 292-9342.


Suzanne Dietrick, Supervisor
Division of Land Use Regulation

Date 11/12/13

Original sent to Agent to record
C: Applicant
Municipal Construction Official
Municipal Clerk



CAPE ATLANTIC CONSERVATION DISTRICT

6260 Old Harding Highway
Mays Landing, New Jersey 08330
Phone (609) 625-3144 Fax (609) 625-7360
www.capeatlantic.org

November 30, 2012

Frank Lawson
Jersey Central Power & Light Company
300 Madison Avenue
Morristown, NJ 07962

RE: CERTIFICATION – SOIL EROSION AND SEDIMENT CONTROL PLAN
APPLICATION NO. 406-12 PROJECT NAME: Sea Isle City Former MGP
BLOCK: 39.04 LOT(S): 9, 10.01, 13-16, 110 & 120
MUNICIPALITY: Sea Isle City
PLANS PREPARED BY: GEI Consultants, Inc.
DATE: 11/5/12 LAST REVISED DATE: 11/12/12

The Cape Atlantic Conservation District has reviewed the above erosion control plan and certifies that the plan is in accordance with the N.J. Erosion and Sediment Control Act, Chapter 251, P.L. 1975.

CERTIFICATION REQUIREMENTS;

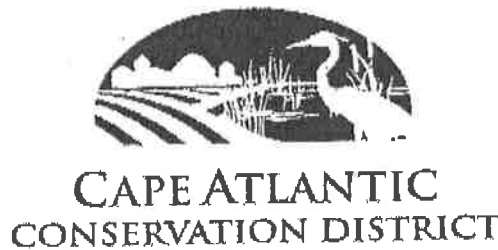
1. The District must be notified 48 hours in advance of start of any land disturbance. Use postcard enclosed.
2. A copy of the Erosion Control Plan must be on site.
3. All revisions and municipal renewals of this project will require resubmission and approval by the District. Any conveyance of the project (or portion thereof) will transfer full responsibility for compliance to subsequent owner(s). The District must be notified in writing of any change of ownership.
4. NO Certificates of Occupancy will be issued by a Municipality until a Certificate of Compliance is issued by this Office. Requests for certificates of Compliance must be made **FIVE (5) WORKING DAYS IN ADVANCE**.
5. This approval is limited to the controls specified in this plan. It is not an authorization to engage in the proposed land use unless the Municipality or other controlling agency has previously approved such use.
6. This Certification is valid for three and one-half year.

Failure to follow the provisions of your Plan will result in the filing of a complaint against you under the provisions of N.J.S.A. 2A:58-1 et. Seq., the Penalty Enforcement Law wherein you may be subject to fines of up to \$3,000.00 for each and every day during which said violation continues each day constituting an additional separate and district offense.

RICHARD S. DOVEY,
Chairman

cc: Neil Byrne, Construction Official
Andrew Previti, City Engineer
Brian Mannino, GEI Consultants, Inc. (via fax)

6260 Old Harding Highway
 Mays Landing, NJ 08330
 Phone (609) 625-3144
 Fax (609) 625-7360
 www.capeatlantic.org



For District Use Only	
Application Number	406-12CM
CERTIFIED BY THE CAPE-ATLANTIC SOIL CONSERVATION DISTRICT	
DATE NOV 30 2012	

APPLICATION FOR SOIL EROSION AND SEDIMENT CONTROL PLAN CERTIFICATION

The enclosed soil erosion and sediment control plan and supporting information are submitted for certification pursuant to the Soil Erosion and Sediment Control Act, Chapter 231, P.L. 1973 as amended (N.J.S.A. 4:24-39 et. seq.) An application for certification of a soil erosion and sediment control plan shall include the items listed on the reverse side of this form.

Name of Project Sea Isle City Former MGP		Project Location: Municipality City of Sea Isle City	
Project Street Address 211, 219, 223, and 227 40th Street		Block 39.04	Lot 9, 10.01, 13, 14, 15, 16, 110 & 120
Project Owner(s) Name Jersey Central Power & Light Company		Phone # 973-401-8309	Fax # 973-644-4165
Project Owner(s) Street Address (No P.O. Box Numbers) 300 Madison Avenue		City Morristown	State NJ Zip 07962
Total Area of Project (Acres) Approx. 1.1	Total Area or Land to be Disturbed (Acres) Approx. 0.5 acres	No. Dwelling or other Units 4 houses, 6 units	Fee \$ 815.00 1375.⁰⁰
Plans Prepared by* GEI Consultants, Inc.		Phone # 856-608-6860	Fax # 856-608-6864
Street Address 18000 Horizon Way, Suite 200		City Mount Laurel	State NJ Zip 08054

(Engineering related items of the Soil Erosion and Sediment Control Plan MUST be prepared by or under the direction of and be sealed by a Professional Engineer or Architect licensed in the State of New Jersey, in accordance with NJAC 13:27-6.1 et. seq.)

Agent Responsible During Construction GEI Consultants, Inc.			
Street Address 18000 Horizon Way, Suite 200			
City Mount Laurel	State NJ	Zip 08054	Phone (856) 608-6860 Fax # (856) 608-6864

The applicant hereby certifies that all soil erosion and sediment control measures are designed in accordance with current Standards for Soil Erosion and Sediment Control in New Jersey and will be installed in accordance with those Standards and the plan as approved by the Soil Conservation District and agrees as follows:

- To notify the District in writing at least 48 hours in advance of any land disturbance activity. Failure to provide such notification may result in additional inspection fees.
- To notify the District upon completion of the Project (Note: No certificate of occupancy can be granted until a report of compliance is issued by the District.
- To maintain a copy of the certified plan on the project site during construction.
- To allow District agents to go upon project lands for inspection.
- That any conveyance of this project or portion thereof prior to its completion will transfer full responsibility for compliance with the certified plan to any subsequent owners.
- To comply with all terms and conditions of this application and certified plan including payment of all fees prescribed by the district fee schedule hereby incorporated by reference.

The applicant hereby acknowledges that structural measures contained in the Soil Erosion and Sediment Control Plan are reviewed for adequacy to reduce offsite soil erosion and sedimentation and not for adequacy of structural design. The applicant shall retain full responsibility for any damages which may result from any construction activity notwithstanding district certification of the subject soil erosion and sediment control plan. It is understood that approval of the plan submitted with this application shall be valid only for the duration of the initial project approval granted by the municipality. All municipal renewals of this project will require submission and approval by the district. In no case shall the approval extend beyond three and one half years at which time resubmission and certification will be required. Soil Erosion and Sediment Control Plan certification is limited to the controls specified in the plan. It is not authorization to engage in the proposed land use unless such use has been previously approved by the municipality or other controlling agency.

1. Applicant Certification* Signature Christopher W. Dailey, Senior Project Manager, GEI Consultants, Inc. Applicant Name (Print) Date 11/20/12	3. Plan determined complete: Signature of District Official Date 11-30-12
2. Receipt of fee, plan and supporting documents is hereby acknowledged: Signature of District Official Date 11-30-12	4. Plan certified, denied or other actions noted above. Special Remarks: Signature of District Official Date 11-30-12

*If other than project owner, written authorization of owner must be attached.

NOTICE OF START OF CONSTRUCTION

Job Supervisor: _____ Phone #: _____

Co. Name: _____ Fax #: _____

Address: _____ Cell #: _____

City, State, Zip: _____

Project Name: _____

Municipality: _____

Application Number: _____

Last Revised Date of Plans: _____

This will serve as the required 48 hour notice as to the start of the above mentioned project. This project will start on _____.

Failure to notify this office of the start of construction will result in the issuance of a violation notice and/or a stop work order.

Please mail your completed form to:

**Cape Atlantic Conservation District
6260 Old Harding Highway
Mays Landing, NJ 08330**

or

fax to:

(609) 625-7360



**CAPE ATLANTIC
CONSERVATION DISTRICT**

6260 Old Harding Highway
Mays Landing, New Jersey 08330
Phone (609) 625-3144 Fax (609) 625-7360
www.capeatlantic.org

November 14, 2013

Jersey Central Power & Light Company
300 Madison Avenue
Morristown, NJ 07962

RE: CERTIFICATION – SOIL EROSION AND SEDIMENT CONTROL PLAN
APPLICATION NO. 513-13 PROJECT NAME: SIC Former MGP, Phase V
BLOCK: 39.04 LOT(S): 10.01, 10.02, 11.01, 11.02, 12.01, 12.02, 22 & 23
MUNICIPALITY: Sea Isle City
PLANS PREPARED BY: GEI Consultants, Inc.
DATE: 9/25/13 LAST REVISED DATE: ---

The Cape Atlantic Conservation District has reviewed the above erosion control plan and certifies that the plan is in accordance with the N.J. Erosion and Sediment Control Act, Chapter 251, P.L. 1975.

CERTIFICATION REQUIREMENTS;

1. The District must be notified 48 hours in advance of start of any land disturbance. Use postcard enclosed.
2. A copy of the Erosion Control Plan must be on site.
3. All revisions and municipal renewals of this project will require resubmission and approval by the District. Any conveyance of the project (or portion thereof) will transfer full responsibility for compliance to subsequent owner(s). The District must be notified in writing of any change of ownership.
4. NO Certificates of Occupancy will be issued by a Municipality until a Certificate of Compliance is issued by this Office. Requests for certificates of Compliance must be made **FIVE (5) WORKING DAYS IN ADVANCE**.
5. This approval is limited to the controls specified in this plan. It is not an authorization to engage in the proposed land use unless the Municipality or other controlling agency has previously approved such use.
6. This Certification is valid for three and one-half year.

Failure to follow the provisions of your Plan will result in the filing of a complaint against you under the provisions of N.J.S.A. 2A:58-1 et. Seq., the Penalty Enforcement Law wherein you may be subject to fines of up to \$3,000.00 for each and every day during which said violation continues each day constituting an additional separate and district offense.

RICHARD S. DOVEY,
Chairman

cc: Neil Byrne, Construction Official
Andrew Previti, Twp. Engineer
Christopher Dailey, GEI Consultants, Inc.



For District Use Only

Application Number	537-13 cm
CERTIFIED BY THE CAPE-ATLANTIC SOIL CONSERVATION DISTRICT	
DATE	NOV 14 2013

APPLICATION FOR SOIL EROSION AND SEDIMENT CONTROL PLAN CERTIFICATION

The enclosed soil erosion and sediment control plan and supporting information are submitted for certification pursuant to the Soil Erosion and Sediment Control Act, Chapter 251, P.L. 1975 as amended (NJSA 4:24-39 et. seq.) An application for certification of a soil erosion and sediment control plan shall include the items listed on the reverse side of this form.

Name of Project		Sea Isle City Former MGP Ph. V		Project Location: Municipality		City of Sea Isle City	
Project Street Address		205, 207, and 209 40th St.; 210 39th St.		Block		39.04	
Project Owner(s) Name		Jersey Central Power & Light Company		Lot		10.01, 10.02, 11.01, 11.02, 12.01, 12.02, 22, and 23	
Project Owner(s) Street Address (No P.O. Box Numbers)		300 Madison Avenue		City		Morristown	
Total Area of Project (Acres)		Approx. 1		Total Area or Land to be Disturbed (Acres)		Approx. 0.5 acre	
Plans Prepared by*		GEI Consultants, Inc.		No. Dwelling or other Units		3 houses (2 single-family, 1 duplex), 4 units	
Street Address		18000 Horizon Way, Suite 200		City		Mount Laurel	
Project Owner(s) Street Address (No P.O. Box Numbers)		300 Madison Avenue		State		NJ	
Total Area of Project (Acres)		Approx. 1		Total Area or Land to be Disturbed (Acres)		Approx. 0.5 acre	
Project Owner(s) Name		Jersey Central Power & Light Company		Phone #		973-401-8309	
Project Owner(s) Street Address (No P.O. Box Numbers)		300 Madison Avenue		Fax #		973-644-4165	
Total Area of Project (Acres)		Approx. 1		City		Morristown	
Project Owner(s) Name		Jersey Central Power & Light Company		State		NJ	
Project Owner(s) Street Address (No P.O. Box Numbers)		300 Madison Avenue		Zip		07962	
Total Area of Project (Acres)		Approx. 1		Total Area or Land to be Disturbed (Acres)		Approx. 0.5 acre	
Plans Prepared by*		GEI Consultants, Inc.		Fee		\$ 555.00	
Street Address		18000 Horizon Way, Suite 200		Phone #		856-608-6860	
Project Owner(s) Name		Jersey Central Power & Light Company		Fax #		856-608-6864	
Project Owner(s) Street Address (No P.O. Box Numbers)		300 Madison Avenue		City		Mount Laurel	
Total Area of Project (Acres)		Approx. 1		State		NJ	
Project Owner(s) Name		Jersey Central Power & Light Company		Zip		08054	
Project Owner(s) Street Address (No P.O. Box Numbers)		300 Madison Avenue		City		Morristown	
Total Area of Project (Acres)		Approx. 1		Total Area or Land to be Disturbed (Acres)		Approx. 0.5 acre	
Plans Prepared by*		GEI Consultants, Inc.		Phone #		856-608-6860	
Street Address		18000 Horizon Way, Suite 200		Fax #		856-608-6864	
Project Owner(s) Name		Jersey Central Power & Light Company		City		Mount Laurel	
Project Owner(s) Street Address (No P.O. Box Numbers)		300 Madison Avenue		State		NJ	
Total Area of Project (Acres)		Approx. 1		Zip		08054	
Project Owner(s) Name		Jersey Central Power & Light Company		Phone #		856-608-6860	
Project Owner(s) Street Address (No P.O. Box Numbers)		300 Madison Avenue		Fax #		856-608-6864	

(Engineering related items of the Soil Erosion and Sediment Control Plan MUST be prepared by or under the direction of and be sealed by a Professional Engineer or Architect licensed in the State of New Jersey, in accordance with NJAC 13:27-6.1 et. seq.)

Agent Responsible During Construction		GEI Consultants, Inc.	
Street Address		18000 Horizon Way, Suite 200	
City		Mount Laurel	
State		NJ	
Zip		08054	
Phone		856-608-6860	
Fax #		856-608-6864	

The applicant hereby certifies that all soil erosion and sediment control measures are designed in accordance with current Standards for Soil Erosion and Sediment Control In New Jersey and will be installed in accordance with those Standards and the plan as approved by the Soil Conservation District and agrees as follows:

- To notify the District in writing at least 48 hours in advance of any land disturbance activity. Failure to provide such notification may result in additional inspection fees.
- To notify the District upon completion of the Project (Note: No certificate of occupancy can be granted until a report of compliance is issued by the District.
- To maintain a copy of the certified plan on the project site during construction.
- To allow District agents to go upon project lands for inspection.
- That any conveyance of this project or portion thereof prior to its completion will transfer full responsibility for compliance with the certified plan to any subsequent owners.
- To comply with all terms and conditions of this application and certified plan including payment of all fees prescribed by the district fee schedule hereby incorporated by reference.

The applicant hereby acknowledges that structural measures contained in the Soil Erosion and Sediment Control Plan are reviewed for adequacy to reduce offsite soil erosion and sedimentation and not for adequacy of structural design. The applicant shall retain full responsibility for any damages which may result from any construction activity notwithstanding district certification of the subject soil erosion and sediment control plan. It is understood that approval of the plan submitted with this application shall be valid only for the duration of the initial project approval granted by the municipality. All municipal renewals of this project will require submission and approval by the district. In no case shall the approval extend beyond three and one half years at which time resubmission and certification will be required. Soil Erosion and Sediment Control Plan certification is limited to the controls specified in the plan. It is not authorization to engage in the proposed land use unless such use has been previously approved by the municipality or other controlling agency.

1. Applicant Certification*	Signature		Date	10/31/13
Applicant Name (Print)		Christopher W. Dailey, Vice President, GEI Consultants, Inc.		
2. Receipt of fee, plan and supporting documents is hereby acknowledged:	Signature of District Official		Date	11/13/13
3. Plan determined complete	Signature of District Official		Date	11/13/13
4. Plan certified, denied or other actions noted above. Special Remarks:	Signature of District Official		Date	11/14/13

*If other than project owner, written authorization of owner must be attached.

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix F

Monitoring Well Documentation

WELL DECOMMISSIONING REPORT

PROPERTY OWNER: JERSEY CENTRAL POWER & LIGHT COMPANY

Company/Organization: Jersey Central Poeer & Light Co.

Address: 300 Madison Ave. Morristown, New Jersey 07962

WELL LOCATION: Former MPG Site

Address: CENTRAL AVE & 39TH ST. DW4

County: Cape May Municipality: Sea Isle City Lot: 23 Block: 3904

Easting (X): 437544 Northing (Y): 118230
Coordinate System: NJ State Plane (NAD83) - USFEET

**DATE WELL
DECOMMISSIONED:** December 3, 2012

WELL USE: DEWATERING

Other Use(s): _____

Local ID: DW4

Reason for Decommissioning: No longer in use

Finished Well Depth (ft.): 70

Was a New Well Drilled? N

Formation Type: Unconsolidated

New Well Permit Number: _____

WELL DECOMMISSIONING INFORMATION

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole					
Casing	0	50	8	PVC	SH 40
Screen	50	70	8	PVC	0.030"

MATERIALS USED

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in.)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	70	8	0	0	2300	130
Sand/Gravel							

ADDITIONAL INFORMATION

Obstructions: No

Authorization Official: _____

Obstruction Type: _____

Authorization Number: _____

Alternative Decomm. Method? No

Authorization Date: _____

Method Used _____

ATTACHMENTS: _____

Gordon Blewett
JOURNEYMAN
Sealing Driller: LICENSE # 0021852

B & B DRILLING INC
BOX 8 RT 206
Company: Netcong (Morris), NJ 07857

WELL DECOMMISSIONING REPORT

PROPERTY OWNER: JERSEY CENTRAL POWER & LIGHT COMPANY

Company/Organization: Jersey Central Poeer & Light Co.

Address: 300 Madison Ave. Morristown, New Jersey 07962

WELL LOCATION: Former MPG Site

Address: CENTRAL AVE & 39TH ST. DW2

County: Cape May Municipality: Sea Isle City Lot: 24 Block: 3904

Easting (X): 437493 Northing (Y): 118227
Coordinate System: NJ State Plane (NAD83) - USFEET

**DATE WELL
DECOMMISSIONED:** December 3, 2012

WELL USE: DEWATERING

Other Use(s): _____

Local ID: DW2

Reason for Decommissioning: No longer in use

Finished Well Depth (ft.): 70

Was a New Well Drilled? N

Formation Type: Unconsolidated

New Well Permit Number: _____

WELL DECOMMISSIONING INFORMATION

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole					
Casing	0	50	8	PVC	SH 40
Screen	50	70	8	PVC	0.030"

MATERIALS USED

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in.)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	70	8	0	0	2300	130
Sand/Gravel							

ADDITIONAL INFORMATION

Obstructions: No

Authorization Official: _____

Obstruction Type: _____

Authorization Number: _____

Alternative Decomm. Method? No

Authorization Date: _____

Method Used _____

ATTACHMENTS: _____

Gordon Blewett
JOURNEYMAN
Sealing Driller: LICENSE # 0021852

B & B DRILLING INC
BOX 8 RT 206
Company: Netcong (Morris), NJ 07857

WELL DECOMMISSIONING REPORT

PROPERTY OWNER: JERSEY CENTRAL POWER & LIGHT COMPANY

Company/Organization: Jersey Central Poeer & Light Co.

Address: 300 Madison Ave. Morristown, New Jersey 07962

WELL LOCATION: Former MGP Site

Address: Central Avenue & 39th Street

County: Cape May Municipality: Sea Isle City Lot: 33 Block: 39.04

Easting (X): 437381 Northing (Y): 118277
Coordinate System: NJ State Plane (NAD83) - USFEET

**DATE WELL
DECOMMISSIONED:** December 3, 2012

WELL USE: DEWATERING

Other Use(s): _____

Local ID: DW-4

Reason for Decommissioning: No longer in use

Finished Well Depth (ft.): 68

Was a New Well Drilled? N

Formation Type: Unconsolidated

New Well Permit Number: _____

WELL DECOMMISSIONING INFORMATION

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole					
Casing	0	48	8	PVC	SH 40
Screen	48	68	8	PVC	0.030"

MATERIALS USED

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in.)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	68	8	0	0	2300	130
Sand/Gravel							

ADDITIONAL INFORMATION

Obstructions: No

Authorization Official: _____

Obstruction Type: _____

Authorization Number: _____

Alternative Decomm. Method? No

Authorization Date: _____

Method Used _____

ATTACHMENTS: _____

Gordon Blewett
JOURNEYMAN
Sealing Driller: LICENSE # 0021852

B & B DRILLING INC
BOX 8 RT 206
Company: Netcong (Morris), NJ 07857

WELL DECOMMISSIONING REPORT

PROPERTY OWNER: JERSEY CENTRAL POWER & LIGHT COMPANY

Company/Organization: Jersey Central Poeer & Light Co.

Address: 300 Madison Ave. Morristown, New Jersey 07962

WELL LOCATION: Former MPG Site

Address: CENTRAL AVE & 39TH ST. DW1

County: Cape May Municipality: Sea Isle City Lot: 22 Block: 3904

Easting (X): 437530 Northing (Y): 118209
Coordinate System: NJ State Plane (NAD83) - USFEET

**DATE WELL
DECOMMISSIONED:** December 4, 2012

WELL USE: DEWATERING

Other Use(s): _____

Local ID: DW1

Reason for Decommissioning: No longer in use

Finished Well Depth (ft.): 70

Was a New Well Drilled? N

Formation Type: Unconsolidated

New Well Permit Number: _____

WELL DECOMMISSIONING INFORMATION

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole					
Casing	0	50	8	PVC	SH 40
Screen	50	70	8	PVC	0.030"

MATERIALS USED

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in.)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	70	8	0	0	2300	130
Sand/Gravel							

ADDITIONAL INFORMATION

Obstructions: No

Authorization Official: _____

Obstruction Type: _____

Authorization Number: _____

Alternative Decomm. Method? No

Authorization Date: _____

Method Used _____

ATTACHMENTS: _____

Gordon Blewett
JOURNEYMAN
Sealing Driller: LICENSE # 0021852

B & B DRILLING INC
BOX 8 RT 206
Company: Netcong (Morris), NJ 07857

WELL DECOMMISSIONING REPORT

PROPERTY OWNER: JERSEY CENTRAL POWER & LIGHT COMPANY

Company/Organization: Jersey Central Poeer & Light Co.

Address: 300 Madison Ave. Morristown, New Jersey 07962

WELL LOCATION: Former MPG Site

Address: CENTRAL AVE & 39TH ST. DW3

County: Cape May Municipality: Sea Isle City Lot: 22 Block: 3904

Easting (X): 437500 Northing (Y): 118257
Coordinate System: NJ State Plane (NAD83) - USFEET

**DATE WELL
DECOMMISSIONED:** December 4, 2012

WELL USE: DEWATERING

Other Use(s): _____

Local ID: DW3

Reason for Decommissioning: No longer in use

Finished Well Depth (ft.): 70

Was a New Well Drilled? N

Formation Type: Unconsolidated

New Well Permit Number: _____

WELL DECOMMISSIONING INFORMATION

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole					
Casing	0	50	8	PVC	SH 40
Screen	50	70	8	PVC	0.030"

MATERIALS USED

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in.)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	70	8	0	0	2300	130
Sand/Gravel							

ADDITIONAL INFORMATION

Obstructions: No

Authorization Official: _____

Obstruction Type: _____

Authorization Number: _____

Alternative Decomm. Method? No

Authorization Date: _____

Method Used _____

ATTACHMENTS: _____

MONITORING WELL CERTIFICATION – FORM A – AS-BUILT CERTIFICATION

(One form must be completed for each well)

Name of Permittee: JCP&L Company
Name of Facility: 207 40th Street
Location: 207 40th Street, Sea Isle City, NJ
NJPDES Permit No.: _____

CERTIFICATION

1. Well Permit Number (As assigned by NJDEP’s Bureau of Water Allocation):	<u>E201318339</u>
2. Owner’s Well Number (As shown on the application or plans):	<u>INC-112</u>
3. Well Completion Date:	<u>12/20/2013</u>
4. Distance from Top of Casing (cap off) to ground surface (One-hundredth of a foot):	<u>0</u>
5. Total Depth of Well to the nearest ½ foot:	_____
6. Depth to Top of Screen From Top of Casing (or depth to open hole) To the nearest ½ foot:	<u>60</u>
7. Screen Length (or length of open hole) in feet:	<u>0</u>
8. Screen or Slot Size:	<u>N/A</u>
9. Screen or Slot Material:	_____
10. Casing Material: (PVC, Steel or Other-Specify):	<u>PVC</u>
11. Casing Diameter (inches):	<u>2.75</u>
12. Static Water Level From Top of Casing at the Time of Installation (One-hundredth of a foot):	<u>DRY</u>
13. Yield (gallons per minute):	<u>N/A</u>
14. Development Technique (specify):	<u>None</u>
15. Length of Time Well is Developed/ Pumped or Bailed:	<u>0</u> Hours <u>_____</u> Minutes
16. Lithologic Log:	<u>_____</u> Attach _____

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

<u>Michael Graham</u> Name (Type or Print)	_____ Signature
<u>JD0023952</u> Certification or License No.	_____ Seal

Certification by Executive Officer or Duly Authorized Representative

<u>Dennis C. Moore</u> Name (Type or Print)	_____ Signature
<u>President</u> Title	<u>4/7/2014</u> Date

COMPLETE AND SUBMIT THE ORIGINAL FORM TO:
401-02B
NJDEP, Division of Water Quality
Bureau of Nonpoint Pollution Control
PO Box 420
Trenton, New Jersey 08625-0420

Reset Form

MONITORING WELL CERTIFICATION – FORM A – AS-BUILT CERTIFICATION

(One form must be completed for each well)

Name of Permittee: JCP&L Company
Name of Facility: 207 40th Street
Location: 207 40th Street, Sea Isle City, NJ
NJPDES Permit No.:

CERTIFICATION

- 1. Well Permit Number (As assigned by NJDEP’s Bureau of Water Allocation): E201318338
2. Owner’s Well Number (As shown on the application or plans): INC-113
3. Well Completion Date: 12/20/2013
4. Distance from Top of Casing (cap off) to ground surface (One-hundredth of a foot): 0
5. Total Depth of Well to the nearest 1/2 foot:
6. Depth to Top of Screen From Top of Casing (or depth to open hole) To the nearest 1/2 foot: 60
7. Screen Length (or length of open hole) in feet: 0
8. Screen or Slot Size: N/A
9. Screen or Slot Material:
10. Casing Material: (PVC, Steel or Other-Specify): PVC
11. Casing Diameter (inches): 2.75
12. Static Water Level From Top of Casing at the Time of Installation (One-hundredth of a foot): DRY
13. Yield (gallons per minute): N/A
14. Development Technique (specify): None
15. Length of Time Well is Developed/ Pumped or Bailed: 0 Hours 0 Minutes
16. Lithologic Log: Attach

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Michael Graham Name (Type or Print) Signature

JD0023952 Certification or License No. Seal

Certification by Executive Officer or Duly Authorized Representative

Dennis C. Moore Name (Type or Print) Signature

President Title 4/7/2014 Date

COMPLETE AND SUBMIT THE ORIGINAL FORM TO:
401-02B
NJDEP, Division of Water Quality
Bureau of Nonpoint Pollution Control
PO Box 420
Trenton, New Jersey 08625-0420

WELL PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Certifying Driller: DENNIS MOORE, JOURNEYMAN LICENSE # 0001214

Permit Issued to: AMERIDRILL INC

Company Address: 1201 EDGELY RD LEVITTOWN, PA 19057

PROPERTY OWNER

Name: JCP & L COMPANY JCP & L COMPANY

Organization: JCP & L Company

Address: 300 Madison Avenue

City: Morristown

State: New Jersey

Zip Code: 07962

PROPOSED WELL LOCATION

Facility Name: 207 40th Street

Address: 207 40th Street

County: Cape May

Municipality: Sea Isle City

Lot: 11.01

Block: 39.04

Easting (X): 437444 Northing (Y): 118098

Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: INC-112

SITE CHARACTERISTICS

PROPOSED CONSTRUCTION

WELL USE: INCLINOMETER

Other Use(s): _____

Diameter (in.): 6

Regulatory Program _____

Depth (ft.): 60

Requiring Wells/Borings: _____

Pump Capacity (gpm): 0

Case ID Number: _____

Drilling Method: Hollow Stem Augers

Deviation Requested: N

Attachments: _____

SPECIFIC CONDITIONS/REQUIREMENTS

Approval Date: December 16, 2013
Expiration Date: December 16, 2014

Approved by the authority of:
Bob Martin
Commissioner

Terry Pilawski, Chief
Bureau of Water Allocation and Well Permitting

WELL PERMIT

DEVIATION INFORMATION	
Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

GENERAL CONDITIONS/REQUIREMENTS
A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request. [N.J.A.C. 7:9D-1]
A well record must be submitted by the well driller to the Bureau of Water Systems and Well Permitting. Unless prior written approval is obtained from the Bureau of Water Systems and Well Permitting the well record shall be submitted electronically through the New Jersey Department of Environmental Protection's Regulatory Services Portal Submit Well Record: within ninety (90) days after the well is completed. [N.J.A.C. 7:9D-1]
All well drilling/pump installation activities shall comply with N.J.A.C. 7:9D-1 et seq. [N.J.A.C. 7:9D-1]
For this permit to remain valid, the well approved in this permit shall be constructed within one year of the effective date of the permit. [N.J.A.C. 7:9D-1]
If the pump capacity applied for is less than 70 gpm, no subsequent increase to 70 gpm or more shall be made without prior approval of the Bureau of Water Systems and Well Permitting. [N.J.A.C. 7:9D-1]
If the use of the well is to be changed a well permit for the proposed use of the well shall be submitted for review and approval. [N.J.A.C. 7:9D-1]
If you or a future property owner intend to redesignate this well as a Category I well (domestic, non-public, community water supply or public non-community water supply wells), the well must be constructed as a Category I well per the Well Construction and Abandonment Regulations at N.J.A.C. 7:0D-1.1 et seq. In addition, if the current or future property owner intends to have this well redesignated as a community water supply well, the well must be constructed by a Master well driller, which would include having a Master well driller on-site at all times during construction of the well, as specified in the Well Construction and Abandonment Regulations. Otherwise, the New Jersey Department of Environmental Protection will not allow the well to be redesignated, and a new well would have to be installed. [N.J.A.C. 7:9D-1.7((a))1i]
In accepting this permit the Property Owner and Driller agree to abide by the following terms and conditions [N.J.A.C. 7:9D-1]
In the event that this well is not constructed the well driller shall notify the Bureau of Water Systems and Well Permitting of the permit cancellation. Unless prior written approval is obtained from the Bureau of Water Systems and Well Permitting the Cancellation notification shall be submitted electronically through the New Jersey Department of Environmental Protection's Regulatory Services Portal Submit Well Permit Cancellation : by the expiration date of this permit. [N.J.A.C. 7:9D-1]
In the event this well is abandoned, the Owner or Well driller shall assume full responsibility for having the well decommissioned in a manner satisfactory to the New Jersey Department of Environmental Protection in accordance with the provisions of N.J.A.C. 7:9D-1 et seq. [N.J.A.C. 7:9D-1]
The granting of this permit shall not be construed in any way to affect the title or ownership of property, and shall not make the New Jersey Department of Environmental Protection or the State a party in any suit or question of ownership of property. [N.J.A.C. 7:9D-1]
The issuance of this permit shall not be deemed to affect in any way action by the New Jersey Department of Environmental Protection on any future application. [N.J.A.C. 7:9D-1]
This permit conveys no rights, either expressed, or implied to divert water. [N.J.A.C. 7:9D-1]
This permit does not waive the obtaining of Federal or other State or local Government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained. [N.J.A.C. 7:9D-1]
This permit is NONTRANSFERABLE [N.J.A.C. 7:9D]
This well shall not be used for the supply of potable / drinking water. [N.J.A.C. 7:9D-1]

WELL PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Certifying Driller: DENNIS MOORE, JOURNEYMAN LICENSE # 0001214

Permit Issued to: AMERIDRILL INC

Company Address: 1201 EDGELY RD LEVITTOWN, PA 19057

PROPERTY OWNER

Name: JCP & L COMPANY JCP & L COMPANY

Organization: JCP & L Company

Address: 300 Madison Avenue

City: Morristown

State: New Jersey

Zip Code: 08243

PROPOSED WELL LOCATION

Facility Name: 205 4th Street

Address: 205 40th Street

County: Cape May

Municipality: Sea Isle City

Lot: 11.02

Block: 39.04

Easting (X): 437542

Northing (Y): 118114

Local ID: INC-113

Coordinate System: NJ State Plane (NAD83) - USFEET

SITE CHARACTERISTICS

PROPOSED CONSTRUCTION

WELL USE: INCLINOMETER

Other Use(s): _____

Diameter (in.): 6

Regulatory Program

Depth (ft.): 60

Requiring Wells/Borings: _____

Pump Capacity (gpm): 0

Case ID Number: _____

Drilling Method: Hollow Stem Augers

Deviation Requested: N

Attachments: _____

SPECIFIC CONDITIONS/REQUIREMENTS

Approval Date: December 16, 2013

Expiration Date: December 16, 2014

Approved by the authority of:

Bob Martin

Commissioner

Terry Pilawski, Chief

Bureau of Water Allocation and Well Permitting

WELL PERMIT

DEVIATION INFORMATION	
Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

GENERAL CONDITIONS/REQUIREMENTS
A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request. [N.J.A.C. 7:9D-1]
A well record must be submitted by the well driller to the Bureau of Water Systems and Well Permitting. Unless prior written approval is obtained from the Bureau of Water Systems and Well Permitting the well record shall be submitted electronically through the New Jersey Department of Environmental Protection's Regulatory Services Portal Submit Well Record: within ninety (90) days after the well is completed.[N.J.A.C. 7:9D-1]
All well drilling/pump installation activities shall comply with N.J.A.C. 7:9D-1 et seq. [N.J.A.C. 7:9D-1]
For this permit to remain valid, the well approved in this permit shall be constructed within one year of the effective date of the permit. [N.J.A.C. 7:9D-1]
If the pump capacity applied for is less than 70 gpm, no subsequent increase to 70 gpm or more shall be made without prior approval of the Bureau of Water Systems and Well Permitting. [N.J.A.C. 7:9D-1]
If the use of the well is to be changed a well permit for the proposed use of the well shall be submitted for review and approval. [N.J.A.C. 7:9D-1]
If you or a future property owner intend to redesignate this well as a Category 1 well (domestic, non-public, community water supply or public non-community water supply wells), the well must be constructed as a Category 1 well per the Well Construction and Abandonment Regulations at N.J.A.C. 7:0D-1.1 et seq. In addition, if the current or future property owner intends to have this well redesignated as a community water supply well, the well must be constructed by a Master well driller, which would include having a Master well driller on-site at all times during construction of the well, as specified in the Well Construction and Abandonment Regulations. Otherwise, the New Jersey Department of Environmental Protection will not allow the well to be redesignated, and a new well would have to be installed. [N.J.A.C. 7:9D-1.7((a)1i)]
In accepting this permit the Property Owner and Driller agree to abide by the following terms and conditions [N.J.A.C. 7:9D-1]
In the event that this well is not constructed the well driller shall notify the Bureau of Water Systems and Well Permitting of the permit cancellation. Unless prior written approval is obtained from the Bureau of Water Systems and Well Permitting the Cancellation notification shall be submitted electronically through the New Jersey Department of Environmental Protection's Regulatory Services Portal Submit Well Permit Cancellation : by the expiration date of this permit.[N.J.A.C. 7:9D-1]
In the event this well is abandoned, the Owner or Well driller shall assume full responsibility for having the well decommissioned in a manner satisfactory to the New Jersey Department of Environmental Protection in accordance with the provisions of N.J.A.C. 7:9D-1 et seq. [N.J.A.C. 7:9D-1]
The granting of this permit shall not be construed in any way to affect the title or ownership of property, and shall not make the New Jersey Department of Environmental Protection or the State a party in any suit or question of ownership of property. [N.J.A.C. 7:9D-1]
The issuance of this permit shall not be deemed to affect in any way action by the New Jersey Department of Environmental Protection on any future application. [N.J.A.C. 7:9D-1]
This permit conveys no rights, either expressed, or implied to divert water. [N.J.A.C. 7:9D-1]
This permit does not waive the obtaining of Federal or other State or local Government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained. [N.J.A.C. 7:9D-1]
This permit is NONTRANSFERABLE [N.J.A.C. 7:9D]
This well shall not be used for the supply of potable / drinking water. [N.J.A.C. 7:9D-1]

WELL DECOMMISSIONING REPORT

PROPERTY OWNER: JCP&L JCP&L

Company/Organization: JCP&L

Address: 300 Madison Ave. Morristown, New Jersey 07962

WELL LOCATION: 207 40th Street

Address: 207 40th Street

County: Cape May

Municipality: Sea Isle City

Lot: 11.01

Block: 39.04

Easting (X): 437448 Northing (Y): 118103
Coordinate System: NJ State Plane (NAD83) - USFEET

DATE WELL
DECOMMISSIONED: April 29, 2014

WELL USE: INCLINOMETER

Other Use(s): _____

Local ID: INC-112

Reason for Decommissioning: No longer in use

Finished Well Depth (ft.): 60

Was a New Well Drilled? N

Formation Type: Unconsolidated

New Well Permit Number: _____

WELL DECOMMISSIONING INFORMATION

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole					
Casing	0	60	2	PVC	sch 80
Screen					

MATERIALS USED

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in.)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	60	2.75	0	15	282	24
Sand/Gravel							

ADDITIONAL INFORMATION

Obstructions: No

Authorization Official: _____

Obstruction Type: _____

Authorization Number: _____

Alternative Decomm. Method? No

Authorization Date: _____

Method Used _____

ATTACHMENTS: _____

Stephen Bartos
JOURNEYMAN
Sealing Driller: LICENSE # 0023951

AMERIDRILL INC
1201 EDGELY RD
Company: <NO DATA FOUND>, PA 19057

WELL DECOMMISSIONING REPORT

PROPERTY OWNER: JCP&L JCP&L

Company/Organization: JCP&L

Address: 300 Madison Ave. Morristown Town, New Jersey 07962

WELL LOCATION: 205 4th Street

Address: 205 40th Street

County: Cape May Municipality: Sea Isle City Lot: 11.02 Block: 39.04

Easting (X): 437538 Northing (Y): 118116
 Coordinate System: NJ State Plane (NAD83) - USFEET

**DATE WELL
 DECOMMISSIONED:** April 29, 2014

WELL USE: INCLINOMETER

Other Use(s): _____ Local ID: INC-113

Reason for Decommissioning: No longer in use

Finished Well Depth (ft.): 60 Was a New Well Drilled? N

Formation Type: Unconsolidated New Well Permit Number: _____

WELL DECOMMISSIONING INFORMATION

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole					
Casing	0	60	2.75	PVC	sch 80
Screen					

MATERIALS USED

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in.)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	60	2.75	0	15	282	24
Sand/Gravel							

ADDITIONAL INFORMATION

Obstructions: No Authorization Official: _____
 Obstruction Type: _____ Authorization Number: _____
 Alternative Decomm. Method? No Authorization Date: _____
 Method Used _____

ATTACHMENTS: _____

Stephen Bartos
 JOURNEYMAN
 Sealing Driller: LICENSE # 0023951

AMERIDRILL INC
 1201 EDGELY RD
 Company: <NO DATA FOUND>, PA 19057

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix G

Air Monitoring Reports



**Final Report
Sea Isle City MGP Site
Perimeter Air Monitoring Program**

**TRC Document No. L2013-162
TRC Project 197071.0000.0000**

July 2013

Prepared by:

**TRC Environmental Corporation
650 Suffolk Street, Suite 200
Lowell, MA 01854**

Prepared for:

**Jersey Central Power & Light Company
300 Madison Avenue
Morristown, NJ 07962**

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION	1-1
1.1 PROJECT BACKGROUND.....	1-1
2.0 METHODOLOGY	2-1
2.1 PROGRAM OVERVIEW.....	2-1
2.2 AIR MONITORING METHODOLOGY.....	2-2
2.2.1 <i>Meteorological Monitoring</i>	2-2
2.2.2 <i>Total Volatile Organic Compound Monitoring</i>	2-2
2.2.3 <i>Particulate Monitoring</i>	2-2
3.0 ACTION LEVELS.....	3-1
4.0 SUMMARY OF RESULTS.....	4-1
4.1 BACKGROUND MONITORING	4-1
4.2 PM ₁₀ RESULTS	4-1
4.3 TVOC RESULTS	4-2
4.4 WEEKLY REPORTS.....	4-2
5.0 QUALITY ASSURANCE/QUALITY CONTROL.....	5-1
5.1 VOLATILE ORGANIC MONITORS (TVOC).....	5-1
5.2 PARTICULATE MONITORS.....	5-1

APPENDICES

Appendix A- Background Report

Appendix B –Weekly Reports

Appendix C – Calibration Certificates

1.0 INTRODUCTION

1.1 Project Background

Perimeter air monitoring (PAM) was performed during soil remediation activities at the Sea Isle City former Manufactured Gas Plant (MGP) site. The area of soil remediation included the residential properties located at 227, 223, 219 and 211 40th Street, from where MGP-impacted soils were removed and the excavations subsequently backfilled with clean soil. The remediation area comprised approximately 17,000 square feet located in a residential section of Sea Isle City. Activities within the construction support area included equipment and material storage, and water treatment operations. These activities occurred on properties adjacent to and within the former MGP site, where soil remediation previously was performed.

Remediation activities consisted of the following:

- Contractor mobilization
- Site preparation
- Structure demolition and removal
- Structure relocation
- Sheeting installation
- Soil excavation and removal
- Soil backfilling, compaction, and grading
- Sheeting retrieval
- Structure restoration
- Site restoration
- Contractor demobilization

2.0 METHODOLOGY

2.1 Program Overview

Total Volatile Organic Compounds (TVOCs) and Particulates (as PM₁₀) were monitored at four field stations situated along the site perimeter on a continuous basis during soil disturbance activities. A mobile perimeter air monitoring approach was used, with each field station comprised of monitoring instrumentation for TVOC and PM₁₀. The following sections describe the monitoring approach including: instrumentation and methodology, monitoring and sampling frequency, as well as associated QA/QC and program reporting requirements.

An overview of the monitoring approach is as follows:

- Four mobile field stations were situated at the perimeter of the work area where remediation activities could result in fugitive air emissions.
- Operations commenced daily approximately a half hour prior to remediation, and, with the exception of equipment shut down resulting from inclement weather conditions, continued at all times during remediation activities that could result in fugitive air emissions. Operations continued for approximately a half hour after remediation had concluded each day.
- Particulates as PM₁₀ were monitored on a continuous basis and reported as 5-minute averages at each of the locations.
- TVOCs were measured on a continuous basis and reported as 15-minute averages at each of the locations.
- Meteorological parameters consisting of wind speed, wind direction, and temperature were monitored continuously at the site office complex and reported as 15-minute averages.
- TVOC and PM₁₀ data were available at each station and were downloaded to a field computer at the end of each working day.
- Visual alarms were activated at each field station if PM₁₀ or TVOC Action Levels were exceeded. Additionally a pre notification or alert visual alarm was activated at any field station that recorded a PM₁₀ concentration of 100 µg/m³ or a TVOC concentration of 0.25 ppm.
- If any TVOC reading exceeded the Action Level for a sustained period of 15 minutes, mitigation measures were implemented. A second consecutive 15-minute exceedance resulted in a work stoppage until a 15-minute average reading was restored below the TVOC Action Level.

- If PM₁₀ particulate levels exceeded the Action Level for a sustained period of 5 minutes mitigation measures were implemented. If two subsequent 5-minute readings still exceeded the Action Level, work was halted until the 5-minute average reading was restored below the Action Level.

2.2 Air Monitoring Methodology

2.2.1 Meteorological Monitoring

A meteorological station (Met Station) was erected on the deck of the duplex where the project offices were housed. The Met Station was equipped with sensors to measure wind speed, direction, and ambient temperature on a continuous basis during remedial activities. The Met Station recorded and allowed for instantaneous determination of the predominant wind direction and speed. The Met One Auto Met System was used for meteorological measurements.

2.2.2 Total Volatile Organic Compound Monitoring

TVOC data were collected at each of the field stations on a continuous basis via the use of a TVOC/PID Instrument (ppb Rae PGM-7240) as 15-minute averages. Data were logged and archived at each TVOC monitor and downloaded daily to the field computer. If any 15-minute average concentration exceeded the TVOC Action Level at any field station, mitigation measures were implemented. Two consecutive 15-minute average exceedances resulted in stopping of remedial work. Work did not resume until a 15-minute average reading was below the Action Level.

2.2.3 Particulate Monitoring

Particulate was continuously monitored to measure fugitive dust emissions that could result from the remedial activities. Respirable dust (as PM₁₀) was monitored on a real-time basis using the Met One Model GT-640A particle monitor. The Model GT-640A is a complete ambient air sampler using a forward light scattering detector and built-in logger. The GT-640A has an alarm capability that was triggered if the preset Action Level was exceeded. The 5-minute average data values were used for comparison with the Action Level. Data were collected and archived during the course of each day using the dedicated data logger housed within each GT-640A PM₁₀ monitor. All data were downloaded daily to the field computer. If the PM₁₀ levels exceeded the 5-minute average Action Level at any station, mitigation measures were implemented. If two consecutive 5-minute average readings exceeded the Action Level, work was halted until the 5-minute average reading was restored below the Action Level.

3.0 ACTION LEVELS

The Action Levels for the monitoring program were as follows:

Parameter	Action Level
TVOC*	0.5 PPM
Particulates**	150 $\mu\text{g}/\text{m}^3$

* Total Volatile Organic Compounds as benzene

** As PM_{10}

4.0 SUMMARY OF RESULTS

4.1 Background Monitoring

Two days of background air sampling were conducted prior to any site activity. Two of the four monitoring stations were used for the background sampling. One station was positioned upwind and the other downwind of the site. The background monitoring events took place during December 8 - 9, 2012. The background monitoring results are summarized in Appendix A.

4.2 PM₁₀ Results

During the period of December 20, 2012 to April 26, 2013, a total of 89 PM₁₀ measurements exceeded the Action Level of 150 ug/m³. Approximately 70% of these exceedances were attributable to off-site sources and inclement weather conditions. These results are summarized in Table 5-1 below, including a brief explanation of each exceedance.

Table 5-1. PM₁₀ 5-Minute Exceedances Sea Isle City MGP Site 12/20/12 – 4/26/13		
Date	Total No.	Explanation
1/30/12	3	All three prior to the start of the work day. Due to fugitive emissions from Central Ave.
2/6/03	2	Unknown offsite source.
2/14/13	1	Unknown offsite source.
2/20/13	3	Excavator loading out trucks from the back of the waste stockpile adjacent to Station 4.
2/26/13	7	Undetermined source, possibly exhaust from diesel trucks parked and idling adjacent to Station 4.
2/27/13	34	Heavy morning fog after rain the previous night
3/11/13	2	Saw cutting of pavement in front of 214 39 th Street.
3/19/13	11	Adding and mixing of Calciment with wet excavated material in the stockpile area.
3/21/13	2	Stockpiling of excavated material along eastern border of site.
3/27/13	2	Delivery of clean backfill to Cell 7.
4/1/13	3	Contractor moving fencing and groundcover in preparation for deliveries of clean backfill in Cell 7.
4/10/13	4	Adding and mixing of Calciment with wet excavated material in the stockpile area.
4/12/13	1	Prior to the start of the workday, no excavation activities occurring onsite.
4/17/13	1	Unknown offsite source.
4/24/13	13	Unknown source, opening of the gate or parking of vehicles in area along 40 th St. No open excavations or impacted soils onsite.
TOTAL	89	

4.3 TVOC Results

During the period of December 20, 2012 to April 26, 2013, only two TVOC measurements exceeded the Action Level of 0.5 ppm. Both of these exceedances were attributable to non-site activities. These data are summarized in Table 5-2 below, including a brief explanation of each exceedance:

Table 5-2. TVOC 15 Minute Exceedances Sea Isle City MGP Site 12/20/12 – 4/26/13		
Date	Total No.	Explanation
1/9/13	1	Laborers assembling manifold and dewatering header using PVC pipe dope and cement.
4/12/13	1	Discharge from used spray paint cans in a roll-off adjacent to station.

4.4 Weekly Reports

Reports were prepared for all calendar weeks during which remedial activities took place. A total of nineteen weekly reports were prepared during the period December 20, 2013 to April 26, 2013. These were initially posted on the project Share Point website. A copy of each of these weekly reports is provided on compact disk (CD) located in Appendix B of this report.

5.0 QUALITY ASSURANCE/QUALITY CONTROL

The quality assurance/quality control (QA/QC) procedures for this program are described in this section. The QA/QC procedures associated with the air quality measurements program were designed to ensure that data collected at the perimeter and proximate to the work area were accurate and correct.

5.1 Volatile Organic Monitors (TVOC)

The ppb Rae Model PGM-7240 Organic Vapor meter was used to monitor perimeter TVOC concentrations. The instrument was calibrated daily with a span benzene gas standard of 1 part per million (ppm) prior to the beginning of monitoring. Single use carbon zero filters provided and recommended by the manufacturer were used to zero each instrument daily. A Certificate of Analysis for the Benzene standard is provided in Appendix C. When a unit failed to respond properly to the calibration procedures, the instrument calibration was adjusted. When it was determined that the instrument could not be calibrated by adjustment, the unit was either repaired or replaced, whichever was more timely.

5.2 Particulate Monitors

The Met One Model GT-640A was used to continuously monitor perimeter particulate emissions. At the beginning of each workday, a calibration check was performed on each unit at the field station. Two calibration points were checked to determine instrument performance. A zero (particulate-free sample) calibration was performed by capping the inlet and pumping the unit out according to the zero cal procedure specified in the owner's manual. Also, the span calibration point was checked by activating the "Span Cal" calibration feature. Instrument calibration procedures were conducted according to the manufacturer's recommendations.

Calibration Certificates are provided in Appendix C.

APPENDIX A

BACKGROUND MONITORING

REPORT



Sea Isle City, New Jersey
Sea Isle Former MGP Site
Soil Remediation Project

Perimeter Air Monitoring Project

Data Summary Report
Background Monitoring Phase
For Calendar Period:
December 8, 2012 – December 9, 2012

Report Contents

- Executive Summary
- Daily Data Summary Report – TVOC & PM₁₀
- Site Schematic Identifying Station Locations

**Sea Isle MGP Site Remediation
Sea Isle City, NJ
Executive Summary
Background Monitoring Period
12/8/12 – 12/9/12
(TRC Project No. 197071-0000-00000)**

The background monitoring phase took place during the calendar period December 8 - 9, 2012. Perimeter air monitoring was conducted using a two (2) station network operating on a continuous basis on each of two (2) calendar days. This report summarizes TVOC and PM₁₀ concentrations during that period.

Meteorological parameters, including predominant wind direction and average daily ambient temperature are summarized in the table below.

Date	Wind Direction (coming from)	Ambient Temperature (°F)	Downwind Stations
12/8/2012	West South West	50	East
12/9/2012	East North East	50	West

Results and Discussion

A summary of results is provided in the data report to follow. These include average (mean) TVOC and PM₁₀ concentrations for upwind and downwind station data sets, respectively, on each of the two (2) days of background monitoring. Based upon review of these data the following observations have been made:

- Average (mean) concentrations for PM₁₀ were equivalent in comparison of the upwind and downwind station data sets on each of the two (2) days of monitoring. Upwind mean concentrations were equivalent to downwind mean concentrations on both days.
- The highest mean concentration of TVOC was measured upwind of the site on Sunday Decemberr 9, 2012.

As a result, it can be concluded that the dormant site did not significantly contribute to measured concentrations of volatile organic compounds (TVOC) or particulate matter observed at the downwind locations during the background period.

**Sea Isle MGP Site Remediation
Sea Isle City, NJ
Background Monitoring Period
12/8/12 – 12/9/12
(TRC Project No.197071-0000-00000)**

Date: Saturday, December 8, 2012

West - Station 1

TVOC			PM ₁₀		
Max.	133	ppb	Max.	60	ug/m ³
Avg.	< 1	ppb	Avg.	10	ug/m ³
Exc.	0	total	Exc.	0	Total

East - Station 2

TVOC			PM ₁₀		
Max.	200	ppb	Max.	51	ug/m ³
Avg.	17	ppb	Avg.	7	ug/m ³
Exc.	0	total	Exc.	0	Total

Date: Sunday, December 9, 2012

West Station 1

TVOC			PM ₁₀		
Max.	2	ppb	Max.	81	ug/m ³
Avg.	< 1	ppb	Avg.	33	ug/m ³
Exc.	0	total	Exc.	0	Total

East Station 2

TVOC			PM ₁₀		
Max.	151	ppb	Max.	82	ug/m ³
Avg.	55	ppb	Avg.	30	ug/m ³
Exc.	0	total	Exc.	0	Total

TVOC – Total Volatile Organic Compounds

PM₁₀ – Particulates as PM₁₀

Max. – Maximum daily average (10 min. avg. – TVOC / 10 min. avg. – PM₁₀)

Avg. – Daily average (10 min. avg. – TVOC / 10 min. avg. – PM₁₀)

Exc. – Total # of averages which exceed the action level (≥500 ppb - TVOC / ≥150 ug/m³ - PM₁₀)

A. SILT FENCE NOTES:

1. FOR ADDITIONAL SUPPORT, REINFORCE GEOTEXTILE FABRIC WITH 24" TALL 12-1/2 GAGE METAL FENCE WITH 6" MAX MESH OPENINGS. SECURELY FASTEN METAL FENCE TO HARDWOOD POSTS AT TOP AND MID-SECTION OF METAL WIRE FENCE USING METAL FASTENERS (WIRE TIES OR STAPLES). SECURELY FASTEN GEOTEXTILE FABRIC TO WIRE FENCE WITH METAL FASTENERS (WIRE TIES) SPACED EVERY 24-INCHES AT TOP AND MID-SECTION. SEE DETAIL 1.
2. WHERE METAL FENCE IS NOT USED, SECURELY FASTEN GEOTEXTILE FABRIC TO HARDWOOD POSTS USING METAL FASTENERS (NAILS OR STAPLES) AT TOP AND MID-SECTION. PLACE HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS, ETC.) BETWEEN FASTENER AND THE GEOTEXTILE FABRIC.
3. OVERLAP ADJACENT FILTER CLOTH 6" MIN. WRAP ENDS AROUND POST 720 DEGREES. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS WITH INTEGRATED STAKES MAY BE USED.
5. INSPECT SILT FENCE DAILY FOR SIGNS OF DETERIORATION. REPLACE DETERIORATED OR DAMAGED SILT FENCE IMMEDIATELY. REMOVE SEDIMENT.

B. SITE MANAGEMENT PLAN NOTES:

1. MAINTAIN SITE NOTIFICATION SIGN.
2. AREAS IDENTIFIED FOR TREATMENT SYSTEM LOCATIONS ARE CONCEPTUAL AND CAN BE MODIFIED.
3. CONTRACTOR RESPONSIBLE FOR AIR MONITORING WITHIN THE EXCLUSION ZONE.
4. JCP&L RESPONSIBLE FOR AIR MONITORING AT PROJECT PERIMETER
5. DEPRESSURIZATION WELLS TO BE REMOVED PRIOR TO CONSTRUCTION OF CONTRACTOR CONSTRUCTED DGA TRUCK PATH.

C. UTILITY NOTES:

1. EXISTING UTILITY DATA PROVIDED FOR INFORMATION. PERFORM INDEPENDENT UTILITY RESEARCH AND SITE SCAN FOR PRIVATE, UNMARKED, OR ABANDONED UTILITIES.
2. PROTECT EXISTING UTILITIES OUTSIDE THE EXCAVATION WHICH ARE TO REMAIN IN SERVICE. DO NOT INTERRUPT UTILITY SERVICE.
3. REPLACE/REPAIR FEATURES TO BE PROTECTED WHICH BECOME DAMAGED.
4. REMOVE UTILITIES WITHIN THE REMEDIAL EXCAVATION. CAP AT VALVE, CLEANOUT, OR PROPERTY LINE AS DIRECTED BY ENGINEER. CAP UTILITY IN ACCORDANCE WITH UTILITY OWNER REQUIREMENTS.
5. REMOVE DE-ENERGIZED OVERHEAD WIRES, AS NEEDED, TO ACCOMMODATE DEMOLITION AND MOVING STRUCTURE.
6. CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITY DISCONNECTS.
7. ATLANTIC CITY ELECTRIC WILL COORDINATE THE REROUTING OF OVER-HEAD WIRES IN PUBLIC RIGHT OF WAYS.

D. UTILITY SURVEY NOTES:

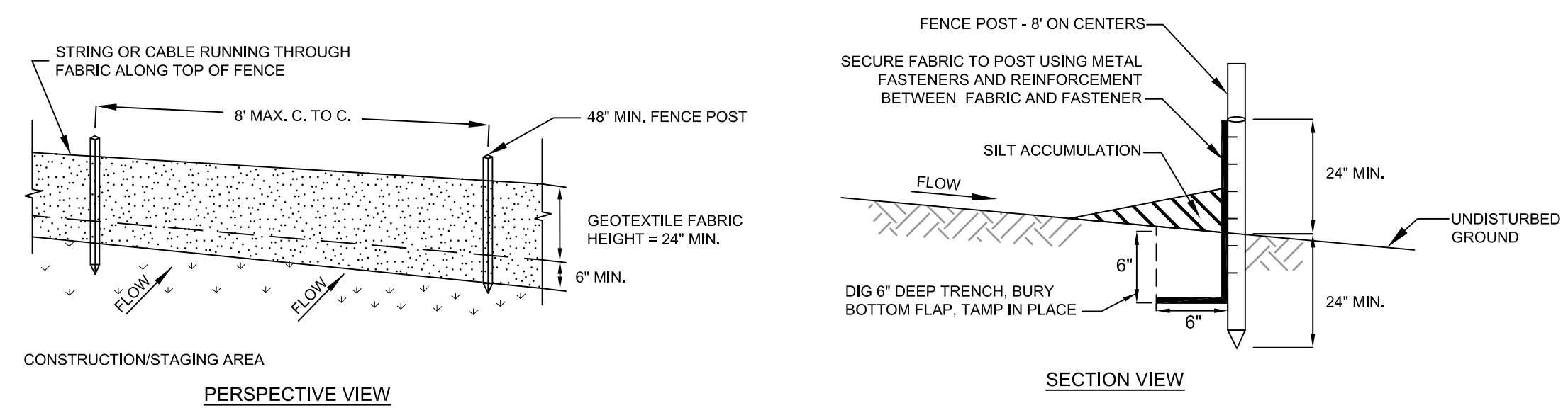
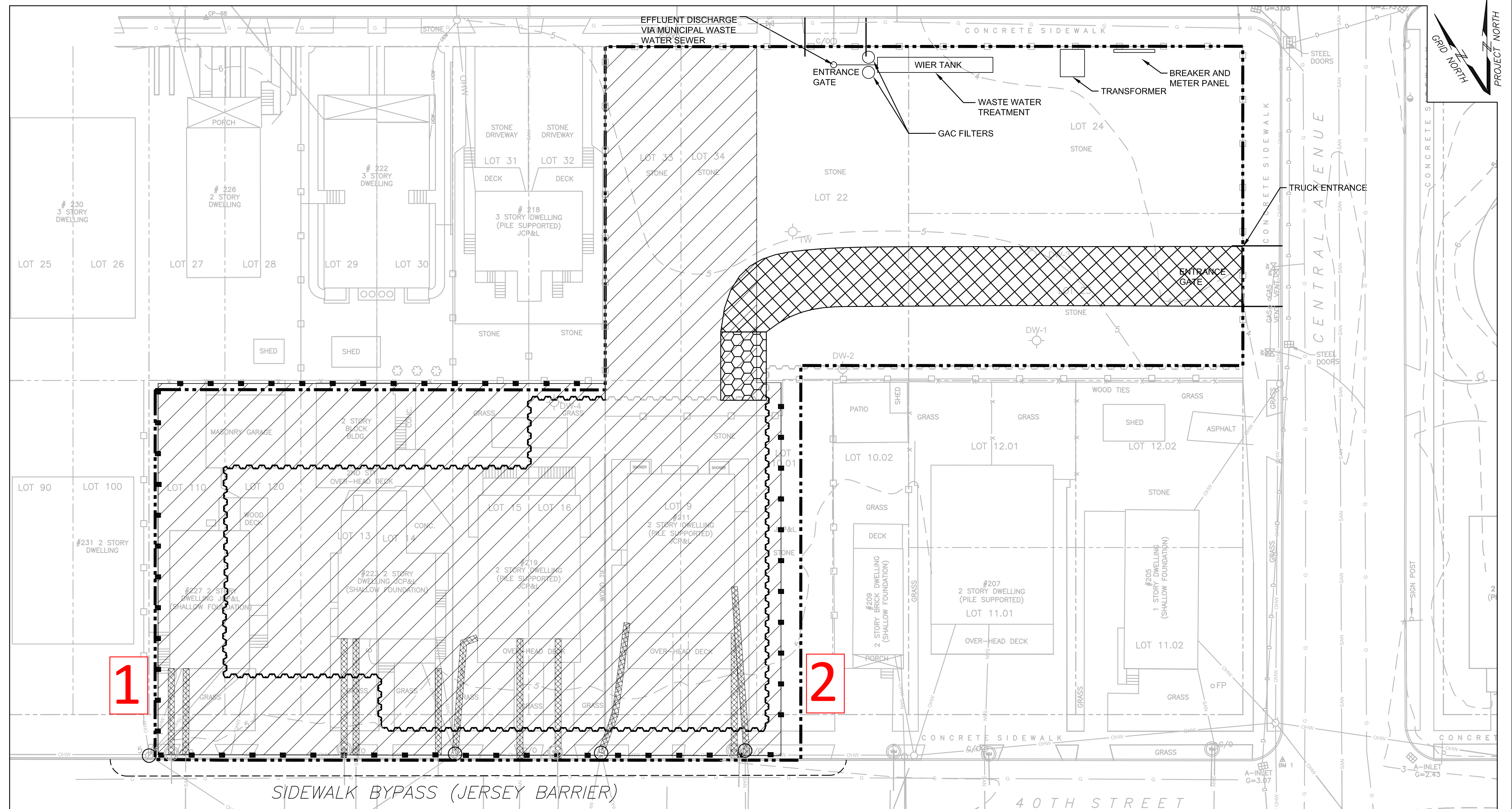
1. SURVEY LOCATIONS OF ALL:
 - A. ABANDONED UTILITIES
 - B. NEW UTILITIES
 - C. DEPTH OF BURIED UTILITIES
 - D. UTILITY POLES
 - E. OTHER FEATURES REQUESTED BY ENGINEER

E. AVAILABLE POWER:

1. 277/480 VOLTAGE
2. 1000 KVA PAD MOUNTED TRANSFORMERS
3. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING ELECTRICAL SERVICE AVAILABLE TO SITE FOR CONSTRUCTION ACTIVITIES AND IS RESPONSIBLE FOR ANY RELATED COST.

F. UTILITY OVERHEAD LINES CONTACT INFORMATION:

1. ATLANTIC CITY ELECTRIC: MR. WALTER FRANKS; (609) 463-3826
2. ATLANTIC CITY ELECTRIC: MR. ROBERT WOLCOTT JR.; (609) 463-3816
3. COMCAST: TIM MILLS; (856) 694-6016
4. VERIZON: CHRISTINA PAVLICKO; (609) 390-4918



SILT FENCE DETAIL
NOT TO SCALE
SOURCE: NEW JERSEY SOIL CONSERVATION COMMITTEE

UTILITY PLAN LEGEND

- W — WATER UTILITY (UNDERGROUND)
- G — GAS UTILITY (UNDERGROUND)
- SAN — SANITARY (WASTE WATER) SEWER UTILITY (UNDERGROUND)
- OHW — ELECTRIC/COMMUNICATIONS UTILITY (OVER-HEAD)
- UGW — BURIED ELECTRICAL COMMUNICATION LINE(UNDERGROUND)
- D — STORM SEWER (UNDERGROUND)
- ⊙ — WATER MANHOLE
- ⊙ — PROTECT UTILITY POLE

0 20 40
SCALE, FEET

SITE MANAGEMENT PLAN LEGEND:

- — — — — SILT FENCE - SEE DETAIL 1
- — — — — PERIMETER CONSTRUCTION FENCE AND PROJECT LIMITS
- ▨ ANTI-TRACKING PAD
- ▨ CONTRACTOR CONSTRUCTED DGA TRUCK PATH

REFERENCE LEGEND (SEE EXCAVATION PLAN):

- — — — — PROPOSED SHEETING
- — — — — EXISTING SHEETING
- ▨ WORK AREA

Air Monitoring Stations

NO.	DATE	ISSUE/REVISION	DES	DRN	CH	APP
A	7-16-12	FOR CONSTRUCTION	BM/CD	LC	CD	CD

GEI Consultants
18000 Horizon Way
Suite 200
Mount Laurel, New Jersey

JERSEY CENTRAL POWER & LIGHT COMPANY
GEI Project 013660-1500

Sea Isle City Former MGP Site
Sea Isle City, New Jersey
SITE MANAGEMENT AND UTILITY PLAN

DWG. NO. **3**
SHEET NO. 3 of 13

H:\TECH\project\JCP&L\Sea Isle City\Remediation 2012-2013\Figures\2012-2013 RA\3 Site Management Plan.dwg 7/16/2012

APPENDIX B
WEEKLY REPORTS

(See CD)

APPENDIX C
CALIBRATION CERTIFICATES

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X02NI99C15AC925	Reference Number:	83-124350093-1
Cylinder Number:	CC29772	Cylinder Volume:	144.3 CF
Laboratory:	ASG - Port Allen - LA	Cylinder Pressure:	2015 PSIG
Analysis Date:	Dec 19, 2012	Valve Outlet:	350
Lot Number:	83-124350093-1		

Expiration Date: Dec 19, 2015

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration (Mole %)	Analytical Uncertainty
BENZENE	1.000 PPM	0.953 PPM	+/- 5%
NITROGEN	Balance		

Notes:THC <0.1 PPM
COA revised 1/2/2013.

Signature on file

Approved for Release

June 2, 2014

Mr. Kenneth Seborowski
Jersey Central Power & Light
300 Madison Avenue
Morristown, New Jersey 07962

via email: kseborowski@firstenergycorp.com

**Re: Final Report for Perimeter Air Monitoring,
Sea Isle City Former MGP Site Soil Remediation Project**

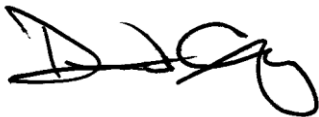
Dear Ken:

Attached is our final report regarding our perimeter air monitoring activities for the soil remediation project at the Sea Isle City former MGP site.

As explained in the report, archived datasets of field environmental measurements will be transmitted separately.

We at Emilcott enjoyed working with you and your team at Sea Isle City, and we hope to have the opportunity to do so again on future projects.

Sincerely yours,



David Tomsey
Project Manager
Emilcott Technologies

Final Report

**Perimeter Air Monitoring for Soil Remediation Activities at
Jersey Central Power & Light Company
Former Manufactured Gas Plant Site
Sea Isle City, New Jersey**

July 2, 2014

Project Background

Emilcott Associates, Inc. (Emilcott) provided perimeter air monitoring services to Jersey Central Power & Light Company (JCP&L) in conjunction with a soil remediation project at JCP&L's Sea Isle City former manufactured gas plant (MGP) site in Sea Isle City, New Jersey, from November 2013 to May 2014. GEI Consultants, Inc. (GEI) provided construction oversight on behalf of JCP&L during the remediation, and thus directed much of Emilcott's operational field activities.

The soil remediation activities occurred between 39th and 40th Street west of its intersections with Central Avenue. This immediate neighborhood is predominantly residential, consisting of one and two-family houses including both seasonal vacation homes and full-time residences. The specific parcels within the scope of this project were the residential properties at 205, 207, and 209 40th Street and a portion of the property at 211 40th Street.

The environmentally sensitive activities for which perimeter monitoring was required included:

- Clearing of brush and demolition of structures
- Soil excavation, including installation and removal of sheet pilings
- Loading of soil onto trucks, and subsequent removal of soil from the site
- Soil backfilling, compaction, grading, etc.

The perimeter air monitoring program was implemented to ensure that air quality in the nearby community was not adversely affected by fugitive emissions of MGP-impacted soils during soil remediation activities. This perimeter monitoring program was distinct from work-zone monitoring, which was conducted separately by the remediation contractor in accordance with a site-specific Health and Safety Plan to protect the project's workforce (and which is not described in this report).

Scope of Perimeter Air Monitoring

The perimeter air monitoring program was implemented in accordance with:

- Perimeter Air Monitoring Plan, Soil Remediation Activities, Sea Isle City Former Manufactured Gas Plant Site, Sea Isle City, New Jersey, September 6, 2013 (“PAMP”)
- Request For Proposal, Perimeter Air Monitoring, Sea Isle City Former Manufactured Gas Plant Site, Sea Isle City, New Jersey, September 6, 2013 (“RFP”)

The first of these is the governing regulatory document, and the second reflects additional, project-specific requirements from JCP&L. The perimeter air monitoring services specified in the PAMP and RFP required supplying both appropriate equipment and a qualified full-time air monitoring technician on site.

Parameters Monitored

The environmental Constituents of Concern (COC) for this project were:

- Particulate concentration, measured as PM-10
- Concentration of Total Volatile Organic Compounds (TVOC)

These parameters were monitored continuously at appropriate locations at the perimeter of the site during soil-intrusive work activities. These data were downloaded to a field computer database no later than the end of each work day.

In addition, wind speed and direction was monitored on site to establish the general upwind/downwind airflow pattern across the jobsite during the active work-shift.

Action Levels

Action levels specified for the COCs were:

- Particulates: 150 $\mu\text{g}/\text{m}^3$, based on a 5-minute average
- TVOC: 0.5 ppm, based on a 15-minute average

In addition, each measurement could be manually adjusted to correct for any upwind (off-site) contribution. The PAMP provided detailed instructions for response by site personnel in the event these actions levels were exceeded.

Monitoring Locations

The PAMP and RFP specified a total of four field monitoring stations measuring PM-10 and TVOC. In addition, a fully equipped spare station was provided as backup.

The stations were portable such that their locations could be adjusted daily to best accommodate the location of the active work-zone, and to account for the prevailing upwind/downwind airflow pattern. In practice, the locations of the four stations did not change significantly during the course of the project, as described below.

Background Study

A background air monitoring study was conducted prior to mobilization by the remediation contractor and to the commencement of any soil-intrusive activities. This study was performed on three separate days for continuous periods mimicking a typical work shift. Two field monitoring stations were utilized, each measuring and logging PM-10 and TVOC.

Air Monitoring Technician

Emilcott provided a qualified full-time air monitoring technician to perform the following duties:

- Calibration of the measurement instruments (particulate and VOC monitors)
- Placement of field stations in accord with the remediation activities planned for the day.
- Startup of the monitoring system 30 minutes prior to active remediation shift work.
- Supervision of the system operation; notification of the appropriate site personnel if action levels were exceeded or if any other anomalies were observed;
- Maintaining a log book to note operational, weather or other conditions of potential interest in the context of air monitoring.
- Retrieval of the field stations to the office for overnight storage and recharging of batteries.
- Verification at the end of the day that all data had been received at the base-station computer, and creation of appropriate backup copies of the data.
- Preparation of weekly summary reports describing perimeter air monitoring activities and measurements.

Operational Experience and Observations

Background Monitoring Study

A background air quality monitoring study was conducted on November 11th and 13th, 2013, at the site in accordance with the PAMP.

The measurement equipment consisted of two field stations from the Emilcott Greenlight™ Environmental Monitoring system. Each station was equipped with:

- Thermo Fisher Data RAM 4000 Particulate Monitor, measuring PM-10
- Photovac model 2020 ComboPRO PID, measuring TVOC

The GEMS-3000 continuously collected data from the measurement instruments at 15-second intervals, and these data were later downloaded for analysis and report-writing.

The PAMP called for two days of background monitoring. Ambient background levels for both particulate and volatiles were unremarkable for the residential neighborhood on which the jobsite is located. Concentrations of TVOC were essentially zero. Sustained levels of particulates were observed in the range of 1 – 3.5 µg/m³, which are typical of ambient conditions, and well below the project's action level of 150 µg/m³, as specified in the PAMP.

System Configuration

Emilcott conducted the perimeter air monitoring service using its proprietary Greenlight™ Environmental Monitoring System. This is a computer-based system using wireless telemetry to relay field measurements, in real-time, to a remote server database. The base-station has a suite of computer software applications that provide graphical user displays, perform alarm calculations and notification, and prepare summary reports from the database.

A total of four field monitoring stations, which were deployed each day at the perimeter of the remediation area, and one base weather station were supplied. The field stations in the Greenlight™ system are housed in a rugged, portable case suitable for outdoor operation. Each station contains a dust monitor, vapor monitor (PID), cellular modem, and a local computing module that manages the data collection and transmits the data to the server. A single weather station was also provided, hardwired to a base-station. Spare detectors (dust and TVOC) were also supplied. A full equipment list, with make and model of key components, is provided in Table 1.

All environmental data points were sampled continuously and stored into the database in real-time. Alarm conditions (action levels) were calculated based on 5-minute time weighted averages for particulates (PM-10) and 15-minute averages for TVOC, in accordance with the PAMP.

The system's meteorological instrumentation was installed in the air monitoring office space at 220 40th Street.

Field Operation

Real-time perimeter air monitoring commenced December 2, 2013, and continued over a period of 22 weeks, concluding on May 5, 2014. Throughout the duration of the project, the field stations were deployed daily at specified locations, as directed by GEI, in support of soil remediation. Fig. 1 presents a schematic map showing the approximate locations of the field stations during the course of perimeter monitoring activities.

The Emilcott air monitoring technician worked onsite full-time on all dates when perimeter air monitoring was conducted. The Technician deployed the monitoring stations in the morning, prior to the start of the construction/remediation work shift, and retrieved the stations after the end of the shift. The technician performed calibration of the environmental detectors as follows:

- The particulate monitors were zero-calibrated daily, prior to system startup.
- The photo-ionization detectors received a “bump calibration” daily.
- The photo-ionization detectors received a full zero/span calibration at least weekly, and individual instruments more often when lamp errors or other anomalies were experienced.

Appendix 2 presents the weekly calibration records.

All operational site activities were documented in weekly air monitoring reports submitted, electronically during the course of the project, and were discussed during weekly meetings of the project team. Copies of the weekly reports are presented in Appendix 3.

Exceedances

Some exceedances of allowable particulate and volatile concentrations were observed during the course of the project, but none were attributed to fugitive emissions from MGP impacted soils. There were 9 such exceedances, and these can be grouped into three broad categories as follows.

- Detector Fault (6 occurrences): Mostly PID lamp errors and other moisture-related anomalies; all resolved by recalibration and/or substituting spare equipment.
- Site Work (1 occurrence): Construction activities in the immediate vicinity of the monitoring instrument, e.g., welding fumes, vapor due to gluing PVC pipe, fueling of gasoline operated equipment, etc.
- Site Activity (2 occurrences): Delivery of kiln dust to the site caused elevated readings.

All of exceedances were logged by the air monitoring technician when they occurred, and the technician took action to resolve the issue and notify appropriate site personnel. A summary of the log for these exceedances is presented in Table 2.

Emilcott Personnel

The following were the primary Emilcott staff who conducted the perimeter air monitoring and associated mobilization, reporting, and project management.

- **Ed Pearl: Air Monitoring Technician.** Performed all field monitoring, maintenance, daily logging, and drafting of weekly reports for most of the first six weeks of the project.
- **Dave Tomsey: Project Manager, Emilcott Technologies.** Supervised mobilization and ongoing technical support of the Greenlight monitoring system; provided oversight for weekly reports and final project report.

Data Archive

Real-time data was collected and stored in the Greenlight™ system's database during all periods of active perimeter monitoring. This data is preserved and presented as archived data sets in a format convenient to typical users of personal computing (Microsoft Excel). These data are provided on a CD-ROM and included as Appendix 4.

Data values were stored at 15-second intervals for the following parameters, where 'Enclosure' refers to the Greenlight system field station and corresponding data channel:

- PM-10 at Enclosures 1 thru 4 ($\mu\text{g}/\text{m}^3$)
- TVOC at Enclosures 1 thru 4 (ppm)
- Meteorological Data:
 - Ambient temperature (degrees-F)
 - Relative Humidity (%)
 - Barometric Pressure (in-Hg)
 - Wind Direction (degrees of compass)
 - Wind Speed (mph)

For each of these parameters, there is csv-format data file is supplied covering the entire date range of the project. This file format can be readily imported into standard spreadsheet and database applications such as Microsoft Excel and Microsoft Access, thus allowing users to review and analyze all data that was collected and recorded by the Greenlight™ system during the project.

Appendices and Supporting Data

Figures and Tables

Fig. 1. Map of Monitoring Locations

Table 1. Equipment List

Table 2. Summary of Exceedances

Appendices

Appendix 1. Background Air Monitoring Study

Appendix 2. Calibration Records

Appendix 3. Weekly Reports

Appendix 4. Data Archive

Fig. 1. Sea Isle City MGP Site – Perimeter Air Monitoring Locations

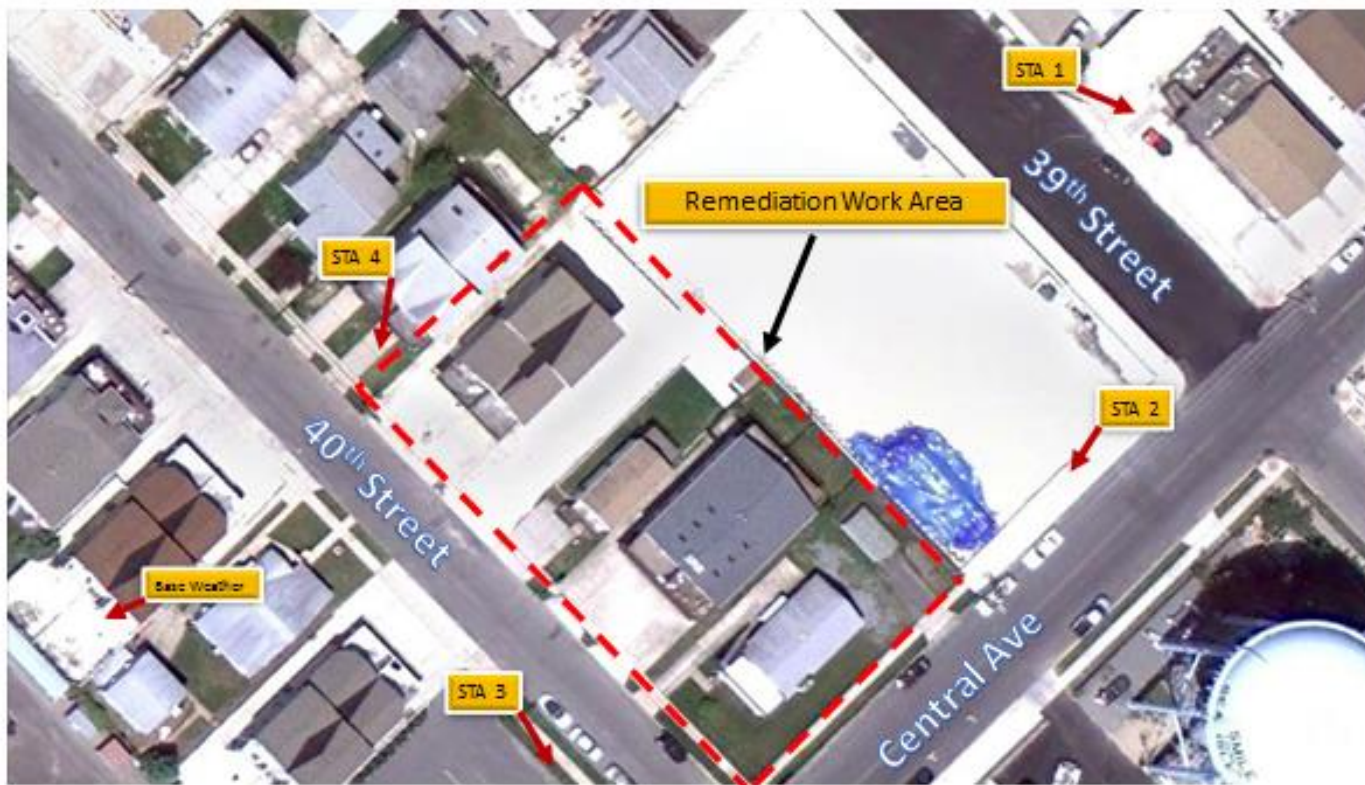


Table 1. Equipment List

The following list is of all key components of the Greenlight™ environmental monitoring system, with the make and model of all environmental detectors clearly specified. All environmental detectors specified for the Greenlight™ system are of equivalent or superior performance to those specified in the Air Monitoring Plan.

Item	Quantity	Description
Field Monitoring Station	4	<p>Thermo Fisher model DataRAM-4000 (or equivalent), for measurement of particulates (PM-10)</p> <p>Photovac model 2020ppb PRO PID (or equivalent) for measuring total volatile organic compounds (TOVC)</p> <p>GEMS-3000™ Communications Controller, with embedded computer, cellular modem and power supplies.</p> <p>Rugged fiber case, tripod-mounted; external ports for the dust monitor air intake, radio antenna, power connections and ventilation fan.</p> <p>Removable battery pack supplying DC power to all devices.</p>
Primary Weather Station	1	<p>Vaisala WXT-520 full-service weather station (capable of measuring ambient temperature, barometric pressure, relative humidity, wind speed, wind direction and precipitation)</p> <p>GEMS-3000™ Communications Controller, with embedded computer, cellular modem and power supplies.</p> <p>Removable battery pack supplying DC power to all devices (or AC power connection if site location permits)</p>
Spare Instrument (Particulate)	1	Thermo Fisher model DataRAM-4000 (or equivalent)
Spare Instrument (VOCs)	1	Photovac model 2020ppb PRO PID (or equivalent)
Operator Console	1	Desktop Computer, model Dell Vostro or equivalent, for use by Lessee's operating personnel.
Database Server	1	<p>Remote database and application server located in Emilcott's datacenter in Morristown, NJ.</p> <p>User access via secure internet login; field data transmission via dedicated cellular modems.</p>

Table 2. List of Exceedances

Date/Time	Location	Measured Value	Response/Explanation	Cause
12/5/2013 7:04 AM	Station #2	2.4 ppm TWA	No site work had started. Calibrated device with Isobutylene -- VOC readings went to zero.	Detector Fault
12/9/2013 7:39 AM	Station #2	63.4 ppm TWA	Reading due to weather conditions. No intrusive activities occurring at time of detection. Device calibrated and returned to reading zero.	Detector Fault
12/17/2013 2:03 PM	Station #2	188.4 µg/m ³ TWA	Reading due to workers torch cutting sheets.	Site Work
2/18/2014 1:43 PM	Station #3	5.2 ppm TWA	Equipment overheated and malfunctioned. Device was replaced.	Detector Fault
3/19/2014 8:11 AM	Station #1	489.4 µg/m ³ TWA	Kiln dust delivery caused elevated particulate readings.	Site Activity
4/7/2014 7:59 AM	Station #3	160 µg/m ³ TWA	Kiln dust delivery caused elevated particulate readings.	Site Activity
4/8/2014 8:15 AM	Station #2 Station #3	187.6 µg/m ³ TWA 159.8 µg/m ³ TWA	Readings due to weather conditions. Devices shut down until weather cleared. Readings returned to normal levels afterwards.	Detector Fault
4/11/2014 8:35 AM	Station #4	172.1 µg/m ³ TWA	Exhaust from VAC truck caused instrument to display false high readings.	Detector Fault
5/1/2014 9:25 AM	Station #3	15.8 ppm TWA	Readings caused by heavy fog conditions not intrusive work.	Detector Fault

Appendix 1. Background Air Monitoring Study

A background air quality monitoring study was conducted on November 11 and 13, 2013, at the project site in accordance with the PAMP. Attached is Emilcott's summary report of that study, previously submitted to JCP&L on November 18, 2013.

December 2, 2013

To:	Ken Seborowski, JCP&L
From:	Dave Tomsey, Emilcott
Re:	Background Study of Air Quality Sea Isle City, New Jersey, Former MGP Site

This memo summarizes the background air monitoring results conducted prior to intrusive activities at the Sea Isle City former MGP site Phase III remediation.

Approach

Emilcott conducted two days of background monitoring with four monitoring stations during the month of November. Each station measured particulates, as PM-10, and total volatile organic compounds (TVOC) in ppm. The duration of each day's testing was targeted for 8 hours so as to be representative of a typical work shift.

The two stations were positioned at the perimeter of the area spanning 205 to 211 40th street to accommodate Phase III work in 2013-2014.

The measurement equipment consisted of four field stations from the Emilcott Greenlight[™] Environmental Monitoring system. Each station was equipped with:

- Thermo Fisher Data RAM 4000, measuring PM-10
- Photovac Model 2020 ComboPRO PID, measuring TVOC
- Greenlight GEMS-3000[™], operating in data-logging mode.

Weather parameters were measured with:

- Vaisala WXT-520 Weather Station

The GEMS-3000 continuously collects data from each instrument and relays data via cellular modem to an internet based server located in Morristown, NJ.

Procedure

Background monitoring was conducted by Ed Pearl of Emilcott on November 11 and 13, 2013. Each station was set up at 7am and ran for approximately 8 hours each day. Station 1 was located in the backyard of 3820 Central Ave, and Station 2 was located on the sidewalk in front of 3817 Central Ave. Station 3 was located along the sidewalk that runs along the parking lot adjacent to 210 40th Street, and Station 4 was located in the front yard of 211 40th Street. The weather station was fixed on the back deck of 220 40th street.

The project's Air Plan called for two day of background monitoring. A third day was added to compensate for instrument outages in one of the dust monitors for parts of the first two days.

For background measurement purposes, both November 11th and 13th had four dust monitor stations in operation. VOC readings were successfully collected from all stations as well. The dust and vapor readings from each station were consistent with each other, and observations were made to account for any off site sources of dust or vapors. Across the two days of monitoring, dust readings were gathered for a total of over 64 station-hours, and VOC readings for a total of 64 station-hours.

All eight measurement instruments were calibrated accorded to manufacturers procedures prior to commencement of the testing.

All stations were powered using D/C batteries.

Results

The results are summarized in the tables below for dust and VOCs. The maximum measured value for dust was 139.2 $\mu\text{g}/\text{m}^3$, but typical sustained concentrations were 3 $\mu\text{g}/\text{m}^3$ or less. All 15 min TWA readings for VOCs were zero except for one which read 0.07ppm.

Date	Station	Dust (PM-10: $\mu\text{g}/\text{m}^3$)			Start	End	Duration (min)
		Min	Max	Avg			
11/11/2013	1	0.00	3.40	0.55	08:15	16:02	467
11/11/2013	2	0.00	17.10	0.69	07:52	16:02	490
11/11/2013	3	0.00	3.90	0.62	08:16	16:02	466
11/11/2013	4	0.00	7.80	0.45	08:16	16:02	466
11/13/2013	1	0.00	49.10	1.61	07:27	15:29	482
11/13/2013	2	0.00	130.20	1.58	07:28	15:29	481
11/13/2013	3	0.10	139.20	3.28	07:16	15:29	493
11/13/2013	4	0.00	59.40	1.72	07:16	15:29	493

Date	Station	VOCs (TVOC: ppm)			Start	End	Duration (min)
		Min	Max	Avg			
11/11/2013	1	0.00	0.00	0.00	08:15	16:02	467
11/11/2013	2	0.00	22.30	0.07	07:52	16:02	490
11/11/2013	3	0.00	0.00	0.00	08:16	16:02	466
11/11/2013	4	0.00	0.00	0.00	08:16	16:02	466
11/13/2013	1	0.00	0.00	0.00	07:27	15:29	482
11/13/2013	2	0.00	0.00	0.00	07:28	15:29	481
11/13/2013	3	0.00	0.00	0.00	07:16	15:29	493
11/13/2013	4	0.00	0.00	0.00	07:16	15:29	493

Weather (Min-Max)

Date	Temp (°F)	Relative Humidity (%)	Wind Direction	Wind Speed (mph)	Pressure (inHg)
11/11/2013	42 - 53	41 - 66	W - WNW	11 - 20	30.19
11/13/2012	30 - 39	31 - 52	NW	10 - 15	30.37

The weather was mild on the first day of testing, clear and mostly sunny. The second day of testing was significantly colder, clear and sunny. Winds were mild to brisk on both days but did not cause many particulates to blow across site.

Conclusions

Ambient background levels for both particulate and volatiles were unremarkable for the residential neighborhood on which the jobsite is located. Concentrations of TVOC were essentially zero, as would be expected for an inactive, capped site. Sustained levels of particulates were observed in the range of 0.5– 3.5 $\mu\text{g}/\text{m}^3$, which are typical of ambient conditions, and well below the project's action level of 150 $\mu\text{g}/\text{m}^3$, as specified in the Air Plan. The particulate levels above 50 $\mu\text{g}/\text{m}^3$ occurred due to vehicle exhaust as the stations were located close to the road. This was not due to dust from the site.

Appendix 2. Calibration Records

A copy of the master weekly field calibration log sheet is attached, covering the 24 weeks of active perimeter air monitoring for the project. These data were prepared by the Emilcott field technician in conjunction with calibration of the environmental measurement instruments utilized for perimeter monitoring.



Weekly Calibration

DATE	INSTRUMENT	SPAN (100 ppm)	ZERO	COMMENTS	TECHNICIAN
11/11/13	PID & DR4	OK	OK		Pearl
11/13/13	PID & DR4	OK	OK		Pearl
11/22/13	PID & DR4	OK	OK	Run System	Pearl
11/25/13	PID & DR4	OK	OK		Pearl
11/26/13	PID & DR4	OK	OK		Pearl
12/02/13	PID & DR4	OK	OK		Pearl
12/03/13	PID & DR4	OK	OK		Pearl
12/04/13	PID & DR4	OK	OK		Pearl
12/05/13	PID & DR4	OK	OK	Calibrate after spike - PID in Sta 2 - OK	Pearl
12/06/13	PID & DR4	OK	OK		Pearl
12/09/13	PID & DR4	OK	OK	PID @ Sta 2 too high, recalibrate - OK	Pearl
12/10/13	PID & DR4	OK	OK		Pearl
12/11/13	PID & DR4	OK	OK		Pearl
12/12/13	PID & DR4	OK	OK		Pearl
12/13/13	PID & DR4	OK	OK		Pearl
12/16/13	PID & DR4	OK	OK		Pearl
12/17/13	PID & DR4	OK	OK		Pearl
12/18/13	PID & DR4	OK	OK		Pearl
12/19/13	PID & DR4	OK	OK		Pearl
12/20/13	PID & DR4	OK	OK		Pearl
12/30/13	PID & DR4	OK	OK		Pearl
12/31/13	PID & DR4	OK	OK		Pearl
01/02/14	PID & DR4	OK	OK		Pearl
01/04/14	PID & DR4	OK	OK		Pearl
01/06/14	PID & DR4	OK	OK		Pearl

01/08/14	PID & DR4	OK	OK		Pearl
01/09/14	PID & DR4	OK	OK		Pearl
01/10/14	PID & DR4	OK	OK		Pearl
01/13/14	PID & DR4	OK	OK		Pearl
01/14/14	PID & DR4	OK	OK		Pearl
01/15/14	PID & DR4	OK	OK		Pearl
01/16/14	PID & DR4	OK	OK		Pearl
01/17/14	PID & DR4	OK	OK		Pearl
01/20/14	PID & DR4	OK	OK	PID @ 3 again after lunch - OK	Pearl
01/21/14	PID & DR4	OK	OK		Pearl
01/23/14	PID & DR4	OK	OK		Pearl
01/24/14	PID & DR4	OK	OK		Pearl
01/27/14	PID & DR4	OK	OK		Pearl
01/28/14	PID & DR4	OK	OK		Pearl
01/29/14	PID & DR4	OK	OK		Pearl
01/30/14	PID & DR4	OK	OK		Pearl
01/31/14	PID & DR4	OK	OK		Pearl
02/03/14	PID & DR4	OK	OK	Half day	Pearl
02/04/14	PID & DR4	OK	OK		Pearl
02/05/14	PID & DR4	OK	OK	3 hrs	Pearl
02/06/14	PID & DR4	OK	OK		Pearl
02/07/14	PID & DR4	OK	OK		Pearl
02/10/14	PID & DR4	OK	OK		Pearl
02/11/14	PID & DR4	OK	OK		Pearl
02/12/14	PID & DR4	OK	OK	Snow no work	Pearl
02/13/14	PID & DR4	OK	OK		Pearl
02/14/14	PID & DR4	OK	OK		Pearl
02/17/14	PID & DR4	OK	OK		Pearl
02/18/14	PID & DR4	OK	OK	Swap PID @ Sta 3 Cal - OK	Pearl
02/19/14	PID & DR4	OK	OK		Pearl
02/20/14	PID & DR4	OK	OK		Pearl
02/21/14	PID & DR4	OK	OK		Pearl
02/24/14	PID & DR4	OK	OK	Recal #2 PID - OK	Pearl
02/25/14	PID & DR4	OK	OK		Pearl

02/26/14	PID & DR4	OK	OK		Pearl
02/27/14	PID & DR4	OK	OK		Pearl
02/28/14	PID & DR4	OK	OK		Pearl
03/04/14	PID & DR4	OK	OK		Pearl
03/05/14	PID & DR4	OK	OK		Pearl
03/06/14	PID & DR4	OK	OK		Pearl
03/07/14	PID & DR4	OK	OK		Pearl
03/08/14	PID & DR4	OK	OK		Pearl
03/10/14	PID & DR4	OK	OK		Pearl
03/11/14	PID & DR4	OK	OK		Pearl
03/12/14	PID & DR4	OK	OK		Pearl
03/13/14	PID & DR4	OK	OK		Wu
03/14/14	PID & DR4	OK	OK		Wu
03/17/14	PID & DR4			Snow no work	Pearl
03/18/14	PID & DR4	OK	OK		Pearl
03/19/14	PID & DR4	OK	OK		Pearl
03/20/14	PID & DR4	OK	OK		Pearl
03/21/14	PID & DR4	OK	OK		Pearl
03/24/14	PID & DR4	OK	OK		Pearl
03/25/14	PID & DR4			Handheld monitoring by GEI	Pearl
03/26/14	PID & DR4	OK	OK		Pearl
03/27/14	PID & DR4	OK	OK		Pearl
03/28/14	PID & DR4	OK	OK		Pearl
03/31/14	PID & DR4	OK	OK		Pearl
04/01/14	PID & DR4	OK	OK		Pearl
04/02/14	PID & DR4	OK	OK		Pearl
04/03/14	PID & DR4	OK	OK		Pearl
04/04/14	PID & DR4	OK	OK		Pearl
04/07/14	PID & DR4	OK	OK		Pearl
04/08/14	PID & DR4	OK	OK		Pearl
04/09/14	PID & DR4	OK	OK		Pearl
04/10/14	PID & DR4	OK	OK		Pearl
04/11/14	PID & DR4	OK	OK		Pearl
04/14/14	PID & DR4	OK	OK		Pearl

04/15/14	PID & DR4	OK	OK		Pearl
04/16/14	PID & DR4	OK	OK		Pearl
04/17/14	PID & DR4	OK	OK		Pearl
04/18/14	PID & DR4	OK	OK		Pearl
04/21/14	PID & DR4	OK	OK		Pearl
04/22/14	PID & DR4	OK	OK		Pearl
04/23/14	PID & DR4	OK	OK		Pearl
04/24/14	PID & DR4	OK	OK		Pearl
04/25/14	PID & DR4	OK	OK		Pearl
04/28/14	PID & DR4	OK	OK		Pearl
04/29/14	PID & DR4	OK	OK		Pearl
04/30/14	PID & DR4	OK	OK	No work	Pearl
05/01/14	PID & DR4	OK	OK		Pearl
05/02/14	PID & DR4	OK	OK		Pearl
05/05/14	PID & DR4	OK	OK		Pearl

Appendix 3. Weekly Reports

Copies of Emilcott’s weekly reports summarizing field activities for perimeter air monitoring are attached, covering the 8 weeks of active perimeter air monitoring for the project. These reports were prepared by the Emilcott field technician and reviewed by the Emilcott project manager. All were previously submitted electronically to JCP&L and GEI.

Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	December 2 – December 6, 2013
Date Submitted:	December 18, 2013
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site all 5 days. Site work continued on a routine basis, driving sheets.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	13.5 – 47.2	9.3 – 39.4	11.1 – 45.6	0.1 – 32.1	0.9 – 77.2
Station-2	17.0 – 35.7	16.3 – 41.3	13.6 – 54.0	4.1 - 114	0.8 – 104.7
Station-3	18.2 – 48.2	9.0 – 34.3	10.2 – 35.9	0.9 – 73.1	2.7 – 91.6
Station-4	19.4 – 45.8	11.0 – 37.3	14.5 – 42.3	.09 – 36.2	0.5 – 91.5

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-3	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-4	0 - 0	0 - 0	0 - 0	-0.1 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	38 - 48	42 - 53	37 – 55	48 – 57	39 – 53
Rel. Humidity (%)	62 – 93	47 – 93	63 – 93	87 – 94	81 – 93
Bar. Pressure (inHg)	29.95	29.95	30.09	30.09	30.05
Prevailing Wind Direction	E, ENE, NE	NW	SE	SSE	N
Wind Speed (mph)	1 - 7	2 – 9	2 – 12	3 – 10	8 – 16
Comments	Overcast	P. Cloudy	Overcast	Overcast	Overcast

Exceedences

Date/Time	Station/Location	Measured Value	Response/Explanation
N/A			

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations

Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	December 9 – December 13, 2013
Date Submitted:	December 18, 2013
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site all 5 days. Site work continued on a routine basis, driving sheets.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0.1 – 3.3	23.6 – 38.7	4.1 – 59.7	6.3 – 20.4	5 – 9.1
Station-2	1.5 – 7.9	32.5 – 151.2	5.9 – 18.6	8.0 – 47.0	7.1 - 53
Station-3	0.8 – 5.9	25.9 – 48.3	6.2 - 16	7.8 – 20.5	6.2 – 12.3
Station-4	0 – 5.9	28.2 – 50.6	6.8 - 14	7.9 – 21.6	7.0 – 10.1

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-2	0 – 327.7*	0 - 0	0 - 0	0 - 0	0 - 0
Station-3	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-4	0 - 0	0 - 0	0 - 0	-0.1 - 0	0 - 0

Weather: Min-Max values, as noted:

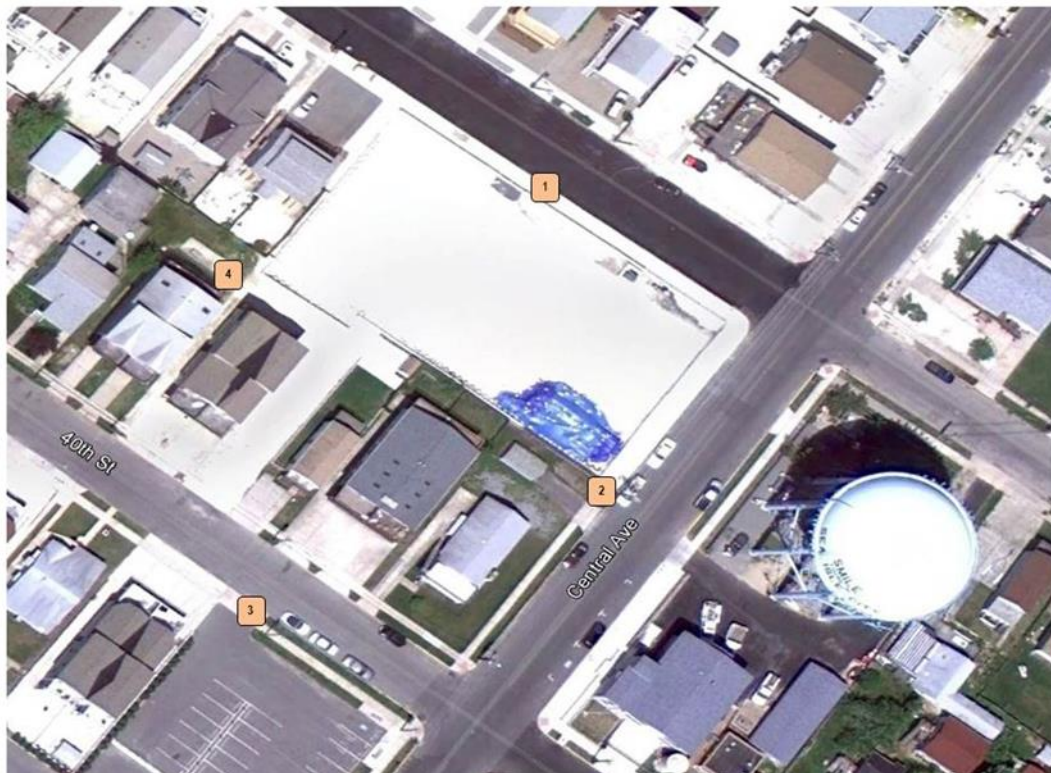
Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	37 – 46	33 – 37	26 – 39	24 – 30	28 – 39
Rel. Humidity (%)	81 – 93	48 – 93	44 – 80	40 – 86	41 – 80
Bar. Pressure (inHg)	30.10	30.05	30.32	30.32	30.27
Prevailing Wind Direction	WNW	NW	W	NW	W
Wind Speed (mph)	8 – 13	6 – 18	10 – 18	7 – 15	9 – 16
Comments	Overcast	Overcast	Clear	P. Cloudy	Clear

Exceedences

Date/Time	Station/Location	Measured Value	Response/Explanation
12/9/13 0730	Station 2	327.7 PPM*	Reading due to weather conditions. No intrusive activities. Recalibrated instrument. Everything OK.

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations

Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	December 16 – December 20, 2013
Date Submitted:	December 30, 2013
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site all 5 days. Site work continued on a routine basis, driving sheets.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	8.4 – 12.9	11.2 – 26.8	6.8 – 42.7	4.7 – 43.3	8.5 – 33.3
Station-2	10.9 – 20.0	1.0 – 198.6*	9.3 – 67.8	5.1 – 64.9	10 – 44.3
Station-3	10.2 – 15.4	13.6 – 26.8	7.7 – 53.8	4.5 – 15.5	8.0 – 37.7
Station-4	10.8 – 17.8	14.9 – 28.5	9.2 – 62.6	4.9 – 15.3	9.1 – 34.4

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-2	0 - 0	0 - 0.1	0 - .03	0 - 0	0 - 0
Station-3	0 - 0	0 - 0	-0.2 - 0	0 - 0	0 - 0
Station-4	0 - 0	0 - 0	0 - 0	0 - 0	-0.1 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	28 – 37	30 – 40	24 – 39	24 – 53	48 – 57
Rel. Humidity (%)	44 – 65	47 – 87	45 – 87	41 – 86	43 – 77
Bar. Pressure (inHg)	30.12	30.04	30.13	30.18	30.10
Prevailing Wind Direction	NW	North	WNW	SW	SSW
Wind Speed (mph)	10 - 15	7 - 15	8 - 17	6 - 20	13 - 18
Comments	Clear, windy	Overcast, Rain	Clear, windy	Clear, breezy	Clear, windy

Exceedences

Date/Time	Station/Location	Measured Value	Response/Explanation
12/17/13 1405	Station 2	198.6 ug/m3*	Reading due to workers torch cutting sheets.

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations

Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	December 23 – December 27, 2013
Date Submitted:	December 30, 2013
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

No site activities scheduled.

Day 1	No monitoring
Day 2	No monitoring
Day 3	No monitoring
Day 4	No monitoring
Day 5	No monitoring

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	N/A	N/A	N/A	N/A	N/A
Station-2					
Station-3					
Station-4					

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	N/A	N/A	N/A	N/A	N/A
Station-2					
Station-3					
Station-4					

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)					
Rel. Humidity (%)					
Bar. Pressure (inHg)					
Prevailing Wind Direction					
Wind Speed (mph)					
Comments					

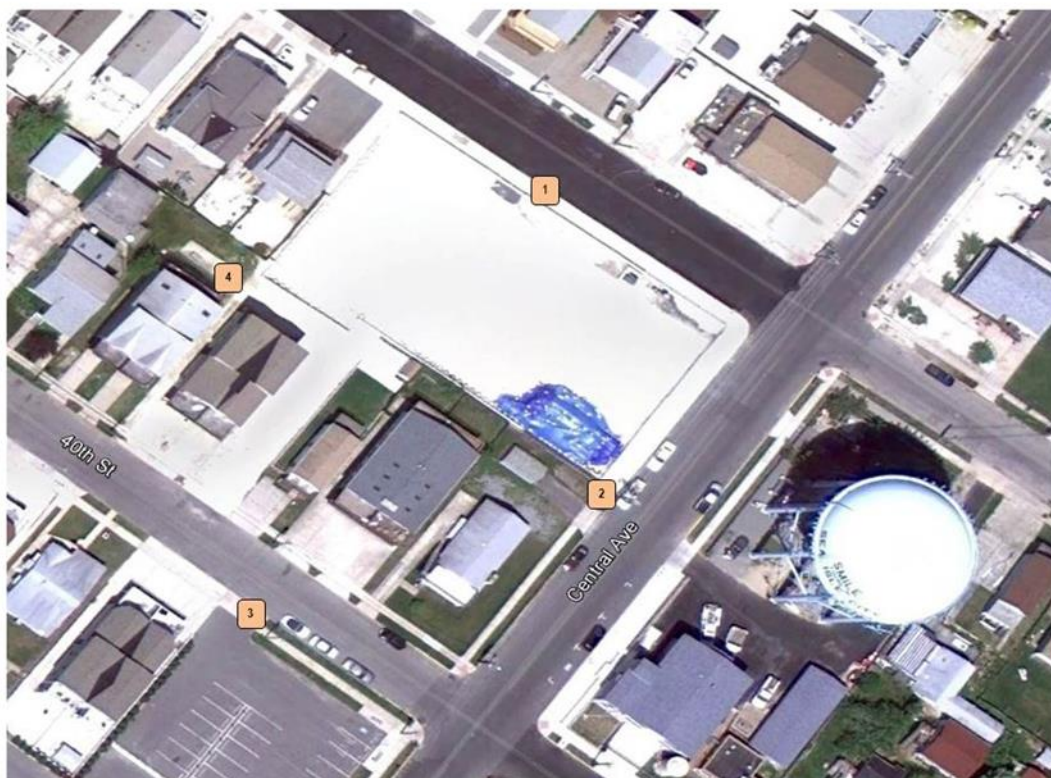
Exceedences

Date/Time	Station/Location	Measured Value	Response/Explanation
N/A			

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations



Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	December 30 – January 3, 2014
Date Submitted:	January 8, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site. Workers assembling temporary structure.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	No site activity.
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	No site activity.

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	2.1 – 14.6	3.3 – 10.5	N/A	16.2 – 32.7	N/A
Station-2	3.6 – 32.9	5.0 – 18.5		21.0 – 56.8	
Station-3	3.5 – 12.9	4.0 – 10.7		16.9 – 44.2	
Station-4	2.5 – 13.8	3.7 – 12.4		17.5 – 37.6	

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 - 0	0 - 0	N/A	-0.1 - 0	N/A
Station-2	0 - 0	0 - 0		0 - 0	
Station-3	0 - 0	0 - 0		-0.2 - 0	
Station-4	0 - 0	0 - 0		0 - 0	

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	33 – 46	28 – 42		28 – 39	
Rel. Humidity (%)	56 – 81	44 – 64		75 – 93	
Bar. Pressure (inHg)	30.02	30.20		29.87	
Prevailing Wind Direction	WNW	WNW		NNE	
Wind Speed (mph)	7 - 12	6 - 16		3 - 13	
Comments	Clear, Windy	P. Cloudy	N/A	Cloudy, Breezy	N/A

Exceedences

Date/Time	Station/Location	Measured Value	Response/Explanation
N/A			

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations

Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	January 6 – January 10, 2014
Date Submitted:	January 15, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 4 days. Site work continued, construction of temp building.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	No site activity.
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	01.06	01.07	01.08	01.09	01.10
Station-1	13.7 – 56.8	N/A	3.7 – 67.1	9.7 – 17.0	11.3 – 27.2
Station-2	28.9 – 59.4		6.2 – 70.1	11.0 – 42.0	14.3 – 34.1
Station-3	11.1 – 31.5		5.1 – 12.8	10.8 – 19.6	14.2 – 31.8
Station-4	8.8 – 20.6		4.6 – 14.5	11.5 – 14.7	14.8 – 30.7

Volatiles: TVOC: Min-Max TWA (ppm):

Station	01.06	01.07	01.08	01.09	01.10
Station-1	0 - 0	N/A	0 - 0	-0.2 - 0	-0.2 - 0
Station-2	0 - 0		0 - 0	0 - 0	0 - 0
Station-3	0 - 0		0 - 0.2	0 - 0	0 - 0
Station-4	0 - 0		0 - 0.02	0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	01.06	01.07	01.08	01.09	01.10
Temperature (°F)	48.3 – 51.6	N/A	10.8 – 25.6	23.4 – 36.3	32.7 – 42.4
Rel. Humidity (%)	94.2 – 95.1		29.3 – 55.4	40.4 – 71.8	84.6 – 94.2
Bar. Pressure (inHg)	0.9		1.033	1.036	1.028
Prevailing Wind Direction	S		WSW	N	N
Wind Speed (mph)	12 – 22		1 – 13	.9 – 7	.5 – 7
Comments	Windy, Rain		Clear, Cold	Clear, Cold	Cloudy, Rain

Exceedences

Date/Time	Station/Location	Measured Value	Response/Explanation
N/A			

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations

Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	January 13 – January 17, 2014
Date Submitted:	January 21, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site all 5 days. Constructing Temporary enclosure. No intrusive activities.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	10.7 – 35.7	6.0 – 31.3	2.5 – 16.9	8.2 – 20.0	10.2 – 32.9
Station-2	13.9 – 39	8.8 – 64.6	3.9 – 48.8	12.1 – 29.1	13.8 – 50.4
Station-3	8.3 – 35.6	6.9 – 33.7	3.6 – 17.1	9.7 – 22.4	10.6 – 38.2
Station-4	9.1 – 34.6	7.3 – 29.8	2.3 – 137.7	9.8 – 24.9	12.2 – 37.5

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 - 0	0 - 0	0 - 0	-0.8 - 0	0 - 0
Station-2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-3	0 - 0	0 - 0	0 - 0.6	0 - 0	-0.1 - 0
Station-4	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	28 – 53	41 – 51	35 – 48	26 – 39	26 – 48
Rel. Humidity (%)	51 – 93	62 – 93	87 – 100	60 – 100	70 – 93
Bar. Pressure (inHg)	30.07	29.81	29.93	29.94	29.96
Prevailing Wind Direction	S	SW	SE	NW	S
Wind Speed (mph)	6 – 17	8 – 13	5 – 8	8 – 13	6 - 14
Comments	Clear, Breezy	Cloudy, Rain	Foggy, Breezy	Overcast, Breezy	Clear, Breezy

Exceedences

Date/Time	Station/Location	Measured Value	Response/Explanation
N/A			

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations



Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	January 20 – January 24, 2014
Date Submitted:	January 29, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 4 days. Constructing temp building, water treatment, and air systems.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	Winter storm. No monitoring.
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	3.8 – 6.8	9.9 – 14.4	N/A	5.1 – 11.2	3.1 – 18.8
Station-2	5.2 – 40.4	14.4 – 19.7		8.8 – 56.6	7.5 – 41.9
Station-3	5.2 – 7.8	12.4 – 16.5		5.0 – 616.5*	6.7 – 16.1
Station-4	5.2 – 8.0	11.9 – 16.1		7.4 – 20.3	6.2 – 18.0

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 - 0	0 - 0	N/A	0 - 0	0 - 0
Station-2	0 - 0	0 - 0		0 - 0	0 - 0
Station-3	0 - 0	0 - 0		0 - 0	0 - 0
Station-4	0 - 0	0 - 0		0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	37 – 48	30 – 36	N/A	11 – 23	11 – 22
Rel. Humidity (%)	43 – 70	64 – 83		40 – 63	32 – 57
Bar. Pressure (inHg)	29.75	1.007		1.021	1.028
Prevailing Wind Direction	W	N		WSW	NNW
Wind Speed (mph)	10 – 15	2 – 9		.9 – 13	1 – 12
Comments	Cloudy	Cloudy, Snow	Snow, Clearing	Clear, Cold	Clear, Cold

Exceedences

Date/Time	Station/Location	Measured Value	Response/Explanation
1/23/14 0740	Station 3	616.5 ug/m3*	Spike caused by exhaust smoke from excavator being started.*Did not exceed 15 min. average.*

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations

Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	January 27 – January 31, 2014
Date Submitted:	February 4, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 5 days. Setting bracing, excavation in first cell. Loading out trucks.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	4.5 – 125.3	3.1 – 7.6	6.8 – 10.1	6.3 – 12.0	7.0 – 36.2
Station-2	0.3 – 740.8*	8.2 – 20.3	8.8 – 16.6	8.9 – 64.0	10.0 – 62.3
Station-3	5.9 – 30.2	5.5 – 9.5	8.1 – 15.6	7.5 – 15.9	7.2 – 30.6
Station-4	8.6 – 25.2	3.5 – 10.0	8.2 – 14.5	8.7 – 16.1	8.4 – 24.9

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-2	0 - 0	0 - 0	0 - 0	0 - 0	-0.4 - 0
Station-3	0 - 0	0 - 0	0 - 0	-4.5 - 0	-0.1 - 0
Station-4	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	35 – 46.7	16 – 20	13 - 22	11 – 29	24 – 37
Rel. Humidity (%)	40 – 73	29 – 46	37 - 84	31 – 61	42 – 86
Bar. Pressure (inHg)	1.005	1.026	1.022	1.029	1.020
Prevailing Wind Direction	WSW	NNW	N	N	SSW
Wind Speed (mph)	2 – 13	.8 – 7.8	1.5 - 15	.4 – 5.1	.9 – 7.3
Comments	P.Cloudy, Windy	Overcast, Windy	AM Snow, Clearing	Clear, Cold	Clear

Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
1/27/14 0817	Station 2	740.8 ug/m3*	Spike caused by truck delivering load of kiln dust. Did not exceed 15 min. average.*

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations

Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	February 03 – February 07, 2014
Date Submitted:	February 12, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 5 days. Excavating/loading out soils. Backfilling. Water treatment.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's – Shutdown half day.
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's – Shutdown 3 hrs.
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	14.4 – 28.9	10.3 – 16.7	0 – 19.1	2.4 – 8.2	8.1 – 31.8
Station-2	24.7 – 49.8	16.2 – 24.9	0 – 229.3	0 – 10.8	0 – 371.4*
Station-3	23.6 – 57.1	14.4 – 49.3	0 – 71.1	0 – 46.9	8.2 – 40.8
Station-4	18.0 – 35.2	11.6 – 29.4	0 – 35.5	3.0 – 12.4	9.8 – 39.4

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 - 0	0 - 0	0 - 0	-0.01 - 0	0 - 0
Station-2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-3	0 - 0	0 - 0	0 - 0	-0.02 - 0	0 - 0
Station-4	0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	34 – 37	29 – 36	35 - 39	26 – 35	25 –39
Rel. Humidity (%)	89 – 93	66 – 80	86 - 94	43 – 65	40 – 76
Bar. Pressure (inHg)	1.015	1.028	1.005	1.023	1.025
Prevailing Wind Direction	N	N	NNW	NNW	W
Wind Speed (mph)	2 – 11	1 – 6	.3 - 15	.9 – 5.5	3 – 11
Comments	Rain, Flooding	Cloudy	Rain, Windy	M.Cloudy	Clear, Breezy

Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
2/07/14 1415	Station 2	371.4 ug/m3*	Spike caused by exhaust smoke from “Mr. John” truck.*Did not exceed 15 min. average.*

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations

Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	February 10 – February 14, 2014
Date Submitted:	February 18, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 4 days. Excavating/loading out soils. Backfilling. Treating water.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 Monitoring stations operational: Dust (PM10) and VOC's
Day 4	Winter storm. No Monitoring.
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	7.9 – 27.8	6.6 – 33.4	2.9 – 27.6	N/A	4.2 – 22.7
Station-2	8.9 – 40.5	7.6 – 65.7	4.6 – 36.9		6.8 – 210.4*
Station-3	10.9 – 43.9	11.0 – 126.1	5.6 – 184.9		3.9 – 19.1
Station-4	10.1 – 31.4	8.9 – 37.0	4.5 – 29.3		4.7 – 21.1

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 - 0	0 - 0	0 - 0	N/A	0 - 0
Station-2	0 - 0	0 - 0	0 - 0		0 - 0
Station-3	0 - 0	-0.0 - 0	0 - 0		0 - 0
Station-4	-0.1 - 0	0 - 0	0 - 0		0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	23 - 30	18 – 32	14 - 30	N/A	33 – 46
Rel. Humidity (%)	40 – 70	30 – 70	54 - 80		42 – 67
Bar. Pressure (inHg)	1.021	1.027	1.030		1.000
Prevailing Wind Direction	WNW	NNW	N		WSW
Wind Speed (mph)	1 – 9	1 –7	1 - 8		2 – 21
Comments	Clear, Cold	Clear, Cold	Clear, Cold	Winter Storm	Clear, Windy

Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
2/14/14 1405	Station 2	210.4 ug/m3*	Spike caused by worker sweeping sidewalk.*Did not exceed 15 min. average.*

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations

Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	February 17 – February 21, 2014
Date Submitted:	March 4, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 5 days. Excavating/loading out soils. Backfilling. Treating water.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	1.9 – 15.6	0.7 – 19.8	14.7 – 65.6	4.6 – 52.3	2.8 – 39.1
Station-2	1.3 – 91.4	1.9 – 72.7	21.4 – 380.1*	5.4 – 320.1*	2.0 – 43.5
Station-3	0.7 – 32.1	0.8 – 26.1	25.1 – 66.9	5.4 – 44.6	2.1 – 33.7
Station-4	1.6 – 42.3	0.4 – 24.5	21.8 – 52.0	5.4 – 30.7	1.6 – 15.6

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-3	0 - 0	0 – 5.1*	0 - 0	0 - 0	0 - 0
Station-4	0 - 0	0 - 0	0 - 0	-0.0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	20 - 38	34 – 51	39 - 49	33 – 50	44 – 52
Rel. Humidity (%)	24 – 61	41 – 93	74 - 85	38 – 79	86 – 95
Bar. Pressure (inHg)	1.027	1.015	1.008	1.022	1.008
Prevailing Wind Direction	NNW	WSW	SSE	NNE	S
Wind Speed (mph)	.6 – 8.5	.4 –16	1 - 13	.4 – 8.8	.1 – 47
Comments	Clear, Cold	AM rain-clearing	Rain showers	Clear	Fog, windy, T-storms

Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
2/18/14 1350	Station 3	5.1 PPM*	Spike caused by equipment malfunction(overheated)*
2/19/14 0740	Station 2	380.1 mg/m3**	
2/20/14 0835	Station 2	320.1 mg/m3**	Particulate spikes caused by truck delivering kiln dust.* Did not exceed 15 min. average.**

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations

Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	February 24 – February 28, 2014
Date Submitted:	March 4, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 5 days. Excavating/loading out soils. Backfilling. Treating water.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0.3 – 15.6	2.5 – 14.1	4.1 – 18.0	4.2 – 46.0	2.9 – 16.7
Station-2	2.4 – 63.2	3.4 – 308.4*	5.0 – 72.2	4.0 – 566.8*	5.9 – 15.5
Station-3	1.0 – 8.1	3.7 – 54.3	5.8 – 32.9	4.2 – 24.1	4.6 – 20.3
Station-4	1.5 – 6.4	2.8 – 39.3	5.5 – 23.6	4.4 – 25.3	4.9 – 9.0

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 - 0	0 - 0	0 – 0.5	0 – 0	0 - 0
Station-2	0 – 0	0 - 0	-0.0 - 0	-0.0 – 0	0 - 0
Station-3	-0.1 - 0	0 – 0	0 - 0	0 – 0	0 - 0
Station-4	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	37 - 42	29 –32	27 - 34	27 – 38	12 – 26
Rel. Humidity (%)	26 – 78	39 –88	40 - 87	30 – 57	21 – 45
Bar. Pressure (inHg)	1.013	1.016	1.011	1.004	1.027
Prevailing Wind Direction	WSW	WSW	WSW	SSW	NE
Wind Speed (mph)	3 – 21	.8 –12	1 - 13	1 – 19	.8 – 8.4
Comments	Clear, Windy	Cloudy, Light snow	Cloudy, snow showers	P. Sunny,	Clear, Cold

Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
2/25/14 0830	Station 2	308.4 mg/m3*	Particulate spikes caused by truck delivering kiln dust. *Did not exceed 15 min average.*
2/27/14 0735	Station 2	566.8 mg/m3*	

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations

Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	March 4 – March 8, 2014
Date Submitted:	March 11, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 5 days. Excavating/loading out soils. Backfilling. Treating water.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	6.1 – 9.2	4.4 – 9.6	9.9 – 15.9	7.9 – 46.9	6.4 – 17.8
Station-2	7.9 – 13.5	6.0 – 12.2	11.1 – 19.8	8.8 – 50.5	7.1 – 23.9
Station-3	11.7 – 37.6	6.4 – 10.4	1.3 – 133.2	11.4 – 73.9	6.4 – 19.7
Station-4	7.1 – 10.9	2.2 – 22.2	9.9 – 21.1	8.4 – 51.0	7.7 – 24.4

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-3	0 - 0	0 - 0	0 - 0	0 - 0	-0.1 - 0
Station-4	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	13 - 31	28 – 40	25 - 32	34 – 37	35 – 56
Rel. Humidity (%)	62 – 72	54 – 80	56 - 76	75 – 87	44 – 85
Bar. Pressure (inHg)	30.7	30.58	30.88	30.46	30.22
Prevailing Wind Direction	N	N	NNW	NNW	WSW
Wind Speed (mph)	1 – 5	0.9 – 8	2 - 8	2 – 6	1 – 12
Comments	Clear, Cold	Clear, Cold	Clearing, Cold	Rain showers	Clear

Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations

Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	March 10 – March 14, 2014
Date Submitted:	March 20, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 4 days, Carey Wu 1 day. Excavating/loading out soils. Backfilling.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	9.7 – 26.1	6.1 – 13.3	26.2 – 59.4	2.3 – 6.0	5.2 – 17.8
Station-2	13.1 – 52.1	8.2 – 35.0	31.1 – 65.0	2.9 – 14.5	7.5 – 78.8
Station-3	11.3 – 43.3	6.1 – 15.7	35.3 – 71.0	2.6 – 8.3	4.8 – 12.6
Station-4	8.4 – 60.8	7.5 – 16.4	30.7 – 82.2	2.4 – 6.6	5.0 – 14.9

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-3	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-4	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	35 - 54	47 – 65	42 - 51	23 – 32	26 – 40
Rel. Humidity (%)	37 – 64	34 – 58	70 - 91	28 – 54	35 – 61
Bar. Pressure (inHg)	30.16	29.92	29.70	30.11	30.58
Prevailing Wind Direction	SSW	WSW	SSE	W	S
Wind Speed (mph)	1 – 12	1 –12	1 - 14	4 – 19	1 – 16
Comments	Mostly sunny	Clear	P. Cloudy, PM Rain	Clear, Windy	M. Cloudy, Breezy

Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
N/A			

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations



Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	March 17 – March 21, 2014
Date Submitted:	March 28, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 4 days. Excavating soils, backfilling, treating water.

Day 1	No site work due to winter storm.
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	N/A	14.4 – 20.6	28.3 – 49.2	9.5 – 25.0	8.5 – 24.0
Station-2		15.7 – 25.3	36.1 – 58.8	12.0 – 83.6	11.3 – 80.4
Station-3		0.0 – 110.2	0.2 – 489.4*	12.6 – 63.2	9.6 – 33.7
Station-4		13.2 – 132.2	28.4 – 66.2	11.2 – 28.0	10.8 – 37.2

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	N/A	0 - 0	0 - 0	0 - 0	0 - 0
Station-2		0 - 0	-0.0 - 0	0 - 0	0 - 0
Station-3		0 - 0	-0.1 - 0	0 - 0	0 - 0
Station-4		0 - 0	0 - 0	0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	N/A	35 – 39	38 - 43	42 – 56	35 – 55
Rel. Humidity (%)		59 – 67	77 - 85	34 – 89	31– 78
Bar. Pressure (inHg)		30.54	30.50	30.20	30.39
Prevailing Wind Direction		N	N	WSW	WSW
Wind Speed (mph)		4 –11	1 - 8	4 – 19	.7 – 18
Comments	Snow	Cloudy, Breezy	Cloudy, PM Rain	P. Cloudy, Windy	Clear, Windy

Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
3/19/14 0811	Station 3	489.4 ug/m3*	Kiln dust delivery caused elevated particulate readings.

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations



Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	March 24 – March 28, 2014
Date Submitted:	April 7, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 4 days. Excavating soils, backfilling, treating water.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	GEI conducted upwind and downwind readings for VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	3.4 – 7.8	N/A	3.2 – 41.6	5.2 – 13.6	14.8 – 47.2
Station-2	3.8 – 25.2		3.4 – 46.9	6.0 – 57.8	15.9 – 41.9
Station-3	2.9 – 8.6		3.1 – 63.8	5.7 – 39.1	16.3 – 55.2
Station-4	3.8 – 8.9		3.7 – 54.1	6.1 – 13.4	15.8 – 51.5

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 – 0.1	0 – 0.8	-0.1 - 0	0 - 0	0 - 0
Station-2	0 - 0		0 - 0	0 - 0	0 - 0
Station-3	0 - 0		0 - 0	0 - 0	0 - 0
Station-4	0 - 0		0 - 0	0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	23 - 38	32 – 37	28 - 35	24 – 37	41– 53
Rel. Humidity (%)	22 - 49	42 – 92	32 - 92	33 – 55	69– 86
Bar. Pressure (inHg)	30.58	30.39	30.29	30.79	30.48
Prevailing Wind Direction	NW	NE	S	SSE	S
Wind Speed (mph)	1 - 12	3 –12	3 - 21	.5 – 11	4 – 17
Comments	Clear ,Cold	Cloudy, Snow	Clear, cold, windy	Clear, Cold	M. cloudy, windy

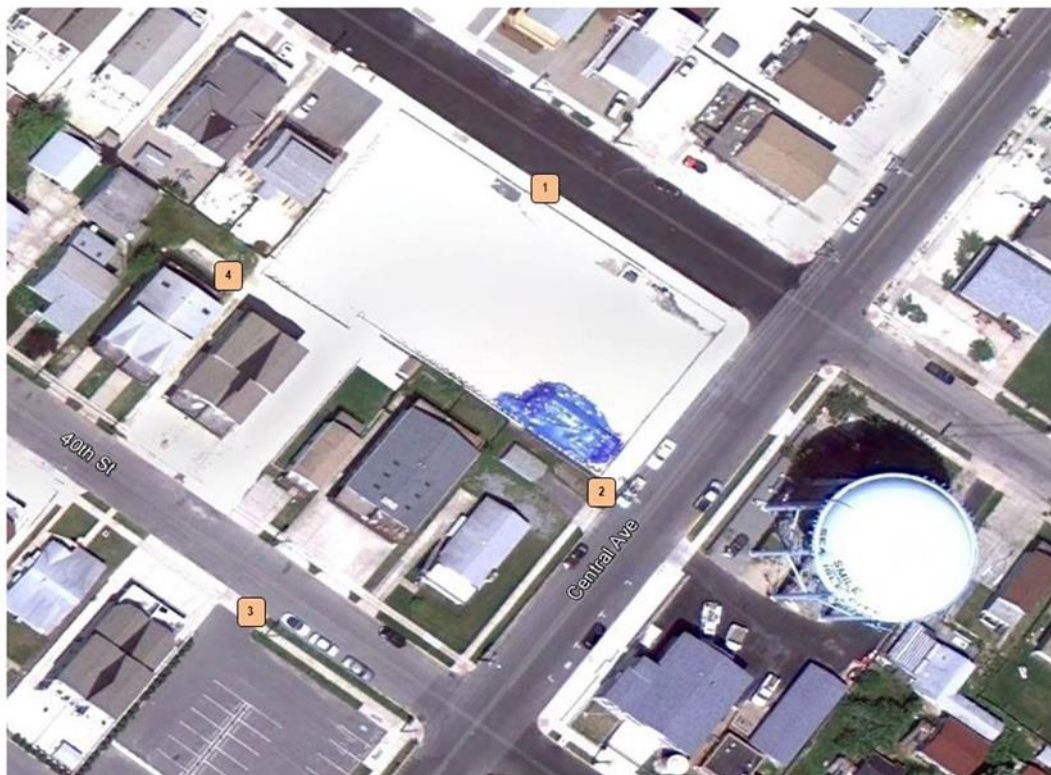
Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
N/A			

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations



Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	March 31 – April 4, 2014
Date Submitted:	April 7, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 5 days. Excavating soils, backfilling, treating water, pulling sheet pilings.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0.5 – 166.3	0.8 – 23.7	0.6 – 17.0	5.0 – 30.7	22.1 – 41.0
Station-2	0.1 – 45.0	1.7 – 51.3	0.7 – 18.3	4.0 – 38.3	24.1 – 63.5
Station-3	1.1 – 18.5	0 – 24.9	0 – 67.1	5.1 – 107.7	31.9 – 108.4
Station-4	0.6 – 7.8	1.8 – 68.5	3.3 – 138	10.6 – 88.3	21.7 – 63.6

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 – 0.2	0 – 0.2	0 – 0.2	0 - 0	0 - 0
Station-2	0 - 0	0 - 0	0.0 - 0	0.2 - 0	0 - 0
Station-3	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-4	0.0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	37 - 57	35 – 50	42 - 56	47 – 53	44 – 46
Rel. Humidity (%)	42 - 84	44– 79	62 - 89	47 – 84	80– 85
Bar. Pressure (inHg)	30.26	30.47	30.45	30.45	30.27
Prevailing Wind Direction	N	ESE	NNE	N	N
Wind Speed (mph)	1 - 8	0.6 –10	0.5 - 9	0.7 – 10	2 – 9
Comments	AM Rain, clearing	Clear	P.Cloudy	AM fog, M. cloudy	Cloudy, Rain

Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
N/A			

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations



Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	April 7 – April 11, 2014
Date Submitted:	April 18, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 5 days. Excavating soils, backfilling, treating water. Cleaning air scrubbers.

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	6.4 – 22.6	2.7 – 175.8	1.8 – 42.4	5.2 – 52.4	20.1 – 111.6
Station-2	8.1 – 59.4	2.9 – 266.4	0.2 – 308.5	4.2 – 501.6	26.3 – 106.2
Station-3	10.3 – 159.9*	0.5 – 246.3	0 – 166.3	1.8 – 58.7	18.2 – 92.0
Station-4	8.4 – 145.3	1.9 – 199.1	1.8 – 148.1	3.9 – 113.6	0 – 172.1*

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 – 0	0 - 0	0 - 0	-0.0 - 0	0 - 0
Station-2	-0.0 – 0	0 – 0.4	0 - 0	0 - 0	0 - 0
Station-3	0 – 0	0 - 0	0 - 0	0 - 0	-0.0 - 0
Station-4	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	42 – 48	50 – 62	43 - 64	45 – 53	52 – 60
Rel. Humidity (%)	78 – 94	47 – 95	25 - 72	55 – 67	58– 74
Bar. Pressure (inHg)	30.42	29.86	30.12	30.57	30.40
Prevailing Wind Direction	NNE	SSW	N	ESE	SSE
Wind Speed (mph)	2 - 15	1 –18	.5 - 15	1 – 10	2 – 9
Comments	Rain, Windy	Foggy, windy	Clear, Breezy	Clear	P. Cloudy

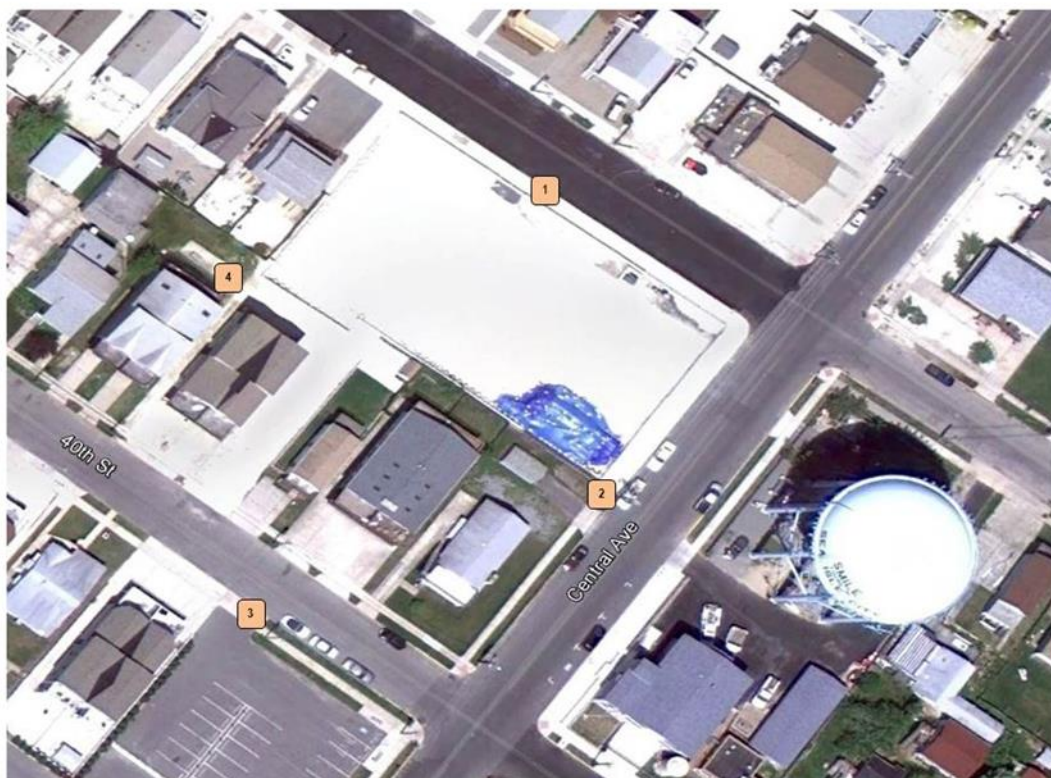
Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
4/7/14 0759	Station 3	159.9 ug/m3*	Kiln dust delivery caused 15 min.
4/11/14 0835	Station 4	172.1 ug/m3*	Exhaust from vac truck caused 15 min.

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations



Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	April 14 – April 18, 2014
Date Submitted:	April 21, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 5 days. Demobilizing temp structure. *No intrusive work*

Day 1	4 monitoring stations operational: Dust (PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	17.5 – 68.8	4.7 – 75.3	0.8 – 13.8	8.9 – 26.4	8.4 – 33
Station-2	17.7 – 48.2	13.4 – 73.6	2.2 – 7.8	12.4 – 16.7	12.7 – 25.6
Station-3	9.2 – 61.2	4.4 – 86.2	0 – 36.5	8.2 – 34.6	9 – 95.2
Station-4	8.4 – 70.3	4.5 – 89.5	0.6 – 20.6	8.0 – 32.1	7.5 – 37.1

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 – 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-2	0 – 0	0 – 0.5	0 - 0	0 - 0	0 - 0
Station-3	0 – 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-4	0 – 0	0 - 0	0 - 0	0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	52 – 62	52 – 56	32 - 51	41 – 46	40 – 47
Rel. Humidity (%)	67 – 90	93 – 95	29 - 61	53 – 63	57– 74
Bar. Pressure (inHg)	30.39	30.04	30.72	31.03	30.82
Prevailing Wind Direction	S	SSE	N	N	N
Wind Speed (mph)	5 - 15	6 –17	1 - 8	3 – 14	1 – 9
Comments	P. cloudy, Windy	Foggy, Rain	Clear, Breezy	M. cloudy, Windy	Cloudy

Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
N/A			

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations



Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	April 21 – April 25, 2014
Date Submitted:	April 29, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 5 days. Removing sheet pilings. Demobilizing equipment. Cutting concrete.

Day 1	4 monitoring stations operational: Dust(PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	4 monitoring stations operational: Dust (PM10) and VOC's
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	11.4 – 21.6	14.2 – 47.7	3.3 – 5.1	2.9 – 16.4	4.1 – 6.0
Station-2	9.7 – 22.0	13.4 – 47.6	1.9 – 28.0	2.7 – 34.7	3.7 – 7.1
Station-3	10.5 – 41.9	14.9 – 47.3	0.9 – 7.3	1.0 – 11.3	2.8 – 15.1
Station-4	11.4 – 26.9	16.2 – 43.6	1.7 – 7.5	3.2 – 10.2	5.0 – 9.0

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 – 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-2	0 – 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-3	0 – 0	0 - 0	0 - 0	0 - 0	0 - 0
Station-4	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	39 – 54	48 – 57	49 - 60	43 – 62	45 – 53
Rel. Humidity (%)	55 – 85	67 – 84	38 -56	19 – 50	36 – 70
Bar. Pressure (inHg)	30.48	30.05	30.03	30.35	30.36
Prevailing Wind Direction	N	SSE	WSW	WSW	NNE
Wind Speed (mph)	1 – 11	2 –9	4 - 17	2 – 19	.8 – 11
Comments	Clear, Breezy	M. Sunny, Breezy	Clear, Windy	Clear, Windy	Clear, Breezy

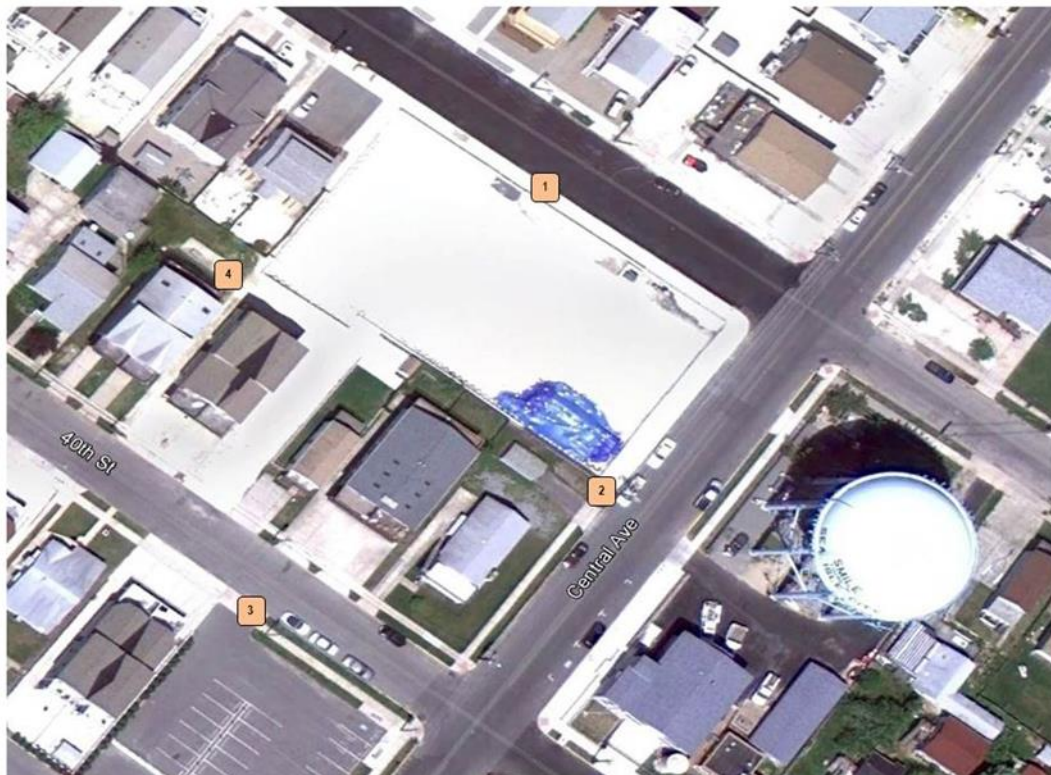
Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
N/A			

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations



Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	April 28 – May 2, 2014
Date Submitted:	May 5, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 4 days. Removing sheet pilings. Demobilizing equipment.

Day 1	4 monitoring stations operational: Dust(PM10) and VOC's
Day 2	4 monitoring stations operational: Dust (PM10) and VOC's
Day 3	No Site work due to weather.
Day 4	4 monitoring stations operational: Dust (PM10) and VOC's
Day 5	4 monitoring stations operational: Dust (PM10) and VOC's

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0.6 – 28.3	9.9 – 38.2	N/A	0.9 – 75.4	3.6 – 8.3
Station-2	0 – 28.6	13.1 – 31.0		13.4 – 77.3	2.5 – 9.6
Station-3	0 – 37.6	13.7 – 31.1		13.1 – 86.4	0.9 – 9.6
Station-4	0.4 – 18.6	11.6 – 34.3		8.3 – 74.0	2.3 – 8.4

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 – 0	0 - 0	N/A	0 - 0	0 - 0
Station-2	0 – 0	0 - 0		0 - 0	0 - 0
Station-3	0 – 0	0 - 0		0 – 15.8*	0 - 0
Station-4	0 - 0	0 - 0		0 - 0	0 - 0

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	44 – 54	46 – 49	N/A	53 – 64	55 – 66
Rel. Humidity (%)	51 – 70	71 – 83		74 – 95	33 – 89
Bar. Pressure (inHg)	30.46	30.56		30.19	30.16
Prevailing Wind Direction	NE	N		SSE	WSW
Wind Speed (mph)	1 – 11	1 – 23		.1 – 15	.9 – 16
Comments	Clear, Breezy	Cloudy, windy, rain.	Heavy Rain and Wind	Cloudy, Foggy*	P. Cloudy, Breezy

Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
5/1/14 0925	Station 3	15.8* PPM	Reading was caused by heavy foggy conditions not intrusive work.*

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations



Weekly Report Perimeter Air Monitoring

Customer:	FirstEnergy / JCP&L
Project Name:	Sea Isle City, Former MGP Soil Remediation
Project Site:	Sea Isle City, NJ
Period Covered:	May 5 – May 9, 2014
Date Submitted:	May 6, 2014
Submitted by:	Ed Pearl, David Tomsey

Operations Summary

Ed Pearl on site 1 day. Removing sheet pilings. End of intrusive work.

Day 1	4 monitoring stations operational: Dust(PM10) and VOC's
Day 2	N/A
Day 3	N/A
Day 4	N/A
Day 5	N/A

Air Monitoring Overview

Particulate: PM-10: Min-Max TWA (ug/m3):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	1.6 – 37.0	N/A	N/A	N/A	N/A
Station-2	0.4 – 33.0				
Station-3	0.1 – 28.9				
Station-4	0.6 – 3.0				

Volatiles: TVOC: Min-Max TWA (ppm):

Station	Day-1	Day-2	Day-3	Day-4	Day-5
Station-1	0 – 0	N/A	N/A	N/A	N/A
Station-2	0 – 0				
Station-3	0 – 0				
Station-4	0 – 0				

Weather: Min-Max values, as noted:

Item	Day-1	Day-2	Day-3	Day-4	Day-5
Temperature (°F)	47 – 69	N/A	N/A	N/A	N/A
Rel. Humidity (%)	25 – 60				
Bar. Pressure (inHg)	30.27				
Prevailing Wind Direction	WSW				
Wind Speed (mph)	1 – 13				
Comments	Clear, Breezy				

Exceedances

Date/Time	Station/Location	Measured Value	Response/Explanation
N/A			

Air Monitoring Equipment Status

Zeroed dust monitors. Zeroed and calibrated VOC monitors. Zeroing and Calibrating in field as needed. Everything functioning OK.

Air Monitoring Locations



Appendix 4. Data Archive

Real-time data was collected and stored in the Greenlight™ system's database during all periods of active perimeter monitoring. This data is preserved and presented as archived data sets in a format convenient to typical users of personal computing.

Note: The data files themselves are provided separately on a CD-ROM.

Data values were stored at 15-second intervals for the parameters listed in the table below, where 'Enclosure' refers to the Greenlight system field station and its corresponding data channel. Enclosures are also known as "boxes" in the system terminology.

For each of these parameters, there is csv-format data file is supplied covering the entire date range of the project. This file format can be readily imported into standard spreadsheet and database applications such as Microsoft Excel and Microsoft Access, thus allowing users to review and analyze all data that was collected and recorded by the Greenlight™ system during the project.

Note that the Greenlight™ Enclosure numbers (1, 2, 3, and 4) cited here are the same as the Station Numbers used at the jobsite and shown on the map in Fig. 1, above.

Parameter Measured	Data File Name
PM-10 at Enclosure-1 ($\mu\text{g}/\text{m}^3$)	Box_1_pm10.csv
PM-10 at Enclosure-2 ($\mu\text{g}/\text{m}^3$)	Box_2_pm10.csv
PM-10 at Enclosure-3 ($\mu\text{g}/\text{m}^3$)	Box_3_pm10.csv
PM-10 at Enclosure-4 ($\mu\text{g}/\text{m}^3$)	Box_4_pm10.csv
TVOC at Enclosure-1 (ppm)	Box_1_voc.csv
TVOC at Enclosure-2 (ppm)	Box_2_voc.csv
TVOC at Enclosure-3 (ppm)	Box_3_voc.csv
TVOC at Enclosure-4 (ppm)	Box_4_voc.csv
Ambient temperature (degrees-F)	air_temperature.csv
Relative Humidity (%)	air_humidity.csv
Barometric Pressure (in-Hg)	air_pressure.csv
Wind Direction (degrees of compass)	prevailing_wind_dir.csv
Wind Speed (mph)	prevailing_wind_spd.csv

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix H

Photolog

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



211 40th Street prior to being relocated to 214 39th Street



219 40th Street prior to demolition

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



223 40th Street prior to demolition



227 40th Street prior to demolition

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



223 40th Street asbestos abatement



Relocating structure from 211 40th Street to 214 39th Street

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



Sheeting installation for the Remediation Area 1 remedial action.



Installation of interior bracing

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



Product pooling in cell J2 during excavation



Visible sheen located in cell J3

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



Vibration monitoring alarm system



PXB-J2 sampling location

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



PXB-J3 sampling location



PXB-K2 sampling location

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



PXB-M2 sampling location



PXB-M3 sample location

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



PXB-K1 sample location



PXB-J1 sample location

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



PXB-K3 sampling location



PXB-L1 sampling location

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



PXB-L2 sampling location



PXB-L3 sampling location

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



PXB-M1 sample location



Installation of an impermeable barrier on the south side of the Remediation Area 1 excavation area

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



Backfilling and compacting excavation cell



Sheeting removal at the conclusion of the Remediation Area 1 remedial action

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



Remediation Area 1 after completion of site restoration

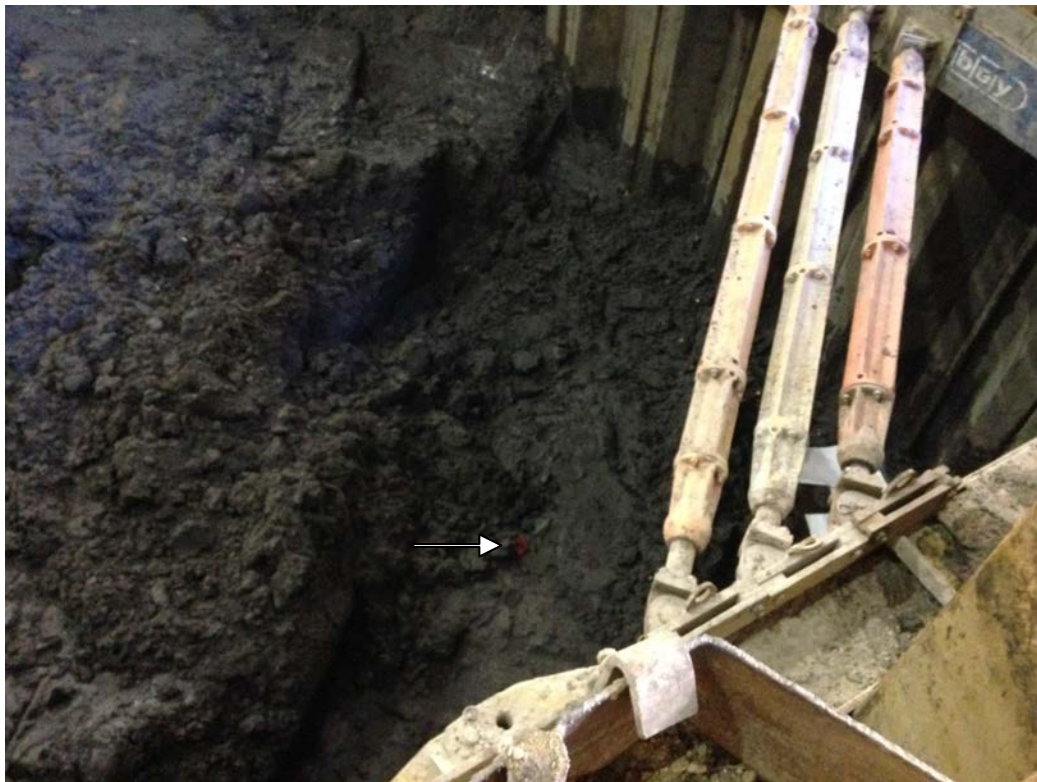


205, 207 and 209 40th Street prior to demolition at the start of the Remediation Area 2 remedial action

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



Temporary enclosure used during the Remediation Area 2 remedial action



PXB-J6 sample location

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



PXB-L8 sampling location



PXB-J8 sample location

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



PXB-K5 sample location



PXB-K6 sample location

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



PXB-K8 sample location



PXB-L7 sample location

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



PXB-J7 sample location



PXB-K7 sample location

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



PXB-L5 sample location



Repaving Central Avenue

2012-2014 Remedial Action Photolog
JCP&L Sea Isle City Former MGP
Sea Isle City, Cape May County, New Jersey



Remediation Area 2 after completion of site restoration

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix I

Variance Request

Appendix I
Basis for Variance from N.J.A.C. 7:26E-5.2(a)4
Remedial Action Report
Sea Isle City former MGP Site

This Appendix to the RAR provides the technical basis and justification for a variance from N.J.A.C. 7:26E-5.2(a)4. requiring an institutional control for soil containing concentrations of base neutral compounds at concentrations above residential direct contact soil remediation standards. The basis for this variance conforms with the requirements of N.J.A.C. 7:26E-1.7(a).

Owner Name and Address of Properties Subject to Variance:

219 and 223 40th Street
Jersey Central Power & Light Company (JCP&L)
300 Madison Avenue
Morristown, NJ 07962
Attn: Mr. Frank Lawson, Supervisor – Site Remediation

222 East 39th Street
Salvatore and Colleen Marinari
908 Baker Dr.
Norristown, PA 19403

222 West 39th Street
Milton and Donna Hysore
736 Borough Line Rd
Collegeville, PA 19462

Street Address and Tax Block and Lot Number of Site Subject to Variance:

222 39th Street
Block 39.04, Lots 29 and 30
Sea Isle City, NJ 08243

219 40th Street
Block 39.04, Lot 15
Sea Isle City, NJ 08243

223 40th Street
Block 39.04, Lots 13 and 14
Sea Isle City, NJ 08243

Site Specific Conditions Applicable to the Variance:

An approximately 1,160 square foot area of below grade soil, on the north side of the 223 40th Street property, contains MGP impacted soil. As described in GEI's September 2012 Phase IV Remedial Action Work Plan, a soil sample from boring B-451 contained MGP-related compounds at concentrations above the Residential Direct Contact Soil Remediation Standard (RDCSR) at a depth of 8.5-9.0 feet below ground surface (bgs). This area is east of a detached garage associated with the 223 40th Street property and south of the northern property boundary bordering 222 39th Street (Figure 1). It was outside the excavation limits proposed in the Phase IV RAWP.

Appendix I
Basis for Variance from N.J.A.C. 7:26E-5.2(a)4
Remedial Action Report
Sea Isle City former MGP Site

During the initial phase of the Phase IV Remedial Action (RA), boring B-460 was advanced to the north of boring B-451 to delineate the MGP impacts associated with boring B-451. However, a soil sample from boring B-460 collected from a depth of 10.5-11.0 feet bgs also reported the presence of MGP-related compounds at concentrations above the RDCSRS. The compounds detected above the RDCSRS in borings B-451 and B-460 include: naphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenz(a,h)anthracene.

Delineation of MGP compounds associated with borings B-451 and B-460 has been completed by other, surrounding borings (Figure 2) starting from B-450 along the excavated area and continuing clockwise to borings B-452, B-72, B-448, B-449, and ending along the excavated area at boring B-276. Analytical results of the soil samples from these borings reported polycyclic aromatic hydrocarbons (PAHs) as either non-detect or present at concentrations below RDCSRS. Figure 2 illustrates the analytical results associated with borings B-451 and B-460. Figures are provided as Attachment 1 and logs of the borings identified above are included in Attachment 2.

The impacts detected at borings B-451 and B-460 occur with a layer of clayey, peat-like material which is present at the same depth interval and is four to six feet below the water table. This layer is part of an estuary that previously had crossed the properties. The estuary subsequently was filled during redevelopment of the island, which took place in the 1940s and 1950s.

The residual MGP impacted soil on the affected properties were not included and excavated as part of the Phase IV Remedial Action (RA) because of damages that occurred to nearby structures during the 2011-2012 construction season. The RA implemented in 2012 at the 218 39th Street property, as well as all previous (and any future) RAs required installation of a sheet pile excavation support system with associated dewatering. In 2012 sheeting was installed on the west side of the 218 39th Street property line adjacent to and slightly set back from the adjoining 222 39th Street property, as well as within the planned excavation areas of that RA, to create individual work cells.

In accordance with RA protocols, survey monitoring of the 222 39th Street residential structure was performed during this activity. Monitoring of the structure during the initial phase of sheeting installation did not detect movement of the 222 39th Street structure. However, after installation of the sheeting adjacent to the property boundary, survey monitoring found that the northeast corner of the structure had settled 1.25 inches, and the southeast corner had settled 0.5 inches. Upon notification of this settlement, the installation (driving) of sheet piles was stopped pending evaluation of the situation and inspection of the structure. Inspection of the interior of the structure indicated the presence of cracks and nail pops in the sheet rock walls and ceilings.

After evaluation, it was believed that the sheeting most likely to have caused the settlement had already been installed. It was decided that continuous survey monitoring of the residential structure be performed while the remaining interior RA excavation cell sheeting, which was further away from the residential structure, was installed. During the remainder of sheeting installation, additional differential settlement of 0.67 inches at the northeast corner and 0.33 inches at the southeast corner of 222 39th Street, occurred.

Due to the detected settlement and interior damage, an inspection of the building was performed by a New Jersey Licensed Engineer. It was concluded that although cosmetic damage to the interior had taken place (nail pops, sheet rock separation, etc.) there was no evidence of the residence being structurally compromised. However, in order to correct the differential settlement that had occurred and return the

Appendix I
Basis for Variance from N.J.A.C. 7:26E-5.2(a)4
Remedial Action Report
Sea Isle City former MGP Site

structure to plumb, the residence was raised off portions of its foundation, re-leveled and reattached to the foundation, and the interior cosmetic damage repaired. In addition, it was decided that to avoid future settlement associated with vibrations from sheeting installation or removal, the sheeting adjacent to the property boundary would remain in-place, and the upper portions would be cut several feet below ground surface to allow for groundwater to flow across the property. The necessary repairs were implemented in 2012. Additionally, driveway and sidewalk replacement, stone façade installation, and entrance stair replacement also were completed as part of the site restoration, all to the satisfaction of the property owners.

During preparation for the implementation of construction activities in Remediation Area 1 of the recent (2013-2014 construction season) RA, an evaluation of the circumstances resulting in the differential settlement and associated cosmetic damage that occurred previously at the 222 39th Street property was conducted. It was concluded that vibrations at depth from the sheeting installation caused compaction of the sand layer on which the tips of the piles supporting the 222 39th Street structure were seated, causing the piles to move downward. As no information regarding the pile foundation of the structure was available for the 222 39th Street residence, it was decided to maintain as great a horizontal distance as possible from the structure. Therefore, due to the proximity of the 222 39th Street structure to Remediation Area 1 and to avoid further trauma to the owners of the property and additional potential settlement and the resulting cosmetic damage caused by sheeting installation, JCP&L chose to exclude this area from the Phase IV RA.

JCP&L had explored in-situ remedial options for the B-451 area. A bench scale In-Situ Chemical Oxidation study was completed in September 2011. The results of this study proved inconclusive and treatment processes were hampered by the high organic content of the organic clay/peat layer into which the PAHs have migrated. An additional bench-scale study was done in 2012-2013 to isolate in-situ bacteria that could be used for bioremediation of the impacted soil. This study also proved inconclusive as the colonies of bacteria could not be sustained at levels sufficient to reduce PAH concentrations given the nature of the soils and the brackish quality of the groundwater. No other in-situ treatment options have been identified for reduction of the PAHs within a highly saline, naturally occurring organic layer. Summaries of these studies are provided as Attachment 3.

Results that are Verifiable and Reproducible:

The variance from the cited section of the Technical Requirements for Site Remediation (N.J.A.C. 7:26E-5.2(a)4) is not related to site characterization methodologies, sampling procedures, or analytical protocols. Therefore, no discussion of Verifiable and Reproducible Results is necessary.

Achieve the Objectives of the Cited Technical Requirements

The LSRP of record for the Sea Isle City former MGP site has varied from the Technical Requirements for Site Remediation obligation that requires the filing of a deed notice when soil with concentrations of compounds above residential direct contact remediation standards remains on a site. This variance achieves the objectives of the cited technical requirement (N.J.A.C. 7:26E-5.2(a)4) because:

1. Potential direct contact exposure pathways currently are incomplete and are unlikely in the future due to the depth of the impacted materials (approximately nine feet below grade in the saturated zone) and their presence below and near permanent residential structures;

Appendix I
Basis for Variance from N.J.A.C. 7:26E-5.2(a)4
Remedial Action Report
Sea Isle City former MGP Site

2. Concentrations of elevated base neutral compounds remaining in the soil are not adversely affecting the local ecology, groundwater quality, or subsurface soil gas/indoor air; and
3. The impacted area is of limited extent and volume (approximately 43 cubic yards) with concentrations that are not indicative of the presence of free or residual product.

Groundwater from a monitoring well on the 222 39th Street property (MW-19, later designated MW-19R after MW-19 was relocated at the request of the property owner) was sampled twice for the presence of benzene, toluene, ethylbenzene and xylenes (BTEX), PAHs and ammonia. Although a few PAH compounds were detected in these samples, the results for the groundwater sample were in compliance with the Groundwater Quality Standards (GWQS). In addition, the PAHs detected in soil samples from within the impacted area, through which MW-19R was installed, are immobile contaminants present below the water table. These results confirm that the PAHs remaining in this area are not a source of impact to groundwater. Figure 3 shows the location of the two monitoring wells. Table 1 summarizes the analytical results for monitoring wells MW-19 and MW-19R.

Further the Attainment of the Purpose of the Specific Remedial Phase

The purpose of the remedial action program at the Sea Isle City MGP is to remove soil containing PAHs and other MGP related process residues so as to eliminate potential concerns they may represent relative to human health or the environment. The variance from N.J.A.C. 7:26E-5.2(a)4 is consistent with this objective. The depth of impacted soil, its position below the water table, its limited extent, and the presence of nearby overlying residential structures all mitigate potential exposure to this material.

Inadvertent intrusion (excavation) into the impacted soil layer will require extensive pre-planning and specialty contractor services. Soil composition (primarily fine to coarse sand and silt) and the shallow depth to groundwater (two to three feet bgs), necessitates the installation of an excavation support system (i.e., steel sheet piling or equivalent) to facilitate the removal of residual impacts from the affected properties at the depths that the impacts were identified (8.5-11.0 feet bgs). The need to excavate to this depth does not exist and is not likely to ever exist at the affected properties. No below ground utilities are present at this depth and none of the buildings have foundations or basements that extend to this depth, nor are future structures likely to have these features. In addition, construction of basements or other subsurface features that may change potential exposure pathways are not feasible because of engineering constraints associated with soft soils, the near surface water table and flooding from coastal storms.

In 2007, JCP&L completed a vapor intrusion investigation at the MGP site and on two adjacent off-site residential properties prior to soil removal activities. This investigation demonstrated that vapor intrusion is not occurring from MGP-related constituents. Of the contaminants of concern above the RDCSRS, only naphthalene was detected above the health based criteria found on Table 1A of N.J.A.C. 7:26D - Remediation Standards for inhalation at a concentration of 19.3 mg/kg (the Inhalation health based criteria is 6 mg/kg). The naphthalene concentration is well below the Ingestion-Dermal Health Based Criterion on Table 1A of 2,400 mg/kg. Although the RDCSRS was exceeded for the inhalation health based criteria, the impacted soil is five feet or more below the water table and it has already been demonstrated that groundwater is not impacted. Therefore, a pathway does not exist for vapors to be emitted from the impacted soils into structures because it is overlain by a clean lens of groundwater that prevents migration of vapors to the surface. The inhalation (vapor intrusion) pathway does not present a

Appendix I
Basis for Variance from N.J.A.C. 7:26E-5.2(a)4
Remedial Action Report
Sea Isle City former MGP Site

potential concern to nearby structures or their occupants.

The remaining contaminants of concern (benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenz(a,h)anthracene) are present at concentrations greater than Ingestion-Dermal health based criterion component of the RDCSRS. However, because of the depth of the contaminants and the shallow water table, there is no practical way for receptors to come into direct contact with these soils without the use of sheeting and an excavation support system and a dewatering system. Attempts to excavate down to the impacted soils likely would cause damage to nearby structures. While drilling or direct push methods could be used to access the soils, the impacted area identified in this variance is outside of the building footprint allowable for construction under the current Sea Isle City building code (a type of institutional control) and is along the back of the property line for each affected property. There is no foreseeable reason why anyone would disturb the subsurface soils in this area and thus come into direct contact with the impacted soils.

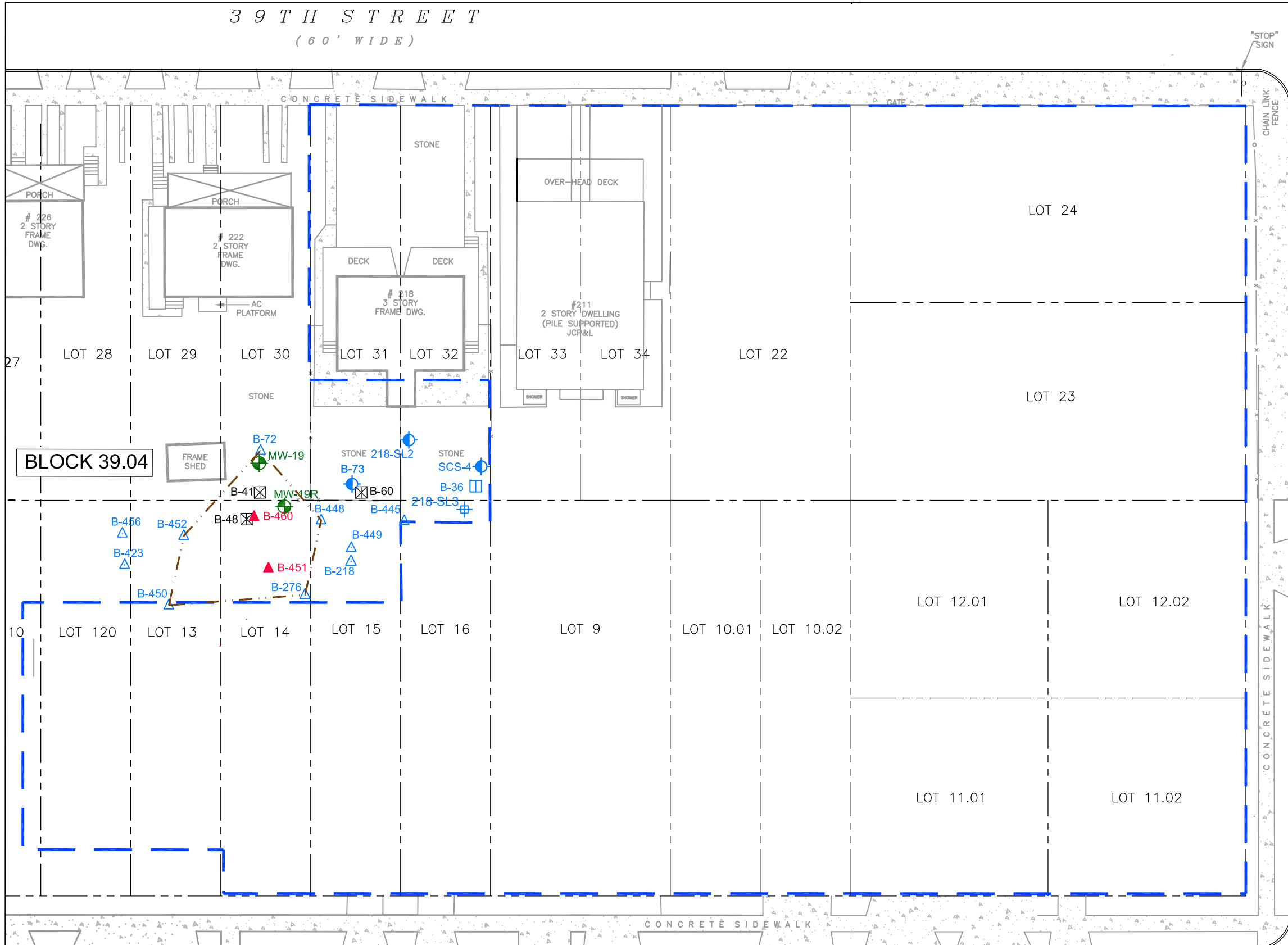
Conclusions

Based on a 1,160 square feet area and assuming an average thickness of one foot of impacted material, GEI estimates the total volume of impacted material left in place to be approximately 43 cubic yards or about 65 tons. The volume of soil removed for the Sea Isle City MGP remediation project (as of 2013-2014) amounts to approximately 52,000 tons. This means that the amount of material left behind under this variance is approximately 0.1% of the total soil volume remediated by the project. In addition, the area of the impacts is at the far north end along the property boundary at a depth of approximately 10 feet bgs. It is more than seven feet below the water table and cannot be accessed except through drilling or an engineer designed excavation and dewatering project. There is approximately eight to 10 feet of fill above the impacted zones and GEI has already demonstrated that there is no impact to groundwater from the PAHs in this area.

By not requiring a deed notice in accordance with N.J.A.C. 7:26E-5.2 and providing an unrestricted closure for the affected properties, the objectives of the cited technical requirement are met. Based on the inaccessibility of soils and the technical impracticability that has been demonstrated for their removal and/or treatment, there is no realistic way that human exposure could occur via direct contact with the soils.

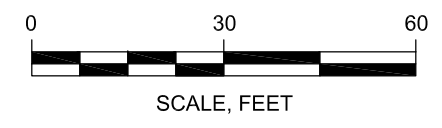
Attachment 1

Figures



LEGEND

- PROPERTY LINE
- CONCRETE
- REMEDIAL INVESTIGATION BORING; NO ANALYTICAL TESTING PERFORMED
- SUBSURFACE SOIL CONCENTRATIONS ARE ABOVE THE SRS
- SUBSURFACE SOIL CONCENTRATIONS ARE BELOW THE SRS
- EXCAVATED AREA
- DELINEATION LINE
- CONCRETE CURB
- EXISTING MONITORING WELL LOCATION
- ABANDONED MONITORING WELL LOCATION



40TH STREET
(60' WIDE)

Sea Isle City Former MGP Site
Sea Isle City, New Jersey

Jersey Central Power & Light Company
Morristown, New Jersey



Excavated Area

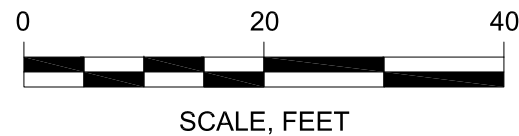
Project 013660

November 2014

Figure 1

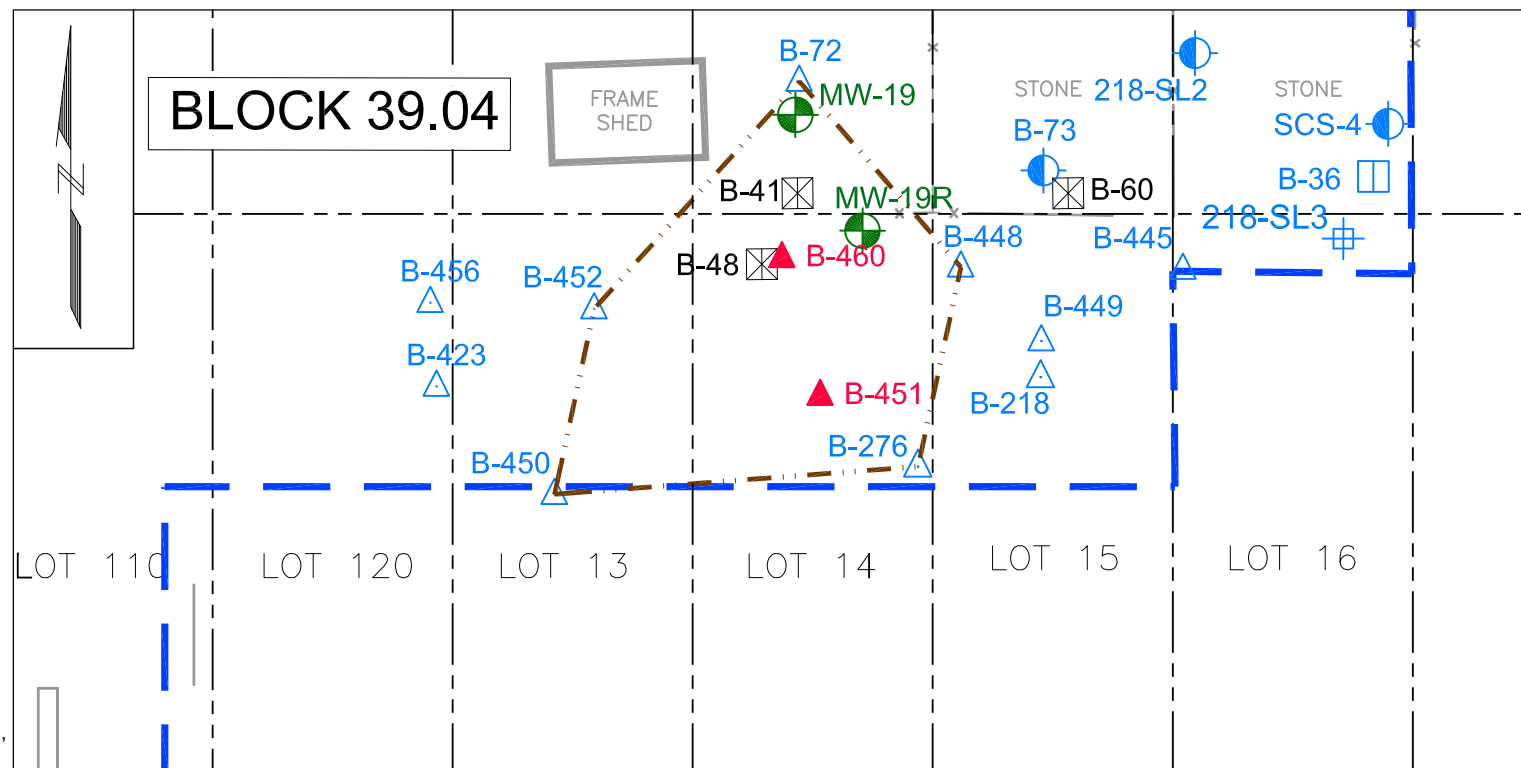
H:\TECH\project\JCP&L\Sea Isle City\Remediation 2014-2015\Figures\SEA ISLE-Soil Data-2014.dwg /Nov 11, 2014

Location ID Sample Date Depth (ft bgs)	Soil Remediation Standards	B-36 4/12/2000 3.5-4	B-72 10/25/2002 6-6.5	B-73 10/25/2002 10.5-11	B-218 9/13/2007 10.5-11	218-SL2 3/11/2010 7.5-8	B-276 12/2/2008 10.5-11	B-423 11/05/2010 10-10.5	B-445 5/18/2012 8.5-9	B-448 5/18/2012 12.5-12.5	B-449 5/18/2012 8.5-9	B-450 5/17/2012 10.5-11	B-451 5/17/2012 8.5-9	B-451 5/17/2012 10.5-11	B-452 5/17/2012 9-9.5	B-452 5/17/2012 13-13.5	B-456 5/17/2012 10-10.5	B-460 5/17/2012 10.5-11	SCS-4 10/23/2002 10.5-11	218 SL-3 3/11/2010 8-8.5	218 SL-3 3/11/2010 13-13.5
PAH (mg/kg)																					
Naphthalene	6	0.47 U	0.48 U	0.46 U	0.38 U	0.079 U	0.082 U	0.023 U	0.031 U	0.030 U	0.037 U	0.031 U	19.3	0.031 U	0.032 U	0.031 U	0.031 U	1.55	0.67 U	0.082 U	0.100 U
2-methylnaphthalene	230	-	-	-	-	-	-	-	0.033 U	0.033 U	0.040 U	-	15.2	0.033 U	0.034 U	0.033 U	0.033 U	9.68	-	-	-
Acenaphthylene	NS	0.47 U	0.48 U	0.46 U	0.38 U	0.079 U	0.082 U	0.030 U	0.028 U	0.028 U	0.033 U	0.028 U	6.71	0.028 U	0.029 U	0.028 U	0.028 U	3.22	0.67 U	0.082 U	0.100 U
Acenaphthene	3400	0.47 U	0.48 U	0.46 U	0.38 U	0.079 U	0.082 U	0.027 U	0.032 U	0.032 U	0.073	0.032 U	24.7	0.032 U	0.033 U	0.050	0.032 U	12.4	0.67 U	0.082 U	0.100 U
Fluorene	2300	0.43 U	0.48 U	0.46 U	0.38 U	0.079 U	0.082 U	0.025 U	0.022 U	0.021 U	0.055	0.022 U	34.6	0.022 U	0.002 U	0.034 J	0.022 U	17.1	0.67 U	0.082 U	0.100 U
Phenanthrene	NS	0.39 U	0.48 U	0.46 U	0.38 U	0.079 U	0.082 U	0.023 U	0.026 U	0.026 U	0.061	0.027 U	126	0.026 U	0.049	0.368	0.026 U	62.1	0.67 U	0.082 U	0.100 U
Anthracene	17000	0.05 U	0.48 U	0.46 U	0.38 U	0.079 U	0.082 U	0.041 U	0.039 U	0.038 U	0.046 U	0.039 U	34.2	0.038 U	0.040 U	0.117	0.038 U	16.6	0.67 U	0.082 U	0.100 U
Fluoranthene	2300	0.039 U	0.48 U	0.46 U	0.38 U	0.079 U	0.082 U	0.023 U	0.016 U	0.016 U	0.030	0.016 U	41.6	0.016 U	0.048	0.152	0.016 U	20.9	0.67 U	0.082 U	0.100 U
Pyrene	1700	0.39 U	0.48 U	0.46 U	0.38 U	0.079 U	0.082 U	0.025 U	0.030 U	0.029 U	0.038	0.030 U	54	0.030 U	0.071	0.227	0.030 U	30.0	0.67 U	0.082 U	0.100 U
Benzo[a]anthracene	0.6	0.39 U	0.48 U	0.46 U	0.038 U	0.079 U	0.082 U	0.032 U	0.039 U	0.038 U	0.046 U	0.039 U	16.3	0.038 U	0.040 U	0.038 U	0.038 U	9.01	0.67 U	0.082 U	0.100 U
Chrysene	62	0.62 U	0.48 U	0.46 U	0.38 U	0.079 U	0.082 U	0.044 U	0.027 U	0.027 U	0.032 U	0.027 U	18.1	0.027 U	0.028 U	0.027 U	0.027 U	12.6	0.67 U	0.082 U	0.100 U
Benzo[b]fluoranthene	0.6	0.039 U	0.48 U	0.46 U	0.038 U	0.079 U	0.082 U	0.027 U	0.021 U	0.021 U	0.025 U	0.021 U	7.4	0.021 U	0.022 U	0.021 U	0.021 U	4.50	0.67 U	0.082 U	0.100 U
Benzo[k]fluoranthene	6	0.039 U	0.48 U	0.46 U	0.038 U	0.079 U	0.082 U	0.032 U	0.014 U	0.014 U	0.017 U	0.014 U	9.74	0.014 U	0.015 U	0.014 U	0.014 U	6.24	0.67 U	0.082 U	0.100 U
Benzo[a]pyrene	0.2	0.058 U	0.48 U	0.46 U	0.038 U	0.079 U	0.082 U	0.033 U	0.022 U	0.022 U	0.026 U	0.022 U	14.3	0.022 U	0.023 U	0.022 U	0.022 U	8.85	0.67 U	0.082 U	0.100 U
Indeno[1,2,3-cd]pyrene	0.6	0.062 U	0.48 U	0.46 U	0.038 U	0.079 U	0.082 U	0.024 U	0.020 U	0.020 U	0.024 U	0.020 U	5.73	0.020 U	0.021 U	0.020 U	0.020 U	3.96	0.67 U	0.082 U	0.100 U
Dibenz[a,h]anthracene	0.2	0.058 U	0.48 U	0.46 U	0.038 U	0.079 U	0.082 U	0.025 U	0.024 U	0.024 U	0.029 U	0.024 U	1.74	0.024 U	0.025 U	0.024 U	0.024 U	1.41	0.67 U	0.082 U	0.100 U
Benzo[g,h,i]perylene	380000	0.05 U	0.48 U	0.46 U	0.38 U	0.079 U	0.082 U	0.028 U	0.013 U	0.013 U	0.015 U	0.013 U	6.92	0.013 U	0.013 U	0.013 U	0.013 U	4.95	0.67 U	0.082 U	0.100 U
BTEX (mg/kg)																					
Benzene	2	NA	NA	0.57 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
Toluene	6300	NA	NA	0.57 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
Ethylbenzene	7800	NA	NA	0.57 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA
Xylene, Total	1200	NA	NA	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 U	NA	NA



LEGEND

- PROPERTY LINE
- ▲ B-460 SUBSURFACE SOIL CONCENTRATIONS ARE ABOVE THE SRS
- △ B-448 SUBSURFACE SOIL CONCENTRATIONS ARE BELOW THE SRS
- ⊗ B-41 BORING THAT WERE ADVANCED AND SCREENED, BUT NO SAMPLES WERE COLLECTED
- ⊕ MW-19R EXISTING MONITORING WELL LOCATION
- ⊕ MW-19 ABANDONED MONITORING WELL LOCATION
- EXCAVATION LIMITS
- - - DELINEATION LINE



CONCENTRATION ABOVE THE SOIL REMEDIATION STANDARDS

U EQUIPMENT MINIMUM DETECTION LIMIT

J THE CONCENTRATION WAS DETECTED AT A VALUE BELOW THE RL AND ABOVE THE MDL

NA SAMPLE NOT ANALYZED

Sea Isle City Former MGP Site
Sea Isle City, New Jersey

Jersey Central Power & Light Company
Morristown, New Jersey



Delineation Borings

Project 013660

November 2014

Figure 2

Attachment 2

Boring Logs

BORING ID: SCS4 **LOCATION (Block/Lot):** 39.04/32
GROUND SURFACE ELEVATION (FT): 5.10 **TOTAL DEPTH (FT):** 12.00
NORTHING: 118286.76 **EASTING:** 437394.25 **VERT. DATUM:** N.A.V.D. 1988
DRILLED BY: S2C2, Inc. T. Morgan **HOR. DATUM:** N.J. State Plane Coord.
LOGGED BY: AMA/CGH **START DATE / END DATE:** 10/23/2002 - 10/23/2002

DEPTH FT.	SAMPLE INFORMATION					STRATA	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN IN.	REC IN.	PID (ppm)	Remarks		
0	S1	48	29	NM		[Diagonal Hatching]	S1 - WIDELY GRADED SAND WITH SILT (SW-SM): Mostly fine to medium sand; <10% silt; fine gravel in top 2" of recovery; moist, tan in top 7" of recovery, S1 (cont.) light tan in lower 22", Mottled spot at 10" from top of recovery. No visual or olfactory evidence of contamination.
2							
4	S2	48	41	0.0 (7.5-8)	Shaker Test: No sheen (7.5-8)	[Diagonal Hatching]	S2 0-25" - WIDELY GRADED SAND WITH SILT (SW-SM): Mostly fine to medium sand; <10% silt; fibrous silt interspersed with sand at 18-25" from top of recovery; wet. No visual or olfactory evidence of contamination.
6							
8	S3	48	29	131 (10.5-11)		[Cross-hatching]	S3 0-25" - SILT (ML): Mostly silt; plant fibers throughout; wet, gray. Natural organic odor. No visual or olfactory evidence of contamination.
10							
12						[Dotted]	Bottom of Borehole, 12 ft.

NOTES:
 PEN - PENETRATION LENGTH OF SAMPLER OR CORE BARREL
 REC - RECOVERY LENGTH OF SAMPLE
 PID - PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
 NM = NOT MEASURED
 Borehole advanced using Geoprobe.

STRATA:

[Diagonal Hatching]	- Upper Sand	[Dotted]	- Silty Sand
[Cross-hatching]	- Organic Silt	[Diagonal Hatching]	- Organic Silt With Sand
		[Dotted]	- Lower Sand

**FOSTER WHEELER ENVIRONMENTAL CORPORATION**

Location: Sea Isle City

Boring Id: B-36

Logged By: B. Sladky & M. Block

Elevation: 6.25 ft. above sea level

Drilling Subcontractor: M & R Soil Investigations

Total Depth: 6ft

Drilling Method: Direct push

Date(s): 4/12/00

Remarks:

Depth (ft.)	Blow Count	Recovery %	Color	USGS Code	Graphic Log	Material Description	P/D (ppm)	Elevation (ft.)
0			tan			Fine sand, well sorted. Non-cohesive.	0.0 0.0	
1'			tan			Fine sand, well sorted. Non-cohesive. Sample B36-005 (0 - 1) collected at 0715.	0.0 0.0	
2'			tan			Fine sand, well sorted. Non-cohesive. Coarsening downward.	0.0 0.2	
3'			brown			3.75' peat layer, organic material.	0.0 0.2	
4'			gray			Sample B36-040 (3.5 - 4) collected at 0745. Fine sand.	0.1 0.0	
5'			gray			Clay.	0.0	
6'						Boring Terminated.		



FOSTER WHEELER ENVIRONMENTAL CORPORATION

Location: Sea Isle City

Boring Id: B-41

Logged By: B. Slacky & M. Block

Elevation: Not surveyed

Drilling Subcontractor: M & R Soil Investigations

Total Depth: 8 ft

Drilling Method: Direct push

Date(s): 4/17/00

Remarks:

Depth (ft.)	Blow Count	Recovery %	Color	USGS Code	Graphic Log	Material Description	PID (ppm)	Elevation (ft.)
0			tan			Fine-medium sand.	0.0 0.0	
1'			tan			Fine-medium sand. Sample B41-010 (0 - 1) collected at 1320.	0.0 0.0	
2'			tan			Fine-medium sand.	0.1 0.7	
3'			tan			Fine-medium sand.	1.7 1.9	
4'			gray			Fine-medium sand, coarse fraction = 20%.		
5'			gray			Fine-medium sand, coarse fraction = 20%.		
6'			gray			Clay with sea grass, minor black stain, trace MGP tar-like odor. Sample B41-060 (5.5 - 6) collected at 1340.		
7'			gray			Clay with sea grass, minor black stain, trace MGP tar-like odor.		
8'						Boring terminated.		

**FOSTER WHEELER ENVIRONMENTAL CORPORATION**

Location: Sea Isle City

Boring Id: B-48

Logged By: B. Sladky & M. Block

Elevation: Not surveyed

Drilling Subcontractor: M & R Soil Investigations

Total Depth: 8 ft

Drilling Method: Direct push

Date(s): 4/17/00

Remarks:

Depth (ft.)	Blow Count	Recovery %	Color	USGS Code	Graphic Log	Material Description	PID (ppm)	Elevation (ft.)
0			tan			Fine-medium sand.	0.0 0.0	
1'			tan			Fine-medium sand. Sample B48-010 (0 - 1) collected at 1100.	0.0 0.0	
2'			tan			Fine-medium sand, saturated.	0.0 0.0	
3'			tan			Fine-medium sand, saturated.	0.0 0.0	
4'			tan			Fine-medium sand, saturated. Sample B48-050 (4.5 - 5) collected at 1115.	0.2 2.3	
5'			tan			Fine-medium sand, saturated.	1.2 0.0	
6'			gray			Clay with sea grass, very tight, nearly dry.	0.0 0.0	
7'			gray			Clay with sea grass, very tight, nearly dry.	0.0 0.0	
8'						Boring terminated in clay. (No sample collected at 7.5' due to clay).		

**FOSTER WHEELER ENVIRONMENTAL CORPORATION**

Location: Sea Isle City

Boring Id: B-60

Logged By: B. Sladky & M. Block

Elevation: Not surveyed

Drilling Subcontractor: M & R Soil Investigations

Total Depth: 8 ft

Drilling Method: Direct push

Date(s): 4/13/00

Remarks: Sample B60-065 (6 - 6.5) collected.

Depth (ft.)	Blow Count	Recovery %	Color	USGS Code	Graphic Log	Material Description	PID (ppm)	Elevation (ft.)
0			tan			Fine sand, non-cohesive, no odor, uniform texture.	0.0 0.0	
1'			tan			Fine sand, non-cohesive, no odor, uniform texture. Sample B60-010 (0 - 1) collected.	0.0 0.0	
2'			tan			Fine sand, non-cohesive, no odor, uniform texture, saturated.	0.0 0.0	
3'			tan			Fine sand, non-cohesive, no odor, uniform texture, coarsening.	0.0 0.0	
4'			gray			Fine sand, con-cohesive, no odor, uniform texture, coarsening.	0.0 0.0	
5'			gray			Fine sand, con-cohesive, no odor, uniform texture, coarsening. Trace of clay.	0.0 0.0	
6'						Sandy clay.	1.2 5.4	
7'						Clay with sea grass, black staining, MGP odor.	13.1 4.2	
8'						Boring terminated.		

BORING ID: B72
 GROUND SURFACE ELEVATION (FT): 5.44
 NORTHING: 118322.31 EASTING: 437344.03
 DRILLED BY: S2C2, Inc. T. Morgan
 LOGGED BY: CGH

LOCATION (Block/Lot): 39.04/30
 TOTAL DEPTH (FT): 12.00
 VERT. DATUM: N.A.V.D. 1988
 HOR. DATUM: N.J. State Plane Coord.
 START DATE / END DATE: 10/25/2002 - 10/25/2002



DEPTH FT.	SAMPLE INFORMATION					STRATA	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN IN.	REC IN.	PID (ppm)	Remarks		
0	S1	48	25	NM		[Diagonal Hatching]	S1 - WIDELY GRADED SAND WITH SILT (SW-SM): Mostly fine to medium sand; 10-15% silt; silt content higher in bottom 6"; plant fibers at 3-5"; top 19" light tan, bottom 6" brown. No visual or olfactory evidence of contamination.
2							
4	S2	48	48	NM	Shaker Test: No sheen (6.0-6.5); No sheen (7.5-8.0)		S2 0-39" - WIDELY GRADED SAND WITH SILT (SW-SM): Mostly fine to medium sand; 10-15% silt; wet, top 20" tan, 20-39" gray. No visual or olfactory evidence of contamination.
6						[Cross-hatching]	NOTE: Environmental samples collected at 6 ft and at 7.5ft..
8	S3	48	29	10.3(9.0-9.5)			S2 39-48" - SILT (ML): Mostly silt; plant fibers throughout; wet, gray. Faint fuel oil-like odor.
10						[Cross-hatching]	S3 - SILT (ML): Mostly silt. Slight natural organic odor. No visual or olfactory evidence of contamination.
12							Bottom of Borehole, 12 ft.

NOTES:

PEN - PENETRATION LENGTH OF SAMPLER OR CORE BARREL
 REC - RECOVERY LENGTH OF SAMPLE
 PID - PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
 NM = NOT MEASURED

Borehole advanced using Geoprobe.

STRATA:

-  - Upper Sand
-  - Organic Silt

-  - Silty Sand
-  - Organic Silt With Sand
-  - Lower Sand

BORING ID: B73 LOCATION (Block/Lot): 39.04/31
 GROUND SURFACE ELEVATION (FT): 5.35 TOTAL DEPTH (FT): 12.00
 NORTHING: 118302.11 EASTING: 437361.43 VERT. DATUM: N.A.V.D. 1988
 DRILLED BY: S2C2, Inc. T. Morgan HOR. DATUM: N.J. State Plane Coord.
 LOGGED BY: CGH START DATE / END DATE: 10/25/2002 - 10/25/2002

DEPTH FT.	SAMPLE INFORMATION					STRATA	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN IN.	REC IN.	PID (ppm)	Remarks		
0	S1	48	32	NM			S1 - WIDELY GRADED SAND (SW): Mostly fine to medium sand; <10% silt; wet, tan, mottling at 20-21" and 24-24" from bottom of recovery. No visual or olfactory evidence of contamination.
2							
4	S2	48	47	NM			S2 - WIDELY GRADED SAND WITH SILT (SW-SM): Mostly fine to medium sand; 0-20" tan; 23-24" brown with some plant fibers. No visual or olfactory evidence of contamination.
6							
8	S3	48	26	NM			S3 - SILT (ML): Mostly silt; 20-30% clay; plant fibers throughout; wet, gray. Natural organic odor. No visual or olfactory evidence of contamination.
10							
12							

Bottom of Boring, 12 ft.

NOTES:
 PEN - PENETRATION LENGTH OF SAMPLER OR CORE BARREL
 REC - RECOVERY LENGTH OF SAMPLE
 PID - PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
 NM = NOT MEASURED
 Borehole advanced using Geoprobe.

STRATA:

	- Upper Sand		- Silty Sand
	- Organic Silt		- Organic Silt With Sand
			- Lower Sand



18000 Horizon Way
 Suite 200
 Mount Laurel, NJ 08054
 (856) 808-6860

CLIENT: JCP&L
 PROJECT NAME: Sea Isle City Former MGP
 CITY/STATE: Sea Isle City, New Jersey
 GEI PROJECT NUMBER: 013660

BORING LOG

PAGE
1 of 1

218-SL2

GROUND SURFACE ELEVATION (FT): _____ LOCATION: 218 39th Street
 NORTHING: _____ EASTING: _____ TOTAL DEPTH (FT): 15.00
 DRILLED BY: B.L. Myers Bros. / Lou Davis DATUM VERT. / HORZ.: NAVD 1988 / NJ State Plane NAD 1983
 LOGGED BY: Barry Raus DATE START / END: 3/11/2010 - 3/11/2010
 DRILLING DETAILS: Geoprobe
 WATER LEVEL DEPTHS (FT): _____

DEPTH FT.	SAMPLE INFO				STRATA	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC IN.	PID (ppm)			
0	S1	5.0	49	0.0	[Pattern]		0 - 4 SILTY SAND (SM); ~75% sand, ~15% fines, ~10% gravel; fines, fine gravel, light brown.
				0.2			
5	S2	5.0	35	0.0	[Pattern]		4 - 5.5 SILTY SAND (SM); ~80% sand, ~20% fines; fines, dark gray.
				0.1			
				0.0		218-SL2(7.5-8)	
				0.0			5.5 - 12.5 SILTY SAND (SM); ~75% sand, ~25% fines; fines, dark gray.
				0.0			
				0.0			
				0.0			
				0.0			
10	S3	5.0	34	0.6	[Pattern]		12.5 - 13 ORGANIC SOIL (OL); ~60% fines, ~40% sand; fine sand, dark gray.
				15.5			
				45.6			
				36.2			
				13.2			
						218-SL2(13-13.5)	
15	Bottom of borehole at 15.0 feet.						

ENVIRONMENTAL BORING LOG SIC 05-2007 TO 05-2008.GPJ GEI CONSULTANTS.GDT 4/21/10

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION PLO = PETROLEUM LIKE ODOR
 REC = RECOVERY LENGTH OF SAMPLE IN. = INCHES NLO = NAPHTHALENE LIKE ODOR
 PID = PHOTOIONIZATION DETECTOR READING FT. = FEET



GEI Consultants

CLIENT: JCP&L

PROJECT NAME: Sea Isle City Former MGP

CITY/STATE: Sea Isle City, New Jersey

GEI PROJECT NUMBER: 013660

BORING LOG

PAGE 1 of 1

B-423

GROUND SURFACE ELEVATION (FT): _____ LOCATION: 227, 40th Street
 NORTHING: _____ EASTING: _____ TOTAL DEPTH (FT): 15.00
 DRILLED BY: Environmental Investigations DATUM VERT. / HORZ.: NAVD 1988 / NJ State Plane NAD 1983
 LOGGED BY: Brian Mannino DATE START / END: 11/5/2010 - 11/5/2010
 DRILLING DETAILS: Geoprobe
 WATER LEVEL DEPTHS (FT): Water level not measured.

DEPTH FT.	SAMPLE INFO				STRATA	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION		
	TYPE and NO.	PEN FT.	REC IN.	PID (ppm)					
0	S-1	3.0	30	0.0		B-423 (10-10.5)	0 - 0.5 ORGANIC SOIL (OL); ~70% sand, ~30% fines; fine to medium, black.		
				0.0			0.5 - 3 SILTY SAND (SM); ~85% fines, ~10% sand, ~5% gravel; fine to medium, light tannish brown to tannish brown.		
				0.0					
				0.0					
				0.0					
				0.0					
5	S-2	5.0	48	0.0					3 - 5.5 SILTY SAND (SM); ~90% sand, ~10% fines; fine to coarse sand, tannish brown to light brown.
				0.0					
				0.0					
				0.0					
				0.0					
				0.0					
10	S-3	5.0	18	0.2					5.5 - 7 SAND WITH SILT (SW-SM); ~90% sand, ~10% fines; fine to coarse, gray, Lens of silt at 5.5.
				0.2					
				0.0					
				0.0					
				0.0					
				0.0					
15	S-4	2.0		0.0			7 - 9 SILTY SAND (SM); ~65% sand, ~35% fines; fine to medium, gray.		
				0.0					
				0.0					
				0.0					
				0.0					
				0.0					

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION
 REC = RECOVERY LENGTH OF SAMPLE IN. = INCHES
 PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE) FT. = FEET

ENVIRONMENTAL BORING LOG SIC COMBINED.GPJ GEI CONSULTANTS.GOT 12/9/10



GEI Consultants, Inc.
18000 Horizon Way, Ste 200
Mount Laurel, NJ 08054
(856) 608-6860

CLIENT: JCP&L
PROJECT: Sea Isle City Former MGP
CITY/STATE: Sea Isle City, New Jersey
GEI PROJECT NUMBER: 013660

BORING LOG
PAGE 1 of 1
B-445

GROUND SURFACE ELEVATION (FT): 5.30 LOCATION: 219 40th Street
NORTHING (FT): 118286 EASTING (FT): 437368 TOTAL DEPTH (FT): 15.0
DRILLED BY: Environmental Investigations / P.Warren DATUM VERT. / HORZ.: NAVD 1988 / NJ State Plane NAD 1983
LOGGED BY: Brian Mannino DATE START / END: 5/18/2012 - 5/18/2012
DRILLING DETAILS: Geoprobe
SURVEYOR ID: _____
GENERAL NOTE: _____

ELEV. FT.	DEPTH FT.	SAMPLE INFO			STRATA	REMARKS	SOIL / BEDROCK DESCRIPTION	
		TYPE and NO.	PEN/REC IN./IN.	FIELD TEST DATA				
5	0	GP S-1	36/29	0.0 ppm		GRAVEL WITH SAND (GP); ~50% gravel, ~40% sand, ~10% fines; max. size 1.25, black, Topsoil. SILTY SAND (SM); ~70% sand, ~15% gravel, ~15% fines; max. size 1. SILTY SAND (SM); ~60% sand, ~20% gravel, ~20% fines; max. size 1.5, dark brown. SAND WITH SILT (SP-SM); ~90% sand, ~10% fines; light brown.		
	0.0 ppm							
	0.0 ppm							
	0.0 ppm							
	0.0 ppm							
	0.0 ppm							
	5	GP S-2	72/29	0.0 ppm			SILTY SAND (SM); ~80% sand, ~20% fines; gray.	
	0.0 ppm							
	0.0 ppm							
	0.0 ppm							
	0.0 ppm							
	0.0 ppm							
	10	GP S-3	72/29	0.0 ppm				SAND WITH SILT (SW-SM); ~85% sand, ~10% fines, ~5% gravel; max. size 0.75, brown.
	0.0 ppm							
	0.0 ppm							
	0.0 ppm							
	0.0 ppm							
	0.0 ppm							
	15	End of Boring at 15 feet.						

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
 REC = RECOVERY LENGTH OF SAMPLE
 PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)
 NA = NOT APPLICABLE
 NM = NOT MEASURED

ppm = PARTS PER MILLION
 IN. = INCHES
 FT. = FEET
 GP = GEOPROBE

2010_ENVI/GEO LOG W/SMWC_SIC_COMBINED.GPJ 5/7/14



GEI Consultants, Inc.
18000 Horizon Way, Ste 200
Mount Laurel, NJ 08054
(856) 608-6860

CLIENT: JCP&L
PROJECT: Sea Isle City Former MGP
CITY/STATE: Sea Isle City, New Jersey
GEI PROJECT NUMBER: 013660

BORING LOG
PAGE 1 of 1
B-449

GROUND SURFACE ELEVATION (FT): 5.30 LOCATION: 219 40th Street
NORTHING (FT): 118287 EASTING (FT): 437352 TOTAL DEPTH (FT): 15.0
DRILLED BY: Environmental Investigations / P.Warren DATUM VERT. / HORZ.: NAVD 1988 / NJ State Plane NAD 1983
LOGGED BY: Brian Mannino DATE START / END: 5/18/2012 - 5/18/2012
DRILLING DETAILS: Geoprobe
SURVEYOR ID: _____
GENERAL NOTE: _____

ELEV. FT.	DEPTH FT.	SAMPLE INFO			STRATA	REMARKS	SOIL / BEDROCK DESCRIPTION
		TYPE and NO.	PEN/REC IN./IN.	FIELD TEST DATA			
5	0	GP S-1	36/33	0.0 ppm		SILTY SAND (SM); ~60% sand, ~30% fines, ~10% gravel; max. size 1.5, dark brown, Topsoil. SILTY SAND (SM); ~85% sand, ~15% fines; light brown. SILTY SAND (SM); ~70% sand, ~30% fines; light brown. SILTY SAND (SM); ~75% sand, ~25% fines; light brown.	
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
		GP S-2	72/42	0.0 ppm		B-449 (8.5-9) 08:52	SILTY SAND (SM); ~85% sand, ~15% fines; gray.
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
		GP S-3	72/27	0.0 ppm			SANDY SILT (ML); ~60% fines, ~40% sand; gray. WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, ~10% fines.
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
	15				End of Boring at 15 feet.		

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION
 REC = RECOVERY LENGTH OF SAMPLE IN. = INCHES
 PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE) FT. = FEET
 NA = NOT APPLICABLE GP = GEOPROBE
 NM = NOT MEASURED

2010_ENV\GEO.LOG.W\M\MWC_SIC_COMBINED.GPJ 5/7/14



GEI Consultants, Inc.
18000 Horizon Way, Ste 200
Mount Laurel, NJ 08054
(856) 608-6860

CLIENT: JCP&L
PROJECT: Sea Isle City Former MGP
CITY/STATE: Sea Isle City, New Jersey
GEI PROJECT NUMBER: 013660

BORING LOG
PAGE 1 of 1
B-450

GROUND SURFACE ELEVATION (FT): 5.40 LOCATION: 223 40th Street
NORTHING (FT): 118301 EASTING (FT): 437300 TOTAL DEPTH (FT): 15.0
DRILLED BY: Environmental Investigations / P.Warren DATUM VERT. / HORZ.: NAVD 1988 / NJ State Plane NAD 1983
LOGGED BY: Brian Mannino DATE START / END: 5/17/2012 - 5/17/2012
DRILLING DETAILS: Geoprobe
SURVEYOR ID: _____
GENERAL NOTE: _____

ELEV. FT.	DEPTH FT.	SAMPLE INFO			STRATA	REMARKS	SOIL / BEDROCK DESCRIPTION
		TYPE and NO.	PEN/REC IN./IN.	FIELD TEST DATA			
5	0	GP S-1	36/25	0.0 ppm		<p>SILTY SAND (SM); ~85% sand, ~15% fines; orangeish brown.</p> <p>WIDELY GRADED SAND (SW); ~95% sand, ~5% fines; brown.</p> <p>SILTY SAND (SM); ~70% sand, ~30% fines; gray, Silt increases with depth.</p> <p>B-450 (7-7.5) 12:00 SANDY SILT (ML); ~80% fines, ~20% sand.</p> <p>SILTY SAND (SM); ~70% sand, ~30% fines; gray, Silt increases with depth.</p> <p>B-450 (10-10.5) 12:10 SILTY SAND (SM); ~60% sand, ~40% fines; gray.</p>	
	0.0 ppm						
	0.0 ppm						
	0.0 ppm						
	0.0 ppm						
	0.0 ppm						
	5	GP S-2	72/48	0.0 ppm			
	0.0 ppm						
	0.0 ppm						
	0.0 ppm						
	0.0 ppm						
	10	GP S-3	72/36	0.0 ppm			
	0.0 ppm						
	0.0 ppm						
	0.0 ppm						
	0.0 ppm						
	15	End of Boring at 15 feet.					

NOTES:
 PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION
 REC = RECOVERY LENGTH OF SAMPLE IN. = INCHES
 PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE) FT. = FEET
 NA = NOT APPLICABLE GP = GEOPROBE
 NM = NOT MEASURED

2010_ENVI/GEI LOG W/SMWC SIC COMBINED.GPJ 5/7/14



GEI Consultants, Inc.
18000 Horizon Way, Ste 200
Mount Laurel, NJ 08054
(856) 608-6860

CLIENT: JCP&L
PROJECT: Sea Isle City Former MGP
CITY/STATE: Sea Isle City, New Jersey
GEI PROJECT NUMBER: 013660

BORING LOG
PAGE 1 of 1
B-451

GROUND SURFACE ELEVATION (FT): 5.30 LOCATION: 223 40th Street
NORTHING (FT): 118295 EASTING (FT): 437329 TOTAL DEPTH (FT): 15.0
DRILLED BY: Environmental Investigations / P.Warren DATUM VERT. / HORZ.: NAVD 1988 / NJ State Plane NAD 1983
LOGGED BY: Brian Mannino DATE START / END: 5/17/2012 - 5/17/2012
DRILLING DETAILS: Geoprobe
SURVEYOR ID: _____
GENERAL NOTE: _____

ELEV. FT.	DEPTH FT.	SAMPLE INFO			STRATA	REMARKS	SOIL / BEDROCK DESCRIPTION	
		TYPE and NO.	PEN/REC IN./IN.	FIELD TEST DATA				
5	0	GP S-1	36/28	0.0 ppm			SILTY SAND (SM); ~60% sand, ~40% fines; blue, Topsoil.	
	0.0 ppm			SILTY SAND (SM); ~75% sand, ~25% fines; orangeish brown.				
	0.0 ppm			SILTY SAND (SM); ~70% sand, ~25% fines, ~5% gravel; gray.				
	0.0 ppm							
	0.0 ppm							
	5	GP S-2	72/48	0.0 ppm				SAND WITH SILT (SP-SM); ~90% sand, ~10% fines; brown to gray.
	0.0 ppm							
	0.0 ppm							
	0.0 ppm							
	0.0 ppm							
	10	GP S-3	72/28	0.0 ppm				SILTY SAND (SM); ~65% sand, ~35% fines; gray.
	0.0 ppm							
	0.0 ppm							
	0.0 ppm							
	0.0 ppm							
	15	End of Boring at 15 feet.						

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION
 REC = RECOVERY LENGTH OF SAMPLE IN. = INCHES
 PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE) FT. = FEET

NA = NOT APPLICABLE GP = GEOPROBE
 NM = NOT MEASURED

2010_ENV/GEI LOG W/SMWC SIC COMBINED.GPJ 5/7/14



GEI Consultants, Inc.
18000 Horizon Way, Ste 200
Mount Laurel, NJ 08054
(856) 608-6860

CLIENT: JCP&L
PROJECT: Sea Isle City Former MGP
CITY/STATE: Sea Isle City, New Jersey
GEI PROJECT NUMBER: 013660

BORING LOG
PAGE 1 of 1
B-452

GROUND SURFACE ELEVATION (FT): 5.40 LOCATION: 223 40th Street
NORTHING (FT): 118315 EASTING (FT): 437314 TOTAL DEPTH (FT): 15.0
DRILLED BY: Environmental Investigations / P.Warren DATUM VERT. / HORZ.: NAVD 1988 / NJ State Plane NAD 1983
LOGGED BY: Brian Mannino DATE START / END: 5/17/2012 - 5/17/2012
DRILLING DETAILS: Geoprobe
SURVEYOR ID:
GENERAL NOTE:

ELEV. FT.	DEPTH FT.	SAMPLE INFO			STRATA	REMARKS	SOIL / BEDROCK DESCRIPTION
		TYPE and NO.	PEN/REC IN./IN.	FIELD TEST DATA			
5	0	GP S-1	36/23	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm			WIDELY GRADED SAND WITH SILT (SW-SM); ~85% sand, ~10% fines, ~5% gravel; max. size 0.5, orangeish brown to brown.
	5	GP S-2	72/33	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm			SILTY SAND (SM); ~70% sand, ~30% fines; gray.
	10	GP S-3	72/29	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	B-452 (9-9.5) 11:20		SANDY SILT (ML); gray. SILTY SAND (SM); ~80% sand, ~20% fines; brown.
	15			0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	B-452 (13-13.5) 11:25		SILTY SAND (SM); ~65% sand, ~35% fines.
							End of Boring at 15 feet.

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION
 REC = RECOVERY LENGTH OF SAMPLE IN. = INCHES
 PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE) FT. = FEET
 NA = NOT APPLICABLE GP = GEOPROBE
 NM = NOT MEASURED

2010_ENVI/GEOL/LOG W/SHWIC_SIC COMBINED.GPJ 5/7/14

 GEI Consultants	GEI Consultants, Inc. 18000 Horizon Way, Ste 200 Mount Laurel, NJ 08054 (856) 608-6860	CLIENT: JCP&L PROJECT: Sea Isle City Former MGP CITY/STATE: Sea Isle City, New Jersey GEI PROJECT NUMBER: 013660	BORING LOG B-460	
			PAGE 1 of 1	

GROUND SURFACE ELEVATION (FT): 5.30	LOCATION: 223 40th Street
NORTHING (FT): 118309	EASTING (FT): 437334
DRILLED BY: Environmental Investigations / P.Warren	
LOGGED BY: Brian Mannino	
DRILLING DETAILS: Geoprobe	
SURVEYOR ID:	
GENERAL NOTE:	

ELEV. FT.	DEPTH FT.	SAMPLE INFO			STRATA	REMARKS	SOIL / BEDROCK DESCRIPTION
		TYPE and NO.	PEN/REC IN./IN.	FIELD TEST DATA			
5	0	GP S-1	36/25	0.0 ppm	[Pattern]		SILTY SAND (SM); ~75% sand, ~25% fines; orangeish brown.
				0.0 ppm			SAND WITH SILT (SP-SM); ~90% sand, ~10% fines; grayish brown.
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
	5	GP S-2	72/30	0.0 ppm	[Pattern]		NARROWLY GRADED SAND (SP); ~95% sand, ~5% fines; light brown.
				0.0 ppm			SAND WITH SILT (SP-SM); ~90% sand, ~10% fines; gray.
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
	10	GP S-3	72/48	0.0 ppm	[Pattern]	B-460 (10.5-11) 14:15	ORGANIC SOIL (OL); gray, Meadow mat; moderate naphthalene-like odor at 10-11 feet.
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
				0.0 ppm			
	15	End of Boring at 15 feet.					

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL REC = RECOVERY LENGTH OF SAMPLE PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)	ppm = PARTS PER MILLION IN. = INCHES FT. = FEET GP = GEOPROBE
NA = NOT APPLICABLE NM = NOT MEASURED	

2010 ENVIGEO LOG W/ISMWC_SIC COMBINED.GPJ 5/7/14

Attachment 3

In-situ Bench Scale Studies



BENCH SCALE TREATABILITY STUDY REPORT

FORMER MANUFACTURED GAS PLANT (MGP) SITE
SEA ISLE CITY, NEW JERSEY

SEPTEMBER 29, 2011

PREPARED FOR

GEI CONSULTANTS, INC.
18000 HORIZON WAY, SUITE 200
MOUNT LAUREL, NJ 08054

ISOTEC PROJECT No. 801609

In-Situ Oxidative Technologies, Inc.
11 Princess Road, Suite A
Lawrenceville, New Jersey 08648
Phone: (609) 275-8500, Fax: (609) 275-9608
www.insituoxidation.com

SBA Certified Small Business



TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY	1
2.0	BENCH SCALE STUDY OBJECTIVES	5
3.0	SAMPLE COLLECTION AND PREPARATION	6
4.0	EXPERIMENTAL PROCEDURES	7
4.1	REAGENT SELECTION.....	7
4.2	ESTABLISHING EXPERIMENTAL CONTROLS.....	8
4.3	EXPERIMENTAL SETUP	8
4.4	REAGENT APPLICATIONS	9
4.5	ANALYTICAL SAMPLE COLLECTION	10
4.6	SAMPLE ANALYSIS	10
5.0	SOD-TEST EXPERIMENTAL PROCEDURES	11
6.0	BUFFERING CAPACITY TEST EXPERIMENTAL PROCEDURES	12
7.0	COC-TEST RESULTS AND DISCUSSION	13
7.1	INITIAL CHARACTERISTICS.....	13
7.2	CALCULATION METHODS	13
7.3	S-L RESULTS.....	14
7.3.1	<i>PAHs – Separate Phase</i>	<i>14</i>
7.3.2	<i>NJ EPH – Separate Phase</i>	<i>15</i>
7.3.3	<i>S-L Mass Calculation Results Summary</i>	<i>15</i>
7.4	S-H RESULTS.....	17
7.4.1	<i>PAHs – Separate Phase</i>	<i>17</i>
7.4.2	<i>NJ EPH – Separate Phase</i>	<i>17</i>
7.4.3	<i>S-H Mass Calculation Results Summary</i>	<i>18</i>
7.5	COC-TEST RESULTS SUMMARY	19
8.0	SOD-TEST RESULTS AND DISCUSSION	20
8.1	H ₂ O ₂ -EXPT RESULTS	20
8.2	S ₂ O ₈ -EXPT RESULTS.....	22
8.3	SOD-TEST RESULTS SUMMARY	24
9.0	BUFFERING CAPACITY TEST RESULTS	24
10.0	GAS VOLUME AND TEMPERATURE RESULTS	24
10.1	GAS VOLUME MEASUREMENTS.....	24
10.2	TEMPERATURE MEASUREMENTS	26

11.0 CONCLUSIONS AND RECOMMENDATIONS29
11.1 LESSONS LEARNED..... 29

FIGURES

FIGURE 1	BENCH STUDY S-L PAH MASS CALCULATION RESULTS
FIGURE 2	BENCH STUDY S-1 EPH MASS CALCULATION RESULTS
FIGURE 3	BENCH STUDY S-H PAH MASS CALCULATION RESULTS
FIGURE 4	BENCH STUDY S-H EPH MASS CALCULATION RESULTS
FIGURE 5	SOD TEST RESULTS FOR SOIL L- H_2O_2
FIGURE 6	SOD TEST RESULTS FOR SOIL H- H_2O_2
FIGURE 7	SOD TEST RESULTS FOR SOIL L- $Na_2S_2O_8$
FIGURE 8	SOD TEST RESULTS FOR SOIL H- $Na_2S_2O_8$
FIGURE 9	OFF GAS VOLUME MEASUREMENT – SOIL L
FIGURE 10.....	OFF GAS VOLUME MEASUREMENT – SOIL H
FIGURES 11A, 11B, 11C	TEMPERATURE MEASUREMENTS – SOIL L
FIGURES 12A, 12B, 12C	TEMPERATURE MEASUREMENTS – SOIL H

TABLES

TABLE 1	.....	EXPERIMENT SAMPLE PREPARATION
TABLE 2A	.....	REAGENT DOSES TESTED IN COC-TEST (VOC-EXPT)
TABLE 2B	.....	OXIDANT DOSES TESTED IN SOD-TEST (H_2O_2 -EXPT & S_2O_8 -EXPT)
TABLE 3	.....	BEST OVERALL COC REDUCTION ACHIEVED FOR EACH REAGENT
TABLE 4	.....	EXPERIMENT SAMPLE PREPARATION AND REAGENTS TESTED
TABLE 5	.....	COC-TEST EXPERIMENT REACTOR SUMMARY FOR EACH SOIL SAMPLE
TABLE 6	.....	REAGENT CONCENTRATION TESTED AND REAGENT APPLICATION IN COC-TEST
TABLE 7	.....	SUMMARY OF ANALYTICAL METHODS
TABLE 8	.....	SOD-TEST REACTOR SUMMARY
TABLE 9	.....	BUFFERING CAPACITY TEST REACTOR SUMMARY
TABLE 10	.....	INITIAL CHARACTERIZATION RESULTS
TABLE 11	.....	COC TEST RESULTS - AQUEOUS AND SOLID PHASE RESULTS (S-L)
TABLE 12	.....	COC REDUCTION IN SAMPLE S-L
TABLE 13	.....	S-L MASS CALCULATION RESULTS
TABLE 14	.....	COC TEST RESULTS - AQUEOUS AND SOLID PHASE RESULTS (S-H)
TABLE 15	.....	COC REDUCTION IN SAMPLE S-H
TABLE 16	.....	S-H MASS CALCULATION RESULTS
TABLE 17	.....	SOD-TEST H_2O_2 DATA (SOIL L)
TABLE 18	.....	SOD-TEST H_2O_2 DATA (SOIL H)
TABLE 19	.....	ESTIMATED H_2O_2 HALF-LIFE
TABLE 20	.....	SOD-TEST $NA_2S_2O_8$ DATA (SOIL L)
TABLE 21	.....	SOD-TEST $NA_2S_2O_8$ DATA (SOIL H)
TABLE 22	.....	ESTIMATED $NA_2S_2O_8$ HALF-LIFE
TABLE 23	.....	RESULTS OF BUFFERING CAPACITY EXPERIMENTS

ATTACHMENTS

ATTACHMENT A..... BENCH STUDY ANALYTICAL DATA PACKAGES

ACRONYMS

ASP	Activated sodium persulfate
ASP+Alk	Alkali activated sodium persulfate
ASP+Cat	Catalyst activated sodium persulfate
bgs	Below ground surface
Chem-ox	Chemical oxidation
CO ₂	Carbon dioxide
COCs	Contaminants of concern
DNAPL	Dense Non-aqueous phase liquid
EPH	Extractable petroleum hydrocarbons
ft	Feet
ft ²	Square ft
GEI	GEI Consultants, Inc.
GW	Groundwater
H ₂ O ₂	Hydrogen Peroxide
HASP	Health and Safety Plan
IAL	Integrated Analytical Laboratories, LLC.
ISCO	In-situ chemical oxidation
ISOTEC	In-Situ Oxidative Technologies, Inc.
Lbs	Pounds
mg/kg	Milligrams per kilogram
mg/l	Milligrams per liter
MFR	Modified Fenton's Reagent
MFR+XFR	MFR activated sodium persulfate
MW	Monitoring well
ND	Non detect concentration
Na ₂ S ₂ O ₈	Sodium persulfate
ORP	Redox potential
PAHs	Polynuclear aromatic hydrocarbons
PID	Photoionization Detector
ppb	Parts per billion
ppm	Parts per million
SOD	Soil oxidant demand
TDS	Total dissolved solids
TICs	Tentatively identified compounds
TOC	Total organic carbon
VOC	Volatile organic compound
ug/l	Micrograms per liter
ug/kg	Micrograms per kilogram
XFR	Extra free radicals (e.g. Sodium Persulfate)

1.0 EXECUTIVE SUMMARY

In-Situ Oxidative Technologies, Inc. (ISOTECSM) was retained by GEI Consultants, Inc. (GEI) to conduct an in-situ chemical oxidation (ISCO) bench-scale laboratory treatability study (study) on soil and groundwater samples collected from the Former Manufactured Gas Plant (MGP) Site located in Sea Isle City, New Jersey. The purpose of the study was to evaluate the potential effectiveness of four (4) reagents on site samples and determine the most effective reagent dose for the field treatment program. Target contaminants of concern (COCs) for the study are MGP-related polynuclear aromatic hydrocarbons (PAHs) and extractable petroleum hydrocarbons (EPH).

Portions of soil and groundwater samples were first prepared into a slurry [a mixture of composited site soil and groundwater combined into 2 parts to 1 part (2:1) soil-groundwater slurry (by weight)] for use during the study. Two of the reagents evaluated during the study were from ISOTEC's *MFR Green Series*TM consisting of modified Fenton's reagent (MFR) and MFR activated sodium persulfate (MFR+XFR). The other two reagents evaluated were chelated iron catalyst activated sodium persulfate (ASP+Cat) and alkali (i.e. high pH) activated sodium persulfate (ASP+Alk). The purpose of the study was two folds: a) evaluate the COC treatment effectiveness using four ISOTEC reagents and b) to provide data supporting a field-scale ISCO implementation design.

Three types of tests were performed, 1)COC-test to evaluate the PAH and EPH treatment effectiveness, 2) soil oxidant demand test (SOD-test) using hydrogen peroxide (H₂O₂) and sodium persulfate (Na₂S₂O₈), and 3) soil buffering capacity test (BC-test) using sodium hydroxide (NaOH). The tests were conducted to support the field ISCO design.

GEI personnel collected 2 soil samples (high-impacted sample "H" and low impacted sample "L") and one groundwater sample (GW) to conduct the experiments and hand delivered to ISOTEC's research facility for use during the treatability study. To prepare the samples for the COC bench-scale testing, each of the two soil samples were mixed with the groundwater separately in a 2:1 soil to groundwater ratio by weight to generate two slurry samples (referred to as S-H or S-L) that were used to perform various experiments of the COC-test. Likewise, to prepare samples for the SOD test, the soil sample was mixed with distilled water (DI) separately in a 1:2 soil to DI ratio by weight to generate the slurry samples (referred to as SOD-H or SOD-L) that was used to perform various experiments of the SOD-test. To prepare samples for the buffering capacity test, the soil sample was mixed with distilled water (DI) separately in a 1:3 soil to DI ratio by weight to generate the slurry samples (referred to as BC-H or BC-L) that were used to perform the buffering capacity test. The following table (Table 1) shows the sample identification and various tests conducted.

Table 1: Experiment Sample Preparation

Soil Sample Location ID	Mix with Groundwater ID	Slurry Sample ID	Test	Experiments Performed
H	GW	S-H	COC-test	PAH-expt, EPH-expt
L	GW	S-L	COC-test	PAH-expt, EPH-expt
H	DI	SOD-H	SOD-test	H ₂ O ₂ -expt & S ₂ O ₈ -expt
L	DI	SOD-L	SOD-test	H ₂ O ₂ -expt & S ₂ O ₈ -expt
H	DI	BC-H	BC-test	Buffering capacity
L	DI	BC-L	BC-test	Buffering capacity

Each experiment was conducted on associated slurry sample in parallel. Four reagents were evaluated in each COC-test experiment and two oxidants were tested in each SOD-test experiment. The reagent/oxidant doses tested in each experiment are summarized in the following tables (Tables 2A and 2B).

Table 2A: Reagent Doses tested in COC-test (PAH-expt and EPH-expt)

Reagent used	Oxidant used	
	H ₂ O ₂	Na ₂ S ₂ O ₈
MFR	1% & 3%	-
MFR+XFR	1% & 3%	1% & 3%
ASP+Alk	-	1% & 3%
ASP+Cat	-	1% & 3%

Table 2B: Oxidant Doses Tested in SOD-test (H₂O₂-expt & S₂O₈-expt)

H ₂ O ₂	3.3 g/kg, 5.5 g/kg & 11 g/kg
Na ₂ S ₂ O ₈	0.8 g/kg, 5.0 g/kg, & 16.7 g/kg

Treatability study results indicate that both MFR and MFR+XFR reagents tested achieved significant mass reduction and produced effective treatment of COCs for both soils tested. Overall, MFR+XFR produced superior results compared to MFR-only for PAHs due to double oxidant loading from both peroxide and persulfate systems. However,

MFR-only achieved better overall mass reduction for NJ EPH. Both ASP+Alk and ASP+Cat reagents exhibited limited to no effectiveness towards treatment of PAHs and NJ EPH. Therefore, it may be concluded from the results that a hydrogen peroxide based system is necessary to achieve effective remediation of site COCs. The best overall COC reductions achieved for the various experiments conducted is summarized in Table 3. The increases observed are believed to be a result of COC desorption and likely DNAPL globule breakup and solubilization.

Table 3: Best Overall COC Reduction Achieved For Each Reagent

Sample ID	Reagent	% PAH Reduction		% NJ EPH Reduction		% Mass Reduction	% Mass Reduction
		Aqueous Phase	Solid Phase	Aqueous Phase	Solid Phase	PAHs	NJ EPH
S-L	MFR	22%	78%	inc	75%	78%	54%
	MFR+XFR	33%	94%	36%	40%	85%	39%
	ASP+Alk	inc	inc	inc	inc	inc	inc
	ASP+Cat	44%	65%	20%	inc	15%	inc
S-H	MFR	63%	21%	82%	70%	23%	62%
	MFR+XFR	98%	74%	inc	40%	75%	inc
	ASP+Alk	94%	30%	inc	inc	33%	inc
	ASP+Cat	98%	inc	inc	inc	inc	inc

Note: inc = concentration/ mass increased when compared to control

The SOD-test results indicate that the average 2 day demand was 7.92 g/kg (Soil L) and 7.80 g/kg (Soil H) for H₂O₂ and 4.39 g/kg (Soils L and H) for Na₂S₂O₈. The lower oxidant demand using sodium persulfate compared to hydrogen peroxide was probably due to additional demand from catalytic decomposition of hydrogen peroxide by native transition metals present in soil and auto decomposition reactions prevalent in hydrogen peroxide systems. For the buffering capacity test, results indicated a significantly higher buffering capacity for Soil H when compared to Soil L. Average results indicated a 25% NaOH buffering capacity of 13.2 ml/kg for BC-L and 23.5 ml/kg for BC-H.

The temperature measurements indicated a maximum temperature increase of 6 degrees Celsius (°C) for MFR and MFR+XFR reagents as hydrogen peroxide decomposition results in an exothermic reaction. The temperature dropped sharply within hours after the treatment was completed. For ASP+Alk and ASP+Cat reagents, the temperatures increases were generally less than 2°C. Gas volume experiments indicated the highest gas generation using MFR for Soil L and using MFR+XFR for Soil H

for the highest dosages evaluated. In comparison, the lower doses had significantly less gas production. The ASP+Alk and ASP+Cat reagents produced the least volume of gas as would be expected due to the absence of hydrogen peroxide.

Based on the bench scale treatability study results, it is concluded that effective remediation of MGP-related COCs could only be achieved in the presence of hydrogen peroxide. Therefore, ISOTEC recommends a treatment approach consisting of MFR+XFR for the initial round of the field pilot study with the option to field adjust the ratio of MFR and XFR such that if the site is able to accept large peroxide volumes safely, then more permeable areas can receive a greater fraction of hydrogen peroxide compared to sodium persulfate (as sulfate formation is a concern with persulfate). The rationale for this recommendation is based on (a) areas with lower permeability may make injection of large volumes of hydrogen peroxide difficult due to off gassing and potential daylighting issues, (b) combination of hydrogen peroxide and sodium persulfate appear to complement each other and will be able to provide the superior desorption and degradation ability of MFR along with sustained reaction from longer half life of sodium persulfate, (c) the radial effects can potentially be enhanced in low permeability soils with sodium persulfate due to greater longevity, and (d) the flexibility to use more hydrogen peroxide and less sodium persulfate if the site permits as peroxide produces more benign byproducts of carbon dioxide, water and oxygen and excess sulfate generation could be a potential regulatory concern with persulfate. An MFR+XFR system would give us the option to field adjust the ratio of peroxide to persulfate depending on field response noted.

A field pilot study is recommended to further refine the selected technology and the treatment dosages. Results of the bench-scale study can be used to design the field pilot study for the Former MGP Site.

2.0 BENCH SCALE STUDY OBJECTIVES

The objectives of the study were as follows:

- Evaluate the treatment effectiveness and determine the appropriate reagent formulations of MFR, MFR+XFR, ASP+Cat, and ASP+Alk for field scale application of ISCO based on COC treatment effectiveness;
- Determine the oxidant (i.e. hydrogen peroxide & persulfate) demand of the site native soils;
- Determine the buffering capacity of the site native soils using sodium hydroxide; and
- Determine the temperature increases and gas production from the tested reagent formulations.

3.0 SAMPLE COLLECTION AND PREPARATION

GEI personnel provided two soil samples (H and L) and one groundwater sample (GW) to conduct the experiments. The samples were collected from the site by GEI and were hand delivered to ISOTEC for use during the treatability study. The samples were stored at 4°C during shipment and at ISOTEC's facility until commencement of each test.

Prior to initiating the study, each soil sample was independently composited. A portion of each composited soil was collected and submitted for PAH, NJ EPH, total organic carbon (TOC), iron (Fe) and manganese (Mn) analyses. Similarly, a portion of each groundwater sample was collected and submitted for PAH, NJ EPH, TOC, Fe and Mn analyses. To prepare the samples for the COC bench-scale testing, each of the two soil samples was mixed with the corresponding groundwater separately in a 2:1 soil to groundwater ratio by weight to generate two slurry samples (referred to as S-H and S-L) that were used to perform various experiments of the COC-test. Likewise, to prepare samples for the SOD test, the soil sample (S or L) was mixed with distilled water (DI) separately in a 1:2 soil to DI ratio by weight to generate the slurry samples (referred to SOD-H and SOD-L) that was used to perform various experiments of the SOD-test. In addition to the above, to prepare samples for the buffering capacity test, the soil sample (S or L) was mixed with distilled water (DI) separately in a 1:3 soil to DI ratio by weight to generate the slurry samples (referred to BC-H and BC-L) that were used to perform various experiments of the buffering capacity test.

Table 4: Experiment Sample Preparation & Reagents Tested

Soil Sample Location ID	Mix with Groundwater ID	Slurry Sample ID	Test	Experiments Performed	Reagents used/ Tested
H	GW	S-H	COC-test	PAH-expt, EPH-expt	MFR, MFR+XFR, ASP+Cat, & ASP+Alk
L	GW	S-L	COC-test	PAH-expt, EPH-expt	MFR, MFR+XFR, ASP+Cat, & ASP+Alk
H	DI	SOD-H	SOD-test	H ₂ O ₂ -expt & S ₂ O ₈ -expt	H ₂ O ₂ & Na ₂ S ₂ O ₈
L	DI	SOD-L	SOD-test	H ₂ O ₂ -expt & S ₂ O ₈ -expt	H ₂ O ₂ & Na ₂ S ₂ O ₈
H	DI	BC-H	BC-test	Buffering capacity	NaOH
L	DI	BC-L	BC-test	Buffering capacity	NaOH

4.0 EXPERIMENTAL PROCEDURES

As described previously, the COC-test consisted of two sets experiments (PAH-expt & EPH-expt) performed on slurry samples identified as S-H and S-L. All procedures used to conduct each experiment were identical in every aspect for S-H and S-L. In general, each experiment in the COC-test comprised of the following four steps:

1. Reagent selection,
2. Establishing experimental control,
3. Experimental setup, and
4. Sample analysis.

4.1 Reagent Selection

As discussed previously, based on the contaminant types and levels detected at the site, ISOTEC evaluated four reagents (MFR, MFR+XFR, ASP+Cat, and ASP+Alk) in the COC-tests. Two of the selected reagents for the COC-test are from ISOTEC's **Green Series™** which include: MFR and MFR+XME.

MFR consists of an oxidant and an activating agent. The oxidant to be used is hydrogen peroxide stabilized using ISOTEC stabilizer 0875 and the activating agent to be used is ISOTEC's patented Catalyst Series 4260 (Cat-4260), which is a circum-neutral pH (e.g. 5-8) organometallic complex (chelated iron) with high mobility within the subsurface. The resulting mix will produce co-existing oxidation-reduction conditions that include hydroxyl radicals, superoxide radicals, and hydroperoxide anions. ISOTEC believes that MFR has the distinct advantage over other oxidants (such as sodium persulfate, ozone, and permanganate) with the production of superoxide radicals that are key to promoting increased desorption and degradation of dense non-aqueous phase liquid (DNAPL) constituents. Please note that if desorption of COCs cannot be promoted; rebound is bound to occur as soil constituents remain untreated although short-term GW COC reductions may be noted with other oxidants.

MFR+XFR also consists of an oxidant and an activating agent. For this study, the oxidant to be used is sodium persulfate and the activating agent to be used is MFR. The resulting mix activates sodium persulfate via the combined action of chelated iron, heat produced from MFR, and free radicals produced from hydrogen peroxide decomposition. MFR method of activation is recommended by ISOTEC based on poor desorption characteristics of sodium persulfate alone or with other methods of activation (e.g. chelated iron or alkali).

ASP+Cat consists of activating sodium persulfate using a chelated iron catalyst, which produces sulfate free radicals. ASP+Alk consists of activating sodium persulfate using

high pH conditions generated via addition of sodium hydroxide to maintain pH conditions in the 10.5-12 range. Once again, sulfate free radicals are produced in this method of activation.

4.2 Establishing Experimental Controls

An experimental “control” sample was set up during each experiment to document the following:

- Reduction or changes in concentrations of the target constituents due to sample dilution by reagent volumes injected.
- Reduction in concentrations of the target constituents due to volatilization caused by room temperature test conditions.

The “control” sample was set up exactly the same way, remained at, and was subject to the same conditions as the associated “treatment” reactors. However, the “control” reactor was injected with distilled water instead of reagent (see Section 4.6 below). The volume of distilled water injected was identical to the volumes of reagent injected into the “treatment” reactors.

4.3 Experimental Setup

To evaluate COC treatment effectiveness, each of the experiments was set up in 10 reactors, with two of the reactors serving as “control” reactors (see Section 4.2 above) and the remaining as “treatment” reactors to receive MFR, MFR+XFR, ASP+Cat and ASP+Alk at two dosages, 1.0%, and 3.0% by weight of slurry being tested for slurry “S-L” and 1.0% and 4.0% for slurry “S-H” (see Table 5 below). The experiments were performed in 250-ml containers, which are sealed with screw top caps fitted with Teflon-lined septa to facilitate reagent injection. Exactly 150 g of 2:1 slurry (100 g of soil and 50 g of groundwater) was introduced into each reactor. The reactors were set up in triplicates, with one set used for PAH analysis on separate phases, a second set used for NJ EPH analysis on separate phases, and the third one used for laboratory monitoring for H₂O₂, Na₂S₂O₈ and pH.

Table 5: COC-test Experiment Reactor Summary for Each Soil Sample

Experiment/ Reactor	Control	MFR Treatment	MFR+XFR Treatment	ASP+Cat Treatment	ASP+Alk Treatment	Container Size	2:1 Slurry Weight
PAH	2 reactor sets	2 reactor sets	2 reactor sets	2 reactor sets	2 reactor sets	250 ml	150 grams
EPH	2 reactor sets	2 reactors sets	2 reactors sets	2 reactors sets	2 reactors sets	250 ml	150 grams

4.4 Reagent Applications

In each experiment, a predetermined amount of appropriate reagent was injected into each associated “treatment” reactor as incremental doses to achieve a final oxidant (H_2O_2 and $Na_2S_2O_8$) concentration of 1% or 3% by weight of slurry being treated for “S-L” reactors and 1% and 4% for “S-H” reactors. Please note that 1% dose was applied as 2 doses of 0.5%, 3% dose was applied as 3 doses of 1.0% and 4% dose was applied as 3 doses of 1.33%, respectively. Distilled water was used to compensate the difference of reagent volumes applied between reactors. The “control” reactor in each experiment received an equivalent volume of distilled water instead of reagent.

Table 6: Reagent Concentration Tested and Reagent Application in COC-test

	H_2O_2	$Na_2S_2O_8$
1.0% dose	injected as two 0.5% doses	
MFR	1.0%	-
MFR+XFR	1.0%	1.0%
ASP+Cat	-	1.0%
ASP+Alk	-	1.0%
3% dose	injected as three 1% doses	
MFR	3.0%	-
MFR+XFR	3.0%	3.0%
ASP+Cat	-	3.0%
ASP+Alk	-	3.0%
4% dose	injected as three 1.33% doses	
MFR	4.0%	-
MFR+XFR	4.0%	4.0%
ASP+Cat	-	4.0%
ASP+Alk	-	4.0%

The multiple dosage approach (incremental approach) was used to increase treatment efficiency, minimize gas formation and the resulting pressure buildup. A time gap of approximately 24 hours was maintained between dosages. All reactors (control and treatment) were left undisturbed for a minimum of 24 hours or until the majority of oxidant was consumed.

At the end of the experiment, a quenching agent (i.e. bovine catalase for hydrogen peroxide and catalase/ thiosulfate for sodium persulfate) was injected into each reactor to terminate the reaction. Final pH, peroxide and persulfate values were measured in the corresponding duplicates. The duration of the COC-test experiment was 4 days for MFR and 9 days for MFR+XFR, ASP+Alk and ASP+Cat.

4.5 Analytical Sample Collection

Upon experiment completion, two sets of reactors (control and treatment) were submitted “as is” for soil and aqueous phase separation and PAH and NJ EPH analysis with no preservative added for laboratory extraction of the entire contents and the reactor itself.

4.6 Sample Analysis

Integrated Analytical Laboratories, LLC. (IAL), a NELAP certified analytical laboratory, performed analyses for all of the samples associated with the treatability study. The PAH analyses was performed using Method SW-846 8270C, NJ EPH analysis using NJDEP 10/08 Rev3 Method, TOC analysis using EPA method modified Lloyd Kahn and iron/manganese analysis using EPA method 6020. Laboratory analytical data packages including chains of custody, and internal laboratory custody chronicle are included as Attachment A. Detailed laboratory extraction and analytical methods are described below (Table 7).

Table 7: Summary of Analytical Methods

Experiment / Analytical Method	Analytical Matrix	
	Aqueous	Solid
PAH	EPA 625	EPA 8270C
NJ EPH	NJDEP 10/08 Rev3	NJDEP 10/08 Rev3
Fe, Mn	EPA 6020	EPA 6020
TOC	EPA 5310C	Modified Lloyd Kahn

5.0 SOD-TEST EXPERIMENTAL PROCEDURES

As discussed previously, the SOD-test consisted of two sets of experiments (H_2O_2 -expt and S_2O_8 -expt). The SOD-test was performed on slurry samples SOD-L and SOD-H. For each sample, a range of oxidant doses were evaluated as shown in Table 8.

The experiment reactors were set up in 8-oz glass containers (one control and one treatment). The containers were sealed with screw-top caps fitted with Teflon-liners. Exactly 22.5 g of 1:2 slurry (15 g of soil and 30 ml of DI) were introduced into each treatment reactor and 30 ml of DI only into each control reactor leaving enough headspace for addition of oxidant. Predetermined amounts of H_2O_2 and $Na_2S_2O_8$ were added to associated control and treatment reactors as a single dose to achieve the oxidant concentrations shown in Table 8 below. No catalyst was applied to the reactors in order to exclude demand associated with decomposition of oxidants by non-native catalysts and determine the true native soil oxidant demand.

Table 8: SOD-test Reactor Summary

Reactor		Oxidant Dose Evaluated (g/kg)	
Sample ID	Sample Makeup	H_2O_2	S_2O_8
Control	30 g (DI+oxidant)	3.3, 5.5 & 11	0.8, 5.0 & 16.7
SOD-H or SOD-L	15 g soil+30 g (DI+oxidant)	3.3, 5.5 & 11	0.8, 5.0 & 16.7

Peroxide concentration measurements were performed using a spectrophotometer using the titanium sulfate method. The peroxide concentration was measured 30 minutes, 1 hour, 3 hours, 21 hours, 27 hours, 45 hours and 51 hours after the peroxide application. Each reactor was inverted exactly 5 times following measurements to obtain maximum contact between peroxide and the soil material. The experiment was terminated after peroxide concentrations in all treatment reactors had decreased by at least 90% of their starting values.

Persulfate concentration measurements were performed using a CHEMetrics test kit. The persulfate concentration was measured 30 minutes, 24 hours and 48 hours following the persulfate application. Each reactor was inverted exactly 5 times following measurements to obtain maximum contact between persulfate and the soil material. The experiment was terminated after persulfate concentrations in all treatment reactors had decreased by at least 90% of their starting values or reached a plateau.

6.0 BUFFERING CAPACITY TEST EXPERIMENTAL PROCEDURES

The buffering capacity test was performed to evaluate the quantity of sodium hydroxide (NaOH) buffer needed to reach and maintain a pH>10.5 required for alkali activation of sodium persulfate. The NaOH demand arises from two sources: (1) soil and groundwater acidity, and (2) the generation of acid formed during decomposition of sodium persulfate.

Total NaOH Demand = NaOH needed to raise soil and groundwater to target pH 10.5-12
+ 2 moles NaOH/ mole sodium persulfate

The BC-test was performed on slurry samples BC-L and BC-H in duplicates (referred to as BC-L1/L2 or BC-H1/H2). For each sample, a range of oxidant doses were evaluated as shown in Table 9. The experiments were conducted to determine the amount of NaOH needed to raise the soil and groundwater pH to the range 10.5-12. In addition, please note that to address the persulfate generated acid, 2 moles of NaOH per mole of sodium persulfate must be added to neutralize the persulfate generated acid.

A 100 gram (g) sample of soil was mixed with 300 g of groundwater to prepare a 400 g sample of slurry that was tested during the experiments. For each sample, experiments were conducted in duplicates. The slurry was mixed thoroughly for 5 minutes and the initial pH was measured. Then, the slurry was slowly titrated with 25% NaOH while continuously mixing to ensure uniform distribution of the added reagent. Once the pH reached >10.5 and was maintained for >30 minutes, the titration was stopped and the volume of 25% NaOH added was recorded. The 25% NaOH demand was expressed as “milliliters (ml) 25% NaOH required per kilogram (kg) of slurry”.

Table 9: Buffering Capacity-test Reactor Summary

Reactor	
Sample ID	Sample Makeup
BC-L1 or BC-L2	100 g soil + 300 g DI
BC-H1 or BC-H2	100 g soil + 300 g DI

7.0 COC-TEST RESULTS AND DISCUSSION

Detailed COC-test results (including the initial characteristics analyses and experiment results) are presented in Tables 9 through 20 (attached). Laboratory analytical data packages are provided in Attachment A. Initial characteristics results are discussed in Section 6.1, COC-test results for S-L and S-H are discussed in Sections 6.2 through 6.6.

7.1 Initial Characteristics

Initial characteristics results are presented in Table 10.

The initial characterization includes analyses of PAHs, NJ EPH, TOC, total iron and total manganese on each of the two slurry samples (S-L and S-H) used in the COC-test.

- In S-H soils, PAHs were detected at 109 mg/kg, NJ EPH at 692 mg/kg, TOC at 37,300 mg/kg, iron at 13,700 mg/kg and manganese at 75 mg/kg. For NJ EPH, the fraction of C10-C36 aromatics (455 mg/kg) was significantly greater compared to that of C9-C40 aliphatics (237 mg/kg). For S-H aqueous phase, both PAHs and NJ EPH were detected ND levels.
- In S-L soils, PAHs were detected at 167 mg/kg, NJ EPH at 204 mg/kg, TOC at 9,670 mg/kg, iron at 16,400 mg/kg and manganese at 144 mg/kg. For NJ EPH, the fraction of aromatics (159 mg/kg) was significantly greater compared to that of C9-C40 aliphatics (45 mg/kg). For S-L aqueous phase, PAHs were detected at 0.0006 mg/l and NJ EPH was detected at 8,220 mg/kg.

PAHs detected primarily include naphthalene, acenaphthene, phenanthrene, and fluoranthene. TOC includes organic matter associated with both native as well as non-native organic compounds in soils. Please note that higher TOC means greater competition for the oxidants, which can result in significant oxidant scavenging. Transition metals, such as iron and manganese in soils will decompose oxidants without generating free radicals, and thus cause oxidant “wastage”. Results indicate that sample S-H contained the highest levels of TOC whereas sample S-L contained the highest levels of iron.

7.2 Calculation Methods

COC treatment effectiveness is evaluated by comparison of “treated” sample data with the associated “control” sample data. As discussed in Section 4.2, “control” samples underwent the same conditions as the corresponding “treated” samples but received zero dosage of reagent. Therefore, the differences in contaminant concentrations between “treated” samples and the associated “control” sample best represent the treatment effectiveness. For discussion purpose, all ND values are assumed to be equal

to zero in the contaminant reduction calculation. Results are discussed below for each sample.

7.3 S-L Results

Summary results indicate that variable levels of PAH and NJ EPH reduction was achieved in both aqueous and solid phases with MFR+XFR achieving superior results for PAHs and MFR achieving superior results for NJ EPH compared to other reagents evaluated. The treatment occurred in the pH range 6.54 to 7.57 for MFR, 2.50 to 4.13 for MFR+XFR, 11.99 to 12.1 for ASP+Alk, and 2.80 to 6.68 for ASP+Cat. The low pH for samples containing persulfate indicates that sample S-L lacked adequate buffering capacity to overcome the acidity produced from persulfate decomposition. Detailed results are presented in Table 11 and summarized in Table 12 below. Results have been discussed below for each parameter analyzed.

Table 12: COC Reduction in Sample S-L

Reagents	PAHs		NJ EPH	
	Aqueous	Solid	Aqueous	Solid
MFR	22%, inc	78%, inc	inc, inc	54%, 75%
MFR+XFR	inc, 33%	inc, 94%	inc, 36%	32%, 40%
ASP+Alk	inc, inc	inc, inc	inc, inc	inc, inc
ASP+Cat	inc, 44%	inc, 65%	inc, 20%	inc, inc

Note: Percent reductions presented in the order of low and high doses.

Inc = increase in concentration

7.3.1 PAHs – Separate Phase

For PAHs, a consistent decreasing trend was not observed with increasing dosage with the low (1%) dose of MFR achieving superior results compared to the high (3%) dose. A 22% PAH reduction was observed in the aqueous phase and 78% in the solid phase. For MFR+XFR, the high dose achieved the best overall reduction among all reagents evaluated with 33% reduction in the aqueous phase and 94% reduction in the solid phase. For ASP+Alk, no PAH reduction was observed in both aqueous and solid phases. For ASP+Cat, the high dose achieved 44% reduction in the aqueous phase and 65% reduction in the solid phase.

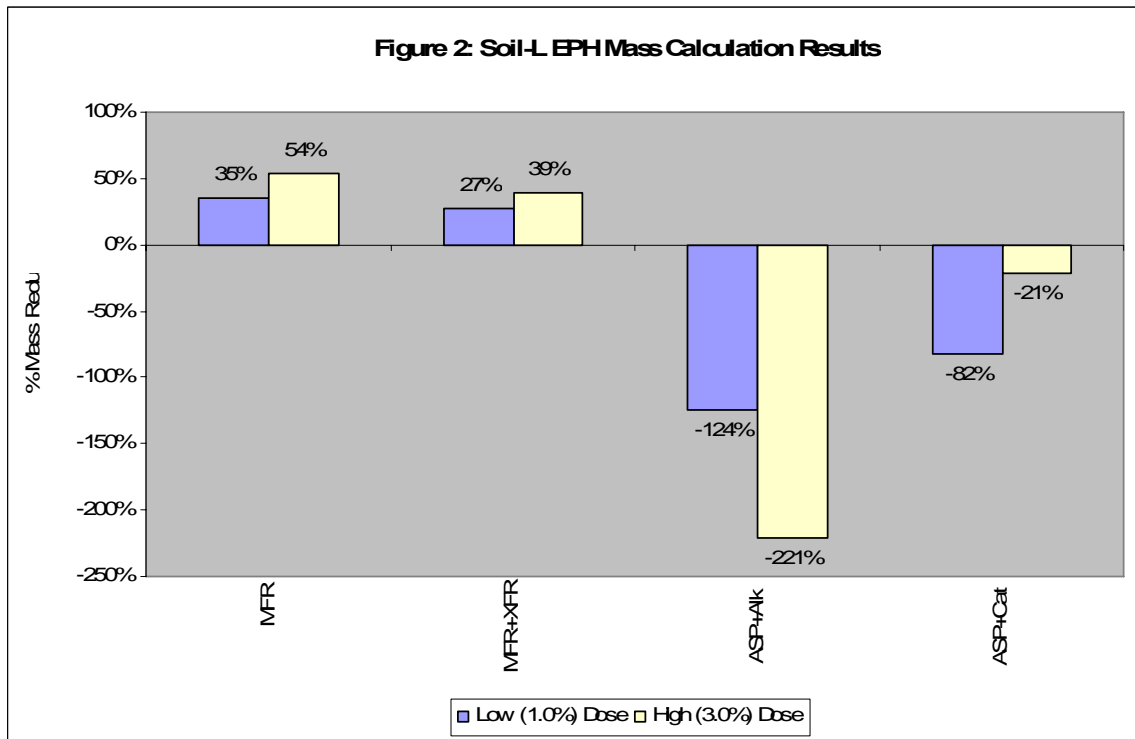
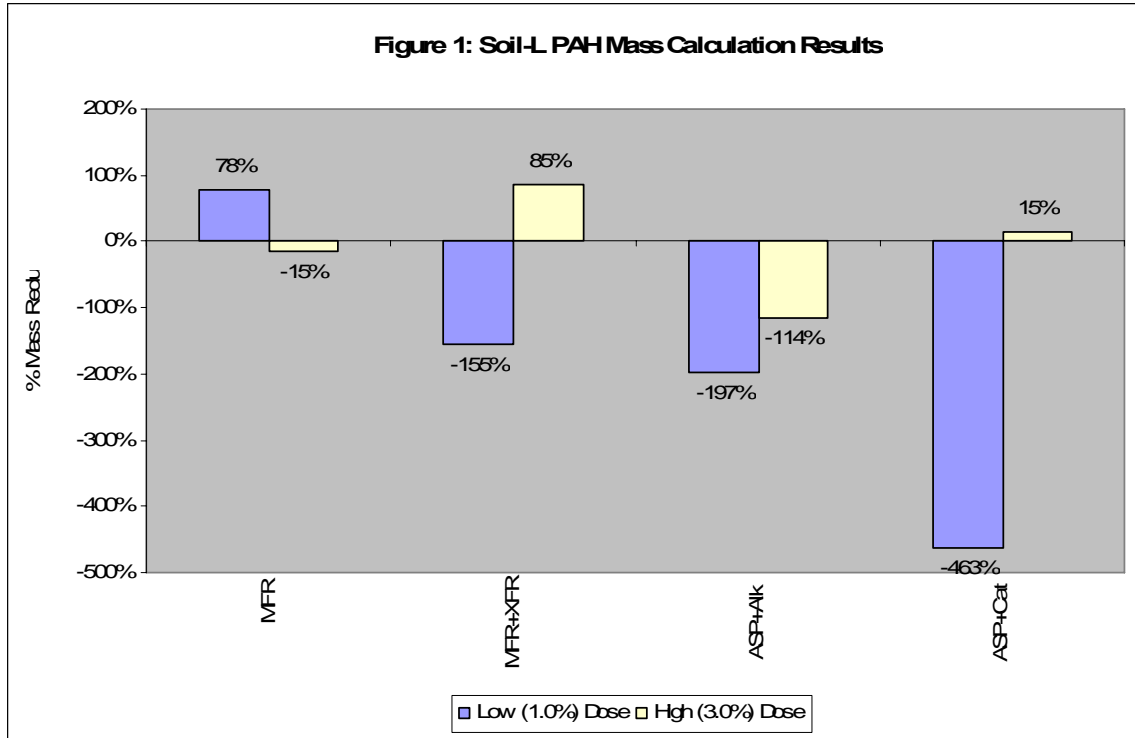
The PAH increases observed are believed to be a result of desorption combined with DNAPL globule breakup and solubilization.

7.3.2 NJ EPH – Separate Phase

For NJ EPH, MFR achieved a 54% reduction after low (1%) dose and 75% after high (3%) dose in the solid phase when the total aromatic carbon fractions are combined with the aliphatic carbon fractions. In the aqueous phase, a 78% reduction was observed after low dose and an increase was observed after high dose. It is likely that the low dose MFR produced a much more efficient reaction compared to high dose as excess peroxide can sometimes lead to self consuming auto decomposition reactions. For MFR+XFR, 94% reduction was observed in the aqueous phase and 40% reduction was observed in the solid phase following high dose application. For ASP+Alk, NJ EPH reduction was not observed indicating this reagent was ineffective. For ASP+Alk, 20% reduction was observed in the aqueous phase following high dose but an increase was observed in the solid phase indicating this reagent was ineffective.

7.3.3 S-L Mass Calculation Results Summary

Results of mass calculations performed on sample S-L are shown in Table 13 (attached) and plotted in Figures 1 and 2 below. The calculations combined the aqueous phase results with the solid phase results and show the results on a cumulative basis. Based on the results, both PAHs and EPH appear to be amenable to the treatment using MFR and MFR+XFR but ineffective using ASP+Cat and ASP+Alk. Overall, MFR+XFR produced the highest PAH destruction mainly due to the fact that MFR+XFR provided double amount of oxidants (i.e. both peroxide and persulfate) when compared to MFR. However, MFR was superior to MFR+XFR when EPH treatment is considered.



7.4 S-H Results

Similar to S-L, summary results indicate that variable levels of PAH and NJ EPH reduction was achieved in both aqueous and solid phases with MFR+XFR achieving superior results for PAHs and MFR achieving superior results for NJ EPH compared to other reagents evaluated. The treatment occurred in the pH range 3.16 to 5.98 for MFR, 1.75 to 3.86 for MFR+XFR, 11.98 to 12.38 for ASP+Alk, and 1.98 to 4.07 for ASP+Cat. Once again, the low pH for samples containing persulfate indicates that sample S-H lacked adequate buffering capacity to overcome the acidity produced from persulfate decomposition. Detailed results are presented in Tables 14 and summarized in Table 15 below. Results have been discussed below for each parameter analyzed.

Table 15: COC Reduction in Sample S-H

Reagents	PAHs		NJ EPH	
	Aqueous	Solid	Aqueous	Solid
MFR	inc, 63%	15%, 21%	4%, 82%	70%, 55%
MFR+XFR	98%, 95%	23%, 74%	inc, inc	40%, 23%
ASP+Alk	91%, 94%	Inc, 30%	inc, inc	inc, inc
ASP+Cat	96%, 98%	inc, inc	inc, inc	inc, inc

Note: Percent reductions presented in the order of low and high doses.

Inc = increase in concentration

7.4.1 PAHs – Separate Phase

For PAHs, the high (4%) dose of MFR achieved a 63% reduction in the aqueous phase and 21% reduction in the solid phase. For MFR+XFR, the high dose achieved the best overall reduction among all reagents evaluated with 95% reduction in the aqueous phase and 74% reduction in the solid phase. For ASP+Alk, 30% PAH reduction was observed in the solid phase and a 94% reduction was observed in the aqueous phase. For ASP+Cat, no PAH reduction was observed in the solid phase but a 98% reduction was observed in the aqueous phase.

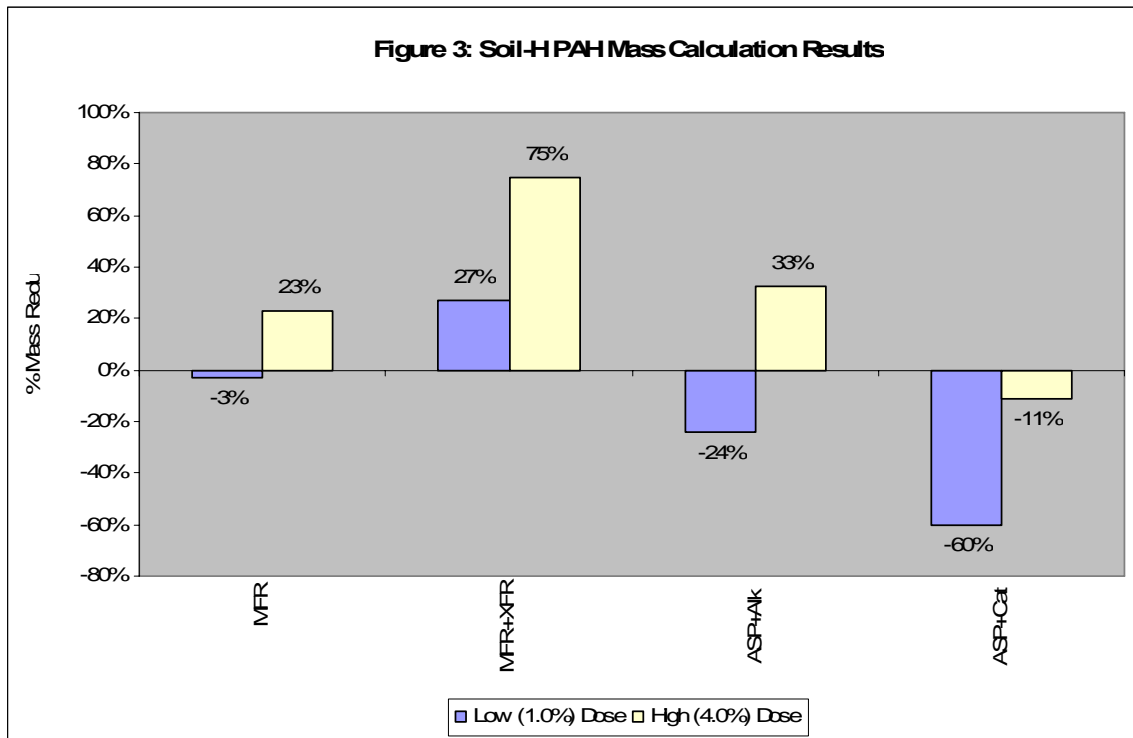
7.4.2 NJ EPH – Separate Phase

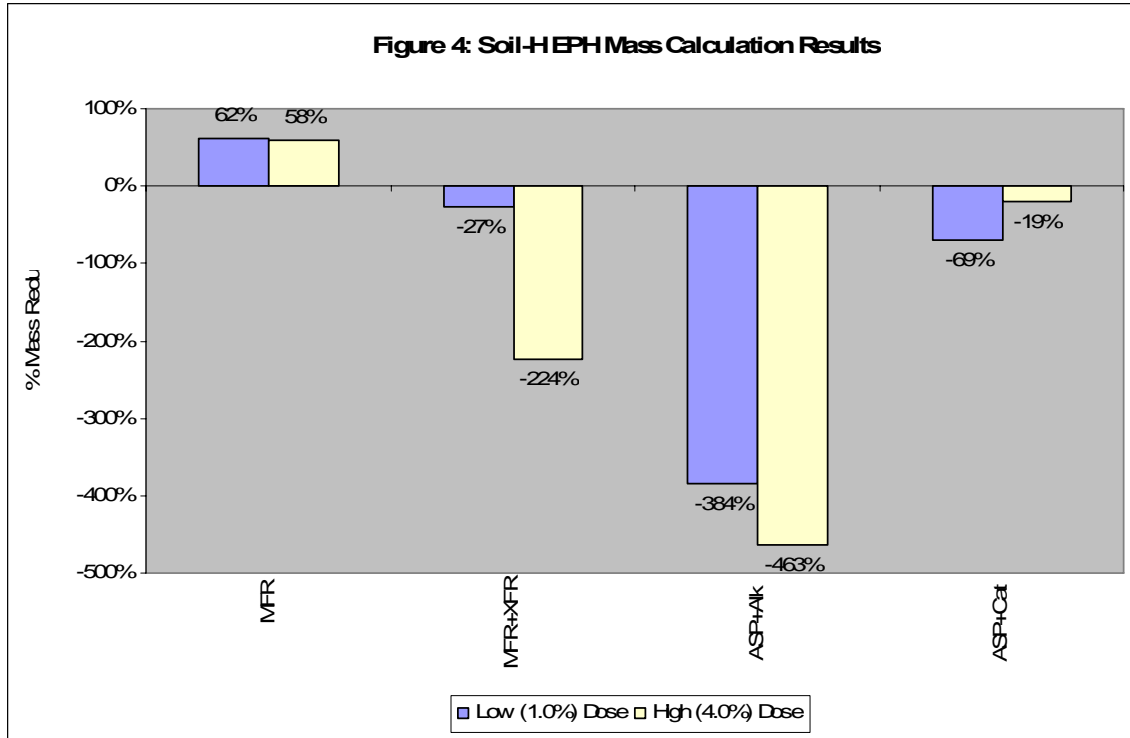
For NJ EPH, MFR achieved a 70% reduction after low (1%) dose and 55% after high (3%) dose in the solid phase when the total aromatic carbon fractions are combined with the aliphatic carbon fractions. In the aqueous phase, a 4% reduction was observed after low dose and an 84% reduction was observed after high dose. For MFR+XFR, 98%

reduction was observed in the aqueous phase and an increase was observed in the solid phase following low dose application. For both ASP+Alk and ASP+Cat, NJ EPH reduction was not observed indicating these reagents were ineffective.

7.4.3 S-H Mass Calculation Results Summary

Results of mass calculations performed on sample S-H are shown in Table 16 (attached) and plotted in Figures 3 and 4 below. The calculations combined the aqueous phase results with the solid phase results and show the results on a cumulative basis. Based on the results, PAHs appear to be amenable to the treatment using both MFR, MFR+XFR, and ASP+Alk; however, MFR+XFR produced superior results probably due to the fact that MFR+XFR provided double amount of oxidants (i.e. both peroxide and persulfate) when compared to MFR and ASP+Alk. However, MFR was superior to all other reagents when EPH is considered.





7.5 COC-test Results Summary

In general, MFR-only appeared to be more effective towards NJ EPH and MFR+XFR achieved superior results for PAHs. Even in sample S-H, which indicated nearly 5 times PAH mass compared to S-L, the mass reduction was substantial. MFR+XFR produced the best overall superior results due to the double oxidants provided although sulfate production may be a concern. ASP+Alk and ASP+Cat were generally not effective towards majority of the site COCs. The native soil characteristics (i.e. soil type, TOC, iron and manganese levels in the soil) have a great effect on the COC treatment effectiveness.

8.0 SOD-TEST RESULTS AND DISCUSSION

SOD-test consisted of two experiments: H₂O₂-expt and S₂O₈-expt. The test was performed on samples SOD-L and SOD-H, which were both impacted with COCs. Therefore, the results discussed below incorporate the oxidant demand associated with COCs as well. Results are summarized in Tables 17 and 18 for H₂O₂-expt and Tables 20 and 21 for S₂O₈-expt and discussed below in details.

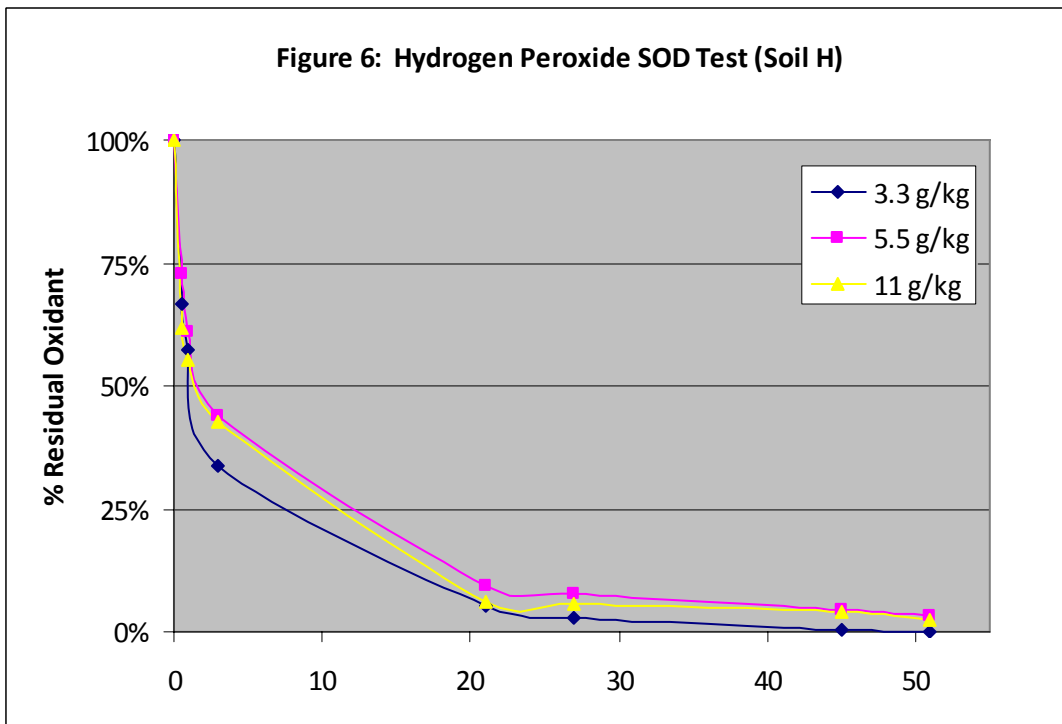
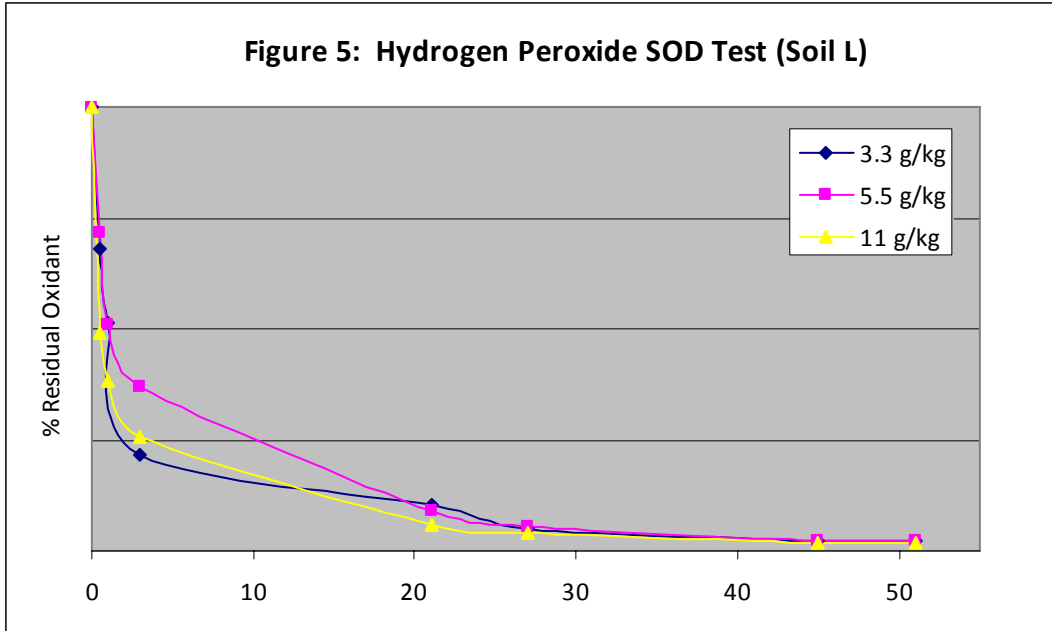
8.1 H₂O₂-expt Results

The hydrogen peroxide SOD results are presented in Tables 17 and 18. Experiments were performed using H₂O₂ loading of 3.3 g/kg, 5.5 g/kg, and 11 g/kg with residual H₂O₂ measured at 0.5 hrs, 1 hr, 3 hrs, 21 hrs, 27 hrs, 45 hrs and 51 hrs. Average 21 hour SOD values (average of 3.3 g/kg, 5.5 g/kg and 11 g/kg doses) were determined to be 6.73 g/kg for SOD-L and 6.76 g/kg for SOD-H and 45 hour SOD values were determined to be 7.92 g/kg for SOD-L and 7.80 g/kg for SOD-H.

Table 19: Estimated H₂O₂ Half-life

Sample ID	3.3 g/kg	5.5 g/kg	11 g/kg
SOD-L	<1 hr	~1 hr	<1 hr
SOD-H	~1 hr	~1.75 hr	~1.5 hr

To create charts for H₂O₂ half life estimation (Table 19), H₂O₂ value at each data point (C) was first normalized against the starting point (C₀) within each reactor, then the data was plotted with the normalized H₂O₂ value (i.e. concentration ratio, C/C₀) as Y-axis and time as X-axis in Figures 5 and 6. The estimated H₂O₂ half-life for each sample was obtained at the intersection of horizontal line Y=0.5 with the (C/C₀) curve of the associated reactor. Results indicate that the H₂O₂ half life was generally less than 5 hours for all dosage scenarios with 5.5 g/kg dose exhibiting the best half life at approximately 1.75 hours for sample SOD-H and 1 hour for SOD-L.



8.2 S₂O₈-expt Results

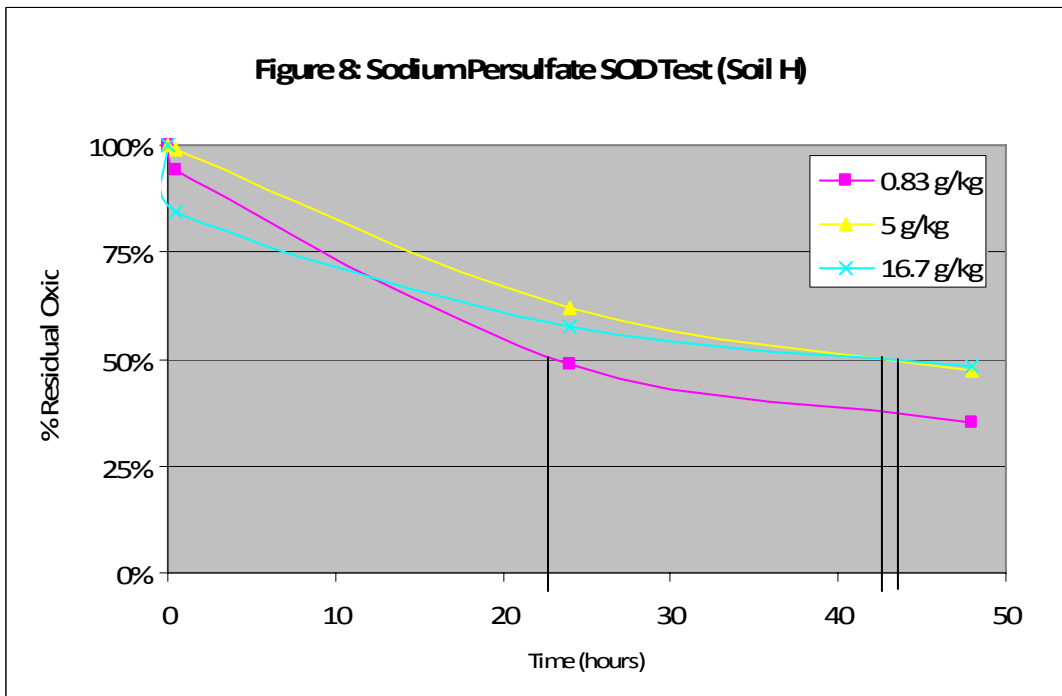
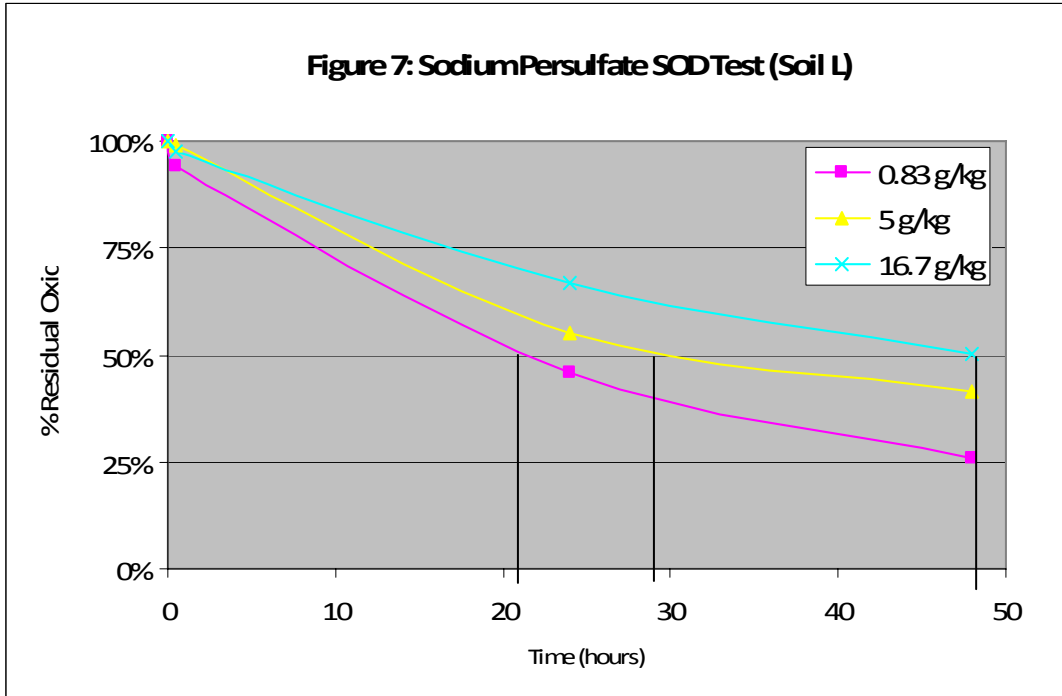
The estimated sodium persulfate SOD results are presented in Tables 20 and 21. Experiments were performed using Na₂S₂O₈ loading of 0.83 g/kg, 5 g/kg and 16.7 g/kg with residual Na₂S₂O₈ measured at 0.5 hrs, 24 hrs, and 48 hrs. Average 24 hour SOD values (average of 0.83 g/kg, 5 g/kg and 16.7 g/kg doses) were determined to be 3.03 g/kg for SOD-L and 3.42 g/kg for SOD-H and 48 hour SOD values were determined to be 4.39 g/kg for both SOD-L and SOD-H.

Similar to H₂O₂-expt, Na₂S₂O₈ half-life was estimated using a C/Co curve for each soil sample. The estimated half lives are presented in Table 22 and Figure 7 and 8.

Table 22: Estimated S₂O₈ Half-life

Sample ID	0.83 g/kg	5 g/kg	16.7 g/kg
SOD-L	21 hrs	29 hrs	48 hrs
SOD-H	23 hrs	43 hrs	44 hrs

Generally, Na₂S₂O₈ has a much longer half-life than H₂O₂ as it is a slower reacting oxidant compared to H₂O₂. Results indicate that SOD-L has a Na₂S₂O₈ half-life of 21 hours for the 0.83 g/kg dose, 29 hours for the 5 g/kg dose and 48 hours for the 16.7 g/kg dose. Likewise, results indicate that SOD-H has a Na₂S₂O₈ half-life of 23 hours for the 0.83 g/kg dose, 43 hours for the 5 g/kg dose and 44 hours for the 16.7 g/kg dose.



8.3 SOD-test Results Summary

In summary, $\text{Na}_2\text{S}_2\text{O}_8$ has a lower demand and longer half life compared to H_2O_2 . This is likely a result of rapid catalytic decomposition of H_2O_2 in the presence transition metal catalysts such as iron and manganese oxyhydroxides naturally present in soils. As such, SOD is a measure of oxidant demand exerted by native organic matter and other reductive species. For H_2O_2 , it is impossible to define the true SOD due to rapid catalytic decomposition that always overestimates the SOD value. Another factor that interferes with true SOD measurement for H_2O_2 is the tendency for free radicals to attack parent H_2O_2 resulting in its auto decomposition. This tendency is greater at higher concentrations of H_2O_2 .

9.0 BUFFERING CAPACITY TEST RESULTS

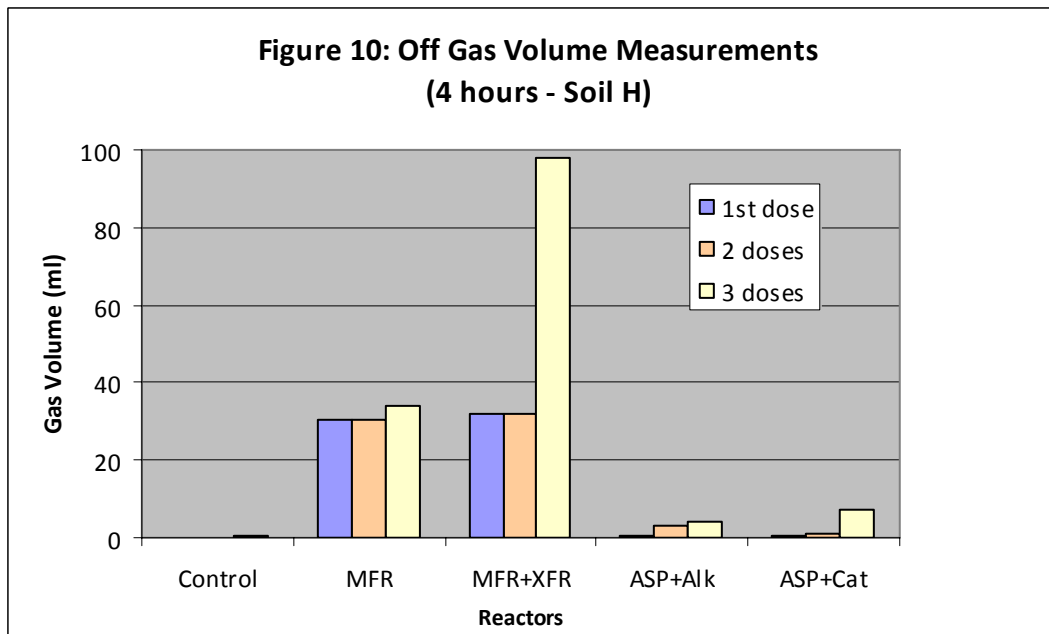
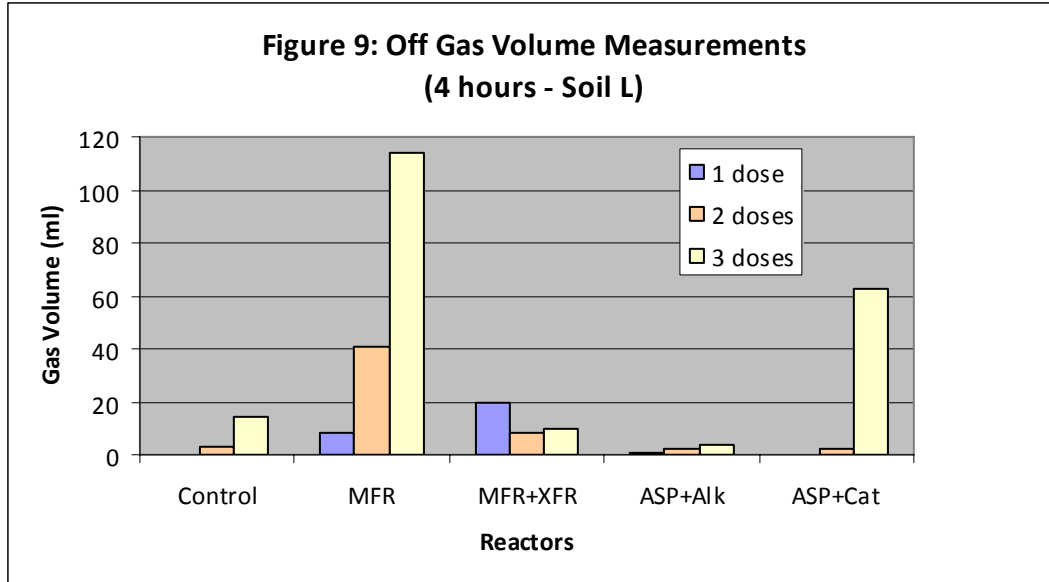
Results of the BC-test performed on samples BC-L and BC-H are presented in Table 23. The experiments were performed in duplicates for each sample. Average results indicated a 25% NaOH buffering capacity of 13.2 ml/kg for BC-L and 23.5 ml/kg for BC-H.

Please note that an additional 2 moles of NaOH for every mole of sodium persulfate used shall be considered during field scale up in order to overcome the acidity caused by sulfuric acid produced from persulfate decomposition.

10.0 GAS VOLUME AND TEMPERATURE RESULTS

10.1 Gas Volume Measurements

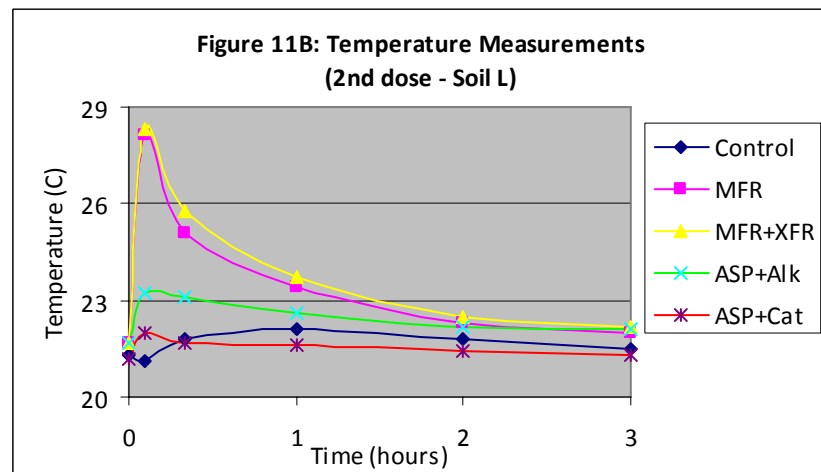
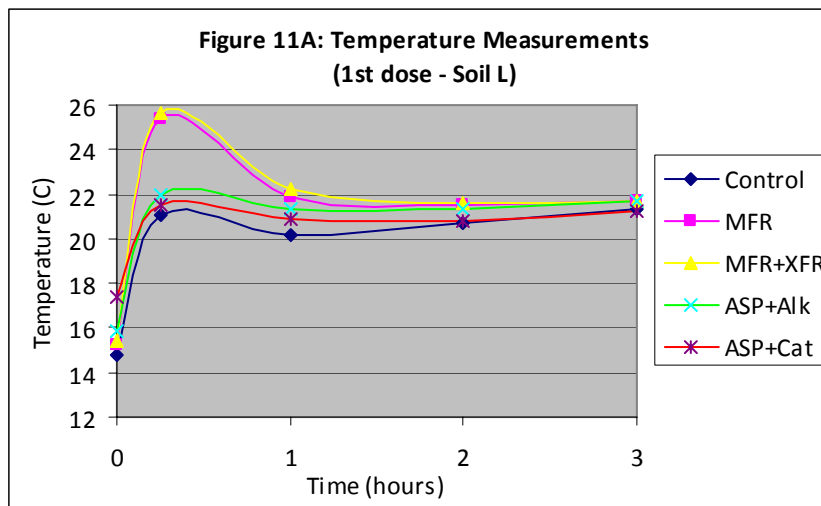
Results of the gas volume data collected are illustrated in Figures 9 and 10. The doses given were similar to the COC-test experiments (see Table 6). The 1 dose samples generally produced low volume of gas. For high dose (i.e. 3 doses), MFR produced the highest volume of gas in Soil L and MFR+XFR produced the highest volume of gas in Soil H. The gas production in MFR and MFR+XFR can be attributed to hydrogen peroxide decomposition leading to formation of oxygen, water vapor and carbon dioxide. The reagents that did not involve the use of hydrogen peroxide i.e. ASP+Alk and ASP+Cat generally produced the lowest volume of gas (except for 3 doses of ASP+Cat in Soil L that appears to be an anomaly).

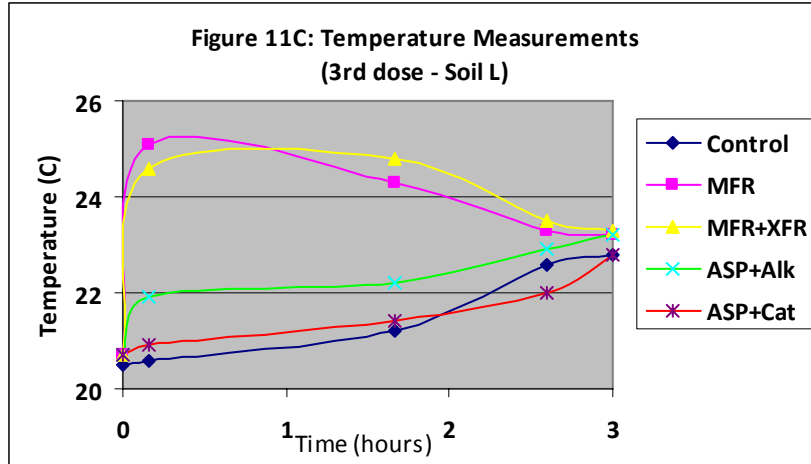


10.2 Temperature Measurements

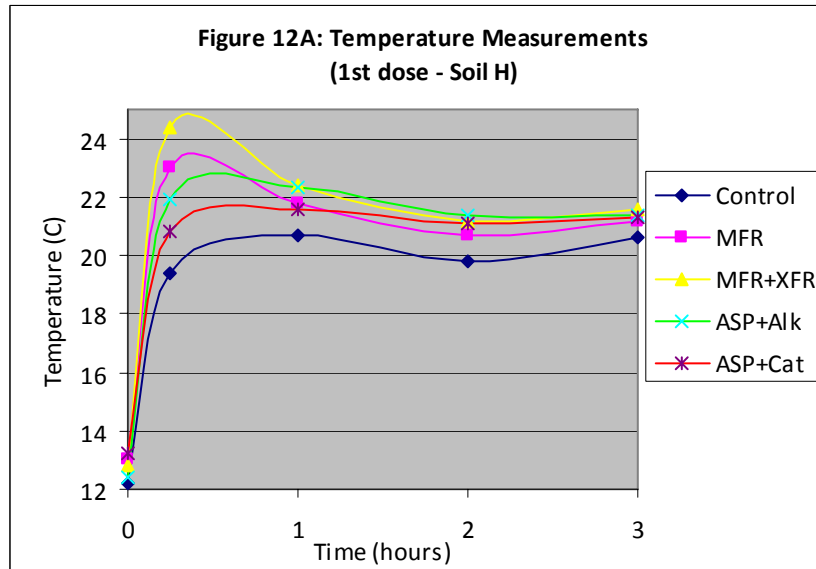
Results of the temperature data collected are illustrated in Figures 11A, 11B and 11C for Soil L and Figures 12A, 12B and 12C for Soil H. Once again, the doses given were similar to the COC-test (see Table 6).

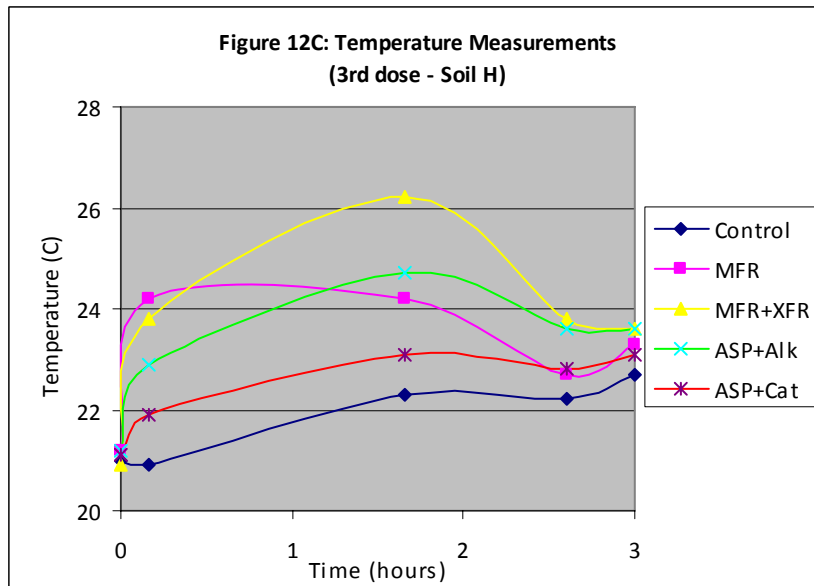
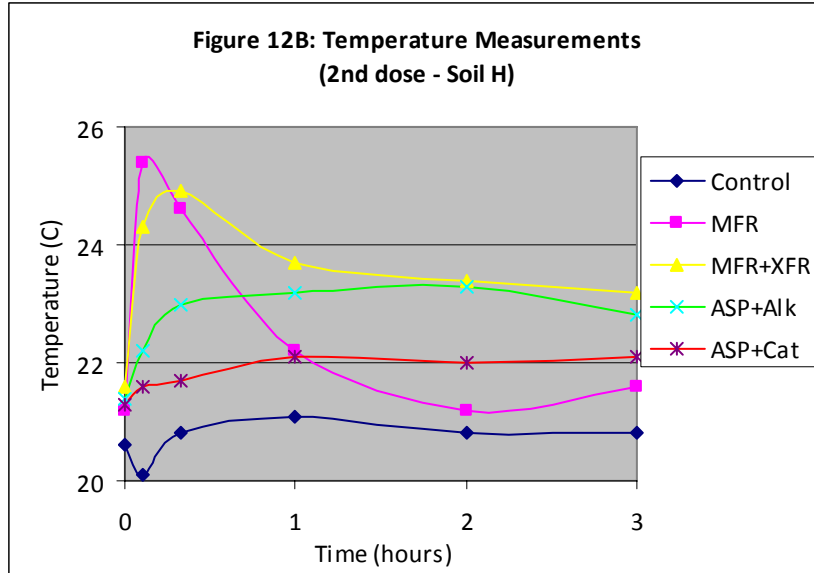
For Soil L, the maximum temperature increase observed was 6 degrees Celsius ($^{\circ}\text{C}$) following 2 doses of MFR and MFR+XFR but a gradual drop in temperature was evident. The temperature increase for ASP+Alk and ASP+Cat was less than 2°C .





For Soil H, the maximum temperature increase observed was approximately 5°C following 1 dose of MFR and 4°C following 1 dose of MFR+XFR. Once again, the temperature increase for ASP+Alk and ASP+Cat was less than 2°C.





11.0 CONCLUSIONS AND RECOMMENDATIONS

Treatability study results indicate that among the reagents tested, only those containing hydrogen peroxide produced effective reduction of PAHs and NJ EPH in samples collected (i.e. S-L and S-H). The treatment was also effective in apparent DNAPL rich sample S-H, which exhibited nearly 5 times the PAH and EPH mass compared to S-L. Results indicate that both MFR and MFR+XFR were able to reduce total PAHs and EPH concentrations substantially but ASP+Alk and ASP+Cat reagents were generally ineffective. Overall, results indicate that MFR+XFR produced superior results compared to MFR-only for PAHs due to double oxidant loading from both peroxide and persulfate systems indicating that the two oxidants can complement each other in a combined application. For NJ EPH, MFR-only produced the best overall results. The SOD results indicated lower demand for $\text{Na}_2\text{S}_2\text{O}_8$ when compared to H_2O_2 probably because of interfering catalytic and auto decomposition reactions in H_2O_2 systems that tend to overestimate demand.

Although MFR+XFR achieved superior results compared to MFR only, the production of sulfate is of concern as it leads to increased acidity and can persist at concentrations well above the applicable regulatory criterion. MFR systems, on the other hand, produce benign end products of oxygen, water, and carbon dioxide. Although iron concentrations will temporarily increase, past experience shows that as the chelating agent is consumed by the oxidant, iron tends to precipitate resulting in site recovery to background condition in a matter of months. In tighter soils, injection of large quantities of H_2O_2 can be difficult due to off gas production that can conceivably cause temporary loss of permeability and result in day-lighting (this needs to be verified during the field pilot study). Therefore, ISOTEC believes that despite sulfate production, MFR+XFR system may be the best practical solution for the Former MGP Site. Using MFR+XFR has the advantage of getting all the benefits of an MFR system and complementing with $\text{Na}_2\text{S}_2\text{O}_8$ for a sustained reaction that has a significantly greater half life compared to MFR alone. Although sulfate production will occur, the goal of MFR+XFR system at the Former MGP Site will be to maximize the volume of H_2O_2 and minimize the volume of $\text{Na}_2\text{S}_2\text{O}_8$ if site conditions permit so that sulfate production is kept to a minimum (i.e. $\text{Na}_2\text{S}_2\text{O}_8$ shall be used where adequate oxidant cannot be injected as H_2O_2 alone). We anticipate that the ratio of H_2O_2 to $\text{Na}_2\text{S}_2\text{O}_8$ will be greater in more permeable locations/treatment intervals compared to less permeable locations/ treatment intervals.

11.1 Lessons Learned

Past experience when comparing treatability study results to ISCO field results suggests that there are inherent implementation variables between lab study set-ups and field injections. Field injections are limited by the ability of the subsurface to accept reagent

volumes; therefore (1) a simple mass calculation cannot be made, (2) a volume calculated and (3) then injected in one application. Injection pressures will increase and reagents may find pathways to surface when too large a reagent volume is injected at any one time. Therefore, the total volume (mass) of reagent required for treatment may be injected over multiple batch injection events in order to safely complete a remediation project. This limitation is not necessarily a factor when completing a lab study. Priorities in the lab study include limiting the number of “set-ups” and the cost associated with multiple analytical samples. These factors create differing “doses” in the laboratory than would be applied in the field. When reviewing the lab study procedures and results, please note that a lab study dose may not be equivalent to a field injection event. It may take multiple field injections to deliver the same mass of reagent that is delivered in one lab study dose or vice versa.

Also, due to inherent heterogeneity associated with most native soil subsurface matrices, the reagent volumes estimated from the bench-scale studies do not necessarily apply for the entire site. Therefore, the estimated reagent volume from the treatability study should be applied in increments. This will ensure that the field injections are completed in the most economical manner while meeting the necessary performance objectives.

A field pilot study is recommended for the Former MGP Site to verify the findings from the bench-scale treatability study and further refine the reagent dosages. The following additional items need to be considered during field-scale implementation.

- Sodium persulfate results in production of sulfuric acid, which can be corrosive. Therefore, ISOTEC recommends maintaining a minimum 10 ft lateral and vertical buffer from sensitive utilities or metal structures (except stainless steel/ PVC) when using this chemical.
- Hydrogen peroxide is non-combustible; however, when involved in a fire it can release oxygen that supports fire. Therefore, ISOTEC recommends maintaining a minimum 10 ft lateral and vertical buffer from wooden piles/ foundations or active gas lines when using this chemical.
- Injection of hydrogen peroxide into peat layers can create a strong, explosive reaction due to high organic mass present in peat. Therefore, ISOTEC recommends an injection concentration of 10% or less in a stabilized form.
- Injection of liquids into the shallow subsurface (i.e. < 5 ft below ground surface, bgs) can make the subsurface relatively soft and spongy with risk of ground settlement when heavy vehicles roll over just completed areas. Also, bubbling activity from hydrogen peroxide can make a soil matrix fluffy. Therefore, it is recommended that the treated areas (if treated at depths less than 5 ft bgs) be

allowed to stabilize for minimum 24 hours. The stabilization period should be longer if heavy rains are expected during subsurface equilibration.

- When using Fenton's reagent, do not use strong acids with hydrogen peroxide as they may create explosive solutions. Hence, conventional Fenton's is not recommended unless naturally low pH conditions exist at the site that preclude the use of strong acids.
- ISOTEC is recommending either modified Fenton's reagent or activated sodium persulfate or a combination technology for the site as evaluated during the bench study (the technologies do not use strong acids). Hydrogen peroxide and sodium persulfate are compatible with each other and can complement their respective oxidation potential. The ratio of hydrogen peroxide to sodium persulfate can be field adjusted based on sensitive nature of nearby structures and the respective chemical properties. For example, if injecting within 10 ft distance from wood piling foundation, sodium persulfate only injections can be performed whereas if injecting within 10 ft from a metal utility (other than stainless steel) only hydrogen peroxide injections can be performed. As such, the oxidants are relatively safe if the recommended 10 ft buffer can be maintained from sensitive infrastructure since the decomposition of the oxidants is rather sharp over a 10 ft radial distance with concentrations rarely exceeding 0.10-0.20% based on our past experience. The same rule applies for the temperature gradient, with temperature increases rarely exceeding 1-2°C at 10 ft radial distance based on our past experience.



TABLES

(TABLES 10, 11, 13 , 14, 16, 17, 18, 20, 21, & 23)

**Table 10. Initial Characterization
GEI/Former MGP Site, Sea Isle City, New Jersey
ISOTEC Project #801609**

Sample ID Matrix	Soil		Slurry (Aqueous Phase)		Slurry (Solid Phase)	
	Soil H Soil	Soil L Soil	H/Initial Aqueous	L/Initial Aqueous	H/Initial Solid	L/Initial Solid
PAHs			(mg/l)	(mg/l)	(mg/kg)	(mg/kg)
Naphthalene	NA	NA	ND<0.000178	0.577 J	11.5	8.95
Acenaphthylene	NA	NA	ND<0.000151	ND<0.000151	1.68	2.03
Acenaphthene	NA	NA	ND<0.000116	ND<0.000116	10.5	21.2
Fluorene	NA	NA	ND<0.000229	ND<0.000229	6.96	13.4
Phenanthrene	NA	NA	ND<0.000171	ND<0.000171	19.9	36.8
Anthracene	NA	NA	ND<0.000152	ND<0.000152	6.79	11.2
Fluoranthene	NA	NA	ND<0.000136	ND<0.000136	10.9	16.2
Pyrene	NA	NA	ND<0.000181	ND<0.000181	15	24.2
Benzo[a]anthracene	NA	NA	ND<0.000220	ND<0.000220	4.86	6.83
Chrysene	NA	NA	ND<0.000202	ND<0.000202	5.73	7.25
Benzo[b]fluoranthene	NA	NA	ND<0.000170	ND<0.000170	2.62	3.14
Benzo[k]fluoranthene	NA	NA	ND<0.000250	ND<0.000250	2.42	3.09
Benzo[a]pyrene	NA	NA	ND<0.000290	ND<0.000290	4.71	5.95
Indeno[1,2,3-cd]pyrene	NA	NA	ND<0.000310	ND<0.000310	2.06	2.53
Dibenz[a,h]anthracene	NA	NA	ND<0.000210	ND<0.000210	0.777	0.805
Benzo[g,h,i]perylene	NA	NA	ND<0.000186	ND<0.000186	2.57	3.06
Total PAHs	NA	NA	0	0.6	109	167
C9-C40 (ug/l)	NA	NA	ND<1800	8,220	-	-
NJ-EPH Fractionated					(mg/kg)	(mg/kg)
C9-C12 Aliphatics	NA	NA	NA	NA	22.6	2.58
C12-C16 Aliphatics	NA	NA	NA	NA	86.3	16
C16-C21 Aliphatics	NA	NA	NA	NA	66	13.7
C21-C40 Aliphatics	NA	NA	NA	NA	61.6	12.8
Total Aliphatics	NA	NA	NA	NA	236.5	45.08
C10-C12 Aromatics	NA	NA	NA	NA	15.7	2.78
C12-C16 Aromatics	NA	NA	NA	NA	74.6	26.7
C16-C21 Aromatics	NA	NA	NA	NA	188	62.3
C21-C36 Aromatics	NA	NA	NA	NA	177	67
Total Aromatics	NA	NA	NA	NA	455.3	158.78
Total NJ-EPH	NA	NA	NA	NA	692	204
TOC (mg/kg)	37,300	9,670	NA	NA	NA	NA
Iron (mg/kg)	13,700	16,400	NA	NA	NA	NA
Manganese (mg/kg)	75.3	144	NA	NA	NA	NA

Note:

mg/l = milligrams per liter mg/kg = milligrams per kilogram

ND = compound was analyzed for but not detected at or above the method detection limit (MDL)
as indicated by the number following "<".

J = The concentration was detected at a value below the reporting limit (RL) and above the MDL

Table 11. COC-Test Results (S-L)
GEI/Former MGP Site, Sea Isle City, New Jersey
ISOTEC Project #801609

Sample ID	MFR			ASP-Control	MFR+XFR		ASP+Alk		ASP+Cat	
	MFR-Control	L/A	L/B		L/C	L/D	L/E	L/F	L/G	L/H
Catalyst Used	none	Cat-4260	Cat-4260	Cat-4260	Cat-4260	Cat-4260	NaOH	NaOH	Cat-4260	Cat-4260
Oxidant Used	none	H2O2	H2O2	H2O2	H2O2+S2O8	H2O2+S2O8	S2O8	S2O8	S2O8	S2O8
Oxidant Added (by weight)	0%	1%	3%	0%	1%+1%	3%+3%	1%	3%	1%	3%
Aqueous Phase										
PAHs (mg/l)										
Naphthalene	ND<0.00324	ND<0.00396	0.192	0.000871 J	0.0258	0.00219	0.0596	0.045	0.0443	0.00982
Acenaphthylene	ND<0.00275	ND<0.00336	ND<0.0030E	0.000448 J	0.000451 J	ND<0.00010	0.000744 J	0.00034 J	ND<0.000101	ND<0.000101
Acenaphthene	0.075	0.0693	0.0776	0.00855	0.00649	0.00126	0.0187	0.0114	0.00937	0.00076 J
Fluorene	0.0355	0.0289	0.0385	0.00402	0.00282	0.00117	0.00724	0.00413	0.0034	0.000742 J
Phenanthrene	0.0525	0.0406	0.0759	0.00757	0.00895	0.00491	0.0185	0.0147	0.00789	0.00359
Anthracene	0.0136 J	0.0102 J	0.00617 J	0.00181	0.000698 J	0.000935 J	0.00303	0.00128	0.00104	ND<0.000112
Fluoranthene	0.0161 J	0.0112 J	0.0151 J	0.00196	0.00199	0.00192	0.00477	0.00364	0.00139	0.000558 J
Pyrene	0.0211	0.0157 J	0.0191 J	0.000526 J	0.00288	0.00306	0.00823	0.00595	0.00218	0.000863 J
Benzo[a]anthracene	0.00606 J	ND<0.00489	0.00577 J	0.000867 J	0.000811 J	0.000945 J	0.0018	0.00106	0.000482 J	0.000302 J
Chrysene	0.00624 J	ND<0.00449	0.00532 J	0.000765 J	0.000785 J	0.000791 J	0.00208	0.0014	0.000447 J	ND<0.000201
Benzo[b]fluoranthene	ND<0.00309	ND<0.00378	ND<0.00347	0.000394 J	0.000429 J	0.000428 J	0.000843 J	0.000492 J	ND<0.00013	ND<0.00013
Benzo[k]fluoranthene	ND<0.00455	ND<0.00556	ND<0.00510	0.000418 J	0.000419 J	0.000609 J	0.00127	0.000791 J	ND<0.00026	ND<0.00026
Benzo[a]pyrene	ND<0.00527	ND<0.00644	ND<0.00592	0.000683 J	0.000577 J	0.000781 J	0.00149	0.000697 J	ND<0.00020	ND<0.00020
Indeno[1,2,3-cd]pyrene	ND<0.00564	ND<0.00689	ND<0.0063E	0.000297 J	0.000325 J	0.000321 J	0.00068 J	ND<0.00011	ND<0.00011	ND<0.00011
Dibenz[a,h]anthracene	ND<3.82	ND<0.00467	ND<0.0042E	ND<0.00012	ND<0.00012	ND<0.00012	ND<0.00012	ND<0.00012	ND<0.00012	ND<0.00012
Benzo[g,h,i]perylene	ND<0.00338	ND<0.00413	ND<0.0038C	0.000388 J	0.000412 J	0.000366 J	0.000664 J	0.000324 J	ND<0.000103	ND<0.000103
Total PAHs	0.23	0.18	0.44	0.03	0.05	0.02	0.13	0.09	0.07	0.02
PAH reduction	-	22%	increase	-	increase	33%	increase	increase	increase	44%
C9-C40 (mg/l)	ND<1.5	38.9	42.6	8.31	9.51	5.35 J	13.9	11.2	11.9	6.63
C9-C40 reduction	-	increase	increase	-	increase	36% J	increase	increase	increase	20%
Solid Phase										
	MFR-Control	L/A	L/B	ASP-Control	L/C	L/D	L/E	L/F	L/G	L/H
PAHs (mg/kg)										
Naphthalene	5.07	0.608	3.33	1.85	4.66	0.148	5.93	4.83	10.6	2.08
Acenaphthylene	0.635	0.146	0.754	0.25	0.783	0.043	0.624	0.437	1.21	0.184
Acenaphthene	5.73	0.93	6.03	2.26	4.25	0.164	6.61	4.56	13.2	1.43
Fluorene	3.43	0.62	3.91	1.41	3.03	0.135	3.93	2.54	7	0.953
Phenanthrene	8.7	2.27	12.4	4.07	10.8	0.73	12.5	9.38	25.1	3.81
Anthracene	2.62	0.633	2.96	1.15	2.45	0.097	2.95	1.69	5.93	0.751
Fluoranthene	3.74	0.968	4.66	1.71	4.9	0.342	5.15	3.8	9.45	1.56
Pyrene	6.38	1.56	7.44	2.45	6.67	0.413	7.34	5.3	14	2.18
Benzo[a]anthracene	1.94	0.461	2.3	0.787	2.07	0.136	2.25	1.57	4.3	0.689
Chrysene	2.18	0.556	2.47	0.826	2.47	0.187	2.45	1.84	4.77	0.757
Benzo[b]fluoranthene	0.903	0.188	1.02	0.283	0.956	0.075	0.87	0.678	1.37	0.219
Benzo[k]fluoranthene	1.07	0.31	1.17	0.388	1.12	0.075	1.19	0.765	2.14	0.358
Benzo[a]pyrene	1.59	0.413	2.02	0.622	1.72	0.108	1.84	1.33	3.05	0.484
Indeno[1,2,3-cd]pyrene	0.645	0.166	0.73	0.261	0.748	0.059	0.756	0.522	1.29	0.21
Dibenz[a,h]anthracene	0.225	0.061	0.225	0.085	0.259	0.02	0.281	0.186	0.402	0.071
Benzo[g,h,i]perylene	0.78	0.211	0.944	0.322	0.949	0.073	0.965	0.663	1.62	0.263
Total PAHs	46	10	52	19	48	3	56	40	105	16
PAH reduction	-	78%	increase	-	increase	94%	increase	increase	increase	65%
(mg/kg)										
C9-C12 Aliphatics	11.3	2.41	1.83	1.85	1.33	1.31	4.28	7.39	3.51	3.21
C12-C16 Aliphatics	41.1	9.4	5.86	6.14	4.96	5.31	17.4	28.8	13.3	11.3
C16-C21 Aliphatics	30.8	6.78	3.75	4.13	4.06	4.34	13.1	19.3	10.5	8.69
C21-C40 Aliphatics	40.7	6.95	5.24	3.37 J	4.98	3.58	12.4	12.9	10.3	9.11
Total Aliphatics	123.9	25.54	16.68	15.49	15.33	14.54	47.18	68.39	37.61	32.31
C10-C12 Aromatics	1.52	1.06	0.586 J	2.32	1.01	0.591 J	3.61	6.2	3.24	1.87
C12-C16 Aromatics	7.07	8.05	2.75	7.81	3.9	2.4	13.9	32.2	11.1	6.58
C16-C21 Aromatics	25.7	26.3	12.9	25.5	14	11.7	56.4	79.2	46.6	26.2
C21-C36 Aromatics	18.4	19.5	11.2	19.9	13.9	13.6	43.1	58.4	33.9	22.7
Total Aromatics	52.69	54.91	27.436	55.53	32.81	28.291	117.01	176	94.84	57.35
Total NJ-EPH	177	80	44	71	48	43	164	244	132	90
C9-C40 reduction	-	54%	75%	-	32%	40%	increase	increase	increase	increase
Initial S2O8 Value (ppm)				-	20,340	81,136	20,340	81,136	20,340	81,136
Final S2O8 Value (ppm)				-	2,800	3,800	ND<12.5	ND<12.5	ND<12.5	925
S2O8 Consumption				-	86%	95%	100%	100%	100%	99%
Final pH Value	10.06	7.57	6.54	10.27	4.13	2.50	12.10	11.99	6.68	2.80

Note:

mg/l = milligrams per liter mg/kg = milligrams per kilogram

ND = Compound was analyzed for but not detected at the method detection limit (MDL) indicated by the number following "<".

J = The concentration was detected at a value below the reporting limit (RL) and above the MDL

MFR = Modified Fenton's Reagent; MFR+XFR = MFR activated persulfate; ASP+Alk = Alkali activated persulfate; ASP+Cat = Catalyst activated persulfate

Table 13: Mass Calculation Results (Soil L)
GEI/Former MGP Site, Sea Isle City, New Jersey
ISOTEC Project #801609

Sample ID	MFR-Control	MFR		ASP-Control	MFR+XFR		ASP+Alk		ASP+Cat	
		L/A	L/B		L/C	L/D	L/E	L/F	L/G	L/H
Catalyst Used	None	4260	4260	4260	4260	4260	NaOH	NaOH	4260	4260
Oxidant Used	None	H2O2	H2O2	H2O2	H2O2+S2O8	H2O2+S2O8	S2O8	S2O8	S2O8	S2O8
Total Oxidant Added (by weight)	0%	1.0%	3%	0%	(1%+1%)	(3%+3%)	1.0%	3%	1.0%	3%
PAHs (mg)										
Naphthalene	0.507	0.061	0.348	0.185	0.468	0.015	0.599	0.487	1.064	0.209
Acenaphthylene	0.064	0.015	0.075	0.025	0.078	0.004	0.062	0.044	0.121	0.018
Acenaphthene	0.579	0.098	0.609	0.227	0.426	0.017	0.663	0.457	1.321	0.143
Fluorene	0.346	0.064	0.394	0.141	0.303	0.014	0.394	0.254	0.700	0.095
Phenanthrene	0.874	0.230	1.246	0.408	1.081	0.073	1.252	0.939	2.511	0.381
Anthracene	0.263	0.064	0.296	0.115	0.245	0.010	0.295	0.169	0.593	0.075
Fluoranthene	0.375	0.098	0.467	0.171	0.490	0.034	0.515	0.380	0.945	0.156
Pyrene	0.640	0.157	0.746	0.245	0.667	0.042	0.735	0.531	1.400	0.218
Benzo[a]anthracene	0.194	0.046	0.230	0.079	0.207	0.014	0.225	0.157	0.430	0.069
Chrysene	0.218	0.056	0.247	0.083	0.247	0.019	0.245	0.184	0.477	0.076
Benzo[b]fluoranthene	0.090	0.019	0.102	0.028	0.096	0.008	0.087	0.068	0.137	0.022
Benzo[k]fluoranthene	0.107	0.031	0.117	0.039	0.112	0.008	0.119	0.077	0.214	0.036
Benzo[a]pyrene	0.159	0.041	0.202	0.062	0.172	0.011	0.184	0.133	0.305	0.048
Indeno[1,2,3-cd]pyrene	0.065	0.017	0.073	0.026	0.075	0.006	0.076	0.052	0.129	0.021
Dibenz[a,h]anthracene	0.023	0.006	0.023	0.009	0.026	0.002	0.028	0.019	0.040	0.007
Benzo[g,h,i]perylene	0.078	0.021	0.094	0.032	0.095	0.007	0.097	0.066	0.162	0.026
Total PAH Mass (mg)	4.58	1.02	5.27	1.88	4.79	0.28	5.58	4.02	10.55	1.60
Total NJ EPH Mass (mg)	17.66	11.47	8.16	7.98	5.82	4.85	17.89	25.63	14.51	9.67
PAH Reduction	-	78%	-15%	-	-155%	85%	-197%	-114%	-463%	15%
NJ EPH Mass Reduction	-	35%	54%	-	27%	39%	-124%	-221%	-82%	-21%

Note:

PAHs = Poly-neuclear aromatic hydrocarbons

ND = Analyzed for but not detected at or above the method detection limit (MDL) indicated by the number following "<".

H2O2 = Hydrogen peroxide, S2O8 = Sodium persulfate, mg = milligrams

Oxidant concentration is presented as a percentage by the weight of the slurry sample being tested.

Table 14. COC-Test Results (Soil H)
GEI/Former MGP Site, Sea Isle City, New Jersey
ISOTEC Project #801609

Sample ID	Control	MFR		Control	MFR+XFR		ASP+Alk		ASP+Cat	
		H/A	H/B		H/C	H/D	H/E	H/F	H/G	H/H
Catalyst Used	none	Cat-4260	Cat-4260	none	Cat-4260	Cat-4260	NaOH	NaOH	Cat-4260	Cat-4260
Oxidant Used	none	H2O2	H2O2	none	H2O2+S2O8	H2O2+S2O8	S2O8	S2O8	S2O8	S2O8
Oxidant Added (by weight)	0%	1%	4%	0%	1%+1%	4%+4%	1%	4%	1%	4%
Aqueous Phase										
PAHs (mg/l)										
Naphthalene	0.287	1.91	0.0676	0.275	0.0236	0.00622	0.102	0.0866	0.0669	0.021
Acenaphthylene	0.117	0.734	0.047	0.104	0.00111	0.00629	0.00501	0.00293	0.00196	0.00156
Acenaphthene	0.869	5.93	0.163	0.813	0.00908	0.00302	0.054	0.0345	0.0134	0.00191
Fluorene	0.489	3.77	0.17	0.374	0.0071	0.0133	0.0314	0.0185	0.0121	0.0065
Phenanthrene	1.42	12	0.708	0.795	0.023	0.0641	0.0896	0.0638	0.0338	0.0307
Anthracene	0.457	2.45	0.0658	0.278	0.00332	0.00342	0.0257	0.0121	0.00542	0.00159
Fluoranthene	0.746	5.33	0.326	0.545	0.00912	0.0261	0.0367	0.026	0.0128	0.0098
Pyrene	1.23	7.9	0.445	0.927	0.0142	0.0344	0.0651	0.0437	0.0217	0.0155
Benzo[a]anthracene	0.344	2.18	0.137	0.242	0.00376	0.0145	0.016	0.0113	0.00587	0.00537
Chrysene	0.368	2.4	0.161	0.281	0.00453	0.0189	0.0167	0.012	0.00611	0.00624
Benzo[b]fluoranthene	0.16	1.04	0.0748	0.11	0.00467	0.0113	0.00846	0.0054	0.00278	0.0029
Benzo[k]fluoranthene	0.176	1.07	0.0695	0.182	0.00448	0.0128	0.0116	0.00768	0.00429	0.00405
Benzo[a]pyrene	0.354	2.15	0.131	0.236	0.00368	0.0199	0.017	0.0115	0.00594	0.00494
Indeno[1,2,3-cd]pyrene	0.15	0.918	0.0663	0.0953	0.00129	0.00951	0.00572	0.00416	0.0022	0.00224
Dibenz[a,h]anthracene	0.0694	0.433	0.0327	0.0249	0.000706	0.00485	0.00277	0.00222	0.00117	0.00124
Benzo[g,h,i]perylene	0.173	1.03	0.0704	0.0931	0.00165	0.0114	0.00709	0.00558	0.00278	0.00273
Total PAHs	7.41	51.25	2.74	5.38	0.12	0.26	0.49	0.35	0.20	0.12
PAH reduction	-	increase	63%	-	98%	95%	91%	94%	96%	98%
C9-C40 (mg/l)	59.8	57.4	10.5	14.4	139.0	493.0	361.0	571.0	58.7	21.8
C9-C40 reduction	-	4%	82%		increase	increase	increase	increase	increase	increase
Solid Phase										
PAHs (mg/kg)	Control	H/A	H/B	Control	H/C	H/D	H/E	H/F	H/G	H/H
Naphthalene	23.6	14.8	13.7	13.1	7.55	2.5	18.3	11	23	15.9
Acenaphthylene	3.26	2.89	2.57	1.72	1.17	0.445	1.72	0.833	2.62	1.83
Acenaphthene	24.7	18.9	15.1	12.3	7.8	1.87	15.9	8.61	18	9.72
Fluorene	16	12.3	11.5	8.01	5.85	1.78	10.4	5.1	13.1	8.92
Phenanthrene	37.8	37.1	35.5	21.7	18.6	6.6	28.9	16	41.4	32.9
Anthracene	12.7	9.72	7.11	7.23	4.24	1.2	9.38	3.94	10.5	6.03
Fluoranthene	17.7	17.2	15.5	11.6	9.06	3.2	13.5	7.54	18.1	12.8
Pyrene	30.1	26.9	27	14.5	12.3	4.09	20.3	10.8	26.8	18.7
Benzo[a]anthracene	9.18	8.06	7.67	4.91	3.9	1.4	5.96	3.23	8.15	5.67
Chrysene	9.87	9.05	8.87	5.26	4.52	1.78	6.76	3.74	9.7	6.94
Benzo[b]fluoranthene	5	3.69	3.65	2.01	2.05	0.69	2.63	1.55	3.41	1.86
Benzo[k]fluoranthene	4.72	4.93	4.8	2.94	2.33	0.99	3.24	1.75	3.62	3.1
Benzo[a]pyrene	9.27	7.83	6.99	4.58	3.95	1.36	5.51	2.99	6.5	4.15
Indeno[1,2,3-cd]pyrene	3.54	3.05	2.78	1.73	1.76	0.682	2.2	1.26	2.69	1.89
Dibenz[a,h]anthracene	1.27	1.1	1.06	0.605	0.613	0.211	0.771	0.436	0.915	0.652
Benzo[g,h,i]perylene	4.22	3.6	3.55	2.21	2.22	0.848	2.74	1.57	3.37	2.31
Total PAHs	213	181	167	114	88	30	148	80	192	133
PAH reduction	-	15%	21%	-	23%	74%	increase	30%	increase	increase
(mg/kg)										
C9-C12 Aliphatics	27.3	5.31	10.4	7.79	3.77	5.31	22.8	21.1	9.42	9.26
C12-C16 Aliphatics	77.7	19.7	44.2	22.3	11.1	18	70.1	73.1	33.7	33.4
C16-C21 Aliphatics	43.5	13.2	33.3	8.06	7.1	11.2	46.3	49.3	22.4	22.4
C21-C40 Aliphatics	40.9	11.6	46.9	12.2	6.37	7.54	42	43.9	19.1	17.9
Total Aliphatics	189.4	49.8	135	50.35	28.34	42.05	181.2	187.4	84.62	82.96
C10-C12 Aromatics	5.35	1.11	0.589	7.7	3.21	1.9	20.9	15.8	7.72	2.73
C12-C16 Aromatics	27.7	9.38	4.3	21.8	13.2	10.7	77	59.8	29.5	14.9
C16-C21 Aromatics	105	35.9	22	65.4	40.1	48.6	194	181	93.4	64.5
C21-C36 Aromatics	85.2	29.6	22.9	46.3	29.8	43.5	145	116	72.8	58.4
Total Aromatics	223.25	76	49.789	141.2	86.31	104.7	436.9	372.6	203.42	140.53
Total NJ-EPH	413	126	185	192	115	147	618	560	288	223
C9-C40 reduction	-	70%	55%	-	40%	23%	increase	increase	increase	increase
Initial S2O8 Value (ppm)				-	20,340	81,136	20,340	81,136	20,340	81,136
Final S2O8 Value (ppm)				-	163	11,000	ND<125	ND<125	ND<25	8,500
S2O8 Consumption					99%	86%	100%	100%	100%	90%
Final pH Value	7.13	5.98	3.16	7.43	3.86	1.75	12.38	11.98	4.07	1.98

Note:

mg/l = milligrams per liter mg/kg = milligrams per kilogram

ND = Compound was analyzed for but not detected at the method detection limit (MDL) indicated by the number following "<".

J = The concentration was detected at a value below the reporting limit (RL) and above the MDL

MFR = Modified Fenton's Reagent; MFR+XFR = MFR activated persulfate; ASP+Alk = Alkali activated persulfate; ASP+Cat = Catalyst activated persulfate

Table 16: Mass Calculation Results (Soil H)
GEI/Former MGP Site, Sea Isle City, New Jersey
ISOTEC Project #801609

Sample ID	MFR-Control	MFR		ASP-Control	MFR+XFR		ASP+Alk		ASP+Cat	
		H/A	H/B		H/C	H/D	H/E	H/F	H/G	H/H
Catalyst Used	None	4260	4260	4260	4260	4260	NaOH	NaOH	4260	4260
Oxidant Used	None	H2O2	H2O2	H2O2	H2O2+S2O8	H2O2+S2O8	S2O8	S2O8	S2O8	S2O8
Total Oxidant Added (by weight)	0%	1.0%	4%	0%	(1%+1%)	(4%+4%)	1.0%	4%	1.0%	4%
PAHs (mg)										
Naphthalene	2.39	1.65	1.38	1.34	0.76	0.25	1.84	1.11	2.31	1.59
Acenaphthylene	0.34	0.35	0.26	0.18	0.12	0.05	0.17	0.08	0.26	0.18
Acenaphthene	2.55	2.41	1.52	1.32	0.78	0.19	1.60	0.86	1.80	0.97
Fluorene	1.64	1.56	1.16	0.84	0.59	0.18	1.04	0.51	1.31	0.89
Phenanthrene	3.91	4.77	3.61	2.25	1.86	0.67	2.90	1.61	4.14	3.29
Anthracene	1.31	1.19	0.72	0.75	0.42	0.12	0.94	0.40	1.05	0.60
Fluoranthene	1.84	2.19	1.58	1.22	0.91	0.32	1.35	0.76	1.81	1.28
Pyrene	3.12	3.39	2.74	1.55	1.23	0.41	2.04	1.08	2.68	1.87
Benzo[a]anthracene	0.95	1.00	0.78	0.52	0.39	0.14	0.60	0.32	0.82	0.57
Chrysene	1.02	1.12	0.90	0.56	0.45	0.18	0.68	0.38	0.97	0.69
Benzo[b]fluoranthene	0.51	0.46	0.37	0.21	0.21	0.07	0.26	0.16	0.34	0.19
Benzo[k]fluoranthene	0.49	0.59	0.49	0.31	0.23	0.10	0.33	0.18	0.36	0.31
Benzo[a]pyrene	0.96	0.97	0.71	0.48	0.40	0.14	0.55	0.30	0.65	0.42
Indeno[1,2,3-cd]pyrene	0.37	0.39	0.28	0.18	0.18	0.07	0.22	0.13	0.27	0.19
Dibenz[a,h]anthracene	0.13	0.15	0.11	0.06	0.06	0.02	0.08	0.04	0.09	0.07
Benzo[g,h,i]perylene	0.44	0.45	0.36	0.23	0.22	0.09	0.27	0.16	0.34	0.23
Total PAH Mass (mg)	21.95	22.63	16.98	12.01	8.80	2.99	14.87	8.07	19.21	13.35
Total NJ EPH Mass (mg)	46.53	17.63	19.38	20.68	26.20	66.93	100.08	116.53	35.03	24.66
PAH Reduction	-	-3%	23%	-	27%	75%	-24%	33%	-60%	-11%
NJ EPH Mass Reduction	-	62%	58%	-	-27%	-224%	-384%	-463%	-69%	-19%

Note:

PAHs = Poly-neuclear aromatic hydrocarbons

ND = Analyzed for but not detected at or above the method detection limit (MDL) indicated by the number following "<".

H2O2 = Hydrogen peroxide, S2O8 = Sodium persulfate, mg = milligrams

Oxidant concentration is presented as a percentage by the weight of the slurry sample being tested.

Table 17: SOD-test H2O2 Data (Soil L)
GEI/Former MGP Site, Sea Isle City, New Jersey
ISOTEC Project #801609

Time elapsed >>>	0.5 hr	1 hr	3 hrs	21 hrs	27 hrs	45 hrs	51 hrs
3.3 g/kg							
Control/A (ppm)	1818	1828	1813	1808	2071	2091	2056
SOD-L/A (ppm)	1235	941	392	187	107	51	45
% Consumed	32%	49%	78%	90%	95%	98%	98%
H2O2 demand (g/kg)	1.17	1.77	2.84	3.24	3.93	4.08	4.02
5.5 g/kg							
Control/B (ppm)	2880	2905	2886	2899	3114	3247	3177
SOD-L/B (ppm)	2057	1478	1063	261	167	75	68
% Consumed	29%		63%	91%	95%	98%	98%
H2O2 demand (g/kg)	1.65		3.65	5.28	5.89	6.34	6.22
11 g/kg							
Control/C (ppm)	6165	6177	6152	6190	6380	6797	6557
SOD-L/C (ppm)	3025	2363	1589	350	249	127	122
% Consumed	51%	62%	74%	94%	96%	98%	98%
H2O2 demand (g/kg)	6.28	7.63	9.13	11.68	12.26	13.34	12.87
Average H2O2 demand (g/kg)	3.03	4.70	5.20	6.73	7.36	7.92	7.70

Note: Control/A, B and C contained 30 g of (distilled water+oxidant).
SOD-L/A, B, and C each contained 30 g of (distilled water + oxidant) plus 15 g of soil.

**Table 18: SOD-test H2O2 Data (Soil H)
 GEI/Former MGP Site, Sea Isle City, New Jersey
 ISOTEC Project #801609**

Time elapsed >>>	0.5 hr	1 hr	3 hrs	21 hrs	27 hrs	45 hrs	51 hrs
3.3 g/kg							
Control/A (ppm)	1818	1828	1813	1808	2071	2091	2056
SOD-H/A (ppm)	1215	1051	615	98	63	11	0.3
% Consumed	33%	43%	66%	95%	97%	99%	100%
H2O2 demand (g/kg)	1.21	1.55	2.40	3.42	4.02	4.16	4.11
5.5 g/kg							
Control/B (ppm)	2880	2905	2886	2899	3114	3247	3177
SOD-H/B (ppm)	2101	1777	1266	273	237	151	104
% Consumed	27%		56%	91%	92%	95%	97%
H2O2 demand (g/kg)	1.56		3.24	5.25	5.75	6.19	6.15
11 g/kg							
Control/C (ppm)	6165	6177	6152	6190	6380	6797	6557
SOD-H/C (ppm)	3797	3426	2624	384	371	269	171
% Consumed	38%	45%	57%	94%	94%	96%	97%
H2O2 demand (g/kg)	4.74	5.50	7.06	11.61	12.02	13.06	12.77
Average H2O2 demand (g/kg)	2.50	3.53	4.23	6.76	7.26	7.80	7.68

Note: Control/A, B and C contained 30 g of (distilled water+oxidant).
 SOD-L/A, B, and C each contained 30 g of (distilled water + oxidant) plus 15 g of soil.

**Table 20: Persulfate Demand (Soil L)
GEI/Former MGP Site, Sea Isle City, New Jersey
ISOTEC Project #801609**

Time elapsed	0.5 hr	24 hrs	48 hrs
0.83 g/kg			
Control/A (ppm)	425	437.5	425
SOD-L/A (ppm)	400	200	110
% Consumed	6%	54%	74%
S2O8 demand (g/kg)	0.05	0.48	0.63
5 g/kg			
Control/B (ppm)	2900	2900	3000
SOD-L/B (ppm)	2875	1600	1250
% Consumed	1%	45%	58%
S2O8 demand (g/kg)	0.05	2.60	3.50
16.7 g/kg			
Control/C (ppm)	9000	9000	9125
SOD-L/C (ppm)	8800	6000	4600
% Consumed	2%	33%	50%
S2O8 demand (g/kg)	0.4	6.00	9.05
Average S2O8 demand (g/kg)	0.17	3.03	4.39

Note: Control/A, B and C contained 30 g of (distilled water+oxidant).
SOD-L/A, B, and C each contained 30 g of (distilled water + oxidant) plus 15 g of soil.

**Table 21: Persulfate Demand (Soil H)
GEI/Former MGP Site, Sea Isle City, New Jersey
ISOTEC Project #801609**

Time elapsed	0.5 hr	24 hrs	48 hrs
0.83 g/kg			
Control/A (ppm)	425	437.5	425
SOD-H/A (ppm)	400	212.5	150
% Consumed	6%	51%	65%
S2O8 demand (g/kg)	0.05	0.45	0.55
5 g/kg			
Control/B (ppm)	2900	2900	3000
SOD-H/B (ppm)	2875	1800	1417
% Consumed	1%	38%	53%
S2O8 demand (g/kg)	0.05	2.20	3.17
16.7 g/kg			
Control/C (ppm)	9000	9000	9125
SOD-H/C (ppm)	7600	5200	4400
% Consumed	16%	42%	52%
S2O8 demand (g/kg)	2.8	7.60	9.45
Average S2O8 demand (g/kg)	0.97	3.42	4.39

Note: Control/A, B and C contained 30 g of (distilled water+oxidant).
SOD-L/A, B, and C each contained 30 g of (distilled water + oxidant) plus 15 g of soil.

**Table 23. Results of Buffering Capacity Experiments
GEI/Former MGP Site, Sea Isle City, New Jersey
ISOTEC Project # 801609**

	Soil L				Soil H				
	BC-L1		BC-L2		BC-H1		BC-H2		
	NaOH (ml) 25%	pH	NaOH (ml) 25%	pH	NaOH (ml) 25%	pH	NaOH (ml) 25%	pH	
Initial pH		8.59		8.72		7.54		7.64	
12 noon	0.5	9.58	0.5	9.86	0.5	9.33	0.5	9.27	
	0.1	10.18	0.1	9.97	0.1	9.54	0.1	9.53	
	0.01	10.26	0.01	10.17	0.25	9.91	0.25	9.88	
	0.01	10.3	0.01	10.21	0.25	10.17	0.25	10.15	
	0.25	10.63	0.25	10.51	0.25	10.28	0.25	10.25	
	0.25	11.1	0.25	10.73	0.5	10.68	0.5	10.63	
	1:30		0.2	11.11	0.25	11.11	0.25	11.03	
		10.86	0.1	11.11		10.76		10.62	
	2:30	0.1	11.21		11.11	0.25	11.33	0.25	11.24
			11.04		11.11		11.05		11.01
NaOH consumed (ml)	1.22		1.42		2.35		2.35		
Average NaOH consumed (ml)	1.32				2.35				
Estimated Buffering capacity [ml of 25% NaOH per kg Soil]	13.20				23.50				

Note:

Each sample contains 100 g -soil and 300 ml-GW
NaOH used was at 25%



ATTACHMENTS

(ATTACHMENT A: LABORATORY ANALYTICAL DATA PACKAGES)

Pintail Environmental Solutions, LLC

PAH Bioremediation

**Development and Application of an Advanced
Bioremediation Process for Treatment of Soil
Contamination at a Former MGP Site – Sea Isle
City, NJ**

Progress Report



02 September 2013

Project Progress Report

1. Purpose

This report presents data from a Phase 1 laboratory program that is developing site- and contamination-specific bioremediation processes to biologically degrade polynuclear aromatic hydrocarbon compounds at a former MGP site in Sea Isle, NJ.

2. Information Sources

The Project Progress Report is derived from the following:-

- A project mandate supplied at the start of the project delineated in a “Proposal for the Development and Application of an Advanced Bioremediation Systems for the Treatment of Soils at the Former MGP Site in Sea Isle City, NJ.”
- A full project laboratory work plan developed at Pintail Environmental Solution’s (Pintail) Golden, Colorado laboratory.
- Pintail internal laboratory notebooks and data generated in the performance of the project objectives.
- Pintail case study information and experience on bioremediation process development for treatment of polynuclear aromatic hydrocarbons (PAHs) and extractable petroleum hydrocarbons (EPHs) in soil and groundwater.

3. Project definition

The Phase 1 Laboratory Program is performed to develop specific bioremediation processes for the treatment of PAH compounds in soil and groundwater at a former MGP site located in Sea Isle City, NJ. The project goal is to develop site-specific bio-processes for remediation of EPH and PAH compounds in soil.

Background

Pintail’s engineering partner, Dewberry Engineers, Inc. was requested by GEI Consultants and their client, Jersey Central Power and Light to develop bio-processes and to evaluate the feasibility of applying site-specific bioremediation to PAH and EPH contamination at a former MGP site in Sea Isle City, NJ.

Project objectives

A series of objectives have been formed to meet the project goal of developing bioremediation processes for treatment of PAH contamination in soil and groundwater at

the Sea Isle City site. The specific objectives leading to attainment of the project goal include:

1. *Isolate and characterize growth curves for indigenous soil and groundwater microbes in two media formulations – X70 and K10;*
2. *Use the most viable populations from low PAH soil, high PAH soil and monitoring well groundwater to inoculate contaminated soil and groundwater;*
3. *Send untreated and treated soil and groundwater to Spectrum Analytical Laboratory for analysis of PAH content in the soil and groundwater.*

Desired outcomes

The proposed outcome of the Phase 1 laboratory program is to produce a working and augmented population of indigenous soil and groundwater microorganisms from the Sea Isle city (SIC) site that are capable of degrading PAH and EPH compounds in soil contamination zones at the SIC site. Success, at this stage of the development program, will be measured in successful decomposition of PAH compounds in a bench-scale laboratory program to meet New Jersey performance standards mandated under NJ Residential Direct Contact Soil Remediation Standards (NJAC 7:26D Remediation Standards, May 7, 2012).

4. Project Work Description

The work plan describes the procedures to perform first stage extraction and growth characterization of indigenous microorganisms from PAH-contaminated soil and groundwater provided from a former MGP site in Sea Isle City, NJ. After growth and bioaugmentation laboratory tests are complete, a series of flask- tests will evaluate the preliminary bioremediation potential for treating polynuclear aromatic hydrocarbons (PAHs) in sandy soils. The origin of the contamination is Manufactured Gas Plant waste from a site in Sea Isle City, NJ. Samples were collected by GEI Consultants including PAH-contaminated groundwater and soil which were shipped to Pintail's Golden, CO laboratory.

Indigenous microorganisms are extracted from soil and groundwater and grown in controlled laboratory conditions by Pintail to determine population growth characteristics in chemically-defined nutrient media. Preliminary bioaugmentation is performed to improve growth rates and culture viability in stress conditions.

The soil and groundwater samples used in this laboratory work program include:

Soil samples:	high contamination 4A, 4B, 4C collected 2 May 2013 Low contamination – 4A, 4B, 4C, collected 2 May 2013 Groundwater sample WS-a collected 2 May 2013
Cultures:	indigenous cultures extracted from each discrete soil and groundwater sample Pintail Cryostorage Culture Collection archived cultures A96 and C96
Nutrients:	X70 pH adjusted to 8.7 K10
Controls:	sterile deionized water Sterile nutrient broth X70

5. Project Data

The data developed during the Phase 1 laboratory program consists of microscopic cell counts and observations of the growth characteristics and culture viability of indigenous microorganisms extracted from the contamination zone soil and groundwater at the SIC site. Pintail's experience with extreme environment geomicrobiology is that microbes capable of degrading toxic PAH compounds are generally a small fraction of the total soil population and may exhibit a reduced sustainable viability to perform a rapid PAH remediation. For this reason, the nutritional needs of the native populations and their growth characteristics are evaluated in a laboratory program. Ideally, a working population of native soil microbes will be isolated and enriched in chemically-defined nutrient media and will exhibit acceptable growth and viability. Practically, it may take several generations of culture growth, stress and enrichment to produce cultures capable of the desired remediation processes.

For this part of the laboratory development program, Pintail uses classic cell enumeration methods to both count cells and to estimate culture viability. An epi-fluorescent counting method which uses nucleic acid-fluorescing stains allows both enumeration and viability demonstration.

Indigenous microorganisms were extracted from soil and groundwater samples supplied in sterile sample containers, sampled in triplicate and collected by GEI Consultants at the SIC site. The high contamination soil samples are identified as 4A+, 4B+ and 4C+. The low contamination soil samples are identified as 4Amin, 4Bmin and 4Cmin. Groundwater was supplied in three 1-liter bottles and are identified as WS-1a, WS-1b and WS-1c.

Culture Extraction

Each soil or groundwater sample provided a 5-gram or 5-mL sample that was extracted in a sterile X-70 nutrient media in a sterile culture tube. The culture tubes were incubated at 80 °F in a benchtop incubator. Samples of the nutrient media were withdrawn at timed intervals for cell enumeration, morphology description and viability estimation. Extract cultures are shown in Figure 1 and the microscopy method set-up is shown in figures 2-4. A matrix of nutrient media was tested for culture growth before the X70 formulation was selected as the primary media. X70 is a specific formulation that favors both aerobic and facultative anaerobic growth.

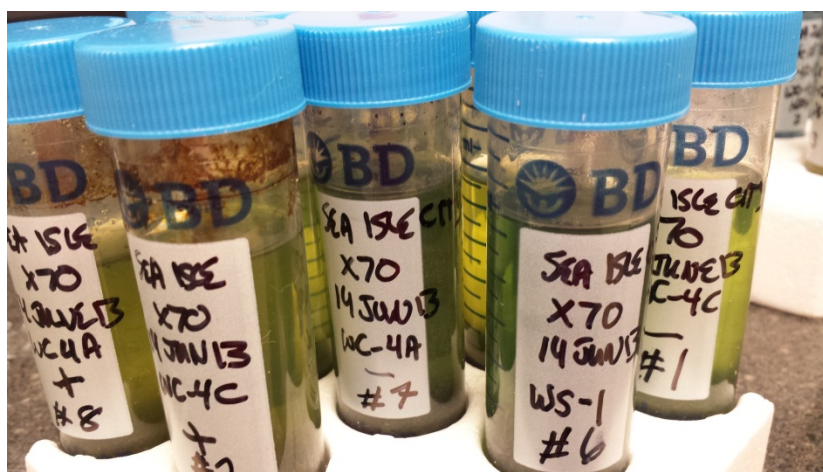


Figure 1. Extract Cultures

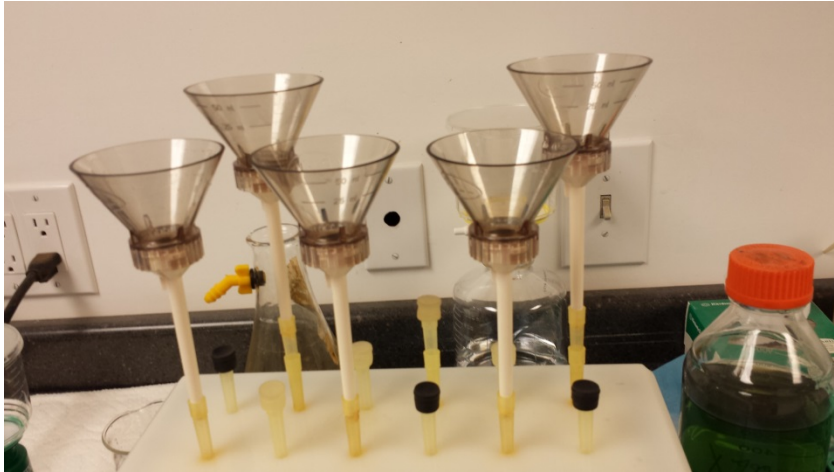


Figure 2. Filtration Manifold for Epi-Fluorescent Microscopy Prep

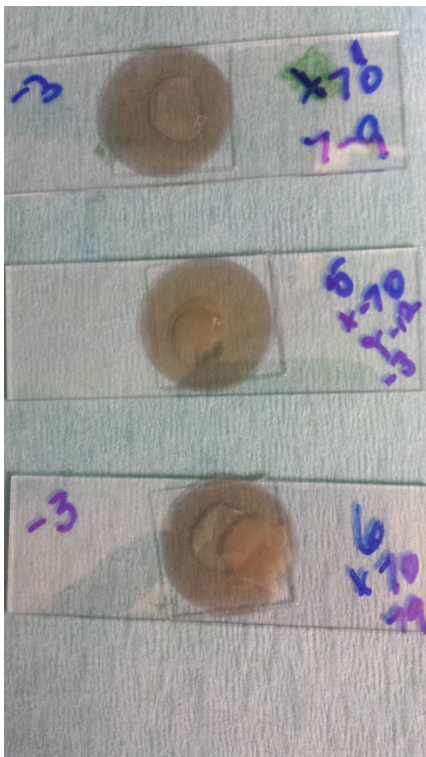


Figure 3. Microscope slides

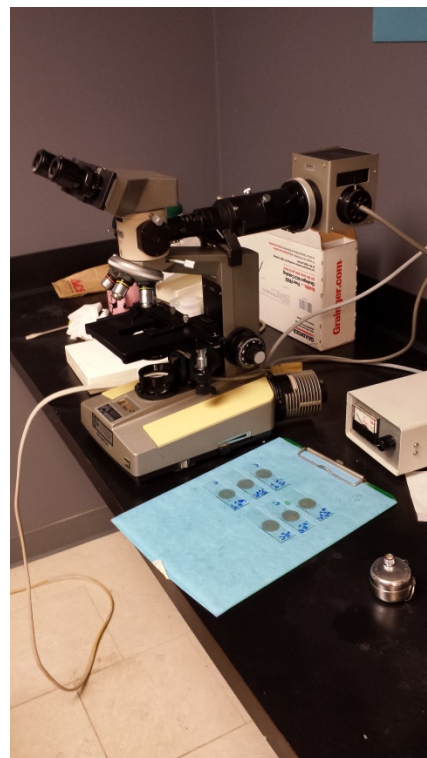


Figure 4. Microscope slides & filter membranes

Cell Count Data & Evaluation – Initial Extract Cultures and Bioaugmentation Subcultures

The extract cultures and subcultures taken from the initial extraction cultures were submitted for periodic cell counts and description during the culture development program. Initial cell counts in the extract cultures are typically lower than counts in subcultures. Culture viability generally also improves over time in the subcultures. All cultures were preserved in the Pintail Type Culture Collection (PTCC) crystorage system after 5-7 days of growth to retain working cultures that could be

revived for further growth and bioaugmentation testing. Data from an 8 day growth period is shown in Table 1 for the initial extract culture.

Table 1. Extract Culture cell counts

Culture ID	Date Counted	Cells/mL	Observations
4C min 13June	21-June-13	1.1x10 ⁷	Soil artifacts a few chain-forming green colonies
4C+ 13June	21-June-13	2.3x10 ⁸	Artifacts and green-staining microbes
WS-1a 13June	21-June-13	4.5x10 ⁶	Lower cell counts than soil extracts
WC-4B min, 13June	21-June-13	1.5x10 ⁸	No artifacts, chain-forming colonies
WC-4B+, 13June	22-June-13	1.2x10 ⁸	Chain-forming green colonies
WS-1B, 13June	22-June-13	1.2x10 ⁸	Better cell counts than WS-1A
WC-4A min, 13June	22-June-13	1.2x10 ⁸	Chain-forming green, fading colonies
WC-4A+, 13June	22-June-13	1.2x10 ⁸	Chain-forming green, fading colonies

The cell counts for the intitial extract cultures were typical cell density after a 7-8 day growth period. Cells counts from 24 hour cultures show median cell counts of 10³ cells/mL in X70 culture media. The predominantly green color of stained cells indicates that cultures are mature without new growing and dividing cells.

A typical subculture after a 24 hour growth period is shown in Table 2.

Table 2. 24-hour subculture counts

Culture ID	Date Counted	Cells/mL	Observations
4C min 4July	5-July-13	2.1x10 ⁸	Orange chain colonies, faded death phase
4C+ 4 July	5-July-13	2.6x10 ⁸	Bright orange chains, faded green
WS-1a 4July	5-July-13	1.6x10 ⁸	Long bright orange chains
WC-4B min, 4July	5-July-13	8.1x10 ⁸	No orange, small bright green individuals
WC-4B+, 4July	5-July-13	2.6x10 ⁸	Green, no orange, individual colonies
WS-1B, 4July	5-July-13	3.3x10 ⁸	Tiny green fading colonies, no orange
WC-4A min, 4July	5-July-13	1.5x10 ⁸	Predominant green individual colonies
WC-4A+, 4July	5-July-13	1.2x10 ⁸	Tiny fast-fading green colonies, no orange

The orange cells are known to be growing and diving cells. Bright green cells are mature cells. Fast-fading green cells are death phase cells and do not exhibit a good viability for bioremediation.

A typical subculture that has been submitted to stress bioaugmentation culturing and long-term growth monitoring is shown in Table 3.

Table 3. 1-Month stress culture augmentation

Culture ID	Date Counted	Cells/mL	Observations
4C min 13July	12-Aug-13	5.9x10 ⁷	Bright green & orange. Faded green bkrnd
4C+ 13 July	12-Aug-13	4.3x10 ⁷	Bright green and orange
WS-1a 13July	12-Aug-13	2.2x10 ⁸	High density green individual colonies
WC-4B min, 13July	12-Aug-13	1.9x10 ⁸	High density green colonies
WC-4B+, 13July	12-Aug-13	2.2x10 ⁸	High density green colonies
WS-1B, 13July	12-Aug-13	9.1x10 ⁷	High density bright green and orange

6. Data Interpretation

The soil and groundwater cultures developed from SIC extracts exhibit atypical growth characteristics compared to common heterotrophic soil cultures. Common soil or groundwater cultures grow where cells double in a geometric progression. Culture growth is usually measured in hours. Extreme environment microorganisms such as those isolated from the SIC site show a more static growth pattern over a period of days or weeks. A typical growth curve is shown in Figure 5 for normal soil bacteria and a growth curve for the Sea Isle cultures is shown in Figure 6.

The normal life cycle of a culture is defined as:

1. Lag Phase – delay in growth start while initial population adapts to media environment
2. Log or exponential growth phase – geometric doubling of cells. In the epi-fluorescent microscopic counting, many of the cells stain orange or bright green. Orange cells should predominate in this growth phase.
3. Stationary phase – peak growth is reached and maintains a steady cell density. In the epi-fluorescent microscopic counting, most cells will stain bright green with few orange cells in the culture.
4. Death phase – most cells are dead as evidenced by fast-fading green cells.

Extreme environment cultures such as the SIC indigenous isolates exhibit a much slower life cycle than normal heterotrophic soil cultures. The extended life cycle for the SIC cultures are a consideration for bioremediation process development and demonstration. The bioaugmentation

program was designed to extend the culture viability and to seek improvements in the time to develop working cultures.

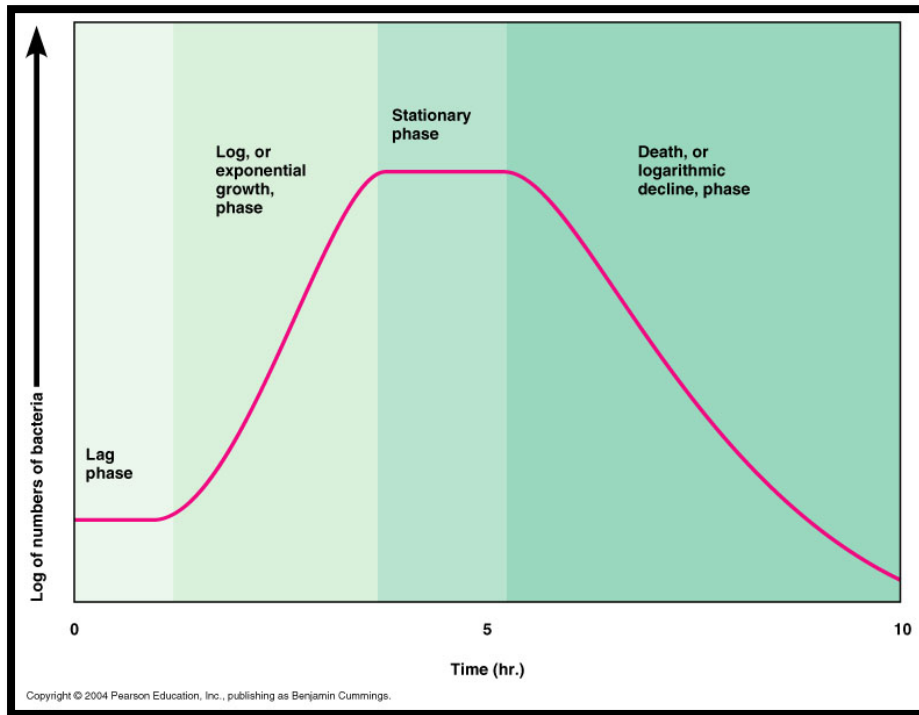


Figure 5. Typical Microbe Growth Curve

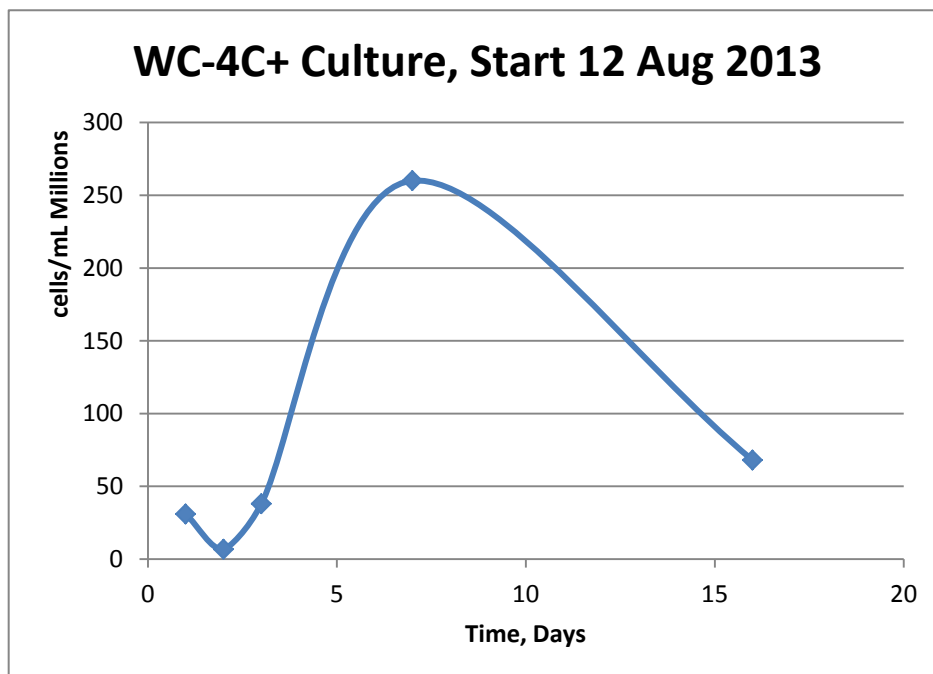


Figure 6. WC-4C+ Sea Isle City Culture

During the course of the growth test program with cell viability characterization, the cultures have gone from a peak viability in 24 to 48 hours to a peak viability ranging from 7 days in the early bioaugmentation cultures to 22 days in the final test cultures.

Final working culture development allowed the start of a first series of flask soil treatment tests which will be shipped to Spectrum Analytical for PAH analysis by September 6th. A photograph of the first flask tests is shown in Figure 7. The first round of tests will serve as a scoping study for microbe selection or additional bioaugmentation if necessary.



Figure 7. Flask Scale Vessels

Summary of Sea Isle EPH and PAH Data

All samples were taken from the same high contamination soil bucket.

Controls A and B were taken at the same time, (Sept 9th 2013), and were not treated.

Control 1, and samples 2, 3, 4, 5 and 6 were taken from the same soil sample as Controls A and B on August 28th.

Control 1 was treated with sterile DI water.

Samples 2 and 3 were duplicate samples treated with culture #1

Culture 1 is a bacteria population isolated from the soil sample labeled as soil sample WC-4C Low

Samples 4 and 5 were duplicate samples treated with culture #5

Culture 5 is a bacteria population isolated from the soil sample labeled as soil sample WC-4B High

Samples 6 and 7 were duplicate samples treated with culture #6

Culture 6 is a bacteria population isolated from the water sample labeled as WS-1

Cultures 1, 5 and 6 were chosen for their high bacteria counts and the health of the cultures.

Control 1 and samples 2, 3, 4, 5, and 6 were decanted on September 8th prior to shipment of the treated soil sample.

Data Analysis

Even though Controls A and B were taken at the same time from the same area of the same bucket of soil and not treated with any solution, there is a huge difference in both the PAH and EPH data. Some of the compounds in Control A are below the detection limit while those same compounds are very high in Control B. One explanation for the large difference is that the soil in the bucket is not homogenous making it difficult to determine what the baseline really is.

The data from Control 1, which was treated with Sterile DI water, is closer to Control A than to Control B.

Samples 2 and 3 are duplicates treated with culture 1. There are discrepancies in both the PAH and EPH data. When compared to Control 1, PAH data from Sample 2 is higher than Control 1 and Data from Sample 3 is close to the same or lower. However, the EPH data is significantly lower for Samples 2 and 3 than in Control 1. Using Control 1 as a baseline, there appears to be degradation of EPH compounds in Samples 2 and 3.

Samples 4 and 5 are duplicates treated with culture 5. There is a large difference in both PAH and EPH values indicating non homogenous samples. Sample 4 PAH values are close to the same or higher than the values for Control 1. EPH values are lower than EPH values in Control 1 indicating degradation.

PAH values for sample 5 are much higher than the PAH values for Control 1 but lower than the PAH values for Control B. When compared to Control B, there appears to be degradation of PAH compounds in Sample 5. EPH values are higher than Control 1 but lower than Control B indicating degradation of EPH compounds in Sample 5.

Samples 6 and 7 are duplicates treated with culture 6. Both samples have EPH and PAH values that are very close. Compared to the two previous sets of duplicates, Samples 6 and 7 actually look like duplicates. PAH and EPH values are lower than PAH and EPH values for Control 1 indicating microbial degradation of both PAH and EPH compounds.

Overall, there does appear to be microbial degradation of PAH and EPH compounds. However the data is complicated by large differences between duplicate samples which may indicate that the soil from the sample bucket is not homogenous.

The next step is to dry a large portion of the high contaminated soil sample, mix the dried sample to make it more homogenous, then taking split samples, treating those samples with the same microbial isolates, and sending those samples out for analysis.

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix J

Documentation and Calculation for Spatially Weighted Average

GEI Consultants performed a spatial weighted average analysis to demonstrate compliance on twelve (12) post-excavation benzene soil samples collected from Sea Isle City former MGP site using Compliance Averaging for the Spatially Weighted Average approach. This approach is described in detail in Appendix A of the September 24, 2012 Technical Guidance for the Attainment of Remediation Standards and Site-Specific Criteria.

The excavation boundary of excavation that defines the functional area includes Block 40.04, lots 10.01, 10.02, 11.01, 11.02, 12.01 and 12.02 and comprises the functional area with a total area of approximately 0.39 Acres, which is in line with the recommended functional area size of 0.5 acres for the inhalation pathway provided in the guidance. The 12 samples used for the analysis were all post-excavation samples collected during the 2013-2014 construction season and are representative of the concentrations of contaminants that were left in the ground following remediation.

Base on the GPS coordinate of each sample, Thessian Polygons were generated within the functional area utilizing ArcGIS. The areas of polygons representing each post-excavation sample were determined. The spatial weighted average concentration was determined using the following equation:

$$C_{spatial\ weighted} = \sum_{j=1}^n \frac{A_{polygon,n}}{A_{total}} * C_{Sample\ ID,n} \quad \text{Eq. (1)}$$

Where,

$C_{spatial\ weighted}$ = Spatial Weighted Average Concentration, mg/kg

$A_{polygon, n}$ = Area of polygon representing post excavation sample n, ft²

A_{total} = Total area of the functional area, ft²

$C_{sample\ ID, n}$ = Concentration of sample n, mg/kg

Table 1.1 lists the area of each polygon generated in ArcGIS and the weighted concentration. The spatial weighted concentration of the functional area was 1.48 mg/kg. Based on the result of the spatial weighted average analysis, the remediation at the function area is complete.

Table 1. Spatial Weighted Average Analysis

Sample_ID	Concentration (mg/kg)	Area(ft²)	Weighted Coefficient	Weighted Concentration (mg/kg)
PXB-J5	1.2	978	0.058058771	0.069670525
PXB-J6	2.37	1002	0.059483526	0.140975957
PXB-J7	1.6	1873	0.111190264	0.177904423
PXB-J8	0.00101	1198	0.071119026	7.18302E-05
PXB-K5	5.55	2047	0.121519739	0.67443455
PXB-K6	2.12	1397	0.082932621	0.175817156
PXB-K7	1.38	1506	0.089403384	0.12337667
PXB-K8D	0.233	1796	0.106619175	0.024842268
PXB-L5	0.348	1897	0.112615019	0.039190027
PXB-L6	0.841	982	0.05829623	0.04902713
PXB-L7	0.00389	972	0.057702582	0.000224463
PXB-L8	0.016	1197	0.071059662	0.001136955
Spatial Weighted Average Concentration (mg/kg)				1.4767

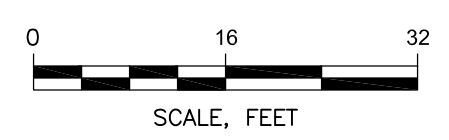
LEGEND:
 - - - - - FUNCTIONAL AREA BOUNDARY
 ● PXB - J5 1.2 mg/kg
 ● POST-EXCAVATION SAMPLE LOCATION WITH BENZENE CONCENTRATION

THESSIAN POLYGON AREA AND WEIGHTED CONCENTRATION

Sample_ID	Concentration (mg/kg)	Area(ft ²)	Weighted Coefficient	Weighted Concentration (mg/kg)
PXB-J5	1.2	978	0.058058771	0.069670525
PXB-J6	2.37	1002	0.059483526	0.140975957
PXB-J7	1.6	1873	0.111190264	0.177904423
PXB-J8	0.00101	1198	0.071119026	7.18302E-05
PXB-K5	5.55	2047	0.121519739	0.67443455
PXB-K6	2.12	1397	0.082932621	0.175817156
PXB-K7	1.38	1506	0.089403384	0.12337667
PXB-K8D	0.233	1796	0.106619175	0.024842268
PXB-L5	0.348	1897	0.112615019	0.039190027
PXB-L6	0.841	982	0.05829623	0.04902713
PXB-L7	0.00389	972	0.057702582	0.000224463
PXB-L8	0.016	1197	0.071059662	0.001136955

Spatial Weighted Average Concentration (mg/kg) 1.476671954

NOTE: PXB - J8 REPORTED NON-DETECT FOR BENZENE, CONCENTRATION LISTED ON THE TABLE REPRESENTS THE METHOD OF DETECTION LIMIT.



NO.	DATE	ISSUE/REVISION	DES	DRN	CH	APP



JERSEY CENTRAL POWER & LIGHT COMPANY
 GEI Project 013660

Sea Isle City Former MGP Site
 Sea Isle City, New Jersey
BENZENE SPATIAL WEIGHTED AVERAGE CONCENTRATION

DWG. NO.
 SHEET NO.

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix K

Data Usability Summary Form and EDD Submission Emails

Sea Isle, Project 013660-4-2000

Site: Sea Isle
Laboratory: Integrated Analytical Laboratories, Randolph, NJ
Report No.: E13-00548 and E13-00639
Reviewer: Lisa McDonagh/GEI Consultants
Date: February 21, 2013

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
K1(12-12.5)	E13-00548-001	PAH
PXB-M1(12-12.5)	E13-00639-001	PAH

Associated QC Samples(s): Field/Trip blanks: None associated
Field Duplicate pair: None associated

The above-listed soil samples were collected on January 18 and 22, 2013 and were analyzed for polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270. The data validation was performed in accordance with the *NJDEP Standard Operating Procedures for the Quality Assurance Data Validation of Analytical Deliverables*, TCL Organics, October 2001, modified as necessary to accommodate the non-CLP methodologies used.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Moisture Content
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met in the PAH analyses.

Initial and Continuing Calibrations

All criteria were met in the initial and continuing calibrations.

Blanks

Contamination was not detected in the method blank samples.

Surrogate Recoveries

All criteria were met in the PAH analyses.

MS/MSD Results

MS/MSD analyses were performed on non-project samples. Qualifications were not required.

LCS Results

All criteria were met.

Internal Standards

All criteria were met in the PAH analyses.

Field Duplicate Results

Field duplicate samples were not submitted.

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

Results were reported which were below the reporting limit (RL) and above the MDL. These results were qualified as estimated (J) by the laboratory.

All samples were analyzed at a 1:1 dilution.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Sea Isle
Laboratory: Integrated Analytical Laboratories, Randolph, NJ
Report No.: E13-00801
Reviewer: Lisa McDonagh/GEI Consultants
Date: March 11, 2013

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
PXB-L1(12-12.5)	E13-00801-001	PAH

Associated QC Samples(s): Field/Trip blanks: None associated
Field Duplicate pair: None associated

The above-listed soil sample was collected on January 29, 2013 and was analyzed for polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270. The data validation was performed in accordance with the *NJDEP Standard Operating Procedures for the Quality Assurance Data Validation of Analytical Deliverables*, TCL Organics, October 2001, modified as necessary to accommodate the non-CLP methodologies used.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Moisture Content
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met in the PAH analyses.

Initial and Continuing Calibrations

All criteria were met in the initial and continuing calibrations.

Blanks

Contamination was not detected in the method blank samples.

Surrogate Recoveries

All criteria were met in the PAH analyses.

MS/MSD Results

MS/MSD analyses were performed on non-project samples. Qualifications were not required.

LCS Results

All criteria were met.

Internal Standards

All criteria were met in the PAH analyses.

Field Duplicate Results

Field duplicate samples were not submitted.

Sea Isle, Project 013660-4-2000

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

The sample was analyzed at a 1:1 dilution.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Sea Isle
Laboratory: Integrated Analytical Laboratories, Randolph, NJ
Report No.: E13-01578
Reviewer: Lisa McDonagh/GEI Consultants
Date: March 14, 2013

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
PXB-M2(12-12.5)	E13-01578-001	PAH

Associated QC Samples(s): Field/Trip blanks: None associated
Field Duplicate pair: None associated

The above-listed soil sample was collected on February 22, 2013 and was analyzed for polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270. The data validation was performed in accordance with the *NJDEP Standard Operating Procedures for the Quality Assurance Data Validation of Analytical Deliverables*, TCL Organics, October 2001, modified as necessary to accommodate the non-CLP methodologies used.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Moisture Content
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met in the PAH analyses.

Initial and Continuing Calibrations

All criteria were met in the initial and continuing calibrations.

Blanks

Contamination was not detected in the method blank samples.

Surrogate Recoveries

All criteria were met in the PAH analyses.

MS/MSD Results

MS/MSD analyses were performed on non-project samples. Qualifications were not required.

LCS Results

All criteria were met.

Internal Standards

All criteria were met in the PAH analyses.

Field Duplicate Results

Field duplicate samples were not submitted.

Sea Isle, Project 013660-4-2000

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

The sample was analyzed at a 1:1 dilution.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified "J" data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The 'J' data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified "UJ" data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The 'UJ' data may be biased low.
- JN - The analysis indicates the presence of a compound that has been "tentatively identified" (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Sea Isle
Laboratory: Integrated Analytical Laboratories, Randolph, NJ
Report No.: E13-01503 and E13-01756
Reviewer: Lisa McDonagh/GEI Consultants
Date: April 16, 2013

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
PXB-K2(12-12.5)	E13-01503-01	PAH
TB-022013	E13-01503-04	BTEX
FB-022013	E13-01503-05	BTEX, PAH
PXB-L2(12-12.5)	E13-01756-01	PAH

Associated QC Samples(s): Field/Trip blanks: TB-022013, FB-022013
Field Duplicate pair: None associated

The above-listed soil samples were collected on February 20 and March 1, 2013 and were analyzed for (BTEX) volatile organic compounds (VOC) by SW-846 method 8260 and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOC) by SW-846 method 8270. The data validation was performed in accordance with the *NJDEP Standard Operating Procedures for the Quality Assurance Data Validation of Analytical Deliverables*, TCL Organics, October 2001.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Moisture Content
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

BTEX samples TB-022013 and FB-022013 were analyzed outside of the BFB 12-hour clock. Estimate the positive and non-detect results (J/UJ).

Initial and Continuing Calibrations

All criteria were met in the initial and continuing calibrations.

Blanks

Contamination was not detected in the method, trip and field blank samples.

Surrogate Recoveries

All criteria were met in the PAH analyses.

MS/MSD Results

BTEX MS/MSD analyses were performed on non-project samples. Qualifications were not required.

PAH MS/MSD analyses were performed on sample PXB-K2(12-12.5). All criteria were met.

LCS Results

All criteria were met.

Internal Standards

All criteria were met in the PAH analyses.

Field Duplicate Results

Field duplicate samples were not submitted.

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

Results were reported which were below the reporting limit (RL) and above the MDL. These results were qualified as estimated (J) by the laboratory.

The samples were analyzed at a 1:1 dilution.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Sea Isle City
Laboratory: Integrated Analytical Laboratories, Randolph, NJ
Report No.: E13-02530
Reviewer: Lisa McDonagh/GEI Consultants
Date: May 3, 2013

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
PXB-K3(12-12.5)	E13-02530-01	BTEX, PAH

Associated QC Samples(s): Field/Trip blanks: None associated
Field Duplicate pair: None associated

The above-listed soil sample was collected on March 22, 2013 and was analyzed for (BTEX) volatile organic compounds (VOC) by SW-846 method 8260 and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOC) by SW-846 method 8270. The data validation was performed in accordance with the *NJDEP Standard Operating Procedures for the Quality Assurance Data Validation of Analytical Deliverables*, TCL Organics, October 2001.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Moisture Content
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All criteria were met in the initial and continuing calibrations.

Blanks

Contamination was not detected in the method blank sample.

Surrogate Recoveries

All criteria were met in the BTEX and PAH analyses.

MS/MSD Results

BTEX and PAH MS/MSD analyses were performed on non-project samples. Qualifications were not required.

LCS Results

All criteria were met.

Internal Standards

All criteria were met in the BTEX and PAH analyses.

Field Duplicate Results

Field duplicate samples were not submitted.

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

The sample was analyzed at a 1:1 dilution.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Sea Isle City
Laboratory: Integrated Analytical Laboratories, Randolph, NJ
Report No.: E13-02466 and E13-02722
Reviewer: Lisa McDonagh/GEI Consultants
Date: May 10, 2013

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
PXB-M3(12-12.5)	E13-02466-01	BTEX, PAH
PXB-L3(12-12.5)	E13-02722-01	BTEX, PAH
PXB-DUP-0328213	E13-02722-02	BTEX, PAH

Associated QC Samples(s): Field/Trip blanks: None associated
Field Duplicate pair: PXB-L3(12-12.5)/PXB-DUP-0328213

The above-listed soil sample was collected on March 21 and 28, 2013 and was analyzed for (BTEX) volatile organic compounds (VOC) by SW-846 method 8260 and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOC) by SW-846 method 8270. The data validation was performed in accordance with the *NJDEP Standard Operating Procedures for the Quality Assurance Data Validation of Analytical Deliverables*, TCL Organics, October 2001.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Moisture Content
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification, with the exception of the results for BTEX sample PXB-M3(12-12.5) which were rejected due to internal standard recovery less than 10%.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All criteria were met in the initial and continuing calibrations.

Blanks

Contamination was not detected in the method blank sample.

Surrogate Recoveries

All criteria were met in the BTEX and PAH analyses.

MS/MSD Results

BTEX MS/MSD analyses were performed on non-project samples. Qualifications were not required.

PAH MS/MSD analyses were performed on sample PXB-M3(12-12.5) and PXB-DUP-0328213. All criteria were met. Qualifications were not required.

LCS Results

All criteria were met.

Internal Standards

BTEX

The following table lists the internal standards recovered outside of control limits and the

resulting actions.

Sample	Internal Standard	Recovery (%)	Validation actions
PXB-M3(12-12.5)	Pentafluorobenzene	<10 %recovery	Reject all the nondetect results for sample PXB-M3(12-12.5).
	1,4-Difluorobenzene	<10 %recovery	
	Chlorobenzene-d5	<10 %recovery	
PXB-M3(12-12.5)DUP	Pentafluorobenzene	<10 %recovery	Reject all the nondetect results for sample PXB-M3(12-12.5)DUP.
	1,4-Difluorobenzene	<10 %recovery	
	Chlorobenzene-d5	<10 %recovery	

PAH

All criteria were met.

Field Duplicate Results

Samples PXB-L3(12-12.5) and PXB-DUP-0328213 were submitted as the field duplicate pair with this sample group. The following table summarizes the BTEX and PAH all of which were within the acceptance criteria.

Compound	PXB-L3(12-12.5) (mg/Kg)	PXB-DUP-0328213 (mg/Kg)	RPD (%)
Ethylbenzene	0.00097U	0.000392	85, within 2XQL.
Naphthalene	0.032	0.041U	25
2-methylnaphthalene	0.023	0.041U	56, within 2XQL.
Acenaphthene	0.026	0.041U	45, within 2XQL.
Fluorene	0.018	0.041U	78, within 2XQL.
Phenanthrene	0.070	0.041U	52, within 2XQL.
Anthracene	0.023	0.041U	56, within 2XQL.
Fluoranthene	0.039	0.041U	5
Pyrene	0.045	0.041U	9
Benzo(a)anthracene	0.020	0.041U	69, within 2XQL.
Chrysene	0.018	0.041U	78, within 2XQL.

NC – Not calculable

For soil results > 5xQL and RPDs >50 estimate (J) results in the field duplicate pair.

For soil results < 5xQL; the sample and duplicate results must be within 2xQL.

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

The sample was analyzed at a 1:1 dilution.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified "J" data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The 'J' data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified "UJ" data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The 'UJ' data may be biased low.
- JN - The analysis indicates the presence of a compound that has been "tentatively identified" (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Sea Isle City
Laboratory: Integrated Analytical Laboratories, Randolph, NJ
Report No.: E13-03324, E13-03381 and E13-03604
Reviewer: Lisa McDonagh/GEI Consultants
Date: May 14, 2013

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
PXB-J3A(14-14.5)	E13-03324-01	BTEX, PAH
PXB-J1(12-12.5)	E13-03381-01	BTEX, PAH
PXB-J2-(13-13.5)	E13-03604-01	BTEX, PAH

Associated QC Samples(s): Field/Trip blanks: None associated
Field Duplicate pair: None associated

The above-listed soil samples were collected on April 10, 15 and 19, 2013 and were analyzed for (BTEX) volatile organic compounds (VOC) by SW-846 method 8260 and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOC) by SW-846 method 8270. The data validation was performed in accordance with the *NJDEP Standard Operating Procedures for the Quality Assurance Data Validation of Analytical Deliverables*, TCL Organics, October 2001.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Moisture Content
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All criteria were met in the initial and continuing calibrations.

Blanks

Contamination was not detected in the method blank samples.

Surrogate Recoveries

All criteria were met in the BTEX and PAH analyses.

MS/MSD Results

BTEX and PAH MS/MSD analyses were performed on non-project samples. Qualifications were not required.

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Field Duplicate Results

Field duplicate samples were not submitted with the data package.

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL) in the BTEX and PAH. These results were estimated (J) by the laboratory.

The samples were analyzed at a 1:1 dilution.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Sea Isle
Laboratory: Integrated Analytical Laboratories, Randolph, NJ
Report No.: E14-00930, E14-01145, E14-01303, E14-01464, E14-01586, E14-01794
Reviewer: Lorie MacKinnon/GEI Consultants
Date: March 26, 2014

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
E14-00930 PXB-L7 (12-12.5)	E14-00930-01	BTEX, PAH
E14-01145 PXB-K-8 (12-12.5) PXB-K-8D	E14-01145-01 E14-01145-02	BTEX, PAH BTEX, PAH
E14-01303 PXB-L8 (12-12.5)	E14-01303-01	BTEX, PAH
E14-01464 PXB-J8 (12-12.5)	E14-01464-01	BTEX, PAH
E14-01586 PXB-K7 (12-12.5)	E14-01586-01	BTEX, PAH
E14-01794 PXB-J7 (12-12.5)	E14-01794-01	BTEX, PAH

Associated QC Samples(s): Field/Trip blanks: None associated
Field Duplicate pair: PXB-K-8 (12-12.5)/PXB-K-8D

The above-listed soil samples were collected on February 3, 10, 19, 25, and 28 and March 6, 2014 and were analyzed for BTEX volatile organic compounds (VOCs) and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270/SIM. The data validation was performed in accordance with the *NJDEP Standard Operating Procedures for the Quality Assurance Data Validation of Analytical Deliverables*, TCL Organics, October 2001 and the National Functional Guidelines for Organic Methods Data Review, June 2008, modified as necessary to accommodate the non-CLP methodologies used.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation

- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Moisture Content
- Field Duplicate Results
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported.

The validation findings were based on the following information.

Data Completeness

The data package was complete as received by the laboratory.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

Compounds that did not meet criteria in the calibrations are summarized in the following table.

Compound	Associated Samples	QC Outlier	Calibration	Validation Qualifier
Pyrene	PXB-L7 (12-12.5)	XX	Continuing	J
Pyrene	PXB-L8 (12-12.5)	XX	Continuing	UJ
Pyrene	PXB-J8 (12-12.5)	X	ICV	J
Pyrene	PXB-K7 (12-12.5)	X	ICV	No action , result nondetect

X = Initial calibration (IC) relative standard deviation (%RSD) > 20 or initial calibration verification (ICV) sample %D > 20; estimate (J) positive and blank-qualified (UJ) results only.

XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.

XXX = Continuing calibration (CC) percent difference (%D) > 90; estimate (J) positive results and reject (R) nondetect results.

Sea Isle, Project 013660-4-2000

RF = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

These results are usable for project objectives which may have a minor impact on the data usability.

Blanks

Contamination was not detected in the associated method blank samples.

Surrogate Recoveries

All criteria were met.

MS/MSD Results

VOC

MS/MSD analyses were performed on samples PXB-K-8D and PXB-J8 (12-12.5). All recovery and precision criteria were met.

SVOC

MS/MSD analyses were performed on samples PXB-L7 (12-12.5), PXB-K-8D, and PXB-J8 (12-12.5) All recovery and precision criteria were met.

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Moisture Content

All criteria were met.

Field Duplicate Results

Samples PXB-K-8 (12-12.5) and PXB-K-8D were submitted as the field duplicate pair with this sample set. The following table summarizes the RPDs of the detected analytes in the field duplicate pairs, which were within the acceptance criteria with the exception of benzene. The positive results for benzene in samples PXB-K-8 (12-12.5) and PXB-K-8D were estimated (J). The direction of the bias cannot be determined from this nonconformance.

Analyte	PXB-K-8 (12-12.5) (mg/kg)	PXB-K-8D (mg/kg)	RPD (%)
Benzene	0.728	0.233	103
Naphthalene	0.293	0.326	10.7
2-Methylnaphthalene	0.160	0.161	0.6
Acenaphthene	0.121	0.121	0
Fluorene	0.078	0.080	2.5
Phenanthrene	0.227	0.236	3.9
Anthracene	0.066	0.065	1.5
Fluoranthene	0.070	0.073	4.2
Pyrene	0.133	0.120	10.3
Benzo(a)anthracene	0.042	0.038 J	10.0
Chrysene	0.040 J	0.039 J	2.5
Benzo(b)fluoranthene	0.028 J	0.029 J	3.5
Benzo(a)pyrene	0.032 J	0.042 U	NC, Within 2xRL

NC – Not calculable
 Criteria: When both results are $\geq 5x$ the QL, RPDs must be $< 50\%$.
 When results are $< 5x$ the QL, the absolute difference between the original and field duplicate results must be $< 2x$ QL

Quantitation Limits and Data Assessment

Results were reported which were below the reporting limit (RL) and above the MDL. These results were qualified as estimated (J) by the laboratory.

The following table lists the sample dilutions which were performed.

Sample	Analysis	Dilution	Dilution Reported
PXB-K-8 (12-12.5)	VOC	Medium Level	Due to high levels of benzene, medium level analyses were performed. QLs were elevated accordingly.
PXB-K-8D			
PXB-K7 (12-12.5)			
PXB-J7 (12-12.5)			

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified "J" data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The 'J' data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified "UJ" data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The 'UJ' data may be biased low.
- JN - The analysis indicates the presence of a compound that has been "tentatively identified" (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Sea Isle City
Laboratory: Integrated Analytical Laboratories, Randolph, NJ
Report No.: E14-02081, E14-02272, E14-02393, E14-02624, E14-02713 and E14-03135
Reviewer: Lisa McDonagh/GEI Consultants
Date: April 30, 2014

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
PXB-J6(15-15.5)	E14-02081-01	BTEX, PAH, TOC
PXB-L6(13-13.5)	E14-02272-01	BTEX, PAH
TB-032014	E14-02272-02	BTEX
FB-032014	E14-02272-03	BTEX, PAH
PXB-K5(12-12.5)	E14-02393-01	PAH
PXB-K5(12-12.5)	E14-02393-02	BTEX
PXB-K5(13-13.5)	E14-02624-01	BTEX, PAH
PXB-K5(15-15.5)	E14-02624-02	BTEX
PXB-J5(15-15.5)	E14-02713-01	BTEX, PAH
PXB-K6(13.5-14)	E14-03135-01	BTEX, PAH
PXB-K6(15-15.5)	E14-03135-02	PAH

Associated QC Samples(s): Field/Trip blanks: TB-032014, FB-032014
Field Duplicate pair: None associated

The above-listed soil samples were collected on March 13, 19, 25, 27 and 31 and April 9, 2014 and were analyzed for (BTEX) volatile organic compounds (VOC) by SW-846 method 8260, polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOC) by SW-846 method 8270 and total Organic Carbon by modified Lloyd Kahn. The data validation was performed in accordance with the *NJDEP Standard Operating Procedures for the Quality Assurance Data Validation of Analytical Deliverables*, TCL Organics, October 2001.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Lab Duplicate Results
- Laboratory Control Sample (LCS) Results

- Internal Standards
- Field Duplicate Results
- Moisture Content
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

BTEX

All criteria were met.

PAH

Compounds that did not meet criteria in the PAH calibrations are summarized in the following table.

Compound	Associated Samples	QC Outlier	Calibration	Validation Qualifier
Indeno(123cd)pyrene	PXB-K5(12-12.5)	XX	Continuing	UJ
Dibenz(ah)anthracene		XX		

X = Initial calibration (IC) relative standard deviation (%RSD) > 20; estimate (J) positive and blank-qualified (UJ) results only.

XX = Continuing calibration (CC) percent difference (%D) > 25; estimate (J/UJ) positive and nondetect results.

XXX = Continuing calibration (CC) percent difference (%D) > 90; estimate (J) positive results and reject (R) nondetect results.

RF = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

The direction of the bias cannot be determined from the remaining calibration nonconformances. The results can be used for project objectives as estimated values (J) and nondetects with estimated quantitation limits (UJ) which may have a minor impact on the data usability.

TOC

All criteria were met.

Blanks

Contamination was not detected in the method, field or trip blank samples.

Surrogate Recoveries

All criteria were met in the BTEX and PAH analyses.

MS/MSD Results

BTEX, PAH and TOC MS/MSD analyses were performed on non-project samples. Qualifications were not required.

VOC MS/MSD was performed on sample PXB-L6(13-13.5). All criteria were met. Qualifications were not required.

PAH MS/MSD was performed on sample PXB-K5(12-12.5). All criteria were met. Qualifications were not required.

Lab Duplicate Results

A batch TOC lab duplicate was submitted for data package E14-02081. All criteria were met.

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Field Duplicate Results

Field duplicate samples were not submitted with the data package.

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL) in the BTEX and PAH. These results were estimated (J) by the laboratory.

The samples were analyzed at a 1:1 dilution, with the exception of PAH sample PXB-K6(13.5-14) which was analyzed at a 1:1 and 1:5 dilution. The result for naphthalene was reported from the 1:5 dilution and all other results were reported from the 1:1 dilution.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Sea Isle City
Laboratory: Integrated Analytical Laboratories, Randolph, NJ
Report No.: E14-02830
Reviewer: Lisa McDonagh/GEI Consultants
Date: May 28, 2014

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
PXB-L5(12-12.5)	E14-02830-01	BTEX, PAH
Associated QC Samples(s):	Field/Trip blanks:	None associated
	Field Duplicate pair:	None associated

The above-listed soil sample was collected on April 3, 2014 and was analyzed for (BTEX) volatile organic compounds (VOC) by SW-846 method 8260 and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOC) by SW-846 method 8270. The data validation was performed in accordance with the *NJDEP Standard Operating Procedures for the Quality Assurance Data Validation of Analytical Deliverables*, TCL Organics, October 2001.

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Field Duplicate Results
- Moisture Content
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All criteria were met.

Blanks

Contamination was not detected in the method or field blank samples.

Surrogate Recoveries

All criteria were met in the BTEX and PAH analyses.

MS/MSD Results

VOC MS/MSD was performed on sample PXB-L5(12-12.5). All criteria were met. Qualifications were not required.

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Field Duplicate Results

Field duplicate samples were not submitted with the data package.

Moisture Content

All criteria were met.

Quantitation Limits and Data Assessment

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL) in the BTEX analysis. These results were estimated (J) by the laboratory.

The sample was analyzed at a 1:1 dilution.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Garbe, Kay

From: srpedd@dep.state.nj.us
Sent: Tuesday, June 25, 2013 2:17 PM
To: Schlatter, David
Subject: G000006130, HB133419 Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; G000006130_20130118_20130118.KML; HZRESULT.TXT; HZSAMPLE.TXT

The EDD submission shown below was processed 06/25/2013. This submission has passed and is cataloged in our system.

Your submission has been issued an SRP Catalog ID: HB133419 Thank You

The following identifiers were in the DTST file:

Directory: 13-00548

DESC: SEA ISLE

SRPID: G000006130

Submit Date: M/d/yyyy

If you are using the email to process your EDD with your key document, include a copy of this email with your key document package.

This is an automated message.

Garbe, Kay

From: srpedd@dep.state.nj.us
Sent: Tuesday, June 25, 2013 2:17 PM
To: Schlatter, David
Subject: G000006130, HB133418 Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; G000006130_20130122_20130122.KML; HZRESULT.TXT; HZSAMPLE.TXT

The EDD submission shown below was processed 06/25/2013. This submission has passed and is cataloged in our system.

Your submission has been issued an SRP Catalog ID: HB133418 Thank You

The following identifiers were in the DTST file:

Directory: 13-00639

DESC: SEA ISLE

SRPID: G000006130

Submit Date: M/d/yyyy

If you are using the email to process your EDD with your key document, include a copy of this email with your key document package.

This is an automated message.

Garbe, Kay

From: srpedd@dep.state.nj.us
Sent: Tuesday, June 25, 2013 2:16 PM
To: Schlatter, David
Subject: G000006130, HB133411 Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; G000006130_20130219_20130220.KML; HZRESULT.TXT; HZSAMPLE.TXT

The EDD submission shown below was processed 06/25/2013. This submission has passed and is cataloged in our system.

Your submission has been issued an SRP Catalog ID: HB133411 Thank You

The following identifiers were in the DTST file:

Directory: 13-01503

DESC: SEA ISLE

SRPID: G000006130

Submit Date: M/d/yyyy

If you are using the email to process your EDD with your key document, include a copy of this email with your key document package.

This is an automated message.

Garbe, Kay

From: srpedd@dep.state.nj.us
Sent: Tuesday, June 25, 2013 2:17 PM
To: Schlatter, David
Subject: G000006130, HB133417 Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; G000006130_20130222_20130222.KML; HZRESULT.TXT; HZSAMPLE.TXT

The EDD submission shown below was processed 06/25/2013. This submission has passed and is cataloged in our system.

Your submission has been issued an SRP Catalog ID: HB133417 Thank You

The following identifiers were in the DTST file:

Directory: 13-01578

DESC: SEA ISLE

SRPID: G000006130

Submit Date: M/d/yyyy

If you are using the email to process your EDD with your key document, include a copy of this email with your key document package.

This is an automated message.

Garbe, Kay

From: srpedd@dep.state.nj.us
Sent: Tuesday, June 25, 2013 2:17 PM
To: Schlatter, David
Subject: G000006130, HB133416 Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; G000006130_20130301_20130301.KML; HZRESULT.TXT; HZSAMPLE.TXT

The EDD submission shown below was processed 06/25/2013. This submission has passed and is cataloged in our system.

Your submission has been issued an SRP Catalog ID: HB133416 Thank You

The following identifiers were in the DTST file:

Directory: 13-01756

DESC: SEA ISLE

SRPID: G000006130

Submit Date: M/d/yyyy

If you are using the email to process your EDD with your key document, include a copy of this email with your key document package.

This is an automated message.

Garbe, Kay

From: srpedd@dep.state.nj.us
Sent: Tuesday, June 25, 2013 2:16 PM
To: Schlatter, David
Subject: G000006130, HB133408 Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; G000006130_20130321_20130321.KML; HZRESULT.TXT; HZSAMPLE.TXT

The EDD submission shown below was processed 06/25/2013. This submission has passed and is cataloged in our system.

Your submission has been issued an SRP Catalog ID: HB133408 Thank You

The following identifiers were in the DTST file:

Directory: 13-02466

DESC: SEA ISLE

SRPID: G000006130

Submit Date: M/d/yyyy

If you are using the email to process your EDD with your key document, include a copy of this email with your key document package.

This is an automated message.

Garbe, Kay

From: srpedd@dep.state.nj.us
Sent: Tuesday, June 25, 2013 2:17 PM
To: Schlatter, David
Subject: G000006130, HB133414 Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; G000006130_20130322_20130322.KML; HZRESULT.TXT; HZSAMPLE.TXT

The EDD submission shown below was processed 06/25/2013. This submission has passed and is cataloged in our system.

Your submission has been issued an SRP Catalog ID: HB133414 Thank You

The following identifiers were in the DTST file:

Directory: 13-02530

DESC: SEA ISLE

SRPID: G000006130

Submit Date: M/d/yyyy

If you are using the email to process your EDD with your key document, include a copy of this email with your key document package.

This is an automated message.

Garbe, Kay

From: srpedd@dep.state.nj.us
Sent: Tuesday, June 25, 2013 2:16 PM
To: Schlatter, David
Subject: G000006130, HB133412 Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; G000006130_20130328_20130328.KML; HZRESULT.TXT; HZSAMPLE.TXT

The EDD submission shown below was processed 06/25/2013. This submission has passed and is cataloged in our system.

Your submission has been issued an SRP Catalog ID: HB133412 Thank You

The following identifiers were in the DTST file:

Directory: 13-02722

DESC: SEA ISLE

SRPID: G000006130

Submit Date: M/d/yyyy

If you are using the email to process your EDD with your key document, include a copy of this email with your key document package.

This is an automated message.

Garbe, Kay

From: srpedd@dep.state.nj.us
Sent: Tuesday, June 25, 2013 2:16 PM
To: Schlatter, David
Subject: G000006130, HB133407 Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; G000006130_20130410_20130410.KML; HZRESULT.TXT; HZSAMPLE.TXT

The EDD submission shown below was processed 06/25/2013. This submission has passed and is cataloged in our system.

Your submission has been issued an SRP Catalog ID: HB133407 Thank You

The following identifiers were in the DTST file:

Directory: 13-03324
DESC: SEA ISLE
SRPID: G000006130
Submit Date: M/d/yyyy

If you are using the email to process your EDD with your key document, include a copy of this email with your key document package.

This is an automated message.

Garbe, Kay

From: srpedd@dep.state.nj.us
Sent: Tuesday, June 25, 2013 2:16 PM
To: Schlatter, David
Subject: G000006130, HB133410 Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; G000006130_20130415_20130415.KML; HZRESULT.TXT; HZSAMPLE.TXT

The EDD submission shown below was processed 06/25/2013. This submission has passed and is cataloged in our system.

Your submission has been issued an SRP Catalog ID: HB133410 Thank You

The following identifiers were in the DTST file:

Directory: 13-03381

DESC: SEA ISLE

SRPID: G000006130

Submit Date: M/d/yyyy

If you are using the email to process your EDD with your key document, include a copy of this email with your key document package.

This is an automated message.

Garbe, Kay

From: srpedd@dep.state.nj.us
Sent: Tuesday, June 25, 2013 2:16 PM
To: Schlatter, David
Subject: G000006130, HB133409 Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; G000006130_20130419_20130419.KML; HZRESULT.TXT; HZSAMPLE.TXT

The EDD submission shown below was processed 06/25/2013. This submission has passed and is cataloged in our system.

Your submission has been issued an SRP Catalog ID: HB133409 Thank You

The following identifiers were in the DTST file:

Directory: 13-03604

DESC: SEA ISLE

SRPID: G000006130

Submit Date: M/d/yyyy

If you are using the email to process your EDD with your key document, include a copy of this email with your key document package.

This is an automated message.

Garbe, Kay

From: srpedd@dep.state.nj.us
Sent: Thursday, June 27, 2013 4:08 PM
To: Schlatter, David
Subject: G000006130, HB133521 Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; G000006130_20130129_20130129.KML; HZRESULT.TXT; HZSAMPLE.TXT

The EDD submission shown below was processed 06/27/2013. This submission has passed and is cataloged in our system.

Your submission has been issued an SRP Catalog ID: HB133521 Thank You

The following identifiers were in the DTST file:

Directory: 13-00801

DESC: SEA ISLE

SRPID: G000006130

Submit Date: M/d/yyyy

If you are using the email to process your EDD with your key document, include a copy of this email with your key document package.

This is an automated message.

Garbe, Kay

From: srpedd@dep.state.nj.us
Sent: Wednesday, July 16, 2014 11:35 AM
To: Xu, Shu
Cc: don.cramer@dep.state.nj.us
Subject: G000006130, G000006130, HB155987 Passed
Attachments: erdtst-7-1-6.txt; erresult-7-1-6.txt; ersample-7-1-6.txt; rstp-7-1-6.txt; DTST.TXT; EDSA_Error_Log.html; G000006130_20140203_20140409.KML; HZRESULT.TXT; HZSAMPLE.TXT

The EDD submission shown below was processed 07/16/2014. This submission has passed and is cataloged in our system.

Your submission has been issued an SRP Catalog ID: HB155987 Thank You

The following identifiers were in the DTST file:

Directory: 20140714

DESC: SEA ISLE CITY COAL GAS (JCP&L & NJNG)

SRPID: G000006130

Submit Date: 7/14/2014

If you are using the email to process your EDD with your key document, include a copy of this email with your key document package.

This is an automated message.

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix L

Soil Laboratory Analytical Results

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix M

Clean Earth Disposal Manifests and Certificates of Destruction

Remedial Action Report
205, 207, 209, 211, 219, 223 and 227 40th Street,
and Portions of 210 39th Street and 3904 Central Avenue
Sea Isle City Former MGP Site
Sea Isle City, Cape May County, New Jersey
November 2014

Appendix N

Clean Fill Documentation Letter and Delivery Tickets