



Former Inwood Gas Holder Site

INWOOD, NASSAU COUNTY, NEW YORK

Interim Site Management Plan

NYSDEC Site Number: 130121

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Contents

1.0 Introduction and Description of Remedial Program	1-1
1.1 Introduction	1-1
1.1.1 Revisions	1-2
1.2 Site Background	1-2
1.2.1 Site Location and Description	1-2
1.2.2 Site History	1-2
1.2.3 Geologic Conditions	1-3
1.3 Summary of Completed Remedial Program	1-4
1.4 Summary of Remedial Investigations Findings	1-4
1.5 Summary of Remedial Actions	1-9
1.5.1 Treatment Systems	1-9
1.6 Remaining Impacts	1-9
2.0 Engineering and Institutional Control Plan	2-1
2.1 Introduction	2-1
2.1.1 General	2-1
2.1.2 Purpose	2-1
2.2 Engineering Controls	2-1
2.2.1 Engineering Control System	2-1
2.2.2 Monitoring Plan	2-2
2.3 Institutional Controls	2-2
2.4 Excavation Work Plan	2-3
2.5 Soil Vapor Intrusion Evaluation	2-3
3.0 Notifications and Planning	3-1
3.1 Notifications	3-1
3.2 Planning	3-1
3.2.1 Identification of Impacted Materials	3-1
3.2.2 Health and Safety	3-2
3.2.3 Public Safety	3-2
3.2.4 Communication Plan	3-3
3.3 Contingency Plan	3-3

3.3.1	Emergency Telephone Numbers	3-4
3.3.2	Map and Directions to Nearest Health Facility.....	3-4
3.3.3	Response Procedures	3-6
3.3.4	Personal Injury	3-6
4.0	References	4-1

List of Appendices

- Appendix A Excavation Work Plan
- Appendix B Site-Wide and Annual Inspection Forms
- Appendix C Health and Safety Plan
- Appendix D Community Air Monitoring Plan

List of Tables

Table 1-1	Monitoring Well Construction Summary
Table 1-2	Comparison of Surface Soil Analytical Data to Unrestricted and Restricted Commercial Use SCOs
Table 1-3	Comparison of Subsurface Soil Analytical Data to Unrestricted and Restricted Commercial Use SCOs
Table 1-4	Comparison of Groundwater Analytical Data to AWQSGVs
Table 1-5	Comparison of Soil Vapor Analytical Data to NYSDOH Background Standards
Table 2-1	Monitoring and Inspection Schedule
Table 3-1	Emergency Contact Numbers

List of Figures

Figure 1-1	Site Location Map
Figure 1-2	Site Layout
Figure 1-3	Site Layout and Extent of SMP
Figure 1-4	Location of Geological Cross Sections
Figure 1-5	Geological Cross Sections
Figure 1-6	Shallow Groundwater Elevation Contour Map
Figure 1-7	Intermediate Elevation Contour Map
Figure 1-8	Investigation Locations
Figure 1-9	Summary of Visual and Olfactory Impacts in Soil above Peat Layer (0 - 15')
Figure 1-10	Summary of Visual and Olfactory Impacts in Soil below Peat Layer (15 - 42')
Figure 1-11	Summary of Surface Soil Analytical Results (0 - 0.2')
Figure 1-12	Summary of Subsurface Soil Analytical Results above Peat Layer (2.0 - 15.0')
Figure 1-13	Summary of Subsurface Soil Analytical Results below Peat Layer (15.0 - 42.5')
Figure 1-14	Limits of Lead Impacted Soil Remediation
Figure 2-1	Composite Cover System Locations

List of Acronyms

AWQSGV	Ambient Water Quality Standards and Guidelines Values
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
CAMP	Community Air Monitoring Plan
C&D	Construction and Demolition
CCS	Composite Cover System
COCs	Constituents of Concerns
DER-10	NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation
DNAPL	Dense Non-Aqueous Phase Liquids
EC	Engineering Controls
EWP	Excavation Work Plan
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Responses
IC	Institutional Controls
ISMP	Interim Site Management Plan
LILCO	Long Island Lighting Company
MGP	Manufactured Gas Plant
NAD83	North American Datum of 1983
NAVD88	North American Vertical Datum of 1988
NYCRR	New York Codes Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OCAS	Order on Consent Index and Administrative Settlement
OSHA	Occupational Safety and Health Administration
PAHs	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyl
PID	Photo-ionization Detector
RI	Remedial Investigation
SCG	Standards, Criteria, and Guidance
SCO	Soil Cleanup Objectives
SIR	Site Investigation and Remediation
SVI	Soil Vapor Intrusion

SVOCs	Semi Volatile Organic Compounds
USEPA	United States Environmental Protection Agency
USGS	United States Geological Society
VOCs	Volatile Organic Compounds

MEASUREMENTS

cu ft	Cubic feet
ft	feet
ft bgs	feet below ground surface
ft msl	feet above mean sea level
ppm	Parts per million

1.0 Introduction and Description of Remedial Program

1.1 Introduction

This Interim Site Management Plan (ISMP) is required as an element of the remedial program implemented at the Former Inwood Gas Holder site (site) under the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program administered by New York State Department of Environmental Conservation (NYSDEC). The remedial program is being implemented at the site in accordance with Order on Consent Index and Administrative Settlement (OCAS) # A2-0552-0606, Site # 1-30-121, which was executed on March 2007 (NYSDEC, 2007). This OCAS required the Remedial Party, National Grid, to investigate and remediate, as part of the remedial program, site media that may have been impacted as a result of the former operations at the site.

Investigations, completed as part of the remedial program, identified lead and other inorganic compounds in historic fill, petroleum residuals, and Manufactured Gas Plant (MGP)-related residual material in site media. The historic fill has been encountered in several areas throughout the site. A remedial action completed in 1996 removed the majority of the lead impacts in the historic fill. The petroleum residuals were observed in the central and eastern portion of the site.

MGPs provided a major source of fuel for heating and lighting prior to the introduction of interstate natural gas pipelines. The MGP process generated several by-products that were frequently reused or recycled. However, the supply of these by-products often exceeded the demand, and small quantities were left in storage areas when the plants were decommissioned. As a result, there can be evidence of residual material, commonly referred to as coal tar, in the soils of these sites. In some instances, these residuals can migrate short distances from the site and potentially impact soil or groundwater in adjacent areas. While this site did not manufacture gas, it did store the product within a 6 million cubic feet gas holder that was formerly located at the site.

While the inorganic compounds and petroleum residuals are not generally related to former Gas Holder operations, its presence along with MGP-related residual material in soil and groundwater still presents a potential exposure hazard to site workers and construction workers. Thus work within the site has the potential for contact with historic fill, petroleum residuals and/or MGP-related residual material. The primary goal of this ISMP is to assure that site work is conducted in such a manner that construction worker and general public (including site workers) exposure to inorganic compounds in historic fill, petroleum residuals, or MGP-related residual material at the site is minimized through site controls, appropriate monitoring, and safe work practices. This document also provides a plan for management of the site impacted media that may impact site activities and present a hazard to the public and environment.

This ISMP was prepared by AECOM, on behalf of National Grid, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated June, 2010 (NYSDEC, 2010), and the guidelines provided by NYSDEC. This ISMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) at the site. ECs have been incorporated into the ISMP to control exposure to impacted site media during the use of the site and to ensure protection of public health and the environment. The ICs place restrictions on site use, and mandate notification and planning prior to site work.

For the purpose of this document, surface soil is considered to be the top 6 inches of soil on the site while subsurface soil is considered to be 6 inches below the surface of the site. In areas currently covered with a concrete or paved surface, subsurface is consider any soils below the gravel or base of the concrete.

1.1.1 Revisions

Revisions to this ISMP will be proposed in writing to the NYSDEC's project manager and appended to the ISMP that is retained in its files.

1.2 Site Background

1.2.1 Site Location and Description

The site is located adjacent to the southwest corner of the intersection of Sheridan Boulevard and Nassau Avenue in Inwood, County of Nassau, New York. The site is an approximately 27-acre area bounded by Nassau Avenue and Waterfront Blvd to the north, Motts Basin, a tributary to Jamaica Bay, to the south, Sheridan Blvd to the east, and a projected extension of Alameda Avenue to the west. The site is illustrated on a portion of the United States Geological Society (USGS) 7.5 Minute Far Rockaway Quadrangle map in **Figure 1-1**. The site layout is provided in **Figure 1-2**.

The site is secured by a chain link fence and gate. The majority of the site is undeveloped and overgrown with trees and brush. The concrete foundations of the former 6,000,000 cubic feet (cu ft) water sealed gas holder, pump house, boiler house, and engine room are located in the northeastern area of the parcel. Two concrete supports indicate the former location of nine horizontal liquid propane tanks in the east central portion of the site. A natural gas metering and regulation station is in operation and located east of the holder foundation and adjacent to Sheridan Blvd. A commercial factory building is located to the northeast of the holder at the corner of Sheridan Blvd and Nassau Ave. This factory building is reported to have previously been part of the property boundary but is not indicated as such today. It is believed that the factory building is currently owned by a third party and is not subject to this ISMP. A figure showing the site layout and extent of the ISMP is provided in **Figure 1-3**.

1.2.2 Site History

The facility was a remote gas distribution holder with no manufactured gas production facilities. Construction of the 6-million cu ft Gas Holder and associated structures began in 1923 [Long Island Lighting Company (LILCO), 1994a]. The facility appears to have been complete and operational by 1940. The Gas Holder was constructed to supplement LILCO's low pressure gas system during the winter when demand was higher. The Gas Holder was filled during the summer and drained back into the distribution system during the winter [LILCO, 1994a]. By 1950, nine liquid propane gas (LPG) tanks were installed in horizontal rows to the southeast of the holder for gas vaporization. Around 1961, while the facility operations remained unchanged, a factory building was built to the northeast of the holder as the area was developed for commercial use. By 1972, a pump house was constructed to the southeast of the holder. The Gas Holder was demolished in 1993, and the contents (oil, oil emulsion, seal water, and tank bottom sediments) were removed for off-site disposal. The concrete Gas Holder pad located at the ground surface and associated concrete pads from other gas holder operation structures were left in place and are still visible. Natural gas metering and regulation operations continued after the holder was decommissioned and removed [LILCO, 1993]. The LPG tanks were removed between 1993 and 2009.

The facility operations experienced very little change from the construction of the facility in 1923 to its decommissioning in 1993. The majority of the site remained undeveloped during that time period. However, soil sample observations from soil borings advanced in the 1993 site investigation encountered the presence of fly ash to a maximum depth of 12 feet bgs. According to the LILCO Site Investigation Report of November 1993, the site may have been used for disposal of ash. In 1992 containers of No. 6 oil were also encountered in the center of the site. In addition, approximately 3,000 cu yds of construction debris (concrete and asphalt) were encountered in this area. The containers and the construction debris were removed in 1992 [LILCO, 1993].

1.2.3 Geologic Conditions

1.2.3.1 Site Topography and Drainage

The ground surface in the area of the former holder is approximately 5 feet above mean sea level (ft msl) [LILCO, 1993]. The majority of the topography is relatively flat with an elevation between 10 and 12 feet above the North American Vertical Datum (NAVD) 88 within the center of the site. The ground surface slopes steeply along the edge of the property towards Motts Basin. The drainage on the property is extremely poor. Between a shallow groundwater table and low areas throughout the Site, surface water that accumulates on the Site during storm events drains into the lower elevations which results in limited flooding. Surface drainage follows the topography as well as a storm water and drainage system along the east side of the property that empties into Motts Basin.

1.2.3.2 Site Geology

The site geology consists of four unconsolidated units varying widely in thickness and distribution across the site. These units consist of historic fill, peat, sand, and clay/silty clay. Location of Geologic sections and Geologic sections are shown in **Figures 1-4** and **1-5** respectively.

Historic Fill

Historic fill material covers the majority of the site in a layer typically ranging from 0.5 to 14 ft thick. The fill is comprised of mostly poorly graded sand with silt and gravel with varying amounts of coal fragments, wood fragments, metal fragments, brick fragments, glass, clinkers, and ash. Ash and ash-related material were found scattered throughout the site and typically mixed with either native soils or fill material brought to the site. Several borings located in the central portion of the site contained a greater percentage of ash than in other borings advanced at the site. The ash and soil mixed with ash were generally found at various depths, with the deepest encountered at approximately 14 ft bgs.

Peat

Beneath the fill is a discontinuous layer of brown to grey peat. When encountered, the peat ranged in thickness between 1 and 4.5 ft. The peat was observed in some soil borings to contain some silt and strong organic odors. The peat appears to pinch out along the southern portion of the site.

Sand

Beneath the peat and the fill (where peat was not observed) is a native sand unit that is comprised of largely well graded sand, with lesser amounts of poorly graded sand. The sand was observed to be present at all boring locations advanced at the site. The thickness of sand ranges between 20 and 26 ft.

Clay/Silty Clay

Beneath the sand is a firm, clay/silty clay unit with high plasticity that was observed in all of the borings advanced at the site. This unit was generally observed at depths around 36 ft bgs and extended to the deepest boring depths (50 ft bgs).

1.2.3.3 Site Hydrogeology

Groundwater beneath the site is present in one continuous upper aquifer zone extending from the water table (between 3 and 8 ft bgs) to the top of the clay / silty clay unit. Groundwater contour maps (**Figures 1-6 and 1-7**) have been prepared for two rounds of data (March 9, 2010 and July 28, 2011). As shown on these figures, the groundwater flow is generally from north and northeast to south and southwest across the site. **Table 1-1** summarizes the screen intervals and the depths to groundwater measured in the monitoring wells installed on the site.

1.3 Summary of Completed Remedial Program

Multiple site investigations and remedial actions have been completed on the site to-date as listed below:

- Site Investigation, November 1993 (LILCO, 1993)
- Lead Investigation, Spring 1994 (LILCO, 1994a)
- NYSDEC Spill 94-06271 Investigation (LILCO, 1994b, 1995, 1998)
- Lead-Impacted Soil Removal Remedial Action, 1996 (EarthTech, 1997)
- Groundwater Monitoring, 1999 and 2000
- Remedial Investigation, 2010 and 2011 (AECOM, 2014)

The following presents a brief summary of the previous investigative and remedial measures conducted at the site to date. With the exception of surface soil lead impacts which were removed in 1996, all other impacts described below are assumed to be present in the site soils, groundwater, and soil vapor.

1.4 Summary of Remedial Investigation Findings

Multiple investigations were completed to characterize the nature and extent of impacts at the site. The results of these investigations are described in detail in the Remedial Investigation Report dated May 2014 (AECOM, 2014).

As mentioned before, the former operations at the site resulted in the presence of the following waste in the site media:

- Historic fill – including fly ash and/or coal ash which contain inorganic compounds like arsenic and nickel
- Lead-impacted surface and subsurface soil
- Petroleum residuals and petroleum-impacted material – including No. 6 Fuel Oil
- MGP-related residual material - The principal human health and environmental risks posed by MGP-related residual material relate to the presence of highly weathered coal tar. Coal tar belongs to a group of organic contaminants known as dense non-aqueous phase liquids

(DNAPL). DNAPLs do not readily dissolve in water and tend to sink to the bottom of water bodies and aquifers. When released into the subsurface, these liquids can spread out in complex directions that may or may not be the same direction as groundwater flow. Coal tar is an unusual DNAPL because its density is only slightly greater than water. Although coal tar does tend to sink, the relatively slight difference in density between tar and water makes this sinking effect somewhat unpredictable. Three classes of chemical compounds contained in the coal tar are of concern on the site:

- (1) Benzene, toluene, ethylbenzene, and xylenes (collectively known as the BTEX compounds) are volatile organic compounds (VOCs), which are also commonly found in unleaded gasoline, paint thinners, and other solvents. They are somewhat soluble in water. Consequently, groundwater which comes into contact with coal tar often becomes contaminated with these compounds. This contaminated groundwater is then free to move away from the source along with the ordinary groundwater flow through the subsurface.
- (2) Polycyclic aromatic hydrocarbons (PAHs). This is a large group of semi-volatile organic compounds (SVOCs) with several hundred different individuals known to exist. They are far less soluble than the BTEX compounds, and consequently are far less likely to cause groundwater contamination. They are also far less likely to be digested by soil bacteria, and thus are very persistent in the environment. The United States Environmental Protection Agency (USEPA) has identified 17 of the PAHs as hazardous materials, and these are the ones used to define the extent of PAH contamination at the site.
- (3) Cyanide, bound to iron to form ferric-ferrocyanide, is a component of some coal tars.

To determine whether the soil, groundwater, and soil vapor contain impacts related to former operations at the site at levels of concern, data from the remedial investigations were compared to the following standards, criteria and guidance (SCGs):

- Groundwater SCGs are based on the NYSDEC Ambient Water Quality Standards and Guidance Values (AWQSGV) and Part 5 of the NYS Sanitary Code (NYSDEC, 1998).
- Soil SCGs are based on the NYSDEC Division of Environmental Remediation, 6 New York Codes, Rules, and Regulations (NYCRR) Part 375 Restricted Commercial Use Soil Cleanup Objectives (SCOs), as well as NYSDEC's alternative PAH criterion for non-residential sites, total PAH of 500 mg/Kg, specified in DEC Policy CP-51 Soil Cleanup Guidance, October 2010.
- Sediment standards, criteria, and guidance values are based on the Department of Environmental Conservation (New York State) "Technical Guidance for Screening Contaminated Sediments."
- Indoor air SCGs are based on the NYS Department of Health (NYSDOH) Database summary of indoor and outdoor air sample results in control homes collected and analyzed by DOH from 1989 through 1996.

Many soil, groundwater, and ambient and soil vapor samples were collected during the remedial investigations to characterize the nature and extent of site impacts. The main categories of contaminants that exceed their SCGs are VOCs, SVOCs, lead, arsenic, and nickel. The principal human health and environmental risks posed by this site relate to the presence of highly weathered

coal tar and petroleum-related material located at depths greater than 2 feet below ground surface (ft bgs) in the central portion of the site.

Generally, the investigations determined that there were no ongoing exposures to impacts from the site. Access to site surface is mostly restricted which further reduces the likelihood of direct contact with soils impacted with waste from former site operations. Exposure to potentially impacted groundwater is not occurring as there are no supply wells located in the contaminated area. Soil vapor samples from the site have shown evidence of MGP-related residual material but in concentrations low enough not to cause an indoor air pathway.

Table 1-2 and **Table 1-3** summarize the analytical data for the constituents of concern (COCs) in surface and subsurface soil; and compare the data with the SCGs for the site. **Table 1-4** and **Table 1-5** summarize the analytical data for the COCs in groundwater and soil vapor; and compare the data with the SCGs for the site. The locations of all the samples are noted on **Figure 1-8**.

Below is a summary of site conditions from the remedial investigations completed to date:

Historic Fill

Historic fill material covers the majority of the site in a layer typically ranging from 0.5 to 14 ft thick with the thinnest area of fill observed in the northwestern portion of the site and the thickest located in the center of the site. The historic fill consist of varying amounts of coal fragments, wood fragments, metal fragments, brick fragments, glass, clinkers, ash, drums and containers, and construction and demolition (C&D) debris. Ash and ash-related material were found in the historic fill across the site at various depths with the deepest encountered at approximately 14 ft bgs consistent with the historic fill depth. Historic fill in the central, southern, and eastern portion of the site contained a greater percentage of ash than in other portions of the site. This ash material is also historically referred to as fly ash, coal ash, and oil ash. The terms coal ash and oil ash refer to ash that has been generated from a coal-fired or oil-fired power plant and are not indicative of the coal or oil content of the ash fill.

The historic fill also contained solid waste containers, 1000-gallon empty tank, and C&D debris which were removed in 1993 and 1994.

Petroleum Residuals

Impacts related to petroleum residuals included petroleum-like odors, petroleum-like staining, petroleum sheens, and free product. The remedial investigations identified petroleum residuals in soils located south and southwest of the former Gas Holder in an area of approximately 100 ft by 250 ft in size. The petroleum residuals and related impacts in soils were largely confined to top of the peat layer.

Coal Tar

Coal tar impacts included tar-like odors, tar-like staining, trace tar sheens, tar coatings of soil grains (tar observed on soil grains but not in the pore spaces), tar blebs, and tar saturation. Coal tar migrated to a depth of roughly 10-15 ft bgs. At this level, it encountered a layer of peat which it could not readily penetrate, and spread laterally on top of this layer beneath the site.

Near the eastern portion of the site, the peat layer thins out, and the coal tar spread downward much further, to a total depth of roughly 35 feet. No deep penetration of coal tar has been found below the clay/silty clay unit.

Due to the highly weathered nature of the coal tar, it is not believed to be an ongoing source of contamination for soil and groundwater.

The extent of impacts in soils related to petroleum residuals and coal tar are shown on **Figures 1-9 and 1-10**.

Surface Soil

Surface soil samples were collected from the upper zero to two or zero to six inches across the site. Surface soil samples were analyzed for SVOCs, VOCs, metals, cyanide, polychlorinated biphenyls (PCBs), and pesticides/herbicides.

BTEX compounds were non-detect or below the Commercial SCOs in all samples. Although PAHs were detected in almost all the samples, only two samples contained one or more PAH compounds at concentrations above the Commercial SCOs. These samples were collected within the visually impacted areas of the site.

Arsenic, barium, lead, and nickel were detected above the commercial SCOs in the surface soil samples across the site. Lead impacts were detected in high concentrations around the former Gasholder and were removed during the 2006 IRM. Cyanide was detected in only three samples, at low levels. PCBs and pesticides/herbicides were not detected in any samples.

A summary of compounds detected in surface soils are provided in **Table 1-2**. Concentrations of BTEX, PAHs, metals and cyanide detected in surface soils above the Commercial SCOs are shown in **Figure 1-11**.

Subsurface Soil

PAH and BTEX contamination of subsurface soils was detected in areas where visible petroleum residuals and visible-weathered coal tar was present. Thus, the highest levels of soil impacts are found in the shallow subsurface soils (less than 15 ft bgs) in the central and eastern portion of the site. Outside of the zones of petroleum-related waste and coal tar impacts, PAH and BTEX concentrations decrease rapidly.

Total BTEX concentrations ranged from not detectable to 1,820 parts per million (ppm), and PAH concentrations ranged from not detectable to 2,340 ppm above the peat layer. Arsenic was detected in four samples at concentrations exceeding the Commercial SCOs. Cyanide was detected in subsurface samples, at low levels. PCBs and pesticides/herbicides were not detected in any samples.

A summary of compounds detected in subsurface soils are provided in **Table 1-3**.

Concentrations of BTEX, PAHs, metals and cyanide detected in subsurface soils above Commercial SCOs are shown in **Figure 1-12 and Figure 1-13**.

Site-Related Groundwater

Both PAHs and BTEX compounds are found in site groundwater, with the highest contaminant levels found at shallow depths, in close proximity to the petroleum residuals and coal tar. Groundwater flow direction is south toward Motts Basin. BTEX compounds were detected in the majority of the groundwater samples collected both within and downgradient of the petroleum residuals and coal tar impacts. Benzene was the individual compound detected most frequently, and at the highest concentration, with values ranging from non-detect to 35 ppm (35,000 µg/L). PAH compounds are less soluble than BTEX, but due to the extensive distribution of petroleum residuals and coal tar, they were detected in most groundwater samples as well. Naphthalene is the PAH compound detected most frequently, and at the highest concentration, with values ranging from non-detect to 12 ppm.

Metals detected above the AWQSGVs include antimony, arsenic, beryllium, iron, lead, magnesium, manganese, nickel, sodium, selenium, thallium, and zinc. These compounds were detected throughout the site and believed to be a result of historic fill impacts.

A summary of compounds detected in site groundwater are provided in **Table 1-4**.

Surface Sediment Samples

The sediments in the intermittent stream on-site and in Motts Basin were sampled for BTEX, PAHs, metals, cyanide, and PCBs. PAHs were detected in three of the five samples analyzed. PAHs compounds detected above the criteria were 2-methylnaphthalene, acenaphthylene, anthracene, benzo(a)anthracene, chrysene, naphthalene, phenanthrene, and pyrene. The highest levels of these PAHs were detected in samples obtained from the intermittent stream near the area of the visually impacted soil and at the mouth of the stream at Motts Basin. Metals detected above criteria were arsenic, copper, lead, mercury, nickel and zinc. As with the elevated PAHs, the highest levels of these metals were detected in samples obtained from the intermittent stream near the area of the visually impacted soil and at the mouth of the stream and did not extend off-site into Motts Basin (Sed-4).

Site-Related Soil Vapor Intrusion

Samples of soil vapor were collected along the perimeter of the site adjacent to Sheridan Boulevard and Nassau Avenue. Samples of soil vapor were collected from four locations to determine the potential for indoor and outdoor impacts of VOCs in the subsurface from offsite sources should structures be placed on the site in the future. Thirty two of the 72 VOCs analyzed were detected in the four soil vapor samples collected at the site. Given that the depth to groundwater at the site is approximately 2 to 3.5 ft bgs, the source of these compounds in soil vapor may be from impacts related to dissolved phase constituents from street runoff upgradient from the site rather than from the known onsite impacts, which appear to be located within the interior portions of the site. Based upon the location of the sampling points and the apparent direction of groundwater flow, the source of the contaminants detected are likely from upgradient ground sources located along Sheridan Boulevard and Nassau Avenue rather than from the known impacts at depth onsite.

A summary of compounds detected in site soil vapor are provided in **Table 1-5**.

1.5 Summary of Remedial Actions

Waste containers, a 1,000-gallon tank, and miscellaneous C&D debris were removed from the historic fill in late 1993 and early 1994.

In 1996, Earth Tech completed remedial actions to remove lead impacted surface soils within the site. The elevated lead in the surface soils was attributed to the maintenance and weathering of lead paint from the former Gasholder. Soils were excavated from 6 inch intervals to a maximum depth of 36 inches or the encountered water table within nineteen 100-foot square cells. Soils were excavated to achieve the site specific lead action level of 500 milligrams per kilogram; however, some isolated areas of soils remained at depth. Approximately, 5,900 cubic yards of soils and 225 tons of debris (including wood, concrete, and cobbles) were removed from the site for off-site disposal at approved facilities. Excavated areas were backfilled with certified clean soils approved by the NYSDEC.

Prior to the start of the Remedial Investigation (RI) activities, Creamer Environmental, Inc. conducted clearing activities and constructed new access roads with clean off-site gravel backfill. In addition, some of the site's existing gates and fence were restored and new gates were installed in the perimeter fence.

1.5.1 Treatment Systems

No long-term treatment systems are currently installed as part of the remedial program.

1.6 Remaining Impacts

The 1996 remedial action resulted in the removal of 90% of the lead impacts in surface soils on the site. All other impacts summarized in Section 1.4 are assumed to be present in the site soil, groundwater, and soil vapor including surface soils in unpaved areas and subsurface soils below areas covered with compacted gravel and/or concrete pads.

2.0 Engineering and Institutional Control Plan

2.1 Introduction

2.1.1 General

Since soil, groundwater, and soil vapor impacts exist beneath the site, EC/ICs are required to protect human health and the environment. This Engineering and Institutional Control Plan describes the procedures for the implementation and management of all EC/ICs at the site. The EC/IC Plan is one component of the ISMP and is subject to revision by NYSDEC.

2.1.2 Purpose

This plan provides:

- A description of all EC/ICs on the site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs;
- A description of the features to be evaluated during each required inspection and periodic review; and
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan [Appendix A, (EWP)] for the proper handling of site media that may be disturbed during maintenance or site work.

2.2 Engineering Controls

2.2.1 Engineering Control System

2.2.1.1 Composite Cover System

Exposure to impacted site media in portions of the site frequently accessed by site workers is prevented by a composite cover system (CCS). The CCS is an EC that provides a physical barrier that limits potential human and environmental exposures to impacted subsurface soils and groundwater present at the site. The CCS is comprised of a minimum of 6 inches of clean soils (placed following the excavation of the lead-impacted soils in 1996), compacted gravel, and concrete slabs (**Figure 2-1**). The EWP that appears in Appendix A and summarized in Section 2.4 outlines the procedures required to be implemented in the event the CCS is breached, penetrated or temporarily removed, and any underlying impacted media is disturbed. Procedures for monitoring, inspection and maintenance of this CCS are provided in the Monitoring Plan described below. The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls at site, occurs.

2.2.1.2 Security Fence

The site is fenced along the site boundaries accessible by land. The access is limited through gates which remain locked to prevent unauthorized access to the site. Trespassing and hence exposure to

the on-site impacted media in areas where the CCS is missing is prevented by the fence around the site. The fence is stainless steel chainlink fence and is 8 feet tall.

2.2.2 Monitoring Plan

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the ECs in protecting public health and the environment. The monitoring program is summarized in Table 2-1 and outlined in detail in sections below.

2.2.2.1 Composite Cover System Monitoring

The CCS EC will be inspected annually by a New York State licensed professional engineer or qualified environmental professional to confirm that the cover system is intact, remains unchanged, and continues to be protective of human health and the environment. An individual that is familiar with the CCS and the site will complete the inspection. The annual inspections will be documented on the Annual Inspection and Certification Checklist provided in Appendix B. The form provides a checklist to document if there are any changes since the previous year's inspection and that the EC continues to operate as intended. A survey of the CCS will be completed if changes in the cover occur during the year or if changes are noted in the annual inspection. The survey will be completed by a New York State licensed surveyor and referenced NAVD 88 vertical datum to an accuracy of 0.01 ±foot and referenced to North American Datum (NAD 83).

If an emergency, such as a natural disaster or unforeseen failure of the EC occurs, a qualified environmental professional will conduct an inspection of the CCS within five business days of the event to verify the effectiveness of the composite cover.

2.2.2.2 Security Fence

Site security will be evaluated and inspected annually by a qualified environmental professional to confirm that site security remains unchanged, and continues to be protective of human health and the environment. An individual that is familiar with the site will complete the inspection.

If an emergency, such as a natural disaster or unforeseen failure of the EC occurs, a qualified environmental professional will conduct an inspection of the security fence within five business days of the event to verify the effectiveness of the security fence.

2.3 Institutional Controls

A series of ICs are required to: (1) implement, maintain and monitor the CCS (**Figure 2-1**) and security fence; and (2) control disturbances of site media. These ICs include:

- The site may only be used for Restricted Commercial Use;
- All site work in areas not covered by the CCS will require compliance with 29 CFR 1910.120. All site workers shall be Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Responses (HAZWOPER)-trained workers and be represented onsite by an OSHA trained Site Supervisor;
- All future activities on the site that will disturb impacted site media must be conducted in accordance with this ISMP;
- The use of the groundwater underlying the site is prohibited without the approval of the NYSDEC;

- The potential for vapor intrusion must be evaluated prior to any modification of the existing building and for any buildings developed on the site, and any potential impacts that are identified must be monitored or mitigated;
- All ECs must be inspected and certified by National Grid at a frequency and in a manner defined in the ISMP;
- Groundwater and indoor air monitoring must be performed as required by the remedial program; and
- Data and information pertinent to Site Management must be reported at the frequency and in a manner defined in this ISMP.

Copies of this ISMP will be supplied to all applicable National Grid departments that operate or have the potential to operate on the site. A copy of the ISMP will be stored within the active facility on-site.

2.4 Excavation Work Plan

The site has been characterized for Restricted Commercial Use. Any future intrusive work that will penetrate the CCS, or encounter or disturb impacted site media, including any modifications or repairs to the existing CCS will be performed in compliance with the EWP that is attached as Appendix A to this ISMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the site. A site-specific HASP is attached as Appendix C to this ISMP that is in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. Based on future changes to State and federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and re-submitted with the notification provided in Section A-1 of the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be reported to NYSDEC.

2.5 Soil Vapor Intrusion Evaluation

Prior to the construction of any enclosed structures located over areas that contain petroleum-related or coal tar impacts and the potential for soil vapor intrusion (SVI) has been identified, an SVI evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. This mitigation system will include a vapor barrier and passive sub-slab depressurization system that is capable of being converted to an active system.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the most recent NYSDOH "Guidance for Evaluating Vapor Intrusion in the State of New York". Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH guidance, and construction details of the proposed structure.

Preliminary (unvalidated) SVI sampling data will be forwarded to the NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be transmitted to the agencies, along with a recommendation for follow-up action, such as mitigation. Validated SVI data will be transmitted to the property owner(s) within 30 days of validation.

SVI sampling results, evaluations, and follow-up actions will also be summarized in a report to the NYSDEC.

3.0 Notifications and Planning

3.1 Notifications

The following notifications will be submitted by National Grid to NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed changes in property use.
- 15-business day advance notice of any proposed ground-intrusive activities pursuant to the EWP.
- Notice within 48-hours of any damage or defect to the foundations structures that reduces or has the potential to reduce the effectiveness of other ECs and likewise any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the affected property, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

National Grid Site Investigation and Remediation (SIR) department may have a representative on-site, as appropriate, during any ground-intrusive work activities to observe activities and document compliance with this ISMP.

3.2 Planning

All areas of the site will be assumed impacted except in the location of the CCS (**Figure 2-1**). In the event that the work activity will include access to non-CCS areas, several measures need to be taken to minimize the exposure of construction workers and the general public to MGP-related residual material and non-MGP related materials (e.g. historic fill, lead impacted materials and/or petroleum residuals). These measures are detailed in the EWP.

All work on non-CCS areas shall be performed in compliance with 29 CFR 1910.120. The contractor/National Grid representative shall identify appropriate OSHA HAZWOPER trained workers and requisite equipment for all site work. In addition to OSHA HAZWOPER trained workers, a site Supervisor with the OSHA HAZWOPER 8-Hour Supervisor Training in accordance with 29 CFR 1910.120(e)(8), shall be identified.

3.2.1 Identification of Impacted Materials

During site work it is the responsibility of the National Grid representative to identify potentially impacted materials. As discussed above, materials with MGP-related and non-MGP-related (e.g., historic fill, lead-related material, and petroleum residuals) impacts are known to exist on the site.

MGP-related impacted materials typically consist of soil and/or groundwater impacted with VOCs, PAHs, and in some cases Cyanide. One of the primary by-products of MGP operations is coal tar, which is similar in composition to asphalt. MGP-related impacts at the site range from soil/groundwater impacted with free phase coal tar to minor soil impacts and dissolved phase impacts in groundwater.

Although the composition of MGP residuals is well known, handling must be limited to personnel with appropriate health and safety training and proper personal protective equipment (PPE). There are several typical signs of the potential presence of MGP residuals within an open excavation, including: soil that is stained (black or bright blue), rainbow sheen on the surface of the groundwater, and/or a characteristic odor, which has been described as “mothball-like”. To be identified as MGP-related, soil or groundwater will exhibit either visual or olfactory signs. All subsurface soils should be placed on plastic prior to determining if it is impacted. Soil or groundwater with visible or olfactory evidence of MGP-related impacts shall not go back in the ground and shall be properly disposed of as discussed in EWP.

In addition to the MGP-related impacts, significant non-MGP impacts (e.g., historic fill, lead-related material, and petroleum residuals) are known to exist in several areas of the site. Historic fill is identified by the presence of ash and/or C&D debris. Lead impacts can be identified via analytical sampling only. Petroleum-related impacts can be identified similarly to MGP residuals including stained soils, rainbow sheen on the surface of the groundwater, and/or a petroleum-like odor.

It is likely that, in several areas of the site, all types of impacts are present together or that types of impacts not described in this document are present.

For all subsurface work, a qualified environmental professional trained in the identification of MGP-related impacts should be present.

3.2.2 Health and Safety

Surface intrusive work must be conducted in accordance with the procedures defined in the HASP and CAMP prepared for these properties and included as Appendix C and Appendix D respectively of this document.

3.2.3 Public Safety

Several steps need to be taken in order to protect the public, including site workers, and minimize exposure to impacted materials potentially present on the site.

A fence with dust screen should be set up to isolate the work area from the general public, and delineate the work area for site workers. Open excavations should be covered in plastic and secured when work is not being performed.

Personnel and equipment decontamination areas should be in place prior to soil disturbance to prevent soil from being tracked by construction workers or equipment out of the work area. Appropriate housekeeping procedures need to be implemented to ensure that public spaces are clear of soil and debris related to excavation work, whether the soil or debris is thought to be impacted or not.

Excavated soil shall be placed on plastic in order to prevent cross contamination. If excess soil, clean or impacted, is stored on-site, it shall be covered in plastic to help mitigate excessive dust. If soil is

visibly or olfactory impacted with MGP-related residual material, as discussed in the previous section, it should be placed in appropriate containers (steel drums or roll offs depending on amount) and disposed of at a National Grid approved thermal treatment facility.

Community air monitoring will be performed prior to and during intrusive and impacted soil management activities. Community air monitoring consists of, at a minimum, a photo ionization detector (PID) equipped with a 10.2 or 10.6 eV lamp and a portable particulate monitor. CAMP stations shall be placed upwind and downwind of the work area. A CAMP is included as Appendix D of this document.

A variety of odor, vapor and dust control techniques may be used. Please refer to EWP for more details.

Additional practices that may also be executed to mitigate the public's exposure to impacted soil and water include:

- Keeping surfaces beyond the excavation areas swept clean of dirt and debris.
- Pathways and roads will be kept free of soil, regardless of level of impacts (i.e. keep the work site clean).
- The contractor shall ensure that groundwater draining from excavated soil is appropriately managed to contain potential impacted water.
- Containers (e.g., drums, tanks) of groundwater generated during intrusive activities shall be monitored for leakage.
- Groundwater generated during intrusive activities will be sampled as required to facilitate disposal at an approved off-site facility.
- Soils with visible and/or olfactory evidence of impacts shall not go back in the ground without prior approval from the NYSDEC.
- Backfilling of the top two feet of non-paved areas shall be completed with clean fill from an off-site source. A clearly identifiable demarcation layer shall be emplaced beneath the clean fill and existing soils.

3.2.4 Communication Plan

Prior to any subsurface activity, a communication plan consisting of meetings, emails, site visits and phone calls will be developed by National Grid to facilitate project work and keep concerned parties up to date. In addition, on a case by case basis, depending on scope and location of work, placement of signage at the site perimeter will be evaluated if there is potential to generate odor or dust complaints based on previously collected data (e.g., from the Remedial Investigation). Signage shall contain contact information for the NYSDEC and NYSDOH project managers and National Grid hotline information, in the event the public has immediate concerns regarding site activities and/or odor or dust generation.

3.3 Contingency Plan

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

3.3.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance the site representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to AECOM. These emergency contact lists must be maintained in an easily accessible location at the site.

3.3.2 Map and Directions to Nearest Health Facility

Site Location: Nassau Avenue and Sheridan Boulevard, Inwood, NY

Nearest Hospital Name: St. John's Episcopal Hospital

Hospital Location: 327 Beach 19th Street, Far Rockaway, NY 11691

Hospital Telephone: General – (718) 869-7000; Emergency – (718) 869-7755

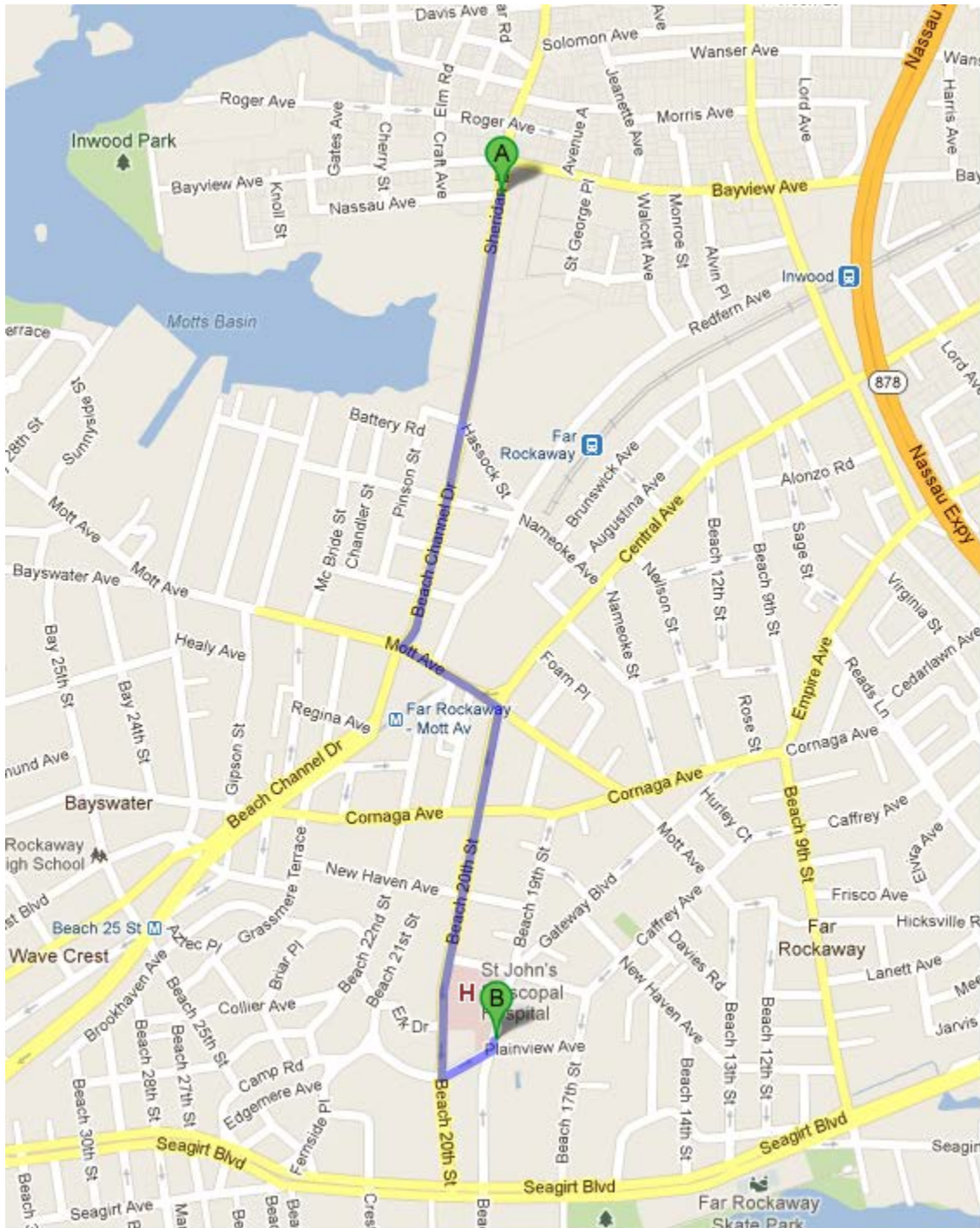
Directions to the Hospital:

1. Start: Sheridan Blvd and Nassau Avenue, Inwood, NY 11096
2. Head south on Sheridan Blvd 0.2 miles
3. Continue onto Beach Channel Dr 0.4 miles
4. Turn left onto Mott Ave 0.1 miles
5. Take the 3rd right onto Beach 20th St 0.5 miles
6. Turn left onto Plainview Ave 394 feet
7. Slight left onto Beach 19th St 75 feet
8. St. John's Episcopal Hospital will be on the left

Total Distance: 1.3 miles

Total Estimated Time: 5 minutes

Map Showing Route from the site to the Hospital:



3.3.3 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (**Table 3-1**). The list will also be posted prominently at the site and made readily available to all personnel at all times.

3.3.3.1 Emergency Spill Response

Should a spill occur, immediately employ methods to control or stop the migration of the spilled material, if feasible. If the release is significant or has impacted soil or groundwater, immediately notify the appropriate response agency. The following information must be provided:

- Time and location of spill;
- Type and nature of material spilled;
- Amount of material spilled;
- Whether the spill has affected or has the potential to affect a waterway or sewer;
- A brief description of the affected areas/equipment; and
- The expected time of cleanup completion.

Cleanup procedures will be in accordance with applicable local, state and federal regulations. Spill cleanup kits, appropriate to the monitoring or redevelopment activities (i.e., absorbent pads, ground cover, speedy dry, etc.) must be made available on-site.

3.3.3.2 Fire

Fire extinguishers are to be made available on-site for trained personnel to use on minor, controllable fires without endangering the safety of others. If the nature of the fire is beyond control with a fire extinguisher, the fire department shall be notified immediately.

3.3.4 Personal Injury

General information regarding site operations and worker health and safety is included in the HASP found in Appendix C. Minor cuts or abrasions are to be washed and treated immediately. First aid may be given on-site as deemed necessary. If needed, the individual will be decontaminated and transported to St. John Episcopal Hospital. The ambulance/rescue squad will be contacted (911) for transport as necessary in an emergency. In any life-threatening situation, the life-saving treatment of personnel is the immediate priority. The Emergency Coordinator, as defined in the HASP, or designee will be available to brief the rescue squad immediately upon their arrival to the location of the injured person(s), nature and extent of the injury(s), personnel involved, hazardous substances involved, and any other pertinent information. The Emergency Coordinator will supply chemical hazard information to appropriate medical personnel and complete an incident report on the accident or injury.

4.0 References

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LILCO, 1994b letter to Mr. Walter J. Parish NYSDEC regarding Spill #94-0627-Sheridan Blvd. Inwood, New York dated September 12, 1994.

LILCO, 1995 letter to Mr. Walter J. Parish NYSDEC regarding LILCO Property South of Inwood Gas Holder DEC Spill #94-0627 dated March 1, 1995.

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New York State Department of Environmental Conservation (NYSDEC), 1993. Technical Guidance for Screening Contaminated Sediments, revised 1999.

NYSDEC, 1998. Ambient Water Quality Standards and Guidance Values, Division of Water Technical and Operational Guidance Series (TOGS 1.1.1), October, and addendums added: January, 1999, April 2000, and June 2004.

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NYSDEC, 2007. Order on Consent and Administrative Settlement - In the matter of the Development and Implementation of Remedial Programs for Former MGPs and Gas Holder Locations Under Article 27, Title 13 of the ECL by Brooklyn Union, Index # A2-0552-0606, March 2007.

NYSDEC, 2010. New York State Department of Environmental Conservation. DER-10, Technical Requirement for Site Investigation and Remediation.

NYSDOH, 2006. New York State Department of Health. Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Final. October 2006. Table C1.

Tables

TABLE 1-1
MONITORING WELL CONSTRUCTION SUMMARY
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

MW ID	Well Type	Ground Surface Elevation (ft)	Top of Casing Elevation (ft)	Date Installed	Well Diameter	Screen Slot	Screened Interval (ft bgs)	Sump Interval (ft bgs)	08-Jun-10		18-Oct-10		05-Dec-11		Groundwater Elevation (ft)		
									DTW	DTB	DTW	DTB	DTW	DTB	8-Jun-10	18-Oct-10	5-Dec-11
EXISTING MONITORING WELLS																	
GW-1	Shallow	7.849	10.871	8/18/1993	4"	NA	3-18	NA	8.11	21.00	7.63	21.02	6.7	21	2.76	3.24	4.17
GW-2	Shallow	10.881	12.091	8/18/1993	4"	NA	3-18	NA	8.92	20.18	8.88	20.19	7.8	20.25	3.17	3.21	4.29
GW-3	Shallow	11.815	14.139	8/18/1993	4"	NA	3-18	NA	11.33	20.68	10.98	20.66	10.3	20.6	2.81	3.16	3.84
GW-5	Shallow	8.963	11.389	10/14/1994	4"	NA	1-11	NA	8.64	14.46	8.23	14.36	7.42	14.5	2.75	3.16	3.97
GW-7	Shallow	11.960	14.573	10/13/1994	4"	NA	5-20	NA	13.71	20.95	13.63	20.97	13.47	20.98	0.86	0.94	1.10
GW-8	Shallow	11.628	13.263	10/13/1994	4"	NA	1-11	NA	12.59	19.96	12.48	19.95	12.4	20	0.67	0.78	0.86
GW-9	Shallow	9.654	12.132	10/14/1994	4"	NA	3-13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GW-10	Shallow	5.673	8.297	10/12/1994	4"	NA	3-16	NA	5.96	14.12	5.70	14.09	4.53	14.08	2.34	2.60	3.77
GW-11	Shallow	7.813	10.928	10/13/1994	4"	NA	1-11	NA	8.19	19.08	6.93	19.69	6.76	19.5	2.74	4.00	4.17
GW-12	Intermediate	8.830	11.300	10/12/1994	4"	NA	5-20	NA	9.72	21.18	9.22	21.14	8.1	21.2	1.58	2.08	3.20
GW-13	Shallow	5.890	8.763	10/13/1994	4"	NA	3-16	NA	N/A	N/A	5.31	14.34	5.5	14.5	N/A	3.45	3.26
GW-14	Shallow	5.735	8.024	10/13/1994	4"	NA	5-20	NA	5.37	13.37	4.20	13.40	4.11	13.43	2.65	3.82	3.91
GW-15	Shallow	10.400	13.260	5/13/1996	4"	NA	NA	NA	9.75	16.41	11.26	16.41	7	16.41	3.51	2.00	6.26
MONITORING WELLS INSTALLED IN 2010																	
MW-4R	Shallow	5.755	8.740	5/10/10	2"	20	2-7	NA	6.63	10.30	5.28	10.30	5	10.42	2.11	3.46	3.74
MW-21S	Shallow	7.902	10.090	5/11/10	2"	20	3-8	8-10	7.01	13.42	6.78	13.44	5.6	13.5	3.08	3.31	4.49
MW-4I	Intermediate	5.592	8.645	5/12/10	2"	20	11-21	NA	6.38	25.03	5.59	25.08	5.56	25.05	2.27	3.06	3.09
MW-14I	Intermediate	6.408	9.479	5/12/10	2"	20	11-21	NA	6.69	24.72	5.93	24.73	5.95	24.6	2.79	3.55	3.53
MW-1I	Intermediate	8.486	10.954	5/13/10	2"	20	15-25	NA	9.76	30.23	9.02	30.27	9.47	30.28	1.19	1.93	1.48
MW-3I	Intermediate	12.005	14.729	5/13/10	2"	20	18-28	28-30	14.12	33.75	13.93	33.77	13.81	34.7	0.61	0.80	0.92
MW-1D	Deep	8.427	10.870	5/14/10	2"	20	25-35	35-37	9.69	39.28	8.94	39.30	9.41	39.32	1.18	1.93	1.46
MW-8I	Intermediate	12.057	14.316	5/18/10	2"	20	17-27	27-30	13.86	28.31	13.73	28.32	13.58	28.25	0.46	0.59	0.74
MW-11S	Shallow	10.480	13.002	5/19/10	2"	20	2-11	NA	10.47	13.89	11.65	13.60	9.82	14.83	2.53	1.35	3.18
MW-11I	Intermediate	10.448	13.341	5/19/10	2"	20	16-26	26-28	12.61	33.28	12.40	33.30	12.33	33.4	0.73	0.94	1.01
MW-16S	Shallow	8.583	11.360	5/21/10	2"	20	2-11	NA	9.42	14.70	9.58	14.48	5.57	14.52	1.94	1.78	5.79
MW-16I	Intermediate	8.798	11.664	5/21/10	2"	20	16-26	26-28	10.09	31.68	9.49	31.70	11.95	31.65	1.57	2.17	-0.29
GW-6R	Shallow	10.71	13.88	5/25/10	2"	20	2-11	NA	10.33	15.55	9.67	14.43	7.48	14.5	3.55	4.21	6.40
MW-9S	Shallow	9.842	12.831	5/26/10	2"	20	4-9	9-11	9.25	16.64	10.43	15.35	6.55	15.6	3.58	2.40	6.28
MW-9I	Intermediate	9.601	12.653	5/26/10	2"	20	17-27	27-29	11.72	32.33	11.48	31.80	11.25	31.63	0.93	1.17	1.40
MW-15S	Shallow	7.725	9.995	5/26/10	2"	20	2-11	NA	9.14	13.67	6.61	13.72	5.95	13.7	0.85	3.39	4.05
MW-19S	Shallow	8.235	11.000	5/27/10	2"	20	2-9	9-11	7.90	13.91	8.26	NA	6.1	13.88	3.10	2.74	4.90
MONITORING WELLS INSTALLED IN 2011																	
MW-38I	Intermediate	9.910	12.880	9/22/11	2"	20	18-28	28-30	NA	NA	NA	NA	11.67	31.38	NA	NA	1.21
MW-38D	Deep	10.540	13.910	9/22/11	2"	20	28-38	38-40	NA	NA	NA	NA	13.7	39.5	NA	NA	0.21
MW-12S	Shallow	8.700	11.450	9/23/11	2"	20	7-17	17-19	NA	NA	NA	NA	8.58	21.42	NA	NA	2.87
GW-11I	Intermediate	6.360	9.380	9/26/11	2"	20	14-24	24-26	NA	NA	NA	NA	6.84	26.34	NA	NA	2.54
MW-13I	Intermediate	6.500	8.790	9/26/11	2"	20	17-27	27-29	NA	NA	NA	NA	5.39	30.24	NA	NA	3.40
MW-5I	Intermediate	9.910	13.070	9/27/11	2"	20	18-28	28-30	NA	NA	NA	NA	12.19	30.23	NA	NA	0.88
MW-50S	Shallow	5.890	8.650	9/28/11	2"	20	12-22	22-24	NA	NA	NA	NA	7.1	24.4	NA	NA	1.55
MW-50I	Intermediate	6.190	8.800	9/28/11	2"	20	22-32	32-34	NA	NA	NA	NA	7.16	33.15	NA	NA	1.64
MW-5D	Deep	9.930	13.290	9/29/11	2"	20	28-38	38-40	NA	NA	NA	NA	12.26	42	NA	NA	1.03
MW-51S	Shallow	5.050	4.310	9/30/11	2"	20	12-22	22-24	NA	NA	NA	NA	2.81	20.73	NA	NA	1.50
MW-51I	Intermediate	5.290	4.870	10/3/11	2"	20	22-32	32-34	NA	NA	NA	NA	2.05	33	NA	NA	2.82
MW-52S	Shallow	6.100	5.590	10/7/11	2"	20	1-11	11-13	NA	NA	NA	NA	1.86	11.97	NA	NA	3.73
MW-52I	Intermediate	6.260	8.920	10/7/11	2"	20	13-23	23-25	NA	NA	NA	NA	5.49	25.7	NA	NA	3.43

Notes:

DTW = Depth to water from the top of casing/pvc

DTB = Depth to bottom of the well from the top of casing/pvc

bgs = Below Ground Surface

NA - Not available, Not applicable

¹ - GW-4 was destroyed prior to the start of the RI. Replacement well MW-4R installed on May 11, 2010.

² - GW-6 was determined to be compromised and abandoned. It was replaced with a 2-inch diameter well, GW-6R on May 25, 2010.

³ - GW-9 contains free phase product. Water level and total depth measurements were not obtained.

⁴ - No boring log was available for GW-15. Type of well based upon National Grid correspondence to NYSDEC.

TABLE 1-2
COMPARISON OF SURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-05 3/25/2010 SB5 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-06 8/5/2010 SB6(0-0.2)080510 0-0.2 AECOM110 Sample	SB-07 4/20/2010 SB07(0-0.2)042010 0-0.2 AECOM092 Sample	SB-08 3/25/2010 SB8 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-09 3/24/2010 SB9 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-10 3/24/2010 SB10 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-11 3/25/2010 SB11 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-11 3/25/2010 SB110 (0-0.2)031410 0-0.2 AECOM086 Duplicate	SB-12 3/24/2010 SB12 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-13 3/24/2010 SB13 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-15 4/20/2010 SB15(0-0.2)042010 0-0.2 AECOM092 Sample	SB-16 3/25/2010 SB16 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-17 4/20/2010 SB17(0-0.2)042010 0-0.2 AECOM092 Sample
BTEX (mg/kg)																
Benzene	71-43-2	0.06	44	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Ethylbenzene	100-41-4	1	390	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
m+p-Xylene	1330-20-7-M,P	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
o-Xylene	95-47-6	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Toluene	108-88-3	0.7	500	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Total Xylenes	NL	0.26	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEX		NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds (VOCs)(mg/Kg)																
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.006 UJ	<0.005 U	<0.006 U	<0.009 UJ	<0.008 UJ	<0.007 UJ	<0.008 UJ	<0.008 U	<0.006 UJ	<0.007 UJ	<0.007 U	<0.009 UJ	<0.007 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.006 UJ	<0.005 U	<0.006 U	<0.009 UJ	<0.008 UJ	<0.007 UJ	<0.008 UJ	<0.008 UJ	<0.006 UJ	<0.007 UJ	<0.007 U	<0.009 UJ	<0.007 U
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	R	<0.005 U	R	R	R	R	R	R	R	R	R	R	R
1,2-Dibromoethane	106-93-4	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
2-Butanone	78-93-3	0.12	500	<0.006 U	<0.005 U	<0.006 UJ	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 UJ	<0.009 UJ	<0.007 UJ
2-Hexanone	591-78-6	NL	NL	<0.006 U	<0.005 U	<0.006 UJ	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 UJ	0.004 J	<0.007 UJ
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.006 U	<0.005 U	<0.006 UJ	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 UJ	<0.007 UJ	0.003 J	<0.007 UJ
Acetone	67-64-1	0.05	500	<0.006 UJ	<0.005 U	<0.006 UJ	<0.009 UJ	<0.008 UJ	<0.007 UJ	<0.008 UJ	<0.008 UJ	<0.006 UJ	<0.007 UJ	<0.007 UJ	<0.009 UJ	<0.007 UJ
Bromodichloromethane	75-27-4	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Bromoform	75-25-2	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Bromomethane	74-83-9	NL	NL	<0.006 U	<0.005 U	<0.006 UJ	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 UJ	<0.007 UJ	<0.009 UJ	<0.007 UJ
Carbon disulfide	75-15-0	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Carbon tetrachloride	56-23-5	0.76	22	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Chlorobenzene	108-90-7	1.1	500	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Chloroethane	75-00-3	NL	NL	<0.006 U	<0.005 U	<0.006 UJ	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 UJ	<0.009 UJ	<0.007 UJ
Chloroform	67-66-3	0.37	350	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Chloromethane	74-87-3	NL	NL	<0.006 UJ	<0.005 U	<0.006 U	<0.009 UJ	<0.008 UJ	<0.007 UJ	<0.008 UJ	<0.008 UJ	<0.006 UJ	<0.007 UJ	<0.007 U	<0.009 UJ	<0.007 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Cyclohexane	110-82-7	NL	NL	<0.006 UJ	<0.005 U	<0.006 U	<0.009 UJ	<0.008 UJ	<0.007 UJ	<0.008 UJ	<0.008 UJ	<0.006 UJ	<0.007 UJ	<0.007 U	<0.009 UJ	<0.007 U
Dibromochloromethane	124-48-1	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Dichlorodifluoromethane	75-71-8	NL	NL	<0.006 UJ	<0.005 U	<0.006 UJ	<0.009 UJ	<0.008 UJ	<0.007 UJ	<0.008 UJ	<0.008 UJ	<0.006 UJ	<0.007 UJ	<0.007 UJ	<0.009 UJ	<0.007 UJ
Isopropylbenzene	98-82-8	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 UJ	<0.006 UJ	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Methyl acetate	79-20-9	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	R	<0.007 U
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Methylcyclohexane	108-87-2	NL	NL	<0.006 UJ	<0.005 U	<0.006 U	<0.009 UJ	<0.008 UJ	<0.007 UJ	<0.008 UJ	<0.008 UJ	<0.006 UJ	<0.007 UJ	<0.007 U	<0.009 UJ	<0.007 U
Methylene chloride	75-09-2	0.05	500	<0.006 UJ	<0.006 U	<0.006 UJ	<0.009 UJ	<0.008 UJ	<0.007 UJ	<0.008 UJ	<0.008 UJ	<0.006 UJ	<0.007 UJ	<0.007 UJ	<0.009 UJ	<0.007 UJ
Styrene	100-42-5	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Tetrachloroethene	127-18-4	1.3	150	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Trichloroethene	79-01-6	0.47	200	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Trichlorofluoromethane	75-69-4	NL	NL	<0.006 U	<0.005 U	<0.006 UJ	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 UJ	<0.009 UJ	<0.007 UJ
Vinyl chloride	75-01-4	0.02	13	<0.006 U	<0.005 U	<0.006 U	<0.009 U	<0.008 U	<0.007 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.007 U	<0.009 UJ	<0.007 U
Total VOCs		NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.007	ND

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit. The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objective
Bold indicates compound detected at a concentration greater than the reporting limit.

Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-2
COMPARISON OF SURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-05 3/25/2010 SB5 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-06 8/5/2010 SB6(0-0.2)080510 0-0.2 AECOM110 Sample	SB-07 4/20/2010 SB07(0-0.2)042010 0-0.2 AECOM092 Sample	SB-08 3/25/2010 SB8 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-09 3/24/2010 SB9 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-10 3/24/2010 SB10 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-11 3/25/2010 SB11 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-11 3/25/2010 SB110 (0-0.2)031410 0-0.2 AECOM086 Duplicate	SB-12 3/24/2010 SB12 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-13 3/24/2010 SB13 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-15 4/20/2010 SB15(0-0.2)042010 0-0.2 AECOM092 Sample	SB-16 3/25/2010 SB16 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-17 4/20/2010 SB17(0-0.2)042010 0-0.2 AECOM092 Sample	
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																	
2-Methylnaphthalene	91-57-6	NL	NL	<0.4 U	<0.35 U	0.78	<0.59 U	<0.51 U	<0.46 U	0.28 J	0.23 J	<0.37 U	0.15 J	0.23 J	0.14 J	0.58	
Acenaphthene	83-32-9	20	500	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
Acenaphthylene	208-96-8	100	500	<0.4 U	<0.35 U	0.29 J	<0.59 U	<0.51 U	<0.46 U	0.49 J	0.37 J	0.097 J	0.14 J	0.23 J	<0.6 U	2.3	
Anthracene	120-12-7	100	500	<0.4 U	<0.35 U	0.41	<0.59 U	<0.51 U	<0.46 U	0.15 J	<0.55 U	<0.37 U	<0.47 U	0.2 J	<0.6 U	0.53	
Benzo(a)anthracene	56-55-3	1	5.6	0.21 J	0.81	0.15 J	0.15 J	<0.51 U	0.28 J	0.37 J	0.27 J	0.29 J	0.36 J	0.74	0.21 J	0.81	
Benzo(a)pyrene	50-32-8	1	1	0.2 J	0.55 J	0.55 J	0.15 J	<0.51 U	0.17 J	0.59	0.41 J	0.36 J	0.42 J	0.71 J	0.19 J	1.4 J	
Benzo(b)fluoranthene	205-99-2	1	5.6	0.32 J	1.3 J	1.3 J	0.22 J	<0.51 U	0.26 J	0.63	0.45 J	0.48 J	0.7 J	1.4 J	0.31 J	1.8 J	
Benzo(ghi)perylene	191-24-2	100	500	0.097 J	0.22 J	0.22 J	<0.59 U	<0.51 U	R	0.23 J	0.31 J	0.21 J	0.24 J	0.27 J	R	0.59 J	
Benzo(k)fluoranthene	207-08-9	0.8	56	0.18 J	0.53 J	0.53 J	<0.59 U	<0.51 U	0.15 J	0.26 J	<0.55 U	0.24 J	0.36 J	0.57 J	0.22 J	0.54 J	
Chrysene	218-01-9	1	56	0.25 J	1.1	1.1	0.16 J	<0.51 U	0.21 J	0.48 J	0.35 J	0.32 J	0.54 J	0.79	0.32 J	0.8	
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.4 UJ	0.1 J	0.1 J	<0.59 U	<0.51 U	R	<0.55 U	<0.55 U	R	R	0.11 J	R	0.2 J	
Fluoranthene	206-44-0	100	500	0.45	1.9	1.9	0.34 J	0.11 J	0.33 J	0.27 J	0.25 J	0.33 J	0.63	1.2	0.52 J	0.57	
Fluorene	86-73-7	30	500	<0.4 U	0.24 J	0.24 J	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	0.26 J	
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.4 UJ	0.24 J	0.24 J	<0.59 U	<0.51 U	R	0.17 J	0.2 J	0.16 J	0.18 J	0.26 J	R	0.46 J	
Naphthalene	91-20-3	12	500	<0.4 U	<0.35 U	0.79	<0.59 U	<0.51 U	<0.46 U	0.36 J	0.28 J	<0.37 U	0.14 J	0.35 J	<0.6 U	0.77	
Phenanthrene	85-01-8	100	500	0.32 J	0.19 J	2.6	0.15 J	<0.51 U	0.23 J	0.28 J	0.24 J	0.18 J	0.34 J	0.88	0.45 J	0.63	
Pyrene	129-00-0	100	500	0.58	0.28 J	1.7	0.28 J	<0.51 U	0.47	0.56	0.45 J	0.94 J	1.5 J	1.5	0.77 J	1.6	
Total PAHs		NL	NL	2.607	2.209	13.56	1.45	0.11	2	5.12	3.81	3.607	5.7	9.44	3.13	13.84	
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)																	
1,1'-Biphenyl	92-52-4	NL	NL	<0.4 U	<0.35 U	0.19 J	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	0.1 J	
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 UJ	<0.37 UJ	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.81 U	<0.35 U	<0.83 U	<1.2 U	<1 U	<0.93 U	<1.1 U	<1.1 U	<0.75 U	<0.95 U	<0.94 U	<1.2 U	<0.91 U	
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
2,4-Dichlorophenol	120-83-2	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
2,4-Dimethylphenol	105-67-9	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 UJ	<0.45 U	
2,4-Dinitrophenol	51-28-5	NL	NL	<0.81 UJ	<0.35 U	<0.83 UJ	<1.2 UJ	<1 UJ	<0.93 UJ	<1.1 UJ	<1.1 UJ	<0.75 UJ	<0.95 UJ	<0.94 UJ	R	<0.91 UJ	
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
2-Chloronaphthalene	91-58-7	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
2-Chlorophenol	95-57-8	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
2-Methylphenol	95-48-7	0.33	500	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
2-Nitroaniline	88-74-4	NL	NL	<0.81 U	<0.35 U	<0.83 U	<1.2 U	<1 U	<0.93 U	<1.1 U	<1.1 U	<0.75 U	<0.95 U	<0.94 U	<1.2 U	<0.91 U	
2-Nitrophenol	88-75-5	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	R	<0.47 UJ	<0.46 U	R	<0.45 U	
3-and 4-Methylphenol	3,4-MEPH	NL	NL	<0.4 U	<0.35 U	<0.41 UJ	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 UJ	<0.6 U	<0.45 UJ	
3-Nitroaniline	99-09-2	NL	NL	<0.81 U	<0.35 U	<0.83 U	<1.2 U	<1 U	<0.93 U	<1.1 U	<1.1 U	<0.75 U	<0.95 U	<0.94 U	R	<0.91 U	
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<0.81 UJ	<0.35 U	<0.83 U	<1.2 UJ	<1 UJ	<0.93 UJ	<1.1 UJ	<1.1 UJ	<0.75 UJ	<0.95 UJ	<0.94 U	R	<0.91 U	
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
4-Chloroaniline	106-47-8	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	R	<0.45 U	
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
4-Nitroaniline	100-01-6	NL	NL	<0.81 U	<0.35 U	<0.83 U	<1.2 U	<1 U	<0.93 U	<1.1 U	<1.1 UJ	<0.75 UJ	<0.95 U	<0.94 U	R	<0.91 U	
4-Nitrophenol	100-02-7	NL	NL	<0.81 U	<0.35 U	<0.83 UJ	<1.2 U	<1 U	<0.93 U	<1.1 U	<1.1 UJ	<0.75 UJ	<0.95 U	<0.94 UJ	<1.2 U	<0.91 UJ	
Acetophenone	98-86-2	NL	NL	<0.4 U	<0.35 U	<0.41 UJ	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 UJ	<0.6 U	<0.45 UJ	
Atrazine	1912-24-9	NL	NL	<0.4 U	<0.35 U	<0.41 U	<0.59 U	<0.51 U	<0.46 U	<0.55 U	<0.55 U	<0.37 U	<0.47 U	<0.46 U	<0.6 U	<0.45 U	
Benzaldehyde	100-52-7	N															

TABLE 1-2
COMPARISON OF SURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-05 3/25/2010 SB5 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-06 8/5/2010 SB6(0-0.2)080510 0-0.2 AECOM110 Sample	SB-07 4/20/2010 SB07(0-0.2)042010 0-0.2 AECOM092 Sample	SB-08 3/25/2010 SB8 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-09 3/24/2010 SB9 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-10 3/24/2010 SB10 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-11 3/25/2010 SB11 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-11 3/20/2010 SB110 (0-0.2)031410 0-0.2 AECOM086 Duplicate	SB-12 3/24/2010 SB12 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-13 3/24/2010 SB13 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-15 4/20/2010 SB15(0-0.2)042010 0-0.2 AECOM092 Sample	SB-16 3/25/2010 SB16 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-17 4/20/2010 SB17(0-0.2)042010 0-0.2 AECOM092 Sample
Inorganic Compounds (mg/Kg)																
Aluminum	7429-90-5	NL	NL	2310 J	1400	1100 J	16800 J	12600 J	8760 J	16500 J	17000 J	4050 J	11900 J	7240 J	9950 J	13300 J
Antimony	7440-36-0	NL	NL	0.39 J	<0.93 UJ	4.4 J	1.2 J	1.1 J	0.77 J	0.69 J	<0.46 UJ	<0.31 UJ	<0.40 UJ	1.8 J	<0.51 UJ	1.3 J
Arsenic	7440-38-2	13	16	1.5	2.1	66.5 J	43.4	60.7	32.3	52.6	54.5 J	4.1	41.8	24.5 J	38.6	53.5 J
Barium	7440-39-3	350	400	6.8 J	11.3 J	130 J	383	531	180	352	369	46.7	257	139 J	232	369 J
Beryllium	7440-41-7	7.2	590	0.036 J	0.10 J	0.18 J	1.5	1.9	0.86	1.5	1.6	0.045 J	<0.025 U	0.89 J	0.60 J	1.7 J
Cadmium	7440-43-9	2.5	9.3	<0.029 U	0.063 J	<0.041 UJ	<0.044 U	<0.037 U	0.15 J	<0.040 U	<0.040 U	0.11 J	1.7	<0.047 UJ	0.090 J	<0.045 UJ
Calcium	7440-70-2	NL	NL	R	1590 J	324 J	R	R	R	R	R	R	R	2470 J	R	5650 J
Chromium	7440-47-3	30	1500	10.8	5.4	9.0 J	28.2	23.1	24	28.5	29	13.1	99.9	18.4 J	26	22.3 J
Cobalt	7440-48-4	NL	NL	2.0 J	1.0 J	2.4 J	9.6	8.6	6.1 J	9	9.2	6.3	81.7	6.1 J	7.2 J	8.4 J
Copper	7440-50-8	50	270	13.8 J	11	54.5	32.7 J	32.0 J	30.2 J	37.0 J	37.0 J	43.2 J	129 J	28.3	45.6 J	22.2
Iron	7439-89-6	NL	NL	7060	3440	98600	23900	19400	12200	21900	20300	6890	26300	24300	17900	46300
Lead	7439-92-1	63	1000	70	48.4	283 J	97.7	53.2	77	57.8	58.2	81.6	4260	82.3 J	192	32.3 J
Magnesium	7439-95-4	NL	NL	741 J	545	211 J	5290 J	1070 J	7050 J	1960 J	2140 J	3990 J	8860 J	981 J	887 J	1280 J
Manganese	7439-96-5	1600	10000	73.1	17.6	16.3 J	96	111	77.4	135	133	83.2	152	81.8 J	86.4	90.9 J
Mercury	7439-97-6	0.18	2.8	0.074 J	0.067	0.91	0.19 J	0.19 J	0.20 J	0.23 J	0.24 J	0.28 J	0.24 J	0.24	0.42 J	0.14
Nickel	7440-02-0	30	310	5.8	3.9 J	5.8 J	46.6	19.5	21.9	85.1	102	272	5650	95.6 J	228	31.5 J
Potassium	7440-09-7	NL	NL	R	338 J	774	R	R	R	R	R	R	R	686 J	R	946
Selenium	7782-49-2	3.9	1500	<0.51 U	<0.30 U	2.4 J	3.8	2.8	3	3.4	3.2	<0.47 U	1.7	0.86 J	3.5	0.62 J
Silver	7440-22-4	2	1500	<0.060 UJ	0.055 J	0.33 J	<0.089 UJ	<0.076 UJ	<0.069 UJ	<0.082 UJ	<0.82 UJ	<0.56 UJ	<1.4 UJ	0.13 J	<0.90 UJ	0.098 J
Sodium	7440-23-5	NL	NL	R	<91.4 U	407 J	R	R	R	R	R	R	R	228 J	R	541 J
Thallium	7440-28-0	NL	NL	<0.67 U	1.3 J	14.3 J	1.0 J	<0.86 U	<0.77 U	1.7	2.5	2.1	49.9	0.86 J	6	1.8 J
Vanadium	7440-62-2	NL	NL	9.6	14.5	222 J	189	66.5	61.7 J	324	622 J	828	18100	596 J	1930	153 J
Zinc	7440-66-6	109	10000	49.3	22.2 J	25.8 J	97.1	70.9	101	64.7	64.8	78.8	161	67.9 J	76.5	54.7 J
Cyanide, Free	57-12-5-FREE	NL	NL	R	NA	<0.062 U	R	R	R	R	R	R	R	<0.070 U	R	<0.068 U
Total Cyanide	57-12-5	27	27	<0.60 U	<0.053 U	NA	<0.90 U	<0.77 U	<0.69 U	<0.83 U	1.01	<0.56 U	<0.71 U	NA	0.98	NS
Polychlorinated biphenyls (PCBs) (mg/Kg)																
Aroclor 1016	12674-11-2	NL	NL	<0.04 UJ	<0.035 U	<0.041 UJ	<0.059 U	<0.051 U	<0.046 U	<0.055 U	<0.055 U	<0.037 U	<0.047 U	<0.046 UJ	<0.06 UJ	<0.045 U
Aroclor 1221	11104-28-2	NL	NL	<0.081 U	<0.071 U	<0.083 U	<0.12 U	<0.1 U	<0.093 U	<0.11 U	<0.11 U	<0.075 U	<0.095 U	<0.094 U	<0.12 U	<0.091 U
Aroclor 1232	11141-16-5	NL	NL	<0.04 UJ	<0.035 U	<0.041 UJ	<0.059 U	<0.051 U	<0.046 U	<0.055 U	<0.055 U	<0.037 U	<0.047 U	<0.046 UJ	<0.06 UJ	<0.045 U
Aroclor 1242	53469-21-9	NL	NL	0.046	<0.035 U	2.3	<0.059 U	<0.051 U	<0.046 U	<0.055 U	0.031 J	0.025 J	0.024 J	0.12	19 J	<0.045 U
Aroclor 1248	12672-29-6	NL	NL	<0.04 U	<0.035 U	<0.041 UJ	<0.059 U	<0.051 U	<0.046 U	<0.055 U	<0.055 U	<0.037 U	<0.047 U	<0.046 UJ	<0.06 UJ	<0.045 UJ
Aroclor 1254	11097-69-1	NL	NL	<0.04 U	<0.035 U	1.9	<0.059 U	<0.051 U	<0.046 U	<0.055 U	0.033 J	0.074	0.052	0.2	5.4	<0.045 U
Aroclor 1260	11096-82-5	NL	NL	<0.04 U	0.037	2.8	<0.059 U	0.55 J	0.11	0.55	0.48	0.054	0.29	0.6 J	3.1	0.045 J
Aroclor 1262	37324-23-5	NL	NL	<0.04 U	<0.035 U	<0.041 UJ	<0.059 U	<0.051 UJ	<0.046 UJ	<0.055 UJ	<0.055 UJ	<0.037 UJ	<0.047 UJ	<0.046 UJ	<0.06 UJ	<0.045 UJ
Aroclor 1268	11100-14-4	NL	NL	<0.04 U	<0.035 U	<0.041 UJ	<0.059 U	<0.051 U	<0.046 UJ	<0.055 U	<0.055 U	<0.037 U	<0.047 U	<0.046 UJ	<0.06 U	<0.045 UJ
PCB (Total) (ppm)	CALC-PCBs	0.1	1	0.046	0.037	7	ND	0.55	0.11	0.55	0.544	0.153	0.366	0.92	27.5	0.045
Pesticides (mg/Kg)																
Aldrin	309-00-2	0.005	0.68	<0.0020 U	<0.0018 U	R	<0.0031 U	<0.0026 U	<0.0023 U	<0.0028 U	<0.0028 U	<0.0019 U	<0.0024 U	R	<0.0031 U	R
Alpha-bhc	319-84-6	0.02	3.4	<0.0020 U	<0.0018 U	R	<0.0031 U	<0.0026 U	<0.0023 U	<0.0028 U	<0.0028 U	<0.0019 U	<0.0024 U	R	<0.0031 UJ	R
Beta-BHC	319-85-7	0.036	3	<0.0020 UJ	0.00097 J	R	<0.0031 UJ	<0.0026 UJ	<0.0023 UJ	<0.0028 UJ	<0.0028 UJ	<0.0019 UJ	<0.0024 UJ	R	<0.0031 UJ	R
Chlordane	57-74-9	NL	NL	<0.04 U	NA	NS	<0.059 U	<0.051 U	<0.046 U	<0.055 U	<0.055 U	<0.037 U	<0.047 U	NS	<0.06 U	NS
Chlordane, alpha	5103-71-9	0.094	24	<0.0020 U	<0.0018 U	0.0066 J	<0.0031 U	<0.0026 U	<0.0023 U	<0.0028 U	<0.0028 U	<0.0019 U	0.0017 J	<0.0024 UJ	0.014 J	R
Chlordane, trans-	5103-74-2	NL	NL	<0.0020 U	<0.0018 U	0.012 J	<0.0031 U	<0.0026 U	<0.0023 U	<0.0028 U	<0.0028 U	<0.0019 U	0.0016 J	R	R	R
DDD,4,4-	72-54-8	0.0033	92	<0.0040 U	0.0092 J	0.012 JN	<0.0059 U	<0.0051 U	<0.0046 U	<0.0055 U	<0.0055 U	<0.0037 U	<0.0047 U	0.0028 J	<0.0060 UJ	R
DDE,4,4-	72-55-9	0.0033	62	0.0036 NJ	0.026 J	0.018 J	<0.0059 U	<0.0051 U	<0.0046 U	<0.0055 U	<0.0055 U	0.0025 NJ	<0.0047 U	0.0041 J	0.081 NJ	R
DDT,4,4-	50-29-3	0.0033	47	R	0.041	0.086 J	<0.0059 UJ	0.0087 NJ	<0.0046 UJ	0.0090 J	0.01 J	R	<0.0047 UJ	0.018 J	0.092 NJ	R
Delta-BHC	319-86-8	0.04	500	<0.0020 UJ	0.0012 J	R	<0.0031 UJ	<0.0026 UJ	<0.0023 UJ	<0.0028 UJ	<0.0028 UJ	<0.0019 UJ	<0.0024 UJ	R	<0.0031 UJ	R
Dieldrin	60-57-1	0.005	1.4	<0.0040 U	<0.0035 U	0.013 J	<0.0059 U	<0.0051 U	<0.0046 U	<0.0055 U	<0.0055 U	0.0027 J	0.012	R	0.088 J	R
Endosulfan I	959-98-8	2.4	200	<0.0020 U	<0.0018 U	R	<0.0031 U	<0.0026 U	<0.0023 U	<0.0028 U	<0.0028 U	<0.0019 U	<0.0024 U	R	R	R
Endosulfan II	33213-65-9	2.4	200	<0.0040 U	<0.0035 U	R	<0.0059 U	<0.0051 U	<0.0046 U	<0.0055 U	<0.0055 U	<0.0037 U	<0.0047 U	R	<0.0060 U	R
Endosulfan sulfate	1031															

TABLE 1-2
COMPARISON OF SURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-170 4/20/2010 SB170(0-0.2)042010 0-0.2 AECOM092 Duplicate	SB-18 3/25/2010 SB18 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-20 4/20/2010 SB20(0-0.2)042010 0-0.2 AECOM092 Sample	SB-22 3/25/2010 SB22 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-23 3/24/2010 SB23 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-24 3/24/2010 SB24 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-25 5/3/2010 SB25(0-0.2)050310 0-0.2 AECOM096 Sample	SB-27 4/20/2010 SB27(0-0.2)042010 0-0.2 AECOM092 Sample	SB-28 3/24/2010 SB28 (0-0.2)031410 0-0.2 AECOM086 Sample
BTEx (mg/kg)												
Benzene	71-43-2	0.06	44	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Ethylbenzene	100-41-4	1	390	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
m+p-Xylene	1330-20-7-M,P	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
o-Xylene	95-47-6	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Toluene	108-88-3	0.7	500	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Total Xylenes	NL	0.26	500	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEx		NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds (VOCs)(mg/Kg)												
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.007 U	<0.008 UJ	<0.007 U	<0.007 UJ	<0.009 UJ	<0.007 UJ	<0.007 U	<0.006 U	<0.007 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.007 U	<0.008 UJ	<0.007 U	<0.007 UJ	<0.009 UJ	<0.007 UJ	<0.007 U	<0.006 U	<0.007 UJ
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	R	R	R	R	R	R	R	R	R
1,2-Dibromoethane	106-93-4	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
2-Butanone	78-93-3	0.12	500	<0.007 UJ	<0.008 U	<0.007 UJ	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 UJ	<0.007 U
2-Hexanone	591-78-6	NL	NL	<0.007 UJ	<0.008 U	<0.007 UJ	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 UJ	<0.007 U
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.007 UJ	<0.008 U	<0.007 UJ	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 UJ	0.001 J
Acetone	67-64-1	0.05	500	<0.007 UJ	<0.008 UJ	<0.007 UJ	<0.007 UJ	<0.012 UJ	<0.007 UJ	<0.007 UJ	<0.006 UJ	<0.007 UJ
Bromodichloromethane	75-27-4	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Bromoform	75-25-2	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Bromomethane	74-83-9	NL	NL	<0.007 UJ	<0.008 U	<0.007 UJ	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 UJ	<0.007 U
Carbon disulfide	75-15-0	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Carbon tetrachloride	56-23-5	0.76	22	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Chlorobenzene	108-90-7	1.1	500	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Chloroethane	75-00-3	NL	NL	<0.007 UJ	<0.008 U	<0.007 UJ	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 UJ	<0.007 U
Chloroform	67-66-3	0.37	350	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Chloromethane	74-87-3	NL	NL	<0.007 U	<0.008 UJ	<0.007 U	<0.007 UJ	<0.009 UJ	<0.007 UJ	<0.007 U	<0.006 U	<0.007 UJ
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Cyclohexane	110-82-7	NL	NL	<0.007 U	<0.008 UJ	<0.007 U	<0.007 UJ	<0.009 UJ	<0.007 UJ	<0.007 U	<0.006 U	<0.007 U
Dibromochloromethane	124-48-1	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Dichlorodifluoromethane	75-71-8	NL	NL	<0.007 UJ	<0.008 UJ	<0.007 UJ	<0.007 UJ	<0.009 UJ	<0.007 UJ	<0.007 U	<0.006 UJ	<0.007 UJ
Isopropylbenzene	98-82-8	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 UJ	<0.006 U	<0.007 UJ
Methyl acetate	79-20-9	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Methylcyclohexane	108-87-2	NL	NL	<0.007 U	<0.008 UJ	<0.007 U	<0.007 UJ	<0.009 UJ	<0.007 UJ	<0.007 UJ	<0.006 U	<0.007 UJ
Methylene chloride	75-09-2	0.05	500	<0.007 UJ	<0.008 UJ	<0.007 UJ	<0.007 UJ	<0.009 UJ	<0.007 UJ	<0.007 UJ	<0.006 UJ	<0.007 UJ
Styrene	100-42-5	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Tetrachloroethene	127-18-4	1.3	150	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Trichloroethene	79-01-6	0.47	200	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Trichlorofluoromethane	75-69-4	NL	NL	<0.007 UJ	<0.008 U	<0.007 UJ	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 UJ	<0.007 U
Vinyl chloride	75-01-4	0.02	13	<0.007 U	<0.008 U	<0.007 U	<0.007 U	<0.009 U	<0.007 U	<0.007 U	<0.006 U	<0.007 U
Total VOCs		NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	0.001

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit. The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objective
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-2
COMPARISON OF SURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-170 4/20/2010 SB170(0-0.2)042010 0-0.2 AECOM092 Duplicate	SB-18 3/25/2010 SB18 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-20 4/20/2010 SB20(0-0.2)042010 0-0.2 AECOM092 Sample	SB-22 3/25/2010 SB22 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-23 3/24/2010 SB23 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-24 3/24/2010 SB24 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-25 5/3/2010 SB25(0-0.2)050310 0-0.2 AECOM096 Sample	SB-27 4/20/2010 SB27(0-0.2)042010 0-0.2 AECOM092 Sample	SB-28 3/24/2010 SB28 (0-0.2)031410 0-0.2 AECOM086 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)												
2-Methylnaphthalene	91-57-6	NL	NL	0.43 J	<0.51 U	<0.44 U	3.6	0.19 J	<0.48 U	<0.45 U	0.092 J	<0.47 U
Acenaphthene	83-32-9	20	500	<0.46 U	<0.51 U	<0.44 U	0.28 J	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Acenaphthylene	208-96-8	100	500	1.5	<0.51 U	<0.44 U	14	<0.61 U	<0.48 U	<0.45 U	0.12 J	<0.47 U
Anthracene	120-12-7	100	500	0.38 J	<0.51 U	<0.44 U	4.2	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Benzo(a)anthracene	56-55-3	1	5.6	0.3 J	0.38 J	<0.44 U	4.9 J	0.19 J	<0.48 UJ	<0.45 U	0.29 J	0.46 J
Benzo(a)pyrene	50-32-8	1	1	0.48 J	0.38 J	<0.44 UJ	14	0.22 J	<0.48 UJ	<0.45 U	0.32 J	0.53 J
Benzo(b)fluoranthene	205-99-2	1	5.6	0.74 J	0.55 J	<0.44 UJ	11	0.35 J	<0.48 UJ	<0.45 UJ	0.39 J	0.83 J
Benzo(ghi)perylene	191-24-2	100	500	0.3 J	0.19 J	<0.44 UJ	9	<0.61 UJ	<0.48 UJ	<0.45 U	0.26 J	0.21 J
Benzo(k)fluoranthene	207-08-9	0.8	56	0.33 J	0.21 J	<0.44 UJ	2.9 J	<0.61 UJ	<0.48 UJ	<0.45 UJ	0.17 J	0.3 J
Chrysene	218-01-9	1	56	0.41 J	0.36 J	<0.44 U	6.3 J	0.24 J	<0.48 UJ	<0.45 U	0.31 J	0.53
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	R	R	<0.44 UJ	2.2 J	<0.61 UJ	<0.48 UJ	<0.45 UJ	<0.41 U	<0.47 UJ
Fluoranthene	206-44-0	100	500	0.33 J	0.58	0.097 J	2.5	0.32 J	<0.48 U	<0.45 U	0.4 J	0.9
Fluorene	86-73-7	30	500	0.18 J	<0.51 U	<0.44 U	1.2	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	0.24 J	0.14 J	<0.44 UJ	6 J	<0.61 UJ	<0.48 UJ	<0.45 UJ	0.21 J	0.18 J
Naphthalene	91-20-3	12	500	0.55	<0.51 U	<0.44 U	4.4	0.16 J	<0.48 U	<0.45 U	0.12 J	<0.47 U
Phenanthrene	85-01-8	100	500	0.51	0.31 J	<0.44 U	2.8	0.22 J	<0.48 U	<0.45 U	0.22 J	0.47
Pyrene	129-00-0	100	500	0.86	1.1 J	0.13 J	10	0.43 J	<0.48 UJ	0.11 J	0.6	1.1
Total PAHs		NL	NL	7.54	4.2	0.227	99.28	2.32		0.11	3.502	5.51
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)												
1,1'-Biphenyl	92-52-4	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 UJ	<0.61 UJ	<0.48 UJ	<0.45 U	<0.41 U	<0.47 UJ
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.94 U	<1 U	<0.9 U	<0.95 U	<1.2 U	<0.98 U	<0.45 U	<0.84 U	<0.95 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
2,4-Dinitrophenol	51-28-5	NL	NL	<0.94 UJ	<1 UJ	<0.9 UJ	<0.95 UJ	<1.2 UJ	<0.98 UJ	<0.45 UJ	<0.84 UJ	<0.95 UJ
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
2-Chlorophenol	95-57-8	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
2-Methylphenol	95-48-7	0.33	500	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
2-Nitroaniline	88-74-4	NL	NL	<0.94 U	<1 U	<0.9 U	<0.95 U	<1.2 U	<0.98 U	<0.45 U	<0.84 U	<0.95 U
2-Nitrophenol	88-75-5	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.46 U	<0.51 UJ	<0.44 U	<4.7 U	<0.61 U	<0.48 UJ	<0.45 U	<0.41 U	<0.47 U
3-and 4-Methylphenol	3,4-MEPH	NL	NL	<0.46 UJ	<0.51 U	<0.44 UJ	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 UJ	<0.47 U
3-Nitroaniline	99-09-2	NL	NL	<0.94 U	<1 U	<0.9 U	<0.95 U	<1.2 U	<0.98 U	<0.45 U	<0.84 U	<0.95 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<0.94 U	<1 UJ	<0.9 U	<0.95 UJ	<1.2 UJ	<0.98 UJ	<0.45 UJ	<0.84 U	<0.95 UJ
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
4-Chloroaniline	106-47-8	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
4-Nitroaniline	100-01-6	NL	NL	<0.94 U	<1 U	<0.9 U	<0.95 UJ	<1.2 UJ	<0.98 UJ	<0.45 U	<0.84 U	<0.95 UJ
4-Nitrophenol	100-02-7	NL	NL	<0.94 UJ	<1 U	<0.9 UJ	<0.95 UJ	<1.2 UJ	<0.98 UJ	<0.45 U	<0.84 UJ	<0.95 UJ
Acetophenone	98-86-2	NL	NL	<0.46 UJ	<0.51 U	<0.44 UJ	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 UJ	<0.47 U
Atrazine	1912-24-9	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Benzaldehyde	100-52-7	NL	NL	<0.46 UJ	0.17 J	<0.44 UJ	0.42 J	<0.61 UJ	<0.48 UJ	<0.45 UJ	<0.41 UJ	0.16 J
bis(2-Chloroethoxy)methane	111-91-1	NL	NL	<0.46 U	<0.51 U	<0.44 UJ	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 UJ	<0.47 U
bis(2-Chloroethyl) ether	111-44-4	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
bis(2-Ethylhexyl) phthalate	117-81-7	NL	NL	<0.46 U	0.32 J	0.15 J	0.32 J	0.23 J	0.17 J	0.13 J	0.091 J	0.46 J
Butyl benzyl phthalate	85-68-7	NL	NL	<0.46 U	<0.51 UJ	<0.44 U	<4.7 U	<0.61 U	<0.48 UJ	<0.45 U	<0.41 U	<0.47 U
Caprolactam	105-60-2	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Carbazole	86-74-8	NL	NL	<0.46 U	<0.51 U	<0.44 U	0.12 J	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Dibenzofuran	132-64-9	7	350	<0.46 U	<0.51 U	<0.44 U	0.26 J	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Diethyl phthalate	131-11-3	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Dimethyl phthalate	84-66-2	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Di-n-butyl phthalate	84-74-2	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	0.13 J
Di-n-octyl phthalate	117-84-0	NL	NL	R	R	<0.44 UJ	<4.7 U	<0.61 UJ	<0.48 UJ	<0.45 U	<0.41 U	<0.47 UJ
Hexachlorobenzene	118-74-1	0.33	6	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Hexachlorobutadiene	87-68-3	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Hexachlorocyclopentadiene	77-47-4	NL	NL	<0.46 UJ	<0.51 U	<0.44 UJ	<0.47 UJ	<0.61 UJ	<0.48 UJ	<0.45 UJ	<0.41 UJ	<0.47 UJ
Hexachloroethane	67-72-1	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Isophorone	78-59-1	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Nitrobenzene	98-95-3	NL	NL	<0.46 U	<0.51 U	<0.44 UJ	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 UJ	<0.47 U
N-Nitrosodi-n-propylamine	621-64-7	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
N-Nitrosodiphenylamine	86-30-6	NL	NL	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Pentachlorophenol	87-86-5	0.8	6.7	<0.94 U	<1 U	<0.9 U	<0.95 U	<1.2 U	<0.98 U	<0.45 U	<0.84 U	<0.95 U
Phenol	108-95-2	0.33	500	<0.46 U	<0.51 U	<0.44 U	<0.47 U	<0.61 U	<0.48 U	<0.45 U	<0.41 U	<0.47 U
Total SVOCs		NL	NL	7.54	4.69	0.377	100.4	2.55	0.17	0.24	3.593	6.26

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit. The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objective
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-2
COMPARISON OF SURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-170 4/20/2010 SB170(0-0.2)042010 0-0.2 AECOM092 Duplicate	SB-18 3/25/2010 SB18 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-20 4/20/2010 SB20(0-0.2)042010 0-0.2 AECOM092 Sample	SB-22 3/25/2010 SB22 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-23 3/24/2010 SB23 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-24 3/24/2010 SB24 (0-0.2)031410 0-0.2 AECOM086 Sample	SB-25 5/3/2010 SB25(0-0.2)050310 0-0.2 AECOM096 Sample	SB-27 4/20/2010 SB27(0-0.2)042010 0-0.2 AECOM092 Sample	SB-28 3/24/2010 SB28 (0-0.2)031410 0-0.2 AECOM086 Sample
Inorganic Compounds (mg/Kg)												
Aluminum	7429-90-5	NL	NL	15800 J	5240 J	7110 J	18200 J	10100 J	16000 J	1510 J	3690 J	5060 J
Antimony	7440-36-0	NL	NL	1.7 J	0.64 J	3.9 J	<0.40 UJ	<0.51 UJ	1.3 J	1.0 J	0.61 J	<0.40 UJ
Arsenic	7440-38-2	13	16	60.7 J	6.3	24.2 J	49.1	65.9	62.8	3	3.5 J	10.3
Barium	7440-39-3	350	400	408 J	67.2	166 J	461	229	378	57.5	25.8 J	127
Beryllium	7440-41-7	7.2	590	2.0 J	0.062 J	1.2 J	1.7	1.1	2.4	0.055 J	0.25 J	0.17 J
Cadmium	7440-43-9	2.5	9.3	<0.047 UJ	0.26 J	0.17 J	<0.035 U	0.28 J	<0.036 U	0.68 J	<0.042 UJ	0.45 J
Calcium	7440-70-2	NL	NL	6640 J	R	1910 J	R	R	R	2780 J	5310 J	R
Chromium	7440-47-3	30	1500	25.7 J	12.5	51.4 J	29.2	39.9	26.2	7.9	8.5 J	33.9
Cobalt	7440-48-4	NL	NL	9.5 J	4.3 J	10.8 J	15.5	13.1	11.4	1.9 J	4.3 J	12.5
Copper	7440-50-8	50	270	25	26.2 J	42.9	32.4 J	56.6 J	33.5 J	29.8	30.9	77.5 J
Iron	7439-89-6	NL	NL	50000	8770	23800	23300	17000	19300	14400	8750	12700
Lead	7439-92-1	63	1000	37.5 J	104	89.3 J	51.2	75.5	20.4	235	51.1 J	243
Magnesium	7439-95-4	NL	NL	1530 J	2790 J	853 J	2810 J	1170 J	1490 J	1190	1230 J	1440 J
Manganese	7439-96-5	1600	10000	106 J	144	76.7 J	123	87.5	97.4	83.3	61.4 J	119
Mercury	7439-97-6	0.18	2.8	0.13	0.13 J	0.19	0.24 J	0.45 J	0.060 J	0.11	0.14	0.43 J
Nickel	7440-02-0	30	310	32.4 J	11.6	585 J	201	525	21.7	7.8	16.3 J	669
Potassium	7440-09-7	NL	NL	1060	R	584 J	R	R	R	172 J	379 J	R
Selenium	7782-49-2	3.9	1500	0.73 J	1.3	<0.37 UJ	1.4	1.7	1.1	<0.43 U	<0.35 UJ	0.84
Silver	7440-22-4	2	1500	0.12 J	<0.077 UJ	0.093 J	<0.070 UJ	<0.91 UJ	<0.072 UJ	1.0 J	0.063 J	<0.70 UJ
Sodium	7440-23-5	NL	NL	621 J	R	213 J	R	R	R	33.5 J	191 J	R
Thallium	7440-28-0	NL	NL	2.4 J	<0.86 U	<0.40 UJ	2.7	7.3	0.97 J	<0.50 U	<0.37 UJ	6.5
Vanadium	7440-62-2	NL	NL	167 J	45.9	2830 J	612	2550	71.4	19.6	62.0 J	2340
Zinc	7440-66-6	109	10000	64.7 J	142	109 J	66.2	95	45.3	167	76.6 J	137
Cyanide, Free	57-12-5-FREE	NL	NL	<0.070 U	R	<0.067 U	R	R	R	<0.068 U	<0.063 U	R
Total Cyanide	57-12-5	27	27	NS	<0.77 U	NS	1	<0.92 U	<0.73 U	NS	NS	<0.71 U
Polychlorinated biphenyls (PCBs) (mg/Kg)												
Aroclor 1016	12674-11-2	NL	NL	<0.046 U	<0.051 U	<0.044 U	<0.047 U	<0.061 UJ	<0.048 U	<0.045 U	<0.041 U	<0.047 UJ
Aroclor 1221	11104-28-2	NL	NL	<0.094 U	<0.1 U	<0.099 U	<0.095 U	<0.12 U	<0.098 U	<0.092 U	<0.084 U	<0.095 U
Aroclor 1232	11141-16-5	NL	NL	<0.046 U	<0.051 U	<0.044 U	<0.047 U	<0.061 UJ	<0.048 U	<0.045 U	<0.041 U	<0.047 UJ
Aroclor 1242	53469-21-9	NL	NL	<0.046 U	0.025 J	<0.044 U	<0.047 U	2.8 J	<0.048 U	<0.045 U	<0.041 U	0.12
Aroclor 1248	12672-29-6	NL	NL	<0.046 UJ	<0.051 U	<0.044 UJ	<0.046 UJ	<0.061 UJ	<0.048 U	<0.045 U	<0.041 UJ	<0.047 UJ
Aroclor 1254	11097-69-1	NL	NL	<0.046 U	0.065	<0.044 U	<0.047 U	1.2	<0.048 U	<0.045 U	<0.041 U	0.14
Aroclor 1260	11096-82-5	NL	NL	0.035 J	0.31	0.52 J	0.032 J	0.39	0.074	0.048	0.035 J	0.3
Aroclor 1262	37324-23-5	NL	NL	<0.046 UJ	<0.051 UJ	<0.044 UJ	<0.047 U	<0.061 UJ	<0.048 UJ	<0.045 U	<0.041 UJ	<0.047 UJ
Aroclor 1268	11100-14-4	NL	NL	<0.046 UJ	<0.051 U	<0.044 UJ	<0.047 U	<0.061 U	<0.048 U	<0.045 U	<0.041 UJ	<0.047 U
PCB (Total) (ppm)	CALC-PCBs	0.1	1	0.035	0.4	0.52	0.032	4.39	0.074	0.048	0.035	0.56
Pesticides (mg/Kg)												
Aldrin	309-00-2	0.005	0.68	R	<0.0026 U	R	<0.0024 U	<0.0031 U	<0.0025 U	<0.0023 U	R	<0.0024 U
Alpha-bhc	319-84-6	0.02	3.4	R	<0.0026 U	R	<0.0024 U	<0.0031 U	<0.0025 U	<0.0023 U	R	<0.0024 U
Beta-BHC	319-85-7	0.036	3	R	<0.0026 UJ	R	0.0031 J	<0.0031 UJ	<0.0025 UJ	<0.0023 U	R	<0.0024 UJ
Chlordane	57-74-9	NL	NL	NS	<0.051 U	NS	<0.047 U	<0.061 U	<0.048 U	NS	NS	<0.047 U
Chlordane, alpha	5103-71-9	0.094	24	R	<0.0026 U	R	<0.0024 U	0.0034	<0.0025 U	R	R	<0.0024 U
Chlordane, trans-	5103-74-2	NL	NL	R	<0.0026 U	R	<0.0024 U	<0.0031 U	<0.0025 U	0.0046 NJ	R	0.0019 J
DDD,4,4-	72-54-8	0.0033	92	R	<0.0051 U	R	<0.0047 U	<0.0061 U	<0.0048 U	0.058 J	R	0.0027 J
DDE,4,4-	72-55-9	0.0033	62	R	<0.0051 U	R	<0.0047 U	0.024 NJ	<0.0048 U	0.11	R	0.0064 NJ
DDT,4,4-	50-29-3	0.0033	47	R	R	0.0094 J	0.017 NJ	R	<0.0048 U	0.17	R	0.0093 NJ
Delta-BHC	319-86-8	0.04	500	R	<0.0026 UJ	R	<0.0024 U	<0.0031 UJ	<0.0025 UJ	<0.0023 U	R	<0.0024 UJ
Dieldrin	60-57-1	0.005	1.4	R	<0.0051 U	R	R	0.013 NJ	<0.0048 U	0.0027 J	R	0.006
Endosulfan I	959-98-8	2.4	200	R	<0.0026 U	R	<0.0024 U	<0.0031 U	<0.0025 U	<0.0023 U	R	<0.0024 U
Endosulfan II	33213-65-9	2.4	200	R	<0.0051 U	R	<0.0047 UJ	<0.0061 U	<0.0048 U	<0.0045 U	R	<0.0047 U
Endosulfan sulfate	1031-07-8	2.4	200	R	<0.0051 UJ	R	0.041 J	<0.0061 UJ	<0.0048 UJ	<0.0045 U	R	<0.0047 U
Endrin	72-20-8	0.014	89	R	R	R	R	<0.0061 UJ	<0.0048 UJ	<0.0045 U	R	<0.0047 UJ
Endrin aldehyde	7421-93-4	NL	NL	R	0.007 NJ	R	0.03 NJ	<0.0061 U	<0.0048 UJ	<0.0045 U	R	0.008 NJ
Endrin ketone	53494-70-5	NL	NL	R	<0.0051 UJ	R	0.018 J	<0.0061 UJ	<0.0048 UJ	<0.0045 U	R	<0.0047 U
Gamma BHC - Lindane	58-89-9	0.1	9.2	R	<0.0026 UJ	R	<0.0024 U	R	<0.0025 UJ	<0.0023 U	R	<0.0024 UJ
Heptachlor	76-44-8	0.042	15	R	<0.0026 UJ	R	<0.0024 UJ	0.0037 NJ	<0.0025 UJ	<0.0023 U	R	<0.0024 UJ
Heptachlor Epoxide	1024-57-3	NL	NL	R	<0.0026 U	R	<0.0024 U	R	<0.0025 U	<0.0023 U	R	<0.0024 U
Methoxychlor	72-43-5	NL	NL	R	<0.026 UJ	R	<0.024 UJ	<0.031 U	<0.025 UJ	<0.023 U	R	<0.024 U
Toxaphene	8001-35-2	NL	NL	R	<0.26 U	R	<0.24 U	<0.31 U	<0.25 U	<0.23 U	R	<0.24 U
Herbicides (mg/Kg)												
2,4-D	94-75-7	NL	NL	<0.014 U	<0.015 U	<0.013 U	<0.014 U	<0.018 U	<0.015 U	<0.014 U	<0.013 U	<0.014 U
2,4-DB	94-82-6	NL	NL	<0.014 U	R	0.011 JN	<0.014 U	0.042	<0.015 U	<0.014 U	0.024 JN	<0.014 U
Silvex	93-72-1	3.8	500	<0.0070 U	<0.0077 U	<0.0067 U	<0.0071 U	<0.0092 U	<0.0073 U	<0.0068 U	<0.0063 U	<0.0071 U
T,2,4,5-	93-76-5	NL	NL	0.0041 JN	<0.0077 U	<0.0067 U	0.015	<0.0092 U	<0.0073 U	<0.0068 U	0.0033 J	<0.0071 U
Moisture, percent												
Moisture, percent	MOIST	NL	NL	28.4	35.4	25.6	29.5	45.6	31.4	26.8	20.2	29.2

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit. The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objective
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-01 4/13/2010 SB01(3-5)041310 3-5 AECOM090 Sample	SB-01 4/13/2010 SB01(13-15)041310 13-15 AECOM090 Sample	SB-01 4/13/2010 SB01(28-30)041310 28-30 AECOM090 Sample	SB-02 4/13/2010 SB02(3-5)041310 3-5 AECOM090 Sample	SB-02 4/13/2010 SB02(13-15)041310 13-15 AECOM090 Sample	SB-02 4/13/2010 SB02(28-30)041310 28-30 AECOM090 Sample	SB-03 4/28/2010 SB3(5-7)042810 5-7 AECOM091 Sample	SB-03 4/28/2010 SB3(17-18.5)042810 17-18.5 AECOM091 Sample	SB-04 4/5/2010 SB4(3-5)040510 3-5 AECOM088 Sample	SB-04 4/7/2010 SB4(7-9)040710 7-9 AECOM088 Sample	SB-04 4/7/2010 SB4(18-20)040710 18-20 AECOM088 Sample	SB-05 4/8/2010 SB5(2.5-5.0)040810 2.5-5 AECOM089 Sample	
BTEX (mg/kg)																
Benzene	71-43-2	0.06	44	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	0.34 J	<0.007 U	<0.006 U	
Ethylbenzene	100-41-4	1	390	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
m+p-Xylene	1330-20-7-M,P	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
o-Xylene	95-47-6	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
Toluene	108-88-3	0.7	500	0.001 J	<0.006 U	0.003 J	0.001 J	<0.006 U	0.002 J	<0.006 U	<0.006 U	<0.006 U	<0.006 U	0.005 J	<0.007 U	<0.006 U
Total Xylenes		0.26	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEX		NL	NL	0.001	ND	0.003	0.001	ND	0.002	ND	ND	ND	0.345	ND	ND	ND
Volatile Organic Compounds (VOCs)(mg/Kg)																
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 UJ	<0.006 U	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.026 UJ	<0.007 UJ	<0.006 U	
1,1-Dichloroethane	75-34-3	0.27	240	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
1,1-Dichloroethene	75-35-4	0.33	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.026 UJ	<0.007 UJ	<0.006 U	
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	R	R	R	R	R	R	R	R	R	R	R	R	R
1,2-Dibromoethane	106-93-4	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
1,2-Dichloroethane	107-06-2	0.02	30	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
1,2-Dichloropropane	78-87-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
2-Butanone	78-93-3	0.12	500	<0.006 U	<0.006 U	0.008	<0.006 U	<0.006 U	0.018	<0.006 U	<0.006 U	0.003 J	0.021 J	0.006 J	<0.006 UJ	
2-Hexanone	591-78-6	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.026 UJ	<0.007 UJ	<0.006 UJ	
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.026 UJ	<0.007 UJ	<0.006 U	
Acetone	67-64-1	0.05	500	0.015 J	0.012 J	0.047 J	0.03 J	0.024 J	0.09 J	0.004 J	0.008 J	<0.006 UJ	0.11 J	0.025 J	<0.006 UJ	
Bromodichloromethane	75-27-4	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.026 UJ	<0.007 U	<0.006 U	
Bromoform	75-25-2	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 UJ	<0.006 U	
Bromomethane	74-83-9	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
Carbon disulfide	75-15-0	NL	NL	<0.006 U	<0.006 U	0.003 J	0.003 J	<0.006 U	0.002 J	<0.006 UJ	<0.006 U	<0.006 U	0.016 J	<0.007 U	<0.006 U	
Carbon tetrachloride	56-23-5	0.76	22	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
Chlorobenzene	108-90-7	1.1	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
Chloroethane	75-00-3	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
Chloroform	67-66-3	0.37	350	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
Chloromethane	74-87-3	NL	NL	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.026 UJ	<0.007 U	<0.006 U	
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.026 UJ	<0.007 UJ	<0.006 U	
Cyclohexane	110-82-7	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
Dibromochloromethane	124-48-1	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 UJ	<0.006 U	
Dichlorodifluoromethane	75-71-8	NL	NL	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.026 UJ	<0.007 UJ	<0.006 UJ	
Isopropylbenzene	98-82-8	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
Methyl acetate	79-20-9	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
Methylcyclohexane	108-87-2	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.026 UJ	<0.007 U	<0.006 U	
Methylene chloride	75-09-2	0.05	500	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.026 UJ	<0.007 UJ	<0.006 UJ	
Styrene	100-42-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
Tetrachloroethene	127-18-4	1.3	150	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.026 UJ	<0.007 U	<0.006 U	
trans-1,2-Dichloroethene	156-60-5	0.19	500	<												

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-01 4/13/2010 SB01(3-5)041310 3-5 AECOM090 Sample	SB-01 4/13/2010 SB01(13-15)041310 13-15 AECOM090 Sample	SB-01 4/13/2010 SB01(28-30)041310 28-30 AECOM090 Sample	SB-02 4/13/2010 SB02(3-5)041310 3-5 AECOM090 Sample	SB-02 4/13/2010 SB02(13-15)041310 13-15 AECOM090 Sample	SB-02 4/13/2010 SB02(28-30)041310 28-30 AECOM090 Sample	SB-03 4/28/2010 SB3(5-7)042810 5-7 AECOM091 Sample	SB-03 4/28/2010 SB3(17-18.5)042810 17-18.5 AECOM091 Sample	SB-04 4/5/2010 SB4(3-5)040510 3-5 AECOM088 Sample	SB-04 4/7/2010 SB4(7-9)040710 7-9 AECOM088 Sample	SB-04 4/7/2010 SB4(18-20)040710 18-20 AECOM088 Sample	SB-05 4/8/2010 SB5(2.5-5.0)040810 2.5-5 AECOM089 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)															
2-Methylnaphthalene	91-57-6	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
Acenaphthene	83-32-9	20	500	<0.41 U	<0.36 U	<0.41 U	0.12 J	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	0.081 J
Acenaphthylene	208-96-8	100	500	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
Anthracene	120-12-7	100	500	<0.41 U	0.088 J	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	0.22 J
Benzo(a)anthracene	56-55-3	1	5.6	<0.41 U	0.12 J	0.17 J	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	0.74
Benzo(a)pyrene	50-32-8	1	1	<0.41 U	<0.36 U	0.092 J	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	0.091 J	0.6
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	0.59
Benzo(ghi)perylene	191-24-2	100	500	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	0.4
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 UJ	<0.39 UJ	<0.4 UJ	<1.7 UJ	<0.44 UJ	0.3 J
Chrysene	218-01-9	1	56	<0.41 U	0.11 J	0.14 J	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	0.77
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	0.12 J
Fluoranthene	206-44-0	100	500	<0.41 U	0.19 J	0.23 J	<0.39 U	<0.37 U	0.089 J	<0.39 U	<0.39 U	0.11 J	<1.7 UJ	<0.44 U	1.6
Fluorene	86-73-7	30	500	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	0.12 J
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	0.33 J
Naphthalene	91-20-3	12	500	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	0.09 J	<1.7 UJ	<0.44 U	0.081 J
Phenanthrene	85-01-8	100	500	<0.41 U	0.38	0.25 J	0.16 J	0.11 J	0.15 J	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	1.4
Pyrene	129-00-0	100	500	<0.41 U	0.26 J	0.34 J	<0.39 U	0.076 J	0.13 J	<0.39 U	<0.39 U	0.14 J	<1.7 UJ	<0.44 U	1.4
Total PAHs		NL	NL	ND	1.148	1.222	0.28	0.186	0.369	ND	ND	0.34	ND	0.091	8.752
Semivolatile Organic Compounds (SVOCs)(mg/Kg)															
1,1'-Biphenyl	92-52-4	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 UJ	<1.7 UJ	<0.44 UJ	<0.39 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.8 U	<0.79 U	<0.8 U	<3.4 UJ	<0.88 U	<0.39 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
2,4-Dinitrophenol	51-28-5	NL	NL	<0.41 UJ	<0.36 UJ	<0.41 UJ	<0.39 UJ	<0.37 UJ	<0.41 UJ	<0.8 UJ	<0.79 UJ	<0.8 UJ	<3.4 UJ	<0.88 UJ	<0.39 UJ
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 UJ	<1.7 UJ	<0.44 UJ	<0.39 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
2-Chlorophenol	95-57-8	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
2-Methylphenol	95-48-7	0.33	500	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
2-Nitroaniline	88-74-4	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.8 U	<0.79 U	<0.8 U	<3.4 UJ	<0.88 U	<0.39 U
2-Nitrophenol	88-75-5	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
3-and 4-Methylphenol	3,4-MEPH	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
3-Nitroaniline	99-09-2	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.8 U	<0.79 U	<0.8 U	<3.4 UJ	<0.88 U	<0.39 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.8 UJ	<0.79 UJ	<0.8 UJ	<3.4 UJ	<0.88 UJ	<0.39 UJ
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
4-Chloroaniline	106-47-8	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.39 U	<0.39 U	<0.4 U	<1.7 UJ	<0.44 U	<0.39 U
4-Nitroaniline	100-01-6	NL	NL	<0.41 U	<0.36 U	<0.41 U	<0.39 U	<0.37 U	<0.41 U	<0.8 U	<0.79 U	<0.8 U	<3.4 UJ	<0.88 U	<0.39 U
4-Nitrophenol	100-02-7	NL	NL	<0.41 UJ	<0.36 UJ	<0.41 UJ	<0.39 UJ	<0.37 UJ	<0.41 UJ	<0.8 U	<0.79 U	<0.8 UJ	<3.		

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-01 4/13/2010 SB01(3-5)041310 3-5 AECOM090 Sample	SB-01 4/13/2010 SB01(13-15)041310 13-15 AECOM090 Sample	SB-01 4/13/2010 SB01(28-30)041310 28-30 AECOM090 Sample	SB-02 4/13/2010 SB02(3-5)041310 3-5 AECOM090 Sample	SB-02 4/13/2010 SB02(13-15)041310 13-15 AECOM090 Sample	SB-02 4/13/2010 SB02(28-30)041310 28-30 AECOM090 Sample	SB-03 4/28/2010 SB3(5-7)042810 5-7 AECOM091 Sample	SB-03 4/28/2010 SB3(17-18.5)042810 17-18.5 AECOM091 Sample	SB-04 4/5/2010 SB4(3-5)040510 3-5 AECOM088 Sample	SB-04 4/7/2010 SB4(7-9)040710 7-9 AECOM088 Sample	SB-04 4/7/2010 SB4(18-20)040710 18-20 AECOM088 Sample	SB-05 4/8/2010 SB5(2.5-5.0)040810 2.5-5 AECOM089 Sample
Inorganic Compounds (mg/Kg)															
Aluminum	7429-90-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1800 J
Antimony	7440-36-0	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.34 U
Arsenic	7440-38-2	13	16	2.8	0.52 J	6.6	0.54 J	2.3	6.3	7.4 J	1.7 J	4.0 J	4.6 J	4.1 J	0.87 J
Barium	7440-39-3	350	400	11.1 J	4.8 J	12.1 J	6.5 J	6.4 J	14.0 J	25.9	48.8	33.9	16.9 J	28.9	19.6 J
Beryllium	7440-41-7	7.2	590	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.035 J
Cadmium	7440-43-9	2.5	9.3	<0.031 U	<0.027 U	<0.031 U	<0.030 U	<0.028 U	<0.031 U	0.60 J	0.16 J	<0.030 U	<0.12 UJ	<0.032 U	<0.029 U
Calcium	7440-70-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	395 J
Chromium	7440-47-3	30	1500	10.2	9.8	13.1	4.2	5.6	20.7	16.1 J	13.4 J	13.7	19.1 J	16.7	8.2
Cobalt	7440-48-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.0 J
Copper	7440-50-8	50	270	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	9.8
Iron	7439-89-6	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4680
Lead	7439-92-1	63	1000	R	R	<0.22 U	R	R	R	69.4 J	6.8 J	33	13.0 J	3.2	52.3 J
Magnesium	7439-95-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	467 J
Manganese	7439-96-5	1600	10000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	21.0 J
Mercury	7439-97-6	0.18	2.8	<0.021 U	<0.018 U	<0.021 U	<0.020 U	<0.019 U	<0.021 U	<0.020 U	<0.020 U	0.044 J	<0.085 UJ	0.023 J	0.055
Nickel	7440-02-0	30	310	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.7 J
Potassium	7440-09-7	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	356 J
Selenium	7782-49-2	3.9	1500	0.69	<0.35 U	<0.39 U	<0.37 U	<0.36 U	<0.39 U	<0.33 U	<0.33 U	R	R	R	<0.37 U
Silver	7440-22-4	2	1500	<0.053 U	<0.047 U	<0.053 U	<0.051 U	<0.049 U	<0.053 U	<0.039 U	<0.038 U	<0.060 U	<0.25 UJ	<0.066 U	<0.050 U
Sodium	7440-23-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	64.8 J
Thallium	7440-28-0	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.43 U
Vanadium	7440-62-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	12.1
Zinc	7440-66-6	109	10000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	52.7
Cyanide, Free		NL	NL	<0.062 U	<0.055 U	<0.062 U	<0.059 U	<0.057 U	<0.062 U	<0.060 UJ	<0.059 UJ	<0.061 U	<0.255 UJ	<0.066 U	<0.059 UJ
Polychlorinated biphenyls (PCBs) (mg/Kg)															
Aroclor 1016	12674-11-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.039 UJ
Aroclor 1221	11104-28-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.079 UJ
Aroclor 1232	11141-16-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.039 UJ
Aroclor 1242	53469-21-9	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.039 UJ
Aroclor 1248	12672-29-6	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.039 UJ
Aroclor 1254	11097-69-1	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.039 U
Aroclor 1260	11096-82-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.039 U
Aroclor 1262	37324-23-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.039 U
Aroclor 1268	11100-14-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.039 U
PCB (Total) (ppm)	CALC-PCBs	0.1	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND
Pesticides (mg/Kg)															
Aldrin	309-00-2	0.005	0.68	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0020 U
Alpha-bhc	319-84-6	0.02	3.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0020 U
Beta-BHC	319-85-7	0.036	3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0020 U
Chlordane, alpha	5103-71-9	0.094	24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0072 UJ
Chlordane, trans-	5103-74-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0010 J
DDD,4,4-	72-54-8	0.0033	92	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	R
DDE,4,4-	72-55-9	0.0033	62	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.02 J
DDT,4,4-	50-29-3	0.0033	47	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.027 J
Delta-BHC	319-86-8	0.04	500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0020 U
Dieldrin	60-57-1	0.005	1.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0039 U
Endosulfan I	959-98-8	2.4	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0020 U
Endosulfan II	33213-65-9	2.4	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0039 U
Endosulfan sulfate	1031-07-8	2.4	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0039 U
Endrin	72-20-8	0.014	89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0039 UJ
Endrin aldehyde	7421-93-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0027 J
Endrin ketone	53494-70-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0061 J
Gamma BHC - Lindane	58-89-9	0.1	9.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0020 U
Heptachlor	76-44-8	0.042	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0020 U
Heptachlor Epoxide	1024-57-3	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0020 U
Methoxychlor	72-43-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.02 U
Toxaphene	8001-35-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.2 U
Herbicides (mg/Kg)															
2,4-D	94-75-7	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.012 U
2,4-DB	94-82-6	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0062 J
Silvex	93-72-1	3.8	500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.0059 U
T,2,4,5-	93-76-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0047 J
Moisture, percent															
Moisture, percent	MOIST	NL	NL	18.9	8.8	19.5	15.5	11.8	19.3	16.2	15.3	17.8	80.4	24.7	14.9

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-05 4/8/2010 SB5(25-27.5)040810 25-27.5 AECOM089 Sample	SB-05 4/8/2010 SB5(32.5-35)040810 32.5-35 AECOM089 Sample	SB-06 5/5/2010 SB6(3-5)050510 3-5 AECOM097 Sample	SB-06 5/5/2010 SB6(15-17)050510 15-17 AECOM097 Sample	SB-06 5/5/2010 SB6(24-25)050510 24-25 AECOM097 Sample	SB-06 5/5/2010 SB6(28-30)050510 28-30 AECOM097 Sample	SB-07 4/22/2010 SB07(3.5-5)042210 3.5-5 AECOM089 Sample	SB-07 4/22/2010 SB07(13.5-15)042210 13.5-15 AECOM092 Sample	SB-07 4/22/2010 SB07(30-32)042210 30-32 AECOM092 Sample	SB-08 4/27/2010 SB08(2.5-5)042710 2.5-5 AECOM095 Sample	SB-08 4/27/2010 SB08(7-10)042710 7-10 AECOM095 Sample	SB-08 4/27/2010 SB08(15-17)042710 15-17 AECOM095 Sample	
BTEX (mg/kg)																
Benzene	71-43-2	0.06	44	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Ethylbenzene	100-41-4	1	390	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	0.004 J	<0.009 U	<0.006 U	
m+p-Xylene	1330-20-7-M,P	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	0.01	<0.009 U	<0.006 U	
o-Xylene	95-47-6	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	0.007 J	<0.009 U	<0.006 U	
Toluene	108-88-3	0.7	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	0.002 J	<0.009 U	<0.006 U	
Total Xylenes		0.26	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.017	ND	ND	
Total BTEX		NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.023	ND	ND	
Volatile Organic Compounds (VOCs)(mg/Kg)																
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
1,1-Dichloroethane	75-34-3	0.27	240	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
1,1-Dichloroethene	75-35-4	0.33	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 UJ	<0.009 UJ	<0.006 UJ	
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	R	R	R	R	R	R	R	R	R	R	R	R	
1,2-Dibromoethane	106-93-4	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
1,2-Dichloroethane	107-06-2	0.02	30	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
1,2-Dichloropropane	78-87-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
2-Butanone	78-93-3	0.12	500	0.007 J	0.007 J	<0.006 U	<0.006 U	<0.006 U	<0.006 U	0.0098	<0.006 UJ	<0.006 UJ	0.005 J	<0.007 U	<0.009 U	<0.006 U
2-Hexanone	591-78-6	NL	NL	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.007 UJ	<0.007 UJ	<0.009 UJ	<0.006 UJ	
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.007 U	<0.007 UJ	<0.009 UJ	<0.006 UJ	
Acetone	67-64-1	0.05	500	0.041 J	0.039 J	0.012 J	0.0062 J	<0.0066 UJ	0.094 J	0.012 J	0.012 J	0.02 J	0.005 J	0.006 J	0.006 J	
Bromodichloromethane	75-27-4	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Bromoform	75-25-2	NL	NL	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Bromomethane	74-83-9	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Carbon disulfide	75-15-0	NL	NL	0.002 J	0.003 J	0.0073	0.003 J	<0.006 UJ	<0.006 UJ	<0.006 UJ	0.002 J	<0.006 U	<0.007 U	<0.009 U	<0.006 U	
Carbon tetrachloride	56-23-5	0.76	22	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Chlorobenzene	108-90-7	1.1	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Chloroethane	75-00-3	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Chloroform	67-66-3	0.37	350	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Chloromethane	74-87-3	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.007 UJ	<0.007 U	<0.009 U	<0.006 U	
cis-1,2-Dichloroethene	156-59-2	0.25	500	0.024	<0.006 U	<0.006 U	<0.006 U	<0.006 U	0.0061	0.003	<0.006 U	<0.006 U	<0.007 U	<0.009 U	<0.006 U	
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Cyclohexane	110-82-7	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	0.053	<0.009 U	<0.006 U	
Dibromochloromethane	124-48-1	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Dichlorodifluoromethane	75-71-8	NL	NL	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.007 UJ	<0.007 UJ	<0.009 UJ	<0.006 UJ	
Isopropylbenzene	98-82-8	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Methyl acetate	79-20-9	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Methylcyclohexane	108-87-2	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	0.18	<0.009 U	<0.006 U	
Methylene chloride	75-09-2	0.05	500	<0.007 UJ	<0.007 UJ	0.016 J	<0.0079 UJ	<0.006 UJ	<0.0065 UJ	<0.006 UJ	<0.006 UJ	<0.007 UJ	<0.013 UJ	<0.015 UJ	<0.011 UJ	
Styrene	100-42-5	NL	NL	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
Tetrachloroethene	127-18-4	1.3	150	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	0.082	0.19	<0.006 UJ	<0.006 U	<0.007 U	<0.007 U	<0.009 U	<0.006 U	
trans-1,2-Dichloroethene	156-60-5	0.19														

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-05 4/8/2010 SB5(25-27.5)040810 25-27.5 AECOM089 Sample	SB-05 4/8/2010 SB5(32.5-35)040810 32.5-35 AECOM089 Sample	SB-06 5/5/2010 SB6(3-5)050510 3-5 AECOM097 Sample	SB-06 5/5/2010 SB6(15-17)050510 15-17 AECOM097 Sample	SB-06 5/5/2010 SB6(24-25)050510 24-25 AECOM097 Sample	SB-06 5/5/2010 SB6(28-30)050510 28-30 AECOM097 Sample	SB-07 4/22/2010 SB07(3.5-5)042210 3.5-5 AECOM089 Sample	SB-07 4/22/2010 SB07(13.5-15)042210 13.5-15 AECOM092 Sample	SB-07 4/22/2010 SB07(30-32)042210 30-32 AECOM092 Sample	SB-08 4/27/2010 SB08(2.5-5)042710 2.5-5 AECOM095 Sample	SB-08 4/27/2010 SB08(7-10)042710 7-10 AECOM095 Sample	SB-08 4/27/2010 SB08(15-17)042710 15-17 AECOM095 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)															
2-Methylnaphthalene	91-57-6	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 UJ	<0.38 U	<0.44 U	0.58	0.12 J	<0.4 U
Acenaphthene	83-32-9	20	500	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
Acenaphthylene	208-96-8	100	500	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
Anthracene	120-12-7	100	500	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
Benzo(a)anthracene	56-55-3	1	5.6	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
Benzo(a)pyrene	50-32-8	1	1	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.42 U	<0.43 U	<0.41 UJ	<0.38 UJ	<0.4 UJ	<0.42 UJ	<0.38 U	<0.38 U	<0.44 U	<0.47 UJ	<0.58 UJ	<0.4 UJ
Benzo(ghi)perylene	191-24-2	100	500	<0.42 U	<0.43 U	<0.41 UJ	<0.38 UJ	<0.4 UJ	<0.42 UJ	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.42 U	<0.43 U	<0.41 UJ	<0.38 UJ	<0.4 UJ	<0.42 UJ	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
Chrysene	218-01-9	1	56	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.42 U	<0.43 U	<0.41 UJ	<0.38 UJ	<0.4 UJ	<0.42 UJ	<0.38 U	<0.38 U	<0.44 U	<0.47 UJ	<0.58 UJ	<0.4 UJ
Fluoranthene	206-44-0	100	500	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
Fluorene	86-73-7	30	500	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.42 U	<0.43 U	<0.41 UJ	<0.38 UJ	<0.4 UJ	<0.42 UJ	<0.38 U	<0.38 U	<0.44 U	<0.47 UJ	<0.58 UJ	<0.4 UJ
Naphthalene	91-20-3	12	500	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	0.2 J	<0.58 U	<0.4 U
Phenanthrene	85-01-8	100	500	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	0.36 J	0.32 J	<0.4 U
Pyrene	129-00-0	100	500	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	0.11 J	<0.58 U	<0.4 U
Total PAHs		NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.25	0.44	ND
Semivolatile Organic Compounds (SVOCs)(mg/Kg)															
1,1'-Biphenyl	92-52-4	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.77 U	<0.9 U	<0.96 U	<1.2 U	<0.81 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
2,4-Dinitrophenol	51-28-5	NL	NL	<0.42 UJ	<0.43 UJ	<0.41 UJ	<0.38 UJ	<0.4 UJ	<0.42 UJ	<0.38 UJ	<0.77 UJ	<0.9 UJ	<0.96 UJ	<1.2 UJ	<0.81 UJ
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
2-Chlorophenol	95-57-8	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
2-Methylphenol	95-48-7	0.33	500	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
2-Nitroaniline	88-74-4	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.77 U	<0.9 U	<0.96 U	<1.2 U	<0.81 U
2-Nitrophenol	88-75-5	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
3-and 4-Methylphenol	3,4-MEPH	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 UJ	<0.44 UJ	<0.47 U	<0.58 U	<0.4 U
3-Nitroaniline	99-09-2	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.77 U	<0.9 U	<0.96 U	<1.2 U	<0.81 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<0.42 UJ	<0.43 UJ	<0.41 UJ	<0.38 UJ	<0.4 UJ	<0.42 UJ	<0.38 UJ	<0.77 U	<0.9 U	<0.96 UJ	<1.2 UJ	<0.81 UJ
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
4-Chloroaniline	106-47-8	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.38 U	<0.44 U	<0.47 U	<0.58 U	<0.4 U
4-Nitroaniline	100-01-6	NL	NL	<0.42 U	<0.43 U	<0.41 U	<0.38 U	<0.4 U	<0.42 U	<0.38 U	<0.77 U	<0.9 U	<0.96 U	<1.2 U	<0.81 U
4-Nitrophenol	100-02-7	NL	NL	<0.42 U	<0.43 U	<0.41 UJ	<0.38 UJ	<0.4 UJ	<0.						

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOS
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-05 4/8/2010 SB5(25-27.5)040810 25-27.5 AECOM089 Sample	SB-05 4/8/2010 SB5(32.5-35)040810 32.5-35 AECOM089 Sample	SB-06 5/5/2010 SB6(3-5)050510 3-5 AECOM097 Sample	SB-06 5/5/2010 SB6(15-17)050510 15-17 AECOM097 Sample	SB-06 5/5/2010 SB6(24-25)050510 24-25 AECOM097 Sample	SB-06 5/5/2010 SB6(28-30)050510 28-30 AECOM097 Sample	SB-07 4/22/2010 SB07(3.5-5)042210 3.5-5 AECOM089 Sample	SB-07 4/22/2010 SB07(13.5-15)042210 13.5-15 AECOM092 Sample	SB-07 4/22/2010 SB07(30-32)042210 30-32 AECOM092 Sample	SB-08 4/27/2010 SB08(2.5-5)042710 2.5-5 AECOM095 Sample	SB-08 4/27/2010 SB08(7-10)042710 7-10 AECOM095 Sample	SB-08 4/27/2010 SB08(15-17)042710 15-17 AECOM095 Sample	
Inorganic Compounds (mg/Kg)																
Aluminum	7429-90-5	NL	NL	8630 J	7040 J	NS	NS	NS	NS	1230 J	4960 J	7140 J	22700 J	24300 J	2270 J	
Antimony	7440-36-0	NL	NL	0.65 J	0.62 J	NS	NS	NS	NS	<0.33 U	<0.34 UJ	0.96 J	1.1 J	1.5 J	<0.35 UJ	
Arsenic	7440-38-2	13	16	17.5	11.8	0.54 J	1.3	2.7	7.1	<0.31 U	0.70 J	7.7 J	83.6	145	0.39 J	
Barium	7440-39-3	350	400	20.2 J	20.2 J	6.4 J	11.0 J	3.5 J	11.2 J	4.1 J	15.6 J	19.9 J	569	545	6.0 J	
Beryllium	7440-41-7	7.2	590	1.2	0.57 J	NS	NS	NS	NS	<0.018 U	0.38 J	0.69 J	2.6	3.4	<0.019 U	
Cadmium	7440-43-9	2.5	9.3	<0.032 U	<0.033 U	<0.031 U	<0.029 U	<0.030 U	0.13 J	<0.028 U	<0.038 UJ	<0.045 UJ	0.53 J	1.2	<0.030 U	
Calcium	7440-70-2	NL	NL	514 J	513 J	NS	NS	NS	NS	225 J	722 J	4850 J	R	R	R	
Chromium	7440-47-3	30	1500	27.3	20.7	6.3	11.1	8.1	16.9	4	12.9 J	21.8 J	32.9	38.3	6.4	
Cobalt	7440-48-4	NL	NL	9.3	5.7 J	NS	NS	NS	NS	0.67 J	2.8 J	5.3 J	10.9	14.2	1.2 J	
Copper	7440-50-8	50	270	5.3	2.9 J	NS	NS	NS	NS	13.5	4.4	3.1 J	25.7	30.8	2.4 J	
Iron	7439-89-6	NL	NL	20300	18300	NS	NS	NS	NS	2410	5600	32500	55500	67400	2680	
Lead	7439-92-1	63	1000	2.4 J	<0.23 UJ	2	1.5	1.2	<4.4 U	4.7 J	4.2 J	6.3 J	R	R	R	
Magnesium	7439-95-4	NL	NL	2810	2420	NS	NS	NS	NS	250 J	1170 J	3540 J	2310	2360	669	
Manganese	7439-96-5	1600	10000	76.1 J	104 J	NS	NS	NS	NS	11.6 J	47.0 J	218 J	100	114	25.5	
Mercury	7439-97-6	0.18	2.8	<0.021 U	<0.022 U	<0.021 U	<0.019 U	<0.020 U	<0.021 U	<0.019 U	<0.019 U	<0.022 U	0.19	0.28	<0.020 U	
Nickel	7440-02-0	30	310	15.7	10.7	NS	NS	NS	NS	1.5 J	9.1 J	11.8 J	19.3	25.1	4.1 J	
Potassium	7440-09-7	NL	NL	3010	2720	NS	NS	NS	NS	244 J	689	2660	1640 J	1910 J	371 J	
Selenium	7782-49-2	3.9	1500	<0.40 U	<0.41 U	<0.39 U	<0.36 U	<0.38 U	<0.40 U	<0.36 U	<0.32 UJ	<0.37 UJ	4	3.6	<0.38 U	
Silver	7440-22-4	2	1500	<0.055 U	<0.056 U	<0.053 U	<0.049 U	<0.052 U	<0.054 U	<0.049 U	<0.037 U	0.092 J	<0.061 U	<0.075 U	<0.052 U	
Sodium	7440-23-5	NL	NL	245 J	325 J	NS	NS	NS	NS	42.9 J	2800	478 J	1010	932	231 J	
Thallium	7440-28-0	NL	NL	<0.46 U	<0.47 U	NS	NS	NS	NS	<0.41 U	<0.34 UJ	1.1 J	1.6	2.7	<0.44 U	
Vanadium	7440-62-2	NL	NL	39.8	28.9	NS	NS	NS	NS	3.8 J	18.2 J	29.5 J	76.1	83.4	7.3	
Zinc	7440-66-6	109	10000	58.4	45	NS	NS	NS	NS	7.4	21.7 J	38.9 J	49.3	74.6	9.1	
Cyanide, Free		NL	NL	<0.064 UJ	<0.065 UJ	<0.062 UJ	<0.057 UJ	<0.061 UJ	<0.063 UJ	<0.057 UJ	<0.057 U	<0.067 U	<0.071 U	<0.087 U	<0.060 U	
Polychlorinated biphenyls (PCBs) (mg/Kg)																
Aroclor 1016	12674-11-2	NL	NL	<0.042 UJ	<0.043 UJ	NS	NS	NS	NS	<0.038 U	<0.038 U	<0.044 U	<0.047 UJ	<0.058 U	<0.04 U	
Aroclor 1221	11104-28-2	NL	NL	<0.085 UJ	<0.087 UJ	NS	NS	NS	NS	<0.076 U	<0.077 U	<0.09 U	<0.096 UJ	<0.12 U	<0.081 U	
Aroclor 1232	11141-16-5	NL	NL	<0.042 UJ	<0.043 UJ	NS	NS	NS	NS	<0.038 U	<0.038 U	<0.044 U	<0.047 UJ	<0.058 U	<0.04 U	
Aroclor 1242	53469-21-9	NL	NL	<0.042 UJ	<0.043 UJ	NS	NS	NS	NS	<0.038 U	<0.038 U	<0.044 U	<0.047 UJ	<0.058 U	<0.04 U	
Aroclor 1248	12672-29-6	NL	NL	<0.042 UJ	<0.043 UJ	NS	NS	NS	NS	<0.038 U	<0.038 U	<0.044 U	<0.047 UJ	<0.058 U	<0.04 U	
Aroclor 1254	11097-69-1	NL	NL	<0.042 U	<0.043 U	NS	NS	NS	NS	<0.038 U	<0.038 U	<0.044 U	<0.047 UJ	<0.058 U	<0.04 U	
Aroclor 1260	11096-82-5	NL	NL	<0.042 U	<0.043 U	NS	NS	NS	NS	<0.038 U	<0.038 U	0.023 J	<0.047 UJ	0.069	<0.04 U	
Aroclor 1262	37324-23-5	NL	NL	<0.042 U	<0.043 U	NS	NS	NS	NS	<0.038 U	<0.038 U	<0.044 U	<0.047 UJ	<0.058 U	<0.04 U	
Aroclor 1268	11100-14-4	NL	NL	<0.042 U	<0.043 U	NS	NS	NS	NS	<0.038 U	<0.038 U	<0.044 U	<0.047 UJ	<0.058 U	<0.04 U	
PCB (Total) (ppm)	CALC-PCBs	0.1	1	ND	ND	NS	NS	NS	NS	ND	ND	0.023	ND	0.069	ND	
Pesticides (mg/Kg)																
Aldrin	309-00-2	0.005	0.68	<0.0022 U	<0.0022 U	NS	NS	NS	NS	<0.0019 U	R	R	R	R	R	
Alpha-bhc	319-84-6	0.02	3.4	<0.0022 U	<0.0022 U	NS	NS	NS	NS	<0.0019 U	R	R	R	R	R	
Beta-BHC	319-85-7	0.036	3	<0.0022 U	<0.0022 U	NS	NS	NS	NS	<0.0019 U	R	R	R	R	R	
Chlordane, alpha	5103-71-9	0.094	24	<0.0022 U	<0.0022 U	NS	NS	NS	NS	<0.0019 U	R	R	R	R	R	
Chlordane, trans-	5103-74-2	NL	NL	<0.0022 U	<0.0022 U	NS	NS	NS	NS	<0.0019 U	R	R	R	R	R	
DDD,4,4-	72-54-8	0.0033	92	<0.0042 U	<0.0043 U	NS	NS	NS	NS	<0.0038 U	R	R	R	R	R	
DDE,4,4-	72-55-9	0.0033	62	<0.0042 U	<0.0043 U	NS	NS	NS	NS	<0.0038 U	R	R	R	R	R	
DDT,4,4-	50-29-3	0.0033	47	<0.0042 U	<0.0043 U	NS	NS	NS	NS	<0.0038 U	R	R	R	<0.0058 UJ	R	
Delta-BHC	319-86-8	0.04	500	<0.0022 U	<0.0022 U	NS	NS	NS	NS	<0.0019 U	R	R	R	R	R	
Dieldrin	60-57-1	0.005	1.4	<0.0042 U	<0.0043 U	NS	NS	NS	NS	<0.0038 U	R	R	R	R	R	
Endosulfan I	959-98-8	2.4	200	<0.0022 U	<0.0022 U	NS	NS	NS	NS	<0.0019 U	R	R	R	R	R	
Endosulfan II	33213-65-9	2.4	200	<0.0042 U	<0.0043 U	NS	NS	NS	NS	<0.0038 U	R	R	R	R	R	
Endosulfan sulfate	1031-07-8	2.4	200	<0.0042 U	<0.0043 U	NS	NS	NS	NS	<0.0038 U	R	R	R	R	R	
Endrin	72-20-8	0.014	89	<0.0042 U	<0.0043 U	NS	NS	NS	NS	<0.0038 U	R	R	R	R	R	
Endrin aldehyde	7421-93-4	NL	NL	<0.0042 U	<0.0043 U	NS	NS	NS	NS	<0.0038 U	R	R	R	R	R	
Endrin ketone	53494-70-5	NL	NL	<0.0042 U	<0.0043 U	NS	NS	NS	NS	<0.0038 U	R	R	R	R	R	
Gamma BHC - Lindane	58-89-9	0.1	9.2	<0.0022 U	<0.0022 U	NS	NS	NS	NS	<0.0019 U	R	R	R	R	R	
Heptachlor	76-44-8	0.042	15	<0.0022 U	<0.0022 U	NS	NS	NS	NS	<0.0019 U	R	R	R	R	R	
Heptachlor Epoxide	1024-57-3	NL	NL	<0.0022 U	<0.0022 U	NS	NS	NS	NS	<0.0019 U	R	R	R	R	R	
Methoxychlor	72-43-5	NL	NL	<0.022 U	<0.022 U	NS	NS	NS	NS	<0.019 U	R	R	R	R	R	
Toxaphene	8001-35-2	NL	NL	<0.22 U	<0.22 U	NS	NS	NS	NS	<0.19 U	R	R	R	R	R	
Herbicides (mg/Kg)																
2,4-D	94-75-7	NL	NL	<0.013 U	<0.013 U	NS	NS	NS	NS	<0.011 U	<0.011 U	<0.013 UJ	<0.014 U	<0.017 U	<0.012 U	
2,4-DB	94-82-6	NL	NL	<0.013 U	<0.013 U	NS	NS	NS	NS	<0.011 U	<0.011 U	<0.013 UJ	<0.014 U	<0.017 U	<0.012 U	
Silvex	93-72-1	3.8	500	<0.0064 U	<0.0065 U	NS	NS	NS	NS	<0.0057 U	<0.0057 U	<0.0067 UJ	<0.0071 U	<0.0087 U	<0.0060 U	
T,2,4,5-	93-76-5	NL	NL	<0.0064 U	<0.0065 U	NS	NS	NS	NS	<0.0057 U	<0.0057 U	<0.0067 UJ	0.0048 J	<0.0087 U	<0.0060 U	
Moisture, percent																
Moisture, percent	MOIST	NL	NL	21.4	23.3	19	12.7	17.8	21.1	12.1	12.8	25.4	30	42.8	17.1	

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-08 4/27/2010 SB08(32.5-35)042710 32.5-35 AECOM095 Sample	SB-09 4/9/2010 SB9(2-4)040910 2-4 AECOM089 Sample	SB-09 4/9/2010 SB9(7-9)040910 7-9 AECOM089 Sample	SB-09 4/9/2010 SB9(38-40)040910 38-40 AECOM089 Sample	SB-10 4/12/2010 SB10(3-5)041210 3-5 AECOM088 Sample	SB-10 4/12/2010 SB10(8-10)041210 8-10 AECOM088 Sample	SB-10 4/12/2010 SB10(26.5-28)041210 26.5-28 AECOM088 Sample	SB-10 4/12/2010 SB10(30-31.5)041210 30-31.5 AECOM088 Sample	SB-11 4/12/2010 SB11(3-5)041210 3-5 AECOM090 Sample	SB-11 4/12/2010 SB11(18-20)041210 18-20 AECOM090 Sample	SB-11 4/12/2010 SB11(21.5-23)041210 21.5-23 AECOM090 Sample	SB-11 4/12/2010 SB11(38-40)041210 38-40 AECOM090 Sample	
BTEX (mg/kg)																
Benzene	71-43-2	0.06	44	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Ethylbenzene	100-41-4	1	390	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
m+p-Xylene	1330-20-7-M,P	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
o-Xylene	95-47-6	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 UJ	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Toluene	108-88-3	0.7	500	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Total Xylenes		0.26	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEX		NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds (VOCs)(mg/Kg)																
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
1,1-Dichloroethane	75-34-3	0.27	240	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
1,1-Dichloroethene	75-35-4	0.33	500	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.006 UJ	<0.007 U	<0.007 U	<0.007 U	<0.007 UJ	<0.006 U	<0.006 U	<0.006 U	R	<0.006 U	<0.006 U	<0.007 U	
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	R	R	R	R	R	R	R	R	R	R	R	R	R
1,2-Dibromoethane	106-93-4	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 UJ	<0.006 U	<0.006 U	<0.006 U	R	<0.006 U	<0.006 U	<0.007 U	
1,2-Dichloroethane	107-06-2	0.02	30	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
1,2-Dichloropropane	78-87-5	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 UJ	<0.006 U	<0.006 U	<0.006 U	R	<0.006 U	<0.006 U	<0.007 U	
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 UJ	<0.006 U	<0.006 U	<0.006 U	R	<0.006 U	<0.006 U	<0.007 U	
2-Butanone	78-93-3	0.12	500	0.025	<0.007 UJ	<0.007 UJ	0.018 J	<0.007 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.006 U	<0.006 U	0.009	
2-Hexanone	591-78-6	NL	NL	<0.006 U	<0.007 UJ	<0.007 UJ	<0.007 UJ	<0.007 UJ	<0.006 UJ	<0.006 UJ	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Acetone	67-64-1	0.05	500	0.14 J	<0.007 UJ	<0.007 UJ	0.12 J	<0.007 UJ	<0.006 UJ	0.018 J	<0.01 UJ	<0.008 UJ	<0.007 UJ	<0.01 UJ	0.038 J	
Bromodichloromethane	75-27-4	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Bromoform	75-25-2	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Bromomethane	74-83-9	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Carbon disulfide	75-15-0	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	0.003 J	<0.008 UJ	<0.006 U	<0.006 U	0.003 J	
Carbon tetrachloride	56-23-5	0.76	22	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 UJ	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Chlorobenzene	108-90-7	1.1	500	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 UJ	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Chloroethane	75-00-3	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Chloroform	67-66-3	0.37	350	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Chloromethane	74-87-3	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 UJ	<0.006 U	<0.006 U	<0.006 UJ	<0.008 UJ	<0.006 UJ	<0.006 UJ	<0.007 UJ	
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 UJ	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Cyclohexane	110-82-7	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Dibromochloromethane	124-48-1	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Dichlorodifluoromethane	75-71-8	NL	NL	<0.006 U	<0.007 UJ	<0.007 UJ	<0.007 UJ	<0.007 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.006 UJ	<0.006 UJ	<0.007 UJ	
Isopropylbenzene	98-82-8	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Methyl acetate	79-20-9	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Methylcyclohexane	108-87-2	NL	NL	<0.006 UJ	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Methylene chloride	75-09-2	0.05	500	<0.009 UJ	<0.008 UJ	<0.007 UJ	<0.007 UJ	<0.007 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.006 UJ	<0.006 UJ	<0.007 UJ	
Styrene	100-42-5	NL	NL	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 UJ	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
Tetrachloroethene	127-18-4	1.3	150	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 UJ	<0.006 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.007 U	
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.006 U	<0.007 U	<0.007 U	<0.007 U	<0.007 U	<>							

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-08	SB-09	SB-09	SB-09	SB-10	SB-10	SB-10	SB-10	SB-11	SB-11	SB-11	SB-11
				4/27/2010	4/9/2010	4/9/2010	4/9/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
				SB08(32.5-35')042710	SB9(2-3.5)040910	SB9(7-9)040910	SB9(38-40)040910	SB10(2-3.5)041210	SB10(8-10)041210	SB10(26.5-28)041210	SB10(30-31.5)041210	SB11(3-5)041210	SB11(18-20)041210	SB11(18-20)041210	SB11(38-40)041210
				32.5-35 AECOM095 Sample	2-4 AECOM089 Sample	7-9 AECOM089 Sample	38-40 AECOM089 Sample	3-5 AECOM088 Sample	8-10 AECOM088 Sample	26.5-28 AECOM088 Sample	30-31.5 AECOM088 Sample	3-5 AECOM090 Sample	18-20 AECOM090 Sample	21.5-23 AECOM090 Sample	38-40 AECOM090 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)															
2-Methylnaphthalene	91-57-6	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Acenaphthene	83-32-9	20	500	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Acenaphthylene	208-96-8	100	500	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Anthracene	120-12-7	100	500	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Benzo(a)anthracene	56-55-3	1	5.6	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Benzo(a)pyrene	50-32-8	1	1	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.43 UJ	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Benzo(ghi)perylene	191-24-2	100	500	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Chrysene	218-01-9	1	56	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.43 UJ	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Fluoranthene	206-44-0	100	500	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Fluorene	86-73-7	30	500	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.43 UJ	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Naphthalene	91-20-3	12	500	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Phenanthrene	85-01-8	100	500	<0.43 U	<0.45 U	0.1 J	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Pyrene	129-00-0	100	500	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
Total PAHs		NL	NL	ND	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semivolatile Organic Compounds (SVOCs)(mg/Kg)															
1,1'-Biphenyl	92-52-4	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 UJ	<0.39 UJ	<0.42 UJ	<0.41 UJ	<0.52 UJ	<0.36 UJ	<0.38 UJ	<0.49 UJ
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.87 U	<0.45 U	<0.48 U	<0.44 U	<0.94 U	<0.78 U	<0.84 U	<0.82 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
2,4-Dinitrophenol	51-28-5	NL	NL	<0.87 UJ	<0.45 UJ	<0.48 UJ	<0.44 UJ	<0.94 UJ	<0.78 UJ	<0.84 UJ	<0.82 UJ	<0.52 UJ	<0.36 UJ	<0.38 UJ	<0.49 UJ
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
2-Chlorophenol	95-57-8	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
2-Methylphenol	95-48-7	0.33	500	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
2-Nitroaniline	88-74-4	NL	NL	<0.87 U	<0.45 U	<0.48 U	<0.44 U	<0.94 U	<0.78 U	<0.84 U	<0.82 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
2-Nitrophenol	88-75-5	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 UJ	<0.39 UJ	<0.42 UJ	<0.41 UJ	<0.52 U	<0.36 U	<0.38 U	<0.49 U
3-and 4-Methylphenol	3,4-MEPH	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
3-Nitroaniline	99-09-2	NL	NL	<0.87 U	<0.45 U	<0.48 U	<0.44 U	<0.94 U	<0.78 U	<0.84 U	<0.82 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<0.87 UJ	<0.45 UJ	<0.48 UJ	<0.44 UJ	<0.94 UJ	<0.78 UJ	<0.84 UJ	<0.82 UJ	<0.52 UJ	<0.36 UJ	<0.38 UJ	<0.49 UJ
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
4-Chloroaniline	106-47-8	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.43 U	<0.45 U	<0.48 U	<0.44 U	<0.47 U	<0.39 U	<0.42 U	<0.41 U	<0.52 U	<0.36 U	<0.38 U	<0.49 U
4-Nitroaniline	100-01-6	NL	NL	<0.87 U	<0.45 U	<0.48 U	<0.4								

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-08 4/27/2010 SB08(32.5-35)*042710 32.5-35 AECOM095 Sample	SB-09 4/9/2010 SB9(2-4)*040910 2-4 AECOM089 Sample	SB-09 4/9/2010 SB9(7-9)*040910 7-9 AECOM089 Sample	SB-09 4/9/2010 SB9(38-40)*040910 38-40 AECOM089 Sample	SB-10 4/12/2010 SB10(3-5)*041210 3-5 AECOM088 Sample	SB-10 4/12/2010 SB10(8-10)*041210 8-10 AECOM088 Sample	SB-10 4/12/2010 SB10(26.5-28)*041210 26.5-28 AECOM088 Sample	SB-10 4/12/2010 SB10(30-31.5)*041210 30-31.5 AECOM088 Sample	SB-11 4/12/2010 SB11(3-5)*041210 3-5 AECOM090 Sample	SB-11 4/12/2010 SB11(18-20)*041210 18-20 AECOM090 Sample	SB-11 4/12/2010 SB11(21.5-23)*041210 21.5-23 AECOM090 Sample	SB-11 4/12/2010 SB11(38-40)*041210 38-40 AECOM090 Sample	
Inorganic Compounds (mg/Kg)																
Aluminum	7429-90-5	NL	NL	6660 J	16800 J	12300 J	8230 J	NS	NS	NS	NS	NS	NS	NS	NS	NS
Antimony	7440-36-0	NL	NL	<0.38 UJ	2.3 J	2.0 J	0.93 J	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	7440-38-2	13	16	8.6	118	92.4	8.9	113 J	4.9 J	1.8 J	6.0 J	69.5	<0.29 U	1.1 J	12.8	
Barium	7440-39-3	350	400	15.8 J	1010	346	16.3 J	482	22.7 J	32.4	11.7 J	458	3.0 J	1.7 J	50.2	
Beryllium	7440-41-7	7.2	590	0.55 J	3.4	2.5	0.60 J	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	7440-43-9	2.5	9.3	0.078 J	<0.17 U	<0.18 U	<0.17 U	<0.035 U	<0.029 U	<0.031 U	<0.030 U	<0.039 U	<0.027 U	<0.028 U	<0.037 U	
Calcium	7440-70-2	NL	NL	R	10200	10000	1200	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	7440-47-3	30	1500	19.7	31.4	30	23.9	34.3	21.8	13.6	9.1	29.5	4.6	5.9	44.9	
Cobalt	7440-48-4	NL	NL	5.2 J	15	11.6	5.8 J	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	7440-50-8	50	270	<0.41 UJ	41.1	31.9	3.1 J	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	7439-89-6	NL	NL	31100	43700	35500	38300	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	7439-92-1	63	1000	R	7.3 J	2.6 J	<2.3 UJ	13.5	59.4	7.5	3.2	R	R	R	R	
Magnesium	7439-95-4	NL	NL	3310	1500	1230	4310	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	7439-96-5	1600	10000	161	107 J	59.0 J	231 J	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	7439-97-6	0.18	2.8	<0.022 U	0.046	0.047 J	<0.022 U	0.091 J	0.052 J	<0.021 U	<0.021 U	0.074 J	<0.018 U	<0.019 U	<0.025 U	
Nickel	7440-02-0	30	310	7.8	27.8	20.9	8.9	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	7440-09-7	NL	NL	2490 J	1530	946	3330	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	7782-49-2	3.9	1500	<0.41 U	1.4	3.1	<0.42 U	R	R	R	R	2.7	<0.34 U	<0.36 U	0.61 J	
Silver	7440-22-4	2	1500	<0.056 U	<0.059 U	<0.063 U	<0.057 U	<0.071 U	<0.058 U	<0.063 U	<0.062 U	<0.068 U	<0.047 U	<0.049 U	<0.064 U	
Sodium	7440-23-5	NL	NL	146 J	518 J	390 J	905	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	7440-28-0	NL	NL	<0.47 U	1.1 J	1.4 J	<0.48 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	7440-62-2	NL	NL	26.7	104	83.9	30.7	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	7440-66-6	109	10000	38.1	66.4	54.8	48.9	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide, Free		NL	NL	<0.065 U	<0.069 UJ	<0.073 UJ	<0.066 UJ	<0.071 U	<0.058 U	<0.064 U	<0.062 U	<0.079 U	<0.054 U	<0.057 U	<0.074 U	
Polychlorinated biphenyls (PCBs) (mg/Kg)																
Aroclor 1016	12674-11-2	NL	NL	<0.043 U	<0.045 UJ	<0.048 UJ	<0.044 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1221	11104-28-2	NL	NL	<0.087 U	<0.092 UJ	<0.098 UJ	<0.089 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1232	11141-16-5	NL	NL	<0.043 U	<0.045 UJ	<0.048 UJ	<0.044 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1242	53469-21-9	NL	NL	<0.043 U	<0.045 UJ	<0.048 UJ	<0.044 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1248	12672-29-6	NL	NL	<0.043 U	<0.045 UJ	<0.048 UJ	<0.044 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1254	11097-69-1	NL	NL	<0.043 U	<0.045 U	<0.048 U	<0.044 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1260	11096-82-5	NL	NL	<0.043 U	<0.045 U	<0.048 U	<0.044 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1262	37324-23-5	NL	NL	<0.043 U	<0.045 U	<0.048 U	<0.044 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1268	11100-14-4	NL	NL	<0.043 U	<0.045 U	<0.048 U	<0.044 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCB (Total) (ppm)	CALC-PCBs	0.1	1	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pesticides (mg/Kg)																
Aldrin	309-00-2	0.005	0.68	R	<0.0023 U	<0.0025 U	<0.0023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Alpha-bhc	319-84-6	0.02	3.4	R	<0.0023 U	<0.0025 U	<0.0023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beta-BHC	319-85-7	0.036	3	R	<0.0023 U	<0.0025 U	<0.0023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane, alpha	5103-71-9	0.094	24	R	<0.0023 U	<0.0025 U	<0.0023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane, trans-	5103-74-2	NL	NL	R	<0.0023 U	<0.0025 U	<0.0023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDD,4,4-	72-54-8	0.0033	92	R	<0.0045 U	<0.0048 U	<0.0044 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDE,4,4-	72-55-9	0.0033	62	R	<0.0045 U	<0.0048 U	<0.0044 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDT,4,4-	50-29-3	0.0033	47	R	<0.0045 U	<0.0048 U	<0.0044 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Delta-BHC	319-86-8	0.04	500	R	<0.0023 U	<0.0025 U	<0.0023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dieldrin	60-57-1	0.005	1.4	R	<0.0045 U	<0.0048 U	<0.0044 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan I	959-98-8	2.4	200	R	<0.0023 U	<0.0025 U	<0.0023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan II	33213-65-9	2.4	200	R	<0.0045 U	<0.0048 U	<0.0044 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	1031-07-8	2.4	200	R	<0.0045 U	<0.0048 U	<0.0044 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin	72-20-8	0.014	89	R	<0.0045 U	<0.0048 U	<0.0044 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin aldehyde	7421-93-4	NL	NL	R	<0.0045 U	<0.0048 U	<0.0044 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin ketone	53494-70-5	NL	NL	R	<0.0045 U	<0.0048 U	<0.0044 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Gamma BHC - Lindane	58-89-9	0.1	9.2	R	<0.0023 U	<0.0025 U	<0.0023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor	76-44-8	0.042	15	R	<0.0023 U	<0.0025 U	<0.0023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor Epoxide	1024-57-3	NL	NL	R	<0.0023 U	<0.0025 U	<0.0023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methoxychlor	72-43-5	NL	NL	R	<0.023 U	<0.025 U	<0.023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toxaphene	8001-35-2	NL	NL	R	<0.23 U	<0.25 U	<0.23 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Herbicides (mg/Kg)																
2,4-D	94-75-7	NL	NL	<0.013 U	<0.014 U	<0.015 U	<0.013 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,4-DB	94-82-6	NL	NL	<0.013 U	<0.014 U	<0.015 U	<0.013 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Silvex	93-72-1	3.8	500	<0.0065 U	<0.0069 U	<0.0073 U	<0.0066 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
T,2,4,5-	93-76-5	NL	NL	<0.0065 U	<0.0069 U	<0.0073 U	<0.0066 U	NS	NS	NS	NS	NS	NS	NS	NS	NS
Moisture, percent																
Moisture, percent	MOIST	NL	NL	23.2	27.3	31.3	24.6	29.6	14.6	21.8	20	36.5	8.3	12.2	32.6	

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-12 4/5/2010 SB12(2-3)040510 2-3 AECOM088 Sample	SB-12 4/6/2010 SB12(16-17.5)040610 16-17.5 AECOM088 Sample	SB-12 4/6/2010 SB12(25-27.5)040610 25-27.5 AECOM088 Sample	SB-12 4/6/2010 SB12(40-42.5)040610 40-42.5 AECOM088 Sample	SB-13 4/26/2010 SB13(3.5-5)042610 3.5-5 AECOM092 Sample	SB-13 4/26/2010 SB13(13.5-15)042610 13.5-15 AECOM089 Sample	SB-13 4/26/2010 SB13(30-32)042610 30-32 AECOM089 Duplicate	SB-13 4/26/2010 SB13(22-24)042610 22-24 AECOM092 Sample	SB-13 4/26/2010 SB13(30-32)042610 30-32 AECOM092 Sample	SB-14 4/27/2010 SB14(2-3.5)042710 2-3.5 AECOM091 Sample	SB-14 4/27/2010 SB14(15-17.5)042710 15-17.5 AECOM091 Sample	SB-14 4/27/2010 SB14(30-32.5)042710 30-32 AECOM091 Sample	
BTEX (mg/kg)																
Benzene	71-43-2	0.06	44	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	0.012	0.03	0.11	0.012	0.003 J	<0.006 U	<0.006 U	
Ethylbenzene	100-41-4	1	390	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	0.094 J	0.21 J	3.6	0.009	0.004 J	<0.006 U	<0.006 U	
m+p-Xylene	1330-20-7-M,P	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	0.006 J	0.01	3.4	0.004 J	<0.008 U	<0.006 U	<0.006 U	
o-Xylene	95-47-6	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	0.006 J	0.01	1.5	0.002 J	0.005 J	<0.006 U	<0.006 U	
Toluene	108-88-3	0.7	500	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	0.002 J	0.003 J	0.98 J	0.003 J	0.008	<0.006 U	<0.006 U	
Total Xylenes		0.26	500	ND	ND	ND	ND	ND	0.012	0.02	4.9	0.006	0.005	ND	ND	
Total BTEX		NL	NL	ND	ND	ND	ND	ND	0.12	0.263	9.59	0.03	0.02	ND	ND	
Volatile Organic Compounds (VOCs)(mg/Kg)																
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.006 U	<0.006 U	<0.006 U	<0.008 U	0.028	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.006 U	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.006 U	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
1,1-Dichloroethane	75-34-3	0.27	240	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
1,1-Dichloroethene	75-35-4	0.33	500	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.008 UJ	R	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	R	R	R	R	R	R	R	R	R	R	R	R	
1,2-Dibromoethane	106-93-4	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.006 U	<0.006 U	<0.006 U	<0.008 U	R	<0.006 U	<0.006 U	0.021	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
1,2-Dichloroethane	107-06-2	0.02	30	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
1,2-Dichloropropane	78-87-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.006 U	<0.006 U	<0.006 U	<0.008 U	R	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.006 U	<0.006 U	<0.006 U	<0.008 U	R	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
2-Butanone	78-93-3	0.12	500	0.016 J	<0.006 UJ	0.002 J	0.006 J	<0.007 UJ	<0.006 UJ	<0.006 UJ	<0.005 UJ	0.019 J	0.009	<0.006 U	<0.006 U	
2-Hexanone	591-78-6	NL	NL	<0.006 U	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.007 UJ	<0.006 UJ	<0.006 UJ	<0.005 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.006 U	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	
Acetone	67-64-1	0.05	500	0.11 J	<0.009 UJ	0.012 J	0.027 J	<0.007 UJ	<0.011 UJ	0.012 J	<0.005 UJ	0.1 J	0.044 J	0.007 J	0.014 J	
Bromodichloromethane	75-27-4	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Bromoform	75-25-2	NL	NL	<0.006 U	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Bromomethane	74-83-9	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Carbon disulfide	75-15-0	NL	NL	0.004 J	0.003 J	<0.006 U	<0.008 U	<0.007 UJ	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	0.002 J	0.002 J	
Carbon tetrachloride	56-23-5	0.76	22	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Chlorobenzene	108-90-7	1.1	500	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	<0.006 U	<0.006 U	0.002 J	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Chloroethane	75-00-3	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Chloroform	67-66-3	0.37	350	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Chloromethane	74-87-3	NL	NL	<0.006 UJ	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	<0.006 UJ	<0.006 UJ	<0.005 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.006 U	
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.006 U	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.007 UJ	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Cyclohexane	110-82-7	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Dibromochloromethane	124-48-1	NL	NL	<0.006 U	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Dichlorodifluoromethane	75-71-8	NL	NL	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.007 UJ	<0.006 UJ	<0.006 UJ	<0.005 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	
Isopropylbenzene	98-82-8	NL	NL	<0.006 UJ	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	0.007	0.016	0.17	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Methyl acetate	79-20-9	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.006 U	0.002 J	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Methylcyclohexane	108-87-2	NL	NL	0.013 J	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	<0.006 U	<0.006 U	0.007	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Methylene chloride	75-09-2	0.05	500	<0.006 UJ	<0.008 UJ	<0.008 UJ	<0.008 UJ	<0.012 UJ	<0.006 UJ	<0.007 UJ	<0.009 UJ	<0.007 UJ	<0.006 UJ	0.017 J	<0.006 UJ	
Styrene	100-42-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.008 U	R	0.002 J	<0.006 U	0.4 J	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Tetrachloroethene	127-18-4	1.3	150	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.006 U	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.007 UJ	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Trichloroethene	79-01-6	0.47	200	<0.006 U	<0.006 U	<0.006 U	<0.008 U	<0.007 UJ	<0.006 U	<0.006 U	<0.005 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	
Trichlorofluoromethane	75-69-4	NL	NL	<0.006 U	<0.006 U	<0.006										

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-12 4/5/2010 SB12(2-3)040510 2-3 AECOM088 Sample	SB-12 4/6/2010 SB12(16-17.5)040610 16-17.5 AECOM088 Sample	SB-12 4/6/2010 SB12(25-27.5)040610 25-27.5 AECOM088 Sample	SB-12 4/6/2010 SB12(40-42.5)040610 40-42.5 AECOM088 Sample	SB-13 4/26/2010 SB13(16-17.5)042610 13.5-15 AECOM089 Sample	SB-13 4/26/2010 SB13(25-27.5)042610 25-27.5 AECOM089 Sample	SB-13 4/26/2010 SB13(30-32.5)042610 30-32.5 AECOM089 Duplicate	SB-13 4/26/2010 SB13(40-42.5)042610 40-42.5 AECOM089 Sample	SB-13 4/26/2010 SB13(45-47.5)042610 45-47.5 AECOM089 Sample	SB-14 4/27/2010 SB14(15-17.5)042710 15-17.5 AECOM091 Sample	SB-14 4/27/2010 SB14(30-32.5)042710 30-32.5 AECOM091 Sample	
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)															
2-Methylnaphthalene	91-57-6	NL	NL	2.6 J	<0.43 U	<0.42 U	<0.5 U	<0.49 U	0.45 J	0.11 J	11	<0.41 U	7 J	<0.42 U	<0.41 U
Acenaphthene	83-32-9	20	500	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	0.36 J	0.32 J	0.86	<0.41 U	2.5	<0.42 U	<0.41 U
Acenaphthylene	208-96-8	100	500	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	8.8	<0.41 U	7.8 J	<0.42 U	<0.41 U
Anthracene	120-12-7	100	500	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	5.3	<0.41 U	11	<0.42 U	<0.41 U
Benzo(a)anthracene	56-55-3	1	5.6	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	3.5	<0.41 U	17	<0.42 U	<0.41 U
Benzo(a)pyrene	50-32-8	1	1	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	3	<0.41 U	13 J	<0.42 U	<0.41 U
Benzo(b)fluoranthene	205-99-2	1	5.6	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	2.5	<0.41 U	9 J	<0.42 U	<0.41 U
Benzo(ghi)perylene	191-24-2	100	500	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	0.8	<0.41 U	2.8 J	<0.42 U	<0.41 U
Benzo(k)fluoranthene	207-08-9	0.8	56	<2.1 U	<0.43 UJ	<0.42 UJ	<0.5 UJ	<0.49 U	<0.4 U	<0.41 U	0.91	<0.41 U	5.5 J	<0.42 UJ	<0.41 UJ
Chrysene	218-01-9	1	56	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	3	<0.41 U	16	<0.42 U	<0.41 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	0.26 J	<0.41 U	1.1 J	<0.42 U	<0.41 U
Fluoranthene	206-44-0	100	500	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	7.8	<0.41 U	27	<0.42 U	<0.41 U
Fluorene	86-73-7	30	500	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	7.2	<0.41 U	11	<0.42 U	<0.41 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	0.7	<0.41 U	2.6 J	<0.42 U	<0.41 U
Naphthalene	91-20-3	12	500	1.2 J	<0.43 U	<0.42 U	<0.5 U	<0.49 U	4.8 J	0.6 J	3	0.088 J	11	<0.42 U	<0.41 U
Phenanthrene	85-01-8	100	500	<2.1 U	<0.43 U	<0.42 U	<0.5 U	0.13 J	<0.4 U	<0.41 U	28	<0.41 U	47	<0.42 U	<0.41 U
Pyrene	129-00-0	100	500	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	10	<0.41 U	55	0.12 J	<0.41 U
Total PAHs		NL	NL	3.8	ND	ND	ND	0.13	5.61	1.03	96.63	0.088	246.3	0.12	ND
Semivolatile Organic Compounds (SVOCs)(mg/Kg)															
1,1'-Biphenyl	92-52-4	NL	NL	1.4 J	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	1.7	<0.41 U	0.7	<0.42 U	<0.41 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<2.1 UJ	<0.43 UJ	<0.42 UJ	<0.5 UJ	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<4.2 U	<0.86 U	<0.84 U	<1 U	<0.99 U	<0.4 U	<0.41 U	<0.73 U	<0.83 U	<0.88 U	<0.85 U	<0.83 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
2,4-Dichlorophenol	120-83-2	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
2,4-Dimethylphenol	105-67-9	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
2,4-Dinitrophenol	51-28-5	NL	NL	<4.2 UJ	<0.86 UJ	<0.84 UJ	<1 UJ	<0.99 UJ	<0.4 U	<0.41 U	<0.73 UJ	<0.83 UJ	<0.88 UJ	<0.85 UJ	<0.83 UJ
2,4-Dinitrotoluene	121-14-2	NL	NL	<2.1 U	<0.43 UJ	<0.42 UJ	<0.5 UJ	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
2-Chloronaphthalene	91-58-7	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
2-Chlorophenol	95-57-8	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
2-Methylphenol	95-48-7	0.33	500	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
2-Nitroaniline	88-74-4	NL	NL	<4.2 U	<0.86 U	<0.84 U	<1 U	<0.99 U	<0.4 U	<0.41 U	<0.73 U	<0.83 U	<0.88 U	<0.85 U	<0.83 U
2-Nitrophenol	88-75-5	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
3-and 4-Methylphenol	3,4-MEPH	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 UJ	<0.4 UJ	<0.41 UJ	<0.36 UJ	<0.41 UJ	<0.43 UJ	<0.42 U	<0.41 U
3-Nitroaniline	99-09-2	NL	NL	<4.2 U	<0.86 U	<0.84 U	<1 U	<0.99 U	<0.4 U	<0.41 U	<0.73 U	<0.83 U	<0.88 U	<0.85 U	<0.83 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<4.2 UJ	<0.86 UJ	<0.84 UJ	<1 UJ	<0.99 UJ	<0.4 U	<0.41 U	<0.73 U	<0.83 U	<0.88 U	<0.85 UJ	<0.83 UJ
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
4-Chloroaniline	106-47-8	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U	<0.43 U	<0.42 U	<0.41 U
4-Nitroaniline	100-01-6	NL	NL	<4.2 U	<0.86 U	<0.84 U	<1 U	<0.99 U	<0.4 U	<0.41 U	<0.73 U	<0.83 U	<0.88 U	<0.85 U	<0.83 U
4-Nitrophenol	100-02-7	NL	NL	<4.2 UJ	<0.86 UJ	<0.84 UJ	<1 UJ	<0.99 UJ	<0.4 U	<0.41 U	<0.73 UJ	<0.83 UJ	<0.88 UJ	<0.85 U	<0.83 U
Acetophenone	98-86-2	NL	NL	<2.1 U	<0.43 U	<0.42 U	<0.5 U	<0.49 U	<0.4 U	<0.41 U	<0.36 U	<0.41 U			

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-12 4/5/2010 SB12(2-3)040510 2-3 AECOM088 Sample	SB-12 4/6/2010 SB12(16-17.5)040610 16-17.5 AECOM088 Sample	SB-12 4/6/2010 SB12(25-27.5)040610 25-27.5 AECOM088 Sample	SB-12 4/6/2010 SB12(40-42.5)040610 40-42.5 AECOM088 Sample	SB-13 4/26/2010 SB13(22-24)042610 3.5-5 AECOM092 Sample	SB-13 4/26/2010 SB13(3.5-5)042610 3.5-5 AECOM089 Sample	SB-13 4/26/2010 SB130-042610 13.5-15 AECOM089 Duplicate	SB-13 4/26/2010 SB13(22-24)042610 22-24 AECOM092 Sample	SB-13 4/26/2010 SB13(30-32)042610 30-32 AECOM092 Sample	SB-14 4/27/2010 SB14(2-3.5)042710 2-3.5 AECOM091 Sample	SB-14 4/27/2010 SB14(15-17.5)042710 15-17.5 AECOM091 Sample	SB-14 4/27/2010 SB14(30-32.5)042710 30-32 AECOM091 Sample	
Inorganic Compounds (mg/Kg)																
Aluminum	7429-90-5	NL	NL	NS	NS	NS	NS	24300 J	10800 J	6470 J	1450 J	4930 J	NS	NS	NS	
Antimony	7440-36-0	NL	NL	NS	NS	NS	NS	4.7 J	<0.35 U	<0.36 U	<0.32 UJ	0.93 J	NS	NS	NS	
Arsenic	7440-38-2	13	16	57.2 J	0.42 J	2.6 J	12.5 J	76.0 J	1.4	1.0 J	<0.27 U	7.7 J	5.5 J	0.49 J	11.1 J	
Barium	7440-39-3	350	400	350	3.9 J	40.7	37.9	605 J	6.5 J	7.6 J	2.2 J	10.9 J	23.7 J	11.0 J	15.4 J	
Beryllium	7440-41-7	7.2	590	NS	NS	NS	NS	4.1 J	0.061 J	0.050 J	0.12 J	0.59 J	NS	NS	NS	
Cadmium	7440-43-9	2.5	9.3	0.15 J	<0.032 U	<0.031 U	<0.037 U	<0.049 UJ	<0.030 U	<0.031 U	<0.036 UJ	<0.041 UJ	0.13 J	0.071 J	0.26 J	
Calcium	7440-70-2	NL	NL	NS	NS	NS	NS	12600 J	1050	986	131 J	1530 J	NS	NS	NS	
Chromium	7440-47-3	30	1500	37.3	7.7	29.9	45.5	39.5 J	12.8	9.9	3.8 J	17.9 J	10.6 J	10 J	24.3 J	
Cobalt	7440-48-4	NL	NL	NS	NS	NS	NS	13.4 J	2.1 J	2.5 J	0.48 J	4.6 J	NS	NS	NS	
Copper	7440-50-8	50	270	NS	NS	NS	NS	29.3	1.5 J	2.2 J	1.5 J	1.4 J	NS	NS	NS	
Iron	7439-89-6	NL	NL	NS	NS	NS	NS	56600	4310	4480	772	32500	NS	NS	NS	
Lead	7439-92-1	63	1000	61.9	4.4	8.8	<0.23 U	21.4 J	6.7 J	3.4 J	1.1 J	5.8 J	42.7 J	4.0 J	8.0 J	
Magnesium	7439-95-4	NL	NL	NS	NS	NS	NS	4470 J	1430	1310	195 J	2710 J	NS	NS	NS	
Manganese	7439-96-5	1600	10000	NS	NS	NS	NS	118 J	39.2 J	43.4 J	5.4 J	240 J	NS	NS	NS	
Mercury	7439-97-6	0.18	2.8	0.22 J	<0.022 U	<0.021 U	<0.025 U	0.26	0.024 J	<0.021 U	<0.018 U	<0.021 U	0.05	<0.021 U	<0.021 U	
Nickel	7440-02-0	30	310	NS	NS	NS	NS	40.4 J	6	7.9	3.3 J	9.0 J	NS	NS	NS	
Potassium	7440-09-7	NL	NL	NS	NS	NS	NS	2140	524 J	580 J	179 J	2070	NS	NS	NS	
Selenium	7782-49-2	3.9	1500	R	R	R	R	4.2 J	<0.39 UJ	<0.40 UJ	<0.30 UJ	<0.35 UJ	0.49 J	<0.35 U	<0.34 U	
Silver	7440-22-4	2	1500	<0.062 U	<0.065 U	<0.063 U	<0.076 U	0.22 J	<0.052 U	<0.054 U	<0.035 U	0.050 J	<0.042 U	<0.041 U	<0.040 U	
Sodium	7440-23-5	NL	NL	NS	NS	NS	NS	1080	512 J	305 J	36.8 J	120 J	NS	NS	NS	
Thallium	7440-28-0	NL	NL	NS	NS	NS	NS	2.6 J	<0.44 U	<0.45 U	<0.33 UJ	1.3 J	NS	NS	NS	
Vanadium	7440-62-2	NL	NL	NS	NS	NS	NS	3530 J	16.9	11.6	4.3 J	26.6 J	NS	NS	NS	
Zinc	7440-66-6	109	10000	NS	NS	NS	NS	64.0 J	11.5	14.2	6.4 J	27.7 J	NS	NS	NS	
Cyanide, Free		NL	NL	<0.063 U	<0.065 U	<0.064 U	<0.076 U	<0.368 U	<0.061 UJ	<0.063 UJ	<0.054 U	<0.062 U	<0.065 UJ	<0.063 UJ	<0.062 UJ	
Polychlorinated biphenyls (PCBs) (mg/Kg)																
Aroclor 1016	12674-11-2	NL	NL	NS	NS	NS	NS	<0.049 U	<0.04 U	<0.041 U	<0.036 U	<0.041 U	NS	NS	NS	
Aroclor 1221	11104-28-2	NL	NL	NS	NS	NS	NS	<0.099 U	<0.082 U	<0.084 U	<0.073 U	<0.083 U	NS	NS	NS	
Aroclor 1232	11141-16-5	NL	NL	NS	NS	NS	NS	<0.049 U	<0.04 U	<0.041 U	<0.036 U	<0.041 U	NS	NS	NS	
Aroclor 1242	53469-21-9	NL	NL	NS	NS	NS	NS	<0.049 U	<0.04 U	<0.041 U	<0.036 U	<0.041 U	NS	NS	NS	
Aroclor 1248	12672-29-6	NL	NL	NS	NS	NS	NS	<0.049 U	<0.04 U	<0.041 U	<0.036 UJ	<0.041 U	NS	NS	NS	
Aroclor 1254	11097-69-1	NL	NL	NS	NS	NS	NS	<0.049 U	<0.04 U	<0.041 U	<0.036 U	<0.041 U	NS	NS	NS	
Aroclor 1260	11096-82-5	NL	NL	NS	NS	NS	NS	<0.049 U	<0.04 U	<0.041 U	<0.036 UJ	<0.041 U	NS	NS	NS	
Aroclor 1262	37324-23-5	NL	NL	NS	NS	NS	NS	<0.049 U	<0.04 U	<0.041 U	<0.036 UJ	<0.041 U	NS	NS	NS	
Aroclor 1268	11100-14-4	NL	NL	NS	NS	NS	NS	<0.049 U	<0.04 U	<0.041 U	<0.036 UJ	<0.041 U	NS	NS	NS	
PCB (Total) (ppm)	CALC-PCBs	0.1	1	NS	NS	NS	NS	ND	ND	ND	ND	ND	NS	NS	NS	
Pesticides (mg/Kg)																
Aldrin	309-00-2	0.005	0.68	NS	NS	NS	NS	<0.0025 U	<0.0021 U	<0.0021 U	R	R	NS	NS	NS	
Alpha-bhc	319-84-6	0.02	3.4	NS	NS	NS	NS	<0.0025 U	<0.0021 U	<0.0021 U	R	R	NS	NS	NS	
Beta-BHC	319-85-7	0.036	3	NS	NS	NS	NS	<0.0025 UJ	<0.0021 U	<0.0021 U	R	R	NS	NS	NS	
Chlordane, alpha	5103-71-9	0.094	24	NS	NS	NS	NS	<0.0025 UJ	<0.0021 U	<0.0021 U	<0.0019 UJ	R	NS	NS	NS	
Chlordane, trans-	5103-74-2	NL	NL	NS	NS	NS	NS	<0.0025 U	<0.0021 U	<0.0021 U	0.0015 J	R	NS	NS	NS	
DDD,4,4-	72-54-8	0.0033	92	NS	NS	NS	NS	<0.0049 UJ	<0.0040 U	<0.0041 U	R	R	NS	NS	NS	
DDE,4,4-	72-55-9	0.0033	62	NS	NS	NS	NS	<0.0049 U	<0.0040 U	<0.0041 U	R	R	NS	NS	NS	
DDT,4,4-	50-29-3	0.0033	47	NS	NS	NS	NS	<0.0049 UJ	<0.0040 U	<0.0041 U	R	R	NS	NS	NS	
Delta-BHC	319-86-8	0.04	500	NS	NS	NS	NS	<0.0025 UJ	<0.0021 U	<0.0021 U	R	R	NS	NS	NS	
Dieldrin	60-57-1	0.005	1.4	NS	NS	NS	NS	<0.0049 U	<0.0040 U	<0.0041 U	R	R	NS	NS	NS	
Endosulfan I	959-98-8	2.4	200	NS	NS	NS	NS	<0.0025 UJ	<0.0021 U	<0.0021 U	R	R	NS	NS	NS	
Endosulfan II	33213-65-9	2.4	200	NS	NS	NS	NS	<0.0049 UJ	<0.0040 U	<0.0041 U	R	R	NS	NS	NS	
Endosulfan sulfate	1031-07-8	2.4	200	NS	NS	NS	NS	<0.0049 UJ	<0.0040 U	<0.0041 U	R	R	NS	NS	NS	
Endrin	72-20-8	0.014	89	NS	NS	NS	NS	<0.0049 U	<0.0040 U	<0.0041 U	R	R	NS	NS	NS	
Endrin aldehyde	7421-93-4	NL	NL	NS	NS	NS	NS	<0.0049 UJ	<0.0040 U	<0.0041 U	R	R	NS	NS	NS	
Endrin ketone	53494-70-5	NL	NL	NS	NS	NS	NS	<0.0049 U	<0.0040 U	<0.0041 U	R	R	NS	NS	NS	
Gamma BHC - Lindane	58-89-9	0.1	9.2	NS	NS	NS	NS	<0.0025 U	<0.0021 U	<0.0021 U	R	R	NS	NS	NS	
Heptachlor	76-44-8	0.042	15	NS	NS	NS	NS	<0.0025 UJ	<0.0021 U	<0.0021 U	R	R	NS	NS	NS	
Heptachlor Epoxide	1024-57-3	NL	NL	NS	NS	NS	NS	<0.0025 U	<0.0021 U	<0.0021 U	R	R	NS	NS	NS	
Methoxychlor	72-43-5	NL	NL	NS	NS	NS	NS	<0.025 UJ	<0.021 U	<0.021 U	R	R	NS	NS	NS	
Toxaphene	8001-35-2	NL	NL	NS	NS	NS	NS	<0.25 U	<0.21 U	<0.21 U	R	R	NS	NS	NS	
Herbicides (mg/Kg)																
2,4-D	94-75-7	NL	NL	NS	NS	NS	NS	<0.015 U	<0.012 U	<0.013 U	<0.011 U	<0.012 U	NS	NS	NS	
2,4-DB	94-82-6	NL	NL	NS	NS	NS	NS	<0.015 U	<0.012 U	<0.013 U	<0.011 U	<0.012 U	NS	NS	NS	
Silvex	93-72-1	3.8	500	NS	NS	NS	NS	<0.0074 U	<0.0061 U	<0.0063 U	<0.0054 U	<0.0062 U	NS	NS	NS	
T,2,4,5-	93-76-5	NL	NL	NS	NS	NS	NS	<0.0074 U	<0.0061 U	<0.0063 U	<0.0054 U	<0.0062 U	NS	NS	NS	
Moisture, percent																
Moisture, percent	MOIST	NL	NL	20.4	23.1	21.7	34.4	32.1	18	20.1	8.2	19.6	23.6	20.9	18.9	

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-14 4/27/2010 SB140-042710 30-32 AECOM091 Duplicate	SB-15 4/14/2010 SB15(3.5-5)*041410 3.5-5 AECOM090 Sample	SB-15 4/14/2010 SB15(15-17)*041410 15-17 AECOM090 Sample	SB-15 4/14/2010 SB15(30-32)*041410 30-32 AECOM090 Sample	SB-16 4/19/2010 SB16(3.5-5)*041910 3.5-5 AECOM091 Sample	SB-16 4/19/2010 SB16(13.5-15)*041910 13.5-15 AECOM091 Sample	SB-16 4/19/2010 SB16(30-32)*041910 30-32 AECOM091 Sample	SB-17 4/20/2010 SB17(1.5-17)*042010 1-2 AECOM089 Sample	SB-17 4/20/2010 SB17(8.5-10)*042010 8.5-10 AECOM089 Sample	SB-17 4/20/2010 SB17(15-17)*042010 15-17 AECOM089 Sample	SB-17 4/20/2010 SB17(32.5-35)*042010 32.5-35 AECOM089 Sample	SB-18 4/19/2010 SB18(2-3.5)*041910 2-3.5 AECOM091 Sample	
BTEX (mg/kg)																
Benzene	71-43-2	0.06	44	<0.006 U	<0.007 U	0.002 J	<0.006 U	<0.008 U	<0.007 U	<0.008 U	0.002 J	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Ethylbenzene	100-41-4	1	390	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	0.005 J	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
m+p-Xylene	1330-20-7-M,P	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	0.02	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
o-Xylene	95-47-6	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	0.022	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Toluene	108-88-3	0.7	500	<0.006 U	<0.007 U	0.001 J	0.002 J	<0.008 U	<0.007 U	<0.008 U	0.008	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Total Xylenes		0.26	500	ND	ND	ND	ND	ND	ND	ND	0.042	ND	ND	ND	ND	
Total BTEX		NL	NL	ND	ND	0.003	0.002	ND	ND	ND	0.057	ND	ND	ND	ND	
Volatile Organic Compounds (VOCs)(mg/Kg)																
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	0.001 J	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	0.011	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
1,1-Dichloroethane	75-34-3	0.27	240	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	0.02	0.003 J	<0.005 U	<0.006 U	<0.011 UJ	
1,1-Dichloroethene	75-35-4	0.33	500	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.006 UJ	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	R	R	R	R	R	R	R	R	R	R	R	R	
1,2-Dibromoethane	106-93-4	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
1,2-Dichloroethane	107-06-2	0.02	30	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
1,2-Dichloropropane	78-87-5	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
2-Butanone	78-93-3	0.12	500	<0.006 U	<0.007 U	<0.006 U	0.01	<0.008 U	<0.007 U	<0.008 U	0.007 J	<0.009 U	<0.005 U	0.004 J	<0.011 UJ	
2-Hexanone	591-78-6	NL	NL	<0.006 UJ	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.006 UJ	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Acetone	67-64-1	0.05	500	0.014 J	<0.007 UJ	<0.009 UJ	0.054 J	<0.008 UJ	0.021 J	0.03 J	<0.007 UJ	<0.011 UJ	0.013 J	0.019 J	<0.011 UJ	
Bromodichloromethane	75-27-4	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Bromoform	75-25-2	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Bromomethane	74-83-9	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Carbon disulfide	75-15-0	NL	NL	<0.006 U	<0.007 U	0.003 J	0.002 J	<0.008 U	0.002 J	<0.008 U	<0.007 U	<0.009 U	<0.005 U	0.005 J	<0.011 UJ	
Carbon tetrachloride	56-23-5	0.76	22	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Chlorobenzene	108-90-7	1.1	500	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Chloroethane	75-00-3	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Chloroform	67-66-3	0.37	350	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Chloromethane	74-87-3	NL	NL	<0.006 U	<0.007 UJ	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.007 UJ	<0.008 UJ	<0.007 UJ	<0.009 UJ	<0.005 UJ	<0.006 UJ	<0.011 UJ	
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	0.053	0.002 J	<0.005 U	<0.006 U	<0.011 UJ	
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Cyclohexane	110-82-7	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	0.022	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Dibromochloromethane	124-48-1	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Dichlorodifluoromethane	75-71-8	NL	NL	<0.006 UJ	<0.007 UJ	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.007 UJ	<0.008 UJ	<0.007 UJ	<0.009 UJ	<0.005 UJ	<0.006 UJ	<0.011 UJ	
Isopropylbenzene	98-82-8	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Methyl acetate	79-20-9	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 UJ	<0.007 UJ	<0.008 UJ	<0.007 UJ	<0.009 UJ	<0.005 UJ	<0.006 UJ	<0.011 UJ	
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Methylcyclohexane	108-87-2	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	0.045	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Methylene chloride	75-09-2	0.05	500	<0.006 UJ	<0.007 UJ	<0.006 UJ	<0.006 UJ	<0.01 UJ	<0.008 UJ	<0.01 UJ	<0.009 UJ	<0.009 UJ	<0.008 UJ	<0.011 UJ	<0.013 UJ	
Styrene	100-42-5	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Tetrachloroethene	127-18-4	1.3	150	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	0.007	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	<0.007 U	<0.009 U	<0.005 U	<0.006 U	<0.011 UJ	
Trichloroethene	79-01-6	0.47	200	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.008 U	0.032	<				

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-14 4/27/2010 SB140-042710 30-32 AECOM091 Duplicate	SB-15 4/14/2010 SB15(3.5-5')041410 3.5-5 AECOM090 Sample	SB-15 4/14/2010 SB15(15-17')041410 15-17 AECOM090 Sample	SB-15 4/14/2010 SB15(30-32')041410 30-32 AECOM090 Sample	SB-16 4/19/2010 SB16(3.5-5')041910 3.5-5 AECOM091 Sample	SB-16 4/19/2010 SB16(13.5-15')041910 13.5-15 AECOM091 Sample	SB-16 4/19/2010 SB16(30-32')041910 30-32 AECOM091 Sample	SB-17 4/20/2010 SB17(1.2-2')042010 1-2 AECOM089 Sample	SB-17 4/20/2010 SB17(8.5-10')042010 8.5-10 AECOM089 Sample	SB-17 4/20/2010 SB17(15-17')042010 15-17 AECOM089 Sample	SB-17 4/20/2010 SB17(32.5-35')042010 32.5-35 AECOM089 Sample	SB-18 4/19/2010 SB18(2-3.5')041910 2-3.5 AECOM091 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)															
2-Methylnaphthalene	91-57-6	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	1.1	<0.58 U	<0.36 U	<0.41 U	0.73 J
Acenaphthene	83-32-9	20	500	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	0.14 J	<0.58 U	<0.36 U	<0.41 U	5.6 J
Acenaphthylene	208-96-8	100	500	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	0.26 J	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
Anthracene	120-12-7	100	500	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	0.15 J	<0.58 U	<0.36 U	<0.41 U	9.2 J
Benzo(a)anthracene	56-55-3	1	5.6	<0.43 U	0.12 J	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	0.18 J	<0.58 U	<0.36 U	<0.41 U	19 J
Benzo(a)pyrene	50-32-8	1	1	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	0.14 J	<0.58 U	<0.36 U	<0.41 U	14 J
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	0.17 J	<0.58 U	<0.36 U	<0.41 U	15 J
Benzo(ghi)perylene	191-24-2	100	500	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	R	<0.58 U	<0.36 U	<0.41 U	3.8 J
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.43 UJ	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	R	<0.58 U	<0.36 U	<0.41 U	8.9 J
Chrysene	218-01-9	1	56	<0.43 U	0.12 J	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	0.44	<0.58 U	<0.36 U	<0.41 U	17 J
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	R	<0.58 U	<0.36 U	<0.41 U	1.7 J
Fluoranthene	206-44-0	100	500	<0.43 U	0.16 J	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	0.12 J	<0.58 U	<0.36 U	<0.41 U	56 J
Fluorene	86-73-7	30	500	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	0.21 J	<0.58 U	<0.36 U	<0.41 U	5.2 J
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	R	<0.58 U	<0.36 U	<0.41 U	4.6 J
Naphthalene	91-20-3	12	500	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	0.4 J	<0.58 U	<0.36 U	<0.41 U	2.1 J
Phenanthrene	85-01-8	100	500	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	0.66	<0.58 U	<0.36 U	<0.41 U	44 J
Pyrene	129-00-0	100	500	<0.43 U	0.21 J	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	0.66	<0.58 U	<0.36 U	<0.41 U	43 J
Total PAHs		NL	NL	ND	0.61	ND	ND	ND	ND	ND	4.63	ND	ND	ND	249.83
Semivolatile Organic Compounds (SVOCs)(mg/Kg)															
1,1'-Biphenyl	92-52-4	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	0.24 J
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.87 U	<0.44 U	<0.39 U	<0.42 U	<1 U	<0.92 U	<1.1 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<1.4 UJ
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
2,4-Dichlorophenol	120-83-2	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
2,4-Dimethylphenol	105-67-9	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
2,4-Dinitrophenol	51-28-5	NL	NL	<0.87 UJ	<0.44 UJ	<0.39 UJ	<0.42 UJ	<1 UJ	<0.92 UJ	<1.1 UJ	<0.43 UJ	<0.58 UJ	<0.36 UJ	<0.41 UJ	<1.4 UJ
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
2-Chloronaphthalene	91-58-7	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
2-Chlorophenol	95-57-8	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
2-Methylphenol	95-48-7	0.33	500	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
2-Nitroaniline	88-74-4	NL	NL	<0.87 U	<0.44 U	<0.39 U	<0.42 U	<1 U	<0.92 U	<1.1 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<1.4 UJ
2-Nitrophenol	88-75-5	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
3-and 4-Methylphenol	3,4-MEPH	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 UJ	<0.45 UJ	<0.53 UJ	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
3-Nitroaniline	99-09-2	NL	NL	<0.87 U	<0.44 U	<0.39 U	<0.42 U	<1 U	<0.92 U	<1.1 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<1.4 UJ
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<0.87 UJ	<0.44 U	<0.39 U	<0.42 U	<1 U	<0.92 U	<1.1 U	<0.43 UJ	<0.58 UJ	<0.36 UJ	<0.41 UJ	<1.4 UJ
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
4-Chloroaniline	106-47-8	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.43 U	<0.44 U	<0.39 U	<0.42 U	<0.52 U	<0.45 U	<0.53 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<0.71 UJ
4-Nitroaniline	100-01-6	NL	NL	<0.87 U	<0.44 U	<0.39 U	<0.42 U	<1 U	<0.92 U	<1.1 U	<0.43 U	<0.58 U	<0.36 U	<0.41 U	<1.4 UJ
4-Nitrophenol	100-02-7	NL	NL	<0.87 U	<0.44 UJ	<0.39 UJ	<0.42 UJ	<1 UJ	<0.92 UJ	<1.1 UJ	<0.43 UJ	<0.58 UJ	<0.		

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-14 4/27/2010 SB140-042710 30-32 AECOM091 Duplicate	SB-15 4/14/2010 SB15(3.5-5')041410 3.5-5 AECOM090 Sample	SB-15 4/14/2010 SB15(15-17')041410 15-17 AECOM090 Sample	SB-15 4/14/2010 SB15(30-32')041410 30-32 AECOM090 Sample	SB-16 4/19/2010 SB16(3.5-5')041910 3.5-5 AECOM091 Sample	SB-16 4/19/2010 SB16(13.5-15')041910 13.5-15 AECOM091 Sample	SB-16 4/19/2010 SB16(30-32')041910 30-32 AECOM091 Sample	SB-17 4/20/2010 SB17(1.2-5')042010 1-2 AECOM089 Sample	SB-17 4/20/2010 SB17(8.5-10')042010 8.5-10 AECOM089 Sample	SB-17 4/20/2010 SB17(15-17')042010 15-17 AECOM089 Sample	SB-17 4/20/2010 SB17(32.5-35')042010 32.5-35 AECOM089 Sample	SB-18 4/19/2010 SB18(2-3.5')041910 2-3.5 AECOM091 Sample	
Inorganic Compounds (mg/Kg)																
Aluminum	7429-90-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	20300 J	8870 J	2450 J	5290 J	NS	NS
Antimony	7440-36-0	NL	NL	NS	NS	NS	NS	NS	NS	NS	1.0 J	2.7 J	<0.31 U	<0.36 U	NS	NS
Arsenic	7440-38-2	13	16	9.2 J	55.5	0.32 J	6.4	155 J	10.8 J	<0.40 UJ	70.1	155	<0.29 U	7.4	52.9 J	NS
Barium	7440-39-3	350	400	12.3 J	918	9.1 J	15.2 J	62.2	16.6 J	9.2 J	499	60.5	1.7 J	12.6 J	562 J	NS
Beryllium	7440-41-7	7.2	590	NS	NS	NS	NS	NS	NS	NS	1.3	3.6	0.076 J	0.43 J	NS	NS
Cadmium	7440-43-9	2.5	9.3	0.31 J	<0.034 U	<0.029 U	<0.032 U	0.098 J	0.14 J	<0.053 U	<0.33 U	<0.22 U	<0.027 U	<0.031 U	2.8 J	NS
Calcium	7440-70-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	13700	5750	517 J	603 J	NS	NS
Chromium	7440-47-3	30	1500	20.6 J	37.5	9.8	14.7	37.6 J	15.5 J	8.1 J	27.5	36.3	5.9	16.7	34.7 J	NS
Cobalt	7440-48-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	9.8	20.3	0.29 J	5.9 J	NS	NS
Copper	7440-50-8	50	270	NS	NS	NS	NS	NS	NS	NS	32.5	53.9	2.3 J	2.3 J	NS	NS
Iron	7439-89-6	NL	NL	NS	NS	NS	NS	NS	NS	NS	59800	60100	2600	14800	NS	NS
Lead	7439-92-1	63	1000	6.0 J	R	R	<0.22 U	15.9 J	6.4 J	3.3 J	6.0 J	<1.5 UJ	1.9 J	1.5 J	255 J	NS
Magnesium	7439-95-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	1780	1270	113 J	1910	NS	NS
Manganese	7439-96-5	1600	10000	NS	NS	NS	NS	NS	NS	NS	113 J	39.2 J	5.3 J	94.5 J	NS	NS
Mercury	7439-97-6	0.18	2.8	<0.022 U	0.11 J	<0.019 U	<0.021 U	0.085	<0.023 U	<0.027 U	0.17	0.064	<0.018 U	<0.021 U	0.17 J	NS
Nickel	7440-02-0	30	310	NS	NS	NS	NS	NS	NS	NS	35.4	47	2.7 J	7.4	NS	NS
Potassium	7440-09-7	NL	NL	NS	NS	NS	NS	NS	NS	NS	1150	352 J	141 J	2260	NS	NS
Selenium	7782-49-2	3.9	1500	<0.36 U	4.4	0.39 J	0.45 J	2.1	<0.38 U	<0.44 U	1.7	<0.55 U	<0.34 U	<0.39 U	3.5 J	NS
Silver	7440-22-4	2	1500	<0.042 U	<0.058 U	<0.050 U	<0.055 U	0.088 J	<0.045 U	<0.052 U	<0.056 U	<0.075 U	<0.047 U	<0.053 U	0.21 J	NS
Sodium	7440-23-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	675	165 J	48.3 J	916	NS	NS
Thallium	7440-28-0	NL	NL	NS	NS	NS	NS	NS	NS	NS	2.5	1.2 J	<0.39 U	<0.45 U	NS	NS
Vanadium	7440-62-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	558	99.2	6.7	20.4	NS	NS
Zinc	7440-66-6	109	10000	NS	NS	NS	NS	NS	NS	NS	75.9	106	4.5	41	NS	NS
Cyanide, Free		NL	NL	<0.065 UJ	<0.067 U	<0.117 U	<0.064 U	<0.078 UJ	<0.069 UJ	<0.160 UJ	<0.066 UJ	<0.087 UJ	<0.054 UJ	<0.062 UJ	<0.107 UJ	NS
Polychlorinated biphenyls (PCBs) (mg/Kg)																
Aroclor 1016	12674-11-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	<0.043 U	<0.058 U	<0.036 U	<0.041 U	NS	NS
Aroclor 1221	11104-28-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	<0.088 U	<0.12 U	<0.073 U	<0.083 U	NS	NS
Aroclor 1232	11141-16-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	<0.043 U	<0.058 U	<0.036 U	<0.041 U	NS	NS
Aroclor 1242	53469-21-9	NL	NL	NS	NS	NS	NS	NS	NS	NS	<0.043 U	<0.058 U	<0.036 U	<0.041 U	NS	NS
Aroclor 1248	12672-29-6	NL	NL	NS	NS	NS	NS	NS	NS	NS	<0.043 U	<0.058 U	<0.036 U	<0.041 U	NS	NS
Aroclor 1254	11097-69-1	NL	NL	NS	NS	NS	NS	NS	NS	NS	<0.043 U	<0.058 U	<0.036 U	<0.041 U	NS	NS
Aroclor 1260	11096-82-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	<0.043 U	<0.058 U	<0.036 U	<0.041 U	NS	NS
Aroclor 1262	37324-23-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	<0.043 U	<0.058 U	<0.036 U	<0.041 U	NS	NS
Aroclor 1268	11100-14-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	<0.043 U	<0.058 U	<0.036 U	<0.041 U	NS	NS
PCB (Total) (ppm)	CALC-PCBs	0.1	1	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	NS	NS
Pesticides (mg/Kg)																
Aldrin	309-00-2	0.005	0.68	NS	NS	NS	NS	NS	NS	NS	R	<0.0030 U	<0.0018 U	<0.0021 U	NS	NS
Alpha-bhc	319-84-6	0.02	3.4	NS	NS	NS	NS	NS	NS	NS	R	<0.0030 U	<0.0018 U	<0.0021 U	NS	NS
Beta-BHC	319-85-7	0.036	3	NS	NS	NS	NS	NS	NS	NS	<0.0022 UJ	<0.0030 U	<0.0018 U	<0.0021 U	NS	NS
Chlordane, alpha	5103-71-9	0.094	24	NS	NS	NS	NS	NS	NS	NS	R	<0.0030 U	<0.0018 U	<0.0021 U	NS	NS
Chlordane, trans-	5103-74-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	R	<0.0030 U	<0.0018 U	<0.0021 U	NS	NS
DDD,4,4-	72-54-8	0.0033	92	NS	NS	NS	NS	NS	NS	NS	0.0030 J	<0.0058 U	<0.0036 U	<0.0041 U	NS	NS
DDE,4,4-	72-55-9	0.0033	62	NS	NS	NS	NS	NS	NS	NS	R	<0.0058 U	<0.0036 U	<0.0041 U	NS	NS
DDT,4,4-	50-29-3	0.0033	47	NS	NS	NS	NS	NS	NS	NS	<0.0043 UJ	<0.0058 U	<0.0036 U	<0.0041 U	NS	NS
Delta-BHC	319-86-8	0.04	500	NS	NS	NS	NS	NS	NS	NS	<0.0022 UJ	<0.0030 U	<0.0018 U	<0.0021 U	NS	NS
Dieldrin	60-57-1	0.005	1.4	NS	NS	NS	NS	NS	NS	NS	R	<0.0058 U	<0.0036 U	<0.0041 U	NS	NS
Endosulfan I	959-98-8	2.4	200	NS	NS	NS	NS	NS	NS	NS	R	<0.0030 U	<0.0018 U	<0.0021 U	NS	NS
Endosulfan II	33213-65-9	2.4	200	NS	NS	NS	NS	NS	NS	NS	R	<0.0058 U	<0.0036 U	<0.0041 U	NS	NS
Endosulfan sulfate	1031-07-8	2.4	200	NS	NS	NS	NS	NS	NS	NS	R	<0.0058 U	<0.0036 U	<0.0041 U	NS	NS
Endrin	72-20-8	0.014	89	NS	NS	NS	NS	NS	NS	NS	R	<0.0058 U	<0.0036 U	<0.0041 U	NS	NS
Endrin aldehyde	7421-93-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	R	<0.0058 U	<0.0036 U	<0.0041 U	NS	NS
Endrin ketone	53494-70-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	R	<0.0058 U	<0.0036 U	<0.0041 U	NS	NS
Gamma BHC - Lindane	58-89-9	0.1	9.2	NS	NS	NS	NS	NS	NS	NS	0.0012 J	<0.0030 U	<0.0018 U	<0.0021 U	NS	NS
Heptachlor	76-44-8	0.042	15	NS	NS	NS	NS	NS	NS	NS	R	<0.0030 U	<0.0018 U	<0.0021 U	NS	NS
Heptachlor Epoxide	1024-57-3	NL	NL	NS	NS	NS	NS	NS	NS	NS	R	<0.0030 U	<0.0018 U	<0.0021 U	NS	NS
Methoxychlor	72-43-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	R	<0.03 U	<0.018 U	<0.021 U	NS	NS
Toxaphene	8001-35-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	R	<0.3 U	<0.18 U	<0.21 U	NS	NS
Herbicides (mg/Kg)																
2,4-D	94-75-7	NL	NL	NS	NS	NS	NS	NS	NS	NS	<0.013 U	<0.017 U	<0.011 U	<0.012 U	NS	NS
2,4-DB	94-82-6	NL	NL	NS	NS	NS	NS	NS	NS	NS	<0.013 U	<0.017 U	<0.011 U	<0.012 U	NS	NS
Silvex	93-72-1	3.8	500	NS	NS	NS	NS	NS	NS	NS	<0.0066 U	<0.0087 U	<0.0054 U	<0.0062 U	NS	NS
T,2,4,5-	93-76-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	<0.0066 U	<0.0087 U	<0.0054 U	<0.0062 U	NS	NS
Moisture, percent																
Moisture, percent	MOIST	NL	NL	23.2	25.5	14.3	22.1	36	27.2	37.4	23.8	42.8	7.9	18.9	53.3	NS

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.

Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOS
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-18 4/19/2010 SB18(13.5-15')041910 13.5-15 AECOM091 Sample	SB-18 4/19/2010 SB18(28-30')041910 28-30 AECOM091 Sample	SB-19 4/22/2010 SB19(3.5-5')042210 3.5-5 AECOM089 Sample	SB-19 4/22/2010 SB19(15-17.5')042210 15-17.5 AECOM089 Sample	SB-19 4/22/2010 SB19(32-35')042210 32-35 AECOM089 Sample	SB-20 4/14/2010 SB20(3-5')041410 3-5 AECOM090 Sample	SB-20 4/14/2010 SB20(8.5-10')041410 8.5-10 AECOM090 Sample	SB-20 4/14/2010 SB20(0)041410 8.5-10 AECOM090 Duplicate	SB-20 4/14/2010 SB20(22-23.5')041410 22-23.5 AECOM090 Sample	SB-20 4/14/2010 SB20(33-35')041410 33-35 AECOM090 Sample	SB-21 4/21/2010 SB21(3.5-5')042110 3.5-5 AECOM089 Sample	SB-21 4/21/2010 SB21(13.5-15')042110 13.5-15 AECOM089 Sample
BTEX (mg/kg)															
Benzene	71-43-2	0.06	44	<0.006 U	<0.006 U	<1.9 U	0.012	0.002 J	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	0.008
Ethylbenzene	100-41-4	1	390	<0.006 U	<0.006 U	2.4	0.004 J	0.002 J	<0.014 UJ	16	11	44	<0.007 U	<0.006 U	0.036
m+p-Xylene	1330-20-7-M,P	NL	NL	<0.006 U	<0.006 U	16	0.013	0.016	<0.014 UJ	15 J	79 J	39	<0.007 U	<0.006 U	0.02
o-Xylene	95-47-6	NL	NL	<0.006 U	<0.006 U	7.2	0.007	0.009	<0.014 UJ	6.7 J	35 J	16	<0.007 U	<0.006 U	0.009
Toluene	108-88-3	0.7	500	<0.006 U	<0.006 U	5.2	0.007	0.003 J	<0.014 UJ	2.6 J	7.8 J	15	0.002 J	<0.006 U	<0.006 U
Total Xylenes		0.26	500	ND	ND	23.2	0.02	0.025	ND	21.7	114	55	ND	ND	0.029
Total BTEX		NL	NL	ND	ND	30.8	0.043	0.032	ND	40.3	132.8	114	0.002	ND	0.073
Volatile Organic Compounds (VOCs)(mg/kg)															
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.006 U	<0.006 U	0.003 J	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	R	R	R	R	R	<0.014 UJ	<1.5 UJ	<1.5 UJ	<1.5 UJ	R	R	R
1,2-Dibromoethane	106-93-4	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.006 U	<0.006 U	0.003 J	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	0.3 J	<1.5 U	<0.007 U	<0.006 U	<0.006 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
2-Butanone	78-93-3	0.12	500	<0.006 U	<0.006 U	<0.008 UJ	<0.006 UJ	0.013 J	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	0.024	<0.006 UJ	<0.006 U
2-Hexanone	591-78-6	NL	NL	<0.006 U	<0.006 U	<0.008 UJ	<0.006 UJ	<0.006 UJ	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 UJ	<0.006 U
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.006 U	<0.006 U	<0.008 UJ	<0.006 UJ	<0.006 UJ	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 UJ	<0.006 U
Acetone	67-64-1	0.05	500	0.014 J	0.012 J	0.034 J	0.015 J	0.062 J	<0.014 UJ	<1.5 UJ	<1.5 U	<1.5 UJ	0.13 J	<0.006 UJ	<0.01 UJ
Bromodichloromethane	75-27-4	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
Bromoform	75-25-2	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
Bromomethane	74-83-9	NL	NL	<0.006 U	<0.006 U	<0.008 UJ	<0.006 UJ	<0.006 UJ	<0.014 UJ	R	R	R	<0.007 U	<0.006 UJ	<0.006 U
Carbon disulfide	75-15-0	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 UJ	<1.5 U	<0.007 U	<0.006 U	<0.006 U
Carbon tetrachloride	56-23-5	0.76	22	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 UJ	<1.5 UJ	<1.5 UJ	<0.007 U	<0.006 U	<0.006 U
Chlorobenzene	108-90-7	1.1	500	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
Chloroethane	75-00-3	NL	NL	<0.006 U	<0.006 U	<0.008 UJ	<0.006 UJ	<0.006 UJ	<0.014 UJ	R	R	R	<0.007 U	<0.006 UJ	<0.006 U
Chloroform	67-66-3	0.37	350	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
Chloromethane	74-87-3	NL	NL	<0.006 UJ	<0.006 UJ	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 UJ	<0.006 U	<0.006 UJ
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
Cyclohexane	110-82-7	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
Dibromochloromethane	124-48-1	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
Dichlorodifluoromethane	75-71-8	NL	NL	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.006 UJ	<0.006 UJ	<0.014 UJ	<1.5 UJ	<1.5 UJ	<1.5 UJ	<0.007 UJ	<0.006 UJ	<0.006 UJ
Isopropylbenzene	98-82-8	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	2	<0.007 U	<0.006 U	<0.006 U
Methyl acetate	79-20-9	NL	NL	<0.006 UJ	<0.006 UJ	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 UJ
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
Methylcyclohexane	108-87-2	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 UJ	<1.5 UJ	<1.5 UJ	<0.007 U	<0.006 U	<0.006 U
Methylene chloride	75-09-2	0.05	500	<0.007 UJ	<0.008 UJ	<0.008 UJ	<0.007 UJ	<0.007 UJ	<0.014 UJ	<1.5 UJ	<1.5 UJ	<1.5 UJ	<0.007 UJ	<0.006 UJ	<0.009 UJ
Styrene	100-42-5	NL	NL	<0.006 U	<0.006 U	11	0.004 J	0.003 J	<0.014 UJ	2.8 J	71 J	6.8	<0.007 U	<0.006 U	<0.006 U
Tetrachloroethene	127-18-4	1.3	150	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
Trichloroethene	79-01-6	0.47	200	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
Trichlorofluoromethane	75-69-4	NL	NL	<0.006 U	<0.006 U	<0.008 UJ	<0.006 UJ	<0.006 UJ	<0.014 UJ	<1.5 UJ	<1.5 UJ	<1.5 UJ	<0.007 U	<0.006 UJ	<0.006 U
Vinyl chloride	75-01-4	0.02	13	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.014 UJ	<1.5 U	<1.5 U	<1.5 U	<0.007 U	<0.006 U	<0.006 U
Total VOCs		NL	NL	0.014	0.012	41.84	0.062	0.11	ND	43.1	204.1	122.8	0.156	ND	0.073

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-18 4/19/2010 SB18(13.5-15')041910 13.5-15 AECOM091 Sample	SB-18 4/19/2010 SB18(28-30')041910 28-30 AECOM091 Sample	SB-19 4/22/2010 SB19(3.5-5')042210 3.5-5 AECOM089 Sample	SB-19 4/22/2010 SB19(15-17.5')042210 15-17.5 AECOM089 Sample	SB-19 4/22/2010 SB19(32-35')042210 32-35 AECOM089 Sample	SB-20 4/14/2010 SB20(3-5')041410 3-5 AECOM090 Sample	SB-20 4/14/2010 SB20(8.5-10')041410 8.5-10 AECOM090 Sample	SB-20 4/14/2010 SB20(0)041410 8.5-10 AECOM090 Duplicate	SB-20 4/14/2010 SB20(22-23.5')041410 22-23.5 AECOM090 Sample	SB-20 4/14/2010 SB20(33-35')041410 33-35 AECOM090 Sample	SB-21 4/21/2010 SB21(3.5-5')042110 3.5-5 AECOM089 Sample	SB-21 4/21/2010 SB21(13.5-15')042110 13.5-15 AECOM089 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)															
2-Methylnaphthalene	91-57-6	NL	NL	<0.38 U	<0.4 U	4.5	<0.41 U	<0.41 U	<0.95 UJ	92	92	730	<0.45 U	0.67	<0.41 U
Acenaphthene	83-32-9	20	500	<0.38 U	<0.4 U	0.25 J	<0.41 U	<0.41 U	<0.95 UJ	2.5	2.5	13	<0.45 U	0.31 J	<0.41 U
Acenaphthylene	208-96-8	100	500	<0.38 U	<0.4 U	2.3	<0.41 U	<0.41 U	<0.95 UJ	30	36	160 J	<0.45 U	1.4	<0.41 U
Anthracene	120-12-7	100	500	<0.38 U	<0.4 U	0.75	<0.41 U	<0.41 U	<0.95 UJ	15 J	13 J	76 J	<0.45 U	1.6	<0.41 U
Benzo(a)anthracene	56-55-3	1	5.6	<0.38 U	<0.4 U	3.6	<0.41 U	<0.41 U	<0.95 UJ	8.6 J	9.2 J	57 J	<0.45 U	1.4	<0.41 U
Benzo(a)pyrene	50-32-8	1	1	<0.38 U	<0.4 U	3.8	<0.41 U	<0.41 U	<0.95 UJ	7.6 J	7.7 J	45 J	<0.45 U	1.3	<0.41 U
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.38 U	<0.4 U	3.8	<0.41 U	<0.41 U	<0.95 UJ	6.9 J	5 J	37 J	<0.45 U	0.96	<0.41 U
Benzo(ghi)perylene	191-24-2	100	500	<0.38 U	<0.4 U	1	<0.41 U	<0.41 U	<0.95 UJ	1.5 J	1.3	9.4 J	<0.45 U	0.43	<0.41 U
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.38 UJ	<0.4 UJ	1.5	<0.41 U	<0.41 U	<0.95 UJ	1.6 J	2.6	22 J	<0.45 U	0.45	<0.41 U
Chrysene	218-01-9	1	56	<0.38 U	<0.4 U	3.3	<0.41 U	<0.41 U	<0.95 UJ	7.6 J	7.7 J	54 J	<0.45 U	1.4	<0.41 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.38 U	<0.4 U	0.45 J	<0.41 U	<0.41 U	<0.95 UJ	0.64 J	0.66	4.7 J	<0.45 U	0.17 J	<0.41 U
Fluoranthene	206-44-0	100	500	<0.38 U	<0.4 U	5.8	<0.41 U	<0.41 U	<0.95 UJ	16 J	17	110 J	<0.45 U	2.8	<0.41 U
Fluorene	86-73-7	30	500	<0.38 U	<0.4 U	0.7	<0.41 U	<0.41 U	<0.95 UJ	18 J	16	110 J	<0.45 U	1.9	<0.41 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.38 U	<0.4 U	0.93	<0.41 U	<0.41 U	<0.95 UJ	1.3 J	1.4	9.4 J	<0.45 U	0.37	<0.41 U
Naphthalene	91-20-3	12	500	<0.38 U	<0.4 U	16	<0.41 U	<0.41 U	<0.95 UJ	190	130	1600	<0.45 U	<0.37 U	<0.41 U
Phenanthrene	85-01-8	100	500	<0.38 U	<0.4 U	1.9	<0.41 U	<0.41 U	<0.95 UJ	60	59	400	<0.45 U	6.8	<0.41 U
Pyrene	129-00-0	100	500	<0.38 U	<0.4 U	11	<0.41 U	<0.41 U	<0.95 UJ	26	23	160 J	<0.45 U	3.9	<0.41 U
Total PAHs		NL	NL	ND	ND	61.58	ND	ND	ND	485.24	424.06	3597.5	ND	25.86	ND
Semivolatile Organic Compounds (SVOCs)(mg/Kg)															
1,1'-Biphenyl	92-52-4	NL	NL	<0.38 U	<0.4 U	0.35 J	<0.41 U	<0.41 U	<0.95 UJ	8.5 J	10 J	59 J	<0.45 U	<0.37 U	<0.41 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.77 U	<0.82 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 UJ	<0.45 U	<0.37 U	<0.41 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 UJ	<0.45 U	<0.37 U	<0.41 U
2,4-Dinitrophenol	51-28-5	NL	NL	<0.77 UJ	<0.82 UJ	<0.5 UJ	<0.41 UJ	<0.41 UJ	<0.95 UJ	<0.39 UJ	<0.39 UJ	<1.9 UJ	<0.45 UJ	<0.37 UJ	<0.41 UJ
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
2-Chlorophenol	95-57-8	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
2-Methylphenol	95-48-7	0.33	500	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
2-Nitroaniline	88-74-4	NL	NL	<0.77 U	<0.82 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
2-Nitrophenol	88-75-5	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 UJ	<0.45 U	<0.37 U	<0.41 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
3-and 4-Methylphenol	3,4-MEPH	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
3-Nitroaniline	99-09-2	NL	NL	<0.77 U	<0.82 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<0.77 UJ	<0.82 UJ	<0.5 UJ	<0.41 UJ	<0.41 UJ	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 UJ	<0.41 UJ
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 UJ	<1.9 UJ	<0.45 UJ	<0.37 U	<0.41 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 UJ	<0.45 U	<0.37 U	<0.41 U
4-Chloroaniline	106-47-8	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 UJ	<0.45 U	<0.37 U	<0.41 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.38 U	<0.4 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
4-Nitroaniline	100-01-6	NL	NL	<0.77 U	<0.82 U	<0.5 U	<0.41 U	<0.41 U	<0.95 UJ	<0.39 U	<0.39 U	<1.9 U	<0.45 U	<0.37 U	<0.41 U
4-Nitrophenol	100-02-7	NL	NL	<0.77 U	<0.82 U	<0.5 UJ	<0.41 UJ	<0.41 UJ	<0.95 UJ	<0.39 UJ	<0.39 UJ	<1.9 UJ	<0.45 UJ	<0.37 UJ	<0.41 UJ
Acetophenone	98-86-2	NL	NL	<0.38 U	<0.4 U	0.25 J	<0.41 U	<0.41 U	0.32 J	0.55	0.63	3.7	0.18 J	<0.37 U	<0.41 U
Atrazine															

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-18 4/19/2010 SB18(13.5-15')041910 13.5-15 AECOM091 Sample	SB-18 4/19/2010 SB18(28-30')041910 28-30 AECOM091 Sample	SB-19 4/22/2010 SB19(3.5-5')042210 3.5-5 AECOM089 Sample	SB-19 4/22/2010 SB19(15-17.5')042210 15-17.5 AECOM089 Sample	SB-19 4/22/2010 SB19(32-35')042210 32-35 AECOM089 Sample	SB-20 4/14/2010 SB20(3-5')041410 3-5 AECOM090 Sample	SB-20 4/14/2010 SB20(8.5-10')041410 8.5-10 AECOM090 Sample	SB-20 4/14/2010 SB20(0)041410 8.5-10 AECOM090 Duplicate	SB-20 4/14/2010 SB20(22-23.5')041410 22-23.5 AECOM090 Sample	SB-20 4/14/2010 SB20(33-35')041410 33-35 AECOM090 Sample	SB-21 4/21/2010 SB21(3.5-5')042110 3.5-5 AECOM089 Sample	SB-21 4/21/2010 SB21(13.5-15')042110 13.5-15 AECOM089 Sample
Inorganic Compounds (mg/Kg)															
Aluminum	7429-90-5	NL	NL	NS	NS	19600 J	3960 J	4830 J	NS	NS	NS	NS	NS	1160 J	4310 J
Antimony	7440-36-0	NL	NL	NS	NS	1.8 J	<0.36 U	0.59 J	NS	NS	NS	NS	NS	<0.32 U	<0.36 U
Arsenic	7440-38-2	13	16	0.46 J	1.6 J	62.6	0.53 J	6.1	37.3 J	<0.32 U	0.57 J	0.72 J	6	<0.30 U	<0.33 U
Barium	7440-39-3	350	400	6.2 J	3.0 J	434	8.1 J	15.2 J	223 J	4.7 J	7.0 J	3.7 J	17.7 J	3.4 J	5.7 J
Beryllium	7440-41-7	7.2	590	NS	NS	4.2	0.037 J	0.50 J	NS	NS	NS	NS	NS	<0.018 U	<0.020 U
Cadmium	7440-43-9	2.5	9.3	<0.038 U	<0.041 U	<0.38 U	<0.031 U	<0.031 U	0.52 J	<0.030 U	<0.029 U	<0.029 U	<0.034 U	<0.028 U	<0.031 U
Calcium	7440-70-2	NL	NL	NS	NS	14200	475 J	779	NS	NS	NS	NS	NS	355 J	702
Chromium	7440-47-3	30	1500	8.7 J	4.1 J	29.8	13.7	14.4	72.2 J	4.2	6.1	3	15.6	3.4	7.6
Cobalt	7440-48-4	NL	NL	NS	NS	14.3	2.7 J	6.3	NS	NS	NS	NS	NS	0.77 J	2.0 J
Copper	7440-50-8	50	270	NS	NS	25.6	6.9	2.1 J	NS	NS	NS	NS	NS	1.7 J	3.4
Iron	7439-89-6	NL	NL	NS	NS	58300	4650	15700	NS	NS	NS	NS	NS	1580	2780
Lead	7439-92-1	63	1000	2.2 J	1.9 J	<2.6 UJ	2.6 J	0.65 J	R	R	R	R	<0.23 U	3.2 J	3.4 J
Magnesium	7439-95-4	NL	NL	NS	NS	1210	979	2050	NS	NS	NS	NS	NS	231 J	1040
Manganese	7439-96-5	1600	10000	NS	NS	51.0 J	36.1 J	135 J	NS	NS	NS	NS	NS	12.0 J	26.6 J
Mercury	7439-97-6	0.18	2.8	<0.019 U	<0.020 U	0.045 J	<0.021 U	<0.021 U	<0.048 UJ	<0.020 U	<0.020 U	<0.019 U	<0.023 U	<0.019 U	<0.020 U
Nickel	7440-02-0	30	310	NS	NS	41	6.9	9	NS	NS	NS	NS	NS	3.0 J	7.1
Potassium	7440-09-7	NL	NL	NS	NS	1380	517 J	2010	NS	NS	NS	NS	NS	215 J	414 J
Selenium	7782-49-2	3.9	1500	<0.32 U	<0.34 U	1.9	0.39 J	<0.39 U	1.6 J	0.38 J	0.59	<0.37 U	<0.43 U	<0.35 U	<0.39 U
Silver	7440-22-4	2	1500	<0.037 U	<0.040 U	<0.065 U	<0.053 U	<0.053 U	<1.2 UJ	<0.051 U	<0.051 U	<0.050 U	<0.058 U	<0.048 U	<0.053 U
Sodium	7440-23-5	NL	NL	NS	NS	513 J	157 J	93.6 J	NS	NS	NS	NS	NS	24.0 J	180 J
Thallium	7440-28-0	NL	NL	NS	NS	1.3 J	<0.45 U	<0.45 U	NS	NS	NS	NS	NS	<0.41 U	<0.45 U
Vanadium	7440-62-2	NL	NL	NS	NS	253	16.4	19.8	NS	NS	NS	NS	NS	82.1	6.5
Zinc	7440-66-6	109	10000	NS	NS	110	17.5	34.7	NS	NS	NS	NS	NS	8.8	12.4
Cyanide, Free		NL	NL	<0.057 UJ	<0.061 UJ	<0.076 UJ	0.093 J	<0.062 UJ	<0.144 UJ	<0.059 U	<0.118 U	<0.291 U	<0.068 U	<0.056 UJ	<0.061 UJ
Polychlorinated biphenyls (PCBs) (mg/Kg)															
Aroclor 1016	12674-11-2	NL	NL	NS	NS	<0.05 U	<0.041 U	<0.041 U	NS	NS	NS	NS	NS	<0.037 U	<0.041 U
Aroclor 1221	11104-28-2	NL	NL	NS	NS	<0.1 U	<0.083 U	<0.083 U	NS	NS	NS	NS	NS	<0.075 U	<0.082 U
Aroclor 1232	11141-16-5	NL	NL	NS	NS	<0.05 U	<0.041 U	<0.041 U	NS	NS	NS	NS	NS	<0.037 U	<0.041 U
Aroclor 1242	53469-21-9	NL	NL	NS	NS	<0.05 U	<0.041 U	<0.041 U	NS	NS	NS	NS	NS	<0.037 U	<0.041 U
Aroclor 1248	12672-29-6	NL	NL	NS	NS	<0.05 U	<0.041 U	<0.041 U	NS	NS	NS	NS	NS	<0.037 U	<0.041 U
Aroclor 1254	11097-69-1	NL	NL	NS	NS	<0.05 U	<0.041 U	<0.041 U	NS	NS	NS	NS	NS	<0.037 U	<0.041 U
Aroclor 1260	11096-82-5	NL	NL	NS	NS	<0.05 U	<0.041 U	<0.041 U	NS	NS	NS	NS	NS	<0.037 U	<0.041 U
Aroclor 1262	37324-23-5	NL	NL	NS	NS	<0.05 U	<0.041 U	<0.041 U	NS	NS	NS	NS	NS	<0.037 U	<0.041 U
Aroclor 1268	11100-14-4	NL	NL	NS	NS	<0.05 U	<0.041 U	<0.041 U	NS	NS	NS	NS	NS	<0.037 U	<0.041 U
PCB (Total) (ppm)	CALC-PCBs	0.1	1	NS	NS	ND	ND	ND	NS	NS	NS	NS	NS	ND	ND
Pesticides (mg/Kg)															
Aldrin	309-00-2	0.005	0.68	NS	NS	R	<0.0021 U	<0.0021 U	NS	NS	NS	NS	NS	R	<0.0021 U
Alpha-bhc	319-84-6	0.02	3.4	NS	NS	R	<0.0021 U	<0.0021 U	NS	NS	NS	NS	NS	R	<0.0021 U
Beta-BHC	319-85-7	0.036	3	NS	NS	R	<0.0021 U	<0.0021 U	NS	NS	NS	NS	NS	R	<0.0021 U
Chlordane, alpha	5103-71-9	0.094	24	NS	NS	R	<0.0021 U	<0.0021 U	NS	NS	NS	NS	NS	0.016 J	<0.0021 U
Chlordane, trans-	5103-74-2	NL	NL	NS	NS	R	<0.0021 U	<0.0021 U	NS	NS	NS	NS	NS	0.0024 J	<0.0021 U
DDD,4,4-	72-54-8	0.0033	92	NS	NS	R	<0.0041 U	<0.0041 U	NS	NS	NS	NS	NS	R	<0.0041 U
DDE,4,4-	72-55-9	0.0033	62	NS	NS	R	<0.0041 U	<0.0041 U	NS	NS	NS	NS	NS	R	<0.0041 U
DDT,4,4-	50-29-3	0.0033	47	NS	NS	0.0034 J	<0.0041 U	<0.0041 U	NS	NS	NS	NS	NS	0.0042 J	<0.0041 U
Delta-BHC	319-86-8	0.04	500	NS	NS	R	<0.0021 U	<0.0021 U	NS	NS	NS	NS	NS	R	<0.0021 U
Dieldrin	60-57-1	0.005	1.4	NS	NS	R	<0.0041 U	<0.0041 U	NS	NS	NS	NS	NS	R	<0.0041 U
Endosulfan I	959-98-8	2.4	200	NS	NS	R	<0.0021 U	<0.0021 U	NS	NS	NS	NS	NS	R	<0.0021 U
Endosulfan II	33213-65-9	2.4	200	NS	NS	R	<0.0041 U	<0.0041 U	NS	NS	NS	NS	NS	R	<0.0041 U
Endosulfan sulfate	1031-07-8	2.4	200	NS	NS	R	<0.0041 U	<0.0041 U	NS	NS	NS	NS	NS	R	<0.0041 U
Endrin	72-20-8	0.014	89	NS	NS	<0.0050 UJ	<0.0041 U	<0.0041 U	NS	NS	NS	NS	NS	<0.0037 UJ	<0.0041 U
Endrin aldehyde	7421-93-4	NL	NL	NS	NS	R	<0.0041 U	<0.0041 U	NS	NS	NS	NS	NS	R	<0.0041 U
Endrin ketone	53494-70-5	NL	NL	NS	NS	R	<0.0041 U	<0.0041 U	NS	NS	NS	NS	NS	R	<0.0041 U
Gamma BHC - Lindane	58-89-9	0.1	9.2	NS	NS	R	<0.0021 U	<0.0021 U	NS	NS	NS	NS	NS	R	<0.0021 U
Heptachlor	76-44-8	0.042	15	NS	NS	R	<0.0021 U	<0.0021 U	NS	NS	NS	NS	NS	R	<0.0021 U
Heptachlor Epoxide	1024-57-3	NL	NL	NS	NS	R	<0.0021 U	<0.0021 U	NS	NS	NS	NS	NS	R	<0.0021 U
Methoxychlor	72-43-5	NL	NL	NS	NS	<0.026 UJ	<0.021 U	<0.021 U	NS	NS	NS	NS	NS	<0.019 UJ	<0.021 U
Toxaphene	8001-35-2	NL	NL	NS	NS	R	<0.21 U	<0.21 U	NS	NS	NS	NS	NS	R	<0.21 U
Herbicides (mg/Kg)															
2,4-D	94-75-7	NL	NL	NS	NS	<0.015 U	<0.012 U	<0.012 U	NS	NS	NS	NS	NS	<0.011 U	<0.012 U
2,4-DB	94-82-6	NL	NL	NS	NS	<0.015 U	<0.012 U	<0.012 U	NS	NS	NS	NS	NS	R	<0.012 U
Silvex	93-72-1	3.8	500	NS	NS	<0.0076 U	<0.0062 U	<0.0062 U	NS	NS	NS	NS	NS	<0.0056 U	<0.0061 U
T,2,4,5-	93-76-5	NL	NL	NS	NS	0.056	<0.0062 U	<0.0062 U	NS	NS	NS	NS	NS	0.0059	<0.0061 U
Moisture, percent															
Moisture, percent	MOIST	NL	NL	12.8	18	34.1	19	19.4	65.3	15.8	15	14.2	26.1	10.7	18.6

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-21 4/21/2010 SB21(20-22.5)042110 20-22.5 AECOM089 Sample	SB-21 4/21/2010 SB21(33-35)042110 33-35 AECOM089 Sample	SB-22 4/20/2010 SB22(3.5-5)042010 3.5-5 AECOM091 Sample	SB-22 4/20/2010 SB22(12-13.5)042010 12-13.5 AECOM091 Sample	SB-22 4/20/2010 SB22(30-32.5)042010 30-32 AECOM091 Sample	SB-23 5/3/2010 SB23(2.5-5)050310 2.5-5 AECOM096 Sample	SB-23 5/3/2010 SB23(7-11)050310 7-11 AECOM096 Sample	SB-23 5/3/2010 SB23(20-23.5)050310 20-23.5 AECOM096 Sample	SB-24 4/8/2010 SB24(2.5-5)040810 2.5-5 AECOM088 Sample	SB-24 4/8/2010 SB24(32.5-35)040810 32.5-35 AECOM088 Sample	SB-24 4/8/2010 SB24(35-37.5)040810 35-37.5 AECOM088 Sample	SB-25 5/3/2010 SB25(4-5)050310 4-5 AECOM097 Sample	
BTEX (mg/kg)																
Benzene	71-43-2	0.06	44	<0.006 U	0.002 J	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Ethylbenzene	100-41-4	1	390	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
m+p-Xylene	1330-20-7-M,P	NL	NL	0.003 J	0.003 J	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
o-Xylene	95-47-6	NL	NL	0.002 J	0.001 J	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Toluene	108-88-3	0.7	500	<0.006 U	0.002 J	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Total Xylenes		0.26	500	0.005	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEX		NL	NL	0.005	0.008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds (VOCs)(mg/Kg)																
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	R	R	R	R	R	R	R	R	R	R	R	R	R
1,2-Dibromoethane	106-93-4	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
2-Butanone	78-93-3	0.12	500	<0.006 UJ	0.018	<0.008 U	0.029	0.004 J	<0.008 U	<0.008 U	<0.006 U	<0.007 UJ	0.004 J	0.006 J	<0.006 U	<0.006 U
2-Hexanone	591-78-6	NL	NL	<0.006 UJ	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.006 UJ	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Acetone	67-64-1	0.05	500	<0.013 UJ	0.094 J	<0.008 UJ	0.11 J	0.019 J	<0.008 UJ	<0.009 UJ	<0.007 UJ	<0.007 UJ	0.021 J	0.039 J	0.070 J	0.070 J
Bromodichloromethane	75-27-4	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Bromoform	75-25-2	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ
Bromomethane	74-83-9	NL	NL	<0.006 UJ	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Carbon disulfide	75-15-0	NL	NL	<0.006 U	0.002 J	<0.008 U	0.003 J	0.004 J	<0.008 U	<0.008 U	<0.006 U	<0.007 U	0.002 J	0.003 J	<0.006 U	<0.006 U
Carbon tetrachloride	56-23-5	0.76	22	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Chlorobenzene	108-90-7	1.1	500	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Chloroethane	75-00-3	NL	NL	<0.006 UJ	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Chloroform	67-66-3	0.37	350	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	0.009	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Chloromethane	74-87-3	NL	NL	<0.006 U	<0.006 UJ	<0.008 UJ	<0.007 UJ	<0.006 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Cyclohexane	110-82-7	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Dibromochloromethane	124-48-1	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Dichlorodifluoromethane	75-71-8	NL	NL	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.007 UJ	<0.006 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ
Isopropylbenzene	98-82-8	NL	NL	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 UJ	<0.008 UJ	<0.006 UJ	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Methyl acetate	79-20-9	NL	NL	<0.006 U	<0.006 UJ	<0.008 UJ	<0.007 UJ	<0.006 UJ	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.006 U	<0.006 U	<0.008 U	<0.007 U	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Methylcyclohexane	108-87-2	NL	NL	<0.006 U	<0.0											

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-21 4/21/2010 SB21(20-22.5')042110 20-22.5 AECOM089 Sample	SB-21 4/21/2010 SB21(33-35')042110 33-35 AECOM089 Sample	SB-22 4/20/2010 SB22(20-22.5')042010 3.5-5 AECOM091 Sample	SB-22 4/20/2010 SB22(12-13.5')042010 12-13.5 AECOM091 Sample	SB-22 4/20/2010 SB22(30-32.5')042010 30-32 AECOM091 Sample	SB-23 5/3/2010 SB23(2.5-5')050310 2.5-5 AECOM096 Sample	SB-23 5/3/2010 SB23(7-11')050310 7-11 AECOM096 Sample	SB-23 5/3/2010 SB23(20-23.5')050310 20-23.5 AECOM096 Sample	SB-24 4/8/2010 SB24(2.5-5')040810 2.5-5 AECOM088 Sample	SB-24 4/8/2010 SB24(32.5-35')040810 32.5-35 AECOM088 Sample	SB-24 4/8/2010 SB24(35-37.5')040810 35-37.5 AECOM088 Sample	SB-25 5/3/2010 SB25(4-5')050310 4-5 AECOM097 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)															
2-Methylnaphthalene	91-57-6	NL	NL	<0.43 U	0.088 J	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
Acenaphthene	83-32-9	20	500	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
Acenaphthylene	208-96-8	100	500	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
Anthracene	120-12-7	100	500	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
Benzo(a)anthracene	56-55-3	1	5.6	0.14 J	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
Benzo(a)pyrene	50-32-8	1	1	0.12 J	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 UJ	<0.49 UJ	<0.38 UJ	<0.49 U	<0.42 U	<0.41 U	<0.39 UJ
Benzo(ghi)perylene	191-24-2	100	500	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.43 U	<0.4 U	<0.5 UJ	<0.48 U	<0.4 UJ	<0.56 U	<0.49 UJ	<0.38 UJ	<0.49 UJ	<0.42 U	<0.41 U	<0.39 UJ
Chrysene	218-01-9	1	56	0.11 J	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 UJ	<0.49 UJ	<0.38 UJ	<0.49 U	<0.42 U	<0.41 U	<0.39 UJ
Fluoranthene	206-44-0	100	500	0.27 J	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
Fluorene	86-73-7	30	500	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 UJ	<0.49 UJ	<0.38 UJ	<0.49 U	<0.42 U	<0.41 U	<0.39 UJ
Naphthalene	91-20-3	12	500	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
Phenanthrene	85-01-8	100	500	0.2 J	0.17 J	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
Pyrene	129-00-0	100	500	0.41 J	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
Total PAHs		NL	NL	1.25	0.258	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semivolatile Organic Compounds (SVOCs)(mg/Kg)															
1,1'-Biphenyl	92-52-4	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 UJ	<0.42 UJ	<0.41 UJ	<0.39 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.43 U	<0.4 U	<1 U	<0.98 U	<0.81 U	<0.56 U	<0.49 U	<0.38 U	<0.98 U	<0.84 U	<0.82 U	<0.39 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
2,4-Dinitrophenol	51-28-5	NL	NL	<0.43 UJ	<0.4 UJ	<1 UJ	<0.98 UJ	<0.81 UJ	<0.56 UJ	<0.49 UJ	<0.38 UJ	<0.98 UJ	<0.84 UJ	<0.82 UJ	<0.39 UJ
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 UJ	<0.42 U	<0.41 U	<0.39 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
2-Chlorophenol	95-57-8	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
2-Methylphenol	95-48-7	0.33	500	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
2-Nitroaniline	88-74-4	NL	NL	<0.43 U	<0.4 U	<1 U	<0.98 U	<0.81 U	<0.56 U	<0.49 U	<0.38 U	<0.98 U	<0.84 U	<0.82 U	<0.39 U
2-Nitrophenol	88-75-5	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 UJ	<0.41 UJ	<0.39 U
3-and 4-Methylphenol	3,4-MEPH	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 UJ	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
3-Nitroaniline	99-09-2	NL	NL	<0.43 U	<0.4 U	<1 U	<0.98 U	<0.81 U	<0.56 U	<0.49 U	<0.38 U	<0.98 U	<0.84 U	<0.82 U	<0.39 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<0.43 UJ	<0.4 UJ	<1 UJ	<0.98 U	<0.81 UJ	<0.56 UJ	<0.49 UJ	<0.38 UJ	<0.98 UJ	<0.84 UJ	<0.82 UJ	<0.39 UJ
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
4-Chloroaniline	106-47-8	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.43 U	<0.4 U	<0.5 U	<0.48 U	<0.4 U	<0.56 U	<0.49 U	<0.38 U	<0.49 U	<0.42 U	<0.41 U	<0.39 U
4-Nitroaniline	100-01-6	NL	NL	<0.43 U	<0.4 U	<1 U	<0.98 U	<0.81 U	<0.56 U	<0.49 U	<0.38 U	<0.98 U	<0.84 U	<0.82 U	<0.39 U
4-Nitrophenol	100-02-7	NL	NL	<0.43 UJ	<0.4 UJ	<1 U	<0.98 UJ	<0.81 U	<0.56 U	<0.49 U	<0.38 U				

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-21 4/21/2010 SB21(20-22.5)*042110 20-22.5 AECOM089 Sample	SB-21 4/21/2010 SB21(33-35)*042110 33-35 AECOM089 Sample	SB-22 4/20/2010 SB22(3.5-5)*042010 3.5-5 AECOM091 Sample	SB-22 4/20/2010 SB22(12-13.5)*042010 12-13.5 AECOM091 Sample	SB-22 4/20/2010 SB22(30-32.5)*042010 30-32 AECOM091 Sample	SB-23 5/3/2010 SB23(2.5-5)*050310 2.5-5 AECOM096 Sample	SB-23 5/3/2010 SB23(7-11)*050310 7-11 AECOM096 Sample	SB-23 5/3/2010 SB23(20-23.5)*050310 20-23.5 AECOM096 Sample	SB-24 4/8/2010 SB24(2.5-5)*040810 2.5-5 AECOM088 Sample	SB-24 4/8/2010 SB24(32.5-35)*040810 32.5-35 AECOM088 Sample	SB-24 4/8/2010 SB24(35-37.5)*040810 35-37.5 AECOM088 Sample	SB-25 5/3/2010 SB25(4-5)*050310 4-5 AECOM097 Sample	
Inorganic Compounds (mg/Kg)																
Aluminum	7429-90-5	NL	NL	3480 J	4650 J	NS	NS	NS	7930 J	7040 J	1490 J	NS	NS	NS	NS	NS
Antimony	7440-36-0	NL	NL	<0.37 U	3.0 J	NS	NS	NS	<0.49 U	0.44 J	<0.33 U	NS	NS	NS	NS	NS
Arsenic	7440-38-2	13	16	1.2 J	8	84.1 J	16.4 J	5.6 J	99.4	94.9	<0.31 U	92.5 J	13.0 J	1.2 J	0.66 J	NS
Barium	7440-39-3	350	400	8.5 J	8.8 J	443	84.5	5.6 J	85.9	57.5	2.0 J	654	13.0 J	3.8 J	3.4 J	NS
Beryllium	7440-41-7	7.2	590	0.21 J	0.48 J	NS	NS	NS	2.1	2.3	0.034 J	NS	NS	NS	NS	NS
Cadmium	7440-43-9	2.5	9.3	<0.032 U	<0.15 U	0.66 J	0.85	0.041 J	0.27 J	0.18 J	<0.029 U	0.088 J	<0.031 U	<0.030 U	<0.029 U	NS
Calcium	7440-70-2	NL	NL	235 J	4740	NS	NS	NS	2040 J	1100 J	130 J	NS	NS	NS	NS	NS
Chromium	7440-47-3	30	1500	10.3	14.7	27.2 J	21.0 J	6.9 J	42.7	31.7	3.6	23.9	15.4	14.2	3.4	NS
Cobalt	7440-48-4	NL	NL	2.1 J	4.9 J	NS	NS	NS	15.4	12.5	0.22 J	NS	NS	NS	NS	NS
Copper	7440-50-8	50	270	2.1 J	0.45 J	NS	NS	NS	59.2	28.7	<0.36 UJ	NS	NS	NS	NS	NS
Iron	7439-89-6	NL	NL	5170	27000	NS	NS	NS	45900	29200	1440	NS	NS	NS	NS	NS
Lead	7439-92-1	63	1000	3.7 J	<2.1 UJ	35.3 J	212 J	2.3 J	<3.0 U	0.38 J	1	17.8	4.4	0.61 J	2.3	NS
Magnesium	7439-95-4	NL	NL	772	2670	NS	NS	NS	508 J	228 J	145 J	NS	NS	NS	NS	NS
Manganese	7439-96-5	1600	10000	27.4 J	432 J	NS	NS	NS	23.5	8.4	3.2	NS	NS	NS	NS	NS
Mercury	7439-97-6	0.18	2.8	<0.022 U	<0.020 U	0.055	0.92	<0.020 U	0.37	0.031 J	<0.019 U	0.044 J	<0.021 U	<0.021 U	<0.020 U	NS
Nickel	7440-02-0	30	310	3.3 J	5	NS	NS	NS	96.3	82	1.9 J	NS	NS	NS	NS	NS
Potassium	7440-09-7	NL	NL	853	2650	NS	NS	NS	609 J	273 J	144 J	NS	NS	NS	NS	NS
Selenium	7782-49-2	3.9	1500	<0.41 U	4.7	2.9	1.5	<0.34 U	3.6	3.2	<0.36 U	R	R	R	<0.37 U	NS
Silver	7440-22-4	2	1500	<0.055 U	<0.052 U	0.10 J	4.9	<0.039 U	<0.073 U	<0.064 U	<0.049 U	<0.073 U	<0.063 U	<0.061 U	<0.051 U	NS
Sodium	7440-23-5	NL	NL	73.1 J	126 J	NS	NS	NS	140 J	81.4 J	188 J	NS	NS	NS	NS	NS
Thallium	7440-28-0	NL	NL	<0.47 U	1.0 J	NS	NS	NS	2.6	1.9	<0.42 U	NS	NS	NS	NS	NS
Vanadium	7440-62-2	NL	NL	16.4	19.5	NS	NS	NS	2000	785	5.1 J	NS	NS	NS	NS	NS
Zinc	7440-66-6	109	10000	20	33.3	NS	NS	NS	40.4	33.8	3.9	NS	NS	NS	NS	NS
Cyanide, Free		NL	NL	<0.064 UJ	<0.061 UJ	<0.076 UJ	<0.073 UJ	<0.061 UJ	<0.085 U	<0.075 U	<0.057 U	<0.074 U	<0.063 U	<0.062 U	<0.059 UJ	NS
Polychlorinated biphenyls (PCBs) (mg/Kg)																
Aroclor 1016	12674-11-2	NL	NL	<0.043 U	<0.04 U	NS	NS	NS	<0.056 U	<0.049 U	<0.038 U	NS	NS	NS	NS	NS
Aroclor 1221	11104-28-2	NL	NL	<0.086 U	<0.082 U	NS	NS	NS	<0.11 U	<0.1 U	<0.077 U	NS	NS	NS	NS	NS
Aroclor 1232	11141-16-5	NL	NL	<0.043 U	<0.04 U	NS	NS	NS	<0.056 U	<0.049 U	<0.038 U	NS	NS	NS	NS	NS
Aroclor 1242	53469-21-9	NL	NL	<0.043 U	<0.04 U	NS	NS	NS	<0.056 U	<0.049 U	<0.038 U	NS	NS	NS	NS	NS
Aroclor 1248	12672-29-6	NL	NL	<0.043 U	<0.04 U	NS	NS	NS	<0.056 U	<0.049 U	<0.038 U	NS	NS	NS	NS	NS
Aroclor 1254	11097-69-1	NL	NL	<0.043 U	<0.04 U	NS	NS	NS	<0.056 U	<0.049 U	<0.038 U	NS	NS	NS	NS	NS
Aroclor 1260	11096-82-5	NL	NL	<0.043 U	<0.04 U	NS	NS	NS	<0.056 U	<0.049 U	<0.038 U	NS	NS	NS	NS	NS
Aroclor 1262	37324-23-5	NL	NL	<0.043 U	<0.04 U	NS	NS	NS	<0.056 U	<0.049 U	<0.038 U	NS	NS	NS	NS	NS
Aroclor 1268	11100-14-4	NL	NL	<0.043 U	<0.04 U	NS	NS	NS	<0.056 U	<0.049 U	<0.038 U	NS	NS	NS	NS	NS
PCB (Total) (ppm)	CALC-PCBs	0.1	1	ND	ND	NS	NS	NS	ND	ND	ND	NS	NS	NS	NS	NS
Pesticides (mg/Kg)																
Aldrin	309-00-2	0.005	0.68	<0.0022 U	<0.0021 U	NS	NS	NS	<0.0029 U	<0.0025 U	<0.0019 U	NS	NS	NS	NS	NS
Alpha-bhc	319-84-6	0.02	3.4	<0.0022 U	<0.0021 U	NS	NS	NS	<0.0029 U	<0.0025 U	<0.0019 U	NS	NS	NS	NS	NS
Beta-BHC	319-85-7	0.036	3	<0.0022 U	<0.0021 U	NS	NS	NS	<0.0029 U	<0.0025 U	<0.0019 U	NS	NS	NS	NS	NS
Chlordane, alpha	5103-71-9	0.094	24	<0.0022 U	<0.0021 U	NS	NS	NS	<0.0029 U	<0.0025 U	<0.0019 U	NS	NS	NS	NS	NS
Chlordane, trans-	5103-74-2	NL	NL	<0.0022 U	<0.0021 U	NS	NS	NS	<0.0029 U	<0.0025 U	<0.0019 U	NS	NS	NS	NS	NS
DDD,4,4-	72-54-8	0.0033	92	<0.0043 U	<0.0040 U	NS	NS	NS	<0.0056 U	<0.0049 U	<0.0038 U	NS	NS	NS	NS	NS
DDE,4,4-	72-55-9	0.0033	62	<0.0043 U	<0.0040 U	NS	NS	NS	<0.0056 U	<0.0049 U	<0.0038 U	NS	NS	NS	NS	NS
DDT,4,4-	50-29-3	0.0033	47	<0.0043 U	<0.0040 U	NS	NS	NS	<0.0056 U	<0.0049 U	<0.0038 U	NS	NS	NS	NS	NS
Delta-BHC	319-86-8	0.04	500	<0.0022 U	<0.0021 U	NS	NS	NS	<0.0029 U	<0.0025 U	<0.0019 U	NS	NS	NS	NS	NS
Dieldrin	60-57-1	0.005	1.4	<0.0043 U	<0.0040 U	NS	NS	NS	<0.0056 U	<0.0049 U	<0.0038 U	NS	NS	NS	NS	NS
Endosulfan I	959-98-8	2.4	200	<0.0022 U	<0.0021 U	NS	NS	NS	<0.0029 U	<0.0025 U	<0.0019 U	NS	NS	NS	NS	NS
Endosulfan II	33213-65-9	2.4	200	<0.0043 U	<0.0040 U	NS	NS	NS	<0.0056 U	<0.0049 U	<0.0038 U	NS	NS	NS	NS	NS
Endosulfan sulfate	1031-07-8	2.4	200	<0.0043 U	<0.0040 U	NS	NS	NS	<0.0056 U	<0.0049 U	<0.0038 U	NS	NS	NS	NS	NS
Endrin	72-20-8	0.014	89	<0.0043 U	<0.0040 U	NS	NS	NS	<0.0056 U	<0.0049 U	<0.0038 U	NS	NS	NS	NS	NS
Endrin aldehyde	7421-93-4	NL	NL	<0.0043 U	<0.0040 U	NS	NS	NS	<0.0056 U	<0.0049 U	<0.0038 U	NS	NS	NS	NS	NS
Endrin ketone	53494-70-5	NL	NL	<0.0043 U	<0.0040 U	NS	NS	NS	<0.0056 U	<0.0049 U	<0.0038 U	NS	NS	NS	NS	NS
Gamma BHC - Lindane	58-89-9	0.1	9.2	<0.0022 U	<0.0021 U	NS	NS	NS	<0.0029 U	<0.0025 U	<0.0019 U	NS	NS	NS	NS	NS
Heptachlor	76-44-8	0.042	15	<0.0022 U	<0.0021 U	NS	NS	NS	<0.0029 U	<0.0025 U	<0.0019 U	NS	NS	NS	NS	NS
Heptachlor Epoxide	1024-57-3	NL	NL	<0.0022 U	<0.0021 U	NS	NS	NS	<0.0029 U	<0.0025 U	<0.0019 U	NS	NS	NS	NS	NS
Methoxychlor	72-43-5	NL	NL	<0.022 U	<0.021 U	NS	NS	NS	<0.029 U	<0.025 U	<0.019 U	NS	NS	NS	NS	NS
Toxaphene	8001-35-2	NL	NL	<0.22 U	<0.21 U	NS	NS	NS	<0.29 U	<0.25 U	<0.19 U	NS	NS	NS	NS	NS
Herbicides (mg/Kg)																
2,4-D	94-75-7	NL	NL	<0.013 U	<0.012 U	NS	NS	NS	<0.017 U	<0.015 U	<0.011 U	NS	NS	NS	NS	NS
2,4-DB	94-82-6	NL	NL	<0.013 U	<0.012 U	NS	NS	NS	<0.017 U	<0.015 U	<0.011 U	NS	NS	NS	NS	NS
Silvex	93-72-1	3.8	500	<0.0065 U	<0.0061 U	NS	NS	NS	<0.0085 U	<0.0075 U	<0.0057 U	NS	NS	NS	NS	NS
T,2,4,5-	93-76-5	NL	NL	<0.0065 U	<0.0061 U	NS	NS	NS	<0.0085 U	<0.0075 U	<0.0057 U	NS	NS	NS	NS	NS
Moisture, percent																
Moisture, percent	MOIST	NL	NL	22.5	17.9	34.6	31.9	17.6	41.4	33	12.7	32	20.6			

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-25 5/3/2010 SB25(12.5-15)050310 12.5-15 AECOM097 Sample	SB-25 5/3/2010 SB25(20-25)050310 20-25 AECOM097 Sample	SB-26 4/7/2010 SB26(3-3.5)040710 3-3.5 AECOM088 Sample	SB-26 4/7/2010 SB26(7-8)040710 7-8 AECOM088 Sample	SB-26 4/7/2010 SB26(33-35)040710 33-35 AECOM088 Sample	SB-27 4/29/2010 SB27(2.5-5)042910 2.5-5 AECOM095 Sample	SB-27 4/29/2010 SB27(17-18.5)042910 17-18.5 AECOM095 Sample	SB-27 4/29/2010 SB27(27-28.5)042910 27-28.5 AECOM095 Sample	SB-28 4/5/2010 SB28(2-3)040510 2-3 AECOM088 Sample	SB-28 4/6/2010 SB28(15-17)040610 15-17 AECOM088 Sample	SB-28 4/6/2010 SB28(30-32)040610 30-32 AECOM088 Sample	SB-29 4/28/2010 SB29(7-8.5)042810 7-8.5 AECOM091 Sample	
BTEX (mg/kg)																
Benzene	71-43-2	0.06	44	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	0.001 J	<0.008 U	0.23	0.012	<0.006 U	<0.006 U
Ethylbenzene	100-41-4	1	390	<0.006 U	<0.006 U	<0.006 U	0.015	<0.007 U	<0.008 U	<0.006 U	0.002 J	<0.008 U	0.17	<0.006 U	<0.006 U	<0.006 U
m+p-Xylene	1330-20-7-M,P	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	0.002 J	<0.006 U	0.006 J	<0.008 U	0.076	<0.006 U	<0.006 U	<0.006 U
o-Xylene	95-47-6	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	0.002 J	<0.008 U	0.02	<0.006 U	<0.006 U	<0.006 U
Toluene	108-88-3	0.7	500	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	0.003 J	<0.008 U	0.004 J	<0.006 U	<0.006 U	<0.006 U
Total Xylenes		0.26	500	ND	ND	ND	ND	ND	0.002	ND	0.008	ND	0.096	ND	ND	ND
Total BTEX		NL	NL	ND	ND	ND	0.015	ND	0.002	ND	0.014	ND	0.5	0.012	ND	ND
Volatile Organic Compounds (VOCs)(mg/Kg)																
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 UJ	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.006 UJ	<0.006 UJ	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.006 UJ	<0.006 UJ	<0.006 U	<0.007 U	<0.007 U	<0.008 UJ	<0.006 UJ	<0.006 UJ	<0.008 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	R	R	R	R	R	R	R	R	R	R	R	R	R
1,2-Dibromoethane	106-93-4	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
2-Butanone	78-93-3	0.12	500	<0.006 U	<0.006 U	<0.006 UJ	0.015 J	0.012 J	<0.008 U	<0.006 U	0.006 J	<0.008 U	0.002 J	0.004 J	<0.006 U	<0.006 U
2-Hexanone	591-78-6	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ
Acetone	67-64-1	0.05	500	0.013 J	0.005 J	<0.006 UJ	0.086 J	0.062 J	0.012 J	<0.008 UJ	0.028 J	<0.008 UJ	<0.011 UJ	0.022 J	0.018 J	0.018 J
Bromodichloromethane	75-27-4	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Bromoform	75-25-2	NL	NL	<0.006 UJ	<0.006 UJ	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 U
Bromomethane	74-83-9	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Carbon disulfide	75-15-0	NL	NL	<0.006 U	<0.006 U	<0.006 U	0.016	0.002 J	<0.008 U	<0.006 U	<0.006 U	<0.008 U	0.005 J	0.003 J	<0.006 U	<0.006 U
Carbon tetrachloride	56-23-5	0.76	22	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 UJ	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Chlorobenzene	108-90-7	1.1	500	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Chloroethane	75-00-3	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Chloroform	67-66-3	0.37	350	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Chloromethane	74-87-3	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 U	<0.006 U	<0.006 U	<0.006 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 U
Cyclohexane	110-82-7	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Dibromochloromethane	124-48-1	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 U
Dichlorodifluoromethane	75-71-8	NL	NL	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.007 UJ	<0.007 UJ	<0.008 U	<0.006 U	<0.006 U	<0.008 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ
Isopropylbenzene	98-82-8	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 UJ	0.01	<0.006 U	<0.006 U	<0.006 U
Methyl acetate	79-20-9	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.007 U	<0.008 U	<0.006 U	<0.006 U	<0.008 U	<0.006 U	<0.006 U	<0.006 U	<0.

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.

Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-25	SB-25	SB-26	SB-26	SB-26	SB-27	SB-27	SB-27	SB-28	SB-28	SB-28	SB-29
				5/3/2010	5/3/2010	4/7/2010	4/7/2010	4/7/2010	4/29/2010	4/29/2010	4/29/2010	4/5/2010	4/6/2010	4/6/2010	4/6/2010
				SB25(12.5-15)050310	SB25(20-25)050310	SB26(3-3.5)040710	SB26(7-8)040710	SB26(33-35)040710	SB27(20-25)042910	SB27(17-18.5)042910	SB27(27-28.5)042910	SB28(30-32)040510	SB28(30-32)040610	SB28(15-17)040610	SB28(30-32)040610
				12.5-15 AECOM097 Sample	20-25 AECOM097 Sample	3-3.5 AECOM088 Sample	7-8 AECOM088 Sample	33-35 AECOM088 Sample	2.5-5 AECOM095 Sample	17-18.5 AECOM095 Sample	27-28.5 AECOM095 Sample	2-3 AECOM088 Sample	15-17 AECOM088 Sample	30-32 AECOM088 Sample	7-8.5 AECOM091 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)															
2-Methylnaphthalene	91-57-6	NL	NL	<0.42 U	<0.4 U	0.12 J	<0.47 U	<0.45 U	0.54	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Acenaphthene	83-32-9	20	500	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Acenaphthylene	208-96-8	100	500	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	0.65	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Anthracene	120-12-7	100	500	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	1.1	0.12 J	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Benzo(a)anthracene	56-55-3	1	5.6	<0.42 U	<0.4 U	0.15 J	<0.47 U	<0.45 U	5.6	0.096 J	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Benzo(a)pyrene	50-32-8	1	1	<0.42 U	<0.4 U	0.11 J	<0.47 U	<0.45 U	7.6	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.42 UJ	<0.4 UJ	0.17 J	<0.47 U	<0.45 U	5 J	<0.39 UJ	<0.43 UJ	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Benzo(ghi)perylene	191-24-2	100	500	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	4.9	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.42 UJ	<0.4 UJ	<0.4 UJ	<0.47 U	<0.45 U	5.1	<0.39 U	<0.43 U	<0.55 UJ	<0.41 UJ	<0.42 UJ	<0.38 UJ
Chrysene	218-01-9	1	56	<0.42 U	<0.4 U	0.16 J	<0.47 U	<0.45 U	5.9	0.14 J	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.42 UJ	<0.4 UJ	<0.4 U	<0.47 U	<0.45 U	0.82 J	<0.39 UJ	<0.43 UJ	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Fluoranthene	206-44-0	100	500	<0.42 U	<0.4 U	0.26 J	<0.47 U	<0.45 U	8.5	0.58	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Fluorene	86-73-7	30	500	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	0.4 J	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.42 UJ	<0.4 UJ	<0.4 U	<0.47 U	<0.45 U	2.9 J	<0.39 UJ	<0.43 UJ	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Naphthalene	91-20-3	12	500	<0.42 U	<0.4 U	0.17 J	<0.47 U	<0.45 U	0.81	<0.39 U	<0.43 U	<0.55 U	0.73	<0.42 U	<0.38 U
Phenanthrene	85-01-8	100	500	<0.42 U	<0.4 U	0.23 J	<0.47 U	<0.45 U	4.4	0.53	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Pyrene	129-00-0	100	500	<0.42 U	<0.4 U	0.36 J	<0.47 U	<0.45 U	15	0.41	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
Total PAHs				NL	NL	ND	ND	ND	69.22	1.876	ND	ND	0.73	ND	ND
Semivolatile Organic Compounds (SVOCs)(mg/Kg)															
1,1'-Biphenyl	92-52-4	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	0.11 J	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.42 U	<0.4 U	<0.4 UJ	<0.47 UJ	<0.45 UJ	<0.52 U	<0.39 U	<0.43 U	<0.55 UJ	<0.41 UJ	<0.42 UJ	<0.38 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.42 U	<0.4 U	<0.8 U	<0.94 U	<0.9 U	<1.1 U	<0.8 U	<0.87 U	<1.1 U	<0.82 U	<0.84 U	<0.78 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
2,4-Dinitrophenol	51-28-5	NL	NL	<0.42 UJ	<0.4 UJ	<0.8 UJ	<0.94 UJ	<0.9 UJ	<1.1 UJ	<0.8 UJ	<0.87 UJ	<1.1 UJ	<0.82 UJ	<0.84 UJ	<0.78 UJ
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.42 U	<0.4 U	<0.4 UJ	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 UJ	<0.41 UJ	<0.42 UJ	<0.38 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
2-Chlorophenol	95-57-8	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
2-Methylphenol	95-48-7	0.33	500	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
2-Nitroaniline	88-74-4	NL	NL	<0.42 U	<0.4 U	<0.8 U	<0.94 U	<0.9 U	<1.1 U	<0.8 U	<0.87 U	<1.1 U	<0.82 U	<0.84 U	<0.78 U
2-Nitrophenol	88-75-5	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 UJ	<0.45 UJ	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
3-and 4-Methylphenol	3,4-MEPH	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
3-Nitroaniline	99-09-2	NL	NL	<0.42 U	<0.4 U	<0.8 U	<0.94 U	<0.9 U	<1.1 U	<0.8 U	<0.87 U	<1.1 U	<0.82 U	<0.84 U	<0.78 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<0.42 UJ	<0.4 UJ	<0.8 UJ	<0.94 UJ	<0.9 UJ	<1.1 UJ	<0.8 UJ	<0.87 UJ	<1.1 UJ	<0.82 UJ	<0.84 UJ	<0.78 UJ
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
4-Chloroaniline	106-47-8	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.42 U	<0.4 U	<0.4 U	<0.47 U	<0.45 U	<0.52 U	<0.39 U	<0.43 U	<0.55 U	<0.41 U	<0.42 U	<0.38 U
4-Nitroaniline	100-01-6	NL	NL	<0.42 U	<0.4 U	<0.8 U	<0.94 U	<0.9 U	<1.1 U	<0.8 U	<0.87 U	<1.1 U	<0.82 U	<0.84 U	<0.78 U
4-Nitrophenol	100-02-7	NL	NL	<0.42 U	<0.4 U	&									

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-25 5/3/2010 SB25(12.5-15)050310 12.5-15 AECOM097 Sample	SB-25 5/3/2010 SB25(20-25)050310 20-25 AECOM097 Sample	SB-26 4/7/2010 SB26(3-3.5)040710 3-3.5 AECOM088 Sample	SB-26 4/7/2010 SB26(7-8)040710 7-8 AECOM088 Sample	SB-26 4/7/2010 SB26(33-35)040710 33-35 AECOM088 Sample	SB-27 4/29/2010 SB27(2.5-5)042910 2.5-5 AECOM095 Sample	SB-27 4/29/2010 SB27(17-18.5)042910 17-18.5 AECOM095 Sample	SB-27 4/29/2010 SB27(27-28.5)042910 27-28.5 AECOM095 Sample	SB-28 4/5/2010 SB28(2-3)040510 2-3 AECOM088 Sample	SB-28 4/6/2010 SB28(15-17)040610 15-17 AECOM088 Sample	SB-28 4/6/2010 SB28(30-32)040610 30-32 AECOM088 Sample	SB-29 4/28/2010 SB29(7-8.5)042810 7-8.5 AECOM091 Sample
Inorganic Compounds (mg/Kg)															
Aluminum	7429-90-5	NL	NL	NS	NS	NS	NS	NS	7620 J	3030 J	4940 J	NS	NS	NS	NS
Antimony	7440-36-0	NL	NL	NS	NS	NS	NS	NS	2.5 J	<0.35 UJ	<0.38 UJ	NS	NS	NS	NS
Arsenic	7440-38-2	13	16	0.38 J	<0.32 U	3.4 J	1.9 J	6.7 J	296	0.44 J	9.4	94.9 J	1.1 J	8.9 J	0.89 J
Barium	7440-39-3	350	400	4.9 J	20.5 J	54.7	6.6 J	20.9 J	35	8.7 J	10.2 J	188	7.6 J	8.5 J	23.7
Beryllium	7440-41-7	7.2	590	NS	NS	NS	NS	NS	0.65 J	0.13 J	0.49 J	NS	NS	NS	NS
Cadmium	7440-43-9	2.5	9.3	<0.032 U	<0.030 U	<0.030 U	0.043 J	<0.033 U	0.85	<0.030 U	0.22 J	<0.041 U	<0.030 U	<0.031 U	0.084 J
Calcium	7440-70-2	NL	NL	NS	NS	NS	NS	NS	R	R	R	NS	NS	NS	NS
Chromium	7440-47-3	30	1500	7	6.2	22.4	8.7	21.3	15.8	5.6	14.8	24.1	11.1	12.3	7.2 J
Cobalt	7440-48-4	NL	NL	NS	NS	NS	NS	NS	20.4	1.2 J	6.0 J	NS	NS	NS	NS
Copper	7440-50-8	50	270	NS	NS	NS	NS	NS	75.5	<0.37 UJ	<0.41 UJ	NS	NS	NS	NS
Iron	7439-89-6	NL	NL	NS	NS	NS	NS	NS	28200	2760	23300	NS	NS	NS	NS
Lead	7439-92-1	63	1000	1.4	2.4	41.5	11.8	<0.21 U	R	R	R	17.7	6.7	3.9	20.3 J
Magnesium	7439-95-4	NL	NL	NS	NS	NS	NS	NS	1620	731	2580	NS	NS	NS	NS
Manganese	7439-96-5	1600	10000	NS	NS	NS	NS	NS	121	23.3	349	NS	NS	NS	NS
Mercury	7439-97-6	0.18	2.8	<0.021 U	<0.020 U	0.088 J	<0.024 U	<0.023 U	0.16	<0.020 U	<0.022 U	0.39 J	<0.021 U	<0.021 U	<0.019 U
Nickel	7440-02-0	30	310	NS	NS	NS	NS	NS	75	3.0 J	5.9	NS	NS	NS	NS
Potassium	7440-09-7	NL	NL	NS	NS	NS	NS	NS	1050 J	577 J	2200 J	NS	NS	NS	NS
Selenium	7782-49-2	3.9	1500	<0.40 U	<0.38 U	R	R	R	0.92	<0.38 U	<0.41 U	R	R	R	<0.32 U
Silver	7440-22-4	2	1500	<0.055 U	<0.051 U	<0.060 U	<0.071 U	<0.067 U	<0.068 U	<0.051 U	<0.056 U	<0.083 U	<0.061 U	<0.062 U	<0.038 U
Sodium	7440-23-5	NL	NL	NS	NS	NS	NS	NS	1080	119 J	178 J	NS	NS	NS	NS
Thallium	7440-28-0	NL	NL	NS	NS	NS	NS	NS	<0.57 U	<0.43 U	<0.47 U	NS	NS	NS	NS
Vanadium	7440-62-2	NL	NL	NS	NS	NS	NS	NS	71.7	7.1	20.2	NS	NS	NS	NS
Zinc	7440-66-6	109	10000	NS	NS	NS	NS	NS	350	11.3	35.1	NS	NS	NS	NS
Cyanide, Free		NL	NL	<0.064 UJ	<0.06 UJ	<0.061 U	<0.071 U	<0.068 U	<0.079 U	<0.060 U	<0.065 U	<0.083 U	<0.062 U	<0.063 U	<0.058 UJ
Polychlorinated biphenyls (PCBs) (mg/Kg)															
Aroclor 1016	12674-11-2	NL	NL	NS	NS	NS	NS	NS	<0.052 UJ	<0.039 U	<0.043 U	NS	NS	NS	NS
Aroclor 1221	11104-28-2	NL	NL	NS	NS	NS	NS	NS	<0.11 UJ	<0.08 U	<0.087 U	NS	NS	NS	NS
Aroclor 1232	11141-16-5	NL	NL	NS	NS	NS	NS	NS	<0.052 UJ	<0.039 U	<0.043 U	NS	NS	NS	NS
Aroclor 1242	53469-21-9	NL	NL	NS	NS	NS	NS	NS	<0.052 UJ	<0.039 U	<0.043 U	NS	NS	NS	NS
Aroclor 1248	12672-29-6	NL	NL	NS	NS	NS	NS	NS	<0.052 UJ	<0.039 U	<0.043 U	NS	NS	NS	NS
Aroclor 1254	11097-69-1	NL	NL	NS	NS	NS	NS	NS	<0.052 UJ	<0.039 U	<0.043 U	NS	NS	NS	NS
Aroclor 1260	11096-82-5	NL	NL	NS	NS	NS	NS	NS	<0.052 UJ	<0.039 U	<0.043 U	NS	NS	NS	NS
Aroclor 1262	37324-23-5	NL	NL	NS	NS	NS	NS	NS	<0.052 UJ	<0.039 U	<0.043 U	NS	NS	NS	NS
Aroclor 1268	11100-14-4	NL	NL	NS	NS	NS	NS	NS	<0.052 UJ	<0.039 U	<0.043 U	NS	NS	NS	NS
PCB (Total) (ppm)	CALC-PCBs	0.1	1	NS	NS	NS	NS	NS	ND	ND	ND	NS	NS	NS	NS
Pesticides (mg/Kg)															
Aldrin	309-00-2	0.005	0.68	NS	NS	NS	NS	NS	R	<0.0020 U	<0.0022 U	NS	NS	NS	NS
Alpha-bhc	319-84-6	0.02	3.4	NS	NS	NS	NS	NS	R	<0.0020 U	<0.0022 U	NS	NS	NS	NS
Beta-BHC	319-85-7	0.036	3	NS	NS	NS	NS	NS	R	<0.0020 U	<0.0022 U	NS	NS	NS	NS
Chlordane, alpha	5103-71-9	0.094	24	NS	NS	NS	NS	NS	R	<0.0020 U	<0.0022 U	NS	NS	NS	NS
Chlordane, trans-	5103-74-2	NL	NL	NS	NS	NS	NS	NS	R	<0.0020 U	<0.0022 U	NS	NS	NS	NS
DDD,4,4-	72-54-8	0.0033	92	NS	NS	NS	NS	NS	R	<0.0039 U	<0.0043 U	NS	NS	NS	NS
DDE,4,4-	72-55-9	0.0033	62	NS	NS	NS	NS	NS	R	<0.0039 U	<0.0043 U	NS	NS	NS	NS
DDT,4,4-	50-29-3	0.0033	47	NS	NS	NS	NS	NS	0.0077 J	<0.0039 U	<0.0043 U	NS	NS	NS	NS
Delta-BHC	319-86-8	0.04	500	NS	NS	NS	NS	NS	R	<0.0020 U	<0.0022 U	NS	NS	NS	NS
Dieldrin	60-57-1	0.005	1.4	NS	NS	NS	NS	NS	R	<0.0039 U	<0.0043 U	NS	NS	NS	NS
Endosulfan I	959-98-8	2.4	200	NS	NS	NS	NS	NS	R	<0.0020 U	<0.0022 U	NS	NS	NS	NS
Endosulfan II	33213-65-9	2.4	200	NS	NS	NS	NS	NS	R	<0.0039 U	<0.0043 U	NS	NS	NS	NS
Endosulfan sulfate	1031-07-8	2.4	200	NS	NS	NS	NS	NS	R	<0.0039 U	<0.0043 U	NS	NS	NS	NS
Endrin	72-20-8	0.014	89	NS	NS	NS	NS	NS	R	<0.0039 U	<0.0043 U	NS	NS	NS	NS
Endrin aldehyde	7421-93-4	NL	NL	NS	NS	NS	NS	NS	R	<0.0039 U	<0.0043 U	NS	NS	NS	NS
Endrin ketone	53494-70-5	NL	NL	NS	NS	NS	NS	NS	0.037 JN	<0.0039 U	<0.0043 U	NS	NS	NS	NS
Gamma BHC - Lindane	58-89-9	0.1	9.2	NS	NS	NS	NS	NS	R	<0.0020 U	<0.0022 U	NS	NS	NS	NS
Heptachlor	76-44-8	0.042	15	NS	NS	NS	NS	NS	R	<0.0020 U	<0.0022 U	NS	NS	NS	NS
Heptachlor Epoxide	1024-57-3	NL	NL	NS	NS	NS	NS	NS	R	<0.0020 U	<0.0022 U	NS	NS	NS	NS
Methoxychlor	72-43-5	NL	NL	NS	NS	NS	NS	NS	R	<0.02 U	<0.022 U	NS	NS	NS	NS
Toxaphene	8001-35-2	NL	NL	NS	NS	NS	NS	NS	R	<0.2 U	<0.22 U	NS	NS	NS	NS
Herbicides (mg/Kg)															
2,4-D	94-75-7	NL	NL	NS	NS	NS	NS	NS	<0.016 U	<0.012 UJ	<0.013 U	NS	NS	NS	NS
2,4-DB	94-82-6	NL	NL	NS	NS	NS	NS	NS	<0.016 U	<0.012 UJ	<0.013 U	NS	NS	NS	NS
Silvex	93-72-1	3.8	500	NS	NS	NS	NS	NS	<0.0079 U	<0.0060 UJ	<0.0065 U	NS	NS	NS	NS
T,2,4,5-	93-76-5	NL	NL	NS	NS	NS	NS	NS	0.015 JN	<0.0060 UJ	<0.0065 U	NS	NS	NS	NS
Moisture, percent															
Moisture, percent	MOIST	NL	NL	21.2	16.5	17.7	29.7	26.4	36.7	16.3	23.2	39.9	18.8	20.5	14.2

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-29 4/28/2010 SB290-042810 7-8.5 AECOM094 Duplicate	SB-29 4/28/2010 SB29(17-18.5')042810 17-18.5 AECOM091 Sample	SB-30 4/28/2010 SB30(5-7')042810 5-7 AECOM091 Sample	SB-30 4/28/2010 SB30(18.5-20')042810 18.5-20 AECOM091 Sample	SB-31 4/29/2010 SB31(2-3.5')042910 2-3.5 AECOM094 Sample	SB-31 4/29/2010 SB31(13.5-15')042910 13.5-15 AECOM094 Sample	SB-32 4/30/2010 SB32(2.5-5')043010 2.5-5 AECOM094 Sample	SB-32 4/30/2010 SB32(18.5-20') 18.5-20 AECOM094 Sample	SB-32 4/30/2010 SB32(33.5-35')043010 33.5-35 AECOM094 Sample	SB-33 4/30/2010 SB33(0-5')043010 0-5 AECOM094 Sample	SB-33 4/30/2010 SB33(12.5-15')043010 12.5-15 AECOM094 Sample	SB-33 4/30/2010 SB33(28.5-30')043010 28.5-30 AECOM094 Sample	
BTEX (mg/kg)																
Benzene	71-43-2	0.06	44	<0.006 U	<0.006 U	<0.006 U	<0.006 U	0.013	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	0.058	0.004 J	
Ethylbenzene	100-41-4	1	390	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	0.1	<0.006 U	
m+p-Xylene	1330-20-7-M,P	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	0.001 J	<0.006 U	0.001 J	<0.006 U	<0.006 U	<0.007 U	0.02	<0.006 U	
o-Xylene	95-47-6	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.006 U	<0.007 U	0.01	<0.006 U	
Toluene	108-88-3	0.7	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	0.003 J	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Total Xylenes		0.26	500	ND	ND	ND	ND	0.001	ND	0.001	ND	ND	ND	0.03	ND	
Total BTEX		NL	NL	ND	ND	ND	ND	0.017	ND	0.001	ND	ND	ND	0.188	0.004	
Volatile Organic Compounds (VOCs)(mg/Kg)																
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
1,1-Dichloroethane	75-34-3	0.27	240	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
1,1-Dichloroethene	75-35-4	0.33	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.007 UJ	<0.006 UJ	<0.006 UJ	
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	R	R	R	R	R	R	R	R	R	R	R	R	
1,2-Dibromoethane	106-93-4	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
1,2-Dichloroethane	107-06-2	0.02	30	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
1,2-Dichloropropane	78-87-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
2-Butanone	78-93-3	0.12	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	0.009	0.004 J	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
2-Hexanone	591-78-6	NL	NL	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Acetone	67-64-1	0.05	500	0.022 J	0.008 J	0.006 J	0.013 J	0.055 J	0.016 J	<0.006 UJ	<0.008 UJ	0.013 J	<0.007 UJ	0.014 J	0.013 J	
Bromodichloromethane	75-27-4	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Bromoform	75-25-2	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Bromomethane	74-83-9	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Carbon disulfide	75-15-0	NL	NL	<0.006 U	<0.006 U	0.002 J	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	0.002 J	<0.006 U	
Carbon tetrachloride	56-23-5	0.76	22	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Chlorobenzene	108-90-7	1.1	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Chloroethane	75-00-3	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Chloroform	67-66-3	0.37	350	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Chloromethane	74-87-3	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Cyclohexane	110-82-7	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Dibromochloromethane	124-48-1	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Dichlorodifluoromethane	75-71-8	NL	NL	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Isopropylbenzene	98-82-8	NL	NL	<0.006 UJ	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Methyl acetate	79-20-9	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Methylcyclohexane	108-87-2	NL	NL	<0.006 UJ	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.006 UJ	<0.007 UJ	<0.006 UJ	<0.006 UJ	
Methylene chloride	75-09-2	0.05	500	<0.007 UJ	<0.006 UJ	<0.008 UJ	<0.008 UJ	<0.007 UJ	<0.006 UJ	<0.008 UJ	<0.006 UJ	<0.006 UJ	<0.007 UJ	<0.006 UJ	<0.007 UJ	
Styrene	100-42-5	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Tetrachloroethene	127-18-4	1.3	150	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 UJ	<0.006 UJ	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.007 U	<0.006 U	<0.006 U	
Trichloroethene	79-01-6	0.47	200	<0.006 U	<0.006 U	<0.006 U	<0.006 U	<0.006 U								

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-29 4/28/2010 SB290-042810 7-8.5 AECOM094 Duplicate	SB-29 4/28/2010 SB29(17-18.5')042810 17-18.5 AECOM091 Sample	SB-30 4/28/2010 SB30(5-7')042810 5-7 AECOM091 Sample	SB-30 4/28/2010 SB30(18.5-20')042810 18.5-20 AECOM091 Sample	SB-31 4/29/2010 SB31(2-3.5')042910 2-3.5 AECOM094 Sample	SB-31 4/29/2010 SB31(13.5-15')042910 13.5-15 AECOM094 Sample	SB-32 4/30/2010 SB32(2.5-5')043010 2.5-5 AECOM094 Sample	SB-32 4/30/2010 SB32(18.5-20') 18.5-20 AECOM094 Sample	SB-32 4/30/2010 SB32(33.5-35')043010 33.5-35 AECOM094 Sample	SB-33 4/30/2010 SB33(0-5')043010 0-5 AECOM094 Sample	SB-33 4/30/2010 SB33(12.5-15')043010 12.5-15 AECOM094 Sample	SB-33 4/30/2010 SB33(28.5-30')043010 28.5-30 AECOM094 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)															
2-Methylnaphthalene	91-57-6	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	1.5	<0.4 U	<0.41 U
Acenaphthene	83-32-9	20	500	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	4.4	<0.4 U	<0.41 U
Acenaphthylene	208-96-8	100	500	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Anthracene	120-12-7	100	500	0.14 J	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	7.9	<0.4 U	<0.41 U
Benzo(a)anthracene	56-55-3	1	5.6	0.15 J	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	0.091 J	<0.39 U	<0.4 U	13	<0.4 U	<0.41 U
Benzo(a)pyrene	50-32-8	1	1	0.1 J	<0.38 U	<0.41 U	<0.4 U	0.088 J	<0.37 U	0.088 J	<0.39 U	<0.4 U	9.4	<0.4 U	<0.41 U
Benzo(b)fluoranthene	205-99-2	1	5.6	0.11 J	<0.38 UJ	<0.41 UJ	<0.4 UJ	0.11 J	<0.37 U	<0.43 U	<0.39 U	<0.4 U	11 J	<0.4 U	<0.41 U
Benzo(ghi)perylene	191-24-2	100	500	<0.38 U	<0.38 U	<0.41 U	<0.4 U	0.1 J	<0.37 U	<0.43 U	<0.39 U	<0.4 U	4.2	<0.4 U	<0.41 U
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.38 UJ	<0.38 U	<0.41 U	<0.4 U	<0.38 UJ	<0.37 UJ	<0.43 UJ	<0.39 UJ	<0.4 UJ	3 J	<0.4 UJ	<0.41 UJ
Chrysene	218-01-9	1	56	0.14 J	<0.38 U	<0.41 U	<0.4 U	0.096 J	<0.37 U	0.11 J	<0.39 U	<0.4 U	11	<0.4 U	<0.41 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.38 U	<0.38 UJ	<0.41 UJ	<0.4 UJ	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	1.8	<0.4 U	<0.41 U
Fluoranthene	206-44-0	100	500	0.5	<0.38 U	<0.41 U	<0.4 U	0.12 J	<0.37 U	0.2 J	<0.39 U	<0.4 U	39	<0.4 U	<0.41 U
Fluorene	86-73-7	30	500	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	4.1	<0.4 U	<0.41 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.38 U	<0.38 UJ	<0.41 UJ	<0.4 UJ	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	4.3	<0.4 U	<0.41 U
Naphthalene	91-20-3	12	500	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	4.5	<0.4 U	<0.41 U
Phenanthrene	85-01-8	100	500	0.43	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	0.1 J	<0.39 U	<0.4 U	38	<0.4 U	<0.41 U
Pyrene	129-00-0	100	500	0.36 J	<0.38 U	<0.41 U	<0.4 U	0.17 J	<0.37 U	0.19 J	<0.39 U	<0.4 U	29	<0.4 U	<0.41 U
Total PAHs		NL	NL	1.93	ND	ND	ND	0.684	ND	0.779	ND	ND	186.1	ND	ND
Semivolatile Organic Compounds (SVOCs)(mg/Kg)															
1,1'-Biphenyl	92-52-4	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	0.41 J	<0.4 U	<0.41 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.78 U	<0.77 U	<0.84 U	<0.81 U	<0.76 U	<0.75 U	<0.87 U	<0.79 U	<0.82 U	<0.93 U	<0.81 U	<0.83 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	0.1 J	<0.4 U	<0.41 U
2,4-Dinitrophenol	51-28-5	NL	NL	<0.78 UJ	<0.77 UJ	<0.84 UJ	<0.81 UJ	<0.76 UJ	<0.75 UJ	<0.87 UJ	<0.79 UJ	<0.82 UJ	<0.93 UJ	<0.81 UJ	<0.83 UJ
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.37 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
2-Chlorophenol	95-57-8	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
2-Methylphenol	95-48-7	0.33	500	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
2-Nitroaniline	88-74-4	NL	NL	<0.78 U	<0.77 U	<0.84 U	<0.81 U	<0.76 U	<0.75 U	<0.87 U	<0.79 U	<0.82 U	<0.93 U	<0.81 U	<0.83 U
2-Nitrophenol	88-75-5	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
3-and 4-Methylphenol	3,4-MEPH	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	0.15 J	<0.4 U	<0.41 U
3-Nitroaniline	99-09-2	NL	NL	<0.78 U	<0.77 U	<0.84 U	<0.81 U	<0.76 U	<0.75 U	<0.87 U	<0.79 U	<0.82 U	<0.93 U	<0.81 U	<0.83 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<0.78 UJ	<0.77 UJ	<0.84 UJ	<0.81 UJ	<0.76 UJ	<0.75 UJ	<0.87 UJ	<0.79 UJ	<0.82 UJ	<0.93 UJ	<0.81 UJ	<0.83 UJ
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
4-Chloroaniline	106-47-8	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
4-Nitroaniline	100-01-6	NL	NL	<0.78 U	<0.77 U	<0.84 U	<0.81 U	<0.76 U	<0.75 U	<0.87 U	<0.79 U	<0.82 U	<0.93 U	<0.81 U	<0.83 U
4-Nitrophenol	100-02-7	NL	NL	<0.78 U	<0.77 U	<0.84 U	<0.81 U	<0.76 U	<0.75 U	<0.87 U	<0.79 U	<0.82 U	<0.93 U	<0.81 U	<0.83 U
Acetophenone	98-86-2	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Atrazine	1912-24-9	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Benzaldehyde	100-52-7	NL	NL	<0.38 UJ	<0.38 UJ	<0.41 UJ	<0.4 UJ	<0.38 UJ	<0.37 UJ	<0.43 UJ	<0.39 UJ	<0.4 UJ	<0.46 UJ	<0.4 UJ	<0.41 UJ
bis(2-Chloroethoxy)methane	111-91-1	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
bis(2-Chloroethyl) ether	111-44-4	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
bis(2-Ethylhexyl) phthalate	117-81-7	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Butyl benzyl phthalate	95-68-7	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Caprolactam	105-60-2	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Carbazole	86-74-8	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	4.5	<0.4 U	<0.41 U
Dibenzofuran	132-64-9	7	350	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	2.8	<0.4 U	<0.41 U
Diethyl phthalate	131-11-3	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Dimethyl phthalate	84-66-2	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Di-n-butyl phthalate	84-74-2	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Di-n-octyl phthalate	117-84-0	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Hexachlorobenzene	118-74-1	0.33	6	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Hexachlorobutadiene	87-68-3	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Hexachlorocyclopentadiene	77-47-4	NL	NL	<0.38 U	<0.38 UJ	<0.41 UJ	<0.4 UJ	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Hexachloroethane	67-72-1	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Isophorone	78-59-1	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U
Nitrobenzene	98-95-3	NL	NL	<0.38 U	<0.38 U	<0.41 U	<0.4 U	<0.38 U	<0.37 U	<0.43 U	<0.39 U	<0.4 U	<0.46 U	<0.4 U	<0.41 U

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-29 4/28/2010 SB290-042810 7-8.5 AECOM094 Duplicate	SB-29 4/28/2010 SB29(17-18.5')042810 17-18.5 AECOM091 Sample	SB-30 4/28/2010 SB30(5-7')042810 5-7 AECOM091 Sample	SB-30 4/28/2010 SB30(18.5-20')042810 18.5-20 AECOM091 Sample	SB-31 4/29/2010 SB31(2-3.5')042910 2-3.5 AECOM094 Sample	SB-31 4/29/2010 SB31(13.5-15')042910 13.5-15 AECOM094 Sample	SB-32 4/30/2010 SB32(2.5-5')043010 2.5-5 AECOM094 Sample	SB-32 4/30/2010 SB32(18.5-20') 18.5-20 AECOM094 Sample	SB-32 4/30/2010 SB32(33.5-35')043010 33.5-35 AECOM094 Sample	SB-33 4/30/2010 SB33(0-5')043010 0-5 AECOM094 Sample	SB-33 4/30/2010 SB33(12.5-15')043010 12.5-15 AECOM094 Sample	SB-33 4/30/2010 SB33(28.5-30')043010 28.5-30 AECOM094 Sample	
Inorganic Compounds (mg/Kg)																
Aluminum	7429-90-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Antimony	7440-36-0	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	7440-38-2	13	16	1.9 J	0.75 J	0.56 J	5.1 J	40.4 J	1.7 J	109 J	<0.30 U	1.9 J	96.0 J	0.74 J	4.6 J	
Barium	7440-39-3	350	400	25.9	3.8 J	10.8 J	25.6	38	20.5 J	228	5.3 J	5.9 J	287	11.2 J	6.6 J	
Beryllium	7440-41-7	7.2	590	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	7440-43-9	2.5	9.3	0.089 J	<0.038 U	2.2	0.20 J	<0.038 U	0.055 J	<0.044 U	<0.040 U	<0.041 U	0.22 J	0.052 J	0.059 J	
Calcium	7440-70-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	7440-47-3	30	1500	9.1	4.8 J	9.2 J	15.6 J	24.9	9.3	40	6.1	7	28.7	23.4	7.8	
Cobalt	7440-48-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	7440-50-8	50	270	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	7439-89-6	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	7439-92-1	63	1000	23.0 J	1.6 J	3.9 J	7.4 J	4390 J	4.9 J	27.9 J	1.4 J	2.3 J	40.0 J	5.6 J	2.5 J	
Magnesium	7439-95-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	7439-96-5	1600	10000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	7439-97-6	0.18	2.8	0.022 J	<0.019 U	<0.021 U	<0.020 U	0.078 J	<0.019 U	0.15 J	<0.020 U	<0.020 U	0.22 J	0.022 J		<0.021 U
Nickel	7440-02-0	30	310	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	7440-09-7	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	7782-49-2	3.9	1500	<0.32 UJ	<0.32 U	<0.35 U	<0.33 U	0.91 J	<0.31 UJ	2.2 J	<0.33 UJ	<0.34 UJ	2.7 J	<0.34 UJ	<0.34 UJ	
Silver	7440-22-4	2	1500	0.098 J	<0.037 U	<0.041 U	<0.039 U	0.27 J	<0.036 U	0.21 J	<0.038 U	0.083 J	0.19 J	<0.039 U	<0.040 U	
Sodium	7440-23-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	7440-28-0	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	7440-62-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	7440-66-6	109	10000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide, Free		NL	NL	<0.058 U	<0.057 UJ	<0.063 UJ	<0.060 UJ	<0.057 U	<0.056 U	R	R	R	R	R	R	R
Polychlorinated biphenyls (PCBs) (mg/Kg)																
Aroclor 1016	12674-11-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1221	11104-28-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1232	11141-16-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1242	53469-21-9	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1248	12672-29-6	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1254	11097-69-1	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1260	11096-82-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1262	37324-23-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1268	11100-14-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCB (Total) (ppm)	CALC-PCBs	0.1	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pesticides (mg/Kg)																
Aldrin	309-00-2	0.005	0.68	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Alpha-bhc	319-84-6	0.02	3.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beta-BHC	319-85-7	0.036	3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane, alpha	5103-71-9	0.094	24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane, trans-	5103-74-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDD,4,4-	72-54-8	0.0033	92	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDE,4,4-	72-55-9	0.0033	62	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDT,4,4-	50-29-3	0.0033	47	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Delta-BHC	319-86-8	0.04	500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dieldrin	60-57-1	0.005	1.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan I	959-98-8	2.4	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan II	33213-65-9	2.4	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	1031-07-8	2.4	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin	72-20-8	0.014	89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin aldehyde	7421-93-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin ketone	53494-70-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Gamma BHC - Lindane	58-89-9	0.1	9.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor	76-44-8	0.042	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor Epoxide	1024-57-3	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methoxychlor	72-43-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toxaphene	8001-35-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Herbicides (mg/Kg)																
2,4-D	94-75-7	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,4-DB	94-82-6	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Silvex	93-72-1	3.8	500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
T,2,4,5-	93-76-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Moisture, percent																
Moisture, percent	MOIST	NL	NL	13.8	12.5	20.3	16.8	12.4	11.1	23.4	15.7	18.1	28.1	17.5	19.2	

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOS
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-34 5/4/2010 SB34(1-3)*050410 1-3 AECOM094 Sample	SB-34 5/4/2010 SB34(8-10)*050410 8-10 AECOM094 Sample	SB-34 5/4/2010 SB340-050410 8-10 AECOM097 Duplicate	SB-34 5/4/2010 SB34(14-15)*050410 14-15 AECOM094 Sample	SB-35 5/4/2010 SB35(3-5)*050410 3-5-5 AECOM094 Sample	SB-35 5/4/2010 SB35(9.5-10)*050410 9.5-10 AECOM094 Sample	SB-35 5/4/2010 SB35(11-12)*050410 11-12 AECOM094 Sample	SB-36 5/4/2010 SB36(3-5)*050410 3-5 AECOM094 Sample	SB-36 5/4/2010 SB36(14-14.5)*050410 14-14.5 AECOM094 Sample	SB-36 5/4/2010 SB36(15-17)*050410 15-17 AECOM094 Sample	SB-37 5/4/2010 SB37(3-5)*050410 3-5 AECOM097 Sample	SB-37 5/4/2010 SB37(18-19)*050410 18-19 AECOM097 Sample	
BTEX (mg/kg)																
Benzene	71-43-2	0.06	44	<0.006 U	0.031	0.044	0.003 J	0.002 J	320	0.002 J	0.014	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Ethylbenzene	100-41-4	1	390	<0.006 U	0.067 J	0.13 J	<0.006 U	<0.008 U	450	0.001 J	0.053	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
m+p-Xylene	1330-20-7-M,P	NL	NL	<0.006 U	0.12 J	0.22 J	0.002 J	<0.008 U	990	0.001 J	0.28	0.003 J	<0.006 U	<0.007 U	<0.006 U	
o-Xylene	95-47-6	NL	NL	<0.006 U	0.059 J	0.15 J	<0.006 U	<0.008 U	60	<0.006 U	0.43	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Toluene	108-88-3	0.7	500	<0.006 U	0.004 J	0.0086	<0.006 U	<0.008 U	0.23	<0.006 U	0.049	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Total Xylenes		0.26	500	ND	0.179	0.37	0.002	ND	1050	0.001	0.71	0.003	ND	ND	ND	
Total BTEX		NL	NL	ND	0.281	0.5526	0.005	0.002	1820.23	0.004	0.826	0.003	ND	ND	ND	
Volatile Organic Compounds (VOCs)(mg/Kg)																
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.006 U	<0.008 U	<0.008 UJ	<0.006 UJ	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 UJ	<0.006 UJ	
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
1,1-Dichloroethane	75-34-3	0.27	240	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
1,1-Dichloroethene	75-35-4	0.33	500	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.006 UJ	<0.008 UJ	<0.008 UJ	<0.006 UJ	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 UJ	<0.006 UJ	
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	R	R	R	R	R	R	R	R	R	R	R	R	
1,2-Dibromoethane	106-93-4	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
1,2-Dichloroethane	107-06-2	0.02	30	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
1,2-Dichloropropane	78-87-5	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
2-Butanone	78-93-3	0.12	500	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	0.056	<0.006 U	0.014	0.065	<0.006 U	<0.007 U	<0.006 U	
2-Hexanone	591-78-6	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Acetone	67-64-1	0.05	500	<0.006 UJ	<0.011 UJ	0.0097 J	0.022 J	<0.008 UJ	0.19 J	0.018 J	0.069 J	0.21 J	0.012 J	0.005 J	0.0080 J	
Bromodichloromethane	75-27-4	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Bromoform	75-25-2	NL	NL	<0.006 U	<0.008 U	<0.008 UJ	<0.006 UJ	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 UJ	<0.006 UJ	
Bromomethane	74-83-9	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Carbon disulfide	75-15-0	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	0.008 J	0.002 J	0.005 J	0.008 J	<0.006 U	<0.007 U	0.003 J	
Carbon tetrachloride	56-23-5	0.76	22	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Chlorobenzene	108-90-7	1.1	500	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Chloroethane	75-00-3	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Chloroform	67-66-3	0.37	350	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Chloromethane	74-87-3	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Cyclohexane	110-82-7	NL	NL	<0.006 U	<0.008 U	0.0087	<0.006 U	<0.008 U	0.03	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Dibromochloromethane	124-48-1	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 UJ	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Dichlorodifluoromethane	75-71-8	NL	NL	<0.006 U	<0.008 U	<0.008 UJ	<0.006 UJ	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 UJ	<0.006 UJ	
Isopropylbenzene	98-82-8	NL	NL	<0.006 UJ	<0.008 UJ	<0.008 U	<0.006 U	<0.008 UJ	53	<0.006 UJ	0.009 J	<0.01 UJ	<0.006 UJ	<0.007 U	<0.006 U	
Methyl acetate	79-20-9	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Methylcyclohexane	108-87-2	NL	NL	<0.006 UJ	<0.008 UJ	<0.008 U	<0.006 U	<0.008 UJ	0.09 J	<0.006 UJ	<0.007 UJ	<0.01 UJ	<0.006 UJ	<0.007 U	<0.006 U	
Methylene chloride	75-09-2	0.05	500	<0.006 UJ	<0.01 UJ	<0.014 UJ	<0.007 UJ	<0.008 UJ	<0.009 UJ	<0.007 UJ	<0.007 UJ	<0.01 UJ	<0.006 UJ	<0.011 UJ	<0.0079 UJ	
Styrene	100-42-5	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	0.073	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Tetrachloroethene	127-18-4	1.3	150	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	49	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Trichloroethene	79-01-6	0.47	200	<0.006 U	<0.008 U	<0.008 U	<0.006 U	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 U	<0.006 U	
Trichlorofluoromethane	75-69-4	NL	NL	<0.006 U	<0.008 U	<0.008 UJ	<0.006 UJ	<0.008 U	<0.009 U	<0.006 U	<0.007 U	<0.01 U	<0.006 U	<0.007 UJ	<0.006 UJ	
Vinyl chloride	75-0															

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-34 5/4/2010 SB34(1-3)*050410 1-3 AECOM094 Sample	SB-34 5/4/2010 SB34(8-10)*050410 8-10 AECOM094 Sample	SB-34 5/4/2010 SB340-050410 8-10 AECOM097 Duplicate	SB-34 5/4/2010 SB34(11-12)*050410 14-15 AECOM094 Sample	SB-35 5/4/2010 SB35(3-5)*050410 3-5-5 AECOM094 Sample	SB-35 5/4/2010 SB35(9.5-10)*050410 9.5-10 AECOM094 Sample	SB-35 5/4/2010 SB35(11-12)*050410 11-12 AECOM094 Sample	SB-36 5/4/2010 SB36(3-5)*050410 3-5 AECOM094 Sample	SB-36 5/4/2010 SB36(14-14.5)*050410 14-14.5 AECOM094 Sample	SB-36 5/4/2010 SB36(15-17)*050410 15-17 AECOM094 Sample	SB-37 5/4/2010 SB37(3-5)*050410 3-5 AECOM097 Sample	SB-37 5/4/2010 SB37(18-19)*050410 18-19 AECOM097 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)															
2-Methylnaphthalene	91-57-6	NL	NL	0.15 J	<0.52 U	<0.54 U	<0.43 U	<0.5 U	0.13 J	<0.43 U	4.2	<0.66 U	<0.39 U	<0.49 U	<0.4 U
Acenaphthene	83-32-9	20	500	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	1.4	<0.66 U	<0.39 U	<0.49 U	<0.4 U
Acenaphthylene	208-96-8	100	500	2.7	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	5	<0.66 U	<0.39 U	<0.49 U	<0.4 U
Anthracene	120-12-7	100	500	0.74	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	3.7	0.15 J	<0.39 U	<0.49 U	<0.4 U
Benzo(a)anthracene	56-55-3	1	5.6	0.36 J	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	3.6	0.47 J	<0.39 U	<0.49 U	<0.4 U
Benzo(a)pyrene	50-32-8	1	1	2.8	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	2	0.45 J	<0.39 U	<0.49 U	<0.4 U
Benzo(b)fluoranthene	205-99-2	1	5.6	2	<0.52 UJ	<0.54 UJ	<0.43 UJ	<0.5 UJ	<0.59 U	<0.43 UJ	1.3	0.56 J	<0.39 UJ	<0.49 UJ	<0.4 UJ
Benzo(ghi)perylene	191-24-2	100	500	1.8	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	0.51	0.38 J	<0.39 U	<0.49 U	<0.4 U
Benzo(k)fluoranthene	207-08-9	0.8	56	0.65 J	<0.52 U	<0.54 UJ	<0.43 U	<0.5 U	<0.59 UJ	<0.43 U	0.78 J	0.34 J	<0.39 U	<0.49 UJ	<0.4 UJ
Chrysene	218-01-9	1	56	0.66	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	3	0.6 J	<0.39 U	<0.49 U	<0.4 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	0.54	<0.52 UJ	<0.54 UJ	<0.43 UJ	<0.5 UJ	<0.59 U	<0.43 UJ	0.14 J	<0.66 UJ	<0.39 UJ	<0.49 UJ	<0.4 UJ
Fluoranthene	206-44-0	100	500	0.48	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	4.9	0.5 J	<0.39 U	<0.49 U	<0.4 U
Fluorene	86-73-7	30	500	0.21 J	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	5.5	<0.66 U	<0.39 U	<0.49 U	<0.4 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	1.2	<0.52 UJ	<0.54 UJ	<0.43 UJ	<0.5 UJ	<0.59 U	<0.43 UJ	0.37 J	0.33 J	<0.39 UJ	<0.49 UJ	<0.4 UJ
Naphthalene	91-20-3	12	500	0.14 J	<0.52 U	<0.54 U	<0.43 U	<0.5 U	1	<0.43 U	1.9	<0.66 U	<0.39 U	<0.49 U	<0.4 U
Phenanthrene	85-01-8	100	500	0.21 J	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	22	0.21 J	<0.39 U	<0.49 U	<0.4 U
Pyrene	129-00-0	100	500	0.96	<0.52 U	<0.54 U	<0.43 U	<0.5 U	0.17 J	<0.43 U	15	1.2 J	<0.39 U	<0.49 U	<0.4 U
Total PAHs		NL	NL	15.6	ND	ND	ND	ND	1.3	ND	75.3	5.19	ND	ND	ND
Semivolatile Organic Compounds (SVOCs)(mg/Kg)															
1,1'-Biphenyl	92-52-4	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	1.5	<0.66 U	<0.39 U	<0.49 U	<0.4 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.87 U	<1.1 U	<0.54 U	<0.87 U	<1 U	<1.2 U	<0.88 U	<0.93 U	<1.3 U	<0.79 UJ	<0.49 U	<0.4 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
2,4-Dinitrophenol	51-28-5	NL	NL	<0.87 UJ	<1.1 UJ	<0.54 UJ	<0.87 UJ	<1 UJ	<1.2 UJ	<0.88 UJ	<0.93 UJ	<1.3 UJ	<0.79 UJ	<0.49 UJ	<0.4 UJ
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
2-Chlorophenol	95-57-8	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
2-Methylphenol	95-48-7	0.33	500	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
2-Nitroaniline	88-74-4	NL	NL	<0.87 U	<1.1 U	<0.54 U	<0.87 U	<1 U	<1.2 U	<0.88 U	<0.93 U	<1.3 U	<0.79 U	<0.49 U	<0.4 U
2-Nitrophenol	88-75-5	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 UJ	<0.39 U	<0.49 U	<0.4 U
3-and 4-Methylphenol	3,4-MEPH	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
3-Nitroaniline	99-09-2	NL	NL	<0.87 U	<1.1 U	<0.54 U	<0.87 U	<1 U	<1.2 U	<0.88 U	<0.93 U	<1.3 U	<0.79 U	<0.49 U	<0.4 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<0.87 UJ	<1.1 UJ	<0.54 UJ	<0.87 UJ	<1 UJ	<1.2 UJ	<0.88 UJ	<0.93 UJ	<1.3 UJ	<0.79 UJ	<0.49 UJ	<0.4 UJ
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
4-Chloroaniline	106-47-8	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	<0.59 U	<0.43 U	<0.46 U	<0.66 U	<0.39 U	<0.49 U	<0.4 U
4-Nitroaniline	100-01-6	NL	NL	<0.87 U	<1.1 U	<0.54 U	<0.87 U	<1 U	<1.2 U	<0.88 U	<0.93 U	<1.3 U	<0.79 U	<0.49 U	<0.4 U
4-Nitrophenol	100-02-7	NL	NL	<0.87 U	<1.1 U	<0.54 U	<0.87 U	<1 U	<1.2 U	<0.88 U	<0.93 U	<1.3 U	<0.79 U	<0.49 U	<0.4 U
Acetophenone	98-86-2	NL	NL	<0.43 U	<0.52 U	<0.54 U	<0.43 U	<0.5 U	0.72	<0.43					

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-34 5/4/2010 SB34(1-3)*050410 1-3 AECOM094 Sample	SB-34 5/4/2010 SB34(8-10)*050410 8-10 AECOM094 Sample	SB-34 5/4/2010 SB340-050410 8-10 AECOM097 Duplicate	SB-34 5/4/2010 SB34(11-15)*050410 14-15 AECOM094 Sample	SB-35 5/4/2010 SB35(3-5)*050410 3-5-5 AECOM094 Sample	SB-35 5/4/2010 SB35(9.5-10)*050410 9.5-10 AECOM094 Sample	SB-35 5/4/2010 SB35(11-12)*050410 11-12 AECOM094 Sample	SB-36 5/4/2010 SB36(3-5)*050410 3-5 AECOM094 Sample	SB-36 5/4/2010 SB36(14-14.5)*050410 14-14.5 AECOM094 Sample	SB-36 5/4/2010 SB36(15-17)*050410 15-17 AECOM094 Sample	SB-37 5/4/2010 SB37(3-5)*050410 3-5 AECOM097 Sample	SB-37 5/4/2010 SB37(18-19)*050410 18-19 AECOM097 Sample	
Inorganic Compounds (mg/Kg)																
Aluminum	7429-90-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Antimony	7440-36-0	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	7440-38-2	13	16	69.2 J	107 J	88.8	2.6 J	47.9 J	99.7 J	1.7 J	63.9 J	22.9 J	1.1 J	99.3	0.45 J	
Barium	7440-39-3	350	400	350	44	49.7	4.5 J	529	125	5.4 J	452	195	3.4 J	73.6	8.0 J	
Beryllium	7440-41-7	7.2	590	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	7440-43-9	2.5	9.3	0.13 J	0.41 J	0.49 J	<0.043 U	0.41 J	<0.060 U	<0.044 U	0.30 J	3.3	<0.039 U	0.24 J	<0.030 U	
Calcium	7440-70-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	7440-47-3	30	1500	29.7	35.5	35.5	19.8	32.1	48.5	5.3	34.4	36.5	2.6	35.1	7.5	
Cobalt	7440-48-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	7440-50-8	50	270	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	7439-89-6	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	7439-92-1	63	1000	30.7 J	R	R	5.3 J	17.9 J	185 J	1.7 J	62.3 J	493 J	1.1 J	<5.2 U	2	
Magnesium	7439-95-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	7439-96-5	1600	10000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	7439-97-6	0.18	2.8	0.078 J	<0.026 U	0.058	<0.022 U	0.051 J	0.55 J	<0.022 U	0.12 J	2.5 J	<0.020 U	0.074	<0.020 U	
Nickel	7440-02-0	30	310	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	7440-09-7	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	7782-49-2	3.9	1500	1.8 J	1.4 J	1.3	<0.36 UJ	2.5 J	4.8 J	<0.36 UJ	2.6 J	2.0 J	<0.33 UJ	2.6	<0.38 U	
Silver	7440-22-4	2	1500	0.28 J	0.14 J	<0.070 U	<0.042 U	0.053 J	0.68 J	<0.042 U	0.25 J	8.2	<0.038 U	<0.064 U	<0.052 U	
Sodium	7440-23-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	7440-28-0	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	7440-62-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	7440-66-6	109	10000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide, Free		NL	NL	<0.065 U	<0.080 U	<0.081 UJ	<0.324 U	<0.076 U	<0.090 U	<0.065 U	<0.069 U	0.114	<0.059 U	<0.074 UJ	<0.061 UJ	
Polychlorinated biphenyls (PCBs) (mg/Kg)																
Aroclor 1016	12674-11-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1221	11104-28-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1232	11141-16-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1242	53469-21-9	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1248	12672-29-6	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1254	11097-69-1	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1260	11096-82-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1262	37324-23-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1268	11100-14-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCB (Total) (ppm)	CALC-PCBs	0.1	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pesticides (mg/Kg)																
Aldrin	309-00-2	0.005	0.68	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Alpha-bhc	319-84-6	0.02	3.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beta-BHC	319-85-7	0.036	3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane, alpha	5103-71-9	0.094	24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane, trans-	5103-74-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDD,4,4-	72-54-8	0.0033	92	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDE,4,4-	72-55-9	0.0033	62	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDT,4,4-	50-29-3	0.0033	47	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Delta-BHC	319-86-8	0.04	500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dieldrin	60-57-1	0.005	1.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan I	959-98-8	2.4	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan II	33213-65-9	2.4	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	1031-07-8	2.4	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin	72-20-8	0.014	89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin aldehyde	7421-93-4	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin ketone	53494-70-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Gamma BHC - Lindane	58-89-9	0.1	9.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor	76-44-8	0.042	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor Epoxide	1024-57-3	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methoxychlor	72-43-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toxaphene	8001-35-2	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Herbicides (mg/Kg)																
2,4-D	94-75-7	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,4-DB	94-82-6	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Silvex	93-72-1	3.8	500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
T,2,4,5-	93-76-5	NL	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Moisture, percent																
Moisture, percent	MOIST	NL	NL	22.9	37.1	38.4	22.8	34.3	44.4	23.6	27.6	49.9	15.4	32.8	17.9	

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOS
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-38 9/8/2011 SB-38 (4-5) 4-5 460309481 Sample	SB-38 9/8/2011 SB-38 (5-7.5) 5-7.5 460309481 Sample	SB-38 9/8/2011 SB-38 (37.5-40) 37.5-40 460309481 Sample	SB-39 9/9/2011 SB-39 (37.5-5) 4-5 460309481 Sample	SB-39 9/9/2011 SB-39 (10-12.5) 10-12.5 460309481 Sample	SB-39 9/9/2011 SB-39 (40-42.5) 40-42.5 460309481 Sample	SB-40 9/9/2011 SB-40 (4-5) 4-5 460309811 Sample	SB-40 9/9/2011 SB-40 (5-7.5) 5-7.5 460309811 Sample	SB-40 9/9/2011 SB-40 (37.5-40) 37.5-40 460309811 Sample	SB-41 9/12/2011 SB-41 (2.5-5) 2.5-5 460309811 Sample	SB-41 9/12/2011 SB-41 (14.5-15) 14.5-15 460309811 Sample	SB-41 9/12/2011 SB-41 (35-36) 35-36 460309811 Sample	SB-42 9/12/2011 SB-42 (2.5-3.5) 2.5-3.5 460309811 Sample	SB-42 9/12/2011 SB-42 (13-14) 13-14 460309811 Sample
BTEX (mg/kg)																	
Benzene	71-43-2	0.06	44	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Ethylbenzene	100-41-4	1	390	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 UJ	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
m+p-Xylene	1330-20-7 M,P	NL	NL	<0.0034 U	<0.0035 U	<0.0028 U	<0.0035 U	<0.0026 U	<0.0032 U	<0.0028 U	<0.0030 U	<0.0026 U	<0.0037 UJ	<0.0025 U	<0.0027 U	<0.0026 U	<0.0022 U
o-Xylene	95-47-6	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 UJ	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Toluene	108-88-3	0.7	500	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 UJ	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Total Xylenes	Total Xylenes	0.26	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEX		NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds (VOCs)(mg/Kg)																	
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.0017 U	<0.0017 UJ	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 R	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.0017 UJ	<0.0017 UJ	<0.0014 UJ	<0.0018 UJ	<0.0013 UJ	<0.0016 UJ	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 UJ	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,2,3-Trichlorobenzene	87-61-6	NL	NL	<0.0017 U	<0.0017 UJ	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 R	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.0017 U	<0.0017 UJ	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	<0.0017 U	<0.0017 UJ	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 R	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,2-Dibromoethane	106-93-4	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 UJ	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.0017 U	<0.0017 UJ	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 R	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.0017 U	<0.0017 UJ	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 R	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.0017 U	<0.0017 UJ	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 R	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
1,4-Dioxane	123-91-1	NL	130	<0.086 R	<0.087 R	<0.069 R	<0.088 R	<0.064 R	<0.079 R	<0.071 R	<0.076 R	<0.065 R	<0.094 R	<0.063 R	<0.068 R	<0.064 R	<0.055 R
2-Butanone	78-93-3	0.12	500	<0.017 U	<0.017 U	0.0059 J	<0.014 R	0.0050 J	0.013 J	<0.014 R	0.01 J	0.0093 J	<0.019 U	<0.013 R	<0.014 R	<0.013 R	<0.011 R
2-Hexanone	591-78-6	NL	NL	<0.017 U	<0.017 U	<0.014 U	<0.018 U	<0.013 U	<0.016 U	<0.014 U	<0.015 U	<0.013 U	<0.019 UJ	<0.013 U	<0.014 U	<0.013 U	<0.011 U
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.017 U	<0.017 U	<0.014 U	<0.018 U	<0.013 U	<0.016 U	<0.014 U	<0.015 U	<0.013 U	<0.019 U	<0.013 U	<0.014 U	<0.013 U	<0.011 U
Acetone	67-64-1	0.05	500	<0.017 UJ	<0.021 UJ	0.06 J	<0.018 UJ	0.058 J	0.1 J	0.0071 J	0.058 J	0.06 J	<0.019 UJ	0.017 J	0.031 J	0.025 J	0.016 J
Bromochloromethane	74-97-5	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Bromodichloromethane	75-27-4	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Bromoform	75-25-2	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 UJ	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Bromomethane	74-83-9	NL	NL	<0.0017 UJ	<0.0017 UJ	<0.0014 UJ	<0.0018 UJ	<0.0013 UJ	<0.0016 UJ	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Carbon disulfide	75-15-0	NL	NL	<0.0017 U	<0.0017 U	0.0017	<0.0018 U	0.002	0.0013 J	<0.0014 U	0.0017	0.002	<0.0019 U	0.0011 J	0.0010 J	<0.0013 U	0.0036
Carbon tetrachloride	56-23-5	0.76	22	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Chlorobenzene	108-90-7	1.1	500	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 UJ	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Chloroethane	75-00-3	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Chloroform	67-66-3	0.37	350	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Chloromethane	74-87-3	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Cyclohexane	110-82-7	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Dibromochloromethane	124-48-1	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 UJ	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Dichlorodifluoromethane	75-71-8	NL	NL	<0.0017 UJ	<0.0017 UJ	<0.0014 UJ	<0.0018 UJ	<0.0013 UJ	<0.0016 UJ	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Isopropylbenzene	98-82-8	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 UJ	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Methyl acetate	79-20-9	NL	NL	<0.0017 UJ	<0.0017 UJ	<0.0014 UJ	<0.0018 UJ	<0.0013 UJ	<0.0016 UJ	<0.0014 UJ	<0.0015 UJ	<0.0013 UJ	<0.0019 UJ	<0.0013 UJ	<0.0014 UJ	<0.0013 UJ	<0.0011 UJ
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 UJ	<0.0015 UJ	<0.0013 UJ	<0.0019 U	<0.0013 UJ	<0.0014 UJ	<0.0013 UJ	<0.0011 UJ
Methylcyclohexane	108-87-2	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 U	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Methylene chloride	75-09-2	0.05	500	<0.0031 U	0.0074	0.0093	0.011	0.0094	0.0065	0.0016	0.0011 J	<0.0013 U	<0.003 U	0.00071 J	<0.0014 U	0.0061	0.0051
Styrene	100-42-5	NL	NL	<0.0017 U	<0.0017 U	<0.0014 U	<0.0018 U	<0.0013 U	<0.0016 U	<0.0014 U	<0.0015 U	<0.0013 U	<0.0019 UJ	<0.0013 U	<0.0014 U	<0.0013 U	<0.0011 U
Tetrachloroeth																	

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOS
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-38 9/8/2011 SB-38 (4-5) 4-5 460309481 Sample	SB-38 9/8/2011 SB-38 (5-7.5) 5-7.5 460309481 Sample	SB-38 9/8/2011 SB-38 (37.5-40) 37.5-40 460309481 Sample	SB-39 9/9/2011 SB-39 (4-5) 4-5 460309481 Sample	SB-39 9/9/2011 SB-39 (10-12.5) 10-12.5 460309481 Sample	SB-39 9/9/2011 SB-39 (40-42.5) 40-42.5 460309481 Sample	SB-40 9/9/2011 SB-40 (4-5) 4-5 460309811 Sample	SB-40 9/9/2011 SB-40 (5-7.5) 5-7.5 460309811 Sample	SB-40 9/9/2011 SB-40 (37.5-40) 37.5-40 460309811 Sample	SB-41 9/12/2011 SB-41 (2.5-5) 2.5-5 460309811 Sample	SB-41 9/12/2011 SB-41 (14.5-15) 14.5-15 460309811 Sample	SB-41 9/12/2011 SB-41 (35-36) 35-36 460309811 Sample	SB-42 9/12/2011 SB-42 (2.5-3.5) 2.5-3.5 460309811 Sample	SB-42 9/12/2011 SB-42 (13-14) 13-14 460309811 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																	
2-Methylnaphthalene	91-57-6	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Acenaphthene	83-32-9	20	500	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Acenaphthylene	208-96-8	100	500	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Anthracene	120-12-7	100	500	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Benzo(a)anthracene	56-55-3	1	5.6	<0.052 U	<0.054 U	<0.044 U	<0.059 U	<0.042 U	<0.05 U	<0.048 U	0.1	<0.047 U	<0.061 U	<0.041 U	<0.046 U	<0.043 U	<0.039 U
Benzo(a)pyrene	50-32-8	1	1	0.013 J	0.04 J	<0.044 U	<0.059 U	<0.042 U	<0.05 U	<0.048 U	0.071	<0.047 U	<0.061 U	<0.041 U	<0.046 U	<0.043 U	<0.039 U
Benzo(b)fluoranthene	205-99-2	1	5.6	0.026 J	0.037 J	<0.044 U	<0.059 U	0.012 J	<0.05 U	<0.048 U	0.085	<0.047 U	<0.061 U	<0.041 U	<0.046 U	<0.043 U	<0.039 U
Benzo(ghi)perylene	191-24-2	100	500	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.052 U	<0.054 U	<0.044 U	<0.059 U	<0.042 U	<0.05 U	<0.048 U	0.043 J	<0.047 U	<0.061 U	<0.041 U	<0.046 U	<0.043 U	<0.039 U
Chrysene	218-01-9	1	56	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	0.13 J	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.052 U	<0.054 U	<0.044 U	<0.059 U	<0.042 U	<0.05 U	<0.048 U	<0.049 U	<0.047 U	<0.061 U	<0.041 U	<0.046 U	<0.043 U	<0.039 U
Fluoranthene	206-44-0	100	500	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	0.25 J	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Fluorene	86-73-7	30	500	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.052 U	0.015 J	<0.044 U	<0.059 U	<0.042 U	<0.05 U	<0.048 U	<0.049 U	<0.047 U	<0.061 U	<0.041 U	<0.046 U	<0.043 U	<0.039 U
Naphthalene	91-20-3	12	500	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Phenanthrene	85-01-8	100	500	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	0.13 J	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Pyrene	129-00-0	100	500	<0.52 UJ	0.15 J	<0.44 UJ	<0.59 UJ	<0.42 UJ	<0.5 UJ	<0.48 U	0.28 J	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Total PAHs		NL	NL	0.039	0.242	ND	ND	0.012	ND	ND	1.089	ND	ND	ND	ND	ND	ND
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)																	
1,1'-Biphenyl	92-52-4	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
1,2,4,5-Tetrachlorobenzene	95-94-3	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
2,3,4,6-Tetrachlorophenol	58-90-2	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
2,4-Dinitrophenol	51-28-5	NL	NL	<1.6 U	<1.7 U	<1.3 U	<1.8 U	<1.3 U	<1.5 U	<1.5 U	<1.5 U	<1.4 U	<1.9 U	<1.3 U	<1.4 U	<1.3 U	<1.2 U
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.11 U	<0.11 U	<0.09 U	<0.12 U	<0.085 U	<0.1 U	<0.098 U	<0.1 U	<0.095 U	<0.12 U	<0.084 U	<0.092 U	<0.088 U	<0.078 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.11 U	<0.11 U	<0.09 U	<0.12 U	<0.085 U	<0.1 U	<0.098 U	<0.1 U	<0.095 U	<0.12 U	<0.084 U	<0.092 U	<0.088 U	<0.078 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
2-Chlorophenol	95-57-8	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
2-Methylphenol	95-48-7	0.33	500	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
2-Nitroaniline	88-74-4	NL	NL	<1.1 U	<0.85 U	<0.9 U	<1.2 U	<0.85 U	<1 U	<0.98 U	<1 U	<0.95 U	<1.2 U	<0.84 U	<0.92 U	<0.88 U	<0.78 U
2-Nitrophenol	88-75-5	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<1.1 U	<1.1 U	<0.9 U	<1.2 U	<0.85 U	<1 U	<0.98 U	<1 U	<0.95 U	<1.2 U	<0.84 U	<0.92 U	<0.88 U	<0.78 U
3-Nitroaniline	99-09-2	NL	NL	<1.1 U	<1.1 U	<0.9 U	<1.2 U	<0.85 U	<1 U	<0.98 U	<1 U	<0.95 U	<1.2 U	<0.84 U	<0.92 U	<0.88 U	<0.78 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<1.6 U	<1.7 U	<1.3 U	<1.8 U	<1.3 U	<1.5 U	<1.5 U	<1.5 U	<1.4 U	<1.9 U	<1.3 U	<1.4 U	<1.3 U	<1.2 U
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
4-Chloroaniline	106-47-8	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
4-Methylphenol	106-44-5	NL	500	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
4-Nitroaniline	100-01-6	NL	NL	<1.1 UJ	<1.1 UJ	<0.9 UJ	<1.2 UJ	<0.85 UJ	<1 UJ	<0.98 U	<1 U	<0.95 U	<1.2 U	<0.84 U	<0.92 U	<0.88 U	<0.78 U
4-Nitrophenol	100-02-7	NL	NL	<1.6 U	<1.7 U	<1.3 U	<1.8 U	<1.3 U	<1.5 U	<1.5 U	<1.5 U	<1.4 U	<1.9 U	<1.3 U	<1.4 U	<1.3 U	<1.2 U
Acetophenone	98-86-2	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Atrazine	1912-24-9	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Benzaldehyde	100-52-7	NL	NL	<0.52 UJ	<0.54 UJ	<0.44 UJ	<0.59 UJ	<0.42 UJ	<0.5 UJ	<0.48 UJ	<0.49 UJ	<0.47 UJ	<0.61 UJ	<0.41 UJ	<0.46 UJ	<0.43 UJ	<0.39 UJ
bis(2-Chloroethoxy)methane	111-91-1	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
bis(2-Chloroethyl) ether	111-44-4	NL	NL	<0.052 U	<0.054 U	<0.044 U	<0.059 U	<0.042 U	<0.05 U	<0.048 U	<0.049 U	<0.047 U	<0.061 U	<0.041 U	<0.046 U	<0.043 U	<0.039 U
bis(2-Ethylhexyl) phthalate	117-81-7	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Butyl benzyl phthalate	85-68-7	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Caprolactam	105-60-2	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Carbazole	86-74-8	NL	NL	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<0.43 U	<0.39 U
Dibenzofuran	132-64-9	7	350	<0.52 U	<0.54 U	<0.44 U	<0.59 U	<0.42 U	<0.5 U	<0.48 U	<0.49 U	<0.47 U	<0.61 U	<0.41 U	<0.46 U	<	

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-38 9/8/2011 SB-38 (4-5) 4-5 460309481 Sample	SB-38 9/8/2011 SB-38 (5-7.5) 5-7.5 460309481 Sample	SB-38 9/8/2011 SB-38 (37.5-40) 37.5-40 460309481 Sample	SB-39 9/9/2011 SB-39 (4-5) 4-5 460309481 Sample	SB-39 9/9/2011 SB-39 (10-12.5) 10-12.5 460309481 Sample	SB-39 9/9/2011 SB-39 (40-42.5) 40-42.5 460309481 Sample	SB-40 9/9/2011 SB-40 (4-5) 4-5 460309811 Sample	SB-40 9/9/2011 SB-40 (5-7.5) 5-7.5 460309811 Sample	SB-40 9/9/2011 SB-40 (37.5-40) 37.5-40 460309811 Sample	SB-41 9/12/2011 SB-41 (2.5-5) 2.5-5 460309811 Sample	SB-41 9/12/2011 SB-41 (14.5-15) 14.5-15 460309811 Sample	SB-41 9/12/2011 SB-41 (35-36) 35-36 460309811 Sample	SB-42 9/12/2011 SB-42 (2.5-3.5) 2.5-3.5 460309811 Sample	SB-42 9/12/2011 SB-42 (13-14) 13-14 460309811 Sample
Inorganic Compounds (mg/Kg)																	
Arsenic	7440-38-2	13	16	87.8	87.4	12	67.8	17.5	12.7	125	28.4	10.8	129	2.1	13.4	50.1	1.0 J
Barium	7440-39-3	350	400	165	77.6	22.6 J	45.0 J	10.0 J	28.2 J	49.1 J	47.2 J	27.7 J	61.0 J	3.8 J	28.4 J	58.4	7.7 J
Cadmium	7440-43-9	2.5	9.3	<1.5 U	<1.6 U	<1.2 U	<1.7 U	<1.2 U	<1.5 U	0.33 J	0.64 J	<1.3 U	0.49 J	<1.2 U	0.27 J	0.37 J	<1.1 U
Chromium	7440-47-3	30	1500	30.5	29.2	29.8	30.6	5.9	35.2	31.8	17.2	31.9	36.9	5.8	30.9	12.3	9.6
Lead	7439-92-1	63	1000	22.3	14.7	8.4	14.4	9.8	11.1	16	65.3	10.4	22	3	9	84.5	3.6
Mercury	7439-97-6	0.18	2.8	0.081	0.26	0.038 J	0.54	0.15	<0.043 U	0.089	0.36	<0.044 U	0.38	<0.038 U	<0.040 U	0.8	<0.036 U
Selenium	7782-49-2	3.9	1500	5.3	7.1	1.2 J	11.2	1.3 J	1.9 J	<2.8 U	<2.7 U	<2.7 U	2.3 J	<2.4 U	<2.6 U	2.7	<2.2 U
Silver	7440-22-4	2	1500	0.27 J	0.55 J	0.22 J	0.30 J	0.19 J	0.32 J	<2.8 U	0.91 J	<2.7 U	<3.5 U	<2.4 U	<2.6 U	<2.5 U	<2.2 U
Cyanide (mg/Kg)																	
Free (Available) cyanide	57-12-5-A	NL	NL	<0.064 U	<0.066 U	0.11	<0.071 U	0.025 J	0.061	<0.058 U	0.09	0.085	<0.074 U	<0.050 U	0.028 J	<0.052 U	<0.047 U

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOS
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-42 9/12/2011 SB-42 (35-36) 35-36 460309811 Sample	SB-43 9/13/2011 SB-43 (2.5-5) 2.5-5 460311261 Sample	SB-43 9/13/2011 SB-43 (2.5-5) D 2.5-5.5 460311261 Duplicate	SB-43 9/13/2011 SB-43 (14-15) 14-15 460311261 Sample	SB-43 9/13/2011 SB-43 (35-37.5) 35-37.5 460311261 Sample	SB-44 9/19/2011 SB-44 (2.5-3) 2.5-3 460313721 Sample	SB-44 9/19/2011 SB-44 (15-16) 15-16 460313721 Sample	SB-44 9/19/2011 SB-44 (38-39) 38-39 460313721 Sample	SB-45 9/14/2011 SB-45 (2-3) 2-3 460311261 Sample	SB-45 9/14/2011 SB-45 (5-7) 5-7 460311261 Sample	SB-45 9/14/2011 SB-45 (37-38) 37-38 460311261 Sample	SB-46 9/19/2011 SB-46 (2-3) 2-3 460313721 Sample	SB-46 9/19/2011 SB-46 (16-17) 16-17 460313721 Sample	SB-46 9/20/2011 SB-46 (45-46) 45-46 460313721 Sample
BTEX (mg/kg)																	
Benzene	71-43-2	0.06	44	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Ethylbenzene	100-41-4	1	390	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	0.015	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
m+p-Xylene	1330-20-7 M,P	NL	NL	<0.0027 U	<0.0030 U	<0.0032 U	<0.0026 U	<0.0027 UJ	<0.0029 U	<0.0024 U	<0.0027 U	<0.0032 U	0.014	<0.0026 U	<0.0032 U	<0.0026 U	<0.0026 U
o-Xylene	95-47-6	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	0.0087	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Toluene	108-88-3	0.7	500	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	0.0031	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Total Xylenes	Total Xylenes	0.26	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0227	ND	ND	ND	ND
Total BTEX		NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0408	ND	ND	ND	ND
Volatile Organic Compounds (VOCs)(mg/Kg)																	
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.0013 U	0.00059 J	0.00075 J	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	0.00086 J	<0.0012 UJ	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	0.00086 J	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,2,3-Trichlorobenzene	87-61-6	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,2-Dibromoethane	106-93-4	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
1,4-Dioxane	123-91-1	NL	130	<0.066 R	<0.074 R	<0.08 R	<0.065 R	<0.068 R	<0.073 R	<0.061 R	<0.067 R	<0.081 R	<0.058 R	<0.066 R	<0.08 R	<0.064 R	<0.066 R
2-Butanone	78-93-3	0.12	500	0.01 J	<0.015 U	<0.016 U	<0.015 U	0.012 J	<0.015 U	0.0047 J	0.011 J	<0.016 U	<0.012 U	<0.013 U	<0.016 U	0.0036 J	0.021 J
2-Hexanone	591-78-6	NL	NL	<0.013 U	<0.015 U	<0.016 U	<0.013 U	<0.014 UJ	<0.015 U	<0.012 U	<0.013 U	<0.016 U	<0.012 U	<0.013 U	<0.016 UJ	<0.013 U	<0.013 U
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.013 U	<0.015 U	<0.016 U	<0.013 U	<0.014 UJ	<0.015 U	<0.012 U	<0.013 U	<0.016 U	<0.012 U	<0.013 U	<0.016 U	<0.013 U	<0.013 U
Acetone	67-64-1	0.05	500	0.053 J	<0.015 UJ	<0.016 UJ	<0.023 UJ	0.1 J	<0.023 UJ	0.035 J	0.074 J	<0.016 UJ	<0.017 U	0.045 J	<0.02 UJ	0.045 J	0.13 J
Bromochloromethane	74-97-5	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 UJ	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Bromodichloromethane	75-27-4	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Bromoform	75-25-2	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Bromomethane	74-83-9	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 UJ	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Carbon disulfide	75-15-0	NL	NL	0.0032	<0.0015 U	<0.0016 U	0.0019	0.0015 J	<0.0015 U	0.0041	0.0025	<0.0016 U	0.0017	<0.0013 U	<0.0016 U	0.0028	0.0019
Carbon tetrachloride	56-23-5	0.76	22	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 UJ	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Chlorobenzene	108-90-7	1.1	500	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Chloroethane	75-00-3	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Chloroform	67-66-3	0.37	350	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Chloromethane	74-87-3	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 UJ	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	0.00061 J	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	0.00084 J	<0.0013 U	<0.0013 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Cyclohexane	110-82-7	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 UJ	<0.0012 U	<0.0013 UJ	<0.0016 U	<0.0013 U	<0.0013 U
Dibromochloromethane	124-48-1	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Dichlorodifluoromethane	75-71-8	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Isopropylbenzene	98-82-8	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	0.0033	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Methyl acetate	79-20-9	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U
Methylcyclohexane	108-87-2	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 UJ	0.0022	<0.0013 UJ	<0.0016 U	<0.0013 U	<0.0013 U
Methylene chloride	75-09-2	0.05	500	<0.0013 U	0.0023	0.0019	0.0035	0.0037 J	0.0051 J	0.0033	0.011	<0.0016 U	0.00057 J	0.0037	0.01	0.014	0.012
Styrene	100-42-5	NL	NL	<0.0013 U	<0.0015 U	<0.0016 U	<0.0013 U	<0.0014 UJ	<0.0015 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0012 U	<0.0013 U	<0.0016 U	<0.0013 U	<0.0013 U

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOS
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-42 9/12/2011 SB-42 (35-36) 35-36 460309811 Sample	SB-43 9/13/2011 SB-43 (2.5-5) 2.5-5 460311261 Sample	SB-43 9/13/2011 SB-43 (2.5-5) D 2.5-5.5 460311261 Duplicate	SB-43 9/13/2011 SB-43 (14-15) 14-15 460311261 Sample	SB-43 9/13/2011 SB-43 (35-37.5) 35-37.5 460311261 Sample	SB-44 9/19/2011 SB-44 (2.5-3) 2.5-3 460313721 Sample	SB-44 9/19/2011 SB-44 (15-16) 15-16 460313721 Sample	SB-44 9/19/2011 SB-44 (38-39) 38-39 460313721 Sample	SB-45 9/14/2011 SB-45 (2-3) 2-3 460311261 Sample	SB-45 9/14/2011 SB-45 (5-7) 5-7 460311261 Sample	SB-45 9/14/2011 SB-45 (37-38) 37-38 460311261 Sample	SB-46 9/19/2011 SB-46 (2-3) 2-3 460313721 Sample	SB-46 9/19/2011 SB-46 (16-17) 16-17 460313721 Sample	SB-46 9/20/2011 SB-46 (45-46) 45-46 460313721 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																	
2-Methylnaphthalene	91-57-6	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	0.41 J	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Acenaphthene	83-32-9	20	500	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Acenaphthylene	208-96-8	100	500	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Anthracene	120-12-7	100	500	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Benzo(a)anthracene	56-55-3	1	5.6	<0.046 U	<0.051 U	<0.056 U	<0.043 U	<0.047 U	<0.054 U	<0.044 U	<0.046 U	<0.055 U	0.054	<0.046 U	<0.054 U	<0.042 U	<0.051 U
Benzo(a)pyrene	50-32-8	1	1	<0.046 U	<0.051 U	<0.056 U	<0.043 U	<0.047 U	<0.054 U	<0.044 U	<0.046 U	<0.055 U	<0.046 U	<0.046 U	<0.054 U	<0.042 U	<0.051 U
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.046 U	<0.051 U	<0.056 U	<0.043 U	<0.047 U	<0.054 U	<0.044 U	<0.046 U	<0.055 U	<0.046 U	<0.046 U	<0.054 U	<0.042 U	<0.051 U
Benzo(ghi)perylene	191-24-2	100	500	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.046 U	<0.051 U	<0.056 U	<0.043 U	<0.047 U	<0.054 U	<0.044 U	<0.046 U	<0.055 U	<0.046 U	<0.046 U	<0.054 U	<0.042 U	<0.051 U
Chrysene	218-01-9	1	56	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	0.19 J	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.046 U	<0.051 U	<0.056 U	<0.043 U	<0.047 U	<0.054 U	<0.044 U	<0.046 U	<0.055 U	<0.046 U	<0.046 U	<0.054 U	<0.042 U	<0.051 U
Fluoranthene	206-44-0	100	500	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Fluorene	86-73-7	30	500	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.046 U	<0.051 U	<0.056 U	<0.043 U	<0.047 U	<0.054 U	<0.044 U	<0.046 U	<0.055 U	<0.046 U	<0.046 U	<0.054 U	<0.042 U	<0.051 U
Naphthalene	91-20-3	12	500	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	0.25 J	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Phenanthrene	85-01-8	100	500	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	0.46	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Pyrene	129-00-0	100	500	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Total PAHs				NL	NL	ND	ND	ND	ND	ND	ND	ND	1.474	ND	ND	ND	ND
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)																	
1,1'-Biphenyl	92-52-4	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
1,2,4,5-Tetrachlorobenzene	95-94-3	NL	NL	<0.46 U	<0.51 UJ	<0.56 UJ	<0.43 UJ	<0.47 U	<0.54 UJ	<0.44 UJ	<0.46 UJ	<0.55 UJ	<0.46 UJ	<0.46 UJ	<0.54 UJ	<0.42 UJ	<0.51 UJ
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
2,3,4,6-Tetrachlorophenol	58-90-2	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 UJ	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
2,4-Dinitrophenol	51-28-5	NL	NL	<1.4 U	<1.5 U	<1.7 U	<1.3 U	<1.4 UJ	<1.6 U	<1.3 U	<1.4 U	<1.7 U	<1.4 U	<1.4 U	<1.6 U	<1.3 U	<1.5 U
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.094 U	<0.1 U	<0.11 U	<0.087 U	<0.095 U	<0.11 U	<0.089 U	<0.093 U	<0.11 U	<0.093 U	<0.093 U	<0.11 U	<0.086 U	<0.1 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.094 U	<0.1 U	<0.11 U	<0.087 U	<0.095 U	<0.11 U	<0.089 U	<0.093 U	<0.11 U	<0.093 U	<0.093 U	<0.11 U	<0.086 U	<0.1 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
2-Chlorophenol	95-57-8	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
2-Methylphenol	95-48-7	0.33	500	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
2-Nitroaniline	88-74-4	NL	NL	<0.94 U	<1 U	<1.1 U	<0.87 U	<0.95 U	<1.1 U	<0.89 U	<0.93 U	<1.1 U	<0.93 U	<0.93 U	<1.1 U	<0.86 U	<1 U
2-Nitrophenol	88-75-5	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.94 U	<1 U	<1.1 U	<0.87 U	<0.95 U	<1.1 U	<0.89 U	<0.93 U	<1.1 U	<0.93 U	<0.93 U	<1.1 U	<0.86 U	<1 U
3-Nitroaniline	99-09-2	NL	NL	<0.94 U	<1 U	<1.1 U	<0.87 U	<0.95 U	<1.1 U	<0.89 U	<0.93 U	<1.1 U	<0.93 U	<0.93 U	<1.1 U	<0.86 U	<1 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<1.4 U	<1.5 U	<1.7 U	<1.3 U	<1.4 U	<1.6 U	<1.3 U	<1.4 U	<1.7 U	<1.4 U	<1.4 U	<1.6 U	<1.3 U	<1.5 U
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
4-Chloroaniline	106-47-8	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
4-Methylphenol	106-44-5	NL	500	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
4-Nitroaniline	100-01-6	NL	NL	<0.94 U	<1 U	<1.1 U	<0.87 U	<0.95 U	<1.1 U	<0.89 U	<0.93 U	<1.1 U	<0.93 U	<0.93 U	<1.1 U	<0.86 U	<1 U
4-Nitrophenol	100-02-7	NL	NL	<1.4 U	<1.5 U	<1.7 U	<1.3 U	<1.4 U	<1.6 U	<1.3 U	<1.4 U	<1.7 U	<1.4 U	<1.4 U	<1.6 U	<1.3 U	<1.5 U
Acetophenone	98-86-2	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Atrazine	1912-24-9	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Benzaldehyde	100-52-7	NL	NL	<0.46 UJ	<0.51 UJ	<0.56 UJ	<0.43 UJ	<0.47 UJ	<0.54 UJ	<0.44 UJ	<0.46 UJ	<0.55 UJ	<0.46 UJ	<0.46 UJ	<0.54 UJ	<0.42 UJ	<0.51 UJ
bis(2-Chloroethoxy)methane	111-91-1	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
bis(2-Chloroethyl) ether	111-44-4	NL	NL	<0.046 U	<0.051 U	<0.056 U	<0.043 U	<0.047 U	<0.054 U	<0.044 U	<0.046 U	<0.055 U	<0.046 U	<0.046 U	<0.054 U	<0.042 U	<0.051 U
bis(2-Ethylhexyl) phthalate	117-81-7	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	0.49 J	9.2	<0.46 U	0.22 J	<0.46 U	<0.46 U	<0.54 U	<0.42 U	0.43 J
Butyl benzyl phthalate	85-68-7	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Caprolactam	105-60-2	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U
Carbazole	86-74-8	NL	NL	<0.46 U	<0.51 U	<0.56 U	<0.43 U	<0.47 U	<0.54 U	<0.44 U	<0.46 U	<0.55 U	<0.46 U	<0.46 U	<0.54 U	<0.42 U	<0.51 U</

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-42 9/12/2011 SB-42 (35-36) 35-36 460309811 Sample	SB-43 9/13/2011 SB-43 (2.5-5) 2.5-5 460311261 Sample	SB-43 9/13/2011 SB-43 (2.5-5) D 2.5-5.5 460311261 Duplicate	SB-43 9/13/2011 SB-43 (14-15) 14-15 460311261 Sample	SB-43 9/13/2011 SB-43 (35-37.5) 35-37.5 460311261 Sample	SB-44 9/19/2011 SB-44 (2.5-3) 2.5-3 460313721 Sample	SB-44 9/19/2011 SB-44 (15-16) 15-16 460313721 Sample	SB-44 9/19/2011 SB-44 (38-39) 38-39 460313721 Sample	SB-45 9/14/2011 SB-45 (2-3) 2-3 460311261 Sample	SB-45 9/14/2011 SB-45 (5-7) 5-7 460311261 Sample	SB-45 9/14/2011 SB-45 (37-38) 37-38 460311261 Sample	SB-46 9/19/2011 SB-46 (2-3) 2-3 460313721 Sample	SB-46 9/19/2011 SB-46 (16-17) 16-17 460313721 Sample	SB-46 9/20/2011 SB-46 (45-46) 45-46 460313721 Sample
Inorganic Compounds (mg/Kg)																	
Arsenic	7440-38-2	13	16	2.8	95.2	89.8	<1.2 U	12.4	82	<1.3 U	15.4	82.6	73.5	18.5	82.6	<1.2 U	13.8
Barium	7440-39-3	350	400	7.8 J	244	253	5.9 J	30.3 J	56.5 J	8.4 J	27.2 J	477	444	27.0 J	310	6.5 J	32.7 J
Cadmium	7440-43-9	2.5	9.3	0.059 J	<1.5 U	<1.7 U	<1.2 U	<1.4 U	<1.5 U	<1.3 U	<1.3 U	<1.6 U	<1.4 U	<1.2 U	<1.5 U	<1.2 U	<1.5 U
Chromium	7440-47-3	30	1500	8.6	43.5	40	7.3	35.4	21.9	9.5	31.9	34	36.1	31.8	23.5	12	38.5
Lead	7439-92-1	63	1000	2.5	18.3	17.7	2.8	11.4	16.9	1.9	8.7	16.6	17.4	10.8	16.2	2.8	12.3
Mercury	7439-97-6	0.18	2.8	<0.046 U	0.15	0.14	<0.038 U	<0.047 U	0.091	<0.044 U	<0.042 U	0.17	0.18	<0.042 U	0.22	0.027 J	<0.049 U
Selenium	7782-49-2	3.9	1500	<0.64 U	4.4	3.8	<2.5 U	<2.7 U	<3.0 U	<2.5 U	<2.6 U	3.9	3.8	1.3 J	<3.1 U	<2.5 U	<3.1 U
Silver	7440-22-4	2	1500	<0.64 U	<3.1 U	<3.4 U	<2.5 U	<2.7 U	<3.0 U	<2.5 U	<2.6 U	<3.1 U	<2.8 U	<2.5 U	<3.1 U	<2.5 U	<3.1 U
Cyanide (mg/Kg)																	
Free (Available) cyanide	57-12-5-A	NL	NL	0.056	<0.062 U	<0.068 U	<0.052 U	0.028 J	<0.065 U	<0.053 U	0.056	<0.067 U	<0.056 U	0.083	<0.065 U	7.1	<0.062 U

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOS
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-47 9/14/2011 SB-47 (2.5-5) 2.5-5 460311261 Sample	SB-47 9/14/2011 SB-47 (20-21.5) 20-21.5 460311261 Sample	SB-47 9/14/2011 SB-47 (40-41) 40-41 460311261 Sample	SB-48 9/13/2011 SB-48 (2-3) 2-3 460311261 Sample	SB-48 9/13/2011 SB-48 (17.5-20) 17.5-20 460311261 Sample	SB-48 9/13/2011 SB-48 (35-36) 35-36 460311261 Sample	SB-49 9/20/2011 SB-49 (3-4) 3-4 460313721 Sample	SB-49 9/20/2011 SB-49 (5-7) 5-7 460313721 Sample	SB-49 9/20/2011 SB-49 (35-37) 35-37 460313721 Sample	SB-49 9/20/2011 SB-49 (35-37) D 35-37 460313721 Duplicate	SB-50 9/20/2011 SB-50 (2-3) 2-3 460313721 Sample	SB-50 9/20/2011 SB-50 (25-26) 25-26 460313721 Sample	SB-50 9/20/2011 SB-50 (33-35) 33-35 460313721 Sample	SB-51 9/30/2011 SB-51 (2.5-3.5) 2.5-3.5 460318761 Sample
BTEX (mg/kg)																	
Benzene	71-43-2	0.06	44	<0.0012 U	0.026 J	<0.0015 U	<0.0013 U	<0.0011 U	0.0026	<0.0010 U	0.0015	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
Ethylbenzene	100-41-4	1	390	<0.0012 U	1.8	0.032	0.0092	0.0058	0.0074	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 UJ	<0.13 U
m+p-Xylene	1330-20-7 M,P	NL	NL	<0.0023 U	1.7	0.031	0.012	0.0069	0.0082	<0.0020 U	<0.0022 U	<0.0030 U	<0.0028 U	<0.0021 U	<0.0021 U	<0.0030 UJ	<0.25 U
o-Xylene	95-47-6	NL	NL	<0.0012 U	0.7	0.014	0.0086	0.0042	0.0037	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 UJ	<0.13 U
Toluene	108-88-3	0.7	500	<0.0012 U	0.42	0.016	0.0075	0.0012	0.0071	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	0.00043 J	<0.0015 U	<0.13 U
Total Xylenes	Total Xylenes	0.26	500	ND	2.4	0.045	0.0206	0.0111	0.0119	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEX		NL	NL	ND	4.646	0.093	0.0373	0.0181	0.029	ND	0.0015	ND	ND	ND	0.00043	ND	ND
Volatile Organic Compounds (VOCs)(mg/Kg)																	
1,1,1-Trichloroethane	71-55-6	0.68	500	0.014 J	<0.13 U	<0.0015 UJ	<0.0013 UJ	<0.0011 UJ	<0.0014 U	0.00041 J	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.0012 UJ	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
1,1-Dichloroethane	75-34-3	0.27	240	0.015	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	0.00095 J	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
1,2,3-Trichlorobenzene	87-61-6	NL	NL	<0.0012 UJ	<0.13 UJ	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 UJ	<0.13 U
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 UJ	<0.13 U
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	<0.0012 UJ	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
1,2-Dibromoethane	106-93-4	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.0012 UJ	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 UJ	<0.13 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.0012 UJ	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 UJ	<0.13 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.0012 UJ	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 UJ	<0.13 U
1,4-Dioxane	123-91-1	NL	130	<0.058 R	<6.3 R	<0.077 R	<0.064 R	<0.056 R	<0.071 R	<0.051 R	<0.056 R	<0.074 R	<0.071 R	<0.052 R	<0.052 R	<0.074 R	<6.3 R
2-Butanone	78-93-3	0.12	500	<0.012 U	<1.3 R	<0.015 U	<0.013 U	<0.011 U	<0.014 U	0.0046 J	0.01 J	0.011 J	0.0086 J	<0.01 R	<0.01 R	<0.022 J	<1.3 R
2-Hexanone	591-78-6	NL	NL	<0.012 U	<1.3 U	<0.015 U	<0.013 U	<0.011 U	<0.014 U	<0.01 UJ	<0.011 U	<0.015 U	<0.014 U	<0.01 U	<0.01 U	<0.015 U	<1.3 U
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.012 U	<1.3 U	<0.015 U	<0.013 U	<0.011 U	<0.014 U	<0.01 U	<0.011 U	<0.015 U	<0.014 U	<0.01 U	<0.01 U	<0.015 U	<1.3 U
Acetone	67-64-1	0.05	500	<0.012 U	<1.3 R	0.055	<0.013 U	<0.019 U	0.033 J	0.041 J	0.064 J	0.097 J	0.063 J	0.023 J	0.04 J	0.13 J	<1.3 R
Bromochloromethane	74-97-5	NL	NL	<0.0012 UJ	<0.13 U	<0.0015 UJ	<0.0013 UJ	<0.0011 UJ	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
Bromodichloromethane	75-27-4	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
Bromoform	75-25-2	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
Bromomethane	74-83-9	NL	NL	<0.0012 UJ	<0.13 U	<0.0015 UJ	<0.0013 UJ	<0.0011 UJ	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
Carbon disulfide	75-15-0	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	0.0018	<0.0010 U	0.0038	0.019 J	0.0054 J	<0.0010 U	0.0065	0.0043 J	<0.13 U
Carbon tetrachloride	56-23-5	0.76	22	<0.0012 UJ	<0.13 U	<0.0015 UJ	<0.0013 UJ	<0.0011 UJ	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 UJ	<0.13 U
Chlorobenzene	108-90-7	1.1	500	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 UJ	<0.13 U
Chloroethane	75-00-3	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
Chloroform	67-66-3	0.37	350	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
Chloromethane	74-87-3	NL	NL	<0.0012 UJ	<0.13 U	<0.0015 UJ	<0.0013 UJ	<0.0011 UJ	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	0.00060 J	0.00089 J	0.00081 J	<0.0010 U	0.29	0.015 J	0.049 J
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
Cyclohexane	110-82-7	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 UJ	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
Dibromochloromethane	124-48-1	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
Dichlorodifluoromethane	75-71-8	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
Isopropylbenzene	98-82-8	NL	NL	<0.0012 U	0.11 J	0.0023	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
Methyl acetate	79-20-9	NL	NL	<0.0012 U	<0.25 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 U	<0.25 U
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 U	<0.0010 U	<0.0011 U	0.013	0.021	<0.0010 U	<0.0010 U	<0.0015 U	<0.13 U
Methylcyclohexane	108-87-2	NL	NL	<0.0012 U	<0.13 U	<0.0015 U	<0.0013 U	<0.0011 U	<0.0014 UJ	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 UJ	<0.13 U
Methylene chloride	75-09-2	0.05	500	0.0024 J	<0.13 U	0.00082 J	0.0024 J	0.0019 J	0.0013 J	0.0087	0.018	0.019 J	0.01 J	0.0032	0.019	<0.0015 U	<0.13 U
Styrene	100-42-5	NL	NL	<0.0012 U	0.41	0.0047	0.004	0.0018	0.0017	<0.0010 U	<0.0011 U	<0.0015 U	<0.0014 U	<0.0010 U	<0.0010 U	<0.0015 UJ	<0.13 U
Tetrachloroethene	127-18-4	1.3	150	<0.0012 U	<0.13 U	<0.0015 U	<										

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOS
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-47 9/14/2011 SB-47 (2.5-5) 2.5-5 460311261 Sample	SB-47 9/14/2011 SB-47 (20-21.5) 20-21.5 460311261 Sample	SB-47 9/14/2011 SB-47 (40-41) 40-41 460311261 Sample	SB-48 9/13/2011 SB-48 (2-3) 2-3 460311261 Sample	SB-48 9/13/2011 SB-48 (17.5-20) 17.5-20 460311261 Sample	SB-48 9/13/2011 SB-48 (35-36) 35-36 460311261 Sample	SB-49 9/20/2011 SB-49 (3-4) 3-4 460313721 Sample	SB-49 9/20/2011 SB-49 (5-7) 5-7 460313721 Sample	SB-49 9/20/2011 SB-49 (35-37) 35-37 460313721 Sample	SB-49 9/20/2011 SB-49 (35-37) D 35-37 460313721 Duplicate	SB-50 9/20/2011 SB-50 (2-3) 2-3 460313721 Sample	SB-50 9/20/2011 SB-50 (25-26) 25-26 460313721 Sample	SB-50 9/20/2011 SB-50 (33-35) 33-35 460313721 Sample	SB-51 9/30/2011 SB-51 (2.5-3.5) 2.5-3.5 460318761 Sample	
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																		
2-Methylnaphthalene	91-57-6	NL	NL	<0.43 U	1.6	0.16 J	<0.43 U	0.23 J	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Acenaphthene	83-32-9	20	500	<0.43 U	0.11 J	<0.52 U	<0.43 U	<0.4 U	<0.52 U	0.12 J	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Acenaphthylene	208-96-8	100	500	<0.43 U	0.55	<0.52 U	<0.43 U	0.059 J	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Anthracene	120-12-7	100	500	<0.43 U	0.28 J	<0.52 U	<0.43 U	<0.4 U	<0.52 U	0.34 J	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Benzo(a)anthracene	56-55-3	1	5.6	<0.043 U	0.26	<0.052 U	0.047	0.056	<0.052 U	0.91	0.047	<0.052 U	<0.051 U	<0.036 U	<0.04 U	<0.052 U	<0.043 U	
Benzo(a)pyrene	50-32-8	1	1	<0.043 U	0.22	<0.052 U	<0.043 U	<0.04 U	<0.052 U	0.8	0.031 J	<0.052 U	<0.051 U	<0.036 U	<0.04 U	<0.052 U	<0.043 U	
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.043 U	0.14	<0.052 U	<0.043 U	<0.04 U	<0.052 U	0.95	0.038 J	<0.052 U	<0.051 U	<0.036 U	<0.04 U	<0.052 U	<0.043 U	
Benzo(ghi)perylene	191-24-2	100	500	<0.43 U	0.11 J	<0.52 U	<0.43 U	<0.4 U	<0.52 U	0.48	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.043 U	0.078	<0.052 U	<0.043 U	<0.04 U	<0.052 U	0.4	<0.043 U	<0.052 U	<0.051 U	<0.036 U	<0.04 U	<0.052 U	<0.043 U	
Chrysene	218-01-9	1	56	<0.43 U	0.26 J	<0.52 U	<0.43 U	<0.4 U	<0.52 U	0.9	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.043 U	<0.046 U	<0.052 U	<0.043 U	<0.04 U	<0.052 U	0.086	<0.043 U	<0.052 U	<0.051 U	<0.036 U	<0.04 U	<0.052 U	<0.043 U	
Fluoranthene	206-44-0	100	500	<0.43 U	0.35 J	<0.52 U	<0.43 U	<0.4 U	<0.52 U	1.8	0.11 J	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Fluorene	86-73-7	30	500	<0.43 U	0.44 J	<0.52 U	<0.43 U	0.088 J	<0.52 U	0.14 J	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.043 U	0.06	<0.052 U	<0.043 U	<0.04 U	<0.052 U	0.5	0.017 J	<0.052 U	<0.051 U	<0.036 U	<0.04 U	<0.052 U	<0.043 U	
Naphthalene	91-20-3	12	500	<0.43 U	2.3	<0.43 U	<0.43 U	0.24 J	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Phenanthrene	85-01-8	100	500	<0.43 U	1.2	<0.43 U	<0.43 U	0.24 J	<0.52 U	1.3	0.12 J	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Pyrene	129-00-0	100	500	<0.43 U	0.68	<0.52 U	0.085 J	0.14 J	<0.52 U	1.8	0.1 J	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Total PAHs		NL	NL	ND	8.638	0.47	0.132	1.052	ND	10.526	0.463	ND	ND	ND	ND	ND	ND	
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)																		
1,1'-Biphenyl	92-52-4	NL	NL	<0.43 U	0.18 J	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
1,2,4,5-Tetrachlorobenzene	95-94-3	NL	NL	<0.43 UJ	<0.46 UJ	<0.52 UJ	<0.43 UJ	<0.4 UJ	<0.52 UJ	<0.38 UJ	<0.43 UJ	<0.52 UJ	<0.51 UJ	<0.36 UJ	<0.4 UJ	<0.52 UJ	<0.43 UJ	
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
2,3,4,6-Tetrachlorophenol	58-90-2	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
2,4-Dichlorophenol	120-83-2	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
2,4-Dimethylphenol	105-67-9	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
2,4-Dinitrophenol	51-28-5	NL	NL	<1.3 U	<1.4 U	<1.6 U	<1.3 U	<1.2 U	<1.6 U	<1.1 U	<1.3 U	<1.6 U	<1.5 U	<1.1 U	<1.2 U	<1.6 U	<1.3 U	
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.088 U	<0.093 U	<0.1 U	<0.088 U	<0.082 U	<0.1 U	<0.077 U	<0.088 U	<0.11 U	<0.1 U	<0.073 U	<0.08 U	<0.11 U	<0.087 U	
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.088 U	<0.093 U	<0.1 U	<0.088 U	<0.082 U	<0.1 U	<0.077 U	<0.088 U	<0.11 U	<0.1 U	<0.073 U	<0.08 U	<0.11 U	<0.087 U	
2-Chloronaphthalene	91-58-7	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
2-Chlorophenol	95-57-8	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
2-Methylphenol	95-48-7	0.33	500	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
2-Nitroaniline	88-74-4	NL	NL	<0.88 U	<0.93 U	<1 U	<0.88 U	<0.82 U	<1 U	<0.77 U	<0.88 U	<1.1 U	<1 U	<0.73 U	<0.8 U	<1.1 U	<0.87 U	
2-Nitrophenol	88-75-5	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.88 U	<0.93 U	<1 U	<0.88 U	<0.82 U	<1 U	<0.77 U	<0.88 U	<1.1 U	<1 U	<0.73 U	<0.8 U	<1.1 U	<0.87 U	
3-Nitroaniline	99-09-2	NL	NL	<0.88 U	<0.93 U	<1 U	<0.88 U	<0.82 U	<1 U	<0.77 U	<0.88 U	<1.1 U	<1 U	<0.73 U	<0.8 U	<1.1 U	<0.87 U	
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<1.3 U	<1.4 U	<1.6 U	<1.3 U	<1.2 U	<1.6 U	<1.1 U	<1.3 U	<1.6 U	<1.5 U	<1.1 U	<1.2 U	<1.6 U	<1.3 U	
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
4-Chloroaniline	106-47-8	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
4-Methylphenol	106-44-5	NL	500	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
4-Nitroaniline	100-01-6	NL	NL	<0.88 U	<0.93 U	<1 U	<0.88 U	<0.82 U	<1 U	<0.77 U	<0.88 U	<1.1 U	<1 U	<0.73 U	<0.8 U	<1.1 U	<0.87 U	
4-Nitrophenol	100-02-7	NL	NL	<1.3 U	<1.4 U	<1.6 U	<1.3 U	<1.2 U	<1.6 U	<1.1 U	<1.3 U	<1.6 U	<1.5 U	<1.1 U	<1.2 U	<1.6 UJ	<1.3 U	
Acetophenone	98-86-2	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Atrazine	1912-24-9	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Benzaldehyde	100-52-7	NL	NL	<0.43 UJ	<0.46 UJ	<0.52 UJ	<0.43 UJ	<0.4 UJ	<0.52 UJ	<0.38 UJ	<0.43 UJ	<0.52 UJ	<0.51 UJ	<0.36 UJ	<0.4 UJ	<0.52 UJ	<0.43 UJ	
bis(2-Chloroethoxy)methane	111-91-1	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
bis(2-Chloroethyl) ether	111-44-4	NL	NL	<0.043 U	<0.046 U	<0.052 U	<0.043 U	<0.04 U	<0.052 U	<0.038 U	<0.043 U	<0.052 U	<0.051 U	<0.036 U	<0.04 U	<0.052 U	<0.043 U	
bis(2-Ethylhexyl) phthalate	117-81-7	NL	NL	0.13 J	<0.46 U	0.42 J	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Butyl benzyl phthalate	85-68-7	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Caprolactam	105-60-2	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	<0.38 U	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 UJ	
Carbazole	86-74-8	NL	NL	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	0.091 J	<0.43 U	<0.52 U	<0.51 U	<0.36 U	<0.4 U	<0.52 U	<0.43 U	
Dibenzofuran	132-64-9	7	350	<0.43 U	<0.46 U	<0.52 U	<0.43 U	<0.4 U	<0.52 U	0.057 J	<0.43 U	<0.52 U	<0.					

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-47 9/14/2011 SB-47 (2.5-5) 2.5-5 460311261 Sample	SB-47 9/14/2011 SB-47 (20-21.5) 20-21.5 460311261 Sample	SB-47 9/14/2011 SB-47 (40-41) 40-41 460311261 Sample	SB-48 9/13/2011 SB-48 (2-3) 2-3 460311261 Sample	SB-48 9/13/2011 SB-48 (17.5-20) 17.5-20 460311261 Sample	SB-48 9/13/2011 SB-48 (35-36) 35-36 460311261 Sample	SB-49 9/20/2011 SB-49 (3-4) 3-4 460313721 Sample	SB-49 9/20/2011 SB-49 (5-7) 5-7 460313721 Sample	SB-49 9/20/2011 SB-49 (35-37) 35-37 460313721 Sample	SB-49 9/20/2011 SB-49 (35-37) D 35-37 460313721 Duplicate	SB-50 9/20/2011 SB-50 (2-3) 2-3 460313721 Sample	SB-50 9/20/2011 SB-50 (25-26) 25-26 460313721 Sample	SB-50 9/20/2011 SB-50 (33-35) 33-35 460313721 Sample	SB-51 9/30/2011 SB-51 (2.5-3.5) 2.5-3.5 460318761 Sample	
Inorganic Compounds (mg/Kg)																		
Arsenic	7440-38-2	13	16	57.3	1.5	11.7	2.3	0.83 J	13.2	4.9	12.4	13.1	16.2	<1.0 U	4.3	12.2	12.3	
Barium	7440-39-3	350	400	381	18.4 J	31.9 J	13.0 J	16.8 J	31.6 J	56.3	38.2 J	34.3 J	35.5 J	2.2 J	6.6 J	29.5 J	21.1 J	
Cadmium	7440-43-9	2.5	9.3	<1.3 U	<1.3 U	<1.5 U	<1.3 U	<1.1 U	<1.5 U	0.37 J	<1.2 U	<1.5 U	<1.5 U	<1.0 U	<1.2 U	<1.5 U	<6.4 U	
Chromium	7440-47-3	30	1500	21.9	17.1	38.1	5.8	11.3	41.7	7.8	23.1	41.1	43.2	2.7	8.8	33.3	22.9	
Lead	7439-92-1	63	1000	15	5.6	13.6	22.3	4.9	14.6	135	59.3	12.2	13.5	1.6	3.3	10.9	5.8 J	
Mercury	7439-97-6	0.18	2.8	0.3	0.029 J	0.036 J	0.033 J	0.032 J	0.032 J	0.18	0.042	<0.052 U	0.089	<0.035 U	<0.039 U	<0.052 U	<0.043 U	
Selenium	7782-49-2	3.9	1500	3	<2.6 U	<3.1 U	<2.6 U	<2.2 U	<3.0 U	<2.2 U	<2.4 U	<2.9 U	<3.1 U	<2.0 U	<2.4 U	<3.0 U	<12.8 U	
Silver	7440-22-4	2	1500	<2.5 U	<2.6 U	<3.1 U	<2.6 U	<2.2 U	<3.0 U	<2.2 U	<2.4 U	<2.9 U	<3.1 U	<2.0 U	<2.4 U	<3.0 U	<12.8 U	
Cyanide (mg/Kg)																		
Free (Available) cyanide	57-12-5-A	NL	NL	<0.053 U	<0.055 U	<0.063 U	<0.053 U	<0.049 U	<0.063 U	<0.046 U	<0.053 U	<0.063 U	0.031 J	<0.043 U	0.024 J	<0.064 U	<0.052 U	

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOS
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-51 9/30/2011 SB-51 (30-31) 30-31 460318761 Sample	SB-51 9/30/2011 SB-51 (32.5-33.5) 32.5-33.5 460318761 Sample	SB-52 10/6/2011 SB-52 (2-3) 2-3 460322051 Sample	SB-52 10/6/2011 SB-52 (5-7) 5-7 460322051 Sample	SB-52 10/6/2011 SB-52 (10-12) 10-12 460322051 Sample	SB-52 10/6/2011 SB-52 (35-38) 35-38 460322051 Sample	SB-52 10/6/2011 SB-52 (35-38) D 35-38 460322051 Duplicate	SB-53 10/6/2011 SB-53 (2.5-4) 2.5-4 460322051 Sample	SB-53 10/6/2011 SB-53 (30-32) 30-32 460322051 Sample	SB-53 10/6/2011 SB-53 (40-41) 40-41 460322051 Sample	SB-54 10/10/2011 SB-54 (3-4) 3-4 460322001 Sample	SB-54 10/10/2011 SB-54 (5-7) 5-7 460322001 Sample	SB-54 10/10/2011 SB-54 (35-36) 35-36 460322001 Sample
BTEX (mg/kg)																
Benzene	71-43-2	0.06	44	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0012 U	<0.0013 U	<0.0011 U	<0.0011 U	<0.0014 U
Ethylbenzene	100-41-4	1	390	<0.0014 U	0.00020 J	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0012 U	<0.0013 U	<0.0011 U	<0.0011 U	<0.0014 U
m+p-Xylene	1330-20-7 M,P	NL	NL	<0.0028 U	0.00075 JB	<0.0022 U	<0.0023 U	<0.0022 U	<0.0028 UJ	<0.0031 UJ	<0.0024 U	<0.0025 U	<0.0027 U	<0.0022 U	<0.0022 U	<0.0029 U
o-Xylene	95-47-6	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0012 U	<0.0013 U	<0.0011 U	<0.0011 U	<0.0014 U
Toluene	108-88-3	0.7	500	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0012 U	<0.0013 U	<0.0011 U	<0.0011 U	<0.0014 U
Total Xylenes	Total Xylenes	0.26	500	ND	0.00075	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEX		NL	NL	ND	0.00095	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds (VOCs)(mg/Kg)																
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0012 U	<0.0013 U	<0.0011 U	<0.0011 U	<0.0014 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0012 U	<0.0013 U	<0.0011 U	<0.0011 U	<0.0014 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0012 U	<0.0013 U	<0.0011 U	<0.0011 U	<0.0014 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0012 U	<0.0013 U	<0.0011 U	<0.0011 U	<0.0014 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0012 U	<0.0013 U	<0.0011 U	<0.0011 U	<0.0014 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0012 U	<0.0013 U	<0.0011 U	<0.0011 U	<0.0014 U
1,2,3-Trichlorobenzene	87-61-6	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0012 U	<0.0013 U	<0.0011 U	<0.0011 U	<0.0014 U
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 U	<0.0012 U	<0.0013 U	<0.0011 U	<0.0011 U	<0.0014 U
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	<0.0014 U	<0.0010 U	<0.0011 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
1,2-Dibromoethane	106-93-4	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
1,2-Dichloroethane	107-06-2	0.02	30	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
1,2-Dichloropropane	78-87-5	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
1,4-Dioxane	123-91-1	NL	130	<0.069 R	<0.051 R	<0.054 R	<0.057 R	<0.056 R	<0.07 R	<0.077 R	<0.06 R	<0.062 R	<0.067 R	<0.054 R	<0.054 R	<0.072 R
2-Butanone	78-93-3	0.12	500	0.019	0.0045 J	0.0077 J	0.0061 J	<0.011 R	0.0062 J	0.0063 J	0.0036 J	0.0092 J	0.019 J	<0.011 U	<0.011 U	<0.014 U
2-Hexanone	591-78-6	NL	NL	<0.014 U	<0.01 U	<0.011 UJ	<0.011 UJ	<0.011 U	<0.014 UJ	<0.015 UJ	<0.012 UJ	<0.012 UJ	<0.013 UJ	<0.011 UJ	<0.011 UJ	<0.014 UJ
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.014 U	<0.01 U	<0.011 UJ	<0.011 UJ	<0.011 U	<0.014 UJ	<0.015 UJ	<0.012 UJ	<0.012 UJ	<0.013 UJ	<0.011 UJ	<0.011 UJ	<0.014 UJ
Acetone	67-64-1	0.05	500	0.16 J	0.047 J	0.032	0.035	<0.021 U	0.042 J	0.037 J	0.025	0.078	0.089	<0.019 UJ	0.026 J	<0.014 UJ
Bromochloromethane	74-97-5	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Bromodichloromethane	75-27-4	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Bromoform	75-25-2	NL	NL	<0.0014 U	<0.0010 U	<0.0011 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Bromomethane	74-83-9	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Carbon disulfide	75-15-0	NL	NL	0.0018	<0.0010 U	0.00079 J	0.0014	<0.0011 U	0.0059 J	0.0050 J	<0.0012 U	0.0014	0.0013	<0.0011 U	0.0022	0.00096 J
Carbon tetrachloride	56-23-5	0.76	22	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Chlorobenzene	108-90-7	1.1	500	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Chloroethane	75-00-3	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Chloroform	67-66-3	0.37	350	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Chloromethane	74-87-3	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Cyclohexane	110-82-7	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Dibromochloromethane	124-48-1	NL	NL	<0.0014 U	<0.0010 U	<0.0011 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Dichlorodifluoromethane	75-71-8	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Isopropylbenzene	98-82-8	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Methyl acetate	79-20-9	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	0.0017	<0.0013 U	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Methylcyclohexane	108-87-2	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Methylene chloride	75-09-2	0.05	500	0.017 B	0.011 B	<0.0028 U	<0.0057 U	0.0045	0.0092 J	<0.0042 UJ	<0.004 U	0.029	<0.002 U	0.0059	0.006	<0.0014 U
Styrene	100-42-5	NL	NL	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
Tetrachloroethene	127-18-4	1.3	150	0.022	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.0014 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0011 U	<0.0014 UJ	<0.0015 UJ	<0.0012 UJ	<0.0012 UJ	<0.0013 UJ	<0.0011 UJ	<0.0011 UJ	<0.0014 UJ
trans-1,3-Dichloropropene	10061-02-6	N														

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOS
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-51 9/30/2011 SB-51 (30-31) 30-31 460318761 Sample	SB-51 9/30/2011 SB-51 (32.5-33.5) 32.5-33.5 460318761 Sample	SB-52 10/6/2011 SB-52 (2-3) 2-3 460322051 Sample	SB-52 10/6/2011 SB-52 (5-7) 5-7 460322051 Sample	SB-52 10/6/2011 SB-52 (10-12) 10-12 460322051 Sample	SB-52 10/6/2011 SB-52 (35-38) 35-38 460322051 Sample	SB-52 10/6/2011 SB-52 (35-38) D 35-38 460322051 Duplicate	SB-53 10/6/2011 SB-53 (2.5-4) 2.5-4 460322051 Sample	SB-53 10/6/2011 SB-53 (30-32) 30-32 460322051 Sample	SB-53 10/6/2011 SB-53 (40-41) 40-41 460322051 Sample	SB-54 10/10/2011 SB-54 (3-4) 3-4 460322001 Sample	SB-54 10/10/2011 SB-54 (5-7) 5-7 460322001 Sample	SB-54 10/10/2011 SB-54 (35-36) 35-36 460322001 Sample	
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																	
2-Methylnaphthalene	91-57-6	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	0.071 J	<0.42 U	0.094 J	<0.38 U	<0.39 U	<0.5 U
Acenaphthene	83-32-9	20	500	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
Acenaphthylene	208-96-8	100	500	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
Anthracene	120-12-7	100	500	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
Benzo(a)anthracene	56-55-3	1	5.6	<0.048 U	<0.039 U	<0.038 U	<0.039 U	<0.039 U	<0.039 U	<0.05 U	<0.053 U	<0.045 U	<0.042 U	<0.05 U	<0.038 U	<0.039 U	<0.05 U
Benzo(a)pyrene	50-32-8	1	1	<0.048 U	<0.039 U	<0.038 U	<0.039 U	<0.039 U	<0.039 U	<0.05 U	<0.053 U	<0.045 U	<0.042 U	<0.05 U	<0.038 U	<0.039 U	<0.05 U
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.048 U	<0.039 U	<0.038 U	<0.039 U	<0.039 U	<0.039 U	<0.05 U	<0.053 U	<0.045 U	<0.042 U	<0.05 U	<0.038 U	<0.039 U	<0.05 U
Benzo(ghi)perylene	191-24-2	100	500	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.048 U	<0.039 U	<0.038 U	<0.039 U	<0.039 U	<0.039 U	<0.05 U	<0.053 U	<0.045 U	<0.042 U	<0.05 U	<0.038 U	<0.039 U	<0.05 U
Chrysene	218-01-9	1	56	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.048 U	<0.039 U	<0.038 U	<0.039 U	<0.039 U	<0.039 U	<0.05 U	<0.053 U	<0.045 U	<0.042 U	<0.05 U	<0.038 U	<0.039 U	<0.05 U
Fluoranthene	206-44-0	100	500	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
Fluorene	86-73-7	30	500	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.048 U	<0.039 U	<0.038 U	<0.039 U	<0.039 U	<0.039 U	<0.05 U	<0.053 U	<0.045 U	<0.042 U	<0.05 U	<0.038 U	<0.039 U	<0.05 U
Naphthalene	91-20-3	12	500	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
Phenanthrene	85-01-8	100	500	<0.48 U	<0.39 U	0.07 J	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	0.21 J	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
Pyrene	129-00-0	100	500	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
Total PAHs		NL	NL	ND	ND	0.07	ND	ND	ND	ND	ND	0.281	ND	0.094	ND	ND	ND
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)																	
1,1'-Biphenyl	92-52-4	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
1,2,4,5-Tetrachlorobenzene	95-94-3	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
2,3,4,6-Tetrachlorophenol	58-90-2	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
2,4-Dinitrophenol	51-28-5	NL	NL	<1.5 U	<1.2 U	<1.1 U	<1.2 U	<1.2 U	<1.2 U	<1.5 R	<1.6 R	<1.4 U	<1.3 U	<1.5 U	<1.2 U	<1.2 U	<1.5 U
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.098 U	<0.078 U	<0.077 U	<0.078 U	<0.079 U	<0.079 U	<0.1 U	<0.11 U	<0.092 U	<0.086 U	<0.1 U	<0.077 U	<0.079 U	<0.1 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.098 U	<0.078 U	<0.077 U	<0.078 U	<0.079 U	<0.079 U	<0.1 U	<0.11 U	<0.092 U	<0.086 U	<0.1 U	<0.077 U	<0.079 U	<0.1 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
2-Chlorophenol	95-57-8	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
2-Methylphenol	95-48-7	0.33	500	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
2-Nitroaniline	88-74-4	NL	NL	<0.98 U	<0.78 U	<0.77 U	<0.78 U	<0.79 U	<0.79 U	<1 U	<1.1 U	<0.92 U	<0.86 U	<1 U	<0.77 U	<0.79 U	<1 U
2-Nitrophenol	88-75-5	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.98 U	<0.78 U	<0.77 U	<0.78 U	<0.79 U	<0.79 U	<1 U	<1.1 U	<0.92 U	<0.86 U	<1 U	<0.77 U	<0.79 U	<1 U
3-Nitroaniline	99-09-2	NL	NL	<0.98 U	<0.78 U	<0.77 U	<0.78 U	<0.79 U	<0.79 U	<1 U	<1.1 U	<0.92 U	<0.86 U	<1 U	<0.77 U	<0.79 U	<1 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<1.5 U	<1.2 U	<1.1 U	<1.2 U	<1.2 U	<1.2 U	<1.5 R	<1.6 R	<1.4 U	<1.3 U	<1.5 U	<1.2 U	<1.2 U	<1.5 U
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<0.53 U	<0.45 U	<0.42 U	<0.5 U	<0.38 U	<0.39 U	<0.5 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.48 U	<0.39 U	<0.38 U	<0.39 U	<0.39 U	<0.39 U	<0.5 U	<						

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMECIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SB-51 9/30/2011 SB-51 (30-31) 30-31 460318761 Sample	SB-51 9/30/2011 SB-51 (32.5-33.5) 32.5-33.5 460318761 Sample	SB-52 10/6/2011 SB-52 (2-3) 2-3 460322051 Sample	SB-52 10/6/2011 SB-52 (5-7) 5-7 460322051 Sample	SB-52 10/6/2011 SB-52 (10-12) 10-12 460322051 Sample	SB-52 10/6/2011 SB-52 (35-38) 35-38 460322051 Sample	SB-52 10/6/2011 SB-52 (35-38) D 35-38 460322051 Duplicate	SB-53 10/6/2011 SB-53 (2.5-4) 2.5-4 460322051 Sample	SB-53 10/6/2011 SB-53 (30-32) 30-32 460322051 Sample	SB-53 10/6/2011 SB-53 (40-41) 40-41 460322051 Sample	SB-54 10/10/2011 SB-54 (3-4) 3-4 460322001 Sample	SB-54 10/10/2011 SB-54 (5-7) 5-7 460322001 Sample	SB-54 10/10/2011 SB-54 (35-36) 35-36 460322001 Sample
Inorganic Compounds (mg/Kg)																
Arsenic	7440-38-2	13	16	13	1.0 J	6.8	8.2	<1.2 U	12.8	13.1	104	9.6	18.4	4.8	1.3	11.8
Barium	7440-39-3	350	400	34.8 J	4.5 J	3.4 J	2.7 J	1.5 J	28.1 J	32.5 J	477	12.2 J	27.9 J	6.2 J	2.5 J	28.4 J
Cadmium	7440-43-9	2.5	9.3	<6.9 U	<1.1 U	<1.0 U	<1.1 U	<1.2 U	<1.4 U	<1.6 U	<1.3 U	<1.2 U	<1.4 U	<1.0 U	<1.1 U	<1.4 U
Chromium	7440-47-3	30	1500	39	3.3	2.7	3.5	4.3	36.4	44	33.5	15.7	35.1	4	4.3	35.6
Lead	7439-92-1	63	1000	13.3	4.5	3.4	2.9	1.1 J	15.7	14.3	18.8	6.3	12.2	23.5	4.2	11.8
Mercury	7439-97-6	0.18	2.8	<0.048 U	<0.035 U	<0.038 U	<0.035 U	<0.039 U	<0.050 U	<0.050 U	0.19	<0.038 U	<0.050 U	<0.037 U	<0.038 U	<0.048 U
Selenium	7782-49-2	3.9	1500	<13.8 U	<2.3 U	<2.1 U	<2.1 U	<2.3 U	<2.8 U	<3.1 U	6.2	<2.5 U	<2.8 U	<2.1 U	<2.3 U	1.7 J
Silver	7440-22-4	2	1500	<13.8 U	<2.3 U	<2.1 U	<2.1 U	<2.3 U	0.29 J	<3.1 U	0.32 J	0.20 J	0.30 J	0.16 J	<2.3 U	0.25 J
Cyanide (mg/Kg)																
Free (Available) cyanide	57-12-5-A	NL	NL	0.12	<0.047 U	<0.046 U	<0.047 U	<0.047 U	<0.060 U	<0.064 U	<0.055 U	<0.051 U	<0.060 U	<0.046 U	<0.047 U	<0.061 U

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	TP-11 4/23/2010 TP11-01(6.5-7)042310 6.5-7 AECOM092 Sample	TP-12 4/23/2010 TP12-01(6.5-7)042310 6.5-7 AECOM092 Sample	TP-13 4/22/2010 TP13-02(6.5-25)042210 6-6.25 AECOM092 Sample	TP-13 4/22/2010 TP13-01(6.25-6.5)042210 6.25-6.5 AECOM092 Sample	TP-14 4/22/2010 TP14-02(2-3)042210 2-3 AECOM092 Sample	TP-14 4/22/2010 TP14-01(4-5)042210 4-5 AECOM092 Sample	TP-15 4/22/2010 TP15-02(1-1.5)042210 1-1.5 AECOM092 Sample	TP-15 4/22/2010 TP15-01(4-5)042210 4-5 AECOM092 Sample	TP-17 4/23/2010 TP17-01(4-5)042310 4-5 AECOM092 Sample
BTEX (mg/kg)												
Benzene	71-43-2	0.06	44	0.002 J	0.012	0.01 J	<0.006 U	<0.027 U	0.015	0.22 J	<0.008 U	0.19
Ethylbenzene	100-41-4	1	390	0.002 J	2.9 J	5.4	0.086	0.028	0.003 J	1.7	<0.008 U	0.06
m+p-Xylene	1330-20-7-M,P	NL	NL	0.014	47	17	0.21	0.14	0.004 J	11	0.002 J	0.073
o-Xylene	95-47-6	NL	NL	0.008	28	7.5	0.1	0.43	0.002 J	8	<0.008 U	0.038
Toluene	108-88-3	0.7	500	0.001 J	0.09	1.2	0.053	0.02 J	0.003 J	2.4	<0.008 U	0.036
Total Xylenes		0.26	500	0.022	75	24.5	0.31	0.57	0.006	19	0.002	0.111
Total BTEX		NL	NL	0.027	78.002	31.11	0.449	0.618	0.027	23.32	0.002	0.397
Volatile Organic Compounds (VOCs)(mg/Kg)												
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.006 U	0.001 J	<0.012 U	<0.006 U	<0.027 U	<0.008 U	0.54 J	<0.008 U	<0.006 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 UJ	<0.008 U	<0.055 U	<0.008 U	<0.006 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	NL	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 UJ	<0.008 U	3.5 J	<0.008 U	<0.006 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.006 U	0.003 J	<0.012 U	<0.006 U	<0.027 U	<0.008 U	2.6	<0.008 U	<0.006 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	0.013 J	<0.008 U	<0.006 U
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 UJ	<0.008 U	<0.055 U	<0.008 U	<0.006 U
1,2-Dibromo-3-chloropropane	96-12-8	NL	NL	R	R	R	R	R	R	R	R	R
1,2-Dibromoethane	106-93-4	NL	NL	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.006 U	0.045	0.074	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
2-Butanone	78-93-3	0.12	500	0.016 J	0.004 J	<0.012 UJ	<0.006 UJ	<0.027 UJ	<0.008 UJ	<0.055 UJ	<0.008 UJ	<0.006 UJ
2-Hexanone	591-78-6	NL	NL	<0.006 UJ	<0.006 UJ	<0.012 UJ	<0.006 UJ	<0.027 UJ	<0.008 UJ	<0.055 UJ	<0.008 UJ	<0.006 UJ
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.006 UJ	<0.006 UJ	<0.012 UJ	<0.006 UJ	<0.027 UJ	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Acetone	67-64-1	0.05	500	0.061 J	<0.011 UJ	0.024 J	0.016 J	<0.047 UJ	0.022 J	0.47 J	0.02 J	<0.011 UJ
Bromodichloromethane	75-27-4	NL	NL	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Bromoform	75-25-2	NL	NL	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Bromomethane	74-83-9	NL	NL	<0.006 UJ	<0.006 UJ	<0.012 UJ	<0.006 UJ	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Carbon disulfide	75-15-0	NL	NL	0.001 J	<0.006 U	<0.012 U	0.002 J	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Carbon tetrachloride	56-23-5	0.76	22	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Chlorobenzene	108-90-7	1.1	500	<0.006 U	<0.006 U	0.005 J	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Chloroethane	75-00-3	NL	NL	<0.006 UJ	<0.006 UJ	<0.012 UJ	<0.006 UJ	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Chloroform	67-66-3	0.37	350	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Chloromethane	74-87-3	NL	NL	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 UJ	<0.055 UJ	<0.008 UJ	<0.006 UJ
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.006 U	0.002 J	<0.012 U	<0.006 U	<0.027 U	<0.008 U	8.4	<0.008 U	<0.006 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Cyclohexane	110-82-7	NL	NL	<0.006 U	0.007	0.012	<0.006 U	0.13	<0.008 U	1.7 J	<0.008 U	<0.006 U
Dibromochloromethane	124-48-1	NL	NL	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Dichlorodifluoromethane	75-71-8	NL	NL	<0.006 UJ	<0.006 UJ	<0.012 UJ	<0.006 UJ	<0.027 UJ	<0.008 UJ	<0.055 UJ	<0.008 UJ	<0.006 UJ
Isopropylbenzene	98-82-8	NL	NL	<0.006 UJ	0.15	0.57 J	<0.006 U	<0.027 U	<0.008 U	0.079	<0.008 U	<0.006 U
Methyl acetate	79-20-9	NL	NL	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 UJ	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Methyl tert-butyl ether	1634-04-4	0.93	500	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Methylcyclohexane	108-87-2	NL	NL	<0.006 U	0.04	0.06	<0.006 U	0.34	<0.008 U	4.9 J	<0.008 U	<0.006 U
Methylene chloride	75-09-2	0.05	500	<0.006 UJ	<0.007 UJ	<0.013 UJ	<0.006 UJ	<0.029 UJ	0.022 J	<0.099 UJ	0.016 J	<0.006 UJ
Styrene	100-42-5	NL	NL	0.004 J	12	11	0.13	<0.027 U	<0.008 U	0.47 J	<0.008 U	<0.006 U
Tetrachloroethene	127-18-4	1.3	150	<0.006 U	0.001 J	<0.012 U	<0.006 U	<0.027 U	<0.008 U	0.016 J	<0.008 U	<0.006 U
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	0.95	<0.008 U	<0.006 U
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Trichloroethene	79-01-6	0.47	200	<0.006 U	<0.006 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	2.1	<0.008 U	<0.006 U
Trichlorofluoromethane	75-69-4	NL	NL	<0.006 UJ	<0.006 UJ	<0.012 UJ	<0.006 UJ	<0.027 UJ	<0.008 U	<0.055 U	<0.008 U	<0.006 U
Vinyl chloride	75-01-4	0.02	13	<0.006 U	<0.012 U	<0.012 U	<0.006 U	<0.027 U	<0.008 U	8.6	<0.008 U	<0.006 U
Total VOCs		NL	NL	0.109	90.255	42.855	0.597	1.088	0.071	57.658	0.038	0.397

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	TP-11 4/23/2010 TP11-01(6.5-7)042310 6.5-7 AECOM092 Sample	TP-12 4/23/2010 TP12-01(6.5-7)042310 6.5-7 AECOM092 Sample	TP-13 4/22/2010 TP13-02(6-6.25)042210 6-6.25 AECOM092 Sample	TP-13 4/22/2010 TP13-01(6.25-6.5)042210 6.25-6.5 AECOM092 Sample	TP-14 4/22/2010 TP14-02(2-3)042210 2-3 AECOM092 Sample	TP-14 4/22/2010 TP14-01(4-5)042210 4-5 AECOM092 Sample	TP-15 4/22/2010 TP15-02(1-1.5)042210 1-1.5 AECOM092 Sample	TP-15 4/22/2010 TP15-01(4-5)042210 4-5 AECOM092 Sample	TP-17 4/23/2010 TP17-01(4-5)042310 4-5 AECOM092 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)												
2-Methylnaphthalene	91-57-6	NL	NL	<0.39 U	470	140	<0.39 U	9	<0.5 U	20	<0.51 U	0.35 J
Acenaphthene	83-32-9	20	500	<0.39 U	13 J	5.1	<0.39 U	0.66 J	<0.5 U	0.86 J	<0.51 U	<0.4 U
Acenaphthylene	208-96-8	100	500	<0.39 U	130	46	<0.39 U	0.38 J	<0.5 U	0.52 J	<0.51 U	0.086 J
Anthracene	120-12-7	100	500	<0.39 U	56 J	21 J	0.091 J	0.71 J	<0.5 U	1.8	<0.51 U	<0.4 U
Benzo(a)anthracene	56-55-3	1	5.6	<0.39 U	40 J	15 J	<0.39 U	1.3 J	<0.5 U	3.9 J	<0.51 U	<0.4 U
Benzo(a)pyrene	50-32-8	1	1	<0.39 U	32 J	12 J	<0.39 U	R	<0.5 U	R	<0.51 U	<0.4 U
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.39 U	23 J	11 J	<0.39 U	R	<0.5 U	R	<0.51 U	<0.4 U
Benzo(ghi)perylene	191-24-2	100	500	<0.39 U	15 J	2.3 J	<0.39 U	R	<0.5 U	R	<0.51 U	<0.4 U
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.39 U	7.5 J	4.9 J	<0.39 U	R	<0.5 U	R	<0.51 U	<0.4 U
Chrysene	218-01-9	1	56	<0.39 U	35 J	13 J	<0.39 U	<1.8 U	<0.5 U	<1.8 UJ	<0.51 U	<0.4 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.39 U	1.7 J	0.94 J	<0.39 U	R	<0.5 U	R	<0.51 U	<0.4 U
Fluoranthene	206-44-0	100	500	<0.39 U	74	29 J	0.12 J	0.45 J	<0.5 U	1.4 J	<0.51 U	<0.4 U
Fluorene	86-73-7	30	500	<0.39 U	79	31 J	0.087 J	1.3 J	<0.5 U	2.2	<0.51 U	<0.4 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.39 U	4.5 J	2 J	<0.39 U	R	<0.5 U	R	<0.51 U	<0.4 U
Naphthalene	91-20-3	12	500	<0.39 U	1000	230	0.084 J	2.4	<0.5 U	5.9	<0.51 U	0.92
Phenanthrene	85-01-8	100	500	<0.39 U	260	100	0.35 J	5.5	<0.5 U	9.4	<0.51 U	0.15 J
Pyrene	129-00-0	100	500	<0.39 U	100	39	0.17 J	1.8	<0.5 U	4.8 J	<0.51 U	<0.4 U
Total PAHs		NL	NL	ND	2340.7	702.24	0.902	23.5	ND	50.78	ND	1.506
Semivolatile Organic Compounds (SVOCs)(mg/Kg)												
1,1'-Biphenyl	92-52-4	NL	NL	<0.39 U	39 J	13 J	<0.39 U	<1.8 U	<0.5 U	0.66 J	<0.51 U	<0.4 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.79 UJ	<0.75 U	<0.79 U	<0.79 U	<3.6 U	<1 U	<3.7 U	<1 U	<0.8 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.39 U	<0.37 UJ	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.39 U	<0.37 UJ	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
2,4-Dinitrophenol	51-28-5	NL	NL	<0.79 UJ	<0.75 UJ	<0.79 UJ	<0.8 UJ	<3.6 UJ	<1 UJ	<3.7 UJ	<1 UJ	<0.8 UJ
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
2-Chlorophenol	95-57-8	NL	NL	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
2-Methylphenol	95-48-7	0.33	500	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
2-Nitroaniline	88-74-4	NL	NL	<0.79 U	<0.75 U	<0.79 U	<0.8 U	<3.6 U	<1 U	<3.7 U	<1 U	<0.8 U
2-Nitrophenol	88-75-5	NL	NL	<0.39 U	<0.37 UJ	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.39 U	<73 U	<0.39 UJ	<0.39 U	<1.8 U	<0.5 U	<1.8 UJ	<0.51 U	<0.4 U
3-and 4-Methylphenol	3,4-MEPH	NL	NL	<0.39 UJ	<0.37 UJ	<0.39 UJ	<0.39 UJ	<1.8 UJ	<0.5 UJ	<1.8 UJ	<0.51 UJ	<0.4 UJ
3-Nitroaniline	99-09-2	NL	NL	<0.79 U	<0.75 U	<0.79 U	<0.8 U	<3.6 U	<1 U	<3.7 U	<1 U	<0.8 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<0.79 U	<0.75 UJ	<0.79 U	<0.8 U	<3.6 U	<1 U	<3.7 U	<1 U	<0.8 U
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.39 U	<0.37 UJ	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.39 U	<0.37 UJ	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
4-Chloroaniline	106-47-8	NL	NL	<0.39 U	<0.37 UJ	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
4-Nitroaniline	100-01-6	NL	NL	<0.79 U	<0.75 U	<0.79 U	<0.8 U	<3.6 U	<1 U	<3.7 U	<1 U	<0.8 U
4-Nitrophenol	100-02-7	NL	NL	<0.79 UJ	<0.75 UJ	<0.79 UJ	<0.8 UJ	<3.6 UJ	<1 UJ	<3.7 UJ	<1 UJ	<0.8 UJ
Acetophenone	98-86-2	NL	NL	<0.39 UJ	<0.37 UJ	<0.39 UJ	<0.39 UJ	<1.8 UJ	<0.5 UJ	<1.8 UJ	<0.51 UJ	<0.4 UJ
Atrazine	1912-24-9	NL	NL	<0.39 U	<0.37 UJ	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
Benzaldehyde	100-52-7	NL	NL	<0.39 UJ	<0.37 UJ	<0.39 UJ	<0.39 UJ	<1.8 UJ	<0.5 UJ	<1.8 UJ	<0.51 UJ	<0.4 UJ
bis(2-Chloroethoxy)methane	111-91-1	NL	NL	<0.39 UJ	<0.37 UJ	<0.39 UJ	<0.39 UJ	<1.8 UJ	<0.5 UJ	<1.8 U	<0.51 UJ	<0.4 UJ
bis(2-Chloroethyl) ether	111-44-4	NL	NL	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
bis(2-Ethylhexyl) phthalate	117-81-7	NL	NL	<0.39 U	<73 U	0.13 J	<0.39 U	<1.8 U	<0.5 U	<1.8 UJ	<0.51 U	<0.4 U
Butyl benzyl phthalate	85-68-7	NL	NL	<0.39 U	<73 U	<0.39 UJ	<0.39 U	<1.8 U	<0.5 U	<1.8 UJ	<0.51 U	<0.4 U
Caprolactam	105-60-2	NL	NL	<0.39 U	<0.37 UJ	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
Carbazole	86-74-8	NL	NL	<0.39 U	<0.37 UJ	0.9	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
Dibenzofuran	132-64-9	7	350	<0.39 U	13 J	4.4	<0.39 U	<1.8 U	<0.5 U	0.62 J	<0.51 U	<0.4 U
Diethyl phthalate	131-11-3	NL	NL	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
Dimethyl phthalate	84-66-2	NL	NL	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
Di-n-butyl phthalate	84-74-2	NL	NL	<0.39 U	<0.37 UJ	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
Di-n-octyl phthalate	117-84-0	NL	NL	<0.39 U	<73 U	<0.39 UJ	<0.39 U	R	<0.5 U	R	<0.51 U	<0.4 U
Hexachlorobenzene	118-74-1	0.33	6	<0.39 U	<0.37 UJ	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
Hexachlorobutadiene	87-68-3	NL	NL	<0.39 U	<0.37 UJ	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
Hexachlorocyclopentadiene	77-47-4	NL	NL	<0.39 UJ	<0.37 UJ	<0.39 UJ	<0.39 UJ	<1.8 UJ	<0.5 UJ	<1.8 UJ	<0.51 UJ	<0.4 UJ
Hexachloroethane	67-72-1	NL	NL	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
Isophorone	78-59-1	NL	NL	<0.39 U	<0.37 UJ	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
Nitrobenzene	98-95-3	NL	NL	<0.39 UJ	<0.37 UJ	<0.39 UJ	<0.39 UJ	<1.8 UJ	<0.5 UJ	<1.8 U	<0.51 UJ	<0.4 UJ
N-Nitrosodi-n-propylamine	621-64-7	NL	NL	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
N-Nitrosodiphenylamine	86-30-6	NL	NL	<0.39 U	<0.37 UJ	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
Pentachlorophenol	87-86-5	0.8	6.7	<0.79 U	<0.75 UJ	<0.79 U	<0.8 U	<3.6 U	<1 U	<3.7 U	<1 U	<0.8 U
Phenol	108-95-2	0.33	500	<0.39 U	<0.37 U	<0.39 U	<0.39 U	<1.8 U	<0.5 U	<1.8 U	<0.51 U	<0.4 U
Total SVOCs		NL	NL	ND	2392.7	720.67	0.902	23.5	ND	52.06	ND	1.506

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-3
COMPARISON OF SUBSURFACE SOIL ANALYTICAL DATA TO UNRESTRICTED AND RESTRICTED COMMERCIAL USE SCOs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE,
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Sample Interval (feet) Laboratory Identification Sample Type	CAS Number	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	TP-11 4/23/2010 TP11-01(6.5-7)042310 6.5-7 AECOM092 Sample	TP-12 4/23/2010 TP12-01(6.5-7)042310 6.5-7 AECOM092 Sample	TP-13 4/22/2010 TP13-02(6.25-6.25)042210 6-6.25 AECOM092 Sample	TP-13 4/22/2010 TP13-01(6.25-6.5)042210 6.25-6.5 AECOM092 Sample	TP-14 4/22/2010 TP14-02(2-3)042210 2-3 AECOM092 Sample	TP-14 4/22/2010 TP14-01(4-5)042210 4-5 AECOM092 Sample	TP-15 4/22/2010 TP15-02(1-1.5)042210 1-1.5 AECOM092 Sample	TP-15 4/22/2010 TP15-01(4-5)042210 4-5 AECOM092 Sample	TP-17 4/23/2010 TP17-01(4-5)042310 4-5 AECOM092 Sample
Inorganic Compounds (mg/Kg)												
Aluminum	7429-90-5	NL	NL	6610 J	1080 J	1120 J	939 J	3280 J	9340 J	1840 J	5480 J	1570 J
Antimony	7440-36-0	NL	NL	0.63 J	0.51 J	0.48 J	<0.35 UJ	0.34 J	2.0 J	0.41 J	1.9 J	<0.35 UJ
Arsenic	7440-38-2	13	16	3.0 J	0.62 J	0.92 J	0.69 J	4.8 J	128 J	3.7 J	97.6 J	0.37 J
Barium	7440-39-3	350	400	38.9 J	2.5 J	3.9 J	2.1 J	12.9 J	48.8 J	21.5 J	49.2 J	4.2 J
Beryllium	7440-41-7	7.2	590	0.24 J	0.14 J	0.16 J	0.15 J	0.28 J	3.3 J	0.16 J	2.3 J	0.12 J
Cadmium	7440-43-9	2.5	9.3	<0.039 UJ	<0.037 UJ	<0.039 UJ	0.23 J	<0.035 UJ	<0.050 UJ	<0.036 UJ	<0.051 UJ	<0.040 UJ
Calcium	7440-70-2	NL	NL	2980 J	321 J	247 J	226 J	478 J	1700 J	8110 J	6630 J	676 J
Chromium	7440-47-3	30	1500	11.4 J	3.6 J	4.2 J	3.5 J	10.7 J	42.3 J	4.9 J	32.0 J	4.7 J
Cobalt	7440-48-4	NL	NL	3.1 J	0.83 J	1.6 J	1.2 J	3.2 J	17.7 J	2.2 J	18.0 J	1.4 J
Copper	7440-50-8	50	270	10.9	2.3 J	6.8	5.1	4.5	50.7	5.9	44.5	2.7 J
Iron	7439-89-6	NL	NL	12000	1690	2000	1630	8690	62300	5960	58400	6100
Lead	7439-92-1	63	1000	38.5 J	2.5 J	1.6 J	1.6 J	4.7 J	17.2 J	12.3 J	18.4 J	2.3 J
Magnesium	7439-95-4	NL	NL	1120 J	226 J	174 J	149 J	1110 J	293 J	4540 J	700 J	337 J
Manganese	7439-96-5	1600	10000	83.9 J	11.1 J	8.6 J	9.6 J	78.2 J	44.0 J	65.7 J	24.1 J	20.6 J
Mercury	7439-97-6	0.18	2.8	0.12	<0.019 U	<0.020 U	<0.020 U	0.021 J	0.083	0.024 J	0.047 J	<0.020 U
Nickel	7440-02-0	30	310	7.1 J	7.1 J	23.7 J	13.5 J	9.1 J	38.7 J	13.3 J	38.6 J	4.0 J
Potassium	7440-09-7	NL	NL	324 J	166 J	147 J	136 J	323 J	325 J	483 J	381 J	263 J
Selenium	7782-49-2	3.9	1500	0.61 J	<0.31 UJ	<0.33 UJ	<0.33 UJ	<0.30 UJ	1.3 J	0.35 J	1.2 J	<0.33 UJ
Silver	7440-22-4	2	1500	0.067 J	<0.036 U	<0.038 U	<0.039 U	0.045 J	0.14 J	<0.035 U	0.14 J	<0.039 U
Sodium	7440-23-5	NL	NL	72.3 J	28.0 J	32.0 J	23.4 J	33.9 J	108 J	56.6 J	121 J	39.4 J
Thallium	7440-28-0	NL	NL	<0.35 UJ	<0.33 UJ	<0.35 UJ	<0.36 UJ	<0.32 UJ	3.5 J	<0.33 UJ	3.9 J	<0.36 UJ
Vanadium	7440-62-2	NL	NL	14.4 J	351 J	290 J	214 J	34.7 J	76.8 J	77.3 J	61.6 J	7.3 J
Zinc	7440-66-6	109	10000	101 J	12.6 J	32.9 J	33.3 J	17.7 J	43.2 J	28.8 J	47.5 J	7.4 J
Cyanide, Free		NL	NL	<0.059 U	<0.056 U	<0.059 U	<0.060 U	<0.053 U	<0.075 U	<0.055 U	<0.077 U	<0.060 U
Polychlorinated biphenyls (PCBs) (mg/Kg)												
Aroclor 1016	12674-11-2	NL	NL	<0.039 U	<0.037 U	<0.039 U	<0.039 U	<0.035 U	<0.05 U	<0.036 U	<0.051 U	<0.04 U
Aroclor 1221	11104-28-2	NL	NL	<0.079 U	<0.075 U	<0.079 U	<0.08 U	<0.071 U	<0.1 U	<0.073 U	<0.1 U	<0.08 U
Aroclor 1232	11141-16-5	NL	NL	<0.039 U	<0.037 U	<0.039 U	<0.039 U	<0.035 U	<0.05 U	<0.036 U	<0.051 U	<0.04 U
Aroclor 1242	53469-21-9	NL	NL	<0.039 U	<0.037 U	<0.039 U	<0.039 U	<0.035 U	<0.05 U	<0.036 U	<0.051 U	<0.04 U
Aroclor 1248	12672-29-6	NL	NL	<0.039 U	<0.037 UJ	<0.039 U	<0.039 U	<0.035 U	<0.05 U	<0.036 U	<0.051 UJ	<0.04 U
Aroclor 1254	11097-69-1	NL	NL	<0.039 U	0.038	<0.039 U	<0.039 U	<0.035 U	<0.05 U	<0.036 U	<0.051 UJ	<0.04 U
Aroclor 1260	11096-82-5	NL	NL	<0.039 U	0.058 J	<0.039 U	<0.039 U	<0.035 U	<0.05 U	<0.036 U	<0.051 UJ	<0.04 U
Aroclor 1262	37324-23-5	NL	NL	<0.039 U	<0.037 UJ	<0.039 U	<0.039 U	<0.035 U	<0.05 U	<0.036 U	<0.051 UJ	<0.04 U
Aroclor 1268	11100-14-4	NL	NL	<0.039 U	<0.037 UJ	<0.039 U	<0.039 U	<0.035 U	<0.05 U	<0.036 U	<0.051 UJ	<0.04 U
PCB (Total) (ppm)	CALC-PCBs	0.1	1	ND	0.096	ND	ND	ND	ND	ND	ND	ND
Pesticides (mg/Kg)												
Aldrin	309-00-2	0.005	0.68	0.0020 J	R	<0.0020 U	<0.0020 U	<0.0018 U	<0.0026 U	<0.0019 U	R	<0.0020 U
Alpha-bhc	319-84-6	0.02	3.4	<0.0020 U	0.0013 J	<0.0020 U	<0.0020 U	<0.0018 U	<0.0026 U	<0.0019 U	R	<0.0020 U
Beta-BHC	319-85-7	0.036	3	<0.0020 U	0.0032 J	<0.0020 U	<0.0020 U	<0.0018 U	<0.0026 U	<0.0019 U	R	<0.0020 U
Chlordane, alpha	5103-71-9	0.094	24	<0.0020 U	0.04 J	<0.0020 U	<0.0020 U	<0.0018 U	<0.0026 U	<0.0019 U	R	<0.0020 U
Chlordane, trans-	5103-74-2	NL	NL	<0.0020 U	0.015 J	<0.0020 U	<0.0020 U	<0.0018 U	<0.0026 U	<0.0019 U	R	<0.0020 U
DDD,4,4-	72-54-8	0.0033	92	<0.0039 U	R	<0.0039 U	<0.0039 U	<0.0035 U	<0.0050 U	<0.0036 U	R	<0.0040 U
DDE,4,4-	72-55-9	0.0033	62	<0.0039 U	R	<0.0039 U	<0.0039 U	<0.0035 U	<0.0050 U	<0.0036 U	R	<0.0040 U
DDT,4,4-	50-29-3	0.0033	47	<0.0039 U	0.013 J	<0.0039 U	<0.0039 U	<0.0035 U	<0.0050 U	<0.0036 U	R	<0.0040 U
Delta-BHC	319-86-8	0.04	500	<0.0020 U	R	<0.0020 U	<0.0020 U	<0.0018 U	<0.0026 U	<0.0019 U	R	<0.0020 U
Dieldrin	60-57-1	0.005	1.4	<0.0039 U	R	<0.0039 U	<0.0039 U	<0.0035 U	<0.0050 U	<0.0036 U	R	<0.0040 U
Endosulfan I	959-98-8	2.4	200	<0.0020 U	0.0085 J	<0.0020 U	<0.0020 U	<0.0018 U	<0.0026 U	<0.0019 U	R	<0.0020 U
Endosulfan II	33213-65-9	2.4	200	<0.0039 U	0.0080 J	<0.0039 U	<0.0039 U	<0.0035 U	<0.0050 U	<0.0036 U	R	<0.0040 U
Endosulfan sulfate	1031-07-8	2.4	200	<0.0039 U	R	<0.0039 U	<0.0039 U	<0.0035 U	<0.0050 U	<0.0036 U	R	<0.0040 U
Endrin	72-20-8	0.014	89	<0.0039 U	0.0076 JN	<0.0039 U	<0.0039 U	<0.0035 U	<0.0050 U	<0.0036 U	R	<0.0040 U
Endrin aldehyde	7421-93-4	NL	NL	<0.0039 U	0.014 JN	<0.0039 U	<0.0039 U	<0.0035 U	<0.0050 U	<0.0036 U	R	<0.0040 U
Endrin ketone	53494-70-5	NL	NL	<0.0039 U	0.0092 JN	<0.0039 U	<0.0039 U	<0.0035 U	<0.0050 U	<0.0036 U	R	<0.0040 U
Gamma BHC - Lindane	58-89-9	0.1	9.2	<0.0020 U	R	<0.0020 U	<0.0020 U	<0.0018 U	<0.0026 U	<0.0019 U	R	<0.0020 U
Heptachlor	76-44-8	0.042	15	<0.0020 U	R	<0.0020 U	<0.0020 U	<0.0018 U	<0.0026 U	<0.0019 U	R	<0.0020 U
Heptachlor Epoxide	1024-57-3	NL	NL	<0.0020 U	0.0053 J	<0.0020 U	<0.0020 U	<0.0018 U	<0.0026 U	<0.0019 U	R	<0.0020 U
Methoxychlor	72-43-5	NL	NL	<0.02 U	R	<0.02 U	<0.02 U	<0.018 U	<0.026 U	<0.019 U	R	<0.02 U
Toxaphene	8001-35-2	NL	NL	<0.2 U	R	<0.2 U	<0.2 U	<0.18 U	<0.26 U	<0.19 U	R	<0.2 U
Herbicides (mg/Kg)												
2,4-D	94-75-7	NL	NL	R	R	R	<0.012 U	0.019 JN	<0.015 U	0.086 J	<0.015 U	<0.012 U
2,4-DB	94-82-6	NL	NL	<0.012 U	R	<0.012 U	<0.012 U	<0.011 U	R	<0.011 U	<0.015 U	<0.012 U
Silvex	93-72-1	3.8	500	R	<0.0056 U	<0.0059 U	R	<0.0053 U	<0.0075 U	0.046 JN	<0.0077 U	<0.0060 U
T,2,4,5-	93-76-5	NL	NL	<0.0059 U	<0.0056 U	0.026	<0.0060 U	R	<0.0075 U	0.058 JN	<0.0077 U	<0.0060 U
Moisture, percent												
Moisture, percent	MOIST	NL	NL	15.2	10.1	14.9	16.1	6.1	33.5	8.6	35	16.7

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected
NL = Not Listed
J = The associated numerical value is an estimated quantity.
J+ = The associated numerical value is an estimated quantity, suspected high bias.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
SCO = Soil Cleanup Objectives
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(a) Unrestricted Use SCO value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use SCO value.

TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	GW-01 7/2/2010 GW-1-070210 AECOM103 Sample	GW-02 7/1/2010 GW-2-070110 AECOM102 Sample	GW-03 6/29/2010 GW-3-062910 AECOM102 Sample	GW-03 6/29/2010 GW-D-3-062910 AECOM102 Duplicate	GW-05 7/1/2010 GW-5-070110 AECOM102 Sample	GW-06R 6/29/2010 GW-6R-062910 AECOM103 Sample	GW-07 7/1/2010 GW-7-070110 AECOM102 Sample	GW-08 7/8/2010 GW-8-070810 AECOM102 Sample	GW-10 7/7/2010 GW-10-070710 AECOM102 Sample	GW-11 7/1/2010 GW-11-070110 AECOM102 Sample	GW-12 7/7/2010 GW-12-070710 AECOM102 Sample	GW-13 6/30/2010 GW-13-063010 AECOM102 Sample	GW-14 6/30/2010 GW-14-063010 AECOM103 Sample	GW-15 7/1/2010 GW-15-070110 AECOM102 Sample
BTEX (ug/L)																
Benzene	71-43-2	1	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	2 J	<5 U	<5 U	<5 U	<5 U
Ethylbenzene	100-41-4	5	1 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
m+p-Xylene	1330-20-7-M,P	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
o-Xylene	95-47-6	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Toluene	108-88-3	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Total Xylenes		5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEX			1	ND	ND	ND	ND	ND	ND	ND	ND	2	ND	ND	ND	ND
Volatile Organic Compounds (ug/L)																
1,1,1-Trichloroethane	71-55-6	5	6	<5 U	<5 U	<5 U	<5 U	2 J	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	<5 U	<5 U	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 U	<5 U	<5 UJ	<5 U	<5 UJ	<5 UJ	<5 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1,2-Trichloroethane	79-00-5	1	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1-Dichloroethane	75-34-3	5	3 J	1 J	1 J	1 J	3 J	2 J	<5 UJ	<5 U	<5 U	<5 U	4 J	<5 U	<5 U	<5 U
1,1-Dichloroethene	75-35-4	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2,4-Trichlorobenzene	120-82-1	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ
1,2-Dibromoethane	106-93-4	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dichlorobenzene	95-50-1	3	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dichloroethane	107-06-2	5	1 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dichloropropane	78-87-5	1	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,3-Dichlorobenzene	541-73-1	3	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,4-Dichlorobenzene	106-46-7	3	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
2-Butanone	78-93-3	50	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	7	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
2-Hexanone	591-78-6	50	<5 U	<5 U	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 U	<5 U	<5 UJ	<5 U	<5 UJ	<5 UJ	<5 UJ
4-Methyl-2-pentanone	108-10-1	NL	<5 U	<5 U	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 U	<5 U	<5 UJ	<5 U	<5 UJ	<5 UJ	<5 UJ
Acetone	67-64-1	50	<5 UJ	<5 UJ	3 J	<5 UJ	<5 UJ	8 J	3 J	<5 UJ	<5 UJ	11 J	<5 UJ	<5 UJ	3 J	<5 UJ
Bromodichloromethane	75-27-4	50	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Bromoform	75-25-2	50	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Bromomethane	74-83-9	5	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ
Carbon disulfide	75-15-0	60	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon tetrachloride	56-23-5	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Chlorobenzene	108-90-7	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Chloroethane	75-00-3	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Chloroform	67-66-3	7	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Chloromethane	74-87-3	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
cis-1,2-Dichloroethene	156-59-2	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	2 J	<5 U	<5 U	1 J	<5 U
cis-1,3-Dichloropropene	10061-01-5	0.4	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Cyclohexane	110-82-7	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dibromochloromethane	124-48-1	5	<5 U	<5 U	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 U	<5 U	<5 UJ	<5 U	<5 UJ	<5 UJ	<5 UJ
Dichlorodifluoromethane	75-71-8	5	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ
Isopropylbenzene	98-82-8	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methyl acetate	79-20-9	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 UJ	<5 UJ	<5 U	<5 UJ	<5 U	<5 U	<5 U
Methyl tert-butyl ether	1634-04-4	10	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	1 J	12	1 J	<5 U
Methylcyclohexane	108-87-2	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene chloride	75-09-2	5	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ
Styrene	100-42-5	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Tetrachloroethene	127-18-4	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
trans-1,2-Dichloroethene	156-60-5	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
trans-1,3-Dichloropropene	10061-02-6	0.4	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Trichloroethene	79-01-6	5	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ
Trichlorofluoromethane	75-69-4	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl chloride	75-01-4	2	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	2 J	<5 U	<5 U	<5 U	<5 U
Total VOCs			11	1	4	1	3	19	3	ND	ND	17	5	12	5	ND

Notes:
1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].
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The associated numerical value is the sample quantitation limit.
Bold indicates compound detected at a concentration greater than the reporting limit.
Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

[illegible]

Notes:

- 1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998]
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TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	GW-01 7/2/2010 GW-1-070210 AECOM103 Sample	GW-02 7/1/2010 GW-2-070110 AECOM102 Sample	GW-03 6/29/2010 GW-3-062910 AECOM102 Sample	GW-03 6/29/2010 GW-D-3-062910 AECOM102 Duplicate	GW-05 7/1/2010 GW-5-070110 AECOM102 Sample	GW-06R 6/29/2010 GW-6R-062910 AECOM103 Sample	GW-07 7/1/2010 GW-7-070110 AECOM102 Sample	GW-08 7/8/2010 GW-8-070810 AECOM102 Sample	GW-10 7/7/2010 GW-10-070710 AECOM102 Sample	GW-11 7/1/2010 GW-11-070110 AECOM102 Sample	GW-12 7/7/2010 GW-12-070710 AECOM102 Sample	GW-13 6/30/2010 GW-13-063010 AECOM102 Sample	GW-14 6/30/2010 GW-14-063010 AECOM103 Sample	GW-15 7/1/2010 GW-15-070110 AECOM102 Sample
Metals (ug/L)																
Aluminum	7429-90-5	NL	316	NA	NA	NA	NA	6160	NA	NA	NA	NA	NA	NA	<8.0 U	NA
Antimony	7440-36-0	3	3.0 J	NA	NA	NA	NA	12.6 J	NA	NA	NA	NA	NA	NA	<2.9 U	NA
Arsenic	7440-38-2	25	160 J	<2.5 U	14.8	13.1	45.4	282 J	19.7	<2.5 U	<2.5 U	<2.5 U	3.1 J	<2.5 U	24.2 J	54.1
Barium	7440-39-3	1000	32.2 J	14.0 J	57.0 J	56.8 J	8.4 J	161 J	45.3 J	8.8 J	45.7 J	6.4 J	45.7 J	84.8 J	73.0 J	125 J
Beryllium	7440-41-7	3	0.73 J	NA	NA	NA	NA	3.2 J	NA	NA	NA	NA	NA	NA	<0.17 U	NA
Cadmium	7440-43-9	5	<0.33 U	<0.33 U	0.38 J	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U
Calcium	7440-70-2	NL	176000	NA	NA	NA	NA	119000	NA	NA	NA	NA	NA	NA	29900	NA
Chromium	7440-47-3	50	<2.3 U	<2.3 U	<2.3 U	<2.3 U	<2.3 U	16.5	<2.3 U	<2.3 U	<2.3 U	<2.3 U	2.4 J	<2.3 U	<2.3 U	<2.3 U
Cobalt	7440-48-4	NL	<1.4 U	NA	NA	NA	NA	7.1 J	NA	NA	NA	NA	NA	NA	3.9 J	NA
Copper	7440-50-8	200	3.3 J	NA	NA	NA	NA	17.0 J	NA	NA	NA	NA	NA	NA	<0.64 U	NA
Iron	7439-89-6	300	1270	NA	NA	NA	NA	3630	NA	NA	NA	NA	NA	NA	21300	NA
Lead	7439-92-1	25	<1.3 U	<1.3 U	1.4 J	<1.3 U	<1.3 U	16.9	<1.3 U	<1.3 U	2.4 J	3.0	<1.3 U	2.7 J	4.1	<1.3 U
Magnesium	7439-95-4	35000	32000	NA	NA	NA	NA	17300	NA	NA	NA	NA	NA	NA	5230	NA
Manganese	7439-96-5	300	45.3	NA	NA	NA	NA	139	NA	NA	NA	NA	NA	NA	1320	NA
Mercury	7439-97-6	0.7	<0.10 U	<0.10 UJ	<0.10 UJ	<0.10 UJ	<0.10 UJ	<0.10 U	<0.10 UJ	<0.10 UJ	<0.10 UJ	<0.10 UJ	<0.10 UJ	<0.10 UJ	<0.10 U	<0.10 UJ
Nickel	7440-02-0	100	21.4 J	NA	NA	NA	NA	33.8 J	NA	NA	NA	NA	NA	NA	3.5 J	NA
Potassium	7440-09-7	NL	5270 J	NA	NA	NA	NA	8120 J	NA	NA	NA	NA	NA	NA	7260 J	NA
Selenium	7782-49-2	10	<2.8 U	<2.8 U	<2.8 U	<2.8 U	<2.8 U	7.1	<2.8 U	8.2	<2.8 U	<2.8 U	<2.8 U	<2.8 U	<2.8 U	4.4 J
Silver	7440-22-4	50	<0.32 U	<0.32 U	0.60 J	0.34 J	<0.32 U	<0.32 U	<0.32 U	<0.32 U	0.50 J	<0.32 U	0.62 J	0.97 J	0.65 J	<0.32 U
Sodium	7440-23-5	20000	12700	NA	NA	NA	NA	7140	NA	NA	NA	NA	NA	NA	73500	NA
Thallium	7440-28-0	0.5	<3.0 U	NA	NA	NA	NA	<3.0 U	NA	NA	NA	NA	NA	NA	<3.0 U	NA
Vanadium	7440-62-2	NL	4030	NA	NA	NA	NA	7190	NA	NA	NA	NA	NA	NA	3.9 J	NA
Zinc	7440-66-6	2000	<32.7 U	NA	NA	NA	NA	<72.5 U	NA	NA	NA	NA	NA	NA	<69.9 U	NA
Cyanide (ug/L)																
Total Cyanide	57-12-5	200	<10 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10 U	<10.0 U	<10.0 R	<10.0 U	768	61.6	<10.0 U	<10 U	<10.0 U
Pesticides (ug/L)																
Aldrin	309-00-2	NL	<0.050 U	NA	NA	NA	NA	<0.050 U	NA	NA	NA	NA	NA	NA	<0.050 U	NA
Alpha-BHC	319-84-6	NL	<0.050 U	NA	NA	NA	NA	<0.050 U	NA	NA	NA	NA	NA	NA	<0.050 U	NA
Beta-BHC	319-85-7	NL	<0.050 U	NA	NA	NA	NA	<0.050 U	NA	NA	NA	NA	NA	NA	<0.050 U	NA
Chlordane, alpha	5103-71-9	NL	<0.050 U	NA	NA	NA	NA	<0.050 U	NA	NA	NA	NA	NA	NA	<0.050 U	NA
Chlordane, trans-	5103-74-2	NL	<0.050 U	NA	NA	NA	NA	<0.050 U	NA	NA	NA	NA	NA	NA	<0.050 U	NA
DDD,4,4-	72-54-8	NL	<0.10 U	NA	NA	NA	NA	<0.10 U	NA	NA	NA	NA	NA	NA	<0.10 U	NA
DDE,4,4-	72-55-9	NL	<0.10 U	NA	NA	NA	NA	<0.10 U	NA	NA	NA	NA	NA	NA	<0.10 U	NA
DDT,4,4-	50-29-3	NL	<0.10 U	NA	NA	NA	NA	<0.10 U	NA	NA	NA	NA	NA	NA	<0.10 U	NA
Delta-BHC	319-86-8	NL	<0.050 U	NA	NA	NA	NA	<0.050 U	NA	NA	NA	NA	NA	NA	<0.050 U	NA
Dieldrin	60-57-1	NL	<0.10 U	NA	NA	NA	NA	<0.10 U	NA	NA	NA	NA	NA	NA	<0.10 U	NA
Endosulfan I	959-98-8	NL	<0.050 U	NA	NA	NA	NA	<0.050 U	NA	NA	NA	NA	NA	NA	<0.050 U	NA
Endosulfan II	33213-65-9	NL	<0.10 U	NA	NA	NA	NA	<0.10 U	NA	NA	NA	NA	NA	NA	<0.10 U	NA
Endosulfan sulfate	1031-07-8	NL	<0.10 U	NA	NA	NA	NA	<0.10 U	NA	NA	NA	NA	NA	NA	<0.10 U	NA
Endrin	72-20-8	NL	<0.10 U	NA	NA	NA	NA	<0.10 U	NA	NA	NA	NA	NA	NA	<0.10 U	NA
Endrin aldehyde	7421-93-4	NL	<0.10 U	NA	NA	NA	NA	<0.10 U	NA	NA	NA	NA	NA	NA	<0.10 U	NA
Endrin ketone	53494-70-5	NL	<0.10 U	NA	NA	NA	NA	<0.10 U	NA	NA	NA	NA	NA	NA	<0.10 U	NA
Gamma BHC - Lindane	58-89-9	NL	<0.050 U	NA	NA	NA	NA	<0.050 U	NA	NA	NA	NA	NA	NA	<0.050 U	NA
Heptachlor	76-44-8	NL	<0.050 U	NA	NA	NA	NA	<0.050 U	NA	NA	NA	NA	NA	NA	<0.050 U	NA
Heptachlor Epoxide	1024-57-3	NL	<0.050 U	NA	NA	NA	NA	<0.050 U	NA	NA	NA	NA	NA	NA	<0.050 U	NA
Methoxychlor	72-43-5	NL	<0.50 U	NA	NA	NA	NA	<0.50 U	NA	NA	NA	NA	NA	NA	<0.50 U	NA
Toxaphene	8001-35-2	NL	<5.0 U	NA	NA	NA	NA	<5.0 U	NA	NA	NA	NA	NA	NA	<5.0 U	NA
PCBs (ug/L)																
Aroclor 1016	12674-11-2	NL	<1.0 U	NA	NA	NA	NA	<1.0 U	NA	NA	NA	NA	NA	NA	<1.0 U	NA
Aroclor 1221	11104-28-2	NL	<2.0 U	NA	NA	NA	NA	<2.0 U	NA	NA	NA	NA	NA	NA	<2.0 U	NA
Aroclor 1232	11141-16-5	NL	<1.0 U	NA	NA	NA	NA	<1.0 U	NA	NA	NA	NA	NA	NA	<1.0 U	NA
Aroclor 1242	53469-21-9	NL	<1.0 U	NA	NA	NA	NA	<1.0 U	NA	NA	NA	NA	NA	NA	<1.0 U	NA
Aroclor 1248	12672-29-6	NL	<1.0 U	NA	NA	NA	NA	<1.0 U	NA	NA	NA	NA	NA	NA	<1.0 U	NA
Aroclor 1254	11097-69-1	NL	<1.0 U	NA	NA	NA	NA	<1.0 U	NA	NA	NA	NA	NA	NA	<1.0 U	NA
Aroclor 1260	11096-82-5	NL	<1.0 U	NA	NA	NA	NA	<1.0 U	NA	NA	NA	NA	NA	NA	<1.0 U	NA
Aroclor 1262	37324-23-5	NL	<1.0 U	NA	NA	NA	NA	<1.0 U	NA	NA	NA	NA	NA	NA	<1.0 U	NA
Aroclor 1268	11100-14-4	NL	<1.0 U	NA	NA	NA	NA	<1.0 U	NA	NA	NA	NA	NA	NA	<1.0 U	NA
PCB (Total) (ug/L)		0.09	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA
Herbicides (ug/L)																
2,4-D	94-75-7	NL	<0.50 U	NA	NA	NA	NA	<0.50 U	NA	NA	NA	NA	NA	NA	<0.50 U	NA
2,4-DB	94-82-6	NL	<0.50 U	NA	NA	NA	NA	<0.50 U	NA	NA	NA	NA	NA	NA	<0.50 U	NA
Silvex	93-72-1	NL	<0.25 U	NA	NA	NA	NA	<0.25 U	NA	NA	NA	NA	NA	NA	<0.25 U	NA
T,2,4,5-	93-76-5	NL	<0.25 U	NA	NA	NA	NA	<0.25 U	NA	NA	NA	NA	NA	NA	<0.25 U	NA

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TABLE 1-4
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NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-01D 7/6/2010 MW-1D-070610 AECOM103 Sample	MW-01I 7/6/2010 MW-1I-070610 AECOM103 Sample	MW-03I 6/29/2010 MW-3I-062910 AECOM102 Sample	MW-04I 6/30/2010 MW-4I-063010 AECOM102 Sample	MW-04S 6/30/2010 MW-4S-063010 AECOM102 Sample	MW-08I 7/8/2010 MW-8I-070810 AECOM102 Sample	MW-09I 7/7/2010 MW-9I-070710 AECOM102 Sample	MW-09S 7/7/2010 MW-9S-070710 AECOM102 Sample	MW-11I 7/2/2010 MW-11I-070210 AECOM102 Sample	MW-11S 7/2/2010 MW-11S-070210 AECOM102 Sample	MW-14I 6/30/2010 MW-14I-063010 AECOM103 Sample	MW-15S 7/6/2010 MW-15S-070610 AECOM102 Sample	MW-16I 7/7/2010 MW-16I-070710 AECOM103 Sample	MW-16I 7/7/2010 MW-D-16I-070710 AECOM103 Duplicate
BTEX (ug/L)																
Benzene	71-43-2	1	1600	2000	<5 U	1 J	23	<5 U	110	200	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Ethylbenzene	100-41-4	5	1400	1600	<5 U	<5 U	<5 U	<5 U	<5 U	1 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
m+p-Xylene	1330-20-7-M,P	NL	920	400	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
o-Xylene	95-47-6	NL	460	310	<5 U	<5 U	<5 U	<5 U	<5 U	4 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Toluene	108-88-3	5	630	540	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Total Xylenes		5	1380	710	ND	ND	ND	ND	ND	5	ND	ND	ND	ND	ND	ND
Total BTEX			5010	4850	ND	1	23	ND	110	205	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds (ug/L)																
1,1,1-Trichloroethane	71-55-6	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	<5 U	<5 U	<5 UJ	<5 UJ	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1,2-Trichloroethane	79-00-5	1	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1-Dichloroethane	75-34-3	5	<5 U	<5 U	<5 U	<5 U	<5 U	1 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1-Dichloroethene	75-35-4	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2,4-Trichlorobenzene	120-82-1	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ
1,2-Dibromoethane	106-93-4	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dichlorobenzene	95-50-1	3	1 J	1 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dichloroethane	107-06-2	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dichloropropane	78-87-5	1	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,3-Dichlorobenzene	541-73-1	3	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,4-Dichlorobenzene	106-46-7	3	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
2-Butanone	78-93-3	50	<5 U	4 J	9	<5 U	4 J	<5 U	9	18	<5 U	<5 U	69	4 J	<5 U	<5 U
2-Hexanone	591-78-6	50	<5 U	<5 U	<5 UJ	<5 UJ	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U
4-Methyl-2-pentanone	108-10-1	NL	<5 U	<5 U	<5 UJ	<5 UJ	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U
Acetone	67-64-1	50	<5 UJ	20 J	6 J	<5 UJ	8 J	<5 UJ	20 J	43 J	3 J	4 J	11 J	69 J	<5 UJ	<5 UJ
Bromodichloromethane	75-27-4	50	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Bromoform	75-25-2	50	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Bromomethane	74-83-9	5	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ
Carbon disulfide	75-15-0	60	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon tetrachloride	56-23-5	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U
Chlorobenzene	108-90-7	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Chloroethane	75-00-3	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Chloroform	67-66-3	7	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Chloromethane	74-87-3	5	<5 U	2 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
cis-1,2-Dichloroethene	156-59-2	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	1 J	<5 U	<5 U	<5 U
cis-1,3-Dichloropropene	10061-01-5	0.4	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Cyclohexane	110-82-7	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dibromochloromethane	124-48-1	5	<5 U	<5 U	<5 UJ	<5 UJ	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ
Isopropylbenzene	98-82-8	5	31	28	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methyl acetate	79-20-9	NL	<5 UJ	<5 UJ	<5 U	<5 U	<5 U	<5 UJ	<5 UJ	<5 UJ	<5 U	<5 U	<5 U	<5 UJ	<5 UJ	<5 UJ
Methyl tert-butyl ether	1634-04-4	10	3 J	<5 U	8	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	3 J	<5 U	4 J	4 J
Methylcyclohexane	108-87-2	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene chloride	75-09-2	5	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ
Styrene	100-42-5	5	68	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Tetrachloroethene	127-18-4	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
trans-1,2-Dichloroethene	156-60-5	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
trans-1,3-Dichloropropene	10061-02-6	0.4	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Trichloroethene	79-01-6	5	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ
Trichlorofluoromethane	75-69-4	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl chloride	75-01-4	2	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Total VOCs			5113	4905	23	1	35	1	139	266	3	4	84	73	4	4

Notes:
1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].
ug/L - micrograms per liter
mg/L - milligrams per liter
NL = Not Listed
NA = Not Analyzed
ND = Not Detected
J = The associated numerical value is an estimated quantity.
J- = The associated numerical value is an estimated quantity, suspected low bias.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
Bold indicates compound detected at a concentration greater than the reporting limit.
Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-01D	MW-01I	MW-03I	MW-04I	MW-04S	MW-08I	MW-09I	MW-09S	MW-11I	MW-11S	MW-14I	MW-15S	MW-16I	MW-16I
			7/6/2010 AECOM103 Sample	7/6/2010 AECOM103 Sample	6/29/2010 AECOM102 Sample	6/30/2010 AECOM102 Sample	6/30/2010 AECOM102 Sample	7/8/2010 MW-8I-070810 AECOM102 Sample	7/7/2010 MW-9I-070710 AECOM102 Sample	7/7/2010 AECOM102 Sample	7/2/2010 AECOM102 Sample	7/2/2010 AECOM102 Sample	6/30/2010 AECOM103 Sample	7/6/2010 MW-15S-070610 AECOM102 Sample	7/7/2010 AECOM103 Sample	7/7/2010 MW-D-16I-070710 AECOM103 Duplicate
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/L)																
2-Methylnaphthalene	91-57-6	NL	320 J	420 J	<10 U	<10 U	2 J	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Acenaphthene	83-32-9	20	8 J	11	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	4 J	<10 U	<10 U	<10 U
Acenaphthylene	208-96-8	NL	58	81 J	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Anthracene	120-12-7	50	5 J	6 J	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Benzo(a)anthracene	56-55-3	0.002	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Benzo(a)pyrene	50-32-8	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Benzo(b)fluoranthene	205-99-2	0.002	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Benzo(ghi)perylene	191-24-2	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Benzo(k)fluoranthene	207-08-9	0.002	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ
Chrysene	218-01-9	0.002	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Dibenz(a,h)anthracene	53-70-3	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Fluoranthene	206-44-0	50	2 J	2 J	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Fluorene	86-73-7	50	19	25	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Naphthalene	91-20-3	10	2000	2900	<10 U	<10 U	6 J	<10 U	<10 U	<10 U	<10 U	<10 U	1 J	<10 U	<10 U	<10 U
Phenanthrene	85-01-8	50	26	31	<10 U	<10 U	1 J	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Pyrene	129-00-0	50	3 J	3 J	<10 U	<10 U	<10 U	<10 U	<10 U	3 J	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Total PAHs			2441	3479	ND	ND	9	ND	ND	3	ND	ND	5	ND	ND	ND
Other Semi Volatile Organic Compounds (SVOC) (ug/L)																
1,1'-Biphenyl	92-52-4	5	18	24	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
2,4,5-Trichlorophenol	95-95-4	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
2,4,6-Trichlorophenol	88-06-2	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
2,4-Dichlorophenol	120-83-2	5	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
2,4-Dimethylphenol	105-67-9	50	1 J	3 J	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
2,4-Dinitrophenol	51-28-5	10	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ
2,4-Dinitrotoluene	121-14-2	5	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
2,6-Dinitrotoluene	606-20-2	5	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
2-Chloronaphthalene	91-58-7	10	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
2-Chlorophenol	95-57-8	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
2-Methylphenol	95-48-7	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
2-Nitroaniline	88-74-4	5	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
2-Nitrophenol	88-75-5	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
3,3'-Dichlorobenzidine	91-94-1	5	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
3-and 4-Methylphenol	3,4-MEPH	NL	<10 UJ	4 J	<10 U	<10 U	<10 U	<10 U	<10 UJ	<10 U	<10 U	<10 U	5 J	<10 UJ	<10 UJ	<10 UJ
3-Nitroaniline	99-09-2	5	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
4-Bromophenyl phenyl ether	101-55-3	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
4-Chloro-3-methylphenol	59-50-7	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
4-Chloroaniline	106-47-8	5	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
4-Nitroaniline	100-01-6	5	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
4-Nitrophenol	100-02-7	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Acetophenone	98-86-2	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Atrazine	1912-24-9	7.5	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Benzaldehyde	100-52-7	NL	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ
bis(2-Chloroethoxy)methane	111-91-1	5	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
bis(2-Chloroethyl) ether	111-44-4	1	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
bis(2-Ethylhexyl) phthalate	117-81-7	5	<10 U	1 J	<10 U	<10 U	<10 U	<10 U	2 J	<10 U	<10 U	<10 U	<10 U	3 J	1 J	2 J
Butyl benzyl phthalate	85-68-7	50	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Caprolactam	105-60-2	NL	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ
Carbazole	86-74-8	NL	2 J	3 J	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Dibenzofuran	132-64-9	NL	3 J	5 J	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Diethyl phthalate	131-11-3	50	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Dimethyl phthalate	84-66-2	50	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Di-n-butyl phthalate	84-74-2	50	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Di-n-octyl phthalate	117-84-0	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Hexachlorobenzene	118-74-1	0.4	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Hexachlorobutadiene	87-68-3	0.5	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Hexachlorocyclopentadiene	77-47-4	5	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Hexachloroethane	67-72-1	5	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Isophorone	78-59-1	50	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Nitrobenzene	98-95-3	0.4	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
N-Nitrosodi-n-propylamine	621-64-7	50	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
N-Nitrosodiphenylamine	86-30-6	50	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Pentachlorophenol	87-86-5	1	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Phenol	108-95-2	1	2 J	3 J	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
Total SVOCs			2467	3522	ND	ND	9	ND	2	3	ND	ND	10	3	1	2

Notes:

- 1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].

ug/L - micrograms per liter

mg/L - milligrams per liter

NL = Not Listed

NA = Not Analyzed

ND = Not Detected

J = The associated numerical value is an estimated quantity.

J- = The associated numerical value is an estimated quantity, suspected low bias.

R = The associated data is rejected by AECOM due to issues pertaining to calibration results.

U = The material was analyzed for but not detected at, or above, the reporting limit.

The associated numerical value is the sample quantitation limit.

Bold indicates compound detected at a concentration greater than the reporting limit.

TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-01D 7/6/2010 MW-1D-070610 AECOM103 Sample	MW-01I 7/6/2010 MW-1I-070610 AECOM103 Sample	MW-03I 6/29/2010 MW-3I-062910 AECOM102 Sample	MW-04I 6/30/2010 MW-4I-063010 AECOM102 Sample	MW-04S 6/30/2010 MW-4S-063010 AECOM102 Sample	MW-08I 7/8/2010 MW-8I-070810 AECOM102 Sample	MW-09I 7/7/2010 MW-9I-070710 AECOM102 Sample	MW-09S 7/7/2010 MW-9S-070710 AECOM102 Sample	MW-11I 7/2/2010 MW-11I-070210 AECOM102 Sample	MW-11S 7/2/2010 MW-11S-070210 AECOM102 Sample	MW-14I 6/30/2010 MW-14I-063010 AECOM103 Sample	MW-15S 7/6/2010 MW-15S-070610 AECOM102 Sample	MW-16I 7/7/2010 MW-16I-070710 AECOM103 Sample	MW-16I 7/7/2010 MW-D-16I-070710 AECOM103 Duplicate
Metals (ug/L)																
Aluminum	7429-90-5	NL	20.7 J	41.8 J	NA	NA	NA	NA	NA	NA	NA	NA	8.9 J	NA	2550	3040
Antimony	7440-36-0	3	<2.9 U	<2.9 U	NA	NA	NA	NA	NA	NA	NA	NA	<2.9 U	NA	<2.9 U	<2.9 U
Arsenic	7440-38-2	25	<2.5 U	<2.5 U	<2.5 U	11.1	3.3 J	10.6	24.6	1390	<2.5 U	77.7	<2.5 U	65	16.5 J	10.8 J
Barium	7440-39-3	1000	76.7 J	39.7 J	99.5 J	30.5 J	123 J	38.3 J	122 J	90.1 J	206	308	79.4 J	140 J	31.1 J	29.9 J
Beryllium	7440-41-7	3	<0.17 U	<0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.17 U	NA	0.43 J	0.50 J
Cadmium	7440-43-9	5	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U	<0.33 U
Calcium	7440-70-2	NL	58500	27900	NA	NA	NA	NA	NA	NA	NA	NA	26400	NA	5890	5170
Chromium	7440-47-3	50	<2.3 U	<2.3 U	<2.3 U	<2.3 U	3.7 J	<2.3 U	6.6 J	3.5 J	3.4 J	<2.3 U	<2.3 U	3.8 J	13.6	15.6
Cobalt	7440-48-4	NL	<1.4 U	<1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	6.2 J	NA	<1.4 U	<1.4 U
Copper	7440-50-8	200	1.4 J	1.5 J	NA	NA	NA	NA	NA	NA	NA	NA	<0.64 U	NA	3.8 J	4.5 J
Iron	7439-89-6	300	3570	2610	NA	NA	NA	NA	NA	NA	NA	NA	20900	NA	3820	4200
Lead	7439-92-1	25	<1.3 U	<1.3 U	1.7 J	3.1	2.1 J	<1.3 U	4.1	3.7	<1.3 U	1.4 J	3.4	<1.3 U	2.1 J	<1.3 U
Magnesium	7439-95-4	35000	16100	16200	NA	NA	NA	NA	NA	NA	NA	NA	6930	NA	5440	5040
Manganese	7439-96-5	300	169	248	NA	NA	NA	NA	NA	NA	NA	NA	1760	NA	44.1	41.1
Mercury	7439-97-6	0.7	<0.10 U	<0.10 U	<0.10 UJ	<0.10 UJ	<0.10 UJ	<0.10 UJ	<0.10 UJ	<0.10 UJ	<0.10 UJ	<0.10 UJ	<0.10 U	<0.10 UJ	<0.10 U	<0.10 U
Nickel	7440-02-0	100	<1.5 U	1.7 J	NA	NA	NA	NA	NA	NA	NA	NA	<1.5 U	NA	2.4 J	2.6 J
Potassium	7440-09-7	NL	10200 J	17800 J	NA	NA	NA	NA	NA	NA	NA	NA	8610 J	NA	12000 J	11900 J
Selenium	7782-49-2	10	<2.8 U	<2.8 U	<2.8 U	<2.8 U	<2.8 U	<2.8 U	<2.8 U	<2.8 U	<2.8 U	<2.8 U	<2.8 U	<2.8 U	<2.8 U	<2.8 U
Silver	7440-22-4	50	<0.32 U	<0.32 U	<0.32 U	0.64 J	0.53 J	<0.32 U	0.49 J	<0.32 U	0.34 J	<0.32 U	<0.32 U	0.55 J	<0.32 U	<0.32 U
Sodium	7440-23-5	20000	131000	124000	NA	NA	NA	NA	NA	NA	NA	NA	89700	NA	266000	263000
Thallium	7440-28-0	0.5	<3.0 U	<3.0 U	NA	NA	NA	NA	NA	NA	NA	NA	<3.0 U	NA	<3.0 U	<3.0 U
Vanadium	7440-62-2	NL	10.5 J	23.3 J	NA	NA	NA	NA	NA	NA	NA	NA	1.4 J	NA	24.1 J	27.2 J
Zinc	7440-66-6	2000	<18.5 UJ	<30.5 U	NA	NA	NA	NA	NA	NA	NA	NA	<16.9 UJ	NA	<27.8 U	<29.0 U
Cyanide (ug/L)																
Total Cyanide	57-12-5	200	50.0	17.4	40.6	38.1	260	<10.0 R	<10.0 U	<10.0 R	11.0	<10.0 U	<10 U	<10.0 U	<10 U	<10 UJ
Pesticides (ug/L)																
Aldrin	309-00-2	NL	<0.050 U	<0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.050 U	NA	<0.050 U	<0.050 U
Alpha-BHC	319-84-6	NL	<0.050 U	<0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.050 U	NA	<0.050 U	<0.050 U
Beta-BHC	319-85-7	NL	<0.050 U	<0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.050 U	NA	<0.050 U	<0.050 U
Chlordane, alpha	5103-71-9	NL	<0.050 U	<0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.050 U	NA	<0.050 U	<0.050 U
Chlordane, trans-	5103-74-2	NL	<0.050 U	<0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.050 U	NA	<0.050 U	<0.050 U
DDD,4,4-	72-54-8	NL	<0.10 U	<0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.10 U	NA	<0.10 U	<0.10 U
DDE,4,4-	72-55-9	NL	<0.10 U	<0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.10 U	NA	<0.10 U	<0.10 U
DDT,4,4-	50-29-3	NL	<0.10 U	<0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.10 U	NA	<0.10 U	<0.10 U
Delta-BHC	319-86-8	NL	<0.050 U	<0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.050 U	NA	<0.050 U	<0.050 U
Dieldrin	60-57-1	NL	<0.10 U	<0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.10 U	NA	<0.10 U	<0.10 U
Endosulfan I	959-98-8	NL	<0.050 U	<0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.050 U	NA	<0.050 U	<0.050 U
Endosulfan II	33213-65-9	NL	<0.10 U	<0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.10 U	NA	<0.10 U	<0.10 U
Endosulfan sulfate	1031-07-8	NL	<0.10 U	<0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.10 U	NA	<0.10 U	<0.10 U
Endrin	72-20-8	NL	<0.10 U	<0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.10 U	NA	<0.10 U	<0.10 U
Endrin aldehyde	7421-93-4	NL	<0.10 U	<0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.10 U	NA	<0.10 U	<0.10 U
Endrin ketone	53494-70-5	NL	<0.10 U	<0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.10 U	NA	<0.10 U	<0.10 U
Gamma BHC - Lindane	58-89-9	NL	<0.050 U	<0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.050 U	NA	<0.050 U	<0.050 U
Heptachlor	76-44-8	NL	<0.050 U	<0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.050 U	NA	<0.050 U	<0.050 U
Heptachlor Epoxide	1024-57-3	NL	<0.050 U	<0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.050 U	NA	<0.050 U	<0.050 U
Methoxychlor	72-43-5	NL	<0.50 U	<0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.50 U	NA	<0.50 U	<0.50 U
Toxaphene	8001-35-2	NL	<5.0 U	<5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	<5.0 U	NA	<5.0 U	<5.0 U
PCBs (ug/L)																
Aroclor 1016	12674-11-2	NL	<1.0 U	<1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	<1.0 U	NA	<1.0 U	<1.0 U
Aroclor 1221	11104-28-2	NL	<2.0 U	<2.0 U	NA	NA	NA	NA	NA	NA	NA	NA	<2.0 U	NA	<2.0 U	<2.0 U
Aroclor 1232	11141-16-5	NL	<1.0 U	<1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	<1.0 U	NA	<1.0 U	<1.0 U
Aroclor 1242	53469-21-9	NL	<1.0 U	<1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	<1.0 U	NA	<1.0 U	<1.0 U
Aroclor 1248	12672-29-6	NL	<1.0 U	<1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	<1.0 U	NA	<1.0 U	<1.0 U
Aroclor 1254	11097-69-1	NL	<1.0 U	<1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	<1.0 U	NA	<1.0 U	<1.0 U
Aroclor 1260	11096-82-5	NL	<1.0 U	<1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	<1.0 U	NA	<1.0 U	<1.0 U
Aroclor 1262	37324-23-5	NL	<1.0 U	<1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	<1.0 U	NA	<1.0 U	<1.0 U
Aroclor 1268	11100-14-4	NL	<1.0 U	<1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	<1.0 U	NA	<1.0 U	<1.0 U
PCB (Total) (ug/L)		0.09	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND
Herbicides (ug/L)																
2,4-D	94-75-7	NL	<0.50 U	<0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.50 U	NA	<0.50 U	<0.50 U
2,4-DB	94-82-6	NL	<0.50 U	<0.50 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.50 U	NA	<0.50 U	<0.50 U
Silvex	93-72-1	NL	<0.25 U	<0.25 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.25 U	NA	<0.25 U	<0.25 U
T,2,4,5-	93-76-5	NL	<0.25 U	<0.25 U	NA	NA	NA	NA	NA	NA	NA	NA	<0.25 U	NA	<0.25 U	<0.25 U

Notes:
1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].
ug/L - micrograms per liter
mg/L - milligrams per liter
NL = Not Listed
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J = The associated numerical value is an estimated quantity.
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TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-19S 7/8/2010 MW-19S-070810 AECOM103 Sample	MW-21S 7/8/2010 MW-21S-070810 AECOM102 Sample	SB-06 5/5/2010 SB6GW(24-28)050310 AECOM098 Sample	SB-06 5/5/2010 SB6GW(14-18)050310 AECOM098 Sample
BTEX (ug/L)						
Benzene	71-43-2	1	35000	27000	<5 U	<5 U
Ethylbenzene	100-41-4	5	4100	2100	<5 U	<5 U
m+p-Xylene	1330-20-7-M,P	NL	5200	6100	1 J	<5 U
o-Xylene	95-47-6	NL	2400	2800	<5 U	<5 U
Toluene	108-88-3	5	19000	25000	6.2	23
Total Xylenes		5	7600	8900	1	ND
Total BTEX			65700	63000	7.2	23
Volatile Organic Compounds (ug/L)						
1,1,1-Trichloroethane	71-55-6	5	5	13	<5 UJ	<5 UJ
1,1,2,2-Tetrachloroethane	79-34-5	5	<5 U	<5 U	<5 UJ	<5 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	<5 U	<5 U	<5 U	<5 U
1,1,2-Trichloroethane	79-00-5	1	<5 U	<5 U	<5 U	<5 U
1,1-Dichloroethane	75-34-3	5	4 J	12	<5 U	<5 U
1,1-Dichloroethene	75-35-4	5	<5 U	<5 U	35	<5 U
1,2,4-Trichlorobenzene	120-82-1	5	<5 U	<5 U	<5 UJ	<5 UJ
1,2-Dibromo-3-chloropropane	96-12-8	0.04	<5 UJ	<5 UJ	<5 UJ	<5 UJ
1,2-Dibromoethane	106-93-4	NL	<5 U	<5 U	<5 UJ	<5 UJ
1,2-Dichlorobenzene	95-50-1	3	4 J	5	<5 U	<5 U
1,2-Dichloroethane	107-06-2	5	<5 U	<5 U	<5 U	<5 U
1,2-Dichloropropane	78-87-5	1	<5 U	<5 U	<5 U	<5 U
1,3-Dichlorobenzene	541-73-1	3	<5 U	<5 U	<5 U	<5 U
1,4-Dichlorobenzene	106-46-7	3	<5 U	<5 U	<5 U	<5 U
2-Butanone	78-93-3	50	7	4 J	<5 U	<5 U
2-Hexanone	591-78-6	50	<5 U	<5 U	<5 U	<5 U
4-Methyl-2-pentanone	108-10-1	NL	<5 U	<5 U	<5 U	<5 U
Acetone	67-64-1	50	21 J	11 J	<5 UJ	<5 UJ
Bromodichloromethane	75-27-4	50	<5 U	<5 U	<5 U	<5 U
Bromoform	75-25-2	50	<5 U	<5 U	<5 U	<5 U
Bromomethane	74-83-9	5	<5 UJ	<5 UJ	<5 UJ	<5 UJ
Carbon disulfide	75-15-0	60	<5 U	1 J	<5 U	<5 U
Carbon tetrachloride	56-23-5	5	<5 U	<5 U	<5 UJ	<5 UJ
Chlorobenzene	108-90-7	5	3 J	3 J	<5 U	<5 U
Chloroethane	75-00-3	5	<5 U	1 J	<5 UJ	<5 UJ
Chloroform	67-66-3	7	<5 U	<5 U	<5 U	<5 U
Chloromethane	74-87-3	5	<5 U	<5 U	<5 U	<5 U
cis-1,2-Dichloroethene	156-59-2	5	<5 U	<5 U	3300	90
cis-1,3-Dichloropropene	10061-01-5	0.4	<5 U	<5 U	<5 U	<5 U
Cyclohexane	110-82-7	NL	4 J	4 J	<5 UJ	<5 UJ
Dibromochloromethane	124-48-1	5	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	<5 UJ	<5 UJ	<5 UJ	<5 UJ
Isopropylbenzene	98-82-8	5	53	19	<5 U	<5 U
Methyl acetate	79-20-9	NL	<5 UJ	<5 UJ	<5 UJ	<5 UJ
Methyl tert-butyl ether	1634-04-4	10	<5 U	<5 U	<5 U	<5 U
Methylcyclohexane	108-87-2	NL	2 J	3 J	<5 UJ	<5 UJ
Methylene chloride	75-09-2	5	<5 UJ	<5 UJ	<5 UJ	<5 UJ
Styrene	100-42-5	5	3300	7100	<5 U	<5 U
Tetrachloroethene	127-18-4	5	<5 U	<5 U	58000	930
trans-1,2-Dichloroethene	156-60-5	5	<5 U	<5 U	17	<5 U
trans-1,3-Dichloropropene	10061-02-6	0.4	<5 U	<5 U	<5 U	<5 U
Trichloroethene	79-01-6	5	<5 UJ	<5 UJ	5400	100
Trichlorofluoromethane	75-69-4	5	<5 U	<5 U	<5 UJ	<5 UJ
Vinyl chloride	75-01-4	2	<5 U	<5 U	83	3 J
Total VOCs			69103	70176	66842.2	1146

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TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-19S 7/8/2010 MW-19S-070810 AECOM103 Sample	MW-21S 7/8/2010 MW-21S-070810 AECOM102 Sample	SB-06 5/5/2010 SB6GW(24-28)050310 AECOM098 Sample	SB-06 5/5/2010 SB6GW(14-18)050310 AECOM098 Sample
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/L)						
2-Methylnaphthalene	91-57-6	NL	1100 J	1100 J	<10 U	<10 U
Acenaphthene	83-32-9	20	31	14	<10 U	<10 U
Acenaphthylene	208-96-8	NL	220 J	240 J	<10 U	<10 U
Anthracene	120-12-7	50	9 J	10	<10 U	<10 U
Benzo(a)anthracene	56-55-3	0.002	<10 U	<10 U	<10 U	<10 U
Benzo(a)pyrene	50-32-8	NL	<10 U	<10 U	<10 U	<10 U
Benzo(b)fluoranthene	205-99-2	0.002	<10 U	<10 U	<10 UJ	<10 UJ
Benzo(ghi)perylene	191-24-2	NL	<10 U	<10 U	<10 UJ	<10 UJ
Benzo(k)fluoranthene	207-08-9	0.002	<10 UJ	<10 UJ	<10 UJ	<10 UJ
Chrysene	218-01-9	0.002	<10 U	<10 U	<10 U	<10 U
Dibenz(a,h)anthracene	53-70-3	NL	<10 U	<10 U	<10 UJ	<10 UJ
Fluoranthene	206-44-0	50	3 J	3 J	<10 U	<10 U
Fluorene	86-73-7	50	41	45	<10 U	<10 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	<10 U	<10 U	<10 UJ	<10 UJ
Naphthalene	91-20-3	10	10000	12000 J	2 J	<10 U
Phenanthrene	85-01-8	50	48	50	<10 U	<10 U
Pyrene	129-00-0	50	5 J	5 J	<10 U	<10 U
Total PAHs			11457	13467	2	ND
Other Semi Volatile Organic Compounds (SVOC) (ug/L)						
1,1'-Biphenyl	92-52-4	5	49	56	<10 U	<10 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	<10 UJ	<10 U	<10 U	<10 U
2,4,5-Trichlorophenol	95-95-4	NL	<10 U	<10 U	<10 U	<10 U
2,4,6-Trichlorophenol	88-06-2	NL	<10 U	<10 U	<10 U	<10 U
2,4-Dichlorophenol	120-83-2	5	<10 UJ	<10 UJ	<10 U	<10 U
2,4-Dimethylphenol	105-67-9	50	<10 UJ	<10 UJ	<10 U	<10 U
2,4-Dinitrophenol	51-28-5	10	<10 UJ	<10 UJ	<10 UJ	<10 UJ
2,4-Dinitrotoluene	121-14-2	5	<10 U	<10 U	<10 U	<10 U
2,6-Dinitrotoluene	606-20-2	5	<10 U	<10 U	<10 U	<10 U
2-Chloronaphthalene	91-58-7	10	<10 U	<10 U	<10 U	<10 U
2-Chlorophenol	95-57-8	NL	<10 U	<10 U	<10 U	<10 U
2-Methylphenol	95-48-7	NL	25 J	11	<10 U	<10 U
2-Nitroaniline	88-74-4	5	<10 U	<10 U	<10 U	<10 U
2-Nitrophenol	88-75-5	NL	<10 UJ	<10 UJ	<10 U	<10 U
3,3'-Dichlorobenzidine	91-94-1	5	<10 R	<10 U	<10 U	<10 U
3-and 4-Methylphenol	3,4-MEPH	NL	56	31	<10 UJ	<10 UJ
3-Nitroaniline	99-09-2	5	<10 U	<10 U	<10 U	<10 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	<10 U	<10 U	<10 UJ	<10 UJ
4-Bromophenyl phenyl ether	101-55-3	NL	<10 U	<10 U	<10 U	<10 U
4-Chloro-3-methylphenol	59-50-7	NL	<10 UJ	<10 UJ	<10 U	<10 U
4-Chloroaniline	106-47-8	5	<10 UJ	<10 UJ	<10 U	<10 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	<10 U	<10 U	<10 U	<10 U
4-Nitroaniline	100-01-6	5	<10 U	<10 U	<10 U	<10 U
4-Nitrophenol	100-02-7	NL	<10 U	<10 U	<10 UJ	<10 UJ
Acetophenone	98-86-2	NL	32 J	38	<10 U	<10 U
Atrazine	1912-24-9	7.5	<10 R	<10 U	<10 U	<10 U
Benzaldehyde	100-52-7	NL	<10 R	1000 J	<10 UJ	<10 UJ
bis(2-Chloroethoxy)methane	111-91-1	5	<10 UJ	<10 UJ	<10 U	<10 U
bis(2-Chloroethyl) ether	111-44-4	1	<10 U	<10 U	<10 U	<10 U
bis(2-Ethylhexyl) phthalate	117-81-7	5	<10 U	<10 U	<10 U	<10 U
Butyl benzyl phthalate	85-68-7	50	<10 U	<10 U	<10 U	<10 U
Caprolactam	105-60-2	NL	<10 R	<10 UJ	<10 UJ	<10 UJ
Carbazole	86-74-8	NL	19	21	<10 U	<10 U
Dibenzofuran	132-64-9	NL	10	11	<10 U	<10 U
Diethyl phthalate	131-11-3	50	<10 U	<10 U	<10 U	<10 U
Dimethyl phthalate	84-66-2	50	<10 U	2 J	<10 U	<10 U
Di-n-butyl phthalate	84-74-2	50	<10 U	<10 U	<10 U	<10 U
Di-n-octyl phthalate	117-84-0	NL	<10 U	<10 U	<10 U	<10 U
Hexachlorobenzene	118-74-1	0.4	<10 U	<10 U	<10 U	<10 U
Hexachlorobutadiene	87-68-3	0.5	<10 UJ	<10 UJ	<10 U	<10 U
Hexachlorocyclopentadiene	77-47-4	5	<10 U	<10 U	<10 UJ	<10 UJ
Hexachloroethane	67-72-1	5	<10 U	<10 U	<10 U	<10 U
Isophorone	78-59-1	50	<10 UJ	<10 UJ	<10 U	<10 U
Nitrobenzene	98-95-3	0.4	<10 UJ	<10 UJ	<10 U	<10 U
N-Nitrosodi-n-propylamine	621-64-7	50	<10 U	<10 U	<10 U	<10 U
N-Nitrosodiphenylamine	86-30-6	50	<10 U	<10 U	<10 U	<10 U
Pentachlorophenol	87-86-5	1	<10 U	<10 U	<10 U	<10 U
Phenol	108-95-2	1	38	37	<10 U	<10 U
Total SVOCs			11686	14674	2	ND

Notes:

1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].

ug/L - micrograms per liter

mg/L - milligrams per liter

NL = Not Listed

NA = Not Analyzed

ND = Not Detected

J = The associated numerical value is an estimated quantity.

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R = The associated data is rejected by AECOM due to issues pertaining to calibration results.

U = The material was analyzed for but not detected at, or above, the reporting limit.

The associated numerical value is the sample quantitation limit.

Bold indicates compound detected at a concentration greater than the reporting limit.

Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-19S 7/8/2010 MW-19S-070810 AECOM103 Sample	MW-21S 7/8/2010 MW-21S-070810 AECOM102 Sample	SB-06 5/5/2010 SB6GW(24-28)050310 AECOM098 Sample	SB-06 5/5/2010 SB6GW(14-18)050310 AECOM098 Sample
Metals (ug/L)						
Aluminum	7429-90-5	NL	12.0 J	NA	NA	NA
Antimony	7440-36-0	3	<2.9 U	NA	NA	NA
Arsenic	7440-38-2	25	<2.5 U	3.1 J	28.8	27.4
Barium	7440-39-3	1000	55.4 J	31.0 J	92.1 J	190 J
Beryllium	7440-41-7	3	<0.17 U	NA	NA	NA
Cadmium	7440-43-9	5	<0.33 U	<0.33 U	1.0 J	2.1 J
Calcium	7440-70-2	NL	472000	NA	NA	NA
Chromium	7440-47-3	50	2.7 J	<2.3 U	72.3	120
Cobalt	7440-48-4	NL	<1.4 U	NA	NA	NA
Copper	7440-50-8	200	2.5 J	NA	NA	NA
Iron	7439-89-6	300	9450	NA	NA	NA
Lead	7439-92-1	25	3.1	<1.3 U	20.6	28.3
Magnesium	7439-95-4	35000	35600	NA	NA	NA
Manganese	7439-96-5	300	414	NA	NA	NA
Mercury	7439-97-6	0.7	<0.10 U	<0.10 UJ	<0.10 U	<0.10 U
Nickel	7440-02-0	100	<1.5 U	NA	NA	NA
Potassium	7440-09-7	NL	12500 J	NA	NA	NA
Selenium	7782-49-2	10	<2.8 U	<2.8 U	<2.8 U	<2.8 U
Silver	7440-22-4	50	<0.32 U	<0.32 U	<0.32 U	0.57 J
Sodium	7440-23-5	20000	65800	NA	NA	NA
Thallium	7440-28-0	0.5	<3.0 U	NA	NA	NA
Vanadium	7440-62-2	NL	219	NA	NA	NA
Zinc	7440-66-6	2000	<13.8 UJ	NA	NA	NA
Cyanide (ug/L)						
Total Cyanide	57-12-5	200	13.7 R	<10.0 R	<10 U	<10 U
Pesticides (ug/L)						
Aldrin	309-00-2	NL	<0.050 U	NA	NA	NA
Alpha-BHC	319-84-6	NL	<0.050 U	NA	NA	NA
Beta-BHC	319-85-7	NL	<0.050 U	NA	NA	NA
Chlordane, alpha	5103-71-9	NL	<0.050 U	NA	NA	NA
Chlordane, trans-	5103-74-2	NL	<0.050 U	NA	NA	NA
DDD,4,4-	72-54-8	NL	<0.10 U	NA	NA	NA
DDE,4,4-	72-55-9	NL	<0.10 U	NA	NA	NA
DDT,4,4-	50-29-3	NL	<0.10 U	NA	NA	NA
Delta-BHC	319-86-8	NL	<0.050 U	NA	NA	NA
Dieldrin	60-57-1	NL	<0.10 U	NA	NA	NA
Endosulfan I	959-98-8	NL	<0.050 U	NA	NA	NA
Endosulfan II	33213-65-9	NL	<0.10 U	NA	NA	NA
Endosulfan sulfate	1031-07-8	NL	<0.10 U	NA	NA	NA
Endrin	72-20-8	NL	<0.10 U	NA	NA	NA
Endrin aldehyde	7421-93-4	NL	<0.10 U	NA	NA	NA
Endrin ketone	53494-70-5	NL	<0.10 U	NA	NA	NA
Gamma BHC - Lindane	58-89-9	NL	<0.050 U	NA	NA	NA
Heptachlor	76-44-8	NL	<0.050 U	NA	NA	NA
Heptachlor Epoxide	1024-57-3	NL	<0.050 U	NA	NA	NA
Methoxychlor	72-43-5	NL	<0.50 U	NA	NA	NA
Toxaphene	8001-35-2	NL	<5.0 U	NA	NA	NA
PCBs (ug/L)						
Aroclor 1016	12674-11-2	NL	<1.0 U	NA	NA	NA
Aroclor 1221	11104-28-2	NL	<2.0 U	NA	NA	NA
Aroclor 1232	11141-16-5	NL	<1.0 U	NA	NA	NA
Aroclor 1242	53469-21-9	NL	<1.0 U	NA	NA	NA
Aroclor 1248	12672-29-6	NL	<1.0 U	NA	NA	NA
Aroclor 1254	11097-69-1	NL	<1.0 U	NA	NA	NA
Aroclor 1260	11096-82-5	NL	<1.0 U	NA	NA	NA
Aroclor 1262	37324-23-5	NL	<1.0 U	NA	NA	NA
Aroclor 1268	11100-14-4	NL	<1.0 U	NA	NA	NA
PCB (Total) (ug/L)		0.09	ND	NA	NA	NA
Herbicides (ug/L)						
2,4-D	94-75-7	NL	<0.50 U	NA	NA	NA
2,4-DB	94-82-6	NL	0.56 JN	NA	NA	NA
Silvex	93-72-1	NL	<0.25 U	NA	NA	NA
T,2,4,5-	93-76-5	NL	<0.25 U	NA	NA	NA

Notes:

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TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	GW-01 10/22/2010 GW-1 (102210) AECOM115 Sample	GW-02 10/21/2010 GW-2 (102110) AECOM116 Sample	GW-03 10/20/2010 GW-3 (102010) AECOM116 Sample	GW-05 10/20/2010 GW-5 (102010) AECOM116 Sample	GW-06R 10/21/2010 MW-6R (102110) AECOM115 Sample	GW-07 10/20/2010 GW-7 (102010) AECOM116 Sample	GW-08 10/19/2010 GW-8 (101910) AECOM116 Sample	GW-10 10/25/2010 GW-10 (102510) AECOM116 Sample	GW-11 10/22/2010 GW-11 (102210) AECOM116 Sample	GW-11D 10/22/2010 GW-11D (102210) AECOM116 Duplicate GW-11	GW-12 10/21/2010 GW-12 (102110) AECOM116 Sample	GW-13 10/19/2010 GW-13 (101910) AECOM116 Sample	GW-14 10/19/2010 GW-14 (101910) AECOM115 Sample	GW-15 10/21/2010 GW-15 (102110) AECOM116 Sample
BTEX (ug/L)																
Benzene	71-43-2	1	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Ethylbenzene	100-41-4	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
m+p-Xylene	1330-20-7-M,P	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
o-Xylene	95-47-6	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Toluene	108-88-3	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Total Xylenes		5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEX			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds (VOCs) (ug/L)																
1,1,1-Trichloroethane	71-55-6	5	110	<5 U	<5 U	<5 U	4	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1,2-Trichloroethane	79-00-5	1	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1-Dichloroethane	75-34-3	5	17	1	<5U	2	2	<5 U	<5 U	<5 U	<5 U	<5 U	1	<5U	2	<5 U
1,1-Dichloroethene	75-35-4	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2,3-Trichlorobenzene	87-61-6	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,4-Trichlorobenzene	120-82-1	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dibromoethane	106-93-4	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dichlorobenzene	95-50-1	3	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dichloroethane	107-06-2	5	1	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dichloropropane	78-87-5	1	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,3-Dichlorobenzene	541-73-1	3	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,4-Dichlorobenzene	106-46-7	3	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,4-Dioxane	123-91-1	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Butanone	78-93-3	50	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
2-Hexanone	591-78-6	50	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Methyl-2-pentanone	108-10-1	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Acetone	67-64-1	50	5	49	<5 U	<5 U	2	<5 U	<5 U	<5 U	3	3	<5 U	3	8	<5 U
Bromochloromethane	74-97-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Bromodichloromethane	75-27-4	50	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Bromoform	75-25-2	50	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Bromomethane	74-83-9	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Carbon disulfide	75-15-0	60	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	5	<5 U	<5U
Carbon tetrachloride	56-23-5	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Chlorobenzene	108-90-7	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Chloroethane	75-00-3	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Chloroform	67-66-3	7	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Chloromethane	74-87-3	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
cis-1,2-Dichloroethene	156-59-2	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	12	<5U
cis-1,3-Dichloropropene	10061-01-5	0.4	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Cyclohexane	110-82-7	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Dibromochloromethane	124-48-1	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Dichlorodifluoromethane	75-71-8	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Isopropylbenzene	98-82-8	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Methyl acetate	79-20-9	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Methyl tert-butyl ether	1634-04-4	10	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	81	1	<5 U	<5U
Methylcyclohexane	108-87-2	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Methylene chloride	75-09-2	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Styrene	100-42-5	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5U
Tetrachloroethene	127-18-4	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	1	<5 U
trans-1,2-Dichloroethene	156-60-5	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
trans-1,3-Dichloropropene	10061-02-6	0.4	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Trichloroethene	79-01-6	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	1	<5 U
Trichlorofluoromethane	75-69-4	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl chloride	75-01-4	2	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Total VOCs			133	50	ND	2	8	ND	ND	ND	3	3	82	9	24	ND

Notes:
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mg/L - milligrams per liter
NL = Not Listed
NA = Not Analyzed
ND = Not Detected
J = The associated numerical value is an estimated quantity.
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R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
Bold indicates compound detected at a concentration greater than the reporting limit.
Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

[illegible]

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TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	GW-01 10/22/2010 GW-1 (102210) AECOM115 Sample	GW-02 10/21/2010 GW-2 (102110) AECOM116 Sample	GW-03 10/20/2010 GW-3 (102010) AECOM116 Sample	GW-05 10/20/2010 GW-5 (102010) AECOM116 Sample	GW-06R 10/21/2010 MW-6R (102110) AECOM115 Sample	GW-07 10/20/2010 GW-7 (102010) AECOM116 Sample	GW-08 10/19/2010 GW-8 (101910) AECOM116 Sample	GW-10 10/25/2010 GW-10 (102510) AECOM116 Sample	GW-11 10/22/2010 GW-11 (102210) AECOM116 Sample	GW-11D 10/22/2010 GW-11D (102210) AECOM116 Duplicate GW-11	GW-12 10/21/2010 GW-12 (102110) AECOM116 Sample	GW-13 10/19/2010 GW-13 (101910) AECOM116 Sample	GW-14 10/19/2010 GW-14 (101910) AECOM115 Sample	GW-15 10/21/2010 GW-15 (102110) AECOM116 Sample
Metals (ug/L)																
Aluminum	7429-90-5	NL	34200	NS	NS	NS	5900	NS	NS	NS	NS	NS	NS	NS	86	NS
Antimony	7440-36-0	3	<57.8 U	NS	NS	NS	<2.9 U	NS	NS	NS	NS	NS	NS	NS	<2.9U	NS
Arsenic	7440-38-2	25	372	5.9	18	182	360	30	<2.7 U	<2.7 U	5.5	<2.7U	3.4	8.6	103	49.8
Barium	7440-39-3	1000	71.8	20.3	57.2	47.6	98.4	59.9	8.7	235	4.1	4	63.5	22.1	72.9	188
Beryllium	7440-41-7	3	50.8	NS	NS	NS	6.9	NS	NS	NS	NS	NS	NS	NS	<0.16 U	NS
Cadmium	7440-43-9	5	0.5	<0.25 U	0.5	<0.25 U	<0.25 U	0.4	<0.25 U	<0.25 U	<0.25 U	<0.25U	<0.25 U	<0.25 U	0.8	<0.25 U
Calcium	7440-70-2	NL	328000	NS	NS	NS	133000	NS	NS	NS	NS	NS	NS	NS	165000	NS
Chromium	7440-47-3	50	<0.80 U	1	<0.80 U	<0.80 U	1.6	<0.80 U	<0.80 U	<0.80 U	1.5	1.5	3.2	2.1	1.2	<0.80 U
Cobalt	7440-48-4	NL	1.4	NS	NS	NS	<1.3U	NS	NS	NS	NS	NS	NS	NS	43	NS
Copper	7440-50-8	200	<3.1 U	NS	NS	NS	<3.1 U	NS	NS	NS	NS	NS	NS	NS	6.3	NS
Iron	7439-89-6	300	345	NS	NS	NS	523	NS	NS	NS	NS	NS	NS	NS	33100	NS
Lead	7439-92-1	25	7.3	11.4	15	15.4	21.7	15.6	15.3	<1.7 U	21.8	22.7	10.3	13.6	20.2	15.7
Magnesium	7439-95-4	35000	69200	NS	NS	NS	16800	NS	NS	NS	NS	NS	NS	NS	24900	NS
Manganese	7439-96-5	300	176	NS	NS	NS	104	NS	NS	NS	NS	NS	NS	NS	2550	NS
Mercury	7439-97-6	0.7	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Nickel	7440-02-0	100	2.5	NS	NS	NS	13.7	NS	NS	NS	NS	NS	NS	NS	150	NS
Potassium	7440-09-7	NL	11200	NS	NS	NS	6340	NS	NS	NS	NS	NS	NS	NS	7660	NS
Selenium	7782-49-2	10	<3.2 U	4.8	<3.2 U	<3.2 U	23.4	<3.2 U	7.6	<3.2 U	<3.2 U	<3.2U	<3.2 U	<3.2 U	<3.2 U	6.9
Silver	7440-22-4	50	<8.6 U	<0.43 U	<0.43 U	<0.43 U	<8.6 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43U	<0.43 U	<0.43 U	<0.43 U	<0.43 U
Sodium	7440-23-5	20000	146000	NS	NS	NS	7520	NS	NS	NS	NS	NS	NS	NS	99500	NS
Thallium	7440-28-0	0.5	160	NS	NS	NS	34.9	NS	NS	NS	NS	NS	NS	NS	<3.6 U	NS
Vanadium	7440-62-2	NL	152000	NS	NS	NS	27900	NS	NS	NS	NS	NS	NS	NS	<1.3 U	NS
Zinc	7440-66-6	2000	19.9	NS	NS	NS	15.9	NS	NS	NS	NS	NS	NS	NS	4490	NS
Cyanide (ug/L)																
Total Cyanide	57-12-5	200	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	914	858	98.3	<10.0 U	<10.0 U	<10.0 U
Pesticides (ug/L)																
Aldrin	309-00-2	NL	<0.050 U	NS	NS	NS	<0.050 U	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS
Alpha-BHC	319-84-6	NL	<0.050 U	NS	NS	NS	<0.050 U	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS
Beta-BHC	319-85-7	NL	<0.050 U	NS	NS	NS	<0.050 U	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS
Chlordane, alpha	5103-71-9	NL	<0.050 U	NS	NS	NS	<0.050 U	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS
Chlordane, trans-	5103-74-2	NL	<0.050 U	NS	NS	NS	<0.050 U	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS
DDD,4,4-	72-54-8	NL	<0.10 U	NS	NS	NS	<0.10 U	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS
DDE,4,4-	72-55-9	NL	<0.10 U	NS	NS	NS	<0.10 U	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS
DDT,4,4-	50-29-3	NL	<0.10 U	NS	NS	NS	<0.10 U	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS
Delta-BHC	319-86-8	NL	<0.050 U	NS	NS	NS	<0.050 U	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS
Dieldrin	60-57-1	NL	<0.10 U	NS	NS	NS	<0.10 U	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS
Endosulfan I	959-98-8	NL	<0.050 U	NS	NS	NS	<0.050 U	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS
Endosulfan II	33213-65-9	NL	<0.10 U	NS	NS	NS	<0.10 U	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS
Endosulfan sulfate	1031-07-8	NL	<0.10 U	NS	NS	NS	<0.10 U	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS
Endrin	72-20-8	NL	<0.10 U	NS	NS	NS	<0.10 U	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS
Endrin aldehyde	7421-93-4	NL	<0.10 U	NS	NS	NS	<0.10 U	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS
Endrin ketone	53494-70-5	NL	<0.10 U	NS	NS	NS	<0.10 U	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS
Gamma BHC - Lindane	58-89-9	NL	<0.050 U	NS	NS	NS	<0.050 U	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS
Heptachlor	76-44-8	NL	<0.050 U	NS	NS	NS	<0.050 U	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS
Heptachlor Epoxide	1024-57-3	NL	<0.050 U	NS	NS	NS	<0.050 U	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS
Methoxychlor	72-43-5	NL	<0.050 U	NS	NS	NS	<0.050 U	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS
Toxaphene	8001-35-2	NL	<5.0 U	NS	NS	NS	<5.0 U	NS	NS	NS	NS	NS	NS	NS	<5.0 U	NS
PCBs (ug/L)																
Aroclor 1016	12674-11-2	NL	<1.0 U	NS	NS	NS	<1.0 U	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS
Aroclor 1221	11104-28-2	NL	<2.0 U	NS	NS	NS	<2.0 U	NS	NS	NS	NS	NS	NS	NS	<2.0 U	NS
Aroclor 1232	11141-16-5	NL	<1.0 U	NS	NS	NS	<1.0 U	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS
Aroclor 1242	53469-21-9	NL	<1.0 U	NS	NS	NS	<1.0 U	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS
Aroclor 1248	12672-29-6	NL	<1.0 U	NS	NS	NS	<1.0 U	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS
Aroclor 1254	11097-69-1	NL	<1.0 U	NS	NS	NS	<1.0 U	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS
Aroclor 1260	11096-82-5	NL	<1.0 U	NS	NS	NS	<1.0 U	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS
Aroclor 1262	37324-23-5	NL	<1.0 U	NS	NS	NS	<1.0 U	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS
Aroclor 1268	11100-14-4	NL	<1.0 U	NS	NS	NS	<1.0 U	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS
PCB (Total) (ug/L)		0.09	ND	NS	NS	NS	ND	NS	NS	NS	NS	NS	NS	NS	ND	NS
Herbicides (ug/L)																
2,4,5-TP (Silvex)	93-72-1	NL	<0.25 U	NS	NS	NS	<0.25 U	NS	NS	NS	NS	NS	NS	NS	<0.25 U	NS
2,4-D	94-75-7	NL	<0.50 U	NS	NS	NS	<0.50 U	NS	NS	NS	NS	NS	NS	NS	<0.50 U	NS
2,4-DB	94-82-6	NL	<0.50 U	NS	NS	NS	<0.50 U	NS	NS	NS	NS	NS	NS	NS	<0.50 U	NS
T,2,4,5-	93-76-5	NL	<0.25 U	NS	NS	NS	<0.25 U	NS	NS	NS	NS	NS	NS	NS	<0.25 U	NS

Notes:

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BTEX (ug/L)																		
Benzene	71-43-2	1	2300	2800	1400	<5 U	<5 U	1	<5 U	2	92	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	8700
Ethylbenzene	100-41-4	5	1700	3100	1700	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	1900
m+p-Xylene	1330-20-7-M,P	NL	270	1200	240	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	3400
o-Xylene	95-47-6	NL	480	680	180	<5 U	<5 U	<5 U	<5 U	<5 U	2	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	1500
Toluene	108-88-3	5	46	85	39	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	9200
Total Xylenes		5	750	1880	420	ND	ND	ND	ND	ND	2	ND	ND	ND	ND	ND	ND	4900
Total BTEX			4796	7865	3559	ND	ND	1	ND	2	94	ND	ND	ND	ND	ND	ND	24700
Volatile Organic Compounds (VOCs) (ug/L)																		
1,1,1-Trichloroethane	71-55-6	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	3
1,1,2,2-Tetrachloroethane	79-34-5	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1,2-Trichloroethane	79-00-5	1	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,1-Dichloroethane	75-34-3	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	5
1,1-Dichloroethene	75-35-4	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2,3-Trichlorobenzene	87-61-6	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,4-Trichlorobenzene	120-82-1	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dibromoethane	106-93-4	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dichlorobenzene	95-50-1	3	<5 U	1	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	3
1,2-Dichloroethane	107-06-2	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,2-Dichloropropane	78-87-5	1	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,3-Dichlorobenzene	541-73-1	3	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,4-Dichlorobenzene	106-46-7	3	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
1,4-Dioxane	123-91-1	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Butanone	78-93-3	50	<5 U	<5 U	3	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	9
2-Hexanone	591-78-6	50	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Methyl-2-pentanone	108-10-1	NL	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Acetone	67-64-1	50	<5 U	3	3	<5 U	<5 U	1	<5 U	<5 U	2	<5 U	<5 U	<5 U	2	<5 U	1	78
Bromochloromethane	74-97-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<5 U	<5 U	NS	NS	NS	NS
Bromodichloromethane	75-27-4	50	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Bromoform	75-25-2	50	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Bromomethane	74-83-9	5	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon disulfide	75-15-0	60	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon tetrachloride	56-23-5	5	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Chlorobenzene	108-90-7	5	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Chloroethane	75-00-3	5	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Chloroform	67-66-3	7	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Chloromethane	74-87-3	5	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
cis-1,2-Dichloroethene	156-59-2	5	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
cis-1,3-Dichloropropene	10061-01-5	0.4	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Cyclohexane	110-82-7	NL	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	2
Dibromochloromethane	124-48-1	5	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	3	<5 U	<5 U	<5 U
Isopropylbenzene	98-82-8	5	27	35	20	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	7
Methyl acetate	79-20-9	NL	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methyl tert-butyl ether	1634-04-4	10	4	<5 U	<5 U	7	<5 U	<5 U	<5 U	<5 U	<5 U	1	<5 U	1	<5 U	3	<5 U	<5 U
Methylcyclohexane	108-87-2	NL	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	2
Methylene chloride	75-09-2	5	<5U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Styrene	100-42-5	5	12	13	7	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	3400
Tetrachloroethene	127-18-4	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
trans-1,2-Dichloroethene	156-60-5	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
trans-1,3-Dichloropropene	10061-02-6	0.4	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Trichloroethene	79-01-6	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Trichlorofluoromethane	75-69-4	5	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl chloride	75-01-4	2	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Total VOCs			4839	7917	3592	7	ND	2	ND	2	96	1	ND	1	5	3	1	28209

Notes:
1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].
ug/L - micrograms per liter
mg/L - milligrams per liter
NL = Not Listed
NA = Not Analyzed
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J = The associated numerical value is an estimated quantity.
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Bold indicates compound detected at a concentration greater than the reporting limit.
Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type		CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-01D 10/22/2010 MW-1D (102210) AECOM115 Sample	MW-01I 10/21/2010 MW-1I (102110) AECOM115 Sample	MW-01J 10/21/2010 MW-D-1J (102110) AECOM115 Duplicate	MW-03I 10/20/2010 MW-3I (102010) AECOM116 Sample	MW-04I 10/18/2010 MW-4I (101810) AECOM116 Sample	MW-04S (MW-04R) 10/18/2010 MW-D-1I (101810) AECOM116 Sample	MW-08I 10/19/2010 MW-8I (101910) AECOM116 Sample	MW-09I 10/20/2010 MW-9I (102010) AECOM116 Sample	MW-09S 10/20/2010 MW-9S (102010) AECOM116 Sample	MW-11I 10/19/2010 MW-11I (101910) AECOM116 Sample	MW-11S 10/20/2010 MW-11S (102010) AECOM116 Sample	MW-14I 10/19/2010 MW-14I (101910) AECOM115 Sample	MW-15S 10/25/2010 MW-15S (102510) AECOM116 Sample	MW-16I 10/20/2010 MW-16I (102010) AECOM115 Sample	MW-16S 10/21/2010 MW-16S (102110) AECOM115 Sample	MW-21S 10/25/2010 MW-21S (102510) AECOM116 Sample
PAH (ug/L)																			
2-Methylnaphthalene	91-57-6	NL	120	280	180	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10U	<10 U	<10 U	<10 U	690
Acenaphthene	83-32-9	20	15	12	10	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	5	<10 U	<10 U	<10 U	15
Acenaphthylene	208-96-8	NL	25	55	45	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	220
Anthracene	120-12-7	50	2	3	3	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	11
Benzo(a)anthracene	56-55-3	0.002	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10U
Benzo(a)pyrene	50-32-8	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10U
Benzo(b)fluoranthene	205-99-2	0.002	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10U
Benzo(ghi)perylene	191-24-2	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10U
Benzo(k)fluoranthene	207-08-9	0.002	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10U
Chrysene	218-01-9	0.002	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10U
Dibenz(a,h)anthracene	53-70-3	NL	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10U
Fluoranthene	206-44-0	50	1	2	1	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	5
Fluorene	86-73-7	50	10	15	14	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	48
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10U
Naphthalene	91-20-3	10	230	2100	410	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	5300
Phenanthrene	85-01-8	50	6	17	15	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	46
Pyrene	129-00-0	50	2	2	2	<10 U													

Notes:

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TABLE 1-4 COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGV's NATIONAL GRID FORMER INWOOD GAS HOLDER SITE INWOOD, NASSAU COUNTY, NEW YORK																		
Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-01D 10/22/2010 MW-1D (102210) AECOM115 Sample	MW-01I 10/21/2010 MW-1I (102110) AECOM115 Sample	MW-01I 10/21/2010 MW-D-1I (102110) AECOM115 Duplicate	MW-03I 10/20/2010 MW-3I (102010) AECOM116 Sample	MW-04I 10/18/2010 MW-4I (101810) AECOM116 Sample	MW-04S (MW-04R) 10/18/2010 MW-4R (101810) AECOM116 Sample	MW-08I 10/19/2010 MW-8I (101910) AECOM116 Sample	MW-09I 10/20/2010 MW-9I (102010) AECOM116 Sample	MW-09S 10/20/2010 MW-9S (102010) AECOM116 Sample	MW-11I 10/19/2010 MW-11I (101910) AECOM116 Sample	MW-11S 10/20/2010 MW-11S (102010) AECOM116 Sample	MW-14I 10/19/2010 MW-14I (101910) AECOM115 Sample	MW-15S 10/25/2010 MW-15S (102510) AECOM116 Sample	MW-16I 10/20/2010 MW-16I (102010) AECOM115 Sample	MW-16S 10/21/2010 MW-16S (102110) AECOM115 Sample	MW-21S 10/25/2010 MW-21S (102510) AECOM116 Sample
Metals (ug/L)																		
Aluminum	7429-90-5	NL	68.4	73.3	55.5	NS	NS	NS	NS	NS	NS	NS	NS	33.5	NS	3520	293	NS
Antimony	7440-36-0	3	<2.9U	<2.9U	<2.9U	NS	NS	NS	NS	NS	NS	NS	NS	<2.9 U	NS	<2.9 U	<2.9 U	NS
Arsenic	7440-38-2	25	<2.7U	<2.7U	<2.7U	<2.7U	14.1	<2.7 U	11.8	9.4	889	<2.7 U	9.8	4.5	102	4.6	752	6.7
Barium	7440-39-3	1000	51.3	28.4	28.8	91.3	22.7	67.9	33.1	116	130	222	150	82	45.1	24.3	342	102
Beryllium	7440-41-7	3	<0.16 U	<0.16 U	<0.16 U	NS	NS	NS	NS	NS	NS	NS	NS	<0.16 U	NS	0.5	<0.16 U	NS
Cadmium	7440-43-9	5	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	0.5	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	0.5
Calcium	7440-70-2	NL	47900	26600	27500	NS	NS	NS	NS	NS	NS	NS	NS	28200	NS	4070	125000	NS
Chromium	7440-47-3	50	<0.80 U	1	<0.80 U	1.3	<0.80 U	<0.80 U	0.9	<0.80 U	15.6	1.6	1.8	<0.80 U	`	17.3	1	2.6
Cobalt	7440-48-4	NL	<1.3 U	<1.3 U	<1.3 U	NS	NS	NS	NS	NS	NS	NS	NS	7.4	NS	<1.3 U	<1.3 U	NS
Copper	7440-50-8	200	<3.1 U	<3.1 U	<3.1 U	NS	NS	NS	NS	NS	NS	NS	NS	<3.1 U	NS	3.3	<3.1 U	NS
Iron	7439-89-6	300	4350	2140	2350	NS	NS	NS	NS	NS	NS	NS	NS	25000	NS	4500	25900	NS
Lead	7439-92-1	25	15.4	21.6	23.8	15	4.8	11.8	10.7	<17.3 U	35.6	9.9	26.4	<1.7 U	5.1	29	13	17.6
Magnesium	7439-95-4	35000	13300	17200	17100	NS	NS	NS	NS	NS	NS	NS	NS	6260	NS	3580	30000	NS
Manganese	7439-96-5	300	141	172	190	NS	NS	NS	NS	NS	NS	NS	NS	2010	NS	37.1	160	NS
Mercury	7439-97-6	0.7	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U
Nickel	7440-02-0	100	<1.3 U	<1.3 U	<1.3 U	NS	NS	NS	NS	NS	NS	NS	NS	<1.3 U	NS	<1.3 U	<1.3 U	NS
Potassium	7440-09-7	NL	10000	16400	16600	NS	NS	NS	NS	NS	NS	NS	NS	9660	NS	8320	17700	NS
Selenium	7782-49-2	10	<3.2 U	<3.2 U	<3.2 U	<3.2 U	<3.2 U	<3.2 U	<3.2 U	<3.2 U	<3.2 U	<3.2 U	<3.2 U	<3.2 U	<3.2 U	<3.2 U	<3.2 U	<3.2 U
Silver	7440-22-4	50	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U	<0.43 U
Sodium	7440-23-5	20000	144000	122000	123000	NS	NS	NS	NS	NS	NS	NS	NS	105000	NS	262000	115000	NS
Thallium	7440-28-0	0.5	<3.6 U	<3.6 U	<3.6 U	NS	NS	NS	NS	NS	NS	NS	NS	<3.6 U	NS	<3.6 U	<3.6 U	NS
Vanadium	7440-62-2	NL	8.5	16.5	15.4	NS	NS	NS	NS	NS	NS	NS	NS	<1.3 U	NS	29.1	6.5	NS
Zinc	7440-66-6	2000	12.9	17.6	10.5	NS	NS	NS	NS	NS	NS	NS	NS	20.8	NS	22.1	21.7	NS
Cyanide (ug/L)																		
Total Cyanide	57-12-5	200	50.5	23.7	22.2	49.8	46.5	<10.0 U	<10.0 U	17.7	<10.0 U	14	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U
Pesticides (ug/L)																		
Aldrin	309-00-2	NL	<0.050 U	<0.050 U	<0.050U	NS	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS	<0.050 U	<0.050 U	NS
Alpha-BHC	319-84-6	NL	<0.050 U	<0.050 U	<0.050U	NS	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS	<0.050 U	<0.050 U	NS
Beta-BHC	319-85-7	NL	<0.050 U	<0.050 U	<0.050U	NS	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS	<0.050 U	<0.050 U	NS
Chlordane, alpha	5103-71-9	NL	<0.050 U	<0.050 U	<0.050U	NS	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS	<0.050 U	<0.050 U	NS
Chlordane, trans-	5103-74-2	NL	<0.050 U	<0.050 U	<0.050U	NS	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS	<0.050 U	<0.050 U	NS
DDD,4,4-	72-54-8	NL	<0.10 U	<0.10 U	<0.10U	NS	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS	<0.10 U	<0.10 U	NS
DDE,4,4-	72-55-9	NL	<0.10 U	<0.10 U	<0.10U	NS	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS	<0.10 U	<0.10 U	NS
DDT,4,4-	50-29-3	NL	<0.10 U	<0.10 U	<0.10U	NS	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS	<0.10 U	<0.10 U	NS
Delta-BHC	319-86-8	NL	<0.050 U	<0.050 U	<0.050U	NS	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS	<0.050 U	<0.050 U	NS
Dieldrin	60-57-1	NL	<0.10 U	<0.10 U	<0.10U	NS	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS	<0.10 U	<0.10 U	NS
Endosulfan I	959-98-8	NL	<0.050 U	<0.050 U	<0.050U	NS	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS	<0.050 U	<0.050 U	NS
Endosulfan II	33213-65-9	NL	<0.10 U	<0.10 U	<0.10U	NS	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS	<0.10 U	<0.10 U	NS
Endosulfan sulfate	1031-07-8	NL	<0.10 U	<0.10 U	<0.10U	NS	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS	<0.10 U	<0.10 U	NS
Endrin	72-20-8	NL	<0.10 U	<0.10 U	<0.10U	NS	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS	<0.10 U	<0.10 U	NS
Endrin aldehyde	7421-93-4	NL	<0.10 U	<0.10 U	<0.10U	NS	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS	<0.10 U	<0.10 U	NS
Endrin ketone	53494-70-5	NL	<0.10 U	<0.10 U	<0.10U	NS	NS	NS	NS	NS	NS	NS	NS	<0.10 U	NS	<0.10 U	<0.10 U	NS
Gamma BHC - Lindane	58-89-9	NL	<0.050 U	<0.050 U	<0.050U	NS	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS	<0.050 U	<0.050 U	NS
Heptachlor	76-44-8	NL	<0.050 U	<0.050 U	<0.050U	NS	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS	<0.050 U	<0.050 U	NS
Heptachlor Epoxide	1024-57-3	NL	<0.050 U	<0.050 U	<0.050U	NS	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS	<0.050 U	<0.050 U	NS
Methoxychlor	72-43-5	NL	<0.050 U	<0.050 U	<0.050U	NS	NS	NS	NS	NS	NS	NS	NS	<0.050 U	NS	<0.050 U	<0.050 U	NS
Toxaphene	8001-35-2	NL	<5.0 U	<5.0 U	<5.0U	NS	NS	NS	NS	NS	NS	NS	NS	<5.0 U	NS	<5.0 U	<5.0 U	NS
PCBs (ug/L)																		
Aroclor 1016	12674-11-2	NL	<1.0 U	<1.0U	<1.0 U	NS	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS	<1.0 U	<1.0 U	NS
Aroclor 1221	11104-28-2	NL	<2.0 U	<2.0U	<2.0 U	NS	NS	NS	NS	NS	NS	NS	NS	<2.0 U	NS	<2.0 U	<2.0 U	NS
Aroclor 1232	11141-16-5	NL	<1.0 U	<1.0U	<1.0 U	NS	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS	<1.0 U	<1.0 U	NS
Aroclor 1242	53469-21-9	NL	<1.0 U	<1.0U	<1.0 U	NS	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS	<1.0 U	<1.0 U	NS
Aroclor 1248	12672-29-6	NL	<1.0 U	<1.0U	<1.0 U	NS	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS	<1.0 U	<1.0 U	NS
Aroclor 1254	11097-69-1	NL	<1.0 U	<1.0U	<1.0 U	NS	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS	<1.0 U	<1.0 U	NS
Aroclor 1260	11096-82-5	NL	<1.0 U	<1.0U	<1.0 U	NS	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS	<1.0 U	<1.0 U	NS
Aroclor 1262	37324-23-5	NL	<1.0 U	<1.0U	<1.0 U	NS	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS	<1.0 U	<1.0 U	NS
Aroclor 1268	11100-14-4	NL	<1.0 U	<1.0U	<1.0 U	NS	NS	NS	NS	NS	NS	NS	NS	<1.0 U	NS	<1.0 U	<1.0 U	NS
PCB (Total) (ug/L)		0.09	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	NS	ND	ND	NS
Herbicides (ug/L)																		
2,4,5-TP (Silvex)	93-72-1	NL	<0.25 U	<0.25 U	<0.25 U	NS	NS	NS	NS	NS	NS	NS	NS	<0.25 U	NS	<0.25 U	<0.25 U	NS
2,4-D	94-75-7	NL	<0.50 U	<0.50 U	<0.50 U	NS	NS	NS	NS	NS	NS	NS	NS	<0.50 U	NS	<0.50 U	<0.50 U	NS
2,4-DB	94-82-6	NL	<0.50 U	<0.50 U	<0.50 U	NS	NS	NS	NS	NS	NS	NS	NS	<0.50 U	NS	<0.50 U	<0.50 U	NS
T,2,4,5-	93-76-5	NL	<0.25 U	<0.25 U	<0.25 U	NS	NS	NS	NS	NS	NS	NS	NS	<0.25 U	NS	<0.25 U	<0.25 U	NS

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TABLE 1-4
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NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	GW-01 12/6/2011 GW-1-120611 460344871 Sample	GW-02 12/6/2011 GW-2-120611 460344871 Sample	GW-02 12/6/2011 DUP-1-120611 460344871 Duplicate	GW-03 12/12/2011 GW-3-121211 460347271 Sample	GW-05 12/6/2011 GW-5-120611 460344871 Sample	GW-06R 12/6/2011 GW-6R-120611 460344871 Sample	GW-07 12/6/2011 GW-7-120611 460344871 Sample	GW-08 12/13/2011 GW-8-121311 460348801 Sample	GW-10 12/5/2011 GW-10-120511 460344871 Sample	GW-11 12/8/2011 GW-11-120811 460346071 Sample	GW-11I (MW-11I) 12/7/2011 MW-11I-120711 460346071 Sample	GW-12 12/8/2011 GW-12-120811 460346071 Sample	GW-13 12/14/2011 GW-13-121411 460348801 Sample	GW-14 12/14/2011 GW-14-121411 460348801 Sample	GW-15 12/9/2011 GW-15-120911 460346071 Sample
BTEX (ug/L)																	
Benzene	71-43-2	1	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.15 J	0.25 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Ethylbenzene	100-41-4	5	0.33 J	<1.0 U	<1.0 U	<1.0 U	0.39 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
m+p-Xylene	1330-20-7-M,P	NL	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
o-Xylene	95-47-6	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Toluene	108-88-3	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Total Xylenes		5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEX			0.33	ND	ND	ND	0.39	ND	ND	ND	ND	0.15	0.25	ND	ND	ND	ND
Volatile Organic Compounds (VOCs) (ug/L)																	
1,1,1-Trichloroethane	71-55-6	5	51	0.47 J	0.46 J	<1.0 U	<1.0 U	5.4	0.34 J	0.51 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.88 J	<1.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U	<1.0 UJ	<1.0 U	<1.0 UJ	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ
1,1,2-Trichloroethane	79-00-5	1	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,1-Dichloroethane	75-34-3	5	5.5	1.3	1.4	0.95 J	6.3	3.5	0.19 J	0.82 J	<1.0 U	<1.0 U	<1.0 U	0.66 J	<1.0 U	1.5	<1.0 U
1,1-Dichloroethene	75-35-4	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,2,3-Trichlorobenzene	87-61-6	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ	<1.0 U	<1.0 UJ	<1.0 U	<1.0 U	<1.0 U
1,2,4-Trichlorobenzene	120-82-1	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U
1,2-Dibromoethane	106-93-4	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,2-Dichlorobenzene	95-50-1	3	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,2-Dichloroethane	107-06-2	5	2.8	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,2-Dichloropropane	78-87-5	1	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,3-Dichlorobenzene	541-73-1	3	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,4-Dichlorobenzene	106-46-7	3	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,4-Dioxane	123-91-1	NL	<50 R	<50 R	<50 R	<50 R	<50 R	<50 R	<50 R	<50 R	<50 R	<50 R	<50 R	<50 R	<50 R	<50 R	<50 R
2-Butanone	78-93-3	50	<10 R	<10 R	<10 R	<10 R	<10 R	<10 R	<10 R	<10 R	<10 R	<10 U	<10 R	<10 U	<10 U	<10 U	<10 U
2-Hexanone	591-78-6	50	<10 UJ	<10 UJ	<10 UJ	<10 U	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 U	<10 UJ
4-Methyl-2-pentanone	108-10-1	NL	<10 UJ	<10 UJ	<10 UJ	<10 U	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 U	<10 UJ
Acetone	67-64-1	50	<10 U	<10 U	<10 U	<10 UJ	<10 U	<10 U	<10 U	<10 UJ	<10 U	<10 U	<10 U	<10 U	<10 UJ	<10 UJ	<10 U
Bromochloromethane	74-97-5	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Bromodichloromethane	75-27-4	50	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Bromoform	75-25-2	50	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Bromomethane	74-83-9	5	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ	<1.0 U	<1.0 UJ	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Carbon disulfide	75-15-0	60	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U	0.19 J	<1.0 UJ	<1.0 UJ	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Carbon tetrachloride	56-23-5	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Chlorobenzene	108-90-7	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Chloroethane	75-00-3	5	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 UJ
Chloroform	67-66-3	7	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Chloromethane	74-87-3	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
cis-1,2-Dichloroethene	156-59-2	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.20 J	<1.0 U	<1.0 U	3.4	<1.0 U
cis-1,3-Dichloropropene	10061-01-5	0.4	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Cyclohexane	110-82-7	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Dibromochloromethane	124-48-1	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Dichlorodifluoromethane	75-71-8	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ	<1.0 U	<1.0 U	<1.0 UJ
Isopropylbenzene	98-82-8	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Methyl acetate	79-20-9	NL	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
Methyl tert-butyl ether	1634-04-4	10	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	2.2	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Methylcyclohexane	108-87-2	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U	<1.0 U	<1.0 UJ
Methylene chloride	75-09-2	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Styrene	100-42-5	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Tetrachloroethene	127-18-4	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	3.1	<1.0 U	<1.0 U	6	<1.0 U
trans-1,2-Dichloroethene	156-60-5	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
trans-1,3-Dichloropropene	10061-02-6	0.4	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Trichloroethene	79-01-6	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	2.4	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.29 J	<1.0 U	<1.0 U	1.8	<1.0 U
Trichlorofluoromethane	75-69-4	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.24 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ
Vinyl chloride	75-01-4	2	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Total VOCs			59.63	1.77	1.86	0.95	6.88	11.54	0.53	1.33	ND	0.26	6.04	0.66	ND	13.58	ND

Notes:
1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].
ug/L - micrograms per liter
mg/L - milligrams per liter
NL = Not Listed
NA = Not Analyzed
ND = Not Detected
J = The associated numerical value is an estimated quantity.
J- = The associated numerical value is an estimated quantity, suspected low bias.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
Bold indicates compound detected at a concentration greater than the reporting limit.
Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	GW-01 12/6/2011 GW-1-120611 460344871 Sample	GW-02 12/6/2011 GW-2-120611 460344871 Sample	GW-02 12/6/2011 DUP-1-120611 460344871 Duplicate	GW-03 12/12/2011 GW-3-121211 460347271 Sample	GW-05 12/6/2011 GW-5-120611 460344871 Sample	GW-06R 12/6/2011 GW-6R-120611 460344871 Sample	GW-07 12/6/2011 GW-7-120611 460344871 Sample	GW-08 12/13/2011 GW-8-121311 460348801 Sample	GW-10 12/5/2011 GW-10-120511 460344871 Sample	GW-11 12/8/2011 GW-11-120811 460346071 Sample	GW-11I (MW-11I) 12/7/2011 MW-11I-120711 460346071 Sample	GW-12 12/8/2011 GW-12-120811 460346071 Sample	GW-13 12/14/2011 GW-13-121411 460348801 Sample	GW-14 12/14/2011 GW-14-121411 460348801 Sample	GW-15 12/9/2011 GW-15-120911 460346071 Sample	
PAH (ug/L)																		
2-Methylnaphthalene	91-57-6	NL	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 UJ	<10 U	<10 U
Acenaphthene	83-32-9	20	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
Acenaphthylene	208-96-8	NL	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
Anthracene	120-12-7	50	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
Benzo(a)anthracene	56-55-3	0.002	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U
Benzo(a)pyrene	50-32-8	NL	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U
Benzo(b)fluoranthene	205-99-2	0.002	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U
Benzo(ghi)perylene	191-24-2	NL	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 UJ	<10 U	<10 U
Benzo(k)fluoranthene	207-08-9	0.002	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U
Chrysene	218-01-9	0.002	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
Dibenz(a,h)anthracene	53-70-3	NL	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U
Fluoranthene	206-44-0	50	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
Fluorene	86-73-7	50	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U
Naphthalene	91-20-3	10	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
Phenanthrene	85-01-8	50	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
Pyrene	129-00-0	50	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
Total PAHs			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Other Semi Volatile Organic Compounds (SVOC) (ug/L)																		
1,1'-Biphenyl	92-52-4	5	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 UJ	<11 U	<10 U	<10 U	<10 U	<11 U	<10 UJ	<10 U
1,2,4,5-Tetrachlorobenzene	95-94-3	NL	<11 U	<11 U	<11 U	<11 UJ	<11 U	<11 U	<11 U	<11 U	<10 UJ	<11 U	<10 U	<10 U	<10 U	<11 U	<10 UJ	<10 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
2,3,4,6-Tetrachlorophenol	58-90-2	NL	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 UJ	<11 U	<10 U	<10 U	<10 U	<11 U	<10 UJ	<10 U
2,4,5-Trichlorophenol	95-95-4	NL	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
2,4,6-Trichlorophenol	88-06-2	NL	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
2,4-Dichlorophenol	120-83-2	5	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
2,4-Dimethylphenol	105-67-9	50	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
2,4-Dinitrophenol	51-28-5	10	<32 U	<32 U	<32 U	<32 U	<32 U	<32 U	<32 U	<32 U	<30 U	<32 U	<31 U	<31 U	<31 U	<32 U	<30 U	<31 U
2,4-Dinitrotoluene	121-14-2	5	<2.1 U	<2.1 U	<2.1 U	<2.1 U	<2.1 U	<2.1 U	<2.1 U	<2.1 U	<2.0 U	<2.1 U	<2.0 U	<2.0 U	<2.0 U	<2.1 U	<2.0 U	<2.1 U
2,6-Dinitrotoluene	606-20-2	5	<2.1 U	<2.1 U	<2.1 U	<2.1 U	<2.1 U	<2.1 U	<2.1 U	<2.1 U	<2.0 U	<2.1 U	<2.0 U	<2.0 U	<2.0 U	<2.1 U	<2.0 U	<2.1 U
2-Chloronaphthalene	91-58-7	10	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
2-Chlorophenol	95-57-8	NL	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
2-Methylphenol	95-48-7	NL	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
2-Nitroaniline	88-74-4	5	<21 U	<21 U	<21 U	<21 U	<21 U	<21 U	<21 U	<21 U	<20 U	<21 U	<20 U	<20 U	<20 U	<21 U	<20 U	<21 U
2-Nitrophenol	88-75-5	NL	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U	<11 U	<10 U	<10 U
3,3'-Dichlorobenzidine	91-94-1	5	<21 U	<21 U	<21 U	<21 U	<21 U	<21 U	<21 U	<21 U	<20 U	<21 U	<20 U	<20 U	<20 U	<21 U	<20 U	<21 U
3-and 4-Methylphenol	3,4-MEPH	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
3-Nitroaniline	99-09-2	5	<21 U	<21 U	<21 U	<21 U	<21 U	<21 U	<21 U	<21 U	<20 U	<21 U	<20 U	<20 U	<20 U	<21 U	<20 U	<21 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	<32 U	<32 U	<32 U	<32 U	<32 U	<32 U	<32 U	<32 U	<30 U	<32 U	<31 U	<31 U	<31 U	<32 U	<30 U	<31 U
4-Bromophenyl phenyl ether	101-55-3	NL	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<11 U	<								

TABLE 1-4 COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs NATIONAL GRID FORMER INWOOD GAS HOLDER SITE INWOOD, NASSAU COUNTY, NEW YORK																	
Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	GW-01 12/6/2011 GW-1-120611 460344871 Sample	GW-02 12/6/2011 GW-2-120611 460344871 Sample	GW-02 12/6/2011 DUP-1-120611 460344871 Duplicate	GW-03 12/12/2011 GW-3-121211 460347271 Sample	GW-05 12/6/2011 GW-5-120611 460344871 Sample	GW-06R 12/6/2011 GW-6R-120611 460344871 Sample	GW-07 12/6/2011 GW-7-120611 460344871 Sample	GW-08 12/13/2011 GW-8-121311 460348801 Sample	GW-10 12/5/2011 GW-10-120511 460344871 Sample	GW-11 12/8/2011 GW-11-120811 460346071 Sample	GW-11I (MW-11I) 12/7/2011 MW-11I-120711 460346071 Sample	GW-12 12/8/2011 GW-12-120811 460346071 Sample	GW-13 12/14/2011 GW-13-121411 460348801 Sample	GW-14 12/14/2011 GW-14-121411 460348801 Sample	GW-15 12/9/2011 GW-15-120911 460346071 Sample
Metals (ug/L)																	
Aluminum	7429-90-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Antimony	7440-36-0	3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	7440-38-2	25	71.7	7.7	6.7	18.5	23.5	288	32.3	<5.0 U	<5.0 U	4.6 J	9.8	20.2	<5.0 U	14.7	37.2
Barium	7440-39-3	1000	33.9 J	22.9 J	21.9 J	63.8 J	17.3 J	63.6 J	91.0 J	9.1 J	22.2 J	14.3 J	65.8 J	58.0 J	108 J	107 J	145 J
Beryllium	7440-41-7	3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	7440-43-9	5	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Calcium	7440-70-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	7440-47-3	50	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U
Cobalt	7440-48-4	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	7440-50-8	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	7439-89-6	300	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	7439-92-1	25	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Magnesium	7439-95-4	35000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	7439-96-5	300	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	7439-97-6	0.7	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Nickel	7440-02-0	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	7440-09-7	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	7782-49-2	10	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	8.8 J	12.5	13.7	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	10.2
Silver	7440-22-4	50	1.8 J	<10.0 U	<10.0 U	<10.0 U	<10.0 U	16.3	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U
Sodium	7440-23-5	20000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	7440-28-0	0.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	7440-62-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	7440-66-6	2000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (ug/L)																	
Total Cyanide	57-12-5	200	3.6 J	<10. U	<10. U	<10. U	<10. U	5.5 J	3.7 J	<10. U	<10. U	480	8.8 J	4.1 J	<10. U	<10. U	<10. U
Pesticides (ug/L)																	
Aldrin	309-00-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Alpha-BHC	319-84-6	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beta-BHC	319-85-7	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane, alpha	5103-71-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane, trans-	5103-74-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDD,4,4-	72-54-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDE,4,4-	72-55-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDT,4,4-	50-29-3	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Delta-BHC	319-86-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dieldrin	60-57-1	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan I	959-98-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan II	33213-65-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	1031-07-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin	72-20-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin aldehyde	7421-93-4	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin ketone	53494-70-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Gamma BHC - Lindane	58-89-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor	76-44-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor Epoxide	1024-57-3	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methoxychlor	72-43-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toxaphene	8001-35-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCBs (ug/L)																	
Aroclor 1016	12674-11-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1221	11104-28-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1232	11141-16-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1242	53469-21-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1248	12672-29-6	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1254	11097-69-1	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1260	11096-82-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1262	37324-23-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1268	11100-14-4	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCB (Total) (ug/L)		0.09	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Herbicides (ug/L)																	
2,4,5-TP (Silvex)	93-72-1	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,4-D	94-75-7	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,4-DB	94-82-6	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
T,2,4,5-	93-76-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].
ug/L - micrograms per liter
mg/L - milligrams per liter
NL = Not Listed
NA = Not Analyzed
ND = Not Detected
J = The associated numerical value is an estimated quantity.
J- = The associated numerical value is an estimated quantity, suspected low bias.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
Bold indicates compound detected at a concentration greater than the reporting limit.
Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-01D 12/12/2011 DUP-2-121211 460347271 Duplicate	MW-01D 12/12/2011 MW-1D-121211 460347271 Sample	MW-01I 12/12/2011 MW-1I-121211 460347271 Sample	MW-03I 12/12/2011 MW-3I-121211 460347271 Sample	MW-04I 12/15/2011 MW-4I-121511 460348801 Sample	MW-04S 12/15/2011 MW-4S-121511 460348801 Sample	MW-05D 12/12/2011 MW-5D-121211 460347271 Sample	MW-05I 12/12/2011 MW-5I-121211 460347271 Sample	MW-08I 12/13/2011 MW-8I-121311 460348801 Sample	MW-09I 12/9/2011 MW-9I-120911 460346071 Sample	MW-09S 12/9/2011 MW-9S-120911 460346071 Sample	MW-11I 12/8/2011 MW-11I-120811 460346071 Sample	MW-11S 12/8/2011 MW-11S-120811 460346071 Sample	MW-12S 12/8/2011 MW-12S-120811 460346071 Sample	MW-13I 12/14/2011 MW-13I-121411 460348801 Sample
BTEX (ug/L)																	
Benzene	71-43-2	1	1800	1800	4800	<1.0 U	0.82 J	<1.0 U	40	1200	<1.0 U	220	1.8	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Ethylbenzene	100-41-4	5	1500	1400	3900	<1.0 U	<1.0 U	<1.0 U	0.77 J	320	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
m+p-Xylene	1330-20-7-M,P	NL	280	260	1100	<2.0 U	<2.0 U	<2.0 U	0.30 J	23	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
o-Xylene	95-47-6	NL	380	370	990	<1.0 U	<1.0 U	<1.0 U	0.61 J	170	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Toluene	108-88-3	5	6.9	6.8	240	<1.0 U	<1.0 U	<1.0 U	0.16 J	1.9 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Total Xylenes		5	660	630	2090	ND	ND	ND	0.91	193	ND	ND	ND	ND	ND	ND	ND
Total BTEX			3966.9	3836.8	11030	ND	0.82	ND	41.84	1714.9	ND	220	1.8	ND	ND	ND	ND
Volatile Organic Compounds (VOCs) (ug/L)																	
1,1,1-Trichloroethane	71-55-6	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	0.38 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,1,2-Trichloroethane	79-00-5	1	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,1-Dichloroethane	75-34-3	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	1	<1.0 U	0.20 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,1-Dichloroethene	75-35-4	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,2,3-Trichlorobenzene	87-61-6	NL	<5.0 UJ	<5.0 UJ	<50 U	<1.0 UJ	<1.0 U	<1.0 U	<1.0 UJ	<5.0 UJ	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U
1,2,4-Trichlorobenzene	120-82-1	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 U	<5.0 U	<1.0 UJ	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ
1,2-Dibromo-3-chloropropane	96-12-8	0.04	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 U	<5.0 U	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ
1,2-Dibromoethane	106-93-4	NL	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,2-Dichlorobenzene	95-50-1	3	1.2 J	0.96 J	<50 U	<1.0 U	<1.0 U	<1.0 U	0.20 J	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,2-Dichloroethane	107-06-2	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,2-Dichloropropane	78-87-5	1	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,3-Dichlorobenzene	541-73-1	3	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	0.27 J	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,4-Dichlorobenzene	106-46-7	3	<5.0 UJ	<5.0 UJ	<50 UJ	<1.0 UJ	<1.0 U	<1.0 U	0.40 J	<5.0 UJ	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,4-Dioxane	123-91-1	NL	<250 R	<250 R	<2500 R	<50 R	<50 R	<50 R	<50 R	<250 R	<50 R	<50 R	<50 R	<50 R	<50 R	<50 R	<50 R
2-Butanone	78-93-3	50	<50 R	<50 R	<500 R	<10 R	<10 U	<10 U	<10 R	<50 R	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U
2-Hexanone	591-78-6	50	<50 U	<50 U	<500 U	<10 U	<10 U	<10 U	<10 U	<50 U	<10 U	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 U
4-Methyl-2-pentanone	108-10-1	NL	<50 U	<50 U	<500 U	<10 U	<10 U	<10 U	<10 U	<50 U	<10 U	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 U
Acetone	67-64-1	50	<50 UJ	<50 UJ	<500 U	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<50 UJ	<10 UJ	<10 U	<10 U	<10 U	<10 U	<10 U	<10 UJ
Bromochloromethane	74-97-5	NL	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Bromodichloromethane	75-27-4	50	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Bromoform	75-25-2	50	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Bromomethane	74-83-9	5	<5.0 UJ	<5.0 UJ	<50 U	<1.0 UJ	<1.0 U	<1.0 U	<1.0 UJ	<5.0 UJ	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Carbon disulfide	75-15-0	60	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	0.18 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Carbon tetrachloride	56-23-5	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Chlorobenzene	108-90-7	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Chloroethane	75-00-3	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 U	<5.0 U	<1.0 UJ	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ
Chloroform	67-66-3	7	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Chloromethane	74-87-3	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
cis-1,2-Dichloroethene	156-59-2	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	0.36 J	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
cis-1,3-Dichloropropene	10061-01-5	0.4	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Cyclohexane	110-82-7	NL	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Dibromochloromethane	124-48-1	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Dichlorodifluoromethane	75-71-8	5	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Isopropylbenzene	98-82-8	5	42	39	94	<1.0 U	<1.0 U	<1.0 U	<1.0 U	14	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Methyl acetate	79-20-9	NL	<10 U	<10 U	<100 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<10 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
Methyl tert-butyl ether	1634-04-4	10	2.6 J	2.9 J	<50 U	4.6	<1.0 U	<1.0 U	0.34 J	<5.0 U	<1.0 U	<1.0 U	<1.0 U	1.3	<1.0 U	<1.0 U	13
Methylcyclohexane	108-87-2	NL	<5.0 U	<5.0 U	<50 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<1.0 UJ	<1.0 UJ	<1.0 UJ	<		

Notes:
1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].
ug/L - micrograms per liter
mg/L - milligrams per liter
NL = Not Listed
NA = Not Analyzed
ND = Not Detected
J = The associated numerical value is an estimated quantity.
J- = The associated numerical value is an estimated quantity, suspected low bias.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
Bold indicates compound detected at a concentration greater than the reporting limit.
Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

Sample Location Sample Date Sample ID Laboratory Identification Sample Type			CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-01D 12/12/2011 DUP-2-121211 460347271 Duplicate	MW-01D 12/12/2011 MW-10-121211 460347271 Sample	MW-01I 12/12/2011 MW-11-121211 460347271 Sample	MW-03I 12/12/2011 MW-3I-121211 460347271 Sample	MW-04I 12/15/2011 MW-4I-121511 460348801 Sample	MW-04S 12/15/2011 MW-4S-121511 460348801 Sample	MW-05D 12/12/2011 MW-5D-121211 460347271 Sample	MW-05I 12/12/2011 MW-5I-121211 460347271 Sample	MW-08I 12/13/2011 MW-8I-121311 460348801 Sample	MW-09I 12/9/2011 MW-9S-120911 460346071 Sample	MW-09S 12/9/2011 MW-9S-120911 460346071 Sample	MW-11I 12/8/2011 MW-11S-120811 460346071 Sample	MW-11S 12/8/2011 MW-11S-120811 460346071 Sample	MW-12S 12/8/2011 MW-12S-120811 460346071 Sample	MW-13I 12/14/2011 MW-13I-121411 460348801 Sample
PAH (ug/L)																			
2-Methylnaphthalene	91-57-6	NL	180	170	410 J	<11 U	<10 U	<10 U	<11 U	53	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<11 UJ
Acenaphthene	83-32-9	20	40 J	37 J	84 J	<11 U	<10 U	<10 U	<11 U	<53 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<11 U
Acenaphthylene	208-96-8	NL	<100 U	<110 U	<210 U	<11 U	<10 U	<10 U	<11 U	<53 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<11 U
Anthracene	120-12-7	50	<100 U	<110 U	<210 U	<11 U	<10 U	<10 U	<11 U	<53 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<11 U
Benzo(a)anthracene	56-55-3	0.002	<10 U	<11 U	<21 U	<1.1 U	<1.0 U	<1.0 U	<1.1 U	<5.3 U	0.75 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.1 U
Benzo(a)pyrene	50-32-8	NL	<10 U	<11 U	<21 U	<1.1 U	<1.0 U	<1.0 U	<1.1 U	<5.3 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.1 U
Benzo(b)fluoranthene	205-99-2	0.002	<10 U	<11 U	<21 UJ	<1.1 U	<1.0 U	<1.0 U	<1.1 U	<5.3 U	0.91 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.1 U
Benzo(ghi)perylene	191-24-2	NL	<100 U	<110 U	<210 U	<11 U	<10 U	<10 U	<11 U	<53 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<11 UJ
Benzo(k)fluoranthene	207-08-9	0.002	<10 U	<11 U	<21 U	<1.1 U	<1.0 U	<1.0 U	<1.1 U	<5.3 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.1 U
Chrysene	218-01-9	0.002	<100 U	<110 U	<210 U	<11 U	<10 U	<10 U	<11 U	<53 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<11 U
Dibenz(a,h)anthracene	53-70-3	NL	<10 U	<11 U	<21 UJ	<1.1 U	<1.0 U	<1.0 U	<1.1 U	<5.3 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.1 U
Fluoranthene	206-44-0	50	<100 U	<110 U	<210 U	<11 U	<10 U	<10 U	<11 U	<53 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<11 U
Fluorene	86-73-7	50	<100 U	<110 U	<210 U	<11 U	<10 U	<10 U	<11 U	<53 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<11 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	<10 U	<11 U	<21 UJ	<1.1 U	<1.0 U	<1.0 U	<1.1 U	<5.3 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.1 U
Naphthalene	91-20-3	10	1900	1800	4400	<11 U	<10 U	<10 U	2.9 J	880	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<10 U	<11 U
Phenanthrene	85-01-8	50	<100 U	<															

Bold indicates compound detected at a concentration greater than the reporting limit.
Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

TABLE 1-4 COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs NATIONAL GRID FORMER INWOOD GAS HOLDER SITE INWOOD, NASSAU COUNTY, NEW YORK																	
Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-01D 12/12/2011 DUP-2-121211 460347271 Duplicate	MW-01D 12/12/2011 MW-1D-121211 460347271 Sample	MW-01I 12/12/2011 MW-1I-121211 460347271 Sample	MW-03I 12/12/2011 MW-3I-121211 460347271 Sample	MW-04I 12/15/2011 MW-4I-121511 460348801 Sample	MW-04S 12/15/2011 MW-4S-121511 460348801 Sample	MW-05D 12/12/2011 MW-5D-121211 460347271 Sample	MW-05I 12/12/2011 MW-5I-121211 460347271 Sample	MW-08I 12/13/2011 MW-8I-121311 460348801 Sample	MW-09I 12/9/2011 MW-9I-120911 460346071 Sample	MW-09S 12/9/2011 MW-9S-120911 460346071 Sample	MW-11I 12/8/2011 MW-11I-120811 460346071 Sample	MW-11S 12/8/2011 MW-11S-120811 460346071 Sample	MW-12S 12/8/2011 MW-12S-120811 460346071 Sample	MW-13I 12/14/2011 MW-13I-121411 460348801 Sample
Metals (ug/L)																	
Aluminum	7429-90-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Antimony	7440-36-0	3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	7440-38-2	25	<5.0 U	<5.0 U	<5.0 U	<5.0 U	17.3	<5.0 U	<5.0 U	<5.0 U	8.4	<5.0 U	447	<5.0 U	57.1	198	<5.0 U
Barium	7440-39-3	1000	26.2 J	26.2 J	21.7 J	63.7 J	32.6 J	44.5 J	34.9 J	18.8 J	13.4 J	117 J	109 J	214	52.6 J	197 J	52.8 J
Beryllium	7440-41-7	3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	7440-43-9	5	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Calcium	7440-70-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	7440-47-3	50	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	7.7 J	<10.0 U	<10.0 U
Cobalt	7440-48-4	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	7440-50-8	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	7439-89-6	300	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	7439-92-1	25	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Magnesium	7439-95-4	35000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	7439-96-5	300	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	7439-97-6	0.7	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Nickel	7440-02-0	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	7440-09-7	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	7782-49-2	10	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	11.1	<10.0 U	<10.0 U
Silver	7440-22-4	50	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	1.3 J	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U
Sodium	7440-23-5	20000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	7440-28-0	0.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	7440-62-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	7440-66-6	2000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (ug/L)																	
Total Cyanide	57-12-5	200	36 J	50 J	15	23	<10. U	<10. U	9.9 J	43	<10. U	5.8 J	<10. U	<10. U	<10. U	<10. U	<10. U
Pesticides (ug/L)																	
Aldrin	309-00-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Alpha-BHC	319-84-6	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beta-BHC	319-85-7	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane, alpha	5103-71-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane, trans-	5103-74-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDD,4,4-	72-54-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDE,4,4-	72-55-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDT,4,4-	50-29-3	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Delta-BHC	319-86-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dieldrin	60-57-1	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan I	959-98-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan II	33213-65-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	1031-07-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin	72-20-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin aldehyde	7421-93-4	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin ketone	53494-70-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Gamma BHC - Lindane	58-89-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor	76-44-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor Epoxide	1024-57-3	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methoxychlor	72-43-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toxaphene	8001-35-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCBs (ug/L)																	
Aroclor 1016	12674-11-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1221	11104-28-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1232	11141-16-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1242	53469-21-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1248	12672-29-6	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1254	11097-69-1	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1260	11096-82-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1262	37324-23-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1268	11100-14-4	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCB (Total) (ug/L)		0.09	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Herbicides (ug/L)																	
2,4,5-TP (Silvex)	93-72-1	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,4-D	94-75-7	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,4-DB	94-82-6	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
T,2,4,5-	93-76-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].

ug/L - micrograms per liter

mg/L - milligrams per liter

NL = Not Listed

NA = Not Analyzed

ND = Not Detected

J = The associated numerical value is an estimated quantity.

J- = The associated numerical value is an estimated quantity, suspected low bias.

R = The associated data is rejected by AECOM due to issues pertaining to calibration results.

U = The material was analyzed for but not detected at, or above, the reporting limit.

The associated numerical value is the sample quantitation limit.

Bold indicates compound detected at a concentration greater than the reporting limit.

Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-14I 12/14/2011 MW-14I-121411 460348801 Sample	MW-15S 12/7/2011 MW-15S-120711 460344871 Sample	MW-16I 12/8/2011 MW-16I-120811 460346071 Sample	MW-16S 12/8/2011 MW-16S-120811 460346071 Sample	MW-21S 12/7/2011 MW-21S-120711 460344871 Sample	MW-38D 12/9/2011 MW-38D-120911 460346071 Sample	MW-38I 12/9/2011 MW-38I-120911 460346071 Sample	MW-50I 12/13/2011 MW-50I-121311 460347271 Sample	MW-50S 12/13/2011 MW-50S-121311 460347271 Sample	MW-51I 12/13/2011 MW-51I-121311 460347271 Sample	MW-51S 12/13/2011 MW-51S-121311 460347271 Sample	MW-52I 12/14/2011 MW-52I-121411 460348801 Sample	MW-52S 12/14/2011 MW-52S-121411 460348801 Sample
BTEX (ug/L)															
Benzene	71-43-2	1	<1.0 U	<1.0 U	<1.0 U	<1.0 U	2400	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Ethylbenzene	100-41-4	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	380	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
m+p-Xylene	1330-20-7-M,P	NL	<2.0 U	<2.0 U	<2.0 U	<2.0 U	500	<2.0 U	<2.0 U	<200 U	<1.0 U	<5.0 U	<2.0 U	<2.0 U	<2.0 U
o-Xylene	95-47-6	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 U	280	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Toluene	108-88-3	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	1500	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Total Xylenes		5	ND	ND	ND	ND	780	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEX			ND	ND	ND	ND	5060	ND	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds (VOCs) (ug/L)															
1,1,1-Trichloroethane	71-55-6	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	6.6 J	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	<1.0 U	<1.0 UJ	<1.0 U	<1.0 UJ	<20 UJ	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
1,1,2-Trichloroethane	79-00-5	1	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
1,1-Dichloroethane	75-34-3	5	0.52 J	<1.0 U	<1.0 U	<1.0 U	7.0 J	0.21 J	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	0.98 J	2
1,1-Dichloroethene	75-35-4	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	79 J	5.6	<25 U	<1.0 U	<1.0 U	<1.0 U
1,2,3-Trichlorobenzene	87-61-6	NL	<1.0 U	<1.0 U	<1.0 UJ	<1.0 U	<20 U	<1.0 UJ	<1.0 UJ	<100 UJ	<5.0 UJ	<25 UJ	<1.0 UJ	<1.0 U	<1.0 U
1,2,4-Trichlorobenzene	120-82-1	5	<1.0 UJ	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 UJ	<1.0 UJ
1,2-Dibromo-3-chloropropane	96-12-8	0.04	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U	<20 UJ	<1.0 UJ	<1.0 UJ	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 UJ	<1.0 UJ
1,2-Dibromomethane	106-93-4	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
1,2-Dichlorobenzene	95-50-1	3	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
1,2-Dichloroethane	107-06-2	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
1,2-Dichloropropane	78-87-5	1	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
1,3-Dichlorobenzene	541-73-1	3	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
1,4-Dichlorobenzene	106-46-7	3	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 UJ	<5.0 UJ	<25 UJ	<1.0 UJ	<1.0 U	<1.0 U
1,4-Dioxane	123-91-1	NL	<50 R	<50 R	<50 R	<50 R	<1000 R	<50 R	<50 R	<5000 R	<250 R	<1300 R	<50 R	<50 R	<50 R
2-Butanone	78-93-3	50	<10 U	<10 R	<10 U	<10 U	<200 R	<10 U	<10 U	<1000 R	<50 R	<250 R	<10 R	<10 U	<10 U
2-Hexanone	591-78-6	50	<10 U	<10 UJ	<10 UJ	<10 UJ	<200 UJ	<10 UJ	<10 UJ	<1000 U	<50 U	<250 U	<10 U	<10 U	<10 U
4-Methyl-2-pentanone	108-10-1	NL	<10 U	<10 UJ	<10 UJ	<10 UJ	<200 UJ	<10 UJ	<10 UJ	<1000 U	<50 U	<250 U	<10 U	<10 U	<10 U
Acetone	67-64-1	50	<10 UJ	<10 U	<10 U	<10 U	<200 U	<10 U	<10 U	<1000 UJ	<50 UJ	<250 UJ	<10 UJ	<10 UJ	<10 UJ
Bromochloromethane	74-97-5	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Bromodichloromethane	75-27-4	50	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Bromoform	75-25-2	50	<1.0 U	<1.0 UJ	<1.0 U	<1.0 U	<20 UJ	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Bromomethane	74-83-9	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 UJ	<5.0 UJ	<25 UJ	<1.0 UJ	<1.0 U	<1.0 U
Carbon disulfide	75-15-0	60	<1.0 U	<1.0 UJ	<1.0 U	<1.0 U	<20 UJ	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Carbon tetrachloride	56-23-5	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Chlorobenzene	108-90-7	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Chloroethane	75-00-3	5	<1.0 UJ	<1.0 UJ	<1.0 U	<1.0 UJ	<20 UJ	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 UJ	<1.0 UJ
Chloroform	67-66-3	7	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Chloromethane	74-87-3	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
cis-1,2-Dichloroethene	156-59-2	5	1.8	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	22000	2300	780	0.28 J	0.28 J	0.65 J
cis-1,3-Dichloropropene	10061-01-5	0.4	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Cyclohexane	110-82-7	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Dibromochloromethane	124-48-1	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Dichlorodifluoromethane	75-71-8	5	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Isopropylbenzene	98-82-8	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Methyl acetate	79-20-9	NL	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<40 U	<2.0 U	<2.0 U	<200 U	<1.0 U	<50 U	<2.0 U	<2.0 U	<2.0 U
Methyl tert-butyl ether	1634-04-4	10	1.1	<1.0 U	2.7	<1.0 U	<20 U	1.4	0.35 J	<100 U	1.1 J	<25 U	<1.0 U	0.77 J	<1.0 U
Methylcyclohexane	108-87-2	NL	<1.0 U	<1.0 U	<1.0 UJ	<1.0 UJ	<20 U	<1.0 UJ	<1.0 UJ	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Methylene chloride	75-09-2	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Styrene	100-42-5	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	300	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Tetrachloroethene	127-18-4	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	52 J	1.3 J	12000	5.3	<1.0 U	<1.0 U
trans-1,2-Dichloroethene	156-60-5	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	120	14	8.5 J	<1.0 U	<1.0 U	0.19 J
trans-1,3-Dichloropropene	10061-02-6	0.4	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Trichloroethene	79-01-6	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	73 J	19	1400	0.50 J	<1.0 U	0.21 J
Trichlorofluoromethane	75-69-4	5	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ	<20 U	<1.0 U	<1.0 U	<100 U	<5.0 U	<25 U	<1.0 U	<1.0 U	<1.0 U
Vinyl chloride	75-01-4	2	0.13 J	<1.0 U	<1.0 U	<1.0 U	<20 U	<1.0 U	<1.0 U	97 J	97	16 J	<1.0 U	0.14 J	0.23 J
Total VOCs			3.55	ND	2.7	ND	5373.6	1.61	0.35	22421	2438	14204.5	6.08	2.17	3.28

Notes:
1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].
ug/L - micrograms per liter
mg/L - milligrams per liter
NL = Not Listed
NA = Not Analyzed
ND = Not Detected
J = The associated numerical value is an estimated quantity.
J- = The associated numerical value is an estimated quantity, suspected low bias.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
Bold indicates compound detected at a concentration greater than the reporting limit.
Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-14I 12/14/2011 MW-14I-121411 460348801 Sample	MW-15S 12/7/2011 MW-15S-120711 460344871 Sample	MW-16I 12/8/2011 MW-16I-120811 460346071 Sample	MW-16S 12/8/2011 MW-16S-120811 460346071 Sample	MW-21S 12/7/2011 MW-21S-120711 460344871 Sample	MW-38D 12/9/2011 MW-38D-120911 460346071 Sample	MW-38I 12/9/2011 MW-38I-120911 460346071 Sample	MW-50I 12/13/2011 MW-50I-121311 460347271 Sample	MW-50S 12/13/2011 MW-50S-121311 460347271 Sample	MW-51I 12/13/2011 MW-51I-121311 460347271 Sample	MW-51S 12/13/2011 MW-51S-121311 460347271 Sample	MW-52I 12/14/2011 MW-52I-121411 460348801 Sample	MW-52S 12/14/2011 MW-52S-121411 460348801 Sample
PAH (ug/L)															
2-Methylnaphthalene	91-57-6	NL	<10 U	<11 U	<10 U	<10 U	130	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Acenaphthene	83-32-9	20	2.7 J	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	3.1 J	<10 U	<10 U
Acenaphthylene	208-96-8	NL	<10 U	<11 U	<10 U	<10 U	39 J	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Anthracene	120-12-7	50	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Benzo(a)anthracene	56-55-3	0.002	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<5.3 U	<1.0 U	<1.0 U	<1.2 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Benzo(a)pyrene	50-32-8	NL	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<5.3 U	<1.0 U	<1.0 U	<1.2 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Benzo(b)fluoranthene	205-99-2	0.002	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<5.3 U	<1.0 U	<1.0 U	<1.2 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Benzo(ghi)perylene	191-24-2	NL	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Benzo(k)fluoranthene	207-08-9	0.002	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<5.3 U	<1.0 U	<1.0 U	<1.2 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Chrysene	218-01-9	0.002	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Dibenz(a,h)anthracene	53-70-3	NL	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<5.3 U	<1.0 U	<1.0 U	<1.2 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Fluoranthene	206-44-0	50	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Fluorene	86-73-7	50	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<5.3 U	<1.0 U	<1.0 U	<1.2 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Naphthalene	91-20-3	10	<10 U	<11 U	<10 U	<10 U	940	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Phenanthrene	85-01-8	50	<10 U	<11 U	<10 U	<10 U	17 J	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Pyrene	129-00-0	50	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Total PAHs			2.7	ND	ND	ND	1126	ND	ND	ND	ND	ND	ND	3.1	ND
Other Semi Volatile Organic Compounds (SVOC) (ug/L)															
1,1'-Biphenyl	92-52-4	5	<10 UJ	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 UJ	<10 UJ
1,2,4,5-Tetrachlorobenzene	95-94-3	NL	<10 UJ	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 UJ	<11 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	<10 U	<11 U	<10 U	<10 U	<53 UJ	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
2,3,4,6-Tetrachlorophenol	58-90-2	NL	<10 UJ	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 UJ	<10 UJ
2,4,5-Trichlorophenol	95-95-4	NL	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
2,4,6-Trichlorophenol	88-06-2	NL	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
2,4-Dichlorophenol	120-83-2	5	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
2,4-Dimethylphenol	105-67-9	50	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
2,4-Dinitrophenol	51-28-5	10	<30 U	<32 U	<31 U	<31 U	<160 U	<31 U	<31 U	<35 U	<33 U	<31 U	<30 U	<30 U	<30 U
2,4-Dinitrotoluene	121-14-2	5	<2.0 U	<2.1 U	<2.1 U	<2.1 U	<11 U	<2.1 U	<2.1 U	<2.4 U	<2.2 U	<2.1 U	<2.0 U	<2.0 U	<2.0 U
2,6-Dinitrotoluene	606-20-2	5	<2.0 U	<2.1 U	<2.1 U	<2.1 U	<11 U	<2.1 U	<2.1 U	<2.4 U	<2.2 U	<2.1 U	<2.0 U	<2.0 U	<2.0 U
2-Chloronaphthalene	91-58-7	10	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
2-Chlorophenol	95-57-8	NL	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
2-Methylphenol	95-48-7	NL	<10 U	<11 U	<10 U	<10 U	12 J	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
2-Nitroaniline	88-74-4	5	<20 U	<21 U	<21 U	<21 U	<110 U	<21 U	<21 U	<24 U	<22 U	<21 U	<20 U	<20 U	<20 U
2-Nitrophenol	88-75-5	NL	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
3,3'-Dichlorobenzidine	91-94-1	5	<20 U	<21 U	<21 U	<21 U	<110 UJ	<21 U	<21 U	<24 U	<22 U	<21 U	<20 U	<20 U	<20 U
3-and 4-Methylphenol	3,4-MEPH	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
3-Nitroaniline	99-09-2	5	<20 U	<21 U	<21 U	<21 U	<110 U	<21 U	<21 U	<24 U	<22 U	<21 U	<20 U	<20 U	<20 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	<30 U	<32 U	<31 U	<31 U	<160 U	<31 U	<31 U	<35 U	<33 U	<31 U	<30 U	<30 U	<30 U
4-Bromophenyl phenyl ether	101-55-3	NL	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
4-Chloro-3-methylphenol	59-50-7	NL	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
4-Chloroaniline	106-47-8	5	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
4-Methylphenol	106-44-5	NL	<10 U	<11 U	<10 U	<10 U	20 J	<10 U	<10 U	<12 U	4.0 J	<10 U	<10 U	<10 U	<10 U
4-Nitroaniline	100-01-6	5	<20 U	<21 U	<21 U	<21 U	<110 U	<21 U	<21 U	<24 UJ	<22 UJ	<21 UJ	<20 UJ	<20 U	<20 U
4-Nitrophenol	100-02-7	NL	<30 U	<32 U	<31 U	<31 U	<160 R	<31 U	<31 U	<35 UJ	<33 UJ	<31 UJ	<30 UJ	<30 U	<30 U
Acetophenone	98-86-2	NL	<10 UJ	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 UJ	<10 UJ
Atrazine	1912-24-9	7.5	<10 UJ	<11 U	<10 U	<10 U	<53 UJ	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 UJ	<10 UJ
Benzaldehyde	100-52-7	NL	<10 UJ	<11 UJ	<10 UJ	<10 UJ	<53 UJ	<10 UJ	<10 UJ	<12 UJ	<11 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ
bis(2-Chloroethoxy)methane	111-91-1	5	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
bis(2-Chloroethyl) ether	111-44-4	1	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<5.3 U	<1.0 U	<1.0 U	<1.2 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
bis(2-Ethylhexyl) phthalate	117-81-7	5	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Butyl benzyl phthalate	85-68-7	50	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Caprolactam	105-60-2	NL	<10 UJ	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 UJ	<10 UJ
Carbazole	86-74-8	NL	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Dibenzofuran	132-64-9	NL	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Diethyl phthalate	84-66-2	50	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Dimethyl phthalate	131-11-3	50	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Di-n-butyl phthalate	84-74-2	50	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Di-n-octyl phthalate	117-84-0	NL	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Hexachlorobenzene	118-74-1	0.4	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<5.3 U	<1.0 U	<1.0 U	<1.2 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Hexachlorobutadiene	87-68-3	0.5	<2.0 U	<2.1 U	<2.1 U	<2.1 U	<11 U	<2.1 U	<2.1 U	<2.4 U	<2.2 U	<2.1 U	<2.0 U	<2.0 U	<2.0 U
Hexachlorocyclopentadiene	77-47-4	5	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Hexachloroethane	67-72-1	5	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<5.3 U	<1.0 U	<1.0 U	<1.2 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Isophorone	78-59-1	50	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Nitrobenzene	98-95-3	0.4	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<5.3 U	<1.0 U	<1.0 U	<1.2 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
N-Nitrosodi-n-propylamine	621-64-7	50	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<5.3 U	<1.0 U	<1.0 U	<1.2 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
N-Nitrosodiphenylamine	86-30-6	50	<10 U	<11 U	<10 U	<10 U	<53 U	<10 U	<10 U	<12 U	<11 U	<10 U	<10 U	<10 U	<10 U
Pentachlorophenol	87-86-5	1	<30 U	<32 U	<31 U	<31 U	<160 U	<31 U	<31 U	<35 U	<33 U	<31 U	<30 U	<30 U	<30 U
Phenol	108-95-2	1	<10 U	<11 U	<10 U	<10 U	7.4 J								

TABLE 1-4
COMPARISON OF GROUNDWATER ANALYTICAL DATA TO AWQSGVs
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Sample Location Sample Date Sample ID Laboratory Identification Sample Type	CAS Number	NYSDEC Groundwater Guidance or Standard Value ¹	MW-14I 12/14/2011 MW-14I-121411 460348801 Sample	MW-15S 12/7/2011 MW-15S-120711 460344871 Sample	MW-16I 12/8/2011 MW-16I-120811 460346071 Sample	MW-16S 12/8/2011 MW-16S-120811 460346071 Sample	MW-21S 12/7/2011 MW-21S-120711 460344871 Sample	MW-38D 12/9/2011 MW-38D-120911 460346071 Sample	MW-38I 12/9/2011 MW-38I-120911 460346071 Sample	MW-50I 12/13/2011 MW-50I-121311 460347271 Sample	MW-50S 12/13/2011 MW-50S-121311 460347271 Sample	MW-51I 12/13/2011 MW-51I-121311 460347271 Sample	MW-51S 12/13/2011 MW-51S-121311 460347271 Sample	MW-52I 12/14/2011 MW-52I-121411 460348801 Sample	MW-52S 12/14/2011 MW-52S-121411 460348801 Sample
Metals (ug/L)															
Aluminum	7429-90-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Antimony	7440-36-0	3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	7440-38-2	25	5.2	58.4	5.1	377	<10.0 U	5.6	6.1	6.2	4.1 J	<5.0 U	<5.0 U	10.9	19.4
Barium	7440-39-3	1000	64.2 J	67.4 J	69.2 J	221	52.2 J	134 J	351	38.8 J	56.9 J	257	55.3 J	40.4 J	16.4 J
Beryllium	7440-41-7	3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	7440-43-9	5	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<10.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Calcium	7440-70-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	7440-47-3	50	<10.0 U	<10.0 U	12.8	<10.0 U	<20.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U
Cobalt	7440-48-4	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	7440-50-8	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	7439-89-6	300	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	7439-92-1	25	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<10.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Magnesium	7439-95-4	35000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	7439-96-5	300	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	7439-97-6	0.7	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Nickel	7440-02-0	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	7440-09-7	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	7782-49-2	10	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<20.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U
Silver	7440-22-4	50	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<20.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U
Sodium	7440-23-5	20000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	7440-28-0	0.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	7440-62-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	7440-66-6	2000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (ug/L)															
Total Cyanide	57-12-5	200	<10. U	3.0 J	<10. U	<10. U	2.3 J	19	22	<10. U	<10. U	<10. U	<10. U	<10. U	<10. U
Pesticides (ug/L)															
Aldrin	309-00-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Alpha-BHC	319-84-6	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beta-BHC	319-85-7	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane, alpha	5103-71-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlordane, trans-	5103-74-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDD,4,4-	72-54-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDE,4,4-	72-55-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DDT,4,4-	50-29-3	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Delta-BHC	319-86-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dieldrin	60-57-1	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan I	959-98-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan II	33213-65-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	1031-07-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin	72-20-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin aldehyde	7421-93-4	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endrin ketone	53494-70-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Gamma BHC - Lindane	58-89-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor	76-44-8	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Heptachlor Epoxide	1024-57-3	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methoxychlor	72-43-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toxaphene	8001-35-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCBs (ug/L)															
Aroclor 1016	12674-11-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1221	11104-28-2	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1232	11141-16-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1242	53469-21-9	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1248	12672-29-6	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1254	11097-69-1	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1260	11096-82-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1262	37324-23-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1268	11100-14-4	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCB (Total) (ug/L)		0.09	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Herbicides (ug/L)															
2,4,5-TP (Silvex)	93-72-1	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,4-D	94-75-7	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,4-DB	94-82-6	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
T,2,4,5-	93-76-5	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].
ug/L - micrograms per liter
mg/L - milligrams per liter
NL = Not Listed
NA = Not Analyzed
ND = Not Detected
J = The associated numerical value is an estimated quantity.
J- = The associated numerical value is an estimated quantity, suspected low bias.
R = The associated data is rejected by AECOM due to issues pertaining to calibration results.
U = The material was analyzed for but not detected at, or above, the reporting limit.
The associated numerical value is the sample quantitation limit.
Bold indicates compound detected at a concentration greater than the reporting limit.
Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

TABLE 1-5
COMPARISON OF SOIL VAPOR ANALYTICAL DATA TO NYSDOH BACKGROUND STANDARDS
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Type of Sample Sample ID Sampling Date Lab SDG	CAS No.	Background Outdoor Air Concentrations ³	Background Indoor Air Concentrations (Non-Residential) ⁴	Target Shallow Soil Gas Concentrations ⁵	AMB-1 AMB-1-102011 10/20/2011 AECOM155	AMB-2 DUP-1-102011 10/20/2011 AECOM155	AMB-2 AMB-2-102011 10/20/2011 AECOM155	AMB-3 AMB-3-102011 10/20/2011 AECOM155	AMB-4 AMB-4-102011 10/20/2011 AECOM155	SV-1 SV-1-102011 10/20/2011 AECOM155	SV-2 SV-2-102011 10/20/2011 AECOM155	SV-3 SV-3-102011 10/20/2011 AECOM155	SV-4 SV-4-102011 10/20/2011 AECOM155
Compound (µg/m ³)													
Possibly MGP Related or Other Sources ¹													
1,2,4-Trimethylbenzene	95-63-6	1.7	9.5	95	<0.787 U	<0.787 U	<0.787 U	<0.787 U	<0.787 U	49.6 J	2.41	88.8 J	<0.787 U
1,3,5-Trimethylbenzene	108-67-8	0.7	3.7	37	<0.787 U	<0.787 U	<0.787 U	<0.787 U	<0.787 U	32.4 J	<0.787 U	31.1 J	<0.787 U
2,2,4-Trimethylpentane	540-84-1	NL	NL	NL	<3.74 U	<3.74 U	<3.74 U	<3.74 U	<3.74 U	<3.74 U	<3.74 U	<3.74 U	<3.74 U
2,3-Dimethylpentane	565-59-3	1.0	NL	NL	<3.28 U	<3.28 U	<3.28 U	<3.28 U	<3.28 U	<3.28 U	<3.28 U	<3.28 U	<3.28 U
2-Methylpentane	107-83-5	NL	NL	NL	<2.82 U	<2.82 U	<2.82 U	<2.82 U	<2.82 U	<2.82 U	<2.82 U	<2.82 U	<2.82 U
4-Ethyltoluene	622-96-8	NL	3.6	36	<3.93 U	<3.93 U	<3.93 U	<3.93 U	<3.93 U	46.2 J	<3.93 U	34.3 J	<3.93 U
Benzene	71-43-2	4.3	9.4	94	<0.511 U	<0.511 U	<0.511 U	<0.511 U	<0.511 U	<0.511 U	<0.511 U	1.05 J	<0.511 U
Carbon disulfide	75-15-0	NL	4.2	42	<2.49 U	<2.49 U	<2.49 U	<2.49 U	<2.49 U	<2.49 U	<2.49 U	4.86 J	<2.49 U
Cyclohexane	110-82-7	1.3	NL	NL	<2.75 U	<2.75 U	<2.75 U	<2.75 U	<2.75 U	<2.75 U	<2.75 U	<2.75 U	<2.75 U
Ethylbenzene	100-41-4	1.1	5.7	57	<0.695 U	<0.695 U	<0.695 U	<0.695 U	<0.695 U	91.6 J	<0.695 U	25.3 J	<0.695 U
Heptane	142-82-5	NL	NL	NL	<3.28 U	<3.28 U	<3.28 U	<3.28 U	<3.28 U	51.7 J	<3.28 U	18.6 J	<3.28 U
Hexane	110-54-3	NL	10.2	102	<2.82 U	<2.82 U	<2.82 U	<2.82 U	<2.82 U	7.75 J	3.31	12.2 J	<2.82 U
Indan	496-11-7	NL	NL	NL	<3.87 U	<3.87 U	<3.87 U	<3.87 U	<3.87 U	<3.87 U	<3.87 U	4.89 J	<3.87 U
Indene	95-13-6	NL	NL	NL	<3.80 U	<3.80 U	<3.80 U	<3.80 U	<3.80 U	<3.80 U	<3.80 U	<3.80 U	<3.80 U
Isopentane	78-78-4	NL	NL	NL	<2.36 U	<2.36 U	<2.36 U	<2.36 U	<2.36 U	<2.36 U	<2.36 U	2.86 J	2.92
Naphthalene	91-20-3	NL	5.1	51	<4.19 U	<4.19 U	<4.19 U	<4.19 U	<4.19 U	<4.19 U	20.5	<4.19 U	<4.19 U
Styrene	100-42-5	0.4	1.9	19	<0.682 UJ	<0.682 UJ	<0.682 UJ	<0.682 UJ	<0.682 UJ	<0.682 UJ	<0.682 UJ	0.852 J	<0.682 UJ
Thiophene	110-02-1	NL	NL	NL	<2.75 U	<2.75 U	<2.75 U	<2.75 U	<2.75 U	<2.75 U	<2.75 U	<2.75 U	<2.75 U
Toluene	108-88-3	5.9	43	430	<0.603 U	<0.603 U	<0.603 U	<0.603 U	1.02	1610 D	1.09	93.9 J	4.56
m+p-Xylene	1330-20-7-M,P	1.4	22.2	222	<0.695 U	<0.695 U	<0.695 U	<0.695 U	<0.695 U	257 J	1.17	107 J	0.912
o-Xylene	95-47-6	1.7	7.9	79	<0.695 U	<0.695 U	<0.695 U	<0.695 U	<0.695 U	112 J	<0.695 U	42.4 J	<0.695 U
1,2,3-Trimethylbenzene	526-73-8	0.4	NL	NL	<3.93 U	<3.93 U	<3.93 U	<3.93 U	<3.93 U	13.6 J	<3.93 U	43.3 J	<3.93 U
1,2,4,5-Tetramethylbenzene	95-93-2	NL	NL	NL	<4.39 U	<4.39 U	<4.39 U	<4.39 U	<4.39 U	<4.39 U	<4.39 U	<4.39 U	<4.39 U
1-Methylnaphthalene	90-12-0	NL	NL	NL	<4.65 U	<4.65 U	<4.65 U	<4.65 U	<4.65 U	<4.65 U	6.22	<4.65 U	<4.65 U
2-Chlorotoluene	95-49-8	NL	NL	NL	<0.828 U	<0.828 U	<0.828 U	<0.828 U	<0.828 U	<0.828 U	<0.828 U	<0.828 U	<0.828 U
2-Methylnaphthalene	91-57-6	NL	NL	NL	<4.65 U	<4.65 U	<4.65 U	<4.65 U	<4.65 U	<4.65 U	9.71	<4.65 U	<4.65 U
Not MGP Related ²													
1,1,1-Trichloroethane	71-55-6	0.6	20.6	206	<0.873 U	<0.873 U	<0.873 U	<0.873 U	<0.873 U	10.6 J	<0.873 U	<0.873 U	<0.873 U
1,1,2,2-Tetrachloroethane	79-34-5	<0.25	NL	NL	<1.10 U	<1.10 U	<1.10 U	<1.10 U	<1.10 U	<1.10 U	<1.10 U	<1.10 U	<1.10 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1.9	<1.5	<15	<1.23 U	<1.23 U	<1.23 U	<1.23 U	<1.23 U	<1.23 U	<1.23 U	<1.23 U	<1.23 U
1,1-Dichloroethane	75-34-3	<0.25	<0.7	<7	<0.648 U	<0.648 U	<0.648 U	<0.648 U	<0.648 U	22.0 J	<0.648 U	<0.648 U	<0.648 U
1,1-Dichloroethene	75-35-4	<0.25	<1.4	<14	<0.634 U	<0.634 U	<0.634 U	<0.634 U	<0.634 U	<0.634 U	<0.634 U	<0.634 U	<0.634 U
1,2,4-Trichlorobenzene	120-82-1	2.3	<6.8	<68	<5.94 U	<5.94 U	<5.94 U	<5.94 U	<5.94 U	<5.94 U	<5.94 U	<5.94 U	<5.94 U
1,2-Dibromoethane	106-93-4	<0.25	<1.5	<15	<1.23 U	<1.23 U	<1.23 U	<1.23 U	<1.23 U	<1.23 U	<1.23 U	<1.23 U	<1.23 U
1,2-Dichlorobenzene	95-50-1	0.6	<1.2	<12	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U
1,2-Dichloroethane	107-06-2	<0.25	<0.9	<9	<0.648 U	<0.648 U	<0.648 U	<0.648 U	<0.648 U	<0.648 U	<0.648 U	<0.648 U	<0.648 U
1,2-Dichloropropane	78-87-5	<0.25	<1.6	<16	<0.739 U	<0.739 U	<0.739 U	<0.739 U	<0.739 U	<0.739 U	<0.739 U	<0.739 U	<0.739 U
1,3-Butadiene	106-99-0	NL	<3.0	<3	<1.77 U	<1.77 U	<1.77 U	<1.77 U	<1.77 U	<1.77 U	<1.77 U	<1.77 U	<1.77 U
1,3-Dichlorobenzene	541-73-1	0.5	<2.4	<24	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U
1,4-Dichlorobenzene	106-46-7	0.5	5.5	55	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U	<0.962 U
1,4-Dioxane	123-91-1	NL	NL	NL	<2.88 U	<2.88 U	<2.88 U	<2.88 U	<2.88 U	<2.88 U	<2.88 U	<2.88 U	<2.88 U
2-Butanone	78-93-3	6.3	12	120	<2.36 U	<2.36 U	<2.36 U	<2.36 U	<2.36 U	71.3	71.3	166 D	10
2-Hexanone	591-78-6	NL	NL	NL	<3.28 U	<3.28 U	<3.28 U	<3.28 U	<3.28 U	15.0 J	10.2	30.9 J	<3.28 U
4-Methyl-2-pentanone	108-10-1	0.9	6	60	<3.28 U	<3.28 U	<3.28 U	<3.28 U	<3.28 U	<3.28 U	<3.28 U	<3.28 U	<3.28 U
Acetone	67-64-1	44	98.9	989	4.94	7.58	8.34	7.82	9.45	145 D	306 D	812 D	70.5
Bromodichloromethane	75-27-4	NL	NL	NL	<5.36 U	<5.36 U	<5.36 U	<5.36 U	<5.36 U	<5.36 U	<5.36 U	<5.36 U	<5.36 U
Bromoform	75-25-2	NL	NL	NL	<8.27 U	<8.27 U	<8.27 U	<8.27 U	<8.27 U	<8.27 U	<8.27 U	<8.27 U	<8.27 U
Bromomethane	74-83-9	0.5	<1.7	<17	<0.622 U	<0.622 U	<0.622 U	<0.622 U	<0.622 U	<0.622 U	<0.622 U	<0.622 U	<0.622 U
Carbon tetrachloride	56-23-5	0.8	<1.3	<13	<1.01 U	<1.01 U	<1.01 U	<1.01 U	<1.01 U	<1.01 U	<1.01 U	<1.01 U	<1.01 U
Chlorobenzene	108-90-7	<0.25	<0.9	<9	<0.737 U	<0.737 U	<0.737 U	<0.737 U	<0.737 U	<0.737 U	<0.737 U	<0.737 U	<0.737 U
Chloroethane	75-00-3	<0.25	<1.1	<11	<0.422 U	<0.422 U	<0.422 U	<0.422 U	<0.422 U	<0.422 U	<0.422 U	<0.422 U	<0.422 U
Chloroform	67-66-3	0.4	1.1	11	<0.781 U	<0.781 U	<0.781 U	<0.781 U	0.781	1.42 J	1.86	2.39 J	<0.781 U
Chloromethane	74-87-3	3.2	3.7	37	0.682	1.05	1.05	0.661	1.12	<0.330 U	0.496	0.888 J	1.09
cis-1,2-Dichloroethene	156-59-2	NL	<1.9	<19	<0.634 U	<0.634 U	<0.634 U	<0.634 U	<0.634 U	<0.634 U	<0.634 U	<0.634 U	2.46
cis-1,3-Dichloropropene	10061-01-5	NL	<2.3	<23	<0.726 U	<0.726 U	<0.726 U	<0.726 U	<0.726 U	<0.726 U	<0.726 U	<0.726 U	<0.726 U
Dibromochloromethane	124-48-1	NL	NL	NL	<6.81 U	<6.81 U	<6.81 U	<6.81 U	<6.81 U	<6.81 U	<6.81 U	<6.81 U	<6.81 U
Dichlorodifluoromethane	75-71-8	7.5	16.5	165	1.43	1.68	2.03	1.14	2.42	<0.791 U	<0.791 U	<0.791 U	2.13
Ethanol	64-17-5	NL	NL	NL	4.73	5.35	7.2	<1.51 U	12	19.4 J	51.9	145 D	16.2
Hexachlorobutadiene	87-68-3	2.3	<6.8	<68	<8.53 U	<8.53 U	<8.53 U	<8.53 U	<8.53 U	<8.53 U	<8.53 U	<8.53 U	<8.53 U
Methyl tert-butyl ether	1634-04-4	NL	11.5	115	<2.88 U	<2.88 U	<2.88 U	<2.88 U	<2.88 U	<2.88 U	<2.88 U	<2.88 U	<2.88 U
Methylene chloride	75-09-2	1.6	10	100	2.25	2.06	1.55	0.815	6.1	1.83 J	1.48	5.98 J	2.25
Propene	115-07-1	NL	NL	NL	<1.38 U	<1.38 U	<1.38 U	<1.38 U	<1.38 U	2.39 J	11.4	6.57 J	5.21
Tetrachloroethene	127-18-4	0.8	15.9	159	<1.09 U	<1.09 U	<1.09 U	<1.09 U	<1.09 U	10.6 J	4.82	2.65 J	<1.09 U
Tetrahydrofuran	109-99-9	<0.25	NL	NL	<2.36 U	<2.36 U	<2.36 U	<2.36 U	<2.36 U	<2.36 U	<2.36 U	<2.36 U	<2.36 U
trans-1,2-Dichloroethene	156-60-5	NL	NL	NL	<3.17 U	<3.17 U	<3.17 U	<3.17 U	<3.17 U	<3.17 U	<3.17 U	<3.17 U	<3.17 U
trans-1,3-Dichloropropene	10061-02-6	<0.25	<1.3	<13	<0.726 U	<0.726 U	<0.726 U	<0.726 U	<0.726 U	<0.726 U	<0.726 U	<0.726 U	<0.726 U
Trichloroethene	79-01-6	0.3	4.2	42	<0.860 U	<0.860 U	<0.860 U	<0.860 U	<0.860 U	<0.860 U	<0.860 U	<0.860 U	<0.860 U
Trichlorofluoromethane	75-69-4	3.6	18.1	181	0.899	1.46	1.4	1.4	1.4	<0.899 U	1.35	1.35 J	1.29
1,1,2-Trichloroethane	79-00-5	<0.25	<1.5	<15	<0.873 U	<0.873 U	<0.873 U	<0.873 U	<0.873 U	<0.873 U	<0.873 U	<0.873 U	<0.873 U
1,2-Dichlorotetrafluoroethane	76-14-2	0.6	NL	NL	<1.12 U	<1.12 U	<1.12 U	<1.12 U	<1.12 U	<1.12 U	<1.12 U	<1.12 U	<1.12 U
Vinyl chloride	75-01-4	<0.25	<1.9	<19	<0.409 U	<0.409 U	<0.409 U	<0.409 U	<0.409 U	<0.409 U	<0.409 U	<0.409 U	<0.409 U
2-Propanol	67-63-0	NL	NL	NL	<1.97 U	2.7	2.97	<1.97 U	<1.97 U	10.7 J	<1.97 U	18.8 J	3.32
Helium (%)													
Helium	7440-59-7				NS	NS	NS	NS	NS	0.080	<0.010 U	<0.010 U	<0.010 U

Notes:

All units in micrograms per cubic meter (µg/m³)

- 1 - These compounds may be related to either MGP sources or non-MGP sources, or both. MGP sources include MGP tars and petroleum feedstocks used in MGP processes, such as the carbureted water gas process. Non-MGP sources include gasoline, cleaning products,

Table 2-1
Monitoring and Inspection Schedule
Former Inwood Gas Holder Site
Inwood, Nassau County, New York

Monitoring Program	Frequency*	Matrix	Analysis
Composite Cover System	Annually	Cap	Inspection
Dust	Site work in non-CCS areas	Air/Particulates	Dust Trak or similar instruments
SVI/Indoor Air	Prior to any Building Renovation/Construction	Air	EPA Modified TO-15 Parameters
Excavated Soil Disposal Characterization	Prior to Disposal	Soil	Disposal Facility Parameters
Dewatering	Prior to Disposal	Water	Disposal Facility Parameters

*The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH

Notes:

CCS - Composite Cover System

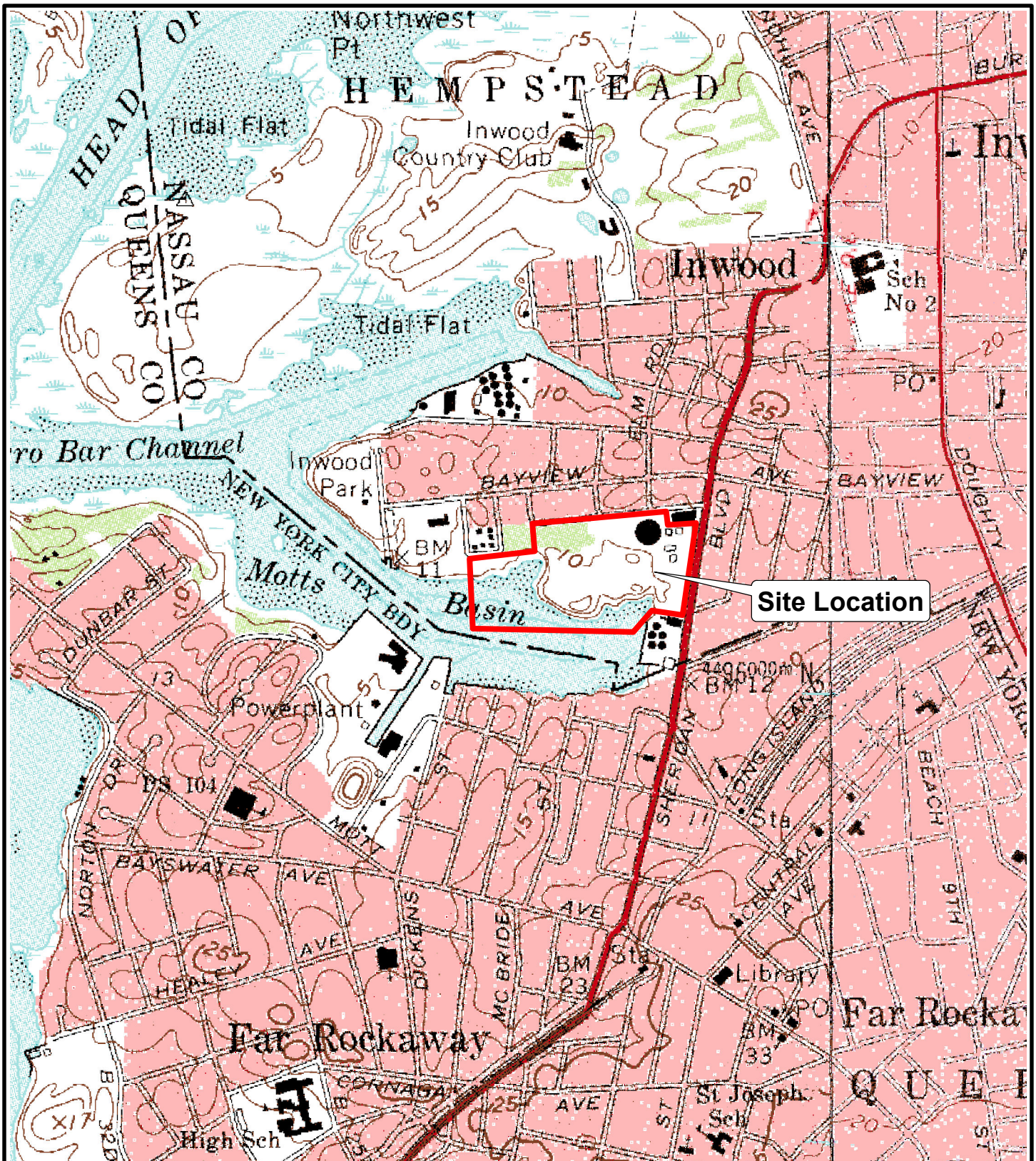
SVI - Soil Vapor Intrusion

Table 3-1
EMERGENCY CONTACT NUMBERS
NATIONAL GRID FORMER INWOOD GAS HOLDER SITE
INWOOD, NASSAU COUNTY, NEW YORK

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362
St. John's Episcopal Hospital	(718) 869-7755
Electric (PSE&G)	(800) 490-0025
Water/Sewer (NYCDEP)	(212) 639-9675
Gas (National Grid)	(718) 643-4050
Melissa Reindl, National Grid	(516) 545-3551
Shail Pandya, AECOM	(212) 377-8708

*** Note: Contact numbers subject to change and should be updated as necessary**

Figures



AECOM

AECOM Environment
20 EXCHANGE PLACE
NEW YORK, NY 10005
(212) 798-8500
www.aecom.com

Site Location
National Grid

Former Inwood Gas Holder Site
Nassau Ave/Sheridan Blvd, Inwood, NY

Data Source: USGS Topographic Quadrangles - Central Park N.Y., 1966, revised 1979;
Brooklyn, N.Y., 1967, revised 1979;

Scale:

Date:

Project Number:

1"=1000'

04/19/2013

60137359

Figure Number:

1 - 1

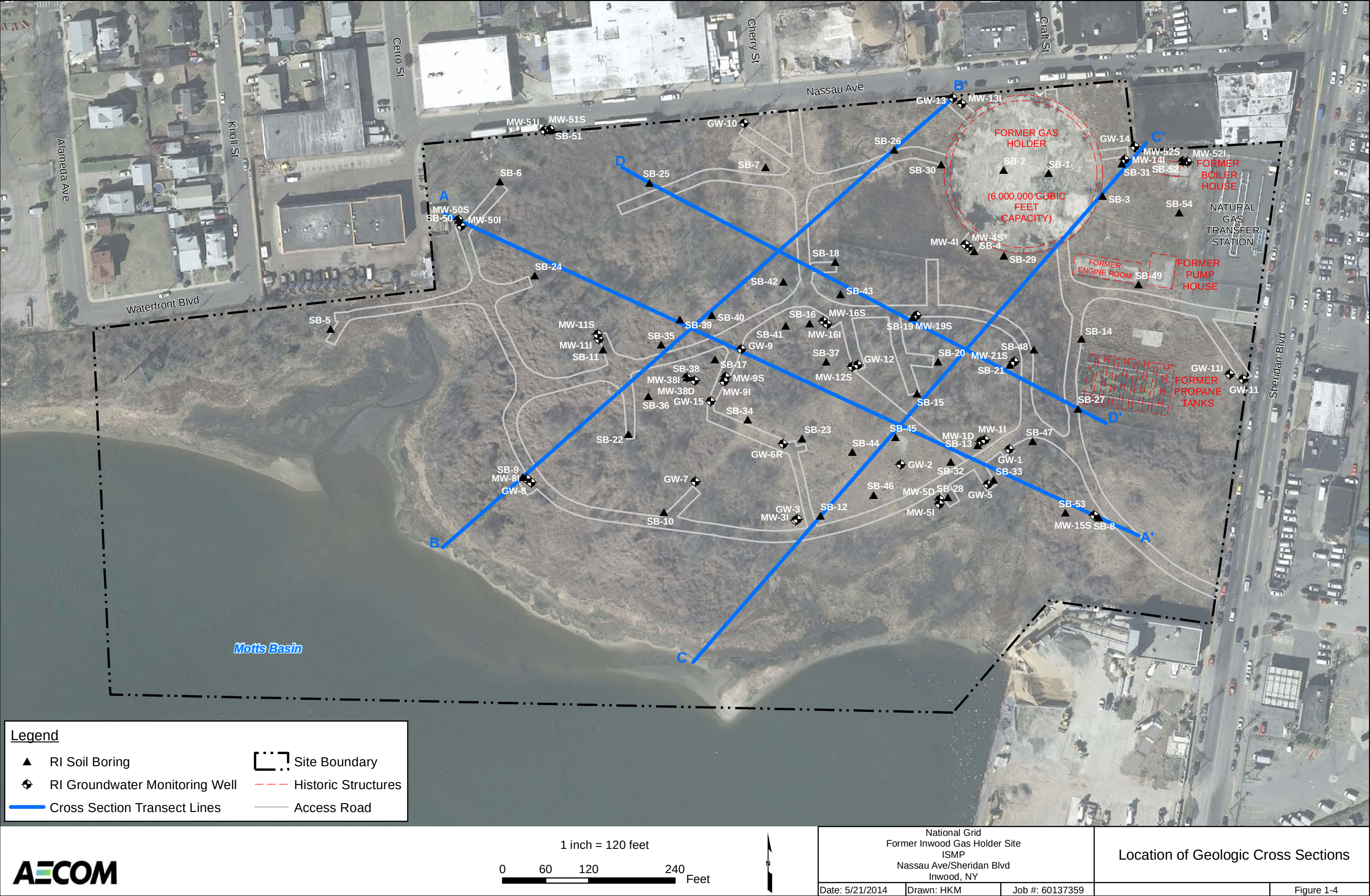
File: B:\work\60137359_inwood\GIS\Projects\ISMP\Figure 1-2 Site Layout.mxd



File: B:\work\60137359_Inwood\GIS\Projects\Updated_20130425\Figure 2-2 Site Layout with Current and Historical Features.mxd



File: J:\Rem_Eng\Project Files\National Grid\Inwood\GIS\Features\From_NY_Office\GIS\Projects\Updated_201405\Figure 1-4 Location of Geologic Cross Sections.mxd



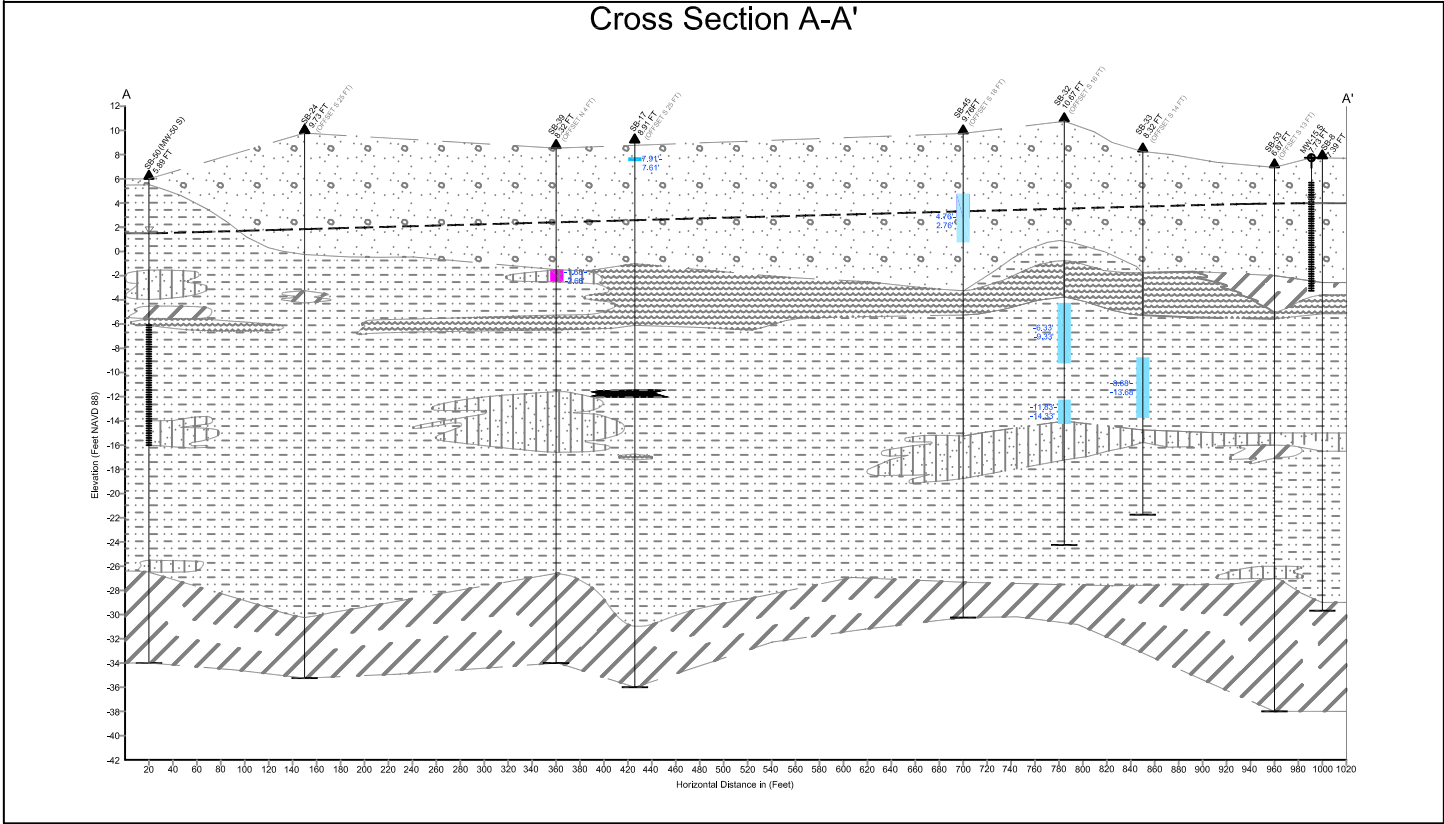
National Grid
Former Inwood Gas Holder Site
ISMP
Nassau Ave/Sheridan Blvd
Inwood, NY

Date: 5/21/2014 | Drawn: HKM | Job #: 60137359

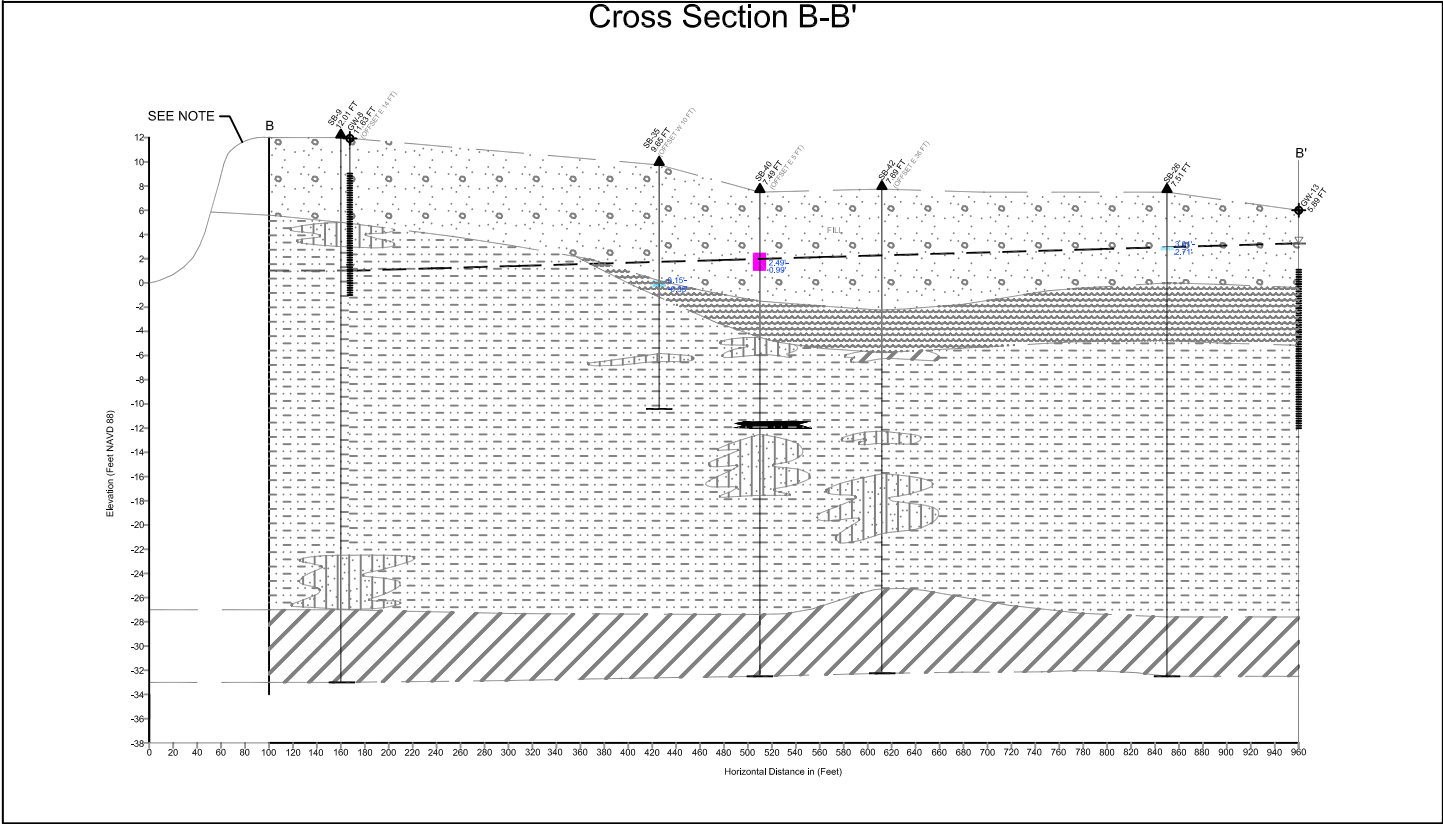
Location of Geologic Cross Sections

Figure 1-4

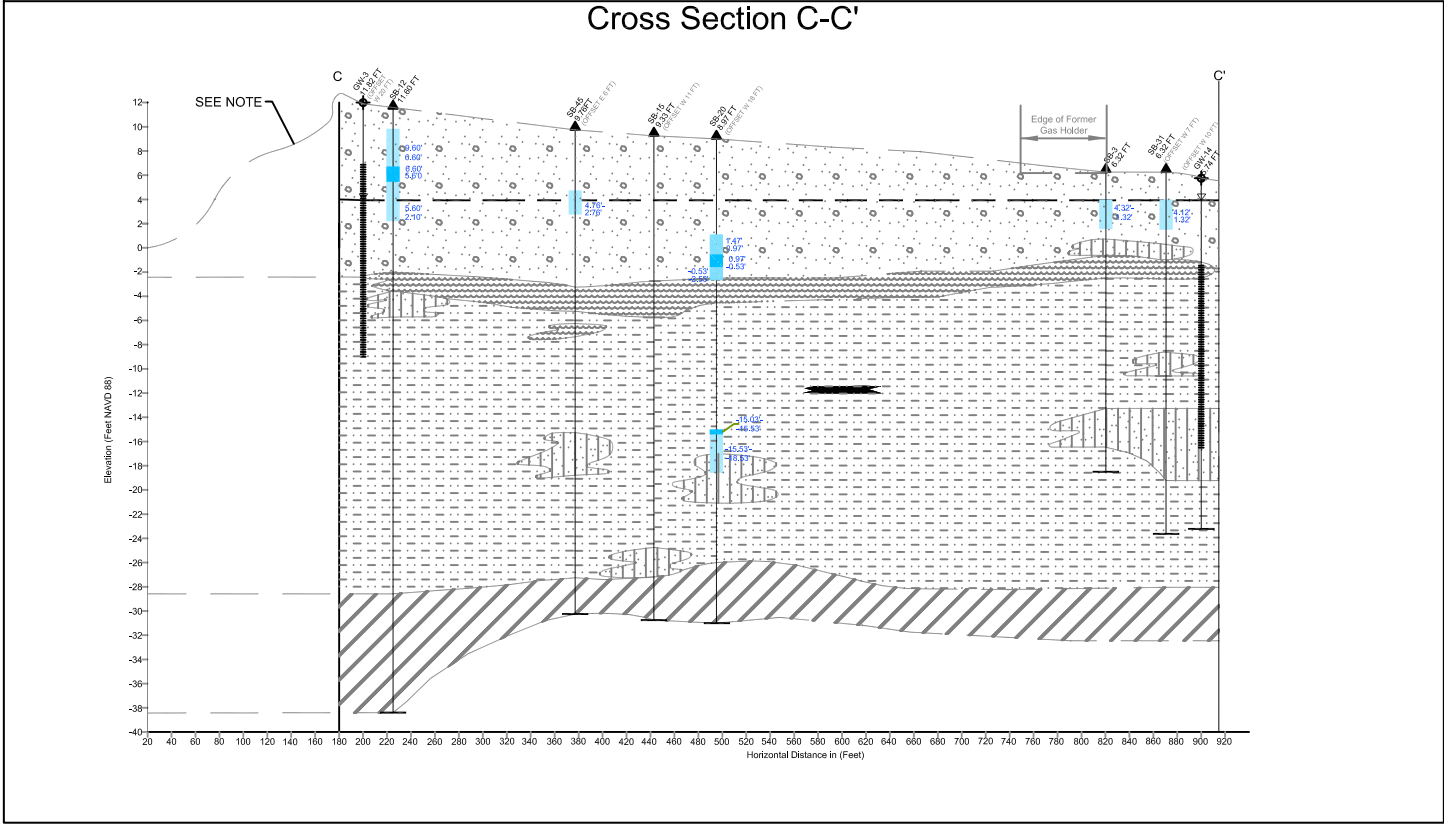
Cross Section A-A'



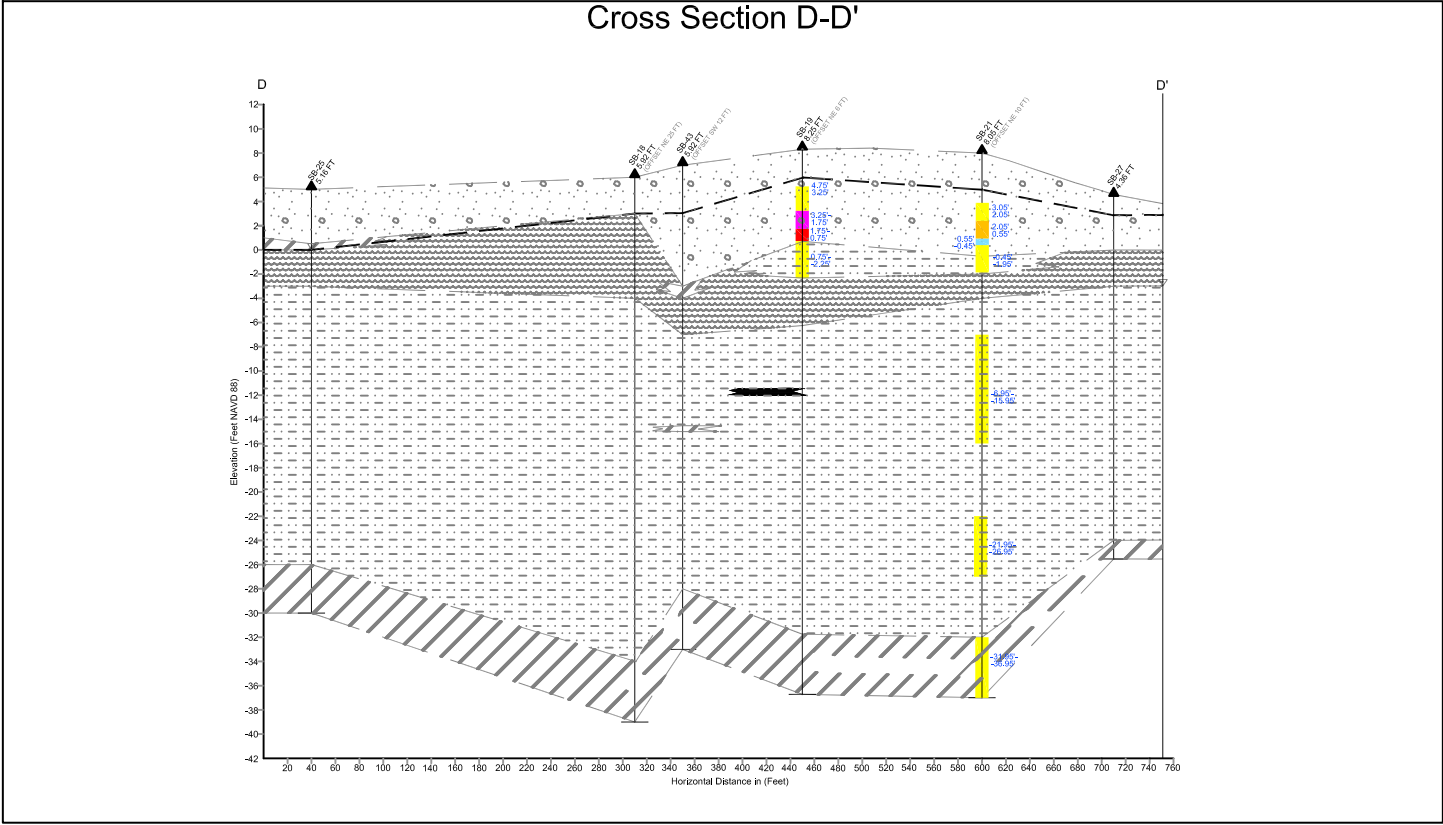
Cross Section B-B'



Cross Section C-C'



Cross Section D-D'



Visual and Olfactory Impacts in Soil

- Tar Saturated
- Coated Materials, Lenses
- Blebs, Globbs, Sheen
- Staining, Odor
- Petroleum Impacts Saturation & Sheens
- Petroleum Impacts Staining & Odors

Stratigraphy

- Fill
- Fibrous and Friable Peat
- Sand (SW and SP)
- Sandy Silt/Silty Sand
- Clay and Silty Clay

- Groundwater Monitoring Well Screen Zone
- Groundwater Elevation

- Elevation Range of Visual and Olfactory Impacts (Feet NAVD88)
- Below Ground Surface
- Well Graded Sand
- Poorly Graded Sand
- Location of Soil Boring/Monitoring Well

- Elevation of Soil Boring (Feet NAVD88)
- Termination of Soil Boring/Monitoring Well

Note: Vertical Exaggeration 1:10.

Note: Groundwater Elevation Measured in Shallow Wells on 12/5/2011. Grade Elevations are Estimated from B to Shoreline and C to Shoreline

National Grid
Former Inwood Gas Holder Site
ISMP
Nassau Ave/Sheridan Blvd
Inwood, NY

Conceptual Geologic Cross Sections

Date: 05/21/2014 Drawn: HM Job #: 60137359

File: J:\Rem_Eng\Project Files\National Grid\Inwood\GIS\Features\From_NY_Office\GIS\Projects\Updated_201405\Figure 1-6 Shallow Groundwater Elevation Contour Map.mxd



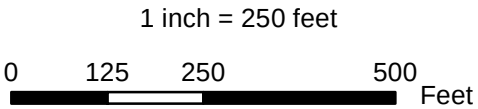
June 8, 2010



October 18, 2010



December 5, 2011



Legend

- RI Groundwater Monitoring Well
- 3.0 Shallow Groundwater Elevation Contour (Feet NAVD 88)
- Site Boundary
- Access Road
- NM - Not Measured

National Grid Former Inwood Gas Holder Site Nassau Ave/Sheridan Blvd Inwood, NY			Shallow Groundwater Elevation Contour Map	
Date: 5/22/2014	Drawn: HM	Job #: 60137359		Figure 1-6



File: J:\Rem_Eng\Project Files\National Grid\Inwood\GIS\Features\From_NY_Office\GIS\Projects\Updated_201405\Figure 1-7 Intermediate Groundwater Elevation Contour Map.mxd



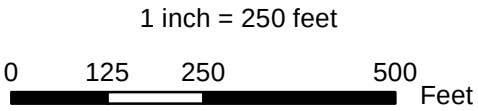
June 8, 2010



October 18, 2010



December 5, 2011



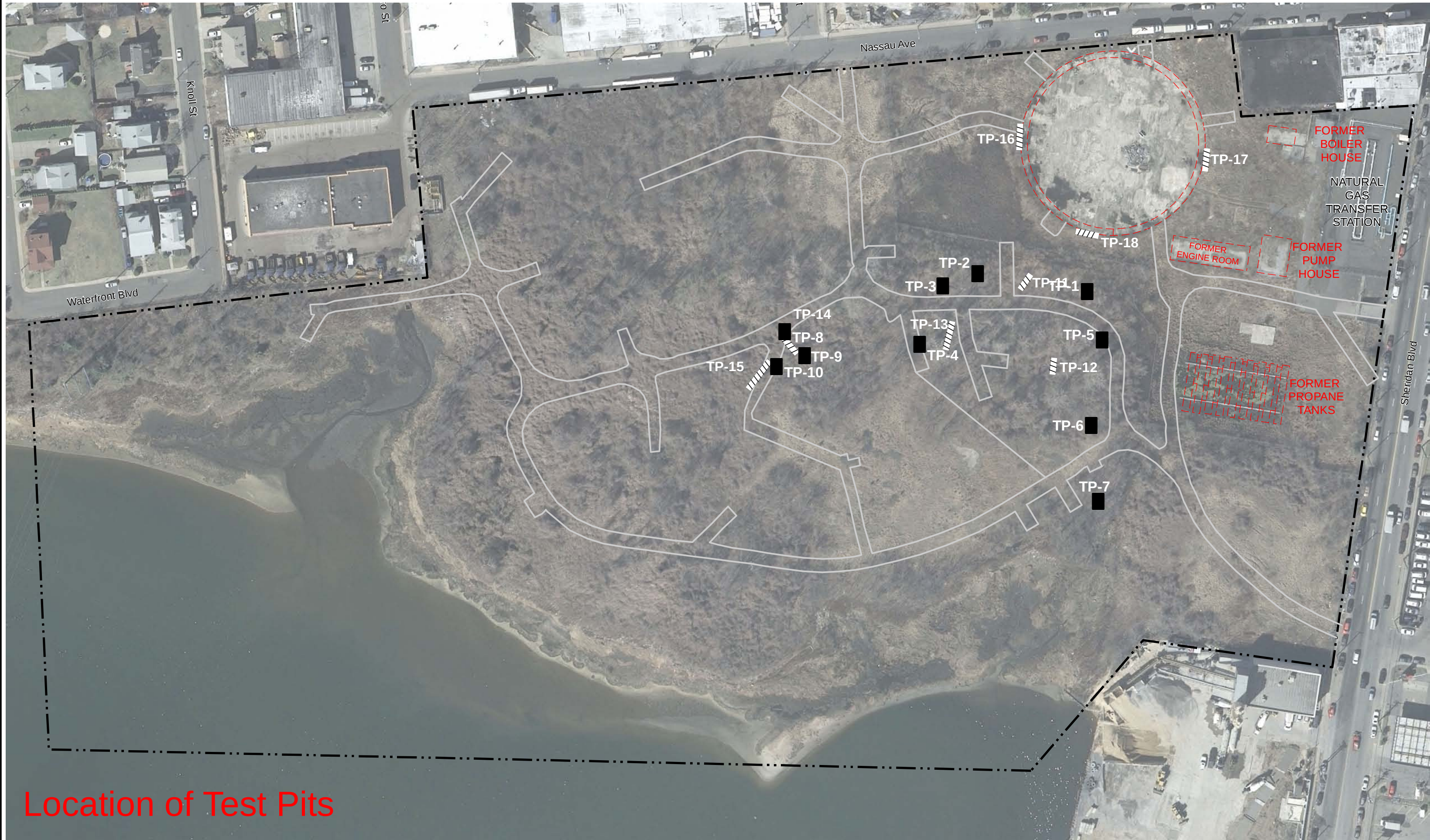
Legend

- RI Groundwater Monitoring Well
- 3.0 Shallow Groundwater Elevation Contour (Feet NAVD 88)
- Site Boundary
- Access Road
- NM - Not Measured

National Grid Former Inwood Gas Holder Site Nassau Ave/Sheridan Blvd Inwood, NY			Intermediate Groundwater Elevation Contour Map	
Date: 5/22/2014	Drawn: HM	Job #: 60137359		Figure 1-7

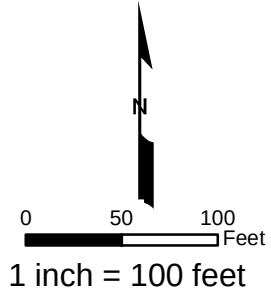


File: J:\Rem_Eng\Project Files\National Grid\Inwood\GIS\Features\From_NY_Office\GIS\Projects\Updated_201405\Figure 1-8 Investigation Locations.mxd



Legend

- Test Pit Historic Structures Historical Soil Boring Location Sediment Sample
Access Road Property Boundary RI Soil Boring Soil Vapor Point



AECOM

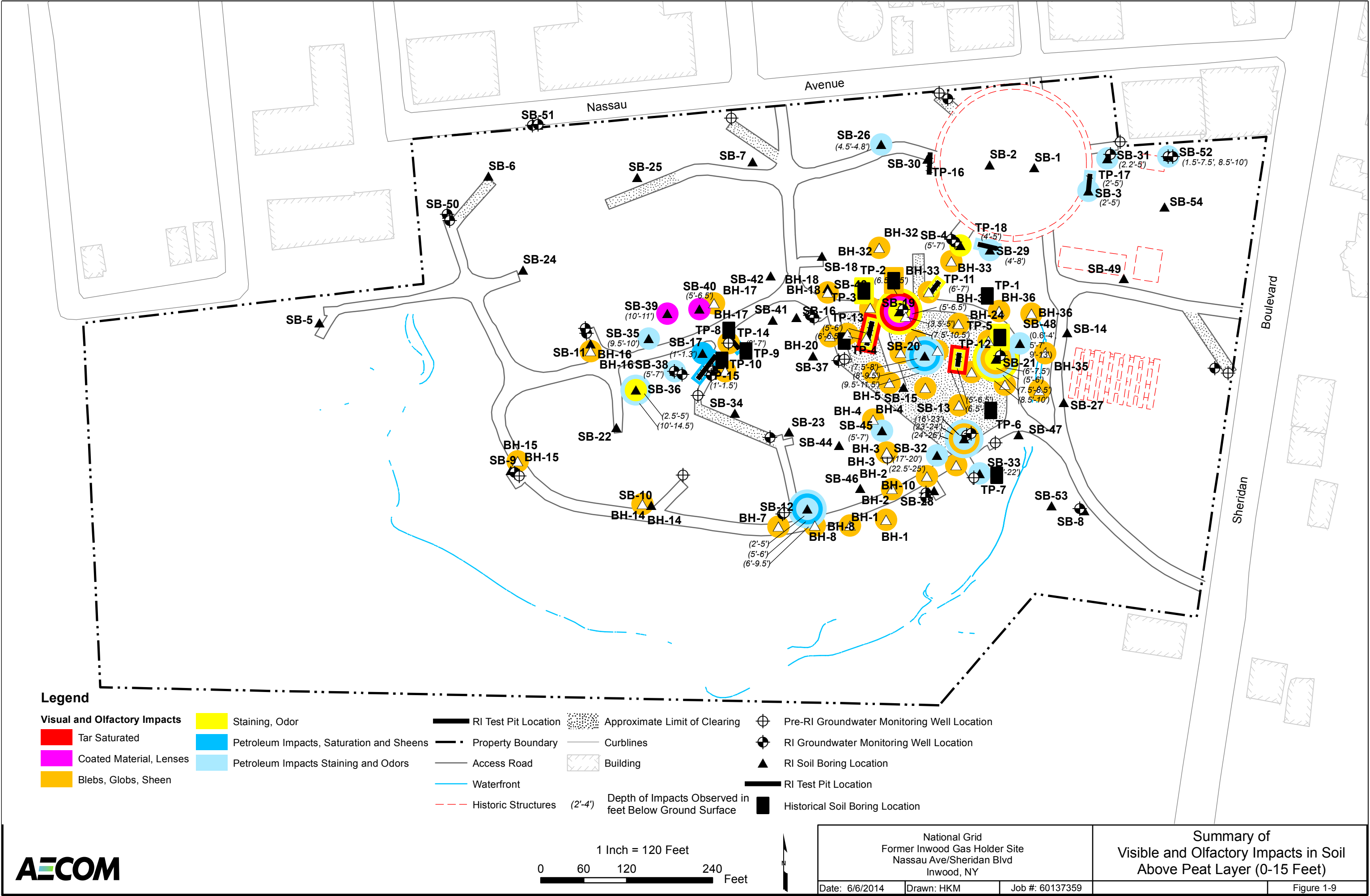
National Grid
Former Inwood Gas Holder Site
ISMP
Nassau Ave/Sheridan Blvd
Inwood, NY

Investigation Locations

Date: 6/6/2014 Drawn: HKM Job #: 60137359

Figure 1-8

File: J:\Rem_Eng\Project Files\National Grid\Inwood\GIS\Features\From_NY_Office\GIS\Projects\Updated_201409\Figure 1-9 Summary of Visual and Olfactory Impacts in Soil Above Peat.mxd



File: J:\Rem_Eng\Project Files\National Grid\Inwood\GIS\Features\From_NY_Office\GIS\Projects\Updated_201409\Figure 1-10 Summary of Visual and Olfactory Impacts in Soil Below Peat.mxd

Legend

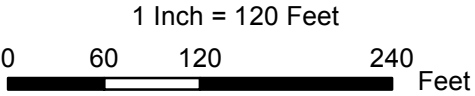
Visual and Olfactory Impacts

- Tar Saturated
- Coated Material, Lenses
- Blebs, Globbs, Sheen

- Staining, Odor
- Petroleum Impacts, Saturation and Sheens
- Petroleum Impacts Staining and Odors

- RI Soil Boring Location
- RI Test Pit Location
- Property Boundary
- Access Road
- Waterfront
- Historic Structures
- Approximate Limit of Clearing

- Curblines
- Building
- Depth of Impacts Observed in feet Below Ground Surface



National Grid
Former Inwood Gas Holder Site
ISMP
Nassau Ave/Sheridan Blvd
Inwood, NY

Date: 5/22/2014

Drawn: HKM

Job #: 60137359

Summary of
Visible and Olfactory Impacts in Soil
Below Peat Layer (15-42 Feet)

Legend

- RI Surface Soil Sample Location
- No Compounds Exceed the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective Values
- One or More Compounds Exceed the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective Values

- Only one or More Inorganic Compounds Exceed the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective Values
- Property Boundary
- Access Road
- Waterfront
- Historic Structures
- Curblines
- Building

1 Inch = 60 Feet

0 60 120 240 Feet

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed
ND = Not Detected above laboratory minimum detection limit
NL = Not Listed
J = The associated numerical value is an estimated quantity.
R = Rejected data value

National Grid Former Inwood Gas Holder Site ISMP Nassau Ave/Sheridan Blvd Inwood, NY			Summary of Surface Soil Analytical Results (0 - 0.2 Feet)	
Date: 5/22/2014	Drawn: HKM	Job #: 60137359	Figure 1-11	

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-22 4/20/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	ND
Polynuclear Aromatic Hydrocarbons (PAHs)		
Benzo(a)pyrene	1	14
Benzo(b)fluoranthene	5.6	11
Dibenz(a,h)anthracene	0.56	2.2 J
Indeno(1,2,3-cd)pyrene	5.6	6 J
Total PAHs	NL	99.28
Total SVOCs	NL	100.4
Total PCBs	1	0.032
Inorganic Compounds		
Arsenic	16	49.1
Barium	400	461
Cyanide, Free	NL	R
Cyanide, Total	NL	1

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-09 4/9/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	ND
Total PAHs	NL	0.11
Total SVOCs	NL	0.64
Total PCBs	1	0.55
Inorganic Compounds		
Arsenic	16	60.7
Barium	400	531
Cyanide, Free	NL	R
Cyanide, Total	NL	ND

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-10 4/12/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	ND
Total PAHs	NL	2
Total SVOCs	NL	2.41
Total PCBs	1	0.11
Inorganic Compounds		
Arsenic	16	32.3
Cyanide, Free	NL	R
Cyanide, Total	NL	ND

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-23 5/3/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	ND
Total PAHs	NL	2.32
Total SVOCs	NL	2.55
Total PCBs	1	4.39
Inorganic Compounds		
Arsenic	16	65.9
Nickel	310	525
Cyanide, Free	NL	R
Cyanide, Total	NL	ND

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-28 4/6/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	0.001
Total PAHs	NL	5.51
Total SVOCs	NL	6.26
Total PCBs	1	0.56
Inorganic Compounds		
Arsenic	310	669
Nickel	R	R
Cyanide, Free	NL	ND
Cyanide, Total	NL	ND

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-08 4/27/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	ND
Total PAHs	NL	1.45
Total SVOCs	NL	1.86
Total PCBs	1	ND
Inorganic Compounds		
Arsenic	16	43.4
Nickel	310	R
Cyanide, Free	NL	ND
Cyanide, Total	NL	ND

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-13 4/26/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	ND
Total PAHs	NL	5.7
Total SVOCs	NL	6.06
Total PCBs	1	0.366
Inorganic Compounds		
Arsenic	16	41.8
Lead	1000	4260
Nickel	310	5650
Cyanide, Free	NL	R
Cyanide, Total	NL	ND

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-24 4/8/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	ND
Total PAHs	NL	ND
Total SVOCs	NL	0.17
Total PCBs	1	0.074
Inorganic Compounds		
Arsenic	16	62.8
Cyanide, Free	NL	R
Cyanide, Total	NL	ND

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-11 4/12/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	ND
Total PAHs	NL	5.12
Total SVOCs	NL	3.81
Total PCBs	1	0.55
Inorganic Compounds		
Arsenic	16	52.6
Cyanide, Free	NL	R
Cyanide, Total	NL	1.01

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-17 4/20/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	ND
Polynuclear Aromatic Hydrocarbons (PAHs)		
Benzo(a)pyrene	1	1.4 J
Total PAHs	NL	13.84
Total SVOCs	NL	7.54
Total PCBs	1	0.045
Inorganic Compounds		
Arsenic	16	63.5 J
Barium	400	369 J
Cyanide, Free	NL	ND
Cyanide, Total	NL	NA

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-07 4/22/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	ND
Total PAHs	NL	13.56
Total SVOCs	NL	14.23
Total PCBs	1	7
Inorganic Compounds		
Arsenic	16	66.5 J
Cyanide, Free	NL	ND
Cyanide, Total	NL	NA

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-16 4/19/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	0.007
Total PAHs	NL	3.13
Total SVOCs	NL	4.41
Total PCBs	1	27.5
Inorganic Compounds		
Arsenic	16	38.6
Cyanide, Free	NL	R
Cyanide, Total	NL	0.98

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-20 4/14/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	ND
Total PAHs	NL	0.227
Total SVOCs	NL	0.377
Total PCBs	1	0.52
Inorganic Compounds		
Arsenic	16	24.2 J
Nickel	310	585 J
Cyanide, Free	NL	ND
Cyanide, Total	NL	NA

Sample Location	NYSDEC Part 375-6 Commercial SCOs	SB-15 4/14/2010 0-0.2
Sample Date		
Sample Interval (feet)		
Total BTEX	NL	ND
Total VOCs	NL	ND
Total PAHs	NL	9.44
Total SVOCs	NL	9.65
Total PCBs	1	0.92
Inorganic Compounds		
Arsenic	16	24.5 J
Cyanide, Free	NL	ND
Cyanide, Total	NL	NA

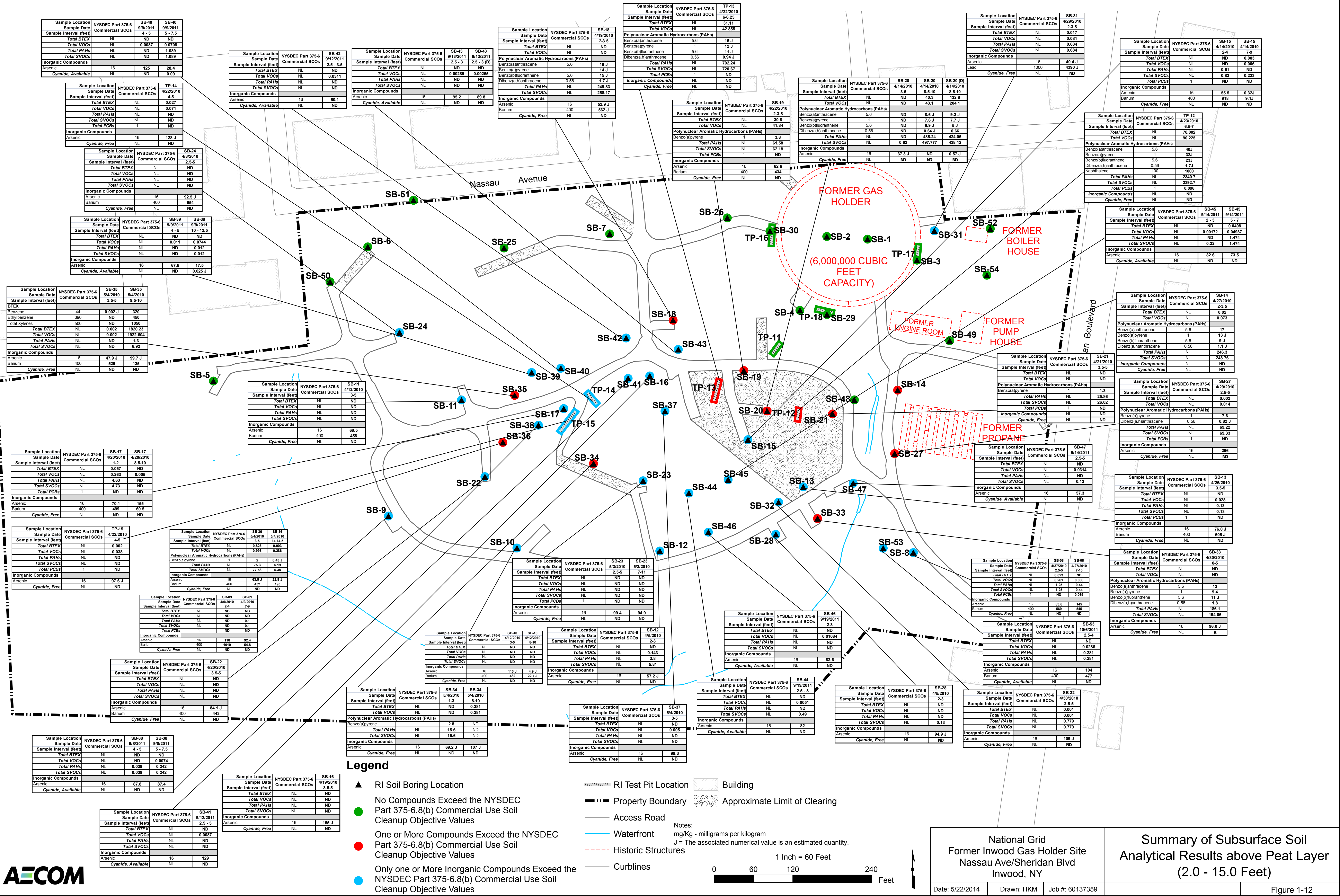
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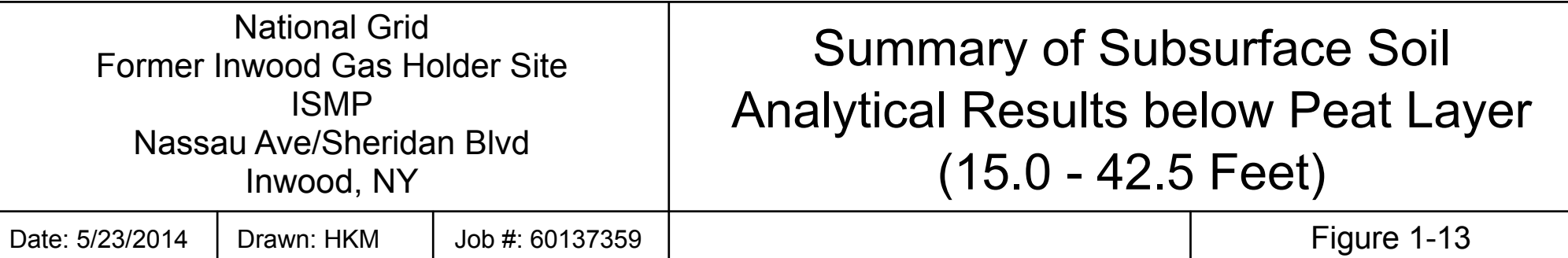
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FORMER
PUMP
HOUSE

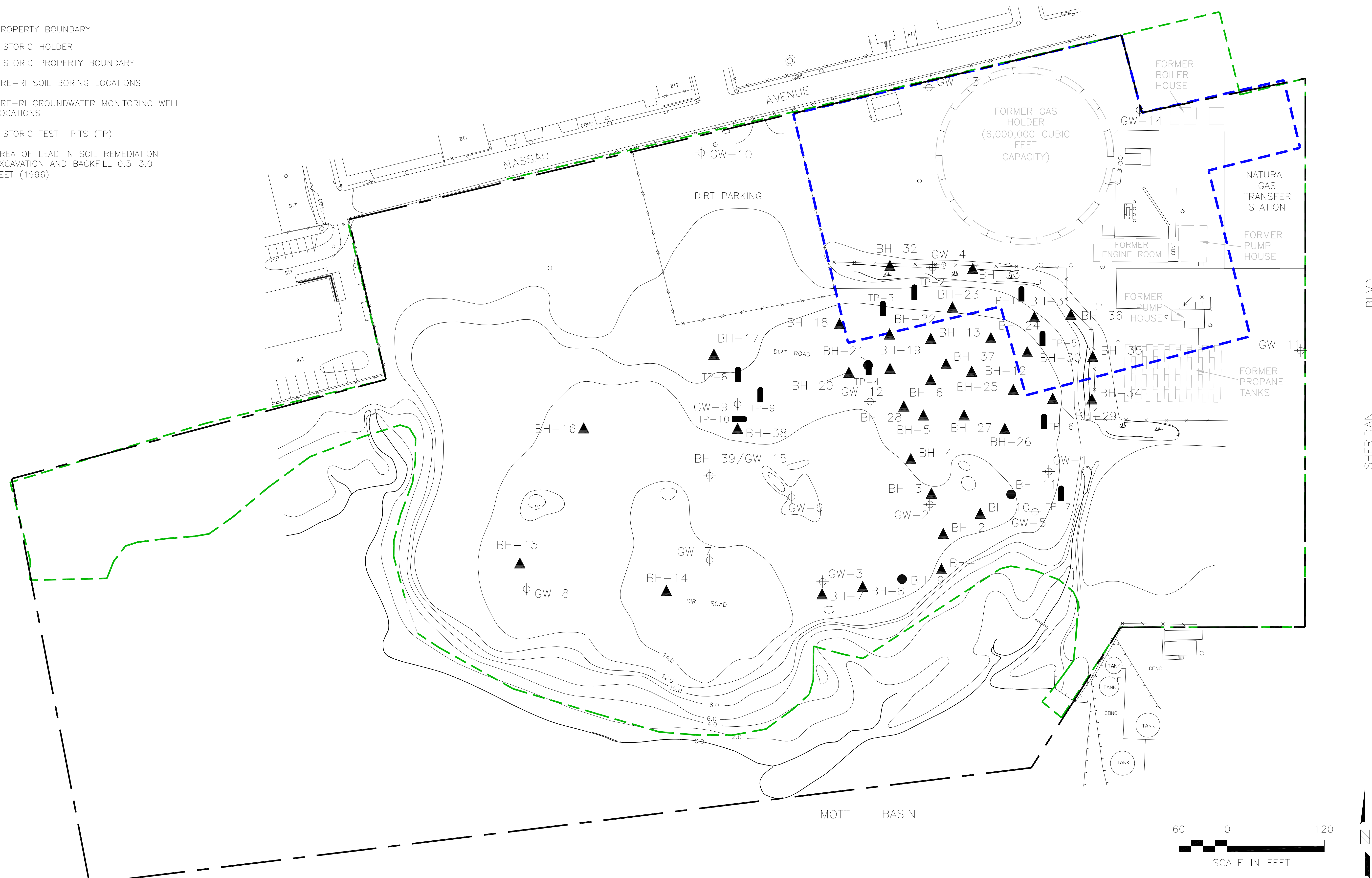
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LEGEND

- PROPERTY BOUNDARY
- HISTORIC HOLDER
- HISTORIC PROPERTY BOUNDARY
- PRE-RI SOIL BORING LOCATIONS
- PRE-RI GROUNDWATER MONITORING WELL LOCATIONS
- HISTORIC TEST PITS (TP)
- AREA OF LEAD IN SOIL REMEDIATION EXCAVATION AND BACKFILL 0.5-3.0 FEET (1996)



National Grid Former Inwood Gas Holder Site ISMP Nassau Ave/Sheridan Blvd Inwood, NY			Limits of Lead Impacted Soil Remediation	
Date: 05/23/2014	Drawn: DLS/PGH	Job #: 60137359	Figure 1-14	

SOURCE:
BASEMAP PREPARED BY LONG ISLAND LIGHTING CO. CIVIL & FACILITIES DEPT. SURVEY DIVISION, 5/23/93

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Appendices

Appendix A

Excavation Work Plan



Excavation Work Plan

(Appendix A of the Interim Site Management Plan)

Former Inwood Gas Holder Site
Inwood, Nassau County, New York
NYSDEC Site No.: 130121
Order on Consent Index #: A2-0552-0606

Contents

1.0 Notification.....	1-1
2.0 Excavation Work Plan	2-1
2.1 Soil Screening Methods.....	2-1
2.2 On-Site Material Management	2-1
2.2.1 Soils	2-1
2.2.2 Groundwater	2-2
2.3 Materials Excavation and Load Out	2-2
2.4 Materials Transport Off-Site	2-3
2.5 Materials Disposal Off-Site	2-4
2.6 Materials Reuse On-Site	2-4
2.7 Cover System Restoration.....	2-5
2.8 Backfill from Off-Site Sources.....	2-5
2.9 Stormwater Pollution Prevention	2-5
2.10 Contingency Plan	2-6
2.11 Equipment Decontamination	2-6
2.12 Health and Safety	2-6
2.13 Community Air Monitoring Plan.....	2-6
2.14 Odor Control Plan	2-7
2.14.1 Level 1 Controls	2-7
2.14.2 Level II Controls	2-8
2.14.3 Level III Controls	2-9
2.15 Dust Control Plan	2-10
2.16 Other Nuisances	2-10
2.17 Quality Assurance/Quality Control Sampling.....	2-10

List of Acronyms

ASP	Analytical Services Protocol
C&D	Construction and Demolition
CCS	Composite Cover System
CFR	Code of Federal Regulations
COCs	Constituents of Concerns
DOT	Department of Transportation
EC	Engineering Controls
EWP	Excavation Work Plan
HASP	Health and Safety Plan
IC	Institutional Controls
ISMP	Interim Site Management Plan
MGP	Manufactured Gas Plant
NYC	New York City
NYCRR	New York Codes Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyl
PPE	Personal Protective Equipment
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
SIR	Site Investigation and Remediation
TCLP	Toxicity Characteristics Leaching Procedures

USEPA United States Environmental Protection Agency

VOCs Volatile Organic Compounds

1.0 Notification

At least 15 business days prior to the start of any activity that is anticipated to encounter impacted site media (i.e., surface soils not covered by the Composite Cover System (CCS), subsurface soils, groundwater, and soil vapor), the Contractor, National Grid or its representative(s) will notify the National Grid Site Investigation and Remediation (SIR) Project Manager and the New York State Department of Environmental Conservation (NYSDEC). Currently, this notification will be made to:

National Grid SIR Project Manager:

Name: Melissa Reindl
Address: 165 East Old Country Road, Hicksville, New York
Telephone: (516) 545-3551
Fax: (516) 545-2501
Email: Melissa.Reindl@nationalgrid.com

NYSDEC Project Manager:

Name: William Wu
Address: New York State Department of Environmental Conservation
Site Control Section, Bureau of Technical Support
625 Broadway Albany, New York 12233-7014
Telephone: (518) 402-9543
Fax: (518) 402-9595

This notification will include:

- A detailed description of the work to be performed, including the location and aerial extent, plans for re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control (EC);
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this Excavation Work Plan (EWP);
- A statement that the work will be performed in compliance with this EWP and 29 Code of Federal Regulations (CFR) 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix A of the Interim Site Management Plan [(ISMP); AECOM, 2014];
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

2.0 Excavation Work Plan

All site work on non-CCS areas (see Figure 2-1 of the ISMP) and surface intrusive work shall be performed in compliance with 29 CFR 1910.120. The contractor/National Grid representative shall use an Occupational Safety and Health Administration (OSHA) trained Site Supervisor and HAZWOPER-trained workers to complete non-CCS area site work and surface intrusive work.

Note: Access is restricted at the perimeter of the site. An 8-foot tall chain-link fence secures the site. The fence around the site perimeter includes gates that are locked to restrict access which provides additional physical control. The existing and future access conditions were taken into account in the development of the procedures, methods, and controls discussed in this section.

2.1 Soil Screening Methods

A qualified environmental professional will perform visual, olfactory and instrument-based soil screening during all site work on non-CCS site areas and any surface intrusive work. All site activities on non-CCS areas of the site will require instrument-based soil screening (for dust). All excavation and invasive work performed during development, such as excavations for foundations and utility work, regardless of when the invasive work is performed, will require visual, olfactory, and instrument-based soil screening.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal, material that requires testing, material that can be returned to the subsurface, and material that can be used as cover soil.

2.2 On-Site Material Management

2.2.1 Soils

Visually or olfactory impacted material should be placed in roll-off containers, drums, or stockpiled on plastic and maintained within a secure location around the work area; stockpiled material shall be covered for protection from precipitation and to prevent material from becoming airborne. It is anticipated that the material will be transported to National Grid approved off-site disposal facility. Material collected in drums will be properly labeled and covered for off-loading to a secure area. The material will then be characterized by the contractor/National Grid representative for subsequent disposal.

Stockpiles containing known or suspected impacts will be continuously encircled with a berm. Contaminated water draining from the soils containing known or suspected impacts will be collected from inside the bermed area and disposed of off-site in an appropriate manner. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles containing known or suspected impacts will be kept covered at all times with appropriately anchored tarps. Stockpiles containing known or suspected impacts will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles containing known or suspected impacts will be inspected at a minimum once each day and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC. Stockpiled material not being used will be removed within 30 days following disposal facility characterization.

2.2.2 Groundwater

Site data indicates that the water table is approximately 5 feet to 6 feet below current ground surface. Therefore, groundwater may be encountered. In the event that it is necessary, the contractor/National Grid representative will provide sufficient means to remove groundwater from the excavation in drums, tanks, or other appropriate containment. All groundwater shall be considered impacted and properly disposed.

2.3 Materials Excavation and Load Out

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated site soils. National Grid and its contractors are solely responsible for safe execution of all invasive and other work performed under this EWP.

The qualified environmental professional will investigate the presence of utilities and easements on the site. It will be determined whether a risk or impediment to the planned work under the ISMP is posed by utilities or easements on the site.

Excavated soil shall be segregated (e.g., on plastic or by containerization) from surface soils regardless of its level of impact.

After the completion of soil removal and any other surface intrusive activities, a demarcation layer, consisting of orange snow fencing material or equivalent material will be placed in excavation areas along the sidewalls and excavation bottom to separate backfill from existing soils.

All waste derived from excavation or other intrusive activities will be either stockpiled or placed in appropriate containers (e.g., 55-gallon steel drums, 20-cubic yard roll off containers, 4,000 gallon Baker tanks) and grouped by environmental matrix (soil or water). Construction and demolition (C&D) material, including personal protection equipment (PPE), that has been in contact with impacted soil and/or groundwater shall be containerized, separately unless approved by the impacted material disposal facility.

All removed soil and water will be characterized using the laboratory analyses and sampling frequency specified by the disposal facility. The analyses to be performed may include, but not be limited to, the following, depending on the medium and the selected disposal facility:

- Total Metals by United States Environmental Protection Agency (USEPA) Method 6010B (Mercury 7470A)
- Total Petroleum Hydrocarbons (DRO and GRO) by USEPA Method 8015 modified
- Polychlorinated biphenyl (PCBs) by USEPA 8082
- Toxicity Characteristics Leaching Procedure (TCLP) ZHE Extraction – USEPA Method 1311
- TCLP VOC – USEPA Method 8260B
- TCLP SVOC – USEPA Method 8270C

- TCLP Resource Conservation and Recovery Act (RCRA) Metals – USEPA Method 6010B (Mercury 7470A)
- Corrosivity – USEPA Method 9045C
- Ignitability/Flashpoint – USEPA SW-846 Method 1010A
- Reactive Cyanide and Reactive Sulfide by USEPA SW-846 Chapter 7, Sections 7.3.3.2/7.3.4.2
- Total Organic Halogens – USEPA SW-846 Method 9020B

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYS Department of Transportation (DOT) requirements (and all other applicable transportation requirements).

A truck decontamination area will be operated on-site. The qualified environmental professional will be responsible for ensuring that all outbound trucks shall be decontaminated at the truck decontamination area before leaving the site until the activities performed under this section are complete. Water, sand or soil derived from the truck decontamination area will be handled in the same manner specified in Section 2.2.1 and 2.2.2.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

2.4 Materials Transport Off-Site

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 New York Codes Rules and Regulations (NYCRR) Part 364. Haulers will be appropriately licensed and trucks properly placarded.

At a minimum, trucks should have an impermeable tarp, competent cover systems, and functional tailgates to prevent leakage of liquids. Trucks transporting impacted soils shall be lined with 8-mil polyethylene sheeting large enough to fully cover the top of the load. The truck covers shall be an impermeable soil cover. Additional automatic mesh tarps will be used to secure the liners. Loose-fitting canvas-type truck covers or mesh covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used. All trucks transporting impacted soils will be decontaminated prior to leaving the site. Decontaminated water, if any, will be collected and disposed of off-site in an appropriate manner.

Truck transport routes shall be in accordance with all New York City (NYC) Department of Transportation (DOT) and New York State (NYS) DOT approved roadways. It is National Grid/contractor's responsibility to follow all applicable state, local, and municipal rules, regulations, and guidelines (including NYCDOT and NYSDOT) regarding truck routes.

All trucks loaded with impacted materials will exit the vicinity of the site using only the approved truck route. This is the most appropriate route and takes into account: (a) limiting transport through

residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the site; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in the neighborhood outside the site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during any site activity and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

2.5 Materials Disposal Off-Site

All soil/fill/solid waste excavated and removed from areas known to have site impacts will be designated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this site is proposed for unregulated off-site disposal (i.e., clean soil removed for development purposes), a formal request with an associated plan will be made to the NYCDEC. Unregulated off-site management of materials from this site will not occur without formal NYCDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate (i.e., hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C&D recycling facility, etc). Actual disposal quantities and associated documentation will be reported to the DEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet unrestricted Soil Cleanup Objectives (SCOs) is prohibited from being taken to a NYS recycling facility (6NYCRR Part 360-16 Registration Facility).

2.6 Materials Reuse On-Site

This section provides details for methods to be followed for materials reuse on-site. 'Reuse on-site' means reuse on-site of material that originates at the site and which does not leave the site during the excavation. All impacted material exposed and removed as part of the work at the site shall be disposed off-site as detailed in this EWP.

All other material removed from the site will require NYSDEC approval prior to any reuse on-site. The qualified environmental professional will ensure that procedures defined for materials reuse by the NYSDEC and DER-10 are followed and that unacceptable material does not remain on-site. Impacted on-site material, including historic fill, petroleum residuals, and MGP-related residual materials, that is approved by NYSDEC for re-use on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a CCS, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be

performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

2.7 Cover System Restoration

After the completion of soil removal and any other invasive activities, the CCS will be restored in a manner that complies with the ISMP. The demarcation layer, consisting of orange snow fencing material or equivalent material will be placed in excavation areas with site impacts. The demarcation layer will provide a visual reference to the top of the 'Impacted Zone', the zone that requires adherence to special conditions for disturbance of impacted soils defined in the ISMP. If applicable, Figures 1-9 and 1-10 of the ISMP will be updated to show the revised Impacted Zone. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the 'Impacted Zone'. A figure showing the modified surface will be included in any updates to the ISMP.

2.8 Backfill from Off-Site Sources

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this ISMP prior to receipt at the site.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are listed in the ISMP. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site. Additionally all imported soils must meet 6NYCRR Part 375 Restricted Use Commercial SCOs.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

2.9 Stormwater Pollution Prevention

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

2.10 Contingency Plan

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc., as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (Total Analytical List metals; Total Compound List (TCL) volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In that case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the DEC spills hotline.

2.11 Equipment Decontamination

All hand tools and heavy equipment that comes in contact with impacted material will be decontaminated at the end of the work shift, day, when moving to new areas, or anytime it is deemed necessary. Decontamination should be accomplished using industry standard means and methods which may include high pressure washing/steam cleaning equipment, brushes, solvents and/or surfactants. All decontamination related wastes (impacted water, solids and PPE) should be managed appropriately and disposed of off-site at an approved facility.

2.12 Health and Safety

The contractor/property owner representative shall develop and utilize site health and safety protocols consistent with the attached HASP (Appendix A). The intention of the health and safety program at the site is to protect the public, site workers, contractor / property owner representative(s) while they secure/monitor the excavation, utility/maintenance and other Construction Workers during execution of their work, and the environment.

The ISMP and the HASP were developed primarily to handle activities that involve excavation (i.e., replacement/inspection of utilities, etc.) at the site. While comprehensive, this ISMP and attached HASP cannot anticipate all potential future scenarios for invasive work on the site.

2.13 Community Air Monitoring Plan

Air sampling stations will be placed upgradient and downgradient of generally prevailing wind conditions. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations.

Exceedances of action levels listed in the Community Air Monitoring Plan (Appendix D of the ISMP) will be reported to NYSDEC and New York State Department of Health (NYSDOH) Project Managers.

2.14 Odor Control Plan

Fugitive emissions can be generated from a variety of activities including excavation, drilling, and dewatering and/or from the temporary staging of materials for characterization, consolidation, and scheduling for transportation.

Due to the Compounds of Concern (COCs) associated with the remedial activities at former MGP sites; fugitive emissions can take the form of volatile organic compounds (VOC's), odor, and/or dust. Dust can be entrained with low levels of high molecular weight constituents, while VOC's can volatilize into ambient air. Odor emissions may result from the atmospheric exposure of contaminated media. Contamination may be present in soils and groundwater. The potential for odor generation from groundwater is less than that from solids. The constituent concentrations associated with these odors are typically less than the levels that potentially pose a health risk as the odor threshold of COC's are typically less than health based action levels.

This odor control plan is capable of controlling emissions of nuisance odors off-site. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the site. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

A three-tiered set of controls are proposed for this Plan:

- Level I - Built into the design of the Plan and includes proactive measures to minimize the effect of fugitive emissions. Level 1 includes air monitoring to ensure that levels of VOC's and dust are under site-specific action levels.
- Level II – Procedures that are implemented in response to specific increases in fugitive emissions, but are not likely to have a significant impact in the schedule of site activities.
- Level III – More aggressive procedures, also initiated in response to specific increases in fugitive emissions that are likely to have a more significant impact on production schedule and site activities.

The Site Manager will be required to progressively implement these options until emission sources are controlled and ambient concentrations no longer have the potential to pose a health risk.

2.14.1 Level 1 Controls

Level 1 Controls are built into the design of the field activities and involve physical controls, site layout, and scheduling.

2.14.1.1 Physical Controls

The simplest form of physical control is the use of visual barrier cloth on the site perimeter fencing. The resistance caused by the visual barrier will elevate the discharge point of emissions leaving the

site to the top of the perimeter fence and will promote better mixing and dispersion. Another form of simple physical control is the required use of tarps on trucks that move or transport impacted material.

All stockpiles of impacted material should be covered, if left inactive for a period of more than 2 hours.

All trucks used for off-site transport should have tarps in place to cover impacted material as detailed in Section 2.2. On-site haul routes should be routinely wetted to control dust using a hose, sprinkler, or dedicated water truck.

2.14.1.2 Site Layout

The dispersion of fugitive emissions is controlled by meteorological conditions and their impact generally decreases with distance from the source. If possible, transfer/storage areas will be placed either downwind or significantly upwind of off-site receptors.

The height of the stockpiles should be lower than the top of the perimeter fencing (8 feet) to utilize the benefit of the barrier cloth. If stockpiles must be staged near the fence line (within 100 feet), they should be less than 8-feet in height.

2.14.1.3 Scheduling

Every effort should be made to minimize the amount of time that potentially contaminated material is stored on-site. Appropriate strategies involve the in-place precharacterization of soils to be excavated and the sampling of stockpiles as soon as they are placed. Efficient scheduling/coordination of operations can also limit the impact of active emission sources. Close coordination of excavation activities can decrease the surface area of disturbed material, thereby reducing the size of the emission source. A smaller source area can facilitate the implementation of additional controls, if required.

2.14.2 Level II Controls

Air monitoring will routinely be performed at the fence line of the site as delineated in the Community Air Monitoring Plan (Appendix D of the ISMP) during all work activities. The results will be compared to site-specific action levels for VOC's and total particulates.

Level II controls will be enacted if the exceedance is confirmed or odors are detected at the fence line. If the action levels are exceeded, additional monitoring will be conducted to confirm the result. Level II controls will be enacted if the exceedance is confirmed. The Site Manager must then work through the applicable list of site controls until the fence line monitoring results for all parameters are determined to be less than their associated action levels. Specific Level II controls are discussed below.

2.14.2.1 Suppressing Agents

Several agents that can be applied over emissions sources have been determined to be effective in controlling emissions. These include odor suppressant foam for VOC mitigation and water spray for dust suppression.

The following suppressing agents have been identified for use but additional agents may be used or substituted for other proven agents such as odex, hydromulch, or ecosorb.

Odor suppressant foam

Odor suppressant foam can provide immediate, localized control of VOC and odor emissions. The foam is created by the injection of air into a foam concentrate/water mixture using a Pneumatic Foam Unit. The foam is applied via a hose to cover source areas to a depth of 3 to 6 inches. Foam (Rusmar AC-600 or equivalent) is a short term remedy and can be actively used to control VOC and odor emissions from active excavations/stockpiles, and during the loading of trucks. It is shipped as a concentrate and diluted with water at the site. Under normal conditions, this foam can last for several hours. However, it has been observed to degrade quickly in direct sunlight or precipitation so it must be applied liberally and frequently to all areas that require odor control.

Water spray

A spray of water can be used to minimize the amount of dust created. A water hose is effective for controlling dust over a small area, while lawn sprinklers or a dedicated water truck may be more efficient for extended control of large areas or on-site haul routes.

2.14.2.2 Tarps

Tarps can provide effective control for source areas that are likely to be inactive for extended periods of time. To be effective, the size of the source area should be controlled such that it can be covered using a single tarp. Rolls of 6-mil polyethylene will be used to cover inactive stockpiles. Tarps will also be used for covering exposed soils loaded into trucks. All trucks will be lined with 6 mil polyethylene sheeting, the liners will be large enough to overlap and fully cover the top of the load. Additional automatic mesh tarps will be used to secure the liners.

2.14.3 Level III Controls

Level III controls are to be implemented when Level II controls have been exhausted and ambient concentrations of emissions continue to exceed the site-specific action levels. Each of the control options listed in this subsection has the potential to significantly affect the schedule/production rate of site activities. These delays may be required periodically to ensure that acceptable levels of fugitive emissions are maintained, and are preferable to a complete work cessation to control an emission event.

2.14.3.1 Production/Schedule

It may be necessary to reduce the excavation rate to reduce the surface area of disturbed media or slow the generation rate of stockpiles. These activities would result in smaller source areas that could be more effectively controlled using Level II techniques.

2.14.3.2 Meteorological Conditions

It may be necessary to limit certain activities to those periods when preferred meteorological conditions exist, such as wind direction or low temperatures are present.

2.14.3.3 Relocation of Activities

Another option is cease work and move the remedial activities to lesser-impacted areas until adequate control measures can be implemented or more favorable meteorological conditions return. In addition, it may be beneficial to temporarily relocate material loading and transfer activity areas to other areas of the site or within subsurface excavations to utilize the natural dispersion of emissions in the atmosphere, or shelter from the wind.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

2.15 Dust Control Plan

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles;
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production;
- Gravel will be used on roadways to provide a clean and dust-free road surface; and
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

2.16 Other Nuisances

A plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

2.17 Quality Assurance/Quality Control Sampling

Field and laboratory quality control (QC) samples will be collected and analyzed to document the accuracy and precision of analytical samples that will require submittal to NYSDEC, if any. The Quality Assurance (QA)/QC samples include trip blanks, field equipment blanks, field duplicates and matrix spikes, and matrix spike duplicates. The data quality level for the investigation will be consistent with procedures outlined in the NYSDEC Analytical Services Protocol (ASP) July 2005 methodologies. A full ASP Category B data package will be prepared by the laboratory for all samples. The data will be reviewed, and a qualified chemist will prepare a Data Usability Summary Report.

Waste characterization samples do not have to meet the QA/QC sampling requirements described in the above paragraph.

Appendix B

Site-Wide and Annual Inspection Forms

Annual Inspection Checklist

National Grid Former Inwood Gas Holder Site

Inwood, Nassau County, New York



Property: Former Inwood Gas Holder Site

<u>Type</u>	<u>Inspection Task</u>	<u>Status</u>	<u>Condition</u>	<u>Date Completed</u>	<u>Initials</u>	<u>Remarks</u>
Infrastructure	Building (s)					
	Building Slabs and Floor					
	Pavements					
	Underground Services					
	New Structures					
	Monitoring Wells					
	Barrier Walls					
	Treatment Systems					
Physical	Site Fences					
	Topography					
	Surface Drainage					
	Depressions					
	Vegetation					
	Ground Cover					
	Surface Soil					
Contamination	Odors					
	Staining					
	Sheens					
National Grid Facility Representative	New					
	Interview					
Inspection and Interview Acknowledgement	Signature/Date: _____ Name: _____ National Grid/Representative					

Notes:

Status - Modified/Unchanged

Condition - Unchanged/Deteriorated

Interview - Work completed during the previous year and future plans

Soil Removal - Any soil removal activities will be detailed here and Figures 1-8 and 1-9 of the SMP revised accordingly.

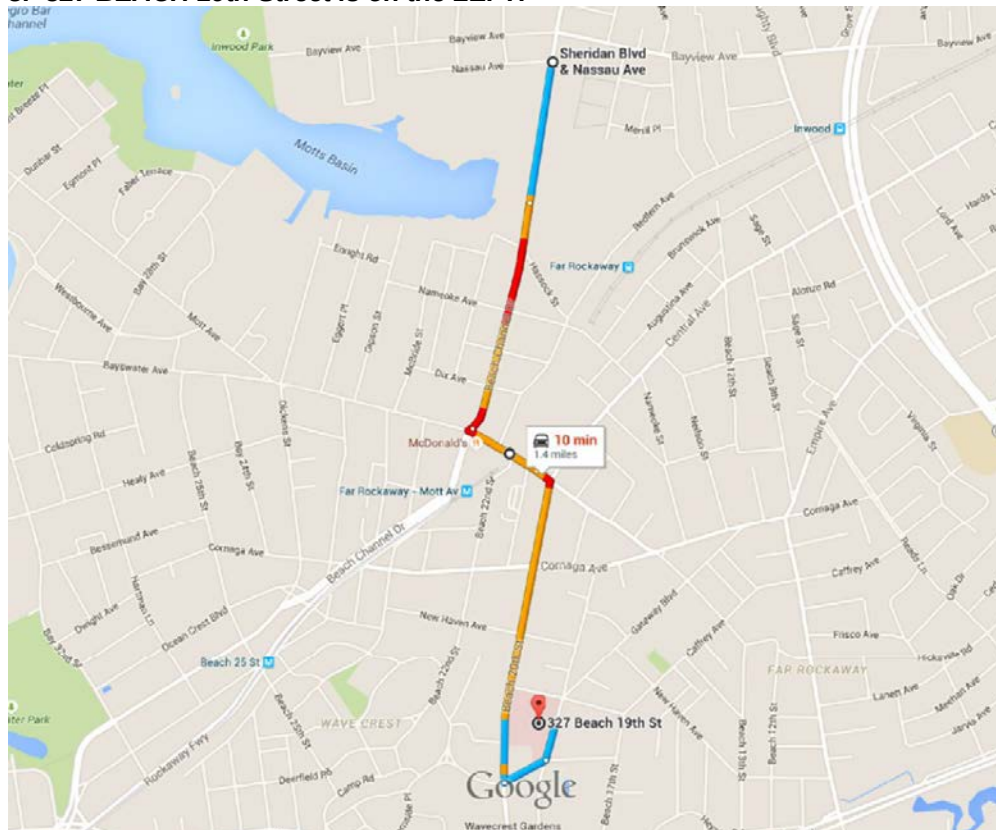
Appendix C

Health and Safety Plan

Site Activities – Former Inwood Gas Holder Site Inwood, Nassau County, New York

Phone #: (718) 868-7000

8: 327 BEACH 19th Street is on the LEFT.



When using any driving directions or map, it's a good idea to do a reality check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning.

Emergency References

For critical injuries, dial 911 and/or seek treatment at the identified local Emergency Room

Ambulance: 911

Fire: 911

Police: 911

Underground Utilities – www.call811.com

DigNet of New York City and Long Island
Phone: (800) 272-4480
<http://www.dignetynewyork.com/>

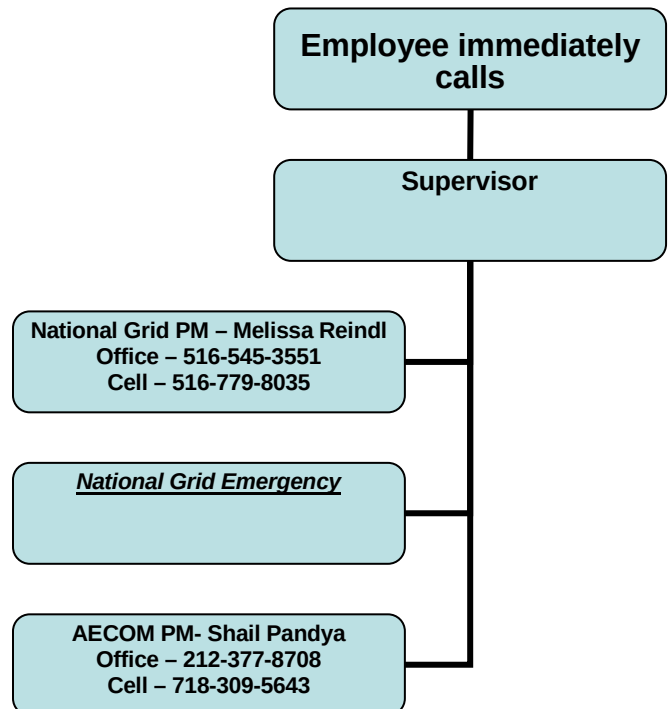
Emergency Chemical Information – InfoTrac (800) 535-5053

Poison Control Center – <http://www.aapcc.org/>
(800) 222-1222

Emergency Contact Phone Tree

Key Personnel:

National Grid PM – Melissa Reindl
AECOM PM – Shail Pandya
National Grid Emergency -



AECOM Medical Records and Medical Consultant

In the event of a non-critical injury, and once preliminary reporting been completed, if the injured employee desires/needs to speak with a medical professional to consult on the nature of their injury and treatment options, employees may contact WorkCare directly if they have not be directed to call WorkCare, been contacted by WorkCare directly, or they have been unable to speak directly with any of the personnel identified in the Emergency Contact Phone Tree provided above.

Work Care North
Alameda, CA 94502
Telephone: 510-748-6900
Fax: 510-748-6915

Emergency Muster Point

In case of a site emergency, please meet at the centrally located “parking” area on the northern portion of the site near the gate from Nassau Rd.

Escape routes from this site include three gates in the perimeter fence: one along Nassau Rd on the northern portion of the site and two along Sheridan Blvd on the eastern portion of the site

Hazard Assessment

Task-Specific Hazard Assessment – Physical & Chemical

Hazard	General Site Hazard	Soil Boring & MW Installation	Soil Sampling	Groundwater Sampling	Utility Work	Excavation
Animals	√	√	√	√	√	√
Cold	√	√	√	√	√	√
Concrete Coring	√	√			√	√
Corrosive Liquids	√		√	√	√	√
Drilling	√	√				
Dust	√	√	√		√	√
Exposure to Chemical Hazards	√	√	√	√	√	√
Falling	√	√	√	√	√	√
Heat	√	√	√	√	√	√
Heavy Equipment	√	√			√	√
Insects	√	√	√	√	√	√
Lifting	√	√	√	√	√	√

Hazard	General Site Hazard	Soil Boring & MW Installation	Soil Sampling	Groundwater Sampling	Utility Work	Excavation
Noise	√	√			√	√
Overhead Materials	√	√			√	√
Overhead Utilities	√	√			√	√
Pinch Points	√	√	√	√	√	√
Poisonous Plants	√	√	√	√	√	√
Rotating Equipment	√	√			√	√
Sharp Objects	√	√	√	√	√	√
Splashing Liquids	√	√	√	√	√	√
Traffic	√	√	√	√	√	√
Tripping	√	√	√	√	√	√
Underground Utilities	√	√			√	√
Vehicle Operations	√	√	√	√	√	√
Weather	√	√	√	√	√	√

Chemical Hazards

Chemical Name	PEL ¹	TLV ²	VP ³	VD ⁴	SG ⁵	SOL ⁶	FP ⁷	LEL ⁸	UEL ⁹
Benzene	1	0.5	75	2.8	0.88	<1	12	1.2	7.8
Ethyl Benzene	100	100	7	4	0.88	<1	55	0.8	6.7
Hydrogen Cyanide	10	4.7 STEL	630	.94	0.69	100	0	5.6	40
Naphthalene	10	10	0.08	4.4	1.15	<1	174	0.9	5.9
Toluene	200	50	21	4	0.87	<1	40	1.1	7.1
Xylene	100	100	9	4	0.86	<1	81	1.1	7.0

¹ Permissible Exposure Limit in ppm

² Threshold Limit Value in ppm

³ Vapor Pressure in mm Hg

⁴ Vapor Density (air = 1)

⁵ Specific Gravity (water = 1)

⁶ Solubility in Water in %

⁷ Flash Point in °F

⁸ Lower Explosive Limit in % by volume

⁹ Upper Explosive Limit in % by volume

NA = Not Applicable

? = Not known

C = Ceiling limit not to be exceeded

Unique Conditions

The project site is heavily wooded, vegetated by extensive poison ivy growth. Persons sensitive to poison ivy must stay out of the area during clearing and grubbing activities.

AECOM employees and contractors shall not enter any areas not previously cleared and grubbed without prior approval from the project manager.

The National Grid PM (Melissa Reindl) must be notified 15 business days prior to start of any ground intrusive activity as defined the Interim Site Management Plan.

Personal Protective Equipment

The minimum level of personal protective equipment required for field work is Level D. Level D consists of, hard hat, safety glasses, traffic safety vest, protective footwear, work gloves, and, as appropriate gloves for collection of environmental samples and hearing protection.

Additional personal protective equipment such as chainsaw chaps and sleeves, mesh face shield will be required for the cleaning and grubbing task.

Air Monitoring Instruments

Air monitoring in the breathing zone of field personnel potentially exposure to contaminated soils and groundwater will be conducted using a Photoionization detector (PID) with a 10.62 eV lamp.

Respiratory Protection

If conditions warrant Level C respirator protection in the form of half face or full face air purifying respirator with a combination organic vapors cartridge with P 100 filters will be required.

Job Hazard Analysis



JHA Type: ☒ Investigation ☐ O&M ☐ Office ☐ Construction		☒ New ☐ Revised		Date:
Office:		Client:		Location: Inwood, Nassau County, New York
Work Type: Test Pitting, Drilling and Sampling Activities		Work Activity: Test pitting with a back hoe, soil boring via direct push and HAS, monitoring well installation, soil and groundwater sampling		
<u>Personal Protective Equipment (PPE):</u> Minimum PPE is Level D including: hard hat, safety glasses, steel-toed boots, hearing protection as needed, and gloves as needed (type dependent on job-specific requirements). Traffic vest with reflective material/tape if needed and polycoated tyvek suits is needed.				
Development Team	Position/Title	Reviewed By	Position/Title	Date
Field staff must review job-specific work plan and coordinate with project manager to verify that all up-front logistics are completed prior to starting work including, but not limited to, permitting, and notification to required contacts (e.g. site managers, clients, subcontractors, etc.). Additionally, safety meeting must be performed and documented at the beginning of each workday. Relevant forms should be updated if modifications are made in the field once work begins. Also consider weather conditions (heat, cold, rain, and lightning).				
Global Site Work Safety - applies to all activities				
❶ Job Steps		❷ Potential Hazard		❸ Critical Actions
Inclement Site Conditions/ Weather	Poor Lighting	- All workers should have flashlight available with spare batteries. - One line of communication should be open at all times.		
	Exposure (E) to Lightning Strikes	- Fieldwork shall not be conducted when lightning can be seen or thunder heard from the work area. When lightning and/or thunder occur, employees are to cease work, perform emergency equipment shut down as needed, and then seek shelter. - Minimize contact with ground and keep body parts touching ground close together. - Follow HASP guidelines for resuming work		
	E to Thunderstorms, Hurricanes	- Listen to radio announcements for updates - Visually track threatening weather, cease outdoor activities if necessary - Seek shelter.		
	Heat Stress (HS)	- Monitor self and other workers when ambient temperature exceed 85°F - Wear appropriate clothing - Consume sufficient quantities of water/electrolytes to avoid dehydration - Monitor yourself and co-workers for signs of heat stress - Take frequent breaks and take shelter to cool-off if feeling signs of heat stress		
	Cold Stress (CS)	- Wear adequate insulating clothing to maintain core temperatures above 36°C - At air temperatures of 2°C (35.6°F) or less, if immersed in water or clothing becomes wet, immediately change clothing and get treated for hypothermia. - Cover metal handles of tools and control bars by thermal insulating material at temperatures below -1°C (30°F). - Protect hands with mittens if the air temperature is -17.5°C (9°F) or less. - Consume warm sweet drinks and soups to provide caloric intake and fluid volume. Limit the intake of coffee because of the diuretic and circulatory effects. - Work under constant protective observation (buddy system or supervision) at or below -12°C (10°F) ECT. - Monitor yourself and co-workers for signs of cold stress - Take frequent breaks and take shelter to warm if feeling signs of cold stress. Avoid conditions that induce sweating. - Minimize standing or sitting still.		
Hand Safety	Hand injury	- Wear chemically protective gloves when in contact with contaminated material. - Use shears rather than utility knives to cut tubing or other materials. - Wear leather or heat-resistant gloves while performing manual work. - Avoid touching hot surfaces without proper protective equipment. - Identify and avoid pinch points - Do not grasp steel hoist cables during hoisting. - Use only appropriate tools for the task.		
Ergonomic Safety	Lifting – Back and Foot injury	- Follow standard safe lifting practices. - Wear proper PPE, i.e., steel-toed shoes with metatarsals. - Use Mechanical lifting devices when ever possible. - Ensure path is clear prior to lifting and moving materials. - Ensure proper rigging.		

Global Site Work Safety - applies to all activities (continued)

① Job Steps	② Potential Hazard	③ Critical Actions
Ergonomic Safety (continued)	Overexertion (O) when lifting supplies/equipment	• Use equipment whenever possible. • Procure help when lifting awkward loads or materials that weigh greater than 60 lbs. • Use proper lifting techniques.
Tool Safety	Damaged Tools or Improper Use of Tools Injury Property damage	• Training of personnel. • Inspection and maintenance of equipment. • Use of proper tools for the work being performed.
Chemical Safety	Contact With (CW) Chemicals	• Always show precaution, follow protocol, and wear proper PPE including gloves and safety glasses while handling chemicals. • Keep portable eyewash kits nearby.
	E to Toxic Substances	• All workers will be trained in expected site-specific hazards prior to beginning work on-site. • Standards and safe work practices will be developed for any newly discovered toxic hazards that are determined to be present at the site •

Mobilization

① Job Steps	② Potential Hazard	③ Critical Actions
Arrive at the Site	Unsafe driving practices	• Review driving directions prior to departing site • Ensure seat belt is fastened • Do not use cell phone while driving • Safe driving in rain or severe weather • Obey all laws
Site Inspection	Contact With (CW) Hazardous Plants, Insects, and Animals	• Survey the surroundings before any activity for any hazardous plants and animals detailed in Section 2.5 of the HASP especially dogs, venomous insects, bees, and snakes • Use bug repellent sprays • Be aware of any coworkers with any insect bite allergies • Wear proper PPE, i.e., long sleeved shirt and long pants • Personnel to be trained in the proper procedures to be followed in the event that an animal exhibits abnormal behavior. • Seek first aid for any bites or stings (insect, snake, or otherwise) • Provide medications to the SHSO for any sting/bite allergies you may have
	Slip, Trip, and Fall on same level (FS) or to lower level (FL)	• Maintain a clean work area and good housekeeping practices by drying wet surfaces, cleaning up muddy areas, and keeping unnecessary equipment and supplies out of walkways. • Inspect tread on steel-toed boots for signs of wear and replace as necessary • When carrying field equipment maintain clear view of footing • Wear steel-toed boots that extend over the ankle • Never run while on the job site • Use backpacks for moving gear around the site to keep hands free. • Be aware of slippery conditions. • No work after dusk, without proper overhead lighting.

Mobilization (Continued)

① Job Steps	② Potential Hazard	③ Critical Actions
Equipment Set-up	Struck by (SB) Heavy Equipment	- Ensure backup alarms are operable - Never approach equipment without establishing eye contact with operator - Establish protocol for hand and arm signals
	Damaged Tools or Improper Use of Tools - Injury - Property damage	- Training of personnel. - Inspection and maintenance of equipment. - Use of proper tools for the work being performed.
	Overhead lines or obstructions	Check all locations for overhead obstructions
	CW electrical energy	- Use operable ground fault circuit interrupters (GFCI's) for any tool. - Inspect sampling equipment for frayed cords, damaged parts, etc. at the start of each day.
	Hand injury	- Use shears rather than utility knives to cut tubing or other materials. - Wear leather or heat-resistant gloves while performing manual work. - Avoid touching hot surfaces without proper protective equipment. - Identify and avoid pinch points - Do not grasp steel hoist cables during hoisting. - Use only appropriate tools for the task.
	Lifting – Back and Foot injury	- Follow standard safe lifting practices. - Wear proper PPE, i.e., steel-toed shoes. - Use Mechanical lifting devices when ever possible. - Ensure path is clear prior to lifting and moving materials. - Ensure proper rigging.
	Mechanical Hazards – Pinch Points/Sharp edges	- Care should be taken when working around heavy equipment. These items feature sharp/hard edges that present cutting, scraping, and impalement hazards. - Identify and label pinch points on equipment

Investigative Activities

Setup soil, groundwater, and soil gas sampling locations	Underground utilities	"Call before you dig" NY one call (Long Island) - Discuss utility situation with PM and Client before beginning any work.
Geoprobe® soil boring advancement, test pit digging and monitoring well installation	Safety equipment in Drill Rig not in place or operating	Perform an initial and weekly inspection of heavy equipment.
	SB Heavy Equipment/ Heavy equipment operations	- Ensure backup alarms are operable - Ensure that emergency shut off button works on equipment - Keep proper clearance from equipment - Be aware of excavator swing radius - Establish eye contact with operator(s) prior to approaching equipment - Listen for backup indicators - Operators should always wear seat belts while equipment is running - Operators must be aware of their surroundings at all times - Establish protocol for hand and arm signals - Do not climb on equipment; use proper stepping features and/or ladder that is braced properly. - Complete a drill rig inspection form before starting work to ensure there are no leaking hoses or damaged equipment.
	Mechanical Hazards - Pinch Points/Sharp edges	- Work at a safe distance from moving parts of the drill rig. - Ensure that equipment guards (whip guards) are in place and secure. - Ensure that personnel are aware of and familiar with the potential hazards of rotary equipment being used. - Keep hands and loose clothing away from rotating augers and drill stem.

Investigative Activities (continued)

① Job Steps	② Potential Hazard	③ Critical Actions
Geoprobe soil boring installation, and monitoring well installation (continued)	Noise	- Implement the two (2) feet rule, if shouting is required to be heard within two (2) feet of other personnel hearing protection is required. - Impulsive or impact noise must not exceed 140 db peak sound level. - Use engineering controls where applicable. - Use of hearing protection during drilling operations is required.
	Eye injury from flying debris or dust	- Wear protective eyewear. - Keep away from air rotary sample collection ports (e.g. cyclone samplers or diverters).
	Fire	- Have fire extinguishers on equipment. - Use fire watch as conditions warrant and as required by the hot work permit. - Obtain a hot work permit when using an external air compressor.
	Chemical exposure by inhalation or direct contact	- Position the drill rig and personnel upwind of drilling location, as practicable. - Provide air monitoring in the work area. - Personnel to use Modified Level D PPE (initially) with upgrade as needed. - Place drill cuttings into drums/containers and keep drums/containers closed as practicable during drilling. - Wear safety glasses.

Sampling Collection, Preparation, and Shipment

Collect soil and groundwater samples	E to toxic substances - Dermal contact with contaminated media - Ingestion of contaminated media	- Be alert during sampling to avoid splashing. - Wear proper PPE including protective gloves, protective coveralls, and safety glasses. - On exposure, rinse immediately with fresh water - Compliance with SOW/SOPs regarding the collection of samples. - Training of personnel. - Practice good personal hygiene and implementation of decontamination procedures using disinfectant.
	Mechanical Hazards – Pinch Points/Sharp edges/Impalement	- Care should be taken when working around sampling equipment. - Identify pinch points on equipment and include in the STAR form
	Slip, Trip, and FS on wet surfaces, over equipment, non stabilized surfaces and Weak or Narrow Embankments	- Wear appropriate slip-resistant boots with a steel toe. - Only the necessary personnel should be in the area of operation. - Always return equipment to proper storage location. - Avoid embankment edges. - Avoid positioning personnel downhill of equipment on embankments - Personnel to be cognizant of potential collapse of embankments. - Personnel to be cognizant of loose slopes.
	Caught Between (CB) pinch points	- When opening and closing bottle lids, be aware of pinch points. - Wear proper PPE including protective gloves, protective coveralls, and safety glasses. - Always keep attention focused on work.
	Lifting – Back and Foot injury	Get assistance when lifting or moving heavy items if needed.
	Chemical Hazards - spills	- Exercise proper placement, handling, and storage of the chemical preservatives used during the sampling event. - Read associated MSDS - Ensure that the chemical/contaminated material is stored in a secondary containment device so that an unscheduled release of the chemical/contaminated material cannot occur.

Sampling Collection, Preparation, and Shipment (continued)

① Job Steps	② Potential Hazard	③ Critical Actions
Collect soil and groundwater samples (continued)	O by repeated motion	- Take breaks during sampling mixing. - Change personnel every four hours, if feeling tired. - Maintain good ergonomics.
	CW electrical energy	- Use operable GFCIs for any tool. - Keep electrical equipment away from wet surfaces and water. - Inspect sampling equipment for frayed cords, damaged parts, etc. at the start of each day.
Soil gas sampling	E to soil gas	- Measure for VOCs using a PID. - Respirator should be available for upgrade to Level C PPE
Secure samples in coolers for shipment	- Broken glass - Cross contamination	Ensure sample bottles are securely packed in the cooler using bubble wrap and other packing materials.
Moving sample coolers	Heavy lifting	Use proper technique or get help.
Ship samples to lab via FedEx	- Traffic Accident - Personal Injury	- Do not rush to get samples to FedEx. - Plan sampling activities to give adequate time to package samples and drop them off to Fed Ex location (if needed).

Test Pitting

Excavation/Backfilling of Test Pit	Chemical Exposure by Inhalation or Direct Contact	- Position the excavator and personnel upwind of excavation location, as practicable. - Provide air monitoring in the work area. - Upgrade PPE to use of respirator as needed. - Cover excavated soil stockpile, as practicable, until test pit is backfilled or excavated soil is disposed of. - Wear safety glasses.
	Noise	- Implement the two (2) feet rule, if shouting is required to be heard within two (2) feet of another then hearing protection is required. - Impulsive or impact noise must not exceed 140 db peak sound level. - Use engineering controls where applicable. - Use of hearing protection during excavation operations is required.
	Dust	Use engineering controls (water truck) to the extent possible to wet down soils prior to excavation and backfill activities.
	Overhead/Underground Utilities	- Review available maps and have utilities located. - Ensure that overhead clearances for heavy equipment are within required limitations.
	Decon/Contact with High Pressure Water	- Direct pressure spray wand away from people and keep hands and feet away from discharge. - Personnel performing decon to wear full-face shield, gloves, rubber boots and tyvek or polycoated tyvek.

Demobilization

Decon sample preparation area and sampling tools	E and CW with airborne mists or vapors	- Always show precaution, follow protocol, and wear proper PPE including gloves and safety glasses while handling chemicals - Keep portable eyewash kits nearby
Decon sample preparation area and sampling tools (continued)	Chemical Hazards - spills	- Exercise proper placement, handling, and storage of the chemical solutions used during decontamination. - Read associated MSDS - Ensure that decontamination is carried out in a secondary containment device so that an unscheduled release of the contaminated decon water cannot occur.
	E to toxic substances - Dermal contact with contaminated media - Ingestion of contaminated media	- Be alert during decontamination to avoid splashing. - Wear proper PPE including protective gloves, protective coveralls, and safety glasses. - On exposure, rinse immediately with fresh water. - Training of personnel.
	Cross-contamination	Wash your hands prior to touching your food or other "clean" materials that may be tainted by what is on your hands.
Closing drums of soil cuttings	- Heavy lifting - Cut or pinch from drum ring	- Use proper technique or get help. - Wear leather work gloves.

Job Hazard Analysis



JHA Type: ☐ Investigation ☐ O&M ☐ Office ☒ Construction ☒ New ☐ Revised Date:

Office: Client: Loc: Inwood, Nassau County, New York

Work Type: Demolition Work Activity: Various Demolition

Personal Protective Equipment (PPE):

Minimum PPE is Level D including: Safety glasses, Steel toed boots, hard hat, Leather gloves, orange safety vest, face shield, hear protection (plugs and/or muffs)

Additional PPE may be required in the Health & Safety Plan (HASP). Also refer to the HASP for air monitoring, and emergency procedures. Please refer to Excavation JHA for additional site-specific requirements.

Development Team	Position/Title	Reviewed By	Position/Title	Date

❶ Job Steps	❷ Potential Hazard	❸ Critical Actions
Jack-Hammering Concrete (hand operated hammer)	1. Flying Debris 2. Noise 3. Vibration/ergonomic hazards 4. Steel reinforcement bar removal	• Wear appropriate PPE: hardhat with face shield, safety glasses, leather gloves, steel-toed boots, full body clothing. • Wear appropriate hearing protection in areas where decibel levels are > 85db • Be sure to use the hearing protection properly (either plugs, muffs or both) • Where appropriate footwear and gloves to lessen the effects of vibration on the body • Take frequent breaks: share the task with coworkers. • Use proper body positioning, avoid straining the back when moving the hammer • Wear proper hand protection (leather gloves)

Hammering Concrete using backhoe/excavator hammer attachment	1. Flying Debris 2. Noise 3. Heavy Equipment Operation	• Wear appropriate PPE: hardhat with face shield, safety glasses, leather gloves, steel-toed boots, full body clothing. • Wear appropriate hearing protection in areas where decibel levels are > 85db • Be sure to use the hearing protection properly (either plugs, muffs or both) • Keep proper clearance from equipment • Be aware of excavator or backhoe swing radius • Establish eye contact with operator(s) prior to approaching equipment • Listen for backup indicators • To the maximum extent possible, remain clear of confined areas in which multiple pieces of equipment are operating • Operators should always wear seat belts while equipment is running • Operators must be aware of their surroundings at all times
Loading debris onto trucks	1. Heavy Equipment Operation 2. Manually handling/moving concrete and steel debris 3. Heavy Equipment (Truck Traffic)	• Keep proper clearance from equipment • Be aware of excavator or backhoe swing radius • Establish eye contact with operator(s) prior to approaching equipment • Listen for backup indicators • To the maximum extent possible, remain clear of confined areas in which multiple pieces of equipment are operating • Operators should always wear seat belts while equipment is running • Operators must be aware of their surroundings at all times • Avoid hand injuries by wearing proper hand protection (leather gloves are recommended) • Do not attempt to lift more than you're capable of lifting safely • If debris is too large to handle, employ heavy equipment to move it. • Wear appropriate eye protection, hard hat, and steel-toed boots • Keep proper clearance from moving trucks • Maintain eye contact with drivers or communicate your actions with them • Listen for backup indicators • Stay clear of areas around the truck while they are being loaded with debris; falling debris could cause serious injury or a fatality.

① Job Steps	② Potential Hazard	③ Critical Actions
1. General Site Safety	Hand injury	• Use shears rather than utility knives whenever practical. • Wear leather or heat-resistant gloves while performing manual work. • Avoid touching hot surfaces without proper protective equipment. • Identify and avoid pinch points • Use only appropriate tools for the task.
	Slip, Trip, and Fall on same level or to lower level	• Maintain a clean work area and good housekeeping practices by drying wet surfaces, cleaning up muddy areas, and keeping unnecessary equipment and supplies out of walkways. • Inspect tread on steel-toed boots for signs of wear and replace as necessary • When carrying field equipment maintain clear view of footing • Never run while on the job site • Use backpacks for moving gear around the site to keep hands free. • Be aware of slippery conditions.
	Lifting – Back and Foot injury	• Follow standard safe lifting practices. • Wear proper PPE, i.e., steel-toed shoes with metatarsals. • Use Mechanical lifting devices when ever possible. • Ensure path is clear prior to lifting and moving materials.
	Overexertion when lifting supplies/equipment	• Use equipment whenever possible. • Procure help when lifting awkward loads or materials that weigh greater than 60 lbs. • Use proper lifting techniques.
	Contact with electrical energy	• Use operable GFCIs for any tool. • Inspect electrical equipment for frayed cords,

	Heat Stress	damaged parts, etc. at least once a week. • Monitor self and other workers when ambient temperature exceed 85°F • Wear appropriate clothing • Consume sufficient quantities of water/electrolytes to avoid dehydration • Monitor yourself and co-workers for signs of heat stress • Take frequent breaks and take shelter to cool-off if feeling signs of heat stress
	Fall to Lower Level (from trailers, equipment)	• Limit walking on elevated surface • Clean mud from boots prior to walking on trailers • Only rental company personnel to remove equipment off of low boy trailers (should equipment be rented)
	Trip/Slip/Fall on Same Level	• Establish and enforce housekeeping protocol
	Safety equipment not in place or operating	• Perform an initial and weekly inspection of heavy equipment
2. Equipment Mobilization	Struck by Heavy Equipment	• Ensure backup alarms are operable • Never approach equipment without establishing eye contact with operator • Establish protocol for hand and arm signals • Limit walking on elevated surface
	Fall to Lower Level (from trailers, equipment)	• Clean mud from boots prior to walking on trailers • Only rental company personnel to remove equipment off of low boy trailers (should equipment be rented)
	Trip/Slip/Fall on Same Level	• Establish and enforce housekeeping protocol
	Safety equipment not in place or operating	• Perform an initial and weekly inspection of heavy equipment
3. Excavation	Struck by Heavy Equipment/ Heavy equipment operations	• Ensure backup alarms are operable • Keep proper clearance from equipment • Be aware of excavator swing radius • Establish eye contact with operator(s) prior to approaching equipment • Listen for backup indicators • Operators should always wear seat belts while equipment is running • Operators must be aware of their surroundings at all times • Establish protocol for hand and arm signals
	Fall to Lower Level (from trailers, equipment)	• Limit walking on elevated surface • Clean mud from boots prior to walking on trailers • Only rental company personnel to remove equipment off of low boy trailers (should equipment be rented)
	Trip/Slip/Fall on Same Level	• Establish and enforce housekeeping protocol
	Safety equipment not in place or operating	• Perform an initial and weekly inspection of heavy equipment

	Hydrocarbon exposure/ Chemical exposure and Dust exposure	• Perform air monitoring prior to entering excavation area (MultiRae meter) • Continue to monitor periodically throughout the day • Properly document all calibration activities and readings performed on the proper sheets • Continue to monitor periodically throughout the day • Properly document all calibration activities and readings performed on the proper sheets
	Noise	• Use hearing protection and make sure it is inserted properly
	Sidewall instability	• Carefully examine the condition of the sidewall prior to approaching the edge • Signs of instability: look for active sloughing of soils, water seepage in the sidewall, and the presence of tension cracks in the surface above the side wall • Never stand in the excavation immediately adjacent to a side wall • If it is necessary to enter the excavation, always select a sloped route that is not too steep and proceed slowly
	Uneven ground	• Wear steel-toed boots that extend over the ankle • Never run while on the job site
	Underground utilities	• Check utility plans and expose if necessary prior to work
4. Loading haul trucks	Heavy equipment operation	• Keep proper clearance from equipment • Be aware of loaders rapid movements • Establish eye contact with operator(s) and truck drivers prior to approaching equipment • Listen for backup indicators
	Impacted Soil Exposure	• Wear splash proof PPE over Nomex coveralls when spraying trucks • Don face shield prior to spraying trucks
	Falling material	• Never stand on the opposite side of a trailer that is being loaded; material may spill over the side
Truck decontamination	Impacted Soil Exposure	• Wear splash proof PPE over Nomex coveralls when spraying trucks • Don face shield prior to spraying trucks
	Slips, trips, falls	• Exposed liner in sump area is very slippery, extreme caution must be used • Never run around the decon area • The decon area will be kept in an order fashion
	Heavy equipment operation	• Never approach a truck until it comes to a complete stop • Truck driver and decon personnel must make eye contact prior to approaching the truck or before truck movement is initiated • Driver shall sound the horn once prior to pulling out to serve as a warning to decon personnel • Decon personnel shall give a visual indication that all is clear prior to the driver

		pulling out of the decon area
	Falling material	- Decon personnel shall take care to avoid standing directly under the trailer as they try to remove pieces of sludge that may be lodged on the truck. - Use extension poles to remove loose material overhead
Backfill excavation	Heavy equipment operations	- Keep proper clearance from equipment - Be aware of heavy truck traffic - Establish eye contact with operator(s) prior to approaching equipment - Listen for backup indicators - To the maximum extent possible, remain clear of confined areas in which multiple pieces of equipment are operating
	Noise	Use hearing protection and make sure it is inserted properly
	Uneven ground – backfilled ground may be very uneven, padfoot compactor leaves a rough uneven	- Wear steel-toed boots that extend over the ankle - Never run while on the job site; caution should be used while traversing backfilled areas
Soil Sampling (If Needed)	Chemical exposure and Dust exposure	- Perform air monitoring prior to entering excavation area (dust monitor and PID) - Continue to monitor periodically throughout the day - Properly document all calibration activities and readings performed on the proper sheets
	Entering excavations	- NEVER enter an excavation deeper than 4 feet bgs!!! Sampling in deep excavations will be conducted using the backhoe. - Maintain a safe distance from where the current excavation is being conducted. - Be sure the operators are aware of your location at all times. - Always wear proper PPE including gloves while sampling.
Truck/Vehicle Traffic	Contact with Pedestrian and Road Traffic	- Ensure all site personnel are wearing orange safety vests. - If necessary, employ flagmen on public street.
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Health and Safety Plan

Appendix C of the Interim Site Management Plan

Former Inwood Gas Holder Site

Inwood, Nassau County, New York

August 2015

Contents

1.0 Introduction	1-1
1.1 HASP Purpose	1-1
1.2 HASP Applicability.....	1-1
1.3 Organization/Responsibility.....	1-2
1.3.1 Project Manager	1-2
1.3.2 Site Safety Officer.....	1-2
1.3.3 Field Personal	1-3
1.4 Management of Change/Modification of the HASP	1-3
1.4.1 Management of Change	1-3
1.4.2 HASP Modification	1-3
1.4.3 Job Safety Analysis (JSA).....	1-4
1.4.4 Employees Working Alone.....	1-4
2.0 Site Description.....	2-1
2.1 Site Location	2-1
2.2 Site History	2-1
2.2.1 Operational/Disposal History	2-1
2.2.2 Remedial History	2-2
2.3 Potential Contaminants of Concern	2-2
3.0 Chemical Hazard Assessment and Control.....	3-1
3.1 Chemical Hazards	3-1
3.1.1 Volatile Organic Compounds	3-1
3.1.2 Polycyclic Aromatic Hydrocarbons	3-1
3.1.3 Oxide Box Wastes.....	3-1
3.1.4 Metals	3-2
3.1.5 Dust.....	3-2
3.1.6 Hazardous Substances Brought On-Site	3-2
3.2 Chemical Exposure and Control	3-3
3.2.1 Chemical Exposure Potential.....	3-3
3.2.2 Chemical Exposure Control	3-3
3.3 Hazardous Waste Management	3-3
4.0 Physical Hazards and Controls	4-1
4.1 Working Around Heavy Machinery	4-1
4.1.1 Drill Rig	4-1

4.1.2	Soil Loading Machinery	4-3
4.2	Trench/Excavation Cave-In or Collapse	4-4
4.3	Concrete and Asphalt Coring & Cutting	4-4
4.4	Corrosive Liquids	4-4
4.5	Flying Objects Hazards	4-5
4.6	Hand Safety	4-5
4.6.1	Glove Selection	4-5
4.6.2	Working with Glassware	4-5
4.6.3	Hand Tools	4-5
4.6.4	Specific Tool Use	4-6
4.6.5	Power Tools	4-7
4.6.6	Electric Tools	4-8
4.7	Noise Exposure	4-8
4.8	Overhead Materials	4-9
4.9	Pinch Points	4-9
4.10	Slips, Trips and Fall Hazards	4-9
4.11	Splashing Liquids	4-10
4.12	Back Safety	4-10
4.13	Traffic Safety	4-10
4.13.2	Basic Procedures	4-11
4.13.3	Work On/Adjacent to Public Roadways	4-11
4.13.4	Flagging/Redirecting Traffic	4-11
4.14	Driving Safety	4-11
4.15	Utility Hazards	4-12
4.15.1	Underground Utilities	4-12
4.15.2	Overhead Utilities	4-13
4.16	Weather	4-13
4.16.1	Inclement Weather	4-13
4.16.2	Heat Stress	4-14
4.16.3	Cold Stress	4-16
4.16.4	Work/Rest Cycles for Cold Weather	4-17
4.17	Well Development and Groundwater Monitoring	4-17
4.18	Confined Spaces	4-17
4.19	Hot Work	4-18
4.20	Biological Hazards	4-18
4.20.1	Poisonous Plants	4-18
4.20.2	Ticks	4-19
4.20.3	Mosquito-Borne Illnesses	4-19

4.20.4	Wasps and Bees	4-20
5.0	Air Monitoring	5-1
5.1	Monitoring	5-1
5.1.1	VOC Monitoring	5-1
5.3	Personal Air Sampling	5-2
5.4	Calibration and Recordkeeping	5-2
6.0	Personal Protective Equipment.....	6-1
6.1	Chemical Protective Clothing	6-1
6.2	Engineering Controls to Prevent Exposure to Contaminants of Concern	6-1
6.3	Respiratory Protection	6-1
6.4	Other Safety Equipment	6-2
7.0	Site Control/Decontamination	7-1
7.1	Designation of Zones	7-1
7.1.1	Exclusion Zone	7-1
7.1.2	Contamination Reduction Zone	7-1
7.1.3	Support Zone	7-1
7.1.4	Site Access Control	7-1
7.1.5	Parking and Staging Areas	7-1
7.1.6	Pedestrian Walkways	7-1
7.2	General Site Safety Practices	7-2
8.0	Decontamination.....	8-1
8.1	Personal Decontamination	8-1
8.2	PPE Decontamination	8-1
8.3	Equipment Decontamination.....	8-1
9.0	Medical Monitoring and Training Requirements.....	9-1
9.1	Medical Monitoring	9-1
9.2	Health and Safety Training.....	9-1
9.2.1	HAZWOPER	9-1
9.2.2	Pre-Entry Briefing/Tailgate Meetings	9-1
10.0	Emergency Response	10-1
10.1	Spill Response.....	10-1

10.2	Employee Training	10-2
10.3	Alarm System/Emergency Signals	10-2
10.4	Escape Routes and Procedures	10-2
10.5	Employee Accounting Method	10-2
10.6	Injuries and Illnesses	10-3
10.6.1	First Aid	10-3
10.6.2	Professional Treatment	10-3
10.7	Designation of Responsible Parties	10-3
10.8	Emergency Response Drills	10-3
10.9	Incident Reporting and Investigation	10-3
10.10	EMERGENCY REFERENCES	10-4
10.11	Emergency Route Directions	10-4

Appendices

Appendix A	Health and Safety Plan Receipt and Acceptance Form
Appendix B	EHS Field Forms
Appendix C	Safety Data Sheets
Appendix D	Utility Checklist
Appendix E	Supervisor's Report of Incident

1.0 Introduction

This Health and Safety Plan (HASP) is required as an element of the remedial program at the Former Inwood Gas Holder site (site) under the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program administered by the NYS Department of Environmental Conservation (NYSDEC). The HASP is appended to the Interim Site Management Plan [(ISMP), AECOM, 2014] as Appendix C which was developed in accordance with Order on Consent Index A2-0552-0606, Site Number 1-30-121 [NYSDEC, 2007], which was executed in 2007.

It is important to note that:

- This HASP as a part of the ISMP details site-specific implementation procedures that are required by the ISMP;
- Failure to comply with this ISMP is also a violation of the Order on Consent (Index Number A2-0552-0606, Site Number 1-30-121) for the site, and thereby cause for applicable penalties.

1.1 HASP Purpose

The purpose of this HASP is to identify hazards associated with the site located in Nassau County, New York and specifies engineering and administrative controls and personal protective equipment necessary to mitigate the risks associated with these hazards. This HASP addresses the hazards recognized prior to writing or updating the documents. As new hazards are encountered, a Job Hazard Assessment (JHA) or Job Safety Analysis (JSA) must be conducted and the results input into the HASP.

This HASP also assigns responsibilities for the implementation of safety programs on this project and defines monitoring and emergency response planning specific to the project.

1.2 HASP Applicability

This HASP has been developed by AECOM. It establishes the health and safety procedures required to minimize potential risk to field personnel and contractor personnel involved with:

- Ground intrusive activities including utility work, boring completion, monitoring well installation, and excavation; and
- Activities related to implementation of the SIMP including soil vapor intrusion and groundwater monitoring.

This HASP addresses the hazards associated with the site and has been written to comply with the requirements of the Occupational Safety and Health Administration (OSHA) Personal Protective Equipment Standard (29 CFR 1910.132) for all activities and the OSHA Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) for tasks where there are potential exposures to subsurface contaminants. All activities covered by this HASP must be conducted in complete compliance with this HASP and with all applicable federal, state, and local health and safety regulations. Personnel covered by this HASP who cannot or will not comply will be excluded from project site activities.

This plan should be distributed to the employees of any contractors who are involved with any activities covered under the ISMP (AECOM, 2014). Each employee must sign a copy of the attached Acknowledgement and Acceptance form (see Attachment A).

This HASP only pertains to the tasks that are listed in Section 3.0 of the ISMP. A task specific HASP or addendum to this HASP will be developed at a later date for any other subsequent investigative/remedial activities at the project site.

1.3 Organization/Responsibility

1.3.1 Project Manager

The project manager is responsible for ensuring that the requirements of this HASP are implemented when applicable. Some of the specific responsibilities for each of the personnel include:

- The PM will assure that all personnel to whom this HASP applies have received a copy of it;
- Providing adequate authority and resources to the on-site SSO to allow for the successful implementation of all necessary safety procedures;
- Supporting the decisions made by the SSO;
- Coordinating the activities of all subcontractors and ensuring that they are aware of the pertinent health and safety requirements for this project.

1.3.2 Site Safety Officer

The SSO will be on-site during all activities covered by this HASP. The SSO is responsible for enforcing the requirements of this HASP once work begins. The SSO has the authority to immediately correct all situations where noncompliance with this HASP, by other staff or contractors, is noted and to immediately stop work in cases where an immediate danger is perceived. Some of the SSO's specific responsibilities include:

- Coordinate work activities, review safety issues, and plan for upcoming activities;
- Assuring that all personnel to whom this HASP applies have submitted a completed copy of the HASP receipt and acceptance form;
- Assuring that all personnel to whom this HASP applies have read the HASP in its entirety prior to any site work and have attended a pre-entry briefing and any subsequent safety meetings that are conducted by and/or the selected Contractor during the implementation of the program;
- Procuring and distributing the PPE and safety equipment needed for this project;
- Verifying that all PPE and health and safety equipment are in good working order;
- Verifying that subcontractors are prepared with the PPE, respiratory protection and safety equipment required for this program;
- Stopping or modifying the contractor's work, if necessary, to ensure compliance with the Community Air Monitoring Plan;
- Monitoring and controlling the safety performance of all personnel to ensure that required safety and health procedures are being followed;
- Conducting accident/incident investigations and preparing accident/incident investigation reports, in conjunction with the contractor's SSO;

- Conducting the pre-entry briefing prior to beginning work and subsequent safety meetings as necessary and in coordination with the contractor's SSO; and,
- Initiating emergency response procedures in accordance with Section 11.0 of this HASP, and in coordination with the contractor's SSO.

1.3.3 Field Personnel

All field personnel covered by this HASP are responsible for following the health and safety procedures specified in this HASP and for performing their work in a safe and responsible manner. Some of the specific responsibilities of the field personnel are as follows:

- Reading the HASP in its entirety prior to the start of project site work;
- Submitting a completed HASP Acceptance Form to the SSO prior to the start of work;
- Attending the required pre-entry briefing prior to beginning on-site work and any subsequent safety meetings that are conducted during the implementation of the program;
- Participating in any site-wide safety meetings;
- Stopping work in the event that an immediate situation is perceived;
- Bringing forth any questions or concerns regarding the content of the HASP to the PM or the SSO prior to the start of work;
- Reporting all accidents, injuries and illnesses, regardless of their severity, to the SSO; and,
- Complying with the requirements of this HASP and the requests of the SSO.

On Site, AECOM will have responsibility for safety of its employees during the work performed at the Site. AECOM's field representative will have a cell phone available to contact the appropriate local authorities, in the event of an emergency. Contractors field representative will be available for communication with the AECOM PM and National Grid representatives.

1.4 Management of Change/Modification of the HASP

1.4.1 Management of Change

The procedures in this HASP have been developed based on site history, previous site investigations, and completed remedial activities. Every effort has been made to address the chemical and physical hazards that may be encountered by personnel during site activities. However, unanticipated site-specific conditions or situations may occur during the implementation. As such, this HASP must be considered a working document that is subject to change to meet the needs of this dynamic project.

1.4.2 HASP Modification

Should significant information become available regarding potential on-site hazards, it will be necessary to modify this HASP. All proposed modifications to this HASP must be reviewed and approved by the NYSDEC and the NYS Department of Health (NYSDOH) before such modifications are implemented. Any significant modifications must be incorporated into the written document as addenda and the HASP must be reissued. Sign-off forms will accompany each addendum and must be signed by all personnel covered by the addendum. The HASP addenda should be distributed during the daily safety meeting so that they can be reviewed and discussed. Attendance forms will be collected during the meeting.

1.4.3 Job Safety Analysis (JSA)

A JSA will be prepared for each task to be performed prior to commencing work. The use of new techniques will be reviewed and if new hazards are associated with the proposed changes, they will be documented and evaluated on the JSA form. An effective control measure must also be identified for each new hazard. JSA forms will be reviewed by National Grid prior to being implemented. Once approved, the completed forms will be reviewed with all field staff during the daily safety meeting. A blank JSA form is presented as Attachment B.

1.4.4 Employees Working Alone

Employees working alone at project sites will review the JSA for their tasks as they are conducting their daily overview and reconnaissance of the site. After completing the JSA review/revision and site reconnaissance, the employee should call the Project Manager and report any new hazards or site conditions observed.

2.0 Site Description

2.1 Site Location

The site is located to the southwest corner of the intersection of Sheridan Boulevard and Nassau Avenue in Inwood, County of Nassau, New York. The site is an approximately 27-acre area bounded by Nassau Avenue and Waterfront Blvd to the north, Motts Basins, a tributary to Jamaica Bay, to the south, Sheridan Blvd to the east, and a projected extension of Alameda Avenue to the west. The site is illustrated on a portion of the United States Geological Society (USGS) 7.5 Minute Far Rockaway Quadrangle map in Figure 1-1 of the ISMP. A parcel map of the site is provided in Figure 1-2 of the ISMP.

The site is secured by a chain link fence and gate. The majority of the site is undeveloped and overgrown with trees and brush. The concrete foundations of the former 6,000,000 cubic feet (cu ft) water sealed gas holder, pump house, boiler house, and engine room are located in the northeastern area of the parcel. Two concrete supports indicate the former location of nine horizontal liquid propane tanks in the east central portion of the site. A natural gas metering and regulation station is in operation and located east of the holder foundation and adjacent to Sheridan Blvd. A commercial factory building is located to the northeast of the holder at the corner of Sheridan Blvd and Nassau Ave. This factory building is reported to have previously been part of the property boundary but is not indicated as such today. It is believed that the factory building is currently owned by a third party and is not subject to this ISMP.

2.2 Site History

2.2.1 Operational/Disposal History

The facility was a remote gas distribution holder with no manufactured gas production facilities. Construction of the 6-million cu ft Gas Holder and associated structures began in 1923. The facility appears to have been complete and operational by 1940. The Gas Holder was constructed to supplement LILCO's low pressure gas system during the winter when demand was higher. By 1950, nine liquid propane gas (LPG) tanks were installed in horizontal rows to the southeast of the holder for gas vaporization. Around 1961, while the facility operations remained unchanged, a factory building was built to the northeast of the holder as the area was developed for commercial use. By 1972, a pump house was constructed to the southeast of the holder. The Gas Holder was demolished in 1993, and the contents (oil, oil emulsion, seal water, and tank bottom sediments) were removed for off-site disposal. The concrete Gas Holder pad located at the ground surface and associated concrete pads from other gas holder operation structures were left in place and are still visible. Natural gas metering and regulation operations continued after the holder was decommissioned and removed. The LPG tanks were removed between 1993 and 2009.

The facility operations experienced very little change from the construction of the facility in 1923 to its decommissioning in 1993. The majority of the site remained undeveloped during that time period. However, soil sample observations from soil borings advanced in the 1993 site investigation encountered the presence of fly ash to a maximum depth of 12 feet bgs. According to the LILCO Site Investigation Report of November 1993, the site may have been used for disposal of ash. In 1992 containers of No. 6 oil were also encountered in the center of the site. In addition, approximately

3,000 cu yds of construction debris (concrete and asphalt) were encountered in this area. The containers and the construction debris were removed in 1992.

2.2.2 Remedial History

Multiple site investigations and remedial actions have been completed on the site to-date as listed below:

- Site Investigation, November 1993 (LILCO, 1993)
- Lead Investigation, Spring 1994 (LILCO, 1994a)
- NYSDEC Spill 94-06271 Investigation (LILCO, 1994b, 1995, 1998)
- Lead-Impacted Soil Removal Remedial Action, 1996 (EarthTech, 1997)
- Groundwater Monitoring, 1999 and 2000
- Remedial Investigation, 2010 and 2011 (AECOM, 2014)

2.3 Potential Contaminants of Concern

Potential contaminants of concern in soil and groundwater include:

- Volatile Organic Compounds (VOCs), primarily Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)
- Semi Volatile Organic Compounds (SVOCs), primarily naphthalene and low molecular weight PAHs
- Cyanide, bound to iron to form ferric-ferrocyanide, is a component of some Manufactured Gas Plant (MGP) tars
- Historic Fill containing ash and ash-related material
- Petroleum Residuals
- Coal Tar.

3.0 Chemical Hazard Assessment and Control

3.1 Chemical Hazards

Typical wastes associated with former operations could include VOCs such as BTEX, polycyclic aromatic hydrocarbons (PAHs), tar-like materials, cyanide complexes and compounds, and certain trace metals associated with ash and clinkers.

3.1.1 Volatile Organic Compounds

The VOCs associated with MGP wastes include BTEX. Exposure to the vapors of BTEX above their respective OSHA permissible exposure limits (PELs) may produce irritation of the mucous membranes of the upper respiratory tract, nose, and mouth. Overexposure may also result in the depression of the central nervous system (CNS). Symptoms of such exposure include drowsiness, headache, fatigue and drunken-like behaviors. Prolonged overexposure to benzene vapors has detrimental effects on the blood-forming system ranging from anemia to leukemia. The PEL for benzene is 1 part per million (ppm), as an 8 hour time-weighted average (TWA). The American Conference of Governmental Industrial Hygienists (ACGIH) recommends a threshold limit value (TLV) of 0.5 ppm, as an 8-hr TWA. The OSHA PEL for ethylbenzene is 100 ppm, as an 8-hr TWA. The PEL for toluene is 200 ppm, as an 8-hr TWA. However, the ACGIH recommends a TLV of 50 ppm for toluene. Xylene is a flammable, colorless liquid with an OSHA PEL of 100 ppm, as an 8-hour TWA. Inhalation of xylene vapors above the PEL may result in motor activity changes, irritability, and drunken-like behaviors. Xylene vapors are also irritating to the eye.

3.1.2 Polycyclic Aromatic Hydrocarbons

Typical coal gasification byproducts (coal tar) are referred to as PAH compounds. PAH compounds are a family of multiple ring aromatic compounds commonly found in fossil fuels and formed from the incomplete combustion of organic materials. Repeated contact with PAH compounds may cause photosensitization of the skin, producing skin burns after subsequent exposure to ultra-violet light. Certain PAHs as a group are considered potential human carcinogens (CaPAH). OSHA regulates PAHs as coal tar pitch volatiles (CTPV) and has established a PEL for CTPV of 0.2 mg/m³, as an 8-hr TWA.

Of the PAH compounds typically present at these sites, naphthalene is typically present at higher concentrations than the other compounds. Naphthalene is easily detected due to its characteristic moth-ball like odor. The inhalation of high concentrations of naphthalene vapor may result in nausea, vomiting, abdominal pain, and irritation of the bladder. Prolonged overexposure may result in renal shut down. The OSHA PEL for naphthalene, as an 8-hr TWA, is 10 ppm.

3.1.3 Oxide Box Wastes

Blue staining is the characteristic associated with the presence of oxide box wastes (ferrocyanide). Therefore, the presence of this material is very easily identified during field investigations. The cyanides associated with oxide box wastes are present in a form that is generally unavailable or complexed with metals such as iron, which makes the cyanide more stable. Thus, the reported effects of free cyanide are not applicable. OSHA has not established a PEL for ferro/ferri cyanide compounds. Similarly, the ACGIH has not recommended a TLV for these compounds.

3.1.4 Metals

Lead is a common component of urban fill and soils present at industrial sites, such as former MGP and electrical generating sites. In general, the inhalation of metal dusts is irritating to the upper respiratory tract and nasal mucous membranes. Most metal dusts may cause dermatitis and/or eye irritation. The early symptoms of lead poisoning, as a result of overexposure (either through ingestion or inhalation) include fatigue, sleep disturbance, headache, aching bones and muscles, digestive irregularities, abdominal pains, and decreased appetite. Chronic overexposures to lead affect the CNS and male and female reproductive systems. Lead has also been identified as a fetotoxin. The OSHA PEL for inorganic lead is 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

3.1.5 Dust

Dust generated during coring or cutting of concrete, boring, or excavations can be hazardous to the respiratory system and irritating to the eyes. Dust can also carry the contaminants of concern potentially exposing workers by skin contact and inhalation. The ACGIH has established an eight-hour exposure limit for dust at 3 mg/M3. The concentrations of the chemicals of concern in the soil are low enough that inhalation of dust would not by itself be an exposure hazard. However contamination of skin and clothing can provide additional exposures. Therefore the generation and contact with dust should be minimized.

Water or other methods should be used to control dust during dusty operations; however care must be used to prevent electrical shock if electric tools are used in the same area. If dusts become irritating and engineering controls such as the application of water cannot be used, respirators should be donned as discussed in Section 7.

3.1.6 Hazardous Substances Brought On-Site

A Safety data sheet (SDS) must be available for each hazardous substance that are brought on the property. This includes solutions/chemicals that will be used to decontaminate sampling equipment or to calibrate air monitoring equipment. These SDSs will remain on site for the duration of the program. Additionally, the Contractor will maintain a binder of SDSs for the materials they are using on site in their trailer for all employees to review, if necessary.

In addition, all containers of hazardous materials that brought on site must be labeled in accordance with OSHA's Hazard Communication Standard. Either the original manufacturer's label or an NFPA 704M label specific for the material (as shown at the right) is considered to be an acceptable label.

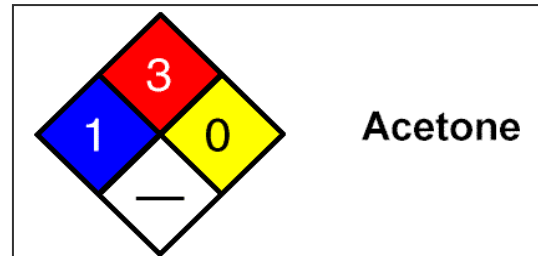


Table 3-1 Summary of Hazardous Properties of Potential Contaminants

Chemical Name	PEL ¹	TLV ²	VP ³	VD ⁴	SG ⁵	SOL ⁶	FP ⁷	LEL ⁸	UEL ⁹
Benzene	1	0.5	75	2.8	0.88	<1	12	1.2	7.8
Ethyl Benzene	100	100	7	4	0.88	<1	55	0.8	6.7
Hydrogen Cyanide	10	4.7 STEL	630	.94	0.69	100	0	5.6	40

Chemical Name	PEL ¹	TLV ²	VP ³	VD ⁴	SG ⁵	SOL ⁶	FP ⁷	LEL ⁸	UEL ⁹
Naphthalene	10	10	0.08	4.4	1.15	<1	174	0.9	5.9
Toluene	200	50	21	4	0.87	<1	40	1.1	7.1
Xylene	100	100	9	4	0.86	<1	81	1.1	7.0

¹ Permissible Exposure Limit in ppm⁷ Flash Point in °F² Threshold Limit Value in ppm⁸ Lower Explosive Limit in % by volume³ Vapor Pressure in mm Hg⁹ Upper Explosive Limit in % by volume⁴ Vapor Density (air = 1)

NA = Not Applicable

⁵ Specific Gravity (water = 1)

? = Not known

⁶ Solubility in Water in %

C = Ceiling limit not to be exceeded

3.2 Chemical Exposure and Control

3.2.1 Chemical Exposure Potential

Employees can be exposed by inhalation to the chemicals of concern during the installation of the soil borings and sampling activities or utility maintenance or excavation. Another route of potential exposure to the contaminants of concern is via direct dermal contact with soils and groundwater during sampling.

Although highly unlikely, exposure to all of the contaminants of concern can occur via ingestion (hand-to-mouth transfer). The decontamination procedures described in Section 9.0 address personal hygiene issues that will limit the potential for contaminant ingestion.

3.2.2 Chemical Exposure Control

The chemical hazards associated with the ground intrusive activities and SMP monitoring activities can be controlled in several ways, including:

Perform air monitoring (Section 6) in the worker's breathing zone to determine exposure to the chemicals of concern during the installation of soil borings and the sampling program. If exposures exceed the action levels, respiratory protection as discussed in Section 7, will be donned.

To avoid direct dermal contact with contaminated media, protective clothing, as described in Section 7 will be required when collecting samples and decontaminating sampling equipment.

3.3 Hazardous Waste Management

Waste generated as a result of investigation activities will be containerized local to the point of generation, sampled for characterization purposes and secured prior to off-site transportation and disposal. Upon receipt of analytical results, the project team will work with National Grid to properly characterize, profile and dispose of the waste(s).

4.0 Physical Hazards and Controls

4.1 Working Around Heavy Machinery

4.1.1 Drill Rig

Use of a drill rig to advance soil borings and install monitoring wells will require all personnel in the vicinity of the operating rig to wear steel-toed boots, hard hats, hearing protection and safety eyewear. Drill rigs are considered to be heavy equipment, and therefore precautions must be incorporated into job activities when working in close proximity to drill rigs. In addition the wearing the PPE that has been determined to be necessary for the project, employees will need to ensure that Drill Rig Operators conduct inspections of the drill rig on a daily basis. A drill rig inspection is included in Attachment B as a reference. Focal points of the inspection should include checking hydraulic lines, tools and drilling equipment, emergency stop switches, and other parts of the equipment to insure that they are maintained in a safe operating condition.

Employees will also consider the staging their work area so that they are not within the shadow of the drill rig's mast. Working within this area creates a potential to be contacted by the drill rig if it were to tip over on its side. Likewise, when establishing a drilling location, the rig shall be positioned so that it won't clip overhead power lines should it tip over.

Additionally, the following safety requirements must be adhered to:

- All drill rigs and other machinery with exposed moving parts must be equipped with an operational emergency stop device. Drillers and geologists must be aware of the location of this device. This device must be tested prior to job initiation and periodically thereafter.
- The driller must never leave the controls while the tools are rotating unless all personnel are kept clear of rotating equipment.
- A long-handled shovel or equivalent must be used to clear drill cuttings away from the hole and from rotating tools. Hands and/or feet are not to be used for this purpose.
- A remote sampling device must be used to sample drill cuttings if the tools are rotating or if the tools are readily capable of rotating. Samplers must not reach into or near the rotating equipment. If personnel must work near any tools, which could rotate, the driller must shut down the rig prior to initiating such work.
- Drillers, helpers and geologists must secure all loose clothing, long hair, or jewelry when in the vicinity of drilling operations.
- Only equipment, that has been approved by the manufacturer, may be used in conjunction with drilling equipment Pins that protrude excessively from augers shall not be allowed
- No person shall climb the drill mast while tools are rotating.
- No person shall climb beyond 6 feet above ground on the drill mast without the use of ANSI-approved fall protection (approved belts, lanyards and a fall protection slide rail) or portable ladder that meets the requirements of OSHA standards.
- When using the rig's hoist to lift or move objects other than the equipment associated with the direct push operation, an assessment of the force required to perform the lift and the rig's design

specifications must be made to determine whether the lift can be made safely. In all cases personnel must not be in line with the cable when it is under tension.

- If drilling operations are to be performed within an enclosed space proper procedures must be followed to prevent the accumulation of carbon monoxide within the work area.
- Open doors and windows and provide ventilation to the outside.
- Employ the use of a mechanical ventilation system, i.e. blower or fan, appropriately sized for the room to circulate fresh air.
- Connect equipment exhaust points to hoses that can be direct ventilated to an outside area.

4.1.1.1 Rotary Auger & Rotating Parts

Exposure to rotating parts can occur when working near the drilling rig or the internal combustion engine. All rotating parts should be covered with guards to prevent access by workers. When performing maintenance activities that require the rotating parts to be exposed, workers should not allow loose clothing, hands, or tools to approach the rotating parts. Guards must be replaced as soon as possible after completing the maintenance task.

Operation of drilling equipment also creates hazards associated with pinch points and rotating equipment. Employees will evaluate work procedures to avoid placing their body and extremities in the path of rotating equipment and tools to avoid being struck by moving equipment, tools and machinery. Similarly, these hazards also create pinch point hazards where the body and extremities, especially the hands, can be caught in moving equipment and crushed. Employees will evaluate equipment and tool use procedures to identify pinch points and develop procedures to avoid placing body parts in a position where they can be caught in moving equipment, tools and machinery.

4.1.1.2 Direct Push Hazards

Use of the Direct Push System to advance soil borings and collect soil samples will require all personnel in the vicinity of the operating unit to wear steel-toed boots, hardhats, hearing protection and safety eyewear. Personnel shall not remain in the vicinity of operating equipment unless it is required for their work responsibilities. Additionally, the following safety requirements must be adhered to:

- A remote vehicle ignition is located on the control panel of the Geoprobe unit. This allows the operator to start and stop the vehicle engine from the rear. This device must be tested prior to job initiation and periodically thereafter. All employees should be aware of how to access and operate the rear ignition.
- The driller must never leave the controls while the probe is being driven.
- Drillers, helpers and geologists must secure all loose clothing when in the vicinity of drilling operations.
- The Geoprobe vehicle shall not be moved any distance with the probe in the extended position. Check for clearance at roof or the vehicle before folding the Geoprobe out of the carrier vehicle.
- Be sure the parking brake is set, or vehicle wheels have been chocked, before probing.
- Never allow the derrick foot to be lifted more than 6" off of the ground surface.
- Deactivate hydraulics when adding or removing probe rods, anvils or any tool in the hammer.
- Verify that all threaded parts are completely threaded together before probing.

Cuts and Lacerations

Geoprobe soil samples are collected in acetate liners that must be cut open in order to collect the sample. Additionally, tubing will need to be cut to facilitate groundwater sampling. Additional tasks for the job may also pose laceration hazards. Tube-cutters are available and should be used to eliminate this hazard. However, if it is necessary to use knives or blades, follow the safety precautions listed below:

- Keep your free hand out of the way
- Secure the acetate liner so it won't roll or move while you are cutting
- Use only sharp blades; dull blades require more force which results in less knife control
- Pull the knife at an angle to your body; pulling motions are easier to manage
- Don't put your knife in your pocket
- Use a hooked knife (i.e. linoleum knife) or a utility knife with a self-retracting blade
- Wear leather or Kevlar® gloves when using knives or blades.

4.1.1.3 Sonic Drilling

Use of a Sonic Drill Rig to advance soil borings, collect soil samples and/or install monitoring wells will require all personnel in the vicinity of the operating unit to wear steel-toed boots, hardhats, hearing protection and safety eyewear. Personnel shall not remain in the vicinity of operating equipment unless it is required for their work responsibilities. Additionally, the following safety requirements must be adhered to:

- A remote vehicle ignition may be located on the control panel of the Drill Rig. This allows the operator to start and stop the vehicle engine from the rear. This device must be tested prior to job initiation and periodically thereafter. All employees should be aware of how to access and operate the rear ignition.
- The driller must never leave the controls while the probe is being driven.
- Drillers, helpers and geologists must secure all loose clothing when in the vicinity of drilling operations.
- The drill rig shall not be moved any distance with the mast in the extended position. Check for clearance at roof or the vehicle before folding the Rig out of the carrier vehicle.
- Be sure the parking brake is set, vehicle wheels have been chocked and/or outrigger stabilizers have been positioned before drilling.
- Never allow the derrick foot to be lifted more than 6" off of the ground surface.
- Deactivate hydraulics when adding or removing rods, anvils or any tool in the hammer.
- Verify that all threaded parts are completely threaded together before drilling.

4.1.2 Soil Loading Machinery

Heavy equipment including excavators and soil loading machinery will be used to excavate impacted soils. Heavy equipment at the project site requires all employees working in the exclusion zone to wear ANSI-approved hard hats, steel-toed safety shoes/boots, safety glasses and hearing protection, as well as traffic vests as indicated above.

Operators will inspect the equipment daily before use to ensure safe operating conditions and to determine that the brakes and operating systems are in proper working condition and that all required safety devices are in place and functional (i.e., reverse gear alarms are working properly).

All personnel will place the spotter within close proximity to the operating machinery. When working around heavy equipment, employees should:

- make sure that the operator is aware of your presence/activities;
- stay in the operator's line of sight, don't work in his/her blind spot;
- approach areas where equipment is operating from a direction visible to the operator;
- be aware of the swing radius of the excavator;
- do not walk or work underneath loads handled by digging equipment;
- do not ride in buckets of loaders;
- stand away from soil stockpile areas to avoid being struck by any spillage or falling materials.; and,
- develop a series of hand signals to facilitate communication with the operator.

4.2 Trench/Excavation Cave-In or Collapse

The excavation depths vary depending on the activity to be completed. In some instances the proposed depths exceed five feet. Under no circumstances is the project team to enter an unshored or unsloped excavation greater than five feet in depth. If samples need to be collected, they will be collected from the bucket of the backhoe or by using a remote sampling device.

4.3 Concrete and Asphalt Coring & Cutting

Cutting and coring concrete and asphalt can involve numerous hazards. The noise generated as a result of the tools used, and adequate hearing protection is necessary when conditions outlined in the Noise section below are encountered. Tools used which can include drills and saws, must be appropriately guarded to prevent hands, PPE, and other objects from being caught-up in the moving parts and drawing employees in. Dust may also be generated while cutting concrete and either respiratory protection or dust suppression will need to be utilized to prevent exposure. Additional consideration must be given chemical hazard concerns that may exist in the materials underlying the concrete.

4.4 Corrosive Liquids

Site activities may require the use of corrosive liquids for preserving samples once collected, identifying substances in the field, or as part of system operations and maintenance. When corrosive liquids are identified in the work area, PPE upgrades will need to include an appropriate glove to mitigate the hazard, protective eye wear to guard against splashing liquids, and the potential need for poly-coated Tyvek to be worn. Additionally, the job task will be analyzed to determine if splashing and spilling can be minimized through the use of special equipment or procedures. Examples include using a funnel, identifying an alternative substance for use, and more.

4.5 Flying Objects Hazards

Activities involving the use of power tools, drilling rigs, and hand tools, among other activities, can create flying object hazards where objects can become projectiles. When flying objects represent projectiles employees need to use equipment that is appropriately guarded to minimize the creation of projectile hazards, and also use the appropriate PPE including hard hats, safety goggles, face shields to prevent projectiles from causing injuries to employees.

4.6 Hand Safety

4.6.1 Glove Selection

To protect onsite workers from hand injuries, the following gloves will be used for when performing a specific duty:

Brightly colored gloves will be used to help emphasize and easily locate the hands. It is recommended that the color of gloves be changed monthly to draw attention to the hands.

Pinch points are found between a moving object and a stationary object, or between two continuously moving objects. Yellow hand stickers will be placed on equipment to remind workers of pinch points.

4.6.2 Working with Glassware

Glass bottles, laboratory equipment, and VOA vials can break and cause lacerations and puncture wounds. The follow preventive measures should be taken to reduce the potential for broken glassware.

- Package all glassware such that there is no glass to glass contact during transportation or storage;
- Assume that any time glass strikes another object it is damaged;
- Inspect all glassware for cracks, scratches, and other damage before using;
- Lids and caps should be “finger tight” unless there is a torque specification and you use a torque wrench;
- Never fill a glass container (other than VOA vials with a septum) liquid full, always leave an air space to buffer thermal expansion of the liquid; and
- Avoid rapid temperature changes when filling glass containers.

Glass often has flaws that cannot be detected by visual inspection and the force needed to open and tighten lids can cause these flaws to fracture the glass. Any time force is applied to glass, workers should wear leather or preferably Kevlar® gloves. Kevlar® glove liners are available for use under Nitrile or cotton gloves.

4.6.3 Hand Tools

Rules for the safe use of hand tools:

- Select the right size tool for the job.
- All hand tools must be in safe condition.
- Handles must be sound, straight and tight-fitting.

- Always inspect tools before use and replace or repair worn or damaged tools.
- Always keep the cutting edges sharp and never test a cutting edge with your finger.
- When working on an elevated surface (ladder, truck, scaffold), ensure your tools are secure. Falling tools can cause serious injury.
- Always carry your tools correctly and never put sharp or pointed tools in your pocket.
- When carrying hand tools, always point the cutting edge to the ground.
- Always keep your tools in a dry place to prevent rust.
- Cutting tools must be kept sharp and properly shaped.
- Secure work pieces prior to cutting or drilling.
- Keep the unused hand and other people away from the tool.

4.6.4 Specific Tool Use

4.6.4.1 Screwdrivers

Most screwdrivers are not designed to be used on electrical equipment. Use an insulated screwdriver for electrical work.

Do not hold an object in the palm of one hand and press a screwdriver into it; place the object on a bench or table. Never hammer with a screwdriver. Never use a screwdriver with a broken handle, bent or burred blade, etc.

4.6.4.2 Pliers

Do not use pliers as a substitute for hammers, wrenches, pry bars, etc. Use insulated pliers when doing electrical work. Inspect the pliers frequently to make certain that they are free of breaks or cracks.

Use the right type of pliers for the specific task – adjustable, locking (Vise Grip®), standard, bolt size fit, pipe wrench.

4.6.4.3 Hammers

Use the correct hammer for the specific type of striking work (task) to be done. Always wear safety glasses when using a hammer to strike an object. Always use the claw portion of a hammer to remove nails and not as a pick or awl. Have an unobstructed view and swing when using a hammer. Watch for overhead interference on back and forward swing. Use a good grip and use something other than your hand to hold a nail when starting hammering. Check for defects on the handle and head before using. If the hammer head shows signs of mushrooming, replace it immediately.

Handles may be wood, tubular/solid steel or fiberglass. Replace any hammer with a loose handle before the head flies off and causes injury to you or someone else. Tighten loose handles with the proper wedges; never use nails or staples for wedges. If a steel or fiberglass handle is loose replace it, since it is more difficult to repair than a wooden one. Some fiberglass handles can be tightened with the aid of a repair kit with epoxy materials.

4.6.4.4 Wrenches

Select the correct size of wrench for the job. Never use a pipe wrench as a wrench handle extension. Too much leverage can ruin a tool and cause injury.

To avoid sudden slips, stand in a balanced position and always pull on the wrench instead of pushing against the fixed jaw, particularly when a pinch point is created. Wear gloves when using a wrench in a confined space.

Whenever possible use a box end wrench instead of an open end wrench to avoid slipping.

4.6.4.5 Chisels

Always wear safety goggles or a face shield when using a chisel. Drive chisels outward and away from your body. Do not use chisels to pry. Keep edges sharp for most effective work and protect when not in use. Driven tools (chisels, punches, etc.) must be dressed to remove any mushrooming. Use the proper hammer when using a chisel.

4.6.4.6 Knives

Always perform a thorough Job Safety Analysis (JSA) to define the proper cutting tool for the task.

Always place the item to be cut on a solid surface, attempt to hold the cut item without your hand and cut in a direction away from the body and hand.

Always keep hands and body clear of the knife stroke. Always keep the cutting tool blades sharp.

Make sure there is plenty of open space around you when using any cutting tool.

Use the following safer tools in replace of fixed open blade knives (FOBK) whenever possible:

- Self-retracting utility knives
- Guarded utility knives
- Shears, snips, and/or scissors
- Concealed blade cutters
- Pipe cutters
- Specialty cutters (e.g. Geoprobe Acetate Liner Cutter)
- Ratcheting tools

4.6.5 Power Tools

To prevent hazards associated with the use of power tools, workers should observe the following general precautions:

- Never carry a tool by the cord or hose.
- Never yank the cord or the hose to disconnect it from the receptacle.
- Keep cords away from heat, oil and sharp edges.
- Disconnect tools when not using them, before servicing or cleaning them and when changing accessories such as blades, bits and cutters.
- If a tool is only temporarily being removed from the power source and the cord is not in the immediate control of the user, it is strongly suggested that a cord plug lockout be used to prevent the tool from accidentally being re-plugged in.

- Secure work with clamps or vise, freeing up both hands to operate the tool.
- Avoid accidental starting. Do not hold fingers on the switch button when carrying a plugged-in tool.
- Keep tools sharp and clean for best performance.
- Wear appropriate clothing. Loose clothing or jewelry can become caught in moving parts.
- Keep all guards in place.

4.6.6 Electric Tools

A variety of power tools may also be used during the proposed activities. When using portable tools that are electrically powered, follow the safety precautions listed below:

- Check to see that electrical outlets used to supply power during field operations is of the three wire grounding type.
- Extension cords used for field operations should be of the three wire grounding type and designed for hard or extra-hard usage. This type of cord uses insulated wires within an inner insulated sleeve and will be marked S, ST, STO, SJ, SJO or SJTO.
- NEVER remove the ground plug blade to accommodate ungrounded outlets.
- Do not use extension cords as a substitute for fixed or permanent wiring. Do not run extension cords through openings in walls, ceilings or floors.
- Protect the cord from becoming damaged if the cord is run through doorways, windows or across pinch points.
- Examine extension and equipment cords and plugs prior to each use. Damaged cords with frayed insulation or exposed wiring and damaged plugs with missing ground blades MUST BE REMOVED from service immediately.
- All portable or temporary wiring which is used outdoors or in other potentially wet or damp locations must be connected to a circuit that is protected by a ground fault circuit interrupter (GFCI). GFCI's are available as permanently installed outlets, as plug-in adapters and as extension cord outlet boxes. DO NOT CONTINUE TO USE A PIECE OF EQUIPMENT OR EXTENSION CORD THAT CAUSES A GFCI TO TRIP.
- When working in flammable atmospheres, be sure that the electrical equipment being used is approved for use in Class I, Division I atmospheres.
- Do not touch a victim who is still in contact with current. Separate the victim from the source using a dry, nonmetallic item such as a broomstick or cardboard box. Be sure your hands are dry and you are standing on a dry surface. Turn off the main electrical power switch and then begin rescue efforts.

4.7 Noise Exposure

The use of drilling equipment and construction machinery can expose the field team to noise levels that exceed the OSHA PEL of 90 dB for an 8-hour day. Exposure to noise can result in the following:

- Temporary hearing losses where normal hearing returns after a rest period;
- Interference with speech communication and the perception of auditory signals;
- Interference with the performance of complicated tasks; and,

- Permanent hearing loss due to repeated exposure resulting in nerve destruction in the hearing organ.

Since personal noise monitoring will not be conducted during the proposed activities, employees must follow this general rule of thumb: If the noise levels are such that you must shout at someone two (2) feet away from you, you need to be wearing hearing protection. Employees can wear either disposable earplugs or earmuffs but all hearing protection must have a minimum noise reduction rating (NRR) of 27 dB.

4.8 Overhead Materials

Overhead materials can include objects, tools, utilities, equipment and machinery that are, or have the potential to be, elevated above the work area. Overhead materials pose a significant safety risk because of the force that can be generated when they fall and strike an employee. Special attention should be paid when setting up a work area to evaluate the potential for overhead materials to cause traumatic blunt force trauma. Consideration must be given to potential for these overhead objects to be contacted during the course of work by employees and Subcontractors, and what the result of contacting these overhead materials will be.

If possible, the work area should be adjusted or moved so that no overhead materials present a hazard. Likewise, if the object overhead can be relocated to remove the hazard, that is the preferred course of mitigation. When the hazard can't be eliminated, then protective measures to shield the employees from being struck by falling objects should be taken. As a last resort, and as part of the minimum PPE for project site work, employees working in areas where falling objects pose a hazard will wear a hard hat.

4.9 Pinch Points

The use of hand tools, mechanical equipment, heavy machinery and more can create pinch points within the working area. Pinch points can be recognized when moving objects are present in the work space in close proximity to employees, and it is reasonable to assume that a part of the employee's body can be caught between the moving objects. Pinch points will be considered when performing a Job Safety Analysis for the task being performed and recommendations will be made to reduce the potential for body parts to become caught in moving parts, including but not limited to:

- The use of PPE, e.g. gloves, boots, etc, to protect exposed body parts;
- Guarding machinery and equipment to prevent body parts from being caught in the moving objects;
- Using tools as an extension of the body to avoid placing body parts in the path of harm. When tools are used as an extension of the body consideration will be given to how the tool may become a hazard if it is caught within moving parts.

4.10 Slips, Trips and Fall Hazards

On any work area, it is expected that the ground might be uneven. The ground surface might be unreliable due to settling. Surface debris might be present and wet or swampy areas can exist.

Employees should walk around, not over or on top of debris or trash piles. When carrying equipment, identify a path that is clear of any obstructions. It might be necessary to remove obstacles to create a smooth, unobstructed access point to the work areas on project site.

During the winter months, snow shovels and salt crystals or calcium chloride should be kept on site to keep work areas free of accumulated snow and ice. Furthermore, use sand or other aggregate material to help keep work surfaces from being slippery, especially where salt/calcium chloride cannot be used. In addition, make sure work boots have soles that provide good traction. When walking on ice is necessary crampons or Yaktrax[®] should be used.

Maintaining a work environment that is free from accumulated debris is the key to preventing slip, trip and fall hazards at construction sites. Essential elements of good housekeeping include

- Orderly placement of materials, tools and equipment;
- Placing trash receptacles at appropriate locations for the disposal of miscellaneous rubbish;
- Prompt removal and secure storage of items that are not needed to perform the immediate task at hand; and,
- Awareness on the part of all employees to walk around, not over or on, equipment that might have been stored in the work area.

4.11 Splashing Liquids

Groundwater sampling activities can produce splashing hazards in the work area. Employees will use techniques that minimize the production of splashing hazards while handling liquids, including groundwater, sample container preservatives, decontamination solutions and any other liquids in the work area. Employees will also evaluate the working tasks to consider the use of goggles while working with liquids.

4.12 Back Safety

Using the proper techniques to lift and move heavy pieces of equipment is important to reduce the potential for back injury. The following precautions should be implemented when lifting or moving heavy objects:

- Use mechanical devices to move objects that are too heavy to be moved manually.
- If mechanical devices are not available, ask another person to assist you.
- Bend at the knees, not the waist. Let your legs do the lifting.
- Do not twist while lifting.
- Bring the load as close to you as possible before lifting.
- Be sure the path you are taking while carrying a heavy object is free of obstructions and slip, trip and fall hazards.

4.13 Traffic Safety

4.13.1 Transportation Plan

The Excavation Work Plan (Appendix A of the SMP) contains a transportation plan for the site. This plan addresses requirements for accessing the project site, limitations of public use of the streets or sidewalks adjacent to the project site, securing any necessary permits to use and/or close public streets and sidewalks, and the need for flaggers and signage when traffic flow will be impeded on public streets.

4.13.2 Basic Procedures

To make certain that motorists are aware of our presence, all employees who are potentially exposed to traffic hazards should wear orange or yellow ANSI Class II or III safety vests. Work area should be delineated with traffic cones, or other suitable warning barriers, to prevent motorists from inadvertently driving through. As for vests, cones or other barrier materials should be reflectorized if work will be performed during dusk or evening hours. Where it is not feasible to implement such procedures, a standby observer should be assigned to warn the work crew of any impending traffic hazards.

4.13.3 Work On/Adjacent to Public Roadways

For projects that involve potential exposure to traffic on or adjacent to public roadways, consult the "Work Zone Traffic Control" handbook, under "Traffic Control" on AECOM's H&S Website, at the following web address: <http://intranet.AECOM.com/healthweb>.

The handbook was developed by the State of Maine DOT and provides examples of traffic control applications for typical road work situations (e.g., closure of one lane of a two lane road, stationary work on the shoulder of a road, mobile work along the shoulder of a road, etc.). Although it was written to reflect the basic requirements of Part VI of the Federal Highway Administration's (FHWA) Manual of Uniform Traffic Control Devices (MUTCD), this handbook is not a regulatory document. Since specific requirements will vary from state to state, and within a state, by county, city or town.

4.13.4 Flagging/Redirecting Traffic

Specific requirements exist when traffic must be redirected around a work area that is on or adjacent to a public roadway. In certain locations only police officers may redirect traffic. As a minimum, OSHA requires that flaggers be formally trained in accordance with the requirements specified in ANSI D6.1-1971.

<http://www.atssa.com/cs/flagger>

When traffic must be redirected, and the local police do not perform that role, a traffic control firm should be hired (these are frequently listed in the yellow pages under "safety").

4.14 Driving Safety

Drivers must be licensed to drive the class of vehicle they are operating and trained in defensive driving. Drivers and passengers must comply with all traffic laws and posted signs, and will not operate a vehicle if under the influence of impairing medication, alcohol, or any other substance.

Make sure that the following basic safe driving practices are followed at all times while working on this project:

- Always wear a seat belt while operating a motor vehicle or while traveling as a passenger.
- Obey speed limits and local traffic laws at all times.
- Obtain proper directions to the project site in advance and take the route that is most likely to be free of known traffic hazards (e.g., congestion, construction, etc.) and that avoids travel through potentially dangerous neighborhoods.
- Abstain from distractions while driving (e.g., the use of cell phones, eating/drinking, reading maps, etc.) If necessary, stop the vehicle and pull over to perform such activities safely.

- Do not operate a motor vehicle if you are tired and/or have not had sufficient rest. AECOM's H&S policy 1.2 limits the maximum length of the workday to 16 hours for fieldwork. This limit includes the time spent driving to/from a site.
- All unattended personnel transport vehicles will not be allowed to idle, and must be turned off when not in use.

4.14.1.1 Planning / Preparation

- Prior to departure, check traffic reports, weather conditions, road construction, and road closures. If necessary, develop an alternate route and new, approved JMP (Journey Management Plan).
- Prior to entering the vehicle, inspect the vehicle.
- Leave early to allow for contingencies.

4.14.1.2 Secure Packing

Do not move your vehicle unless all equipment and supplies are secured. Items and material which may roll, slide, or move about in your vehicle while traveling are a major hazard. Secure the load!

4.14.1.3 Emergency Procedures

Always move out of traffic if possible; even if those in front of you have stopped. Stopping on an active highway can precipitate being hit from the rear. If you must stop on an active roadway, leave at least one car length in front of you, and watch the rear mirror, so you can ease up if someone behind can't stop. Keep your flashers on in this situation. If you are the only driver coming to a stop on an active roadway, leave the flashers on and when safe to do so, exit the car and get to a safe location.

If you must stop due to vehicle failure, etc. try to coast out of traffic. Put on your flashers, and tie a white handkerchief, etc. on the driver's side door or mirror. If you remain in the vehicle, lock the doors. Use your cell phone to summon help.

4.15 Utility Hazards

4.15.1 Underground Utilities

Law requires that a utility clearance be performed prior to initiation of any subsurface work.

811 "Call Before You Dig" New York City and Long island
811 or (800) 272-4480 or <http://www.call811.com/>

Call to request a mark-out of natural gas, electric, telephone, cable television, water and sewer lines in the proposed drilling locations. In many locations, a separate location request must be submitted to the municipality providing potable water, sanitary and storm sewerage. Work will not begin until the required utility clearances have been performed.

Utility clearance organizations typically do not mark-out underground utility lines that are located on private property. As such, the drilling contractor must exercise due diligence and try to identify the location of any private utilities on the property being investigated in several ways, including:

- Obtaining as-built drawings for the areas being investigated from the property owner;
- Visually reviewing each proposed soil boring locations with the property owner or knowledgeable site representative;
- Performing a geophysical survey to locate utilities;
- Hiring a private line locating firm to determine the location of utility lines that are present at the property;
- Identifying a no-drill zone; or
- Hand digging in the proposed soil boring locations if insufficient data is available to accurately determine the location of the utility lines.

The client or property owner may have specific requirements and procedures for underground utility clearance.

4.15.2 Overhead Utilities

All overhead lines will be considered “energized” unless properly de-energized, grounded and tested by the utility company before working within the clearance distance as defined below. The SSO must observe de-energizing process and reconfirm that the lines are de-energized on a daily basis.

Any vehicle or mechanical equipment that is capable of having parts of its structure elevated near energized overhead lines shall be operated so that a minimum clearance of 10 feet is maintained at all times. This 10 foot distance shall be increased a minimum of 0.4 inches for each 1 kV over 50 kV. If the voltage of the overhead line is unknown, maintain a clearance distance of 35 feet from ground projection of the nearest power line to the vehicle. Any work within the clearance distance must be approved by the Regional Health and Safety Manager and the utility company.

Precautions must be taken when handling lengths of pipe or tubing that can approach overhead power and utility lines. When working with pipe or tubing, maintain a distance equal to the length of pipe plus the clearance distance defined above.

4.16 Weather

4.16.1 Inclement Weather

The Site Safety Officer will check the weather forecast for the project area each morning prior to mobilization. Predicted weather conditions will be included in the Job Safety Analysis. Weather changes should initiate a review and update of the JSA as necessary.

Severe weather can occur with little warning. The employee must be aware of the potentials for lightning, flash flooding and high wind events.

Be Prepared, Know What is Coming your Way

- Listen to the radio for severe weather alerts.
- Check the Storm Prediction Center's web page for alerts and warnings.

<http://www.spc.noaa.gov/products/wwa/>

- Pay attention to the weather in your area, up wind of your location, and in the watershed upstream from your location.
- When in the field, be aware of the route you must take to get to shelter.
- When working in low areas be aware of the potential for flash flooding and the route to higher ground.

4.16.2 Heat Stress

4.16.2.1 Types of Heat Stress

Heat related problems include heat rash, fainting, heat cramps, heat exhaustion and heat stroke. Heat rash can occur when sweat isn't allowed to evaporate; leaving the skin wet most of the time and making it subject to irritation. Fainting may occur when blood pools to lower parts of the body and as a result, does not return to the heart to be pumped to the brain. Heat related fainting often occurs during activities that require standing erect and immobile in the heat for long periods of time. Heat cramps are painful spasms of the muscles due to excessive salt loss associated with profuse sweating.

Heat exhaustion results from the loss of large amounts of fluid and excessive loss of salt from profuse sweating. The skin will be clammy and moist and the affected individual may exhibit giddiness, nausea and headache.

Heat stroke occurs when the body's temperature regulatory system has failed. The skin is hot, dry, red and spotted. The affected person may be mentally confused and delirious. Convulsions could occur. EARLY RECOGNITION AND TREATMENT OF HEAT STROKE ARE THE ONLY MEANS OF PREVENTING BRAIN DAMAGE OR DEATH. A person exhibiting signs of heat stroke should be removed from the work area to a shaded area. The person should be soaked with water to promote evaporation. Fan the person's body to increase cooling.

Increased body temperature and physical discomfort also promote irritability and a decreased attention to the performance of hazardous tasks.

4.16.2.2 Early Symptoms of Heat-Related Health Problems:

decline in task performance	excessive fatigue
incoordination	reduced vigilance
decline in alertness	muscle cramps
unsteady walk	dizziness

4.16.2.3 Susceptibility to Heat Stress Increases due to:

lack of physical fitness	obesity
lack of acclimatization	drug or alcohol use
increased age	sunburn
dehydration	infection

People unaccustomed to heat are particularly susceptible to heat fatigue. First timers in PPE need to gradually adjust to the heat.

4.16.2.4 The Effect of Personal Protective Equipment

Sweating normally cools the body as moisture is removed from the skin by evaporation. However, the wearing of certain personal protective equipment (PPE), particularly chemical protective coveralls (e.g., Tyvek), reduces the body's ability to evaporate sweat and thereby regulate heat buildup. The body's efforts to maintain an acceptable temperature can therefore become significantly impaired by the wearing of PPE.

4.16.2.5 Measures to Avoid Heat Stress:

The following guidelines should be adhered to when working in hot environments:

- Establish work-rest cycles (short and frequent are more beneficial than long and seldom).
- Identify a shaded, cool rest area.
- Rotate personnel, alternative job functions.
- Water intake should exceed sweat produced. Most workers exposed to hot conditions drink less fluids than needed because of an insufficient thirst. **DO NOT DEPEND ON THIRST TO SIGNAL WHEN AND HOW MUCH TO DRINK.** Consume enough liquid to force urination every two hours. In humid climates ice water or ice should be consumed to help maintain normal body temperature since evaporation does not provide an efficient mechanism for heat removal.
- Eat light meals before and during work shifts. Avoid highly salted foods.
- Drink sports drinks such as Gatorade® diluted 1:1 with water.
- Save most strenuous tasks for non-peak heat hours such as the early morning or at night.
- Avoid alcohol during prolonged periods of heat. Alcohol will cause additional dehydration.
- Avoid double shifts and/or overtime.

The implementation and enforcement of the above mentioned measures will be the joint responsibility of the Project Manager and health and the Site Safety Officer. Potable water and fruit juices should be made available each day for the field team.

4.16.2.6 Heat Stress Monitoring Techniques

Site personnel should regularly monitor their heart rate as an indicator of heat strain by the following method:

Radial pulse rates should be checked by using fore-and middle fingers and applying light pressure top the pulse in the wrist for one minute at the beginning of each rest cycle. If the pulse rate exceeds 110 beats/minute, the next work cycle will be shortened by one-third and the rest period will be kept the same. If, after the next rest period, the pulse rate still exceeds 110 beats/minute, the work cycle will be shortened again by one-third.

4.16.3 Cold Stress

4.16.3.1 Type of Cold Stress

Cold injury is classified as either localized, as in frostbite, frostnip or chilblain; or generalized, as in hypothermia. The main factors contributing to cold injury are exposure to humidity and high winds, contact with wetness and inadequate clothing.

The likelihood of developing frostbite occurs when the face or extremities are exposed to a cold wind in addition to cold temperatures. The freezing point of the skin is about 30° F. When fluids around the cells of the body tissue freeze, skin turns white. This freezing is due to exposure to extremely low temperatures. As wind velocity increases, heat loss is greater and frostbite will occur more rapidly.

4.16.3.2 Symptoms of Cold Stress

The first symptom of frostbite is usually an uncomfortable sensation of coldness, followed by numbness. There might be a tingling, stinging or aching feeling in the affected area. The most vulnerable parts of the body are the nose, cheeks, ears, fingers and toes.

Symptoms of hypothermia, a condition of abnormally low body temperature, include uncontrollable shivering and sensations of cold. The heartbeat slows and can become irregular, the pulse weakens and the blood pressure changes. Pain in the extremities and severe shivering can be the first warning of dangerous exposure to cold.

Maximum severe shivering develops when the body temperature has fallen to 95° F. Productive physical and mental work is limited when severe shivering occurs. Shivering is a serious sign of danger. Immediately remove any person who is shivering from the cold.

4.16.3.3 Methods to Prevent Cold Stress

When the ambient temperature, or a wind chill equivalent, falls to below 40°F (American Conference of Governmental Industrial Hygienists recommendation), project site personnel who must remain outdoors should wear insulated coveralls, insulated boot liners, hard hat helmet liners and insulated hand protection. Wool mittens are more efficient insulators than gloves. Keeping the head covered is very important, since 40% of body heat can be lost when the head is exposed. If it is not necessary to wear a hard hat, a wool knit cap provides the best head protection. A facemask may also be worn.

Persons should dress in several layers rather than one single heavy outer garment. The outer piece of clothing should ideally be wind and waterproof. Clothing made of thin cotton fabric or synthetic fabrics such as polypropylene is ideal since it helps to evaporate sweat. Polypropylene is best at wicking away moisture while still retaining its insulating properties. Loosely fitting clothing also aids in sweat evaporation. Denim is not a good protective fabric. It is loosely woven which allows moisture to penetrate. Socks with a high wool content are best. If two pairs of socks are worn, the inner sock should be smaller and made of cotton, polypropylene or similar types of synthetic material that wick away moisture. If clothing becomes wet, it should be taken off immediately and a dry set of clothing put on.

If wind conditions become severe, it might become necessary to shield the work area temporarily. The SSO and the PM will determine if this type of action is necessary. Heated break trailers or a designated area that is heated should be available if work is performed continuously in the cold at temperatures, or equivalent wind chill temperatures, of 20° F.

Dehydration occurs in the cold environment and can increase the susceptibility of the worker to cold injury due to significant change in blood flow to the extremities. Drink plenty of fluids, but limit the intake of caffeine

4.16.4 Work/Rest Cycles for Cold Weather

If wind chill temperatures fall below minus 25°F, breaks from the cold will occur at a rate of one every hour. If wind chill temperatures fall below minus 45°F, all work will cease and persons will be required to go indoors. Also see Section 1.1.1 regarding shift duration. However, these guidelines can be modified at any time based on actual project site conditions and professional judgment rendered by either the Field Manager and/or SSO. For example, the Field Manager and/or SSO will evaluate field crew fitness; the condition of their cold-weather gear, including boots; and will observe employees alertness, including fatigue and rate of cold tolerance/acclimation.

If weather conditions warrant, portable tents might become necessary to shield the work area from wind, rain, snow, etc. The SSO and the Field Manager will determine if this type of action is necessary. However, under no conditions will the tents be heated and as a precautionary measure, a Photoionization Detector (PID) with a 10.6 eV lamp will be used to monitor the breathing zone of personnel inside the tent. See Section 6 for action levels based on PID readings. A JSA should be prepared and discussed with all workers detailing the precautions for working in these cold weather conditions.

4.17 Well Development and Groundwater Monitoring

During purging and development of borings into monitoring wells, the PPE indicated in Section 7 below will be worn to avoid chemical contact / exposure, as well as physical trauma. Bailing wells requires proper gloves, eye protection, and possibly protective coveralls to prevent splashing. Back and lifting precautions outlined in Section 5.1 shall be used to avoid ergonomic injuries.

4.18 Confined Spaces

Confined Space entry may be required for personnel to enter vaults or manholes in the work areas. The following procedures must be followed in an event confined space entry is necessary. Proper permits must be obtained and regulatory agencies notified prior to performing a confined space entry.

When working in industrial settings, it is common to need to enter a confined space to make observations, collect samples, or perform other duties. AECOM employees or sub contractors must not enter any confined space containing a hazard.

A confined space is defined as any space that meets the following criteria:

- Is not designed for human occupancy
 - excludes vehicles, elevator cabins etc,
 - includes elevator shafts and wells, tanks, vaults, etc.
- Is large enough to physically enter with the whole body, and
- Has a restricted exit path (you must climb over pipes, through man ways, etc.)

If the confined space contains any hazard, entry may only be made if permitted in writing by the space owner or the Regional Health and Safety Manager, the entry is monitored by an observer, and with the prior written approval of the Regional Health and Safety Manager.

Typical hazards include but are not limited to:

- Flammable materials
- Toxic materials
- Corrosive materials
- Exposed electrical circuits
- Falls greater than six feet
- Moving machinery
- Oxygen deficient atmosphere

If there is any doubt about whether a space meets the above criteria, call the Health and Safety Staff.

4.19 Hot Work

Prior to initiation of any hot work procedures, a "Hot Work Permit" (Attachment B) must be approved by a National Grid representative and the SSHO.

4.20 Biological Hazards

If the program is implemented in the spring, summer or fall, biological hazards associated with adjacent woods and wetlands may pose a potential concern for employees involved with project oversight.

4.20.1 Poisonous Plants

Persons working on this program should be aware of the possible presence of poisonous plants and insects. **Poison ivy** is a climbing plant with leaves that consist of three glossy, greenish leaflets. Poison ivy has conspicuous red foliage in the fall. Small yellowish-white flowers appear in May through July at the lower leaf axils of the plant. White berries appear from August through November. Poison ivy is typically found east of the Rockies. **Poison oak** is similar to poison ivy but its leaves are oak-like in form. Poison oak occurs mainly in the south and southwest. **Poison sumac** typically occurs as a small tree or shrub and may be 6-20 feet in height. The bark is smooth, dark and speckled with darker spots. Poison sumac is typically found in swampy areas and east of the Mississippi. The leaves have 7-13 smooth-edged leaflets and drooping clusters of ivory-white berries appear in August and last through spring.

The leaves, roots, stems and fruit of these poisonous plants contain urushiol. Contact with the irritating oil causes an intensely itching skin rash and characteristic, blister-like lesions. The oil can be transmitted on soot particles when burned and may be carried on the fur of animals, equipment and apparel.

Proper identification of these plants is the key to preventing contact and subsequent dermatitis. Wear long sleeves and pants when working in wooded areas. In areas of known infestation, wear Tyvek coveralls and gloves. Oils are easily transferred from one surface to another. If you come in contact with these poisonous plants, wash all exposed areas immediately with cool water to remove the oils. Some commercial products such as Tecnu's Poison Oak-n-Ivy Cleanser claim to further help with the removal of oils.

4.20.2 Ticks

Ticks are bloodsuckers, attaching themselves to warm-blooded vertebrates to feed. If a tick is not removed, or if the tick is allowed to remain for days feeding on human blood, a condition known as **tick paralysis** can develop. This is due to a neurotoxin, which the tick apparently injects while engorging. This neurotoxin acts upon the spinal cord causing incoordination, weakness and paralysis.

Deer ticks are associated with the transmission the bacteria that causes Lyme Disease. Female deer ticks are about one-quarter inch in length and are black and brick red in color. Males are smaller and all black. The early stages of Lyme disease, which can develop within a week to a few weeks of the tick bite, is usually marked by one or more of these signs and symptoms:

- Tiredness
- Chills and fever
- Headache
- Muscle and/or joint pain
- Swollen lymph glands
- Characteristic skin rash (i.e. bullseye rash)

Tick season lasts from April through October; peak season is May through July. You can reduce your risk by taking these precautions:

- During outside activities, wear long sleeves and long pants tucked into socks. Wear a hat, and tie hair back.
- Use insecticides to repel or kill ticks. Repellents containing the compound DEET can be used on exposed skin except for the face, but they do not kill ticks and are not 100% effective in discouraging ticks from biting. Products containing permethrin kill ticks, but they cannot be used on the skin -- only on clothing. When using any of these chemicals, follow label directions carefully.
- After outdoor activities, perform a tick check. Check body areas where ticks are commonly found: behind the knees, between the fingers and toes, under the arms, in and behind the ears, and on the neck, hairline, and top of the head. Check places where clothing presses on the skin.
- Remove attached ticks promptly. Removing a tick before it has been attached for more than 24 hours greatly reduces the risk of infection. Use tweezers, and grab as closely to the skin as possible. Do not try to remove ticks by squeezing them, coating them with petroleum jelly, or burning them with a match.
- Report any of the above symptoms and all tick bites to the RHSM for evaluation.

4.20.3 Mosquito-Borne Illnesses

4.20.3.1 Eastern Equine Encephalitis

Eastern equine encephalitis is a rare disease that is spread to horses and humans by infected mosquitoes. It is among the most serious of a group of mosquito-borne virus diseases that can affect the central nervous system and cause severe complications and even death. Although relatively small outbreaks of human disease have occurred in the United States, the frequency of this disease is

increasing with most cases reported from the eastern seaboard states, the Gulf Coast, and some inland mid-western areas.

After infection, the virus invades the central nervous system, including the spinal cord and brain. Most people have no symptoms; others get only a mild flu-like illness with fever, headache, and sore throat. For people with infection of the central nervous system, a sudden fever and severe headache can be followed quickly by seizures and coma. About half of these patients die from the disease. Of those who survive, many suffer permanent brain damage and require lifetime institutional care. Symptoms usually appear 4 to 10 days after the bite of an infected mosquito. Confirming diagnosis is based on tests of blood or spinal fluid.

4.20.3.2 West Nile Virus

West Nile encephalitis is an infection of the brain caused by the West Nile virus, which is transmitted by infected mosquitoes. Following transmission from an infected mosquito, West Nile virus multiplies in the person's blood system and crosses the blood-brain barrier to reach the brain. The virus interferes with normal central nervous system functioning and causes inflammation of the brain tissue. However, most infections are mild and symptoms include fever, headache and body aches. More severe infections may be marked by headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, paralysis and rarely, death. Persons over the age of 50 have the highest risk of severe disease.

Prevention centers on public health action to control mosquitoes and on individual action to avoid mosquito bites. To avoid being bitten by the mosquitoes that cause the disease, use the following control measures:

- If possible, stay inside between dusk and dark. This is when mosquitoes are most active.
- When outside between dusk and dark, wear long pants and long-sleeved shirts.
- Spray exposed skin with an insect repellent, preferably containing DEET.

4.20.4 Wasps and Bees

Wasps (hornets and yellow-jackets) and bees (honeybees and bumblebees) are common insects that may pose a potential hazard to the field team if work is performed during spring, summer or fall. Bees normally build their nests in the soil. However, they use other natural holes such as abandoned rodent nests or tree hollows. Wasps make a football-shaped, paper-like nest either below or above the ground. Yellow-jackets tend to build their nests in the ground but hornets tend to build their nests in trees and shrubbery.

To avoid bees and wasps when working outdoors:

- Avoid the use of heavily scented soaps, shampoos, perfumes, colognes, after-shaves and cosmetics.
- Avoid shiny buckles and jewelry.
- Cover exposed skin and wear gray, white or tan rather than bright colors. Flowery prints and black especially attract insects.
- Remove food sources from site that may attract bees. Social wasps thrive where humans discard food.

- Check for new nests during the warmer hours of the day during July, August and September. Bees are very active then.

Bees are generally more mild-mannered than wasps and are less likely to sting. Bees can only sting once while wasps sting multiple times because their stinger is barbed. Wasps and bees will sting in defense of itself or its nest. To avoid being stung:

- Slowly raise your hands to protect your face, remaining calm and stationary for a while and then move very slowly away.
- Never swing, strike or run rapidly away since quick movement often provokes attack and painful stings.
- Restrain from throwing rocks or spraying nests with water.
- Avoid creating loud noises and disturbance near the nest

When a wasp or bee stings, they inject a venomous fluid under the skin. The venom causes a painful swelling that may last for several days. If the stinger is still present, carefully remove it with tweezers. Then,

- Wash the area carefully with soap and water. This should be continued several times a day until the skin is healed.
- Apply a cold or ice pack, wrapped in cloth for a few minutes.
- Apply a paste of baking soda and water and leave it on for 15 to 20 minutes.
- Take acetaminophen for pain.

Wasp stings can be life-threatening to persons who are allergic to their venom.

If you develop hives, difficulty breathing or swallowing, wheezing or similar symptoms of allergic reaction, **SEEK MEDICAL ATTENTION IMMEDIATELY**. People with known allergies to insect stings should NEVER work alone.

5.0 Air Monitoring

The site is known to have tar impacts dating from the site's historical use as an MGP. As such, the contaminants of concern are VOCs and SVOCs. The primary VOCs of concern are BTEX. The primary SVOCs of concern are PAHs such as naphthalene and benzo(a)pyrene. Airborne dust is also a concern and must be monitored due to its ability to co-transport contaminants and because of its nuisance properties. Odors, though not necessarily indicative of high contaminant concentrations, could create a nuisance and will be monitored and controlled to the extent practicable.

5.1 Monitoring

5.1.1 VOC Monitoring

A photoionization detector (PID), such as a RaeSystems MiniRae 2000 PID equipped with a 10.6 eV lamp or equivalent, will be used to screen the breathing zone of employees during all subsurface investigations as site and off-site area conditions warrant but no less than at least once every hour. If breathing zone concentrations of total VOCs are sustained (5 minutes) above 5 ppm (calibrated to isobutylene), a measurement will be made for the presence of benzene using a colorimetric detector tube. In the absence of benzene, respiratory protection will be donned if total VOC concentration is sustained at 25 units as indicated by the PID. If benzene is present at concentrations of 1 ppm or more as indicated by the detector tube, respiratory protection will be donned. Requirements for respiratory protection are outlined in Section 6.2 of this HASP.

5.1.2 Dust Monitoring

Dust control measures, as described in this HASP, will be implemented to prevent and/or control the concentration of airborne dust levels during the subsurface activities. A MIE Data-Ram total dust monitor, or its equivalent, will be used to monitor the effectiveness of these engineering controls and to determine if measures to mitigate the dust are effective and/or if respiratory protection is required.

An action level of 0.15 mg/m^3 has been established for total dust (sustained within the breathing zone for 15-minutes) and is based on the PEL for PAHs. The total dust monitor will be used to determine that total dust levels within the established restricted areas are maintained below this action level. The readings will be taken at the locations within the restricted area, and during the time periods, which are likely to represent worst case conditions. The determination of worst case will be made by the SSO and will be dependent upon such variables as the type of work being performed and number of personnel or level of activity in the zone.

Task	Instrument	Action Limit and Action
All tasks involving potential exposure to contaminated soils and/or groundwater	Photoionization Detector	5 ppm calibrated to isobutylene ; Don respiratory protection as discussed in Section 6
All tasks involving exposure to site chemicals of concern	Colorimetric detector tubes or Draeger Chip System for Benzene	0.5 ppm Benzene Don respiratory protection described in section 6.2
All tasks with the potential to generate dust.	Particulate meter	>1.0 mg/m³ ; Apply dust suppression controls and don respiratory protection >1.5 mg/m³ ; STOP WORK until levels are reduced below 1.0 mg/m ³

5.2 Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) has been developed for the site. The site is located in a commercial community. This CAMP presents methods and procedures that will be used to provide protection for the downwind residences and businesses by assuring that the work activities do not spread constituents off-site through the air.

The community air monitoring will be performed around the project site perimeter and will measure the concentrations of organic vapors and dust. Air monitoring will be continuous during the activities. Monitoring will be conducted prior to mobilization to establish a baseline. The CAMP developed as per the NYSDEC DER-10 (NYSDEC, January 2010) is attached as Attachment C.

5.3 Personal Air Sampling

The need for personal air sampling is not anticipated during the activities covered by this HASP. The Project Manager can prescribe personal air sampling based on observations or concerns recognized during the project.

5.4 Calibration and Recordkeeping

Equipment will be calibrated in accordance with the Contractor's standard operating procedures. A log of the calibrations and readings will be kept in the field notebook. Daily calibration information will also be recorded in the field notebook.

6.0 Personal Protective Equipment

Personal protective equipment (PPE) will be worn during these activities to prevent on-site personnel from being injured by the safety hazards posed by the project site and/or the activities being performed. In addition, chemical protective clothing will be worn to prevent direct dermal contact with the project site's chemical contaminants. The following table describes the PPE to be worn for certain specific tasks. At a minimum, steel toe safety shoes, safety glasses with side shields, and nitrile or NAPL-resistant gloves will be worn when working in the areas with remaining contamination as detailed in the SMP.

6.1 Chemical Protective Clothing

PPE Item	Environmental Monitoring	Excavation and Utility Work	Sample Collection
Hard Hat	✓	✓	✓
Steel Toed Safety Shoes	✓	✓	✓
Safety Glasses with Sideshields	✓	✓	✓
ANSI-approved Class II Traffic Vest	✓	✓	✓
Outer Nitrile Gloves with inner Latex liners			✓
Kevlar gloves			✓
Hearing Protection	✓	✓	✓

6.2 Engineering Controls to Prevent Exposure to Contaminants of Concern

Engineering controls will be used by the Contractor to control dusts, vapors and odors both inside the structure and at the project site perimeter, if necessary. If the engineering controls are unsuccessful at controlling employee exposures within the structure to below the action limits defined in Section 5.1.1 and 5.1.2 of this HASP, then Level C respiratory protection will be required.

6.3 Respiratory Protection

Respiratory protection, as described below, will be required if worker breathing zone PID concentrations are sustained above the action levels in the following table.

Task	Action Limit	Respiratory Protection	Level
All tasks involving potential exposure to contaminated soils and/or groundwater	5 ppm as Isobutylene for 5 minute	Half or full face mask respirator with combination organic vapor/HEPA cartridges	C
	10 ppm as Isobutylene	Full face respirator with organic vapor/HEPA cartridges	C
	50 ppm as isobutylene	STOP WORK	
All tasks involving potential exposure to contaminated soils and/or groundwater	0.5-10 ppm as Benzene on Draeger tube	Half or full face mask respirator with combination organic vapor/HEPA cartridges	C
	10 ppm as Benzene on Draeger tube	Full face respirator with organic vapor/HEPA cartridges	C
	50 ppm as Benzene on Draeger tube	STOP WORK	
All tasks with the potential to produce Dust	1.0 mg/m ³ particulates in air	Half or full face mask respirator with combination organic vapor/HEPA cartridges	C
	1.5 mg/m ³ particulates in air	STOP WORK and apply dust suppression techniques until levels have returned to ambient conditions	C

Respiratory protection (half or full face mask respirator with combination organic vapor/HEPA cartridges) should also be donned if odors become objectionable at any time or if respiratory tract irritation is noticed.

All employees who are expected to don respiratory protection must have successfully passed a qualitative or quantitative fit-test within the past year for the brand, model and size respirator they plan to don.

If worn, respirators will be cleaned after each use with respirator wipe pads and will be stored in plastic bags after cleaning. Respirators will be thoroughly cleaned using disinfectant material within one week following any respirator use. Refer to the cleaning instructions provided with the respirator or specified by Appendix B-2 to the OSHA regulations at 29 CFR 1910.134.

6.4 Other Safety Equipment

The following is a list of additional safety items that may need to be available at the project site depending on the facility activity level, proximity to emergency assistance and other factors:

- Portable, hand-held eyewash bottles,
- First aid kit,
- Type A-B-C Fire extinguisher,
- Fire blanket,
- Emergency telephone and, if available, two-way radio on facility frequency,
- Emergency air horn,
- Drinking water, ice and cups,
- Caution tape or traffic cones,
- High visibility traffic vests (if working near vehicle traffic),
- Traffic cones or barricades,
- Flashlight/lantern, and
- Spill containment kit.

7.0 Site Control/Decontamination

To prevent both exposure of unprotected personnel and migration of contamination due to tracking by personnel or equipment, hazardous work areas will be clearly identified and decontamination procedures will be required for personnel and equipment leaving those areas.

7.1 Designation of Zones

AECOM designates work areas or zones as suggested in the "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities," NIOSH/OSHA/USCG/EPA, November 1985. They recommend that the areas surrounding each of the work areas to be divided into three zones:

- Exclusion or "Hot" Zone
- Contamination Reduction Zone
- Support Zone

7.1.1 Exclusion Zone

An exclusion zone will be established around the work area. The perimeter of the exclusion zone will be marked with caution tape, traffic cones or other identifier so that employees, visitors, and client or host employer personnel are aware of the work being conducted.

All field and contractor personnel entering these work areas must wear the prescribed level of protective equipment.

7.1.2 Contamination Reduction Zone

A decontamination zone will be established adjacent to each work area. Personnel will remove contaminated gloves and other disposable items in this area and place them in a plastic bag until they can be properly disposed of.

7.1.3 Support Zone

The support zone will include the area outside of the exclusion zone.

7.1.4 Site Access Control

The public will be restricted from the project site and monitoring well locations (during monitoring) by fences, barricade tape, traffic cones, and/or signs.

7.1.5 Parking and Staging Areas

Parking will be restricted to areas that have been cleared of tall grass and combustible material. Vehicles parked on the public streets will be marked with cones both in front of and behind the vehicle.

7.1.6 Pedestrian Walkways

Pathways within the work areas will be kept clear of obstructions. Public pathways will be clearly marked to provide access to the business onsite and protect the public from the hazards of the project.

7.2 General Site Safety Practices

The following measures are designed to augment the specific health and safety guidelines provided in this plan.

- The "buddy system" will be used at all times by all field personnel. No one is to perform field work alone. Standby team member must be intimately familiar with the procedures for initiating an emergency response. If an employee will be alone in a work area, they will develop a procedure to contact their Supervisor or PM on a regular schedule to confirm that the employee is safe. Subcontractors working on-site can help fulfill the role of a Buddy while project site activities are occurring.
- Eating, drinking, chewing gum or tobacco, smoking or any practice that increases the probability of hand-to-mouth transfer and ingestion of materials is prohibited in the immediate work area and the decontamination zone. Water and Ice may be consumed in all areas to prevent heat stress but precautions must be taken to prevent contamination of the water and ice.
- Smoking is prohibited in all work areas. Matches and lighters are not allowed in these areas.
- Hands must be thoroughly washed upon leaving the work area and before eating, drinking or any other activities.
- Beards or other facial hair that interfere with respirator fit are prohibited.
- The use of alcohol or illicit drugs is prohibited during the conduct of field operations.
- All equipment must be decontaminated or properly discarded before leaving the project site in accordance with the project work plan.
- Parking and pedestrian areas will be established and communicated to all workers.

8.0 Decontamination

8.1 Personal Decontamination

Proper decontamination is required of all personnel before leaving the project site. Decontamination will occur within the contamination reduction zone.

Regardless of the type of decontamination system required, a container of potable water and liquid soap should be made available so employees can wash their hands and face before leaving the project site for lunch or for the day.

8.2 PPE Decontamination

Disposable PPE, such as Tyvek coveralls, gloves, etc. will be removed in the decon zone and placed in garbage bags. Final disposal of contaminated PPE will be in accordance with the work plan.

If worn, respirators assigned to an individual will be cleaned after each use with respirator wipe pads and will be stored upright in plastic bags. Respirators will be thoroughly cleaned using disinfectant material within one week following any respirator use. Respirators that have the potential to be shared by employees within the workplace will be completely dismantled and thoroughly cleaned after each use. Refer to the cleaning instructions provided with the respirator or specified by Appendix B-2 to the OSHA regulations at 29 CFR 1910.134.

8.3 Equipment Decontamination

Equipment will be decontaminated prior to being moved to other locations. Decontamination procedures will be specified in the Field Sampling and Analysis Plan (FSAP).

9.0 Medical Monitoring and Training Requirements

Each worker subject to this HASP shall have copies of documentation that the requirements for training, medical surveillance, and respirator use are current. Copies of these documents shall be made available to any owner or their representative upon request.

9.1 Medical Monitoring

All personnel performing activities covered by this HASP must be active participants in a medical monitoring program that complies with 29 CFR 1910.120(f). Each individual must have completed an annual surveillance examination and/or an initial baseline examination within the last year prior to performing any work on the project site covered by this HASP.

9.2 Health and Safety Training

9.2.1 HAZWOPER

All personnel performing activities covered by this HASP must have completed the appropriate training requirements specified in 29 CFR 1910.120 (e). Each individual must have completed an annual 8-hour refresher training course and/or initial 40-hour training course within the last year prior to performing any work on the project sites covered by this HASP.

9.2.2 Pre-Entry Briefing/Tailgate Meetings

Prior to the commencement of daily project activities, a pre-entry briefing or tailgate meeting will be conducted by the SSO to review the specific requirements of this HASP, review and revise the JSA, discuss Incidents, Near Misses and lessons learned from the previous day's activities, and discuss project site conditions that have changed since the previous day or trip to the project site. Attendance at the daily tailgate meeting is mandatory for all personnel covered by this HASP at the project site and must be documented on the attendance form provided in Attachment A. HASP sign-off sheets should also be collected at the time of the tailgate meetings. All documentation should be maintained in the project file.

The pre-entry briefing must be completed for each new employee before they begin work at the project site. Short safety refresher meetings will be conducted, as needed, throughout the duration of the project.

10.0 Emergency Response

OSHA defines emergency response as any "response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual-aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result in an uncontrolled release of a hazardous substance." This section is written to comply with the requirements of 29 CFR 1910.38 (a).

The basic elements of an emergency evacuation plan include:

- employee training
- alarm systems
- escape routes
- escape procedures
- critical operations or equipment
- rescue and medical duty assignments
- designation of responsible parties
- emergency reporting procedures
- methods to account for all employees after evacuation

10.1 Spill Response

Employees are only authorized to respond to incidental spills and releases of hazardous substances. The following criteria must be met for a spill to be considered incidental with the employee having the ability to respond to the spill:

- Quantity of spilled material is minimal enough where additional, third party assistance is not needed to manage the spill
- Material is not immediately threatening to impact an open water way
- The conditions of the spill do not present a hazardous condition that is immediately dangerous to life and health (IDLH)
- The employee responding has:
 - received training on proper spill response techniques relative to the spilled material
 - full knowledge of what has been spilled and the proper clean up techniques to be used
 - the means to protect themselves against exposure to harmful conditions caused by the spill including the necessary PPE
 - the means to containerize and dispose of the spilled material properly

Employees may be equipped with the following materials, assembled into a spill response kit, to manage incidental workplace spills:

- Absorbent pads or media, i.e. speedy-dry, kitty litter
- Broom and dust pan to clean up spent granular spill control media or impacted earth

- Shovel to clean up impacted earth or create a dam or dyke to prevent the spill area from increasing
- Disposal drums and over-pack drums
- Appropriate waste identification labels
- Appropriate PPE

If a spill is not considered incidental, then additional assistance will be sought to aid in clean-up. The responding employee shall contact the Project Manager and provide initial notification of the release. The Project Manager will then notify the client representative and determine a suitable course of action. Chem-trec may be contacted to provide additional support in responding to a spill. Consideration will need to be given to whether or not the spill is deemed to be a reportable quantity (RQ) by the EPA, if the National Spill Response Center needs to be contacted due to surface water impact, and if local, state or federal agencies need to be contacted to provide information related to public health threats and environmental impact.

All petroleum related spills above 5-gallons on a non-impermeable surface, and in the vicinity of a waterway must be reported to the PM, RSM, and DEC PM, with the PM providing notification to the client representative, no matter how small the spill is. After initial response actions have been completed an incident investigation will be performed to determine the root causes of the incident and corrective actions, and lessons learned shall be shared to prevent future reoccurrence. Once the response is complete, the responding employee will also conduct an inventory of supplies used during the response effort and re-stock any used response equipment that could not be decontaminated and reused.

10.2 Employee Training

Employees must be instructed in the site-specific aspects of emergency evacuation. On-site refresher or update training is required anytime escape routes or procedures are modified or personnel assignments are changed.

10.3 Alarm System/Emergency Signals

An emergency communication system must be in effect at all project sites. The simplest and most and effective emergency communication system in many situations will be direct verbal communications. Each project site must be assessed at the time of initial site activity and periodically as the work progresses. Verbal communications must be supplemented anytime voices cannot be clearly perceived above ambient noise levels (i.e., noise from heavy equipment; drilling rigs, backhoes, etc.) and anytime a clear line-of-sight cannot be easily maintained amongst all personnel because of distance, terrain or other obstructions.

Verbal communications will be adequate to warn employees of hazards associated with the immediate work area. A portable phone will be located at the project site to ensure that communications with local emergency responders is maintained, when necessary.

10.4 Escape Routes and Procedures

The escape route from the project site and an emergency muster point will be determined and provided to all workers during the project mobilization.

Prior to mobilizing to a new project area, the Site Safety Officer or his designee will confirm that the escape routes are clear and lead to a safe area.

10.5 Employee Accounting Method

The SSO is responsible for identifying all personnel on-site at all times. Field personnel and subcontract employees will notify the SSO when they enter and leave the project site. The SSO will account for all FIELD PERSONNEL and its subcontract employees following an evacuation.

10.6 Injuries and Illnesses

The phone numbers of the police and fire departments, ambulance service, and local hospital are provided in the emergency reference sheet on page 1. This sheet will be posted in the site vehicle.

10.6.1 First Aid

Minor injuries will be treated on project site using materials from the first aid kit or other local sources. All cuts and abrasions will be cleaned with potable water and a clean dressing applied. The injured employee will be evaluated at the end of the work day and the following day when the employee arrives at the project site to determine whether the wound has started the healing process. The wound will be protected from contamination during the project activities.

10.6.2 Professional Treatment

In the event an injury or illness requires more than first aid treatment, the SSO will accompany the injured person to the medical facility and will remain with the person until release or admittance is determined. The escort will relay all appropriate medical information to the on-site project manager and the RSM.

If the injured employee can be moved from the accident area, he or she will be brought to the CRZ where their PPE will be removed. If the person is suffering from a back or neck injury the person will not be moved and the requirements for decontamination do not apply. The SSO must familiarize the responding emergency personnel about the nature of the site and the injury. If the responder feels that the PPE can be cut away from the injured person's body, this will be done on-site. If this not feasible, decontamination will be performed after the injured person has been stabilized.

10.7 Designation of Responsible Parties

The SSO is responsible for initiating emergency response. In the event the SSO can not fulfill this duty, the alternate SSO will take charge.

10.8 Emergency Response Drills

A table-top run through of the evacuations procedures will be conducted the first day on the project site and reviewed with all workers arriving on site after that date.

Emergency Response drills and subsequent personnel briefings on evacuation procedures will be documented in the safety briefing agenda or briefing notes.

10.9 Incident Reporting and Investigation

Any incident (other than minor first aid treatment) resulting in injury, illness, property damage, incident involving the public or near misses require an Incident investigation and report. The investigation should be conducted as soon as emergency conditions are under control. The purpose of the investigation is not to attribute blame but to determine the pertinent facts so that repeat or similar occurrences can be avoided. An Incident investigation form is presented in Attachment B of this HASP. The injured employee's supervisor, the Project Manager, and the RSM should be notified within two hours of the incident. The PM will notify the National Grid representative immediately and provide a draft incident report to National Grid within 24 hours.

If a subcontractor employee is injured, they are required to notify the SSO. Once the incident is under control, the subcontractor will submit a copy of their company's Incident investigation report to the SSO.

10.10 EMERGENCY REFERENCES

Ambulance:	911
Fire:	911
Police:	911
Medical Services:	St. John's Episcopal Hospital, South Shore 327 Beach 19th Street, Far Rockaway, NY
Hospital Telephone:	(718) 868-7000
On Site Telephone:	Bring portable communications.

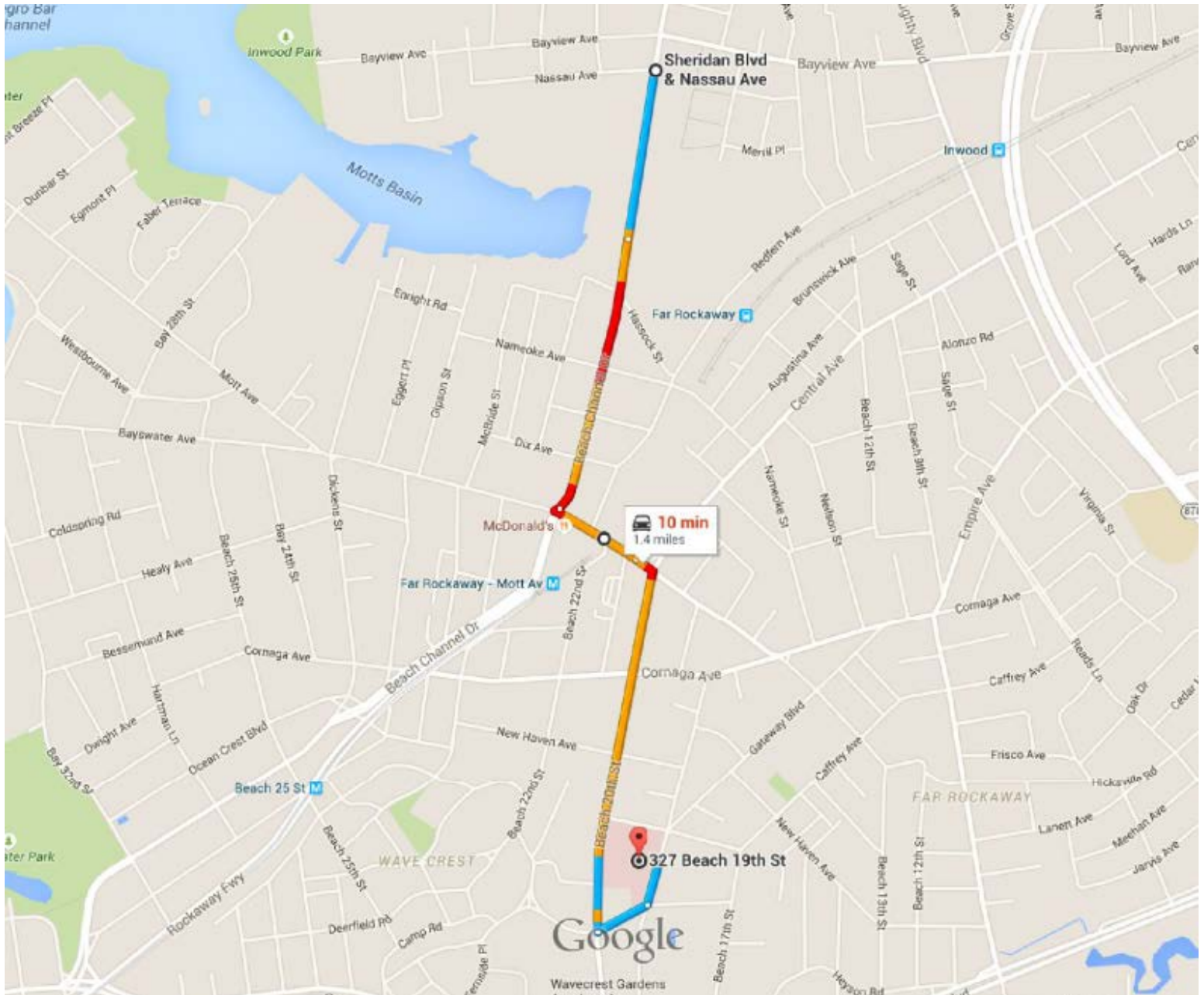
10.11 Emergency Route Directions

When using any driving directions or map, it's a good idea to do a reality check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning.

- 1: Start out going EAST on NASSAU AVENUE toward SHERIDAN BOULEVARD.
- 2: Turn RIGHT onto SHERIDAN BOULEVARD. (0.2 miles)
- 3: SHERIDAN BOULEVARD becomes BEACH CHANNEL DRIVE. (0.4 miles)
- 4: Turn LEFT onto MOTT AVENUE. (0.1 miles)
- 5: Turn RIGHT onto BEACH 20th STREET. (0.5 miles)
- 6: Turn LEFT onto PLAINVIEW AVENUE. (0.1 miles)
- 7: Turn SLIGHT LEFT onto BEACH 19th STREET. (0.0 miles)
- 8: 327 BEACH 19th Street is on the LEFT.

Total Distance: 1.4 miles

Total Estimated Time: 10 minutes

Map Showing Route from the site to the Hospital:

Appendices

Appendix A

Health and Safety Plan Receipt and Acceptance Form

Health and Safety Plan Receipt and Acceptance Form
Former Inwood Gas Holder Site
Inwood, Nassau County, New York

I have received a copy of the Health and Safety Plan prepared for the above referenced site, I have read and understand its content and I agree that I will abide by its requirements.

Name	Signature	Company	Date

Appendix B

EHS Field Forms

**Blank Job Safety Analysis
Form**

Job Safety Analysis



JSA Type: ☐ Investigation ☐ O&M ☐ Office ☐ Construction ☐ Other			☐ New ☐ Revised		Date:
Work Activity:					
Personal Protective Equipment (PPE):					
Development Team	Position/Title	Reviewed By	Position/Title	Date	
❶ Job Steps ¹	❷ Potential Hazards ²	❸ Critical Actions ³	Stop Work Criteria		
		•	•		
		•	•		
		•	•		
		•	•		
		•	•		
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		•	•		

1 – Target number of job steps: six to ten

2 – Codes for Potential Hazards:

Caught Between (CB)	Contacted By (CBy)	Caught On (CO)	Fall To Below (FB)	Overexertion (O)	Struck Against (SA)
Caught In (CI)	Contact With (CW)	Exposure (E)	Fall - Same Level (FS)	Release To (RT)	Struck By (SB)

3 – Types of Critical Actions: Elimination, Engineering Controls, Safe Work Practice / SOP, Administrative Controls, and/or PPE.

4 – Stop Work Trigger: Condition or situation that would require work to be stopped and hazards re-assessed.

**Health and Safety Plan Pre-
Entry Briefing Attendance
Form**

Health and Safety Plan Pre-Entry Briefing Attendance Form**Former Inwood Gas Holder Site****Inwood, Nassau County, New York**

Conducted by:		Date Performed:	
Topics Discussed:	1. Review of the content of the HASP (Required)		
	2.		
	3.		
	4.		

Printed Name	Signature	Representing

Drill Rig Inspection Form

Drilling Safety Audit

Project Name:

Project Number:

Date:

Subcontractor Audited:

Auditor:

General Safety		
Safety Officer Designated for Job:	☐ Yes	☐ No
Name:		
Safety Meeting Performed (Daily)	☐ Yes	☐ No
Personal Protective Equipment (PPE)		
Hard Hats	☐ Yes	☐ No
Safety Glasses	☐ Yes	☐ No
Steel Toed Boots	☐ Yes	☐ No
Hearing Protection	☐ Yes	☐ No
Work Gloves	☐ Yes	☐ No
Orange Work Vests	☐ Yes	☐ No
Traffic Cones and Signs	☐ Yes	☐ No
Other	☐ Yes	☐ No
Disposal of PPE in Proper Waste Containers (if applicable)	☐ Yes	☐ No
Comments:		
Daily Inspections of Drill Rig:		
Structural Damage, Loose Bolts	☐ Yes	☐ No
Proper Tension in Chain Drives	☐ Yes	☐ No
Loose or Missing Guards, Fluid Leaks	☐ Yes	☐ No
Damaged Hoses and/or Damaged Pressure	☐ Yes	☐ No
Gages and Pressure Relief Valves	☐ Yes	☐ No
Comments:		

Check and test all safety devices such as:		
Emergency shutdown switches, at least daily	☐ Yes	☐ No
Check all gages and warning lights and ensure control levers are functioning properly	☐ Yes	☐ No
First Aid and fire extinguishers on drill rig	☐ Yes	☐ No
Back up alarm functioning properly	☐ Yes	☐ No
Comments:		
Drill Crew Training Requirements:		
40-hour OSHA Training	☐ Yes	☐ No
8-hour Annual Refresher Training	☐ Yes	☐ No
Drill Rig Training/Safe Operating Practices	☐ Yes	☐ No
First Aid/CPR	☐ Yes	☐ No
Emergency Procedures	☐ Yes	☐ No
Emergency Phone Numbers Posted	☐ Yes	☐ No
Site Orientation	☐ Yes	☐ No
Health and Safety Plan Review	☐ Yes	☐ No
Comments:		
Housekeeping:		
Suitable storage for tools, materials, and supplies	☐ Yes	☐ No
Pipes, drill rods, casing, and augers stacked on racks to prevent rolling and sliding	☐ Yes	☐ No
Platforms and other work areas free of debris materials and obstructions	☐ Yes	☐ No
Comments:		

Hand Tools:		
Tools in good condition	☐ Yes	☐ No
Broken tools discarded and replaced	☐ Yes	☐ No
Right tool used for the right job	☐ Yes	☐ No
Comments:		
Drilling Operations:		
Mast or derrick down when moving rig	☐ Yes	☐ No
Overhead obstructions identified before mast is raised	☐ Yes	☐ No
Drill rig stabilized using leveling jacks or solid cribbing	☐ Yes	☐ No
Secure and lock derrick	☐ Yes	☐ No
Comments:		
Overhead and Buried Utilities:		
Buried utilities identified and marked	☐ Yes	☐ No
Safe distance of drill rig from overhead power lines	☐ Yes	☐ No
Comments:		
Wire Line Hoists Wire Rope and Hardware:		
Inspection for broken wires where reduction in rope diameter, wire diameter, fatigue, corrosion, damage from gear jamming, crushing, bird caging, kinking	☐ Yes	☐ No
Inspect and lubricate parts daily	☐ Yes	☐ No
Comments:		

Hot Work Permit Form

Hot Work Permit

**Permit Valid
For 1 Work Day**

Site Name: _____

Project Number: _____

H&S Officer: _____

Client: _____

Hot Work Description: _____

Workers/Welders Conducting Hot Work: _____

Permits Must be Completed in its Entirety Before Hot Work Begins

	Yes	No
Has project supervisor been notified of intended Hot Work?		
Does client representative need to be notified of the intended Hot Work?		
Will Hot Work impact the general public, clients, or operation employees?		
Will the intended Hot Work need to be coordinated with other contractors who may be working on the site to make them aware of any hazards and the scope of work to be performed?		
Have hazardous energy sources been identified, isolated, and locked out – tagged out before the start of the project?		
Will Hot Work be conducted within a confined space?		
All testing equipment (i.e., CGI, oxygen meter, etc.) and firefighting equipment (i.e., extinguisher, etc.) have been checked to ensure proper operation and calibration before the start of this project?		
Has a fire watch been designated and on station?		
Have coatings on metal surfaces been tested for ignitability and flame spread?		
Has the area been cleared of all flammable materials?		
Have all fuel sources been identified and protected?		
Has the area been restricted with proper barriers and signs?		
Has the area been tested to be certain that atmosphere is 0% LEL before starting Hot Work?		
Have flame sensitive areas and equipment (including cylinders and gas delivery lines) exposed to slag and sparks been protected by flame resistant blankets or removed from the area?		
Have all equipment and hoses been protected from falling metal structures and debris?		
Have escape routes been identified before starting work?		

Is ventilation equipment needed? Type needed:		
---	--	--

The Following Protective Equipment Will be Required:

	Yes	No		Yes	No
Welding Goggles/Shield Tint			Supplied Air Respirator		
Safety Boots			Head Protection		
Leather gloves			Safety Harness		
Hearing Protection			Welding Leathers – Top		
APR Cartridge			Welding Leathers - Bottom		

Permit Valid for 1 Work Day

The following procedures will be applicable prior to Hot Work on tanks or other types of enclosed structures. (Check all that apply and fill in appropriate information)

- ☐ Ventilate to 0% LEL
- ☐ Confined Space Entry Permit
- ☐ Mechanical Ventilation Required
- ☐ Cold Cut Only Method Allowed: _____
- ☐ Hot Cutting Permitted Method Allowed: _____

Inert to < _____ % Oxygen

Approvals:

Date

National Grid Representative

Site Safety Officer

Fire Watch

Performed Hot Work Employee

File Permit in Project Work File and Health and Department

Appendix C

Safety Data Sheets

Alconox

SPI Supplies Division

Structure Probe, Inc.

P.O. Box 656 West Chester, PA 19381-0656 USA

Phone: 1-(610)-436-5400 **Fax:** 1-(610)-436-5755

E-mail: spi3spi@2spi.com

WWW: <http://www.2spi.com>

Manufacturer's CAGE: 1P573



Safety Data Sheet

SPI #01200-AB and #01200A-AB Alconox® Powdered Detergent

Section 1: Identification

Date Effective..... November 14, 2005 (most recent revision)

Chemical Name/Synonyms... On Label: Alconox®

Chemical Family..... Anionic powdered detergent

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-527-3887

Worldwide FAX: 1-(703)-741-6090

Toll-free phone: 1-(800)-424-9300 USA only



Product or Trade Name.... SPI #01200-AB and #01200A-AB Alconox® Powdered Detergent

CAS #. Not applicable

Chemical Formula..... Not applicable

Section 2 Composition Component Name CAS # OSHA OSHA ACGIH ACGIH

No hazardous ingredients in Alconox Powdered Detergent as defined by the OSHA Standard and Hazardous Substance List 29 CFR 1910 Subpart Z.

Hazardous Material Information System USA	Health	0	National Fire Protection Association USA	
	Fire Hazard	0		

	Reactivity	0		
	Personal Protection			

NFPA (National Fire Protection Association) Rating (Scale 0-4):

HEALTH=0 FLAMMABILITY=0 REACTIVITY=0 OTHER=0 Not known

Section 3: Hazard Identification

Routes of entry

Inhalation? Yes

Skin? No

Ingestion? Yes

Health Hazards (Acute and chronic):

Inhalation of powder may prove locally irritating to mucous membranes.

Ingestion may cause discomfort and/or diarrhea. Eye contact may prove irritating.

Carcinogenicity:

NTP? No

IARC Monographs? No

OSHA Regulated? No

Section 4: First Aid Measures

Signs and Symptoms of Exposure:

Exposure may irritate mucous membranes. May cause sneezing.

Medical conditions generally aggravated by exposure: Not established. Unnecessary exposure to this product or any industrial chemical should be avoided.

Respiratory conditions may be aggravated by powder if air borne.

Emergency and First Aid Procedures:

Eyes: Immediately flush eyes with copious amounts of water for minimum 15 minutes. Call physician.

Skin: Flush with plenty of water.

Ingestion: Drink large quantities of water or milk. Do not induce vomiting. If vomiting occurs re-administer fluids. See a physician for discomfort.

Section 5: Fire Fighting Measures

NFPA Rating: Not known

Extinguishing Media

Suitable/Not suitable:

SMALL FIRE: Use DRY chemical powder, water, foam, carbon dioxide

LARGE FIRE: Use extinguishing media suitable for the surrounding materials.

Special firefighting procedures:

Self-contained positive pressure breathing apparatus and protective clothing should be worn when fighting fires involving chemicals.

Unusual Fire/Explosion Hazards: None

Hazardous thermal decomposition products: None known.

Protection of fire fighters: No special measures are required.

Flammable Limits:

LEL: No data

UEL: No data

Section 6: Accidental Release Measures

Personal precautions: No special precautions

Environmental Precautions and Clean Up Methods:

Material foams profusely. Recover as much as possible and flush remainder to sewer. Material is biodegradable.

Section 7: Handling and Storage

Material should be stored in a dry area to prevent caking.

Section 8: Exposure Controls and Personal Protection

Engineering controls: Normal ventilation is normally required when handling or using this product. Avoid conditions that could produce dusting.

Personal Protective Equipment

Respiratory system: Dust mask recommended but not required.

Skin and body: Laboratory coat recommended but not required.

Hands: Impervious gloves recommended

Eyes: Goggles are recommended, especially when handling solutions irrespective of what they might be.

Other: Wash hands before eating, drinking, or smoking.

Section 9: Physical and Chemical Properties

Physical State and Appearance: White powder interspersed with cream colored flakes.

Odor: None

Boiling Point: Not applicable

Melting Point: Not applicable

Density (water = 1): Not applicable

Solubility: Appreciable, to 10% at ambient conditions.

Octanol/water partition coefficient: Not available

pH: Not known

Flash Point: None

Flammability: Non-flammable

Autoignition temperature: Not applicable

Section 10: Stability and Reactivity

Chemical Stability: The product is stable

Hazardous polymerization: Will not occur

Conditions to Avoid: None

Hazardous Products of Deposition: May release CO₂ on burning.

Reactions with Air and Water:

Does not react with air, water or other common materials.

Section 11: Toxicological Information

Summary: Not considered to be toxic to humans or animals.

Skin Effects: Can be locally irritating

Eye Irritation: Can be irritating to the eyes

Inhalation: Dust can be irritating to mucous membranes

Sensitization: Not known

Chronic toxicity: There is no known effect from the chronic exposure to this product.

Section 12: Ecological Information

Exotoxicity: Not know but it is expected to be low because the material is biodegradable.

Environmental Fate: It is biodegradable.

Bioaccumulation: Not expected to occur (because the material is biodegradable).

Section 13: Disposal Considerations

This material is NOT classified as a hazardous material by RCRA. Use only licensed transporters and permitted disposal facilities and conform to all laws.

Recycle to process, if possible.

Germany water class: VCI WGK: No products were found.

Methods of disposal; waste of residues; contaminated packaging:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

Proper Shipping Name: Non-Regulated, No dangerous cargo

DOT Hazard Class: Non-Regulated, No dangerous cargo

UN/NA ID: Non-Regulated, No dangerous cargo

Packing Group: Not Applicable

Labels: Not Regulated

Marine Pollutant: No

NAER Guidebook: Not Regulated

DOT Status: Not Regulated

Land-Road/Railway:

ADR/RID Class: No dangerous cargo

Sea:

IMDG Class: No dangerous cargo

Air:

IATA-DGR Class: No dangerous cargo

Section 15: Regulatory Information

TSCA: All components of this product are listed on the TSCA 8(b) inventory. If identified components of this product are listed under the TSCA 12(b) Export Notification Rule, they will be listed below.

TSCA 12(b) Component Listed under TSCA Section

SARA Title 3: Section 313 Information/Emissions Reporting (**40 CFR 372**):

Component Reporting Threshold

SARA-Section 311/312:

No components present in this product are subject to the reporting requirements of this statute.

CERCLA Hazardous Substances and their Reportable Quantities:

Component Reportable Quantity

EU Regulations: Risk Phrases: This product is not classified according to the EU regulations.

Safety Phrases: Not applicable

Contains: Not applicable

California Prop. 65:

Proposition 65 requires manufacturers or distributors of consumer products into the State of California to provide a warning statement if the product contains ingredients for which the State has found to cause cancer, birth defects or other reproductive harm. If this product contains an ingredient listed by the State of California to cause cancer or reproductive toxicity, it will be listed below:

None found

Section 16: Other Information

Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI

Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues of fluids.

The information and recommendations set forth above are taken from sources believed to be accurate as of the date hereof, however SPI Supplies and Structure Probe, Inc. make no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assume no liability to any user thereof. The information contained in this sheet does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. Be aware of the Structure Probe, Inc. [Copyright Policy](#). Structure Probe, Inc. grants a nonexclusive license to make unlimited copies of this safety sheet for internal use only. Quite obviously, this information would pertain only to this material when purchased from SPI Supplies as product from other sources, with other ingredients and impurity levels could have substantially different properties.

Thursday February 22, 2007

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Isobutylene Calibration Gas



SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI and Canadian WHMIS Standards

PART I What is the material and what do I need to know in an emergency?**1. PRODUCT IDENTIFICATION**

CHEMICAL NAME; CLASS:	NON-FLAMMABLE GAS MIXTURE
PRODUCT USE:	Document Number: 002103 For general analytical/synthetic chemical uses.
SUPPLIER/MANUFACTURER'S NAME:	AIRGAS INC.
ADDRESS:	259 North Radnor-Chester Road, Suite 100 Radnor, PA 19087-5283
BUSINESS PHONE:	1-610-687-5253
EMERGENCY PHONE:	1-800-949-7937
International:	1-423-479-0293
DATE OF PREPARATION:	April 22, 2001

2. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	mole %	EXPOSURE LIMITS IN AIR					
			ACGIH		OSHA		NIOSH IDLH ppm	OTHER ppm
			TLV ppm	STEL ppm	PEL ppm	STEL ppm		
Isobutylene	115-11-7	1 ppm - 1.7%	There are no specific exposure limits for Isobutylene. Isobutylene is a simple asphyxiant (SA). Oxygen levels should be maintained above 19.5%.					
Air	25635-88-5	Balance	There are no specific exposure limits applicable to Air.					
Air is a mixture of gases. The primary components of air, and the approximate concentration of each component, are listed below								
Nitrogen	7727-37-9	79%	There are no specific exposure limits for Nitrogen. Nitrogen is a simple asphyxiant (SA). Oxygen levels should be maintained above 19.5%.					
Oxygen	7782-44-7	21%	There are no specific exposure limits for Oxygen					

NE = Not Established. See Section 16 for Definitions of Terms Used.

NOTE (1): ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-1998 format. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a colorless, odorless, non-flammable gas. The main health hazards associated with releases of this gas are related to the high pressure within the cylinder. Air, the main component of this product, is generally considered non-flammable, however, Air will support combustion. The flammable component of this gas mixture is below the LEL. A cylinder rupture hazard exists when this product, which is under pressure, is subjected to heat or flames. Emergency responders must wear personal protective equipment appropriate for the situation to which they are responding.

SYMPTOMS OF OVER-EXPOSURE BY ROUTE OF EXPOSURE: The most significant route of over-exposure for air is by inhalation at elevated or reduced pressure.

INHALATION: This product is non-toxic. Air, the main component of this product, is necessary for life.

OTHER POTENTIAL HEALTH EFFECTS: Contact with rapidly expanding gases (which are released under high pressure) may cause frostbite. Symptoms of frostbite include change in skin color to white or grayish-yellow. The pain after contact with liquid can quickly subside.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in **Lay Terms**. Over-exposure to this product may cause the following health effects:

ACUTE: The most significant hazards associated with compressed air is the pressure hazard. Contact with rapidly expanding gases (which are released under high pressure) may cause frostbite. Symptoms of frostbite include change in skin color to white or grayish-yellow. The pain after contact with liquid can quickly subside.

CHRONIC: There are currently no known adverse health effects associated with chronic exposure to this gas.

TARGET ORGANS: ACUTE: Respiratory system under ambient low pressure conditions. Central nervous system under ambient high pressure conditions. CHRONIC: None expected.

PART II *What should I do if a hazardous situation occurs?*

4. FIRST-AID MEASURES

RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO THIS PRODUCT WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. At a minimum, Self-Contained Breathing Apparatus equipment should be worn.

Victim(s) must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take copy of label and SDS to physician or other health professional with victim(s). Remove victim(s) to fresh air, as quickly as possible. In case of eye contact which leads to irritation, immediately flush eyes with copious amounts of water for at least 15 minutes. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Only trained personnel should administer supplemental oxygen.

In case of frostbite, place the frostbitten part in warm water. DO NOT USE HOT WATER. If warm water is not available, or is impractical to use, wrap the affected parts gently in blankets. Alternatively, if the fingers or hands are frostbitten, place the affected area in the armpit. Encourage victim to gently exercise the affected part while being warmed. Seek immediate medical attention.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Acute or chronic respiratory conditions, as well as disorders involving the "Target Organs", as listed in Section 3 (Hazard Information), may be aggravated by overexposure to the components of this product.

RECOMMENDATIONS TO PHYSICIANS: Administer oxygen as soon as possible, following exposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Not applicable.

AUTOIGNITION TEMPERATURE: Not applicable.

FLAMMABLE LIMITS (in air by volume, %):

Lower (LEL): Not applicable.

Upper (UEL): Not applicable.

5. FIRE-FIGHTING MEASURES (Continued)

FIRE EXTINGUISHING MATERIALS: Non-flammable gas. Use extinguishing media appropriate for surrounding fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: When involved in a fire, this material may decompose and produce toxic gases including carbon monoxide and carbon dioxide. Additionally, when involved in fire, the cylinders may rupture.

Explosion Sensitivity to Mechanical Impact: Not Sensitive.

Explosion Sensitivity to Static Discharge: Not Sensitive.

SPECIAL FIRE-FIGHTING PROCEDURES: Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move fire-exposed cylinders from area, if it can be done without risk to fire-fighters. Withdraw immediately in case of rising sounds from venting pressure relief devices or any discoloration of tanks or cylinders due to a fire.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a release, clear the affected area, protect people, and respond with trained personnel. Minimum Personal Protective Equipment should be **Level D: safety glasses, and mechanically-resistant gloves. Level B, which includes the use of Self-Contained Breathing Apparatus, should be worn when oxygen levels are below 19.5% or are unknown.** Locate and seal the source of the leaking gas. If this does not stop the release (or if it is not possible to reach the valve), allow the gas to release in place or remove it to a safe area and allow the gas to be released there.

PART III *How can I prevent hazardous situations from occurring?*

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: Do not eat or drink while handling chemicals.

STORAGE AND HANDLING PRACTICES: Cylinders should be stored in dry, well-ventilated areas away from sources of heat. Compressed gases can present significant safety hazards. Store containers away from heavily trafficked areas and emergency exits.

SPECIAL PRECAUTIONS FOR HANDLING GAS CYLINDERS: Protect cylinders against physical damage. Store in cool, dry, well-ventilated, fireproof area, away from flammable or combustible materials and corrosive atmospheres. Store away from heat and ignition sources and out of direct sunlight. Do not store near elevators, corridors or loading docks. Do not allow area where cylinders are stored to exceed 52°C (125°F). Isolate from incompatible materials including flammable materials (see Section 10, Stability and Reactivity), which can burn violently. Use only storage containers and equipment (pipes, valves, fittings to relieve pressure, etc.) designed for the storage of Air. Do not store containers where they can come into contact with moisture. Cylinders should be stored upright and be firmly secured to prevent falling or being knocked over. Cylinders can be stored in the open, but in such cases, should be protected against extremes of weather and from the dampness of the ground to prevent rusting. Never tamper with pressure relief devices in valves and cylinders. The following rules are applicable to situations in which cylinders are being used:

Before Use: Move cylinders with a suitable hand-truck. Do not drag, slide or roll cylinders. Do not drop

cylinders or permit them to strike each other. Secure cylinders firmly. Leave the valve protection cap in-place until cylinder is ready for use.

During Use: Use designated CGA fittings and other support equipment. Do not use adapters. Do not heat cylinder by any means to increase the discharge rate of the product from the cylinder. Use check valve or trap in discharge line to prevent hazardous backflow into the cylinder. Do not use oils or grease on gas-handling fittings or equipment.

After Use: Close main cylinder valve. Replace valve protection cap. Mark empty cylinders "EMPTY".

NOTE: Use only DOT or ASME code containers. Earth-ground and bond all lines and equipment associated with this product. Close valve after each use and when empty. Cylinders must not be recharged except by or with the consent of owner. For additional information refer to the Compressed Gas Association Pamphlet P-1, *Safe Handling of Compressed Gases in Containers*. Additionally, refer to CGA Bulletin SB-2 "Oxygen Deficient Atmospheres".

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:

Follow practices indicated in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged out safely. Purge gas handling equipment with inert gas (i.e. nitrogen) before attempting repairs. Always use product in areas where adequate ventilation is provided.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation.

RESPIRATORY PROTECTION: Maintain Oxygen levels above 19.5% in the workplace. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Standard (29 CFR 1910.134), applicable U.S. State regulations, or the Canadian CSA Standard Z94.4-93 and applicable standards of Canadian Provinces. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).

EYE PROTECTION: Splash goggles, face-shields or safety glasses. If necessary, refer to U.S. OSHA 29 CFR 1910.133, or Canadian Standards.

HAND PROTECTION: Wear mechanically-resistant gloves when handling cylinders of this product. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

BODY PROTECTION: Use body protection appropriate for task. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR.

9. PHYSICAL and CHEMICAL PROPERTIES

The following information is for **Air**, the main component of this product, unless otherwise stated:

<u>RELATIVE VAPOR DENSITY:</u> 1	<u>EVAPORATION RATE</u> (nBuAc = 1): Not applicable.
<u>SPECIFIC GRAVITY:</u> Not applicable.	<u>FREEZING POINT:</u> -216.2°C (-357.2°F)
<u>SOLUBILITY IN WATER:</u> 1.49% (v/v)	<u>BOILING POINT @ 1 atmos:</u> -194.3°C(-317.8°F)
<u>VAPOR PRESSURE,</u> mmHg @ 20°C:.	<u>pH:</u> Not applicable.
<u>EXPANSION RATIO:</u> Not applicable.	<u>VAPOR PRESSURE:</u> Not applicable.
<u>SPECIFIC VOLUME:</u> 13.3 ft³/lb; (0.833 m³/kg)	<u>ODOR THRESHOLD:</u> Not applicable.
<u>COEFFICIENT WATER/OIL DISTRIBUTION:</u>	Not applicable.

The following information is pertinent to this gas mixture:

APPEARANCE, ODOR AND COLOR: This product is a colorless, odorless gas.

HOW TO DETECT THIS SUBSTANCE (warning properties): There are no distinctive properties to this product. In terms of leak detection, fittings and joints can be painted with a soap solution to detect leaks, which will be indicated by a bubble formation.

10. STABILITY and REACTIVITY

STABILITY: Normally stable.

DECOMPOSITION PRODUCTS: None known.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Air (the main component of this product) is not compatible with fuels, in that air will support combustion. The Isobutylene component of this mixture is incompatible with Strong oxidizers (e.g., chlorine, bromine pentafluoride, oxygen, oxygen difluoride, and nitrogen trifluoride).

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Contact with incompatible materials and exposure to heat, sparks and other sources of ignition. Cylinders exposed to high temperatures or direct flame can rupture or burst.

PART III *How can I prevent hazardous situations from occurring?*

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: The following toxicology data are for the components of this gas mixture present at a level greater than 1 mole %:

ISOBUTYLENE:

LC50 (Inhalation-Rat) 620 gm/m³/4 hours LC50 (Inhalation-Mouse) 415 gm/m³/2 hours

SUSPECTED CANCER AGENT: No component of this gas mixture is found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC, and therefore is not considered to be, nor suspected to be, cancer causing agents by these agencies.

IRRITANCY OF PRODUCT: Contact with rapidly expanding gases can cause frostbite and damage to exposed skin and eyes.

SENSITIZATION OF PRODUCT: No component of this product is a skin or respiratory sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this product and its components on the human reproductive system.

Mutagenicity: This product is not reported to cause mutagenic effects in humans.

Embryotoxicity: This product is not reported to cause embryotoxic effects in humans.

Teratogenicity: This product is not reported to cause teratogenic effects in humans.

Reproductive Toxicity: This product is not reported to cause adverse reproductive effects in humans.

A mutagen is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generation lines. An embryotoxin is a chemical which causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance which interferes in any way with the reproductive process.

BIOLOGICAL EXPOSURE INDICES: Biological Exposure Indices (BEIs) have been determined for the components of this product are as follows:

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL STABILITY: This gas will be dissipated rapidly in well-ventilated areas.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: No adverse effect is anticipated to occur to plant-life, except for frost produced in the presence of rapidly expanding gases.

EFFECT OF CHEMICAL ON AQUATIC LIFE: No evidence of an adverse effect of this product on aquatic life is currently available.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Product removed from cylinder must be disposed of in accordance with appropriate U.S. Federal, State and local regulations or with regulations of Canada and its Provinces. Return cylinders with residual product to Airgas, Inc. Do not dispose of locally.

14. TRANSPORTATION INFORMATION

THIS GAS MIXTURE IS HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME: Compressed gases, n.o.s. (Air, Isobutylene)
HAZARD CLASS NUMBER and DESCRIPTION: 2.2 (Compressed Gas)
UN IDENTIFICATION NUMBER: UN 1956
PACKING GROUP: Not Applicable
DOT LABEL(S) REQUIRED: Compressed Gas
NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2000): 126
TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This gas mixture is considered as dangerous goods, per regulations of Transport Canada. Use the above information for the preparation of Canadian Shipments.

15. REGULATORY INFORMATION

ADDITIONAL U.S. REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this gas mixture are not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for this material. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Not applicable.

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory.

OTHER U.S. FEDERAL REGULATIONS: Not applicable.

U.S. STATE REGULATORY INFORMATION: The components of this gas mixture are covered under specific State regulations, as denoted below:

Alaska - Designated Toxic and Hazardous Substances: None.

California - Permissible Exposure Limits for Chemical Contaminants: None.

Florida - Substance List: Isobutylene. **Illinois - Toxic Substance List**: None.

Kansas - Section 302/313 List: None.

Minnesota - List of Hazardous Substances: Isobutylene.

Massachusetts - Substance List: None.

Missouri - Employer Information/Toxic Substance List: None.

New Jersey - Right to Know Hazardous Substance List: Isobutylene.

North Dakota - List of Hazardous Chemicals, Reportable Quantities: None.

Pennsylvania - Hazardous Substance List: Isobutylene.

Rhode Island - Hazardous Substance List: None.

Texas - Hazardous Substance List: None.

West Virginia - Hazardous Substance List: None.

Wisconsin - Toxic and Hazardous Substances: None.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): No component of this product is on the California Proposition 65 Lists.

LABELING: CAUTION: HIGH PRESSURE GAS.
MAY ACCELERATE COMBUSTION.
Keep oil and grease away.
Use equipment rated for cylinder pressure.
Close valve after each use and when empty.
Use in accordance with the Material Safety Data Sheet.

FIRST-AID: **IF INHALED**, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
IN CASE OF FROSTBITE, obtain immediate medical attention.
DO NOT REMOVE THIS PRODUCT LABEL.

ADDITIONAL CANADIAN REGULATIONS:

CANADIAN DSL INVENTORY: The components of this product are listed on the DSL Inventory.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES

LISTS: The components of this product are not on the CEPA Priorities Substances Lists.

CANADIAN WHMIS SYMBOLS: **Class A**: Compressed Gases

16. OTHER INFORMATION

PREPARED BY: CHEMICAL SAFETY ASSOCIATES, Inc.
9163 Chesapeake Drive, San Diego, CA 92123-1002
858/565-0302

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. AirGas, Inc. assumes no responsibility for injury to the vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, AirGas, Inc. assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.

DEFINITIONS OF TERMS

A large number of abbreviations and acronyms appear on a SDS. Some of these which are commonly used include the following:

CAS #: This is the Chemical Abstract Service Number which uniquely identifies each constituent.

EXPOSURE LIMITS IN AIR:

ACGIH - American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits. **TLV** - Threshold Limit Value - an airborne concentration of a substance which represents conditions under which it is generally believed that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour Time Weighted Average (**TWA**), the 15-minute Short Term Exposure Limit, and the instantaneous Ceiling Level (**C**). Skin absorption effects must also be considered.

OSHA - U.S. Occupational Safety and Health Administration. **PEL** - Permissible Exposure Limit - This exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA

Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (Federal Register: 58: 35338-35351 and 58: 40191). Both the current PELs and the vacated PELs are

indicated. The phrase, "Vacated 1989 PEL," is placed next to the PEL which was vacated by Court Order.

IDLH - Immediately Dangerous to Life and Health - This level represents a concentration from which one can escape within 30- minutes without suffering escape-preventing or permanent injury. **The DFG - MAK** is the Republic of Germany's Maximum Exposure Level, similar to the U.S. PEL. **NIOSH** is the National Institute of Occupational Safety and Health, which is the research arm of the U.S. **Occupational Safety and Health Administration (OSHA)**. NIOSH issues exposure guidelines called **Recommended Exposure Levels (RELs)**. When no exposure guidelines are established, an entry of **NE** is made for reference.

HAZARD RATINGS:

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: Health Hazard: **0** (minimal acute or chronic exposure hazard); **1** (slight acute or chronic exposure hazard); **2** (moderate acute or significant chronic exposure hazard); **3** (severe acute exposure hazard; onetime overexposure can result in permanent injury and may be fatal); **4** (extreme acute exposure hazard; onetime overexposure can be fatal). Flammability Hazard: **0** (minimal hazard); **1** (materials that require substantial pre-heating before burning); **2** (combustible liquid or solids; liquids with a flash point of 38-93 ☐ **200** ☐ **100** ☒ **3** (Class IB and IC flammable liquids with flash points below 38 ☐ **C** ☐ **100** ☒ **4** (Class IA flammable liquids with flash points below 23 ☐ **100** ☐ below 38 ☐ **0** (normally stable); **1** (material that can become

below 38 °C (normally stable); **1** (material that can become unstable at elevated temperatures or which can react slightly with water); **2** (materials that are unstable but do not detonate or which can react violently with water); **3** (materials that can detonate when initiated or which can react explosively with water); **4** (materials that can detonate at normal temperatures or pressures). **PERSONAL PROTECTIVE EQUIPMENT CODES: B:** Gloves and goggles; **C:** Gloves, goggles, rubber apron (appropriate body protection); **D:** Gloves, goggles, faceshield; rubber apron (appropriate body protection);. **X:** Special attention should be given to PPE Selection.

NATIONAL FIRE PROTECTION ASSOCIATION: Health Hazard: **0** (material that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials); **1** (materials that on exposure under fire conditions could cause irritation or minor residual injury); **2** (materials that on intense or continued exposure under fire conditions could cause temporary incapacitation or possible residual injury); **3** (materials that can on short exposure could cause serious temporary or residual injury); **4** (materials that under very short exposure could cause death or major residual injury). Flammability Hazard and Reactivity Hazard: Refer to definitions for “Hazardous Materials Identification System”.

FLAMMABILITY LIMITS IN AIR:

Much of the information related to fire and explosion is derived from the National Fire Protection Association (**NFPA**). Flash Point – Minimum temperature at which a liquid gives off sufficient vapors to form an ignitable mixture with air. Autoignition Temperature: The minimum temperature required to initiate combustion in air with no other source of ignition. LEL - the lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source. UEL – the highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

TOXICOLOGICAL INFORMATION:

Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. Definitions of some terms used in this section are: **LD50** - Lethal Dose (solids & liquids) which kills 50% of the exposed animals; **LC50** – Lethal

Concentration (gases) which kills 50% of the exposed animals; **ppm** concentration expressed in parts of material per million parts of air or water; **mg/m³** concentration expressed in weight of substance per volume of air; **mg/kg** quantity of material, by weight, administered to a test subject, based on their body weight in kg. Data from several sources are used to evaluate the cancer-causing potential of the material. The sources are: **IARC** - the International Agency for Research on Cancer; **NTP** - the National Toxicology Program, **RTECS** - the Registry of Toxic Effects of Chemical Substances, **OSHA** and **CAL/OSHA**. IARC and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. Other measures of toxicity include **TDLo**, the lowest dose to cause a symptom and **TCLo** the lowest concentration to cause a symptom; **TDo**, **LDLo**, and **LDo**, or **TC**, **TCo**, **LCLo**, and **LCo**, the lowest dose (or concentration) to cause lethal or toxic effects. **BEI** - Biological Exposure Indices, represent the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV. Ecological Information: EC is the effect concentration in water.

REGULATORY INFORMATION:

This section explains the impact of various laws and regulations on the material. **EPA** is the U.S. Environmental Protection Agency. **WHMIS** is the Canadian Workplace Hazardous Materials Information System. **DOT** and **TC** are the U.S. Department of Transportation and the Transport Canada, respectively. Superfund Amendments and Reauthorization Act (**SARA**); the Canadian Domestic/Non-Domestic Substances List (**DSL/NDSL**); the U.S. Toxic Substance Control Act (**TSCA**); Marine Pollutant status according to the **DOT**; the Comprehensive Environmental Response, Compensation, and Liability Act (**CERCLA or Superfund**); and various state regulations.

Appendix D

Utility Checklist

Americas

Underground Utility and Subsurface Installation Clearance Checklist

S3NA-417-FM2

Location:		Project #:
Contractor:		Client:
Date:	Time:	Weather:
Inspector:		Project Manager:

Notes:

Questions must be answered prior to any intrusive subsurface work. DO NOT DISTURB GROUND if you have answered "No" or "N/A" to any of the questions without the approval of the AECOM Project Manager.
Any variance from these procedures must be approved by the District General Manager or District SH&E Manager.

	Yes	No	N/A
I. Permits and Access Agreements			
1. Have all appropriate permits been identified and obtained (e.g., drilling, encroachment, working near railroads, etc.)?	☐	☐	☐
2. Have all client requirements, including client permits been identified and obtained?	☐	☐	☐
3. If working off-site is(are) site access agreement(s) executed?	☐	☐	☐
II. General Health and Safety			
1. Has a Health and Safety Plan been prepared for AECOM employees?	☐	☐	☐
2. Do on-site personnel have required-level PPE?	☐	☐	☐
3. Do on-site personnel have required-level of training?	☐	☐	☐
III. Identification and Mapping of Utility and Subsurface Structures			
1. Is a Site Plan showing the proposed subsurface locations and utility locations attached to this check list?	☐	☐	☐
2. Have utilities and subsurface installations been investigated as being present, including the following:	☐	☐	☐
a. Steam, gas and electric?	☐	☐	☐
b. Sewer and water?	☐	☐	☐
c. Subterranean tunnels?	☐	☐	☐
d. Fiber optics (Note routine utility geophysical survey will not identify fiber optic cables)?	☐	☐	☐
e. Traffic control cables?	☐	☐	☐
f. Others (identify)?	☐	☐	☐
3. Have all Federal/State/Provincial/Territorial and other "One Call" providers marked their facilities or otherwise notified they do not have any facilities near the proposed subsurface/intrusive locations?	☐	☐	☐
4. Has the Federal/State/Provincial/Territorial or other "One Call" provider identified what utilities and underground structures are <u>not</u> included in their provider system (e.g., non-utility underground structures)?	☐	☐	☐

Questions must be answered prior to any intrusive subsurface work. DO NOT DISTURB GROUND if you have answered "No" or "N/A" to any of the questions without the approval of the AECOM Project Manager.

Any variance from these procedures must be approved by the District General Manager or District SH&E Manager.

	Yes	No	N/A
5. Has a utility locating contractor performed geophysical and/or other surveys of the proposed subsurface/intrusive locations?	☐	☐	☐
6. Were all circuits on during subsurface checks if the checks were for identifying energized lines (e.g., circuits on timers or light sensing switches)?	☐	☐	☐
7. Are overhead utilities or obstructions present that may prevent the safe operation of drilling/excavation equipment and, if present, has the AECOM Overhead Electrical Line Acknowledgement Form been signed?	☐	☐	☐
8. Was there visual verification that each of the proposed locations does not lie on a line connecting two similar manhole covers (e.g., sanitary sewer or storm drain)?	☐	☐	☐
9. Was there visual verification that the ground in the vicinity of each of the proposed subsurface locations has not subsided, been excavated and patched, give the appearance it may be covering a former trench (e.g., linear cracks, sagging curbs, linear re-pavements) and do not lie on a line with any water, gas, electrical meters, utility cleanouts, or other utility boxes in the surrounding areas?	☐	☐	☐
IV. Site Walk			
1. Has a site walk been performed that includes the following:	☐	☐	☐
a. Reviewing all planned intrusive locations?	☐	☐	☐
b. Adjusting locations away from subsurface utilities and installations?	☐	☐	☐
c. Determining the appropriate utility clearance activities for each location?	☐	☐	☐
d. Determining the presence and location of overhead utilities and obstructions?	☐	☐	☐
e. Walk around perimeter of the site to observe physical hazards?	☐	☐	☐
f. Walk around 50 feet (15 meters) from perimeter of the site to observe physical hazards?	☐	☐	☐
g. Walk around 50 feet (15 meters) radius from each proposed subsurface intrusion location?	☐	☐	☐
V. Proposed Subsurface Investigation Locations*			
1. Are all of the proposed subsurface locations at least 5 feet (1.5 meters) from any subsurface utility?	☐	☐	☐
2. Are all of the proposed subsurface locations at least 7 feet (2.1 meters) from the pad surrounding any underground storage tanks (USTs) shown on the Site Plan?	☐	☐	☐
3. Are all of the proposed subsurface locations at least 5 feet (1.5 meters) from any subsurface utilities shown on the Public Right-of-Way street improvements?	☐	☐	☐
4. Are all proposed subsurface locations requiring a drill rig for installation at least 10 feet (3 meters) from any energized overhead power line (or further based on line voltage)?	☐	☐	☐
5. Are all of the proposed subsurface locations at least 5 feet (1.5 meters) from any subsurface utilities identified during any geophysical survey performed using ground-penetrating radar (GPR) in conjunction with other technology?	☐	☐	☐
* These set back distances are a minimum; government regulations and utility requirements may dictate a greater set back distance.			

Questions must be answered prior to any intrusive subsurface work. DO NOT DISTURB GROUND if you have answered "No" or "N/A" to any of the questions without the approval of the AECOM Project Manager.

Any variance from these procedures must be approved by the District General Manager or District SH&E Manager.

	Yes	No	N/A
VI. Utility Clearance Investigation Location Confirmation*			
1. Have subsurface locations been hand cleared as follows? Hand clearance should be extended if locations of deep utilities and structures are not known. In non-urban areas hand clearing should be conducted if possible.	☐	☐	☐
a. For soil borings/monitoring wells excavate to a minimum of 5 feet (1.5 meters) below ground surface using non-mechanical methods.	☐	☐	☐
b. For soil gas sampling excavated to 1 foot (0.3 meter) below grade or below the bottom of a concrete floor prior to the installation of soil gas sample probe points?	☐	☐	☐
* Exceptions to requirements of the utility clearance process include the following: sites where extensive utility mapping has been completed and/or where extensive activities have already been performed; locations where facility layout is well documented and understood; and sites or portions of large sites where utilities are known not to exist currently or to not have ever existed throughout the life of the facility, property or site.			

Appendix E

Supervisor's Report of Incident

Supervisor's Report of Incident

1. Seek immediate medical attention if necessary.
2. Employee must report **all** incidents to their supervisor **immediately**.
3. Supervisor calls the Incident, Injury and Near Miss Reporting Line at **(800) 348-5046**.

Section 1 - Organization Information

Region: ☐ West ☐ Midwest ☐ Southwest/Mountain ☐ Southeast ☐ Mid-Atlantic ☐ Northeast	District:	Section/Dept Number:
Business Line: ☐ Infrastructure-Water ☐ Infrastructure-Transportation ☐ Infrastructure-Energy & Power ☐ PDD-Facilities ☐ PDD-Design ☐ Environmental		Office Name:
Client Name:		Project Number:
Project Name:		

Section 2 - Type of Incident (SRI Sections to be Completed)

☐ Injury/ illness (Sections 3, 4, and 7)	☐ Vehicle Incident (Sections 3, 4, 5, and 7)	☐ Property Damage (Sections 3, 4, 6 and 7)	☐ Environmental Spill/Release ☐ (Sections 3, 4, and 7)
☐ Regulatory Inspection or Notification: (Sections 3, 4,7)			☐ Other (describe)

Section 3 – Contact/Incident Information

Employee/Claimant Name:		Employee Job Title:	☐ Full-Time Employee ☐ Subcontractor/Subconsultant ☐ Temp Agency Employee ☐ Part-Time Employee ☐ Third Party Employee
Work Phone:	Cell Phone:	Home Phone:	Employee Number:
Date/Time of Incident:		Date/Time Reported to Supervisor:	
Street Address of Incident or approximately:		City:	State/Zip:

Section 4 - Descriptions of Incident (employee, supervisor and witness statements)

Supervisor Description of Incident: (Supervisor signs in Section 7)

August 2015

Witness Description of the Incident: (use additional paper if necessary)	
Witness Signature:	Date and time:

Section 5 - Vehicle Incident Information (fill out for motor vehicle incidents only)

5a - AECOM Driver Name:		Drivers License #:	State Issued:	Expiration Date:	
Vehicle Year:	Make:	Model:	Color:	License Plate:	State:
VIN Number:					
<u>AECOM Vehicle was:</u>		☐ AECOM Owned ☐ Rented ☐ Leased ☐ Personal Vehicle		<u>Who was involved?</u>	
☐ AECOM Vehicle(Section 5a) ☐ Another Vehicle(Section 5b)		☐ Pedestrian ☐ Property			
Use of Vehicle at Time of Incident: ☐ Office Visit ☐ Site Visit ☐ Client Meetings ☐ Field Work ☐ Personal ☐ Other _____				Vehicle Type: ☐ Commercial Motor Vehicle ☐ Non Commercial Motor Vehicle	
5b - Name of Other Driver:		Address:		City:	State/Zip:
Work Phone:			Cell Phone:		
Date of Birth:	Drivers License #:		State Issued:	Expiration Date:	
Vehicle Year:	Make:	Model:	Color:	License Plate:	State:
VIN Number, Insurance Company Name, Insurance Policy Number:					
If <i>Vehicle Owner</i> is different from driver then complete owner's contact information			Owner Name:		

	Address, City, State, Zip:	
	Work Phone:	Cell Phone:
Authorities contacted? ☐ Yes ☐ No	If so, who responded?	
Citations Issued? ☐ Yes ☐ No	Type of Citation:	Person Cited:

Section 6 - General Liability *(Fill out for property damage only)*

Description of damaged property:	
Where can the property be seen?	
Property Owner Name:	
Address, City, State, Zip:	
Work Phone:	Cell Phone:

Section 7- Signatures***Supervisor***

Print Name:	Signature:	Date:	Telephone:
-------------	------------	-------	------------

Office/Location Manager

Print Name:	Signature:	Date:	Telephone:
-------------	------------	-------	------------

Regional SH&E Manager

Print Name:	Signature:	Date:	Telephone:
Comments:			

Attention: This form must be completed and forward to the Regional SH&E Manager within one (1) business day following the occurrence of the incident.

Appendix D

Community Air Monitoring Plan



Submitted to:
National Grid
Hicksville, New York

Submitted by:
AECOM
New York, New York

Community Air Monitoring Plan (Appendix D of ISMP)

**Former Inwood Gas Holder Site
Nassau County, New York
NYSDEC Site Code: 130121**

June 2014

Contents

1.0 Introduction	1-1
2.0 Constituents of concern and action levels.....	2-1
3.0 Air monitoring equipment and methods.....	3-1
3.1 Volatile organic compounds and benzene monitoring	3-1
3.1.1 Ambient air monitoring	3-1
3.2 Particulate (dust) monitoring	3-1
4.0 Emission control plan	4-1
4.1 Ambient air.....	4-1
5.0 Odor control procedures.....	5-1
5.1 Potential sources of odors.....	5-1
5.2 Odor monitoring.....	5-1
5.3 General site controls	5-1
5.4 Secondary site controls	5-2
5.5 Record keeping and communication	5-2
6.0 Documentation and reporting.....	6-1

List of Appendices

Appendix A Vapor Suppression Information

List of Tables

Table 1 Vapor Emission Response Chart.....	4-2
Table 2 Emergency Contacts and Telephone Numbers	4-3

1.0 Introduction

This document provides the Community Air Monitoring Plan (CAMP) that will be implemented during any site activities covered under the Interim Site Management Plan [(ISMP); AECOM, June 2014] for the Former Inwood Gas Holder Site (site) located in the Inwood, Nassau County, New York. This CAMP has been prepared by AECOM Environment (AECOM) on behalf of National Grid to present the methods and procedures that will be used to evaluate air quality in the immediate vicinity of subsurface activities and provide protection to potential off-site receptors.

The objectives of this CAMP are to:

- Ensure that the airborne concentrations of constituents of concern (COC) are minimized to protect human health and the environment
- Provide an early warning system so that potential emissions can be controlled on-site at the source
- Measure and document the concentrations of airborne COC to confirm compliance with regulatory limits

The community air monitoring will be performed around the local work zone perimeter, and will measure the concentrations of organic vapors and dust during all ground-intrusive activities (soil boring, well installations, excavations, utility work, and test pitting).

This CAMP is Appendix D of the ISMP, is directed primarily toward protection of on-site workers within the designated work zones.

2.0 Constituents of concern and action levels

The site areas potentially have residual subsurface contamination dating from the site's historical use as a Holder facility. The constituents of concern are volatile and semi-volatile organic compounds (VOCs and SVOCs). The primary VOCs of concern are benzene, ethylbenzene, toluene, and xylene (BTEX compounds). VOCs are more volatile than SVOCs and are generally of greater concern when monitoring the air quality during subsurface activities.

Airborne dust is also a concern and must be monitored and controlled due to its ability to co-transport adsorbed constituents and because of its nuisance properties.

Odors, though not necessarily indicative of high constituent concentrations, could create a nuisance (especially when working within or in close proximity to existing buildings and building entrances) and will be monitored and controlled to the extent practicable.

State and federal regulatory agencies have provided action levels for many of these constituents. The action levels are the allowable airborne concentrations above which respiratory protection or other health and safety controls are required. For any subsurface work covered under the SMP, the following levels should not be exceeded for more than 15 consecutive minutes at the downwind perimeter of the project site:

- Benzene 1 part per million (ppm)
- Total VOCs 5 ppm
- Dust 100 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

The action levels cited here are above (in addition to) the background ambient (upwind) concentration.

3.0 Air monitoring equipment and methods

Air quality monitoring will be performed for total VOCs, benzene, and dust as outlined below.

Two perimeter locations will be established each day and an air monitoring technician will check the instrumentation at each of these locations frequently during the work. Typically there will be monitoring locations at one upwind project site perimeter location and one downwind perimeter location. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. Field personnel will be prepared to monitor multiple locations in the event that there is little wind or if the wind direction changes frequently.

The monitoring instruments will be calibrated at the start of each workday, and again during the day if the performance of an instrument is in question.

3.1 Volatile organic compounds and benzene monitoring

3.1.1 Ambient air monitoring

VOC monitoring will be performed using three field photoionization detectors (PIDs) (RAE Systems MiniRAE or equivalent). The monitoring instruments will be checked by a technician every 15 minutes, and the real-time measurements recorded. The PIDs will be equipped with an audible alarm to indicate exceedance of the action level.

A 15-minute running average concentrations will be calculated, which can then be compared to the action levels. If real-time measurements of total VOCs indicate that the action level is exceeded, the benzene concentration will also be determined at that location using benzene-specific colorimetric tubes. The data will be downloaded at the end of each day, and monitoring records will be kept at the project site during the work in case there is an inquiry or complaint.

PID measurements will be made at one upwind and one downwind location around the work area. The locations of the instruments may be changed during the day to adapt to changing wind directions.

3.2 Particulate (dust) monitoring

Particulate (dust) monitoring will be performed during intrusive activity (drilling, excavation) at the project site. Two particulate monitors (TSI DustTrak or equivalent) will be used for continuous real-time dust monitoring. The monitoring instruments will be checked by a technician every 15 minutes, and the real-time measurements recorded. A 15-minute average concentration will be determined. The data will be downloaded at the end of each day, and monitoring records will be kept at the project site during the work in case there is an inquiry or complaint.

Measurements will be made at one upwind and one downwind location around the work area. The locations of the instruments may be changed during the day to adapt to changing wind directions. In addition, fugitive dust migration will be visually assessed during all work activities, and the observations recorded.

4.0 Emission control plan

4.1 Ambient air

Odor, vapor, and dust control will be required for this project due to the close proximity of commercial buildings and public roadways and sidewalks. Table 1 provides a response chart for the monitoring and control of vapor emissions. Table 2 provides a list of emergency contacts.

- If the ambient air concentration of total VOC levels at the downwind perimeter of the work area or exclusion zone exceeds 5 ppm (or the benzene level exceeds 1 ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor levels readily decreases (per instantaneous readings) below 5 ppm (and the benzene level drops below 1 ppm) over background, work activities can resume with continued monitoring.
- If total VOC levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm (or the benzene level persists over 1 ppm) over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions until the concentrations drop below the action levels, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown.

Project site perimeter particulate concentrations will also be monitored continuously. In addition, dust migration will be visually assessed during all work activities.

- If the downwind particulate level is $100 \mu\text{g}/\text{m}^3$ greater than the background (upwind perimeter) level for a 15-minute period, or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work may continue with dust suppression techniques provided that downwind particulate levels do not exceed $150 \mu\text{g}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind particulate levels are greater than $150 \mu\text{g}/\text{m}^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind particulate concentration to within $150 \mu\text{g}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

Typical emission control measures may include:

- Apply water for dust suppression;
- Relocate operations, if applicable; and
- Reassess the existing control measures.

Table 1 Vapor Emission Response Chart

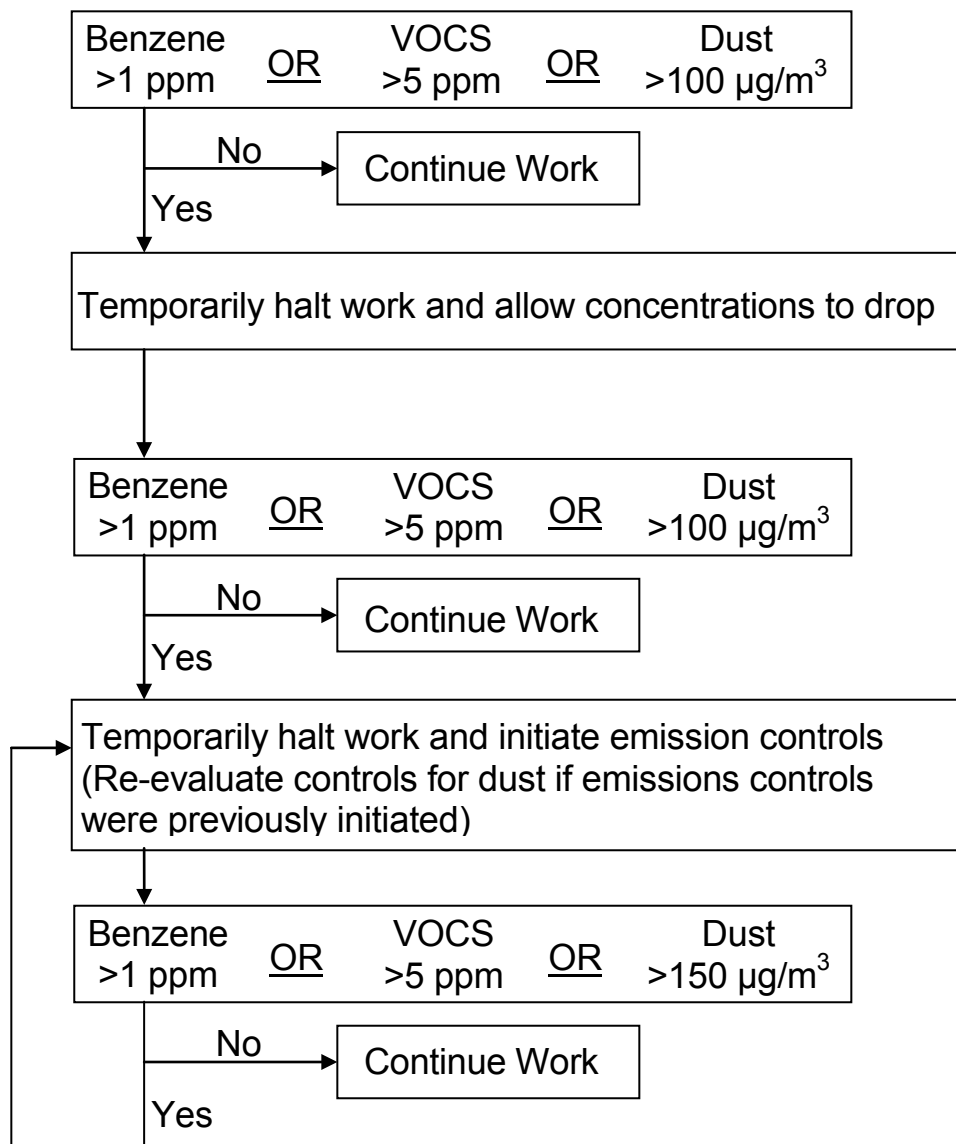


Table 2 Emergency Contacts and Telephone Numbers

Fire:	911	
Police:	911	
Ambulance:	911	
AECOM Environment Contacts	Shail Pandya	(718) 309-5643 cell (212) 798-8513 off
National Grid Contacts	Melissa Reindl	(516) 779-8035 cell (516) 545-3551 off

5.0 Odor control procedures

This section outlines the procedures to be used to control odors that may be generated during the subsurface activities. The remainder of this section is intended to provide site managers, representatives of NYSDEC and New York State Department of Health (NYSDOH), and the public with information summarizing typical odor control options, and to provide some guidance for their implementation. A description of potential sources of odors and methods to be used for odor control is presented in the following sections.

5.1 Potential sources of odors

Generally, the residuals encountered at the Site areas are well defined. They are related to residual coal tar-like materials and petroleum, and principally contain VOCs, polynuclear aromatic hydrocarbons (PAHs), and a number of inorganic constituents, including metal-complexed cyanide compounds, and metals. Constituents of residual materials can produce odor emissions during subsurface activities when they are unearthed during excavations and soil borings/well installations. When this occurs, VOCs and light-end SVOCs can volatilize into the ambient air. Some Site residuals can cause distinctive odors that are similar to mothballs, roofing tar, or asphalt driveway sealer. However, the constituent concentrations generally associated with these odors are typically significantly less than levels that might pose a potential health risk. It is important to note that the CAMP will provide for continual monitoring of VOCs and dust during the fieldwork to monitor for any potential release of constituents which may pose a threat to health.

5.2 Odor monitoring

The field personnel will record observations of odors generated during the implementation of the subsurface work. When odors attributable to the uncovering of impacted media are generated in the work area during intrusive activities such as soil borings or excavation, observations will also be made at the down-wind limit of the Site, in order to assess the potential for off-site odors. The down-wind odor monitoring will be performed in conjunction with the vapor and dust monitoring program described in this CAMP.

Upon detection of odors at the project site perimeter, site controls, starting in the work area, will be implemented. The site controls described in the following sections will be used to assist with odor mitigation to minimize, and to prevent where practicable, the off-site migration of odors. Due to the short distances between any work area at the project site and the property line or nearby potential receptors, site controls will be implemented proactively when odors are detected in the breathing zone at any work area.

5.3 General site controls

Several general excavation or drilling procedure site controls that will be implemented include:

- Every effort will be made to minimize the amount of time that impacted material is exposed to ambient air at the project site.
- For excavations, it may be possible to move some amount of soil around within the footprint of the excavation in order to minimize the amount of soil removal and subsequent stockpiling of impacted soil at the ground surface. The use of in-excavation stockpiling of excavated soil will be evaluated on a case-by-case basis, and will only be performed with the approval of the

NYSDEC field representative, and will be completed only if it does not impede the collection of subsurface soils or the full delineation of the subsurface features being investigated.

- Drill cuttings from the soil borings will be containerized as soon as possible during completion of each soil boring.
- Loading of excavated debris or soil that has been found by the Site manager to be unsuitable material to return to excavation may generate odors. Every effort will be made to complete this work as quickly as possible and to keep these materials covered at all times.
- Meteorological conditions are also a factor in the generation and migration of odors. Some project site activities may be limited to times when specific meteorological conditions prevail, such as when winds are blowing away from a specific receptor.

5.4 Secondary site controls

If substantial odors still present an issue following implementation of the above procedures, secondary controls will be enacted. The field representative will work through the applicable list of secondary controls until the perimeter odor issues are resolved. The field representative will work closely with National Grid and NYSDEC during this task, if present. Final selection of controls will be dependent on field conditions encountered. Secondary controls include the following:

- For stockpiled impacted soil, temporary tarps or polyethylene covers will be used to control odors.
- The placement of portable barriers close to small active source areas (excavations) can elevate the discharge point of emissions to facilitate dispersion and minimize the effect on downwind receptors. The barriers can be constructed using materials such as plastic “Jersey barriers”, or fence poles and visual barrier fabric/plastic. The barriers are placed as temporary two or three-sided structures around active excavation or other intrusive areas, oriented such that the barriers are placed on the upwind and downwind sides of the source. If only one side of the source can be accessed, then the barrier should be placed on the downwind side.
- Two agents that can be sprayed over impacted soil have been determined to be effective in controlling emissions. They include odor suppressant solution (BioSolve™), and hydro-mulch. These agents may be used where tarps cannot be effectively deployed over the source material, or where tarps are ineffective in controlling odors:
 - BioSolve™ can provide immediate, localized control of odor emissions. Information regarding the preparation and use of BioSolve™ is provided in Appendix A.
 - Hydromulch - Although it is unlikely that it will be necessary, a modified hydromulch slurry may be used to cover inactive sources for extended periods of time (up to several days). The hydromulch, typically cellulose fibers (HydroSealR) is modified by mixing a tackifier (glue) with the mulch and water to form a slurry. It is applied using a standard hydroseed applicator to a thickness of ¼ inch. The material forms a sticky, cohesive, and somewhat flexible cover. Reapplication may be necessary if the applied layer becomes desiccated or begins to crack.

5.5 Record keeping and communication

Similar to readings recorded during the monitoring specified in the CAMP, all odor monitoring results will be recorded in the field log book or other air monitoring forms, and be available for review by the agencies upon request.

The field representative, in consultation with National Grid, will also provide information on odor monitoring and odor management to residents of the neighborhood should they inquire. In the event that odors persist after these efforts, work will be temporarily discontinued until a mutually agreeable solution with National Grid, NYSDEC, and NYSDOH staff can be worked out which allows the work to be completed while minimizing the off-site transport of nuisance odors.

6.0 Documentation and reporting

Data generated during perimeter air monitoring will be recorded in field logs and summarized daily in spreadsheets. The electronic measurements from the PIDs and dust meters will be downloaded each day, reviewed, and archived. Exceedances of the action levels, if any, and the actions to be taken to mitigate the situations, will be discussed immediately with the on-site representatives. Summaries of all air monitoring data will be provided to NYSDEC and NYSDOH in electronic format, as requested.

Appendix A

Vapor Suppression Information



VAPOR SUPPRESSION / ODOR CONTROL

BioSolve® offers a relatively simple and cost effective method of suppressing Odors and VOC release from soils, during excavation, loading, stockpiling, etc. The following guidelines will apply to the most common situations encountered on site.

In most cases a 3% BSW solution (1 part **BioSolve®** concentrate to 33 parts water) will be adequate to keep vapor emissions within acceptable limits and control fugitive odor problems on contact. Although, some sites may only require a 2% solution, up to a 6% solution may be recommended on sites with elevated levels or particularly difficult/ mixed stream contaminants are present.

The **BioSolve®** solution should be applied evenly to the soil surface in sufficient quantity to saturate the surface area. As a general rule, use 1-3 litres of **BioSolve®** solution to 1 square metre of surface area. (1 gallon of **BioSolve®** per solution will cover approximately 4-sq. yd. of soil surface area) **BioSolve®** is a water-based surfactant that will apply like water.

BioSolve®, in its concentrated form, is a viscous liquid material that must be diluted with water. A fluorescent red tracing dye is present in the formula allowing **BioSolve®** to be detected during application. Once diluted, **BioSolve®** can be applied with virtually any equipment that can spray water. **BioSolve®** will not harm equipment or clog pipes. For large sites, applicators such as water truck, portable agricultural sprayers, foam inductors & pressure sprayers can be used. For smaller jobs, garden sprayers, water extinguishers or a garden hose with a fertiliser attachment on the nozzle can be used effectively. This characteristic makes **BioSolve®** very adaptable and much most convenient to use in almost any situation. **BioSolve®** is equally effective when used with all types of water (soft, hard, salt or potable).

On stockpiled soil or other soil that will be left undisturbed, a single application of **BioSolve®** to the exposed surfaces may last up to 10 to 14 days or more (depending on environmental conditions). **BioSolve®**, when applied, will form a "cap" of clean soil. If the soil is not disturbed, via weather, movement, etc. this "cap" will remain functional. During excavation, loading or other movement of the soil, it may be required to spray an additional amount of **BioSolve®** to the freshly exposed surface area to keep emissions at an acceptable level.

In case of an extremely high level of emissions, or if the soil is heavily contaminated, it may be necessary to increase the strength of the **BioSolve®** solution or apply more solution per square metre to reduce emissions adequately. It is important that the site be monitored regularly and that the **BioSolve®** solution be reapplied if and when necessary to insure that VOC emissions and odors remain under control.

BioSolve® is packaged and readily available in 55 gallon (208 liter) drums, 5 gallon (19 liter) pails and in 4X1 gallon (3.8 liter X 4) cases. Contact The Westford Chemical Corporation® Toll Free @ 1-800-225-3909, via e-mail at info@biosolve.com or your Local BioSolve distributor for pricing.

BioSolve® should only be used in accordance with all regulatory rules and regulations.

This material is made available or use by professionals or persons having technical skill to be used at the own discretion and risk. These protocols are guidelines only and may need to be modified to site specific conditions. Nothing included herein is a warrantee or to be taken as a license to use **BioSolve** without the proper permits, approvals, etc. of the appropriate regulatory agencies, nor are the protocols provided as instructions for any specific application of **BioSolve**.



SOIL VAPOR SUPPRESSION UTILIZING BIOSOLVE

BioSolve is being utilized by numerous environmental consultants, response contractors, and fire departments to suppress VOC's & LEL's as well as problem odors. BioSolve encapsulates the source of the vapor rather than temporarily blanketing it like a foam or other physical barrier. Vapor reduction is so fast and effective that BioSolve is used to comply with the tough emission standards regulated by each State.

BioSolve offers a relatively simple and cost effective method of suppressing VOC vapor release from soils during excavation, loading, stockpiling... The following guidelines will apply to the most common situations encountered on site.

In most cases a 3% solution of BioSolve will be adequate to keep vapor emissions within acceptable limits. Dilute BioSolve concentrate with water at a ratio of 1 part BioSolve to 33 parts water to make a 3% solution.

The BioSolve solution should be applied evenly to the soil surface in sufficient quantity to dampen the surface well, (as a general rule, 1 gallon of BioSolve solution will cover approximately 4 sq. yd. of soil surface area). BioSolve is not a foam, it is a surfactant based product that will apply like water. The solution may be applied with a hand sprayer, high pressure power sprayer, water truck, etc., whichever method best suits the site and/or conditions.

NOTE: In the case of extremely high emission levels and/or very porous soil it may be necessary to increase the strength of the BioSolve solution (6%) or apply more per sq. yd. to reduce emissions adequately. On stockpiled soil or other soil that will be undisturbed, a single application of BioSolve to the exposed surfaces may last 10-14 days or more. During excavation, loading, or other movement of soil it may be necessary or required to spray each freshly exposed surface to keep emissions below acceptable

levels. It is important that the site be monitored regularly and the BioSolve solution be reapplied if/when necessary to insure that vapor emissions remain at or below acceptable standards.

MATERIAL SAFETY DATA SHEET

THE WESTFORD CHEMICAL CORPORATION®

P.O. Box 798

Westford, Massachusetts 01886 USA

Ref. No.: 2001

Date: 1/1/2002

Phone: (978) 392-0689

Phone: (508) 878-5895

Emergency Phone-24 Hours: 1-800-225-3909

Fax: (978) 692-3487

Web Site: <http://www.BioSolve.com>

E-Mail: info@BioSolve.com

SECTION I - IDENTITY

Name: **BioSolve®**
CAS #: 138757-63-8
Formula: Proprietary
Chemical Family: Water Based, Biodegradable, Wetting Agents & Surfactants
HMIS Code: Health 1, Fire 0, Reactivity 0
HMIS Key: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Insignificant

SECTION II - HAZARDOUS INGREDIENTS

Massachusetts Right to Know Law or 29 C.F.R. (Code of Federal Regulations) 1910.1000 require listing of hazardous ingredients.

This product does not contain any hazardous ingredients as defined by CERCLA, Massachusetts Right to Know Law and California's Prop. 65.

SECTION III - PHYSICAL - CHEMICAL CHARACTERISTICS

Boiling Point	: 265°F	Specific Gravity	: 1.00 +/- .01
Melting Point	: 32°F	Vapor Pressure mm/Hg	: Not Applicable
Surface Tension- 6% Solution	: 29.1 Dyne/cm at 25°C	Vapor Density Air = 1	: Not Applicable
Reactivity with Water	: No	Viscosity - Concentrate	: 490 Centipoise
Evaporation Rate	: >1 as compared to Water	Viscosity - 6% Solution	: 15 Centipoise
Appearance	: Clear Liquid unless Dyed	Solubility in Water	: Complete
Odor	: Pleasant Fragrance	pH	: 9.1 +/- .3
Pounds per Gallon	: 8.38		

SECTION IV - FIRE AND EXPLOSION DATA

Special Fire Fighting Procedures	: None	Flammable Limit	: None
Unusual Fire and Explosion Hazards	: None	Auto Ignite Temperature	: None
Solvent for Clean-Up	: Water	Fire Extinguisher Media	: Not Applicable
Flash Point	: None		

SECTION V - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be taken in Handling and Storage: Use good normal hygiene.

Precautions to be taken in case of Spill or Leak -

Small spills, in an undiluted form, contain. Soak up with absorbent materials.

Large spills, in an undiluted form, dike and contain. Remove with vacuum truck or pump to storage/salvage vessel. Soak up residue with absorbent materials.

Waste Disposal Procedures -

Dispose in an approved disposal area or in a manner which complies with all local, state, and federal regulations.

SECTION VI - HEALTH HAZARDS

Threshold Limit Values: Not applicable

Signs and Symptoms of Over Exposure-

Acute : Moderate eye irritation. Skin: Causes redness, edema, drying of skin.

Chronic: Pre-existing skin and eye disorders may be aggravated by contact with this product.

Medical Conditions Generally Aggravated by Exposure: Unknown

Carcinogen: No

Emergency First Aid Procedures -

Eyes: Flush thoroughly with water for 15 minutes. Get medical attention.

Skin: Remove contaminated clothing. Wash exposed areas with soap and water.

Wash clothing before reuse. Get medical attention if irritation develops.

Ingestion: Get medical attention.

Inhalation: None considered necessary.

SECTION VII - SPECIAL PROTECTION INFORMATION

Respiratory Protection	: Not necessary	Local Exhaust Required	: No
Ventilation	: Normal	Protective Clothing	: Gloves, safety glasses
Required			Wash clothing before reuse.

SECTION VIII - PHYSICAL HAZARDS

Stability	: Stable	Incompatible Substances	: None Known
Polymerization	: No	Hazardous Decomposition Products	: None Known

SECTION IX - TRANSPORT & STORAGE

DOT Class	: Not Regulated/Non Hazardous		
Freeze Temperature	: 28°F	Storage	: 35°F-120°F
Freeze Harm	: None (thaw & stir)	Shelf Life	: Unlimited Unopened

SECTION X - REGULATORY INFORMATION

The Information on this Material Safety Data Sheet reflects the latest information and data that we have on hazards, properties, and handling of this product under the recommended conditions of use. Any use of this product or method of application, which is not described on the Product label or in this Material Safety Data Sheet, is the sole responsibility of the user. This Material Safety Data Sheet was prepared to comply with the OSHA Hazardous Communication Regulation and Massachusetts Right to Know Law.