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**REMEDIAL INVESTIGATION REPORT FOR THE  
FORMER EAST 99<sup>TH</sup> STREET WORKS SITE**

**Site Number V00538**

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*Proposal For:*



**Consolidated Edison Company of New York, Inc.**

31-01-20<sup>th</sup> Avenue  
Long Island City, NY 11105

*Prepared By:*

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**August 2006**

## SECTION 1

### INTRODUCTION

This Remedial Investigation (RI) Report presents the results of the investigation activities conducted by Parsons on behalf of Consolidated Edison Company of New York, Inc. (Con Edison) for the former East 99<sup>th</sup> Street Works Site. The goal of the investigation activities was to determine the presence and extent of impacts from former manufactured gas plant (MGP) operations. The investigation activities were implemented in accordance with the terms of Voluntary Cleanup Agreement Index No. D2-0003-02-08 (VCA) between Con Edison and the New York State Department of Environmental Conservation (NYSDEC).

#### 1.1 SITE OVERVIEW

The Former East 99<sup>th</sup> Street Works (the Site) was located between 99<sup>th</sup> and 98<sup>th</sup> Street extending eastward from Second Avenue to the Harlem River on Tax Block 1669 Lot 1 and Block 1691 Lot 1 in the Borough of Manhattan, New York City and New York County, New York (Figure 1). Historical information indicates that from sometime prior to 1896, Consolidated Gas Company, a predecessor of Con Edison, operated a MGP at the site. The plant was operated until sometime before 1939, when Sanborn Insurance maps depicted the lot as being vacant. The site is currently occupied by Metropolitan Hospital (Figure 2), which was built in approximately 1960. The main hospital building encompasses the area between 99<sup>th</sup> Street and 97<sup>th</sup> Street and between First and Second Avenue. The associated Nurses Residence building currently occupies the area between 99<sup>th</sup> Street and 97<sup>th</sup> Street between First Avenue and FDR Drive. This portion of the site is also referred to as the Draper Hall Property.

The Former East 99<sup>th</sup> Street Works Site is also located in the vicinity of the future Second Avenue Subway project. The Federal Transit Administration (FTA) and the Metropolitan Transportation Authority (MTA), in cooperation with MTA New York City Transit (NYCT), plan to construct a new subway line along Second Avenue in Manhattan.

A Site Characterization Work Plan (Parsons, November 2004) was prepared on behalf of Con Edison, and was reviewed and approved by the NYSDEC and New York State Department of Health (NYSDOH). The Site Characterization's objectives were to assess whether byproducts and residuals from former gasholder operations were present on the Site, whether any byproducts or residuals that may be on Site have the potential to migrate to off-Site locations, and whether they may have impacted human health or the environment. In order to obtain information regarding subsurface conditions adjacent to the site prior to the start of the planned construction associated with the Second Avenue Subway project, the Site Characterization was implemented in two Phases. Phase I involved the investigation of areas to be affected by the utility relocation and subway construction activities along Second Avenue. Phase II involved investigation of private property comprising the former MGP (the Metropolitan Hospital and Draper Hall properties).

Phase I Site Characterization field activities were conducted between March 2005 and April 2005 and summarized in the Phase I Site Characterization Data Summary (Parsons, May 2005). Impacts were noted at several of the sample locations during Phase I activities. Thus, a letter was submitted to the NYSDEC on May 4, 2005 presenting proposed additional Phase II sampling locations. The proposed additional investigation activities were subsequently approved by the NYSDEC and included the installation of seven additional soil borings (SB-23 through SB-29) and one additional monitoring well (MW-7). Phase II field activities were conducted between October 2005 and July 2006. Two interim Data Summary Reports (DSRs) were prepared during the on-going Phase II field activities. The first DSR, Site Characterization Data Summary Report Phase I and II (Partial) (Parsons, January 2006), included data from locations adjacent to First Avenue and East 99<sup>th</sup> Street. The second DSR, the Draper Hall Property Data Summary Report (Parsons, April 2006), was compiled for the eastern portion of the Site. Both the Phase I and Phase II investigation activities and results are documented in this RI Report which is organized as follows:

- Section 1: Introduction
- Section 2: Remedial Investigation Activities
- Section 3: Remedial Investigation Results
- Section 4: Exposure Assessment
- Section 5: Conclusions and Recommendations
- Section 6: References

## **1.2 ADJOINING PROPERTY DESCRIPTION**

The surrounding properties consist of 99<sup>th</sup> Street to the north beyond which (from east to west) is a public school (Manhattan East Center for Arts), New York City Sanitation Department, and a parking lot. FDR Drive is located to the east, beyond which is the Harlem River. East 97<sup>th</sup> Street is located to the south, beyond which are a park, a commercial building, and a baseball field. Second Avenue is located to the west, beyond which a high-rise apartment complex (Washington Houses) is situated.

## **1.3 SITE HISTORY**

Con Edison retained ENSR to conduct historical research of the East 99<sup>th</sup> Street Works Property. The results of the historical research are documented in the Site History Research Report (ENSR, 2002). According to information provided by Sanborn Insurance Maps, the East 99<sup>th</sup> Street Works was constructed sometime prior to 1896 by Consolidated Gas Company and was in operation until sometime prior to 1939.

A 1911 Sanborn Insurance Map depicts the area as containing four gasholders, a purifying house, condenser house, retort house, meter house, engine room, office, and a coal house. According to the Sanborn map, the gasholders had a maximum storage capacity of approximately 1,115,000 cubic feet. The 1896 and 1911 Sanborn maps show a coal yard associated with the East 99<sup>th</sup> Street Works located between First Avenue and the East River. A 1939 Sanborn Map depicts the site as being predominantly vacant with some automobile

parking, sales and service located fronting on First Avenue. According to the Chain of Title Report prepared by Commonwealth, Con Edison sold portions of the site to the City of New York between 1947 and 1960 (ENSR, 2002). The lot was recorded as vacant in 1951, and remained vacant until the Metropolitan Hospital was constructed in approximately 1960.

## **1.4 SITE SETTING**

### **1.4.1 Topography and Zoning**

The site is relatively flat with a slight pitch to the east towards the Harlem River. The site is at an elevation of approximately 10 to 20 feet above mean sea level. According to the New York City Zoning Department, the subject property is zoned as “R7-2”, zoning for medium residential and community.

### **1.4.2 Surface Water and Drainage**

The nearest surface water body is the Harlem River, east of the Site. According to the NYSDEC Classification of Surface Waters and Groundwaters, the Harlem River is deemed a Class I water body consisting of saline surface water (6 NYCRR Part 701.10). Storm water runoff from paved areas on-site likely discharges into storm drains located on surrounding streets. The storm drains in the area discharge into the Harlem River (ENSR, 2002).

### **1.4.3 Regional Geology**

According to a bedrock geologic map of the Metropolitan New York area, the subject property consists of Early Paleozoic material (mostly metamorphic). According to an EDR report (EDR, 2002), the bedrock unit lies within the Paleozoic Era and part of the Ordovician system (middle Ordovician Series). Due to urban development of the land and the Harlem River to the east, depth to bedrock is inferred to be greater than 50 feet below ground surface (bgs) (ENSR, 2002). Geologic information gathered during the RI is provided in Section 3.1.

### **1.4.4 Regional Hydrogeology**

Due to Manhattan’s heavy metamorphic bedrock, aquifers are less abundant. The surficial upper glacial aquifer is generally of poor permeability and is underlain by bedrock. As a result, groundwater is not used as a potable water source in Manhattan. Instead, New York City obtains its water from the Catskill Mountains of New York. According to the NYSDEC, groundwater at the site is classified as Class GA Fresh Groundwater (ENSR, 2002). Hydrogeologic information gathered during the RI is provided in Section 3.2.

## SECTION 2

### REMEDIAL INVESTIGATION ACTIVITIES

This section describes the field investigation activities conducted at the East 99<sup>th</sup> Street Works Site, which was divided into Phase I and Phase II activities. Combined, these stages of field investigation are referred to as the Remedial Investigation (RI). Field RI activities were conducted by Parsons in accordance with the NYSDEC and NYSDOH-approved Site Characterization Work Plan (Parsons, November 2004) and the subsequent May 4, 2005 letter from Con Edison to the NYSDEC. Modifications to the work plan and letter due to site conditions encountered during the field activities are discussed, where appropriate, in this section. The scope of field investigation activities included the installation of soil borings and monitoring wells. In addition, soil, groundwater, and free product samples were collected for laboratory analysis. RI sampling locations are shown on Figure 2. Table 1 provides a summary of each of the samples collected and submitted for laboratory analysis during RI activities.

#### 2.1 UTILITY CLEARANCE TEST PIT EXCAVATION

To verify the absence of subsurface utilities, test pits were excavated at proposed soil boring and monitoring well locations. The typical test pit excavation consisted of saw-cutting and jack-hammering the surface paving materials (if necessary), and hand excavating with the aid of a vacuum truck or hand auger to a minimum depth of 5 feet bgs. During excavation activities, soils were screened for volatile organic compounds (VOCs) using a photoionization detector (PID), their physical characteristics (e.g., soil type, grain size, color, etc.) were described and logged, and any evidence of physical impacts observed (staining, odor, sheen, free product, etc.) was recorded. In the event that a test pit could not be completed to 5 feet bgs due to the presence of underground utilities or subsurface obstructions, the sampling location was moved approximately five to 10 feet away from the original location and re-excavated.

Select soil samples collected from utility clearance test pits were submitted for chemical analysis based on the presence of PID readings above background, odors, or staining. The soil samples from test pits were submitted for analysis of Target Compound List (TCL) VOCs, TCL semi volatile organic compounds (SVOCs), cyanide, and Target Analyte List (TAL) metals.

#### 2.2 INTERIOR SOIL BORINGS AND SOIL GAS SAMPLING

To determine whether impacts exist beneath Metropolitan Hospital which now occupies a majority of the Site, interior soil borings were scheduled to be advanced at five locations (SB-8, SB-11, SB-12, SB-15 and SB-17) during Phase II of the Site Characterization (Figure 2). Soil gas samples were planned to be collected in conjunction with each of the interior soil borings excluding SB-17 which is located within an interior courtyard.

### 2.2.1 Interior Soil Gas Sampling

As mentioned above, soil gas samples were scheduled for collection at four of the five interior soil boring locations. However, due to shallow groundwater table elevations, soil gas samples could not be obtained. Groundwater was noted immediately below the concrete slab during utility clearance test pit excavations.

### 2.2.2 Interior Soil Borings

A total of five interior soil borings (SB-8, SB-11, SB-12, SB-15 and SB-17) were planned for installation. However, only one soil boring, SB-15, was advanced to full depth (17 ft below the floor slab). Shallow refusals were encountered in soil borings SB-12 and SB-17 at 3 and 2 feet below the floor slab, respectively. Soil boring SB-8 could not be advanced due to equipment limitations (i.e., the required use of electric powered equipment) and the thickness of the concrete slab in this area. The basement floor elevation at soil boring location SB-11 was approximately 3 feet below the other indoor locations. Therefore, given the shallow groundwater table, this location was abandoned due to concerns that coring the basement floor would allow groundwater to enter into the room.

## 2.3 EXTERIOR SOIL BORINGS

A total of 31 exterior soil borings were planned during Phase I and II of the investigation (See Figure 2). Each boring location was cleared for utilities as described above in Section 2.2. Two of these borings (SB-1 and SB-25) were inaccessible due to underground utilities. Two borings (SB-9 and SB-14) were not advanced due to subsurface obstructions which prohibited utility clearance. The remaining borings were advanced to depths ranging from 10 to 51 feet bgs using a track mounted drill rig. The drill rig was equipped with 4.25-inch hollow stem auger drilling capabilities. Soil samples were collected on a continuous basis using a two-foot long, 2-inch diameter, split spoon sampler. Each sample was split lengthwise and logged by field personnel. Logging consisted of: describing the soil (e.g. color, texture, moisture content); describing any evidence of impacts (e.g. oil-like or tar-like NAPL, staining sheens, odors); and screening for organic vapors using a PID. A sample from each 2-foot interval was also placed in a sealed plastic bag and the sample headspace was screened for the presence of VOCs with a PID. Soil boring logs are provided in Appendix A. A summary of PID readings obtained from continuous soil samples collected during drilling activities is provided in Table 2.

In general, two soil samples were selected from each location and submitted to the laboratory for chemical analysis.

- One sample was collected from the zone with the highest PID readings and/or visibly stained soils from either the utility clearance test pit or boring. If no visual impacts or PID readings above background levels were noted, a sample was collected from directly above the water table.
- One sample was collected below the impacted zone or near the base of the boring to define the vertical extent of impacts at that location.

Additional samples were also collected for laboratory analysis based on subsurface conditions observed. The soil samples were submitted for laboratory analysis of TCL VOCs and

SVOCs, cyanide, and TAL metals. Due to poor recovery and insufficient sample volume, samples SB-16 (5-7'), SB-21 (5-7'), SB-24 (7-9') and SB-28 (5-7') were analyzed for TCL VOCs only.

Borings were grouted to the surface following completion and wastes (e.g., soil cuttings) were containerized. Drilling equipment was decontaminated between each boring.

## **2.4 MONITORING WELL INSTALLTION**

Eight groundwater monitoring wells (MW-1 through MW-8) were installed during the remedial investigation and are shown on [Figure 2](#). Monitoring well borings were advanced to total depths ranging from 33 to 45 feet bgs with 4.25-inch ID hollow stem augers. Soil samples were collected on a continuous basis using a 2-foot long, 2-inch diameter split-spoon sampler. Each sample was split lengthwise and logged by field personnel. Logging consisted of: describing the soil (e.g. color, texture, moisture content); describing any evidence of impacts (e.g. oil-like or tar-like NAPL, staining sheens, odors); and screening for organic vapors using a PID. Monitoring well logs and construction details are provided in [Appendix A](#).

Soil samples were selected from each monitoring well boring location and submitted to the laboratory for chemical analysis. In general:

- One sample was collected from the zone with the highest PID readings or the zone where visual impacts were observed during the utility clearance test pit or actual soil boring. If visual impacts or PID readings above background were not observed, a sample was collected from directly above the water table; and
- One sample was collected below the impacted zone or near the base of the boring to define the vertical extent of impacts at that location.

Based on subsurface conditions observed, additional samples were also collected for laboratory analysis when warranted. The soil samples were analyzed for TCL VOCs and SVOCs, cyanide, and TAL metals. Due to poor recovery and insufficient sample volume, samples MW-1 (11-13'), MW-2 (7-9'), MW-3 (11-13'), MW-5 (9-11'), MW-6 (7-9'), MW-7 (9-11'), and MW-8 (9-11') were analyzed for TCL VOCs only.

The monitoring wells were constructed with two-inch ID, threaded, flush-joint, PVC casing and approximately 10 feet of 0.02-inch slot screens. A two-foot sump was placed below the screens to monitor for potential dense non-aqueous phase liquid (DNAPL). The screened interval for each well varies based on subsurface conditions encountered during installation. The wells were completed in flush-mounted vaults to maintain accessibility to the area after completion.

After a minimum of 24 hours, the monitoring wells were developed by purging until the well was reasonably free of sediment (50 NTU or less if possible) or until the pH, temperature and conductivity stabilized.

## **2.5 GROUNDWATER SAMPLING/GAUGING**

Two groundwater sampling events were conducted at the Site during the RI. The first was conducted in April 2005 during Phase I following the installation of monitoring wells MW-1 through MW-3. The second groundwater sampling event was conducted in January 2006 during Phase II, in which samples were collected from MW-4 through MW-8.

Prior to collecting samples, the depth to groundwater and NAPL (if present) were measured from the top of the surveyed point on the well casing using an electronic oil/water interface probe attached to a measuring tape accurate to 0.01 foot.

Prior to sampling, a minimum of three times the volume of standing water in each well was purged using a peristaltic pump to allow for collection of a representative sample. Water quality parameters, including temperature, conductivity, pH, dissolved oxygen, oxidation reduction potential (ORP), and turbidity, were measured approximately every five minutes during the purging process and prior to sample collection. Water quality parameter measurements and observations recorded during sampling are documented on the groundwater sampling records provided in [Appendix B](#).

Each well was sampled using low-flow purging and sampling techniques. Groundwater samples were collected directly into laboratory supplied sample bottles using dedicated Teflon-lined sample tubing and a low-flow peristaltic pump. The samples were submitted for the following analysis: TCL VOCs, TCL SVOCs, TAL metals, total cyanide, and available cyanide.

One comprehensive round of groundwater level measurements was conducted on January 17, 2006 which included gauging each of the eight monitoring wells for the presence of NAPL. Results from this gauging event are summarized on [Table 3](#).

Non-dedicated sampling equipment (e.g., oil/water interface probe) was decontaminated between sampling locations. Decontamination and purge water was placed in 55-gallon drums and handled as described in [Section 2.8](#).

## **2.6 SURVEYING**

At the completion of field investigation activities, a licensed New York State land surveyor identified the horizontal and vertical locations of each sampling location. Two elevation measurements were taken at each well location to identify the top of the PVC casing and the grade elevation. The survey elevations were measured to an accuracy of 0.01 feet above the North American Vertical Datum of 1988 (NAVD 88).

## **2.7 MANAGEMENT OF INVESTIGATION-DERIVED WASTE**

During the utility clearance/hand excavation at locations MW-4, SB-9, SB-13, SB-14 and SB-16, soil and water was removed using a vacuum truck due to the shallow groundwater table. Soil and groundwater were contained in the vacuum truck and transported directly offsite for treatment and disposal.



The remaining investigation derived waste (IDW) generated during the field program, which included decontamination wash and rinse water, soil cuttings, purge water, disposable PPE, etc., was containerized in clean New York State Department of Transportation (NYSDOT)-approved 55-gallon drums. The drums were stored in a secured location or transported directly off-site on a daily basis. The drums were sealed at the end of each work day and labeled with the date, the well or boring number(s), and the type of waste (i.e., drill cuttings, purge water, etc.). Parsons collected representative samples of the IDW from the drums for waste characterization analyses and coordinated transportation and treatment/disposal of the waste by Con Edison-approved facilities.

## **2.8 DATA VALIDATION AND REPORTING**

Data validation was performed in accordance with USEPA Region II standard operating procedures (SOPs) for organic and inorganic data review. These validation guidelines are regional modifications to the National Functional Guidelines for organic and inorganic data review ([USEPA 1992a and 1992b](#)). Validation included the following:

- Verification of 100% of all quality control (QC) sample results (both qualitative and quantitative);
- Verification of the identification of 100% of all sample results (both positive hits and non-detects);
- Recalculation of 10% of all investigative sample results; and
- Preparation of a Data Usability Summary Report (DUSR).

The quality of the data has been assessed and is documented in the DUSR(s) provided in [Appendix C](#).

## SECTION 3

### REMEDIAL INVESTIGATION RESULTS

#### 3.1 SITE GEOLOGY

The geology encountered during the subsurface investigation activities is described in the soil boring and monitoring well logs provided in [Appendix A](#). The logs show that, consistent with regional geology, the upper five-foot to 14-foot soil stratum of the Site contains fill materials (generally sand, gravel, silt and clay with cobbles, wood and brick fragments, and some cinders). The fill is underlain by sand, trace silt, and gravel. A gray silt and/or clay with organic material were encountered beneath the fill material at most locations on the Site. Bedrock was not confirmed at any of the drilling locations. [Figures 3 thru 5](#) present geologic cross sections of the Site.

#### 3.2 SITE HYDROGEOLOGY

Based on the measurements obtained during the comprehensive gauging event on January 17, 2006, groundwater was encountered beneath the Site between approximately 1.5 and 14 feet bgs (at elevations ranging from 0.65 to -0.17 feet based on NAVD88). The groundwater levels and corresponding elevations are summarized in [Table 3](#). Groundwater elevations indicate that flow beneath the Site is generally to the southeast as illustrated on [Figure 6](#). Groundwater at the Site would be expected to ultimately discharge to the Harlem River, located to the east of the Site.

#### 3.3 INTERIOR SOIL BORING INVESTIGATION RESULTS

Three subsurface soil samples were collected in the basement and interior courtyard of Metropolitan Hospital. As mentioned previously, only one of the interior soil borings (SB-15) could be installed to depth (17 feet below the floor slab), while the other interior borings (SB-12 and SB-17) were terminated at depths of 3 and 2 feet below the floor slab, respectively. The analytical results of the soil samples for these boring locations are summarized in [Table 4](#). The soil sample results have been compared to the Recommended Soil Cleanup Objectives (RSCOs) provided by NYSDEC in the Technical Assistance Guidance Memorandum (TAGM) 4046. Soil samples analyzed for TAL metals were also compared with Eastern United States (U.S) background concentrations ([NYSDEC, 1994](#)).

##### PID Readings/Visual Observations

PID readings of soil samples collected during the installation of indoor soil borings ranged from 0 to 75 parts per million (ppm) above background, as summarized in [Table 2](#). The maximum PID reading of 75 was observed in SB-15 at a depth of 5 to 9 feet below the floor slab. Sheens were noted in split spoon samples collected at SB-12 and SB-15.

## VOCs

VOCs exceeding their TAGM 4046 RSCOs were detected in soil samples from SB-12 and SB-15. Total VOC concentrations ranged from 0.0302 to 46.87 ppm and exceeded the total VOC RSCO of 10 ppm in samples collected from SB-12 (20-30") and SB-15 (5-9'). [Table 4](#) presents the soil analytical results. A summary of detected VOC concentrations in soil is presented on [Figure 7](#).

## SVOCs

SVOCs exceeding their TAGM 4046 RSCOs were detected in all three of the interior soil samples analyzed for SVOCs. Total SVOC concentrations ranged from 9.29 to 326.99 ppm. However, the total SVOC RSCO of 500 ppm was not exceeded. [Table 4](#) presents the soil analytical results. A summary of detected VOC concentrations in soil is presented on [Figure 8](#).

## Metals and Cyanide

Analytical results for interior subsurface soil samples indicated the presence of 9 metals at concentrations that exceeded their respective NYSDEC TAGM 4046 RSCOs and Eastern U.S. background concentrations. Metals are a primary component of naturally occurring soil and are typically detected in soil used for fill in urban areas, such as Manhattan. Cyanide was detected at location SB-17 (15-27") at a concentration of 1.52 ppm. No RSCO or background concentrations for cyanide are provided in NYSDEC TAGM 4046.

### **3.4 INTERIOR SOIL GAS INVESTIGATION RESULTS**

As explained in [Section 2.2](#), due to the shallow groundwater elevation located directly beneath the floor slab of the building, no interior soil gas samples were collected.

### **3.5 EXTERIOR SOIL INVESTIGATION RESULTS**

A total of 73 exterior subsurface soil samples (including duplicates) were collected as part of the RI from eight monitoring wells and eighteen soil borings. The analytical results of the soil samples are summarized in [Table 4](#). PID readings, visual observation, and analytical results from the exterior subsurface soil investigation are summarized below.

#### PID Readings/Visual Observations

PID readings for soil samples collected during exterior soil boring/monitoring well installations ranged from 0.0 to 7,348 ppm above background, as summarized in [Table 2](#). The highest PID reading was detected in soil boring SB-13 at 15 to 17 feet bgs. Sheens were noted in split spoon samples collected at SB-3 (30-31'), SB-5 (37-39'), SB-27 (9-13' and 31-35'), SB-28 (9-13'), SB-29 (9-11'), MW-4 (17-19'), and MW-5 (17-19'). Product saturation, globules and/or NAPL were observed at SB-5 (35-36'), SB-10 (9-13' and 25-29'), SB-13 (15-19' and 25-29'), SB-26 (27-29' and 33-35'), SB-27 (33-35'), MW-1 (28-33'), and MW-4 (22-28').

## VOCs

VOCs at concentrations exceeding the TAGM 4046 RSCOs were detected in 17 of 73 exterior subsurface soil samples. All of the exceedances were for BTEX compounds and acetone. Acetone is a common laboratory contaminants and not considered to be an MGP-related compound. Total VOC concentrations exceeding the TAGM 4046 RSCO of 10 ppm were detected in five of the 73 exterior subsurface soil samples. Total VOC concentrations ranged from non-detect to 1,039 ppm which was detected in soil sample SB-5 (35-37'). Exceedences of the RSCOs for individually listed VOCs and total VOC concentrations are shown on [Figure 7](#).

## SVOCs

SVOCs at concentrations exceeding the RSCOs were detected in 16 of the 62 soil samples analyzed for SVOCs. Total SVOC concentrations exceeding the TAGM 4046 RSCO of 500 ppm were detected in two of the 62 exterior subsurface soil samples. Total SVOC concentrations ranged from non-detect to 3,030.5 ppm which was detected in soil sample SB-13 (15-17'). Exceedences of the RSCOs for individually listed SVOCs and total SVOC concentrations are shown on [Figure 8](#).

## Metals and Cyanide

Analytical results for exterior subsurface soil samples indicated the presence of 11 metals at concentrations that exceeded their respective NYSDEC TAGM 4046 RSCOs and Eastern U.S. background concentrations. Metals are a primary component of naturally occurring soil and are typically detected in soil used for fill in urban areas, such as Manhattan. Cyanide was detected in soil samples MW-4 (1-2'), MW-4 (26-28'), SB-20 (1-2'), and SB-20 (7-9') at concentrations ranging from 0.636 to 4.46 ppm. No RSCO or background concentrations for cyanide are provided in NYSDEC TAGM 4046.

## Hydrocarbon Fingerprint

A total of five soil samples were submitted to META Environmental, Inc. for hydrocarbon fingerprint analysis. The fingerprint analysis reports for the five samples are provided in [Appendix D](#) and the results are summarized below.

Two representative samples of NAPL were collected from soil boring SB-10 at 7-9' and 27-29' bgs and submitted to META for forensic hydrocarbon fingerprint analysis. Results indicate the 7-9' sample contained both pyrogenic and petrogenic materials and was similar to tars formed by manufactured gas plants utilizing carbureted water gas processes. The petrogenic material present in the 7-9' sample was similar to some residual oils, gas oils and middle weight lubricating oils. The analysis also documented that the sample from 7-9' was moderately weathered. The sample at 27-29' contained petrogenic materials similar to some gas oils and middle weight lubricating oils and the sample was severely weathered.

A representative sample of product globules observed at MW-4 was collected from 26-28' and submitted to META. Results indicate that the sample contained pyrogenic material similar to tars that were formed from manufactured gas plants utilizing carbureted water gas processes.

A representative sample of NAPL was collected from MW-1 at 27-29' bgs and sent to META for hydrocarbon fingerprint analysis. Results indicate that the sample contained pyrogenic substances and had been subjected to significant weathering. A representative sample of a sheen noted on soils from SB-3 was also collected from 33-35' and sent to META. Results indicate that the sample contained pyrogenic substances and the sample had been moderately weathered. Both samples contained patterns of PAHs consistent with tars from a CWG process.

### 3.6 GROUNDWATER INVESTIGATION RESULTS

A total of ten groundwater samples (including duplicate samples) were collected during the RI and analyzed for TCL VOCs, TCL SVOCs, TAL metals, and total and available cyanide. In addition, bulk water quality indicator parameters including temperature, conductivity, pH, ORP, and turbidity were measured in the field and documented on the groundwater sampling records provided in [Appendix B](#). Laboratory analytical results for constituents detected in the groundwater samples are summarized in [Table 5](#). For evaluation purposes, analytical results were compared with Class GA groundwater quality standards (GWQS) and guidance values contained in NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 ([NYSDEC, 1998](#)). [Figure 9](#) summarizes total VOC and SVOC concentrations for groundwater samples collected from each well. Field measurements and observations as well as analytical results from the groundwater investigation are summarized below.

#### Field Measurements/Observations

Measurable amounts of NAPL (i.e., greater than 0.01 feet in thickness) were not encountered at any of the monitoring wells. Trace NAPL was observed at monitoring well MW-4 during purging (prior to sampling). Water quality parameters collected during groundwater sampling activities across the Site indicated that initial pH readings from wells ranged from 6.60 to 9.38 standard units (s.u.). Water color was noted to be clear in MW-3, MW-6 and MW-7; light brown in MW-5; yellowish in MW-1 and MW-2; and light gray in MW-8. A hydrocarbon-like odor was noted in MW-1, MW-2, MW-3, MW-4 and MW-6. An organic odor was noted in MW-5, MW-6, MW-7 and MW-8.

#### VOCs

Seven VOCs were detected in groundwater samples at concentrations exceeding the Class GA GWQS. Compounds exceeding the Class GA GWQS included BTEX compounds and two chlorinated compounds (cis-1,2-dichloroethene, and vinyl chloride) which are not considered MGP-related compounds. Benzene was detected in all ten samples (including duplicate samples) at concentrations exceeding the Class GA GWQS and ranging from 2 to 2300 parts per billion (ppb). Groundwater analytical results are summarized in [Table 5](#) and on [Figure 9](#).

### SVOCs

Four SVOCs (2-Methyphenol, phenol, acenaphthene and phenanthrene) were detected at concentrations exceeding the Class GA GWQS in groundwater samples collected from monitoring wells MW-1 and MW-4. Groundwater analytical results are summarized in [Table 5](#) and on [Figure 9](#).

### Metals and Cyanide

Analytical results indicate the presence of 9 metals (arsenic, cyanide, iron, lead, magnesium, manganese, mercury, sodium, thallium) in groundwater samples that exceeded their respective Class GA GWQS. Cyanide was detected in MW-4 at 2,480 ppb and at 2,380 ppb in the duplicate at MW-4, which exceeds the GWQS of 200 ppb.

## SECTION 4

### EXPOSURE ASSESSMENT

Information collected during the RI has been used to qualitatively assess potential exposure pathways for the various detected compounds. The exposure assessment is described below.

The Former East 99<sup>th</sup> Street Works Site is located in a highly urbanized area, which is zoned for medium residential and community use. A majority of the site is covered by concrete, asphalt, and buildings. Limited areas of grass exist on the Site; however, these areas are adjacent to the hospital facility and do not appear to be used for recreational purposes. No soil or groundwater is readily accessible at the Site for direct exposure contact.

Total VOC concentrations exceeding RSCOs were detected in 5 of the exterior subsurface soil samples at the Site ranging from 9 to 37 feet bgs. Total VOC concentrations exceeding the RSCOs were detected between 2 and 9 feet below the floor slab at interior locations (SB-12 and SB-15). Concentrations of total SVOCs exceeding RSCOs were detected in 2 exterior soil samples at depths ranging from 15 to 28 feet bgs. Asphalt or concrete surfaces (sidewalks, driveways, buildings) cover each of the interior and exterior locations where total VOC or SVOC concentrations exceeded the RSCOs. With the exception of the interior locations, potential exposure to impacted materials is unlikely during intrusive subsurface activities due to the depth at which it was encountered (greater than 9 feet bgs). Groundwater sampling results from the on-site monitoring wells identified VOC exceedences of GWQS in each of the eight wells while SVOCs exceeding the GWQS were detected in two of the wells (MW-1 and MW-4). Groundwater is currently not used at the Site or this area of Manhattan as a source of potable water and there are not plans for future use of potable or commercial/industrial groundwater at the Site. Groundwater appears to flow south/southeast based on well gauging data from January 17, 2006. With the exception of monitoring well MW-4, the depth to groundwater at the site ranges from approximately 7 to 14 feet bgs. Therefore, potential exposure to groundwater during intrusive subsurface activities (e.g., repair of underground utilities) is not likely at these locations. The depth to groundwater within the open courtyards is approximately 2 feet bgs and may be encountered during subsurface work in these areas. The courtyards are currently covered by concrete, asphalt, and/or tiles preventing direct contact with groundwater. Surface water and sediment are not present at the site. The presence of buildings over impacted soils indicates that indoor air may be a potential pathway for exposure from vapor intrusion. However, soil gas samples could not be collected during the RI as anticipated due to the shallow groundwater table encountered at the interior sampling locations.

## SECTION 5

### CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 CONCLUSIONS

The following briefly summarizes the results of the RI with respect to the nature and extent of impacts encountered:

- Localized soil impacts including NAPL and VOC concentrations exceeding RSCOs were encountered at soil boring SB-10. However, this boring is located within close proximity to the existing gas pump island on the hospital property and fingerprint results from one of the samples collected from SB-10 indicates that the impacts are likely gas/oil residuals and not MGP-related.
- No NAPL or total VOC and SVOC concentrations in exceedence of RSCOs were detected in soil samples collected from the Draper Hall property.
- Investigation activities confirmed the presence of MGP-related impacts within the footprints of two of the four former gasholders beneath the hospital building. Due to subsurface conditions encountered and difficulties associated with advancing soil borings inside the hospital basement and courtyards, the remaining two gasholders were not investigated and the extent of MGP-related impacts identified beneath the building could not be delineated.
- MGP-related impacts (NAPL and VOC concentrations in soil exceeding RSCOs) were confirmed to be present along Second Avenue adjacent to the hospital property. These impacts appear to be limited to the area of MW-1 as they were not encountered at adjacent borings SB-2 and SB-3 located directly north and south of MW-1, nor were impacts encountered in borings advanced on the opposite side of Second Avenue. However, impacts encountered at MW-1 may extend beneath Second Avenue and appear to extend onto the hospital property, to the east of MW-1.
- Potential MGP-related impacts (NAPL and/or VOC concentrations in soil exceeding RSCOs) were encountered along 99<sup>th</sup> Street to the north of the hospital property and the former MGP site in the area of soil borings SB-26, SB-27, and SB-28. These impacts do not appear to extend to the west, across Second Avenue, nor to the east, along 99<sup>th</sup> Street. However, the northern and southern extent of these impacts has not been delineated.
- VOC and/or SVOC concentrations exceeding GWQS were detected in each of the eight monitoring wells, including MW-7 which appears to be located upgradient of the former MGP. BTEX compounds were the highest at MW-4, located in close proximity to the former gasholders beneath the hospital building. Although groundwater concentrations appear to decreasing radially from MW-4, no correlation can be made between apparent groundwater flow direction and groundwater



concentrations. Measurable NAPL was not encountered in any of the monitoring wells.

## **5.2 RECOMMENDATIONS**

Due to the VOC and SVOC concentrations detected in both soil and groundwater and the presence of NAPL in the vicinity of and beneath the Metropolitan Hospital facility, further investigation at the Site is warranted. To further define the extent of impacts beneath the building, additional soil borings and monitoring wells will be installed. In addition, alternative locations and methods to investigate the two remaining former gasholders will be considered.

The lack of soil gas data from beneath the building basement will be addressed by continuing to monitor groundwater levels at the site (on a quarterly basis) to determine if seasonal fluctuations in groundwater may allow for below slab soil gas and sample collection. In addition, exterior locations directly adjacent to the hospital building will be considered for future soil gas sampling.

Additional groundwater monitoring of all site monitoring wells (MW-1 through MW-8) is recommended to confirm the VOC and SVOC concentrations detected during the RI. This information will be used to assist in determining the groundwater source area, plume extent, and whether groundwater impacts are increasing or decreasing. Furthermore, an additional round of comprehensive well gauging will be conducted to confirm groundwater flow direction at the Site and the continued absence of NAPL accumulation in these wells.

Following the NYSDEC's review and approval of this RI Report, a Supplemental RI Work Plan will be prepared and submitted for review. The Supplemental RI Work Plan will provide a detailed scope of the proposed additional remedial investigation activities recommended above.

## **SECTION 6**

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**TABLE 1  
SAMPLE SUMMARY**

Location	Sample ID	Depth (bgs)	TCL VOCs	TCL SVOCs	TAL Metals	Hydrocarbon Fingerprint	Cyanide	Available Cyanide
<b>Soil Samples - Interior Locations</b>								
SB-12	SB-12 (20-30")	20-30"	X	X	X		X	
SB-15	SB-15 (5-9)	5-9'	X	X	X		X	
SB-17	SB-17 (15-27)	15-27"	X	X	X		X	
<b>Soil Samples - Exterior Locations</b>								
MW-1	MW-1 (11-13)	11-13'	X					
	MW-1 (31-33)	31-33'	X	X	X		X	
	MW-1 (27-29)	27-29'				X		
	MW-1 (37-39)	37-39'	X	X	X		X	
MW-2	MW-2 (7-9)	7-9'	X					
	MW-2 (27-29)	27-29'	X	X	X		X	
	MW-2 (31-33)	31-33'	X	X	X		X	
	MW-2 (310-330)*	31-33'*	X	X	X		X	
MW-3	MW-3 (11-13)	11-13'	X					
	MW-3 (27-29)	27-29'	X	X	X		X	
	MW-3 (33-35)	33-35'	X	X	X		X	
MW-4	MW-4 (1-2)	1-2'	X	X	X		X	
	MW-4 (26-28)	26-28'	X	X	X	X	X	
	MW-4 (36-38)	36-38'	X	X	X		X	
MW-5	MW-5 (9-11)	9-11'	X					
	MW-5 (31-33)	31-33'	X	X	X		X	
	MW-5 (39-41)	39-41'	X	X	X		X	
MW-6	MW-6 (7-9)	7-9'	X					
	MW-6 (33-35)	33-35'	X	X	X		X	
	MW-6 (43-45)	43-45'	X	X	X		X	
MW-7	MW-7 (9-11)	9-11'	X					
	MW-7 (28-30)	28-30'	X	X	X		X	
	MW-7 (38-40)	38-40'	X	X	X		X	
MW-8	MW-8 (9-11)	9-11'	X					
	MW-8 (31-33)	31-33'	X	X	X		X	
	MW-8 (39-41)	39-41'	X	X	X		X	
SB-2	SB-2 (27-29)	27-29'	X	X	X		X	
	SB-2 (43-45)	43-45'	X	X	X		X	
SB-3	SB-3 (33-35)	33-35'	X	X	X	X	X	
	SB-3 (47-49)	47-49'	X	X	X		X	
SB-4	SB-4 (5-7)	5-7'	X	X	X		X	
	SB-4 (31-33)	31-33'	X	X	X		X	
	SB-4 (47-49)	47-49'	X	X	X		X	
SB-5	SB-5 (35-37)	35-37'	X	X	X		X	
	SB-5 (49-51)	49-51'	X	X	X		X	
SB-6	SB-6 (29-31)	29-31'	X	X	X		X	
	SB-6 (49-51)	49-51'	X	X	X		X	
SB-7	SB-7 (7-9)	7-9'	X	X	X		X	
	SB-7 (49-51)	49-51'	X	X	X		X	
SB-10	SB-10 (7-9)	7-9'				X		
	SB-10 (9-11)	9-11'	X	X	X		X	
	SB-10 (25-27)	25-27'	X	X	X		X	
	SB-10 (27-29)	27-29'				X		
	SB-10 (48-50)	48-50'	X	X	X		X	
	SB-10 (480-500)*	48-50'*	X	X	X		X	
SB-13	SB-13 (5-7)	5-7'	X	X	X		X	
	SB-13 (15-17)	15-17'	X	X	X		X	
	SB-13 (37-39)	37-39'	X	X	X		X	
SB-16	SB-16 (5-7)	5-7'	X					

**TABLE 1  
SAMPLE SUMMARY**

Location	Sample ID	Depth (bgs)	TCL VOCs	TCL SVOCs	TAL Metals	Hydrocarbon Fingerprint	Cyanide	Available Cyanide
<b>Soil Samples - Exterior Locations (Continued)</b>								
SB-18	SB-18 (9-11)	9-11'	X	X	X		X	
	SB-18 (31-33)	31-33'	X	X	X		X	
	SB-18 (47-49)	47-49'	X	X	X		X	
SB-20	SB-20 (1-2)	1-2'	X	X	X		X	
	SB-20 (7-9)	7-9'	X	X	X		X	
	SB-20 (27-29)	27-29'	X	X	X		X	
	SB-20 (47-49)	47-49'	X	X	X		X	
	SB-20 (470-490)*	47-49'*	X	X	X		X	
SB-21	SB-21 (5-7)	5-7'	X					
	SB-21 (29-31)	29-31'	X	X	X		X	
	SB-21 (47-49)	47-49'	X	X	X		X	
SB-23	SB-23 (29-31)	29-31'	X	X	X		X	
	SB-23 (47-49)	47-49'	X	X	X		X	
SB-24	SB-24 (7-9)	7-9'	X					
	SB-24 (27-29)	27-29'	X	X	X		X	
	SB-24 (47-49)	47-49'	X	X	X		X	
SB-26	SB-26 (33-35)	33-35'	X	X	X		X	
	SB-26 (47-49)	47-49'	X	X	X		X	
SB-27	SB-27 (31-33)	31-33'	X	X	X		X	
	SB-27 (47-49)	47-49'	X	X	X		X	
SB-28	SB-28 (5-7)	5-7'	X					
	SB-28 (31-33)	31-33'	X	X	X		X	
	SB-28 (47-49)	47-49'	X	X	X		X	
SB-29	SB-29 (21-23)	21-23'	X	X	X		X	
	SB-29 (33-35)	33-35'	X	X	X		X	
	SB-29 (330-350)*	33-35'*	X	X	X		X	
	SB-29 (47-49)	47-49'	X	X	X		X	
<b>Groundwater Samples</b>								
MW-1	MW-1	NA	X	X	X		X	X
MW-2	MW-2	NA	X	X	X		X	X
MW-3	MW-3	NA	X	X	X		X	X
MW-300	MW-3*	NA*	X	X	X		X	X
MW-4	MW-4	NA	X	X	X		X	X
MW-400	MW-4*	NA*	X	X	X		X	X
MW- 5	MW- 5	NA	X	X	X		X	X
MW-6	MW-6	NA	X	X	X		X	X
MW-7	MW-7	NA	X	X	X		X	X
MW-8	MW-8	NA	X	X	X		X	X

\* Indicates a duplicate sample.

**TABLE 2  
SUMMARY OF PID READINGS**

<b>Boring Location</b>	<b>Total Depth of Boring (feet)</b>	<b>Range of PID Readings (ppm)</b>	<b>Depth Interval of Maximum Reading (feet bgs)</b>
<b>Interior Locations</b>			
SB-12	3	0.0-53.0	2-3
SB-15	17	0.0-75	5-9
SB-17	2	0.0-0.1	1-2
<b>Exterior Locations</b>			
MW-1	39	0.0 - 187	31-33
MW-2	33	0.0 - 90.4	7-9
MW-3	35	0.0 - 2.2	27-29
MW-4	40	1.0-374.0	26-28
MW-5	41	0.0-0.0	NA
MW-6	45	(1)	NA
MW-7	40	0.0 - 0.2	20-22
MW-8	41	0.0-0.0	NA
SB-2	45	0.2 - 16.6	27-29
SB-3	49	0.0 - 37.2	33-35
SB-4	49	0.0 - 1.2	21-23
SB-5	51	0.0 - 725	35-37
SB-6	51	0.0 - 53.5	29-31
SB-7	51	0.0 - 5.1	17-19
SB-10	50	0.0-167.5	9-11
SB-13	39	0.0-7348.0	15-17
SB-16	10	0.0-0.0	NA
SB-18	49	0.0-0.2	15-17
SB-20	49	0.0-289	1-2
SB-21	49	0.0-0.0	NA
SB-22 <sup>(2)</sup>	10	0.0-6.2	7-9
SB-23	49	0.0 - 0.3	17-19
SB-24	49	0.0 - 48.5	7-9
SB-26	49	0.0 - 35.4	33-35
SB-27	49	0.0 - 36.2	31-33
SB-28	49	0.0 - 519	31-33
SB-29	49	0.0 - 808	33-35

Notes:

- (1) The PID malfunctioned. Therefore, readings could not be obtained at this location.
- (2) Two attempts were made at advancing soil boring SB-22. Refusal was encountered at 25 feet below ground surface on the first attempt and 10 feet below ground surface on the second attempt.



**Table 3**  
**Groundwater Elevation Summary**  
**East 99th Street**

January 17, 2006			
Monitoring Well Number	TOC Elevation	Depth to Water (ft)	Groundwater Elevation (ft)
MW-1	11.96	12	-0.04
MW-2	8.44	8.55	-0.11
MW-3	7.53	7.7	-0.17
MW-4	1.51	1.65	-0.14
MW-5	13.75	13.9	-0.15
MW-6	7.1	7.25	-0.15
MW-7	13.35	12.7	0.65
MW-8	11.98	12.15	-0.17

Notes:

- 1) Elevations are based on the North American Vertical Datum of 1988.
- 2) TOC - Top of inner well casing.
- 3) Dense Non-Aqueous Phase Liquid was detected on the tip of the probe in the bottom of monitoring well MW-4.

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>	Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	MW-1	MW-1	MW-1	MW-2	MW-2	MW-2	Duplicate of MW-2 (31-33)	MW-3
CAS NO.	COMPOUND			MW-1(11-13)	MW-1(31-33)	MW-1(37-39)	MW-2(7-9)	MW-2(27-29)	MW-2(31-33)	MW-2(310-330)	MW-3(11-13)
Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary				MW-1 T2175-01 11-13' Chemtech T2175 SOIL 4/4/2005 5/17/2005	MW-1 T2175-02 31-33' Chemtech T2175 SOIL 4/4/2005 5/17/2005	MW-1 T2175-04 37-39' Chemtech T2175 SOIL 4/4/2005 5/17/2005	MW-2 T2013-01 7-9' Chemtech T2013 SOIL 3/22/2005 5/11/2005	MW-2 T2013-03 27-29' Chemtech T2013 SOIL 3/22/2005 5/11/2005	MW-2 T2013-04 31-33' Chemtech T2013 SOIL 3/22/2005 5/11/2005	MW-2 T2013-05 31-33' Chemtech T2013 SOIL 3/22/2005 5/11/2005	MW-3 T2092-01 11-13' Chemtech T2092 SOIL 3/29/2005 5/16/2005
	<b>VOLATILES</b>										
67-64-1	Acetone	0.2	mg/kg	ND	ND	0.011 J	ND	ND	ND	ND	0.017 J
71-43-2	Benzene	0.06	mg/kg	0.067	4.3 J	0.0033 J	1.1	ND	ND	ND	ND
78-93-3	2-Butanone	0.3	mg/kg	0.0098 J	ND	ND	ND	ND	ND	ND	ND
75-15-0	Carbon Disulfide	2.7	mg/kg	ND	ND	0.0032 J	ND	0.019	0.0089	0.0093	ND
156-59-2	cis-1,2-Dichloroethene	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
100-41-4	Ethyl Benzene	5.5	mg/kg	0.0058 J	64	0.014	ND	ND	ND	ND	ND
75-09-2	Methylene Chloride	0.1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
100-42-5	Styrene	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
108-88-3	Toluene	1.5	mg/kg	0.0014 J	4.1 J	ND	ND	ND	ND	ND	ND
79-01-6	Trichloroethene	0.7	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
136777-61-2	m/p-Xylenes	1.2	mg/kg	0.0019 J	63	0.0049 J	ND	ND	ND	ND	ND
1330-20-7	o-Xylene	1.2	mg/kg	0.002 J	24	0.0067	ND	ND	ND	ND	ND
	<b>Total VOCs</b>	<b>10</b>	<b>mg/kg</b>	<b>0.0879</b>	<b>159.4</b>	<b>0.0431</b>	<b>1.1</b>	<b>0.019</b>	<b>0.0089</b>	<b>0.0093</b>	<b>0.017</b>
	<b>SEMIVOLATILES</b>										
117-81-7	Bis(2-ethylhexyl)phthalate	50	mg/kg	NA	ND	ND	NA	ND	ND	ND	NA
86-74-8	Carbazole	--	mg/kg	NA	ND	ND	NA	ND	ND	ND	NA
132-64-9	Dibenzofuran	6.2	mg/kg	NA	1.2	ND	NA	ND	ND	ND	NA
84-74-2	Di-n-butylphthalate	8.1	mg/kg	NA	ND	ND	NA	ND	ND	ND	NA
	<b>PAHs</b>										
83-32-9	Acenaphthene	50	mg/kg	NA	14	0.82	NA	0.061 J	ND	ND	NA
208-96-8	Acenaphthylene	41	mg/kg	NA	12	0.11 J	NA	ND	ND	ND	NA
120-12-7	Anthracene	50	mg/kg	NA	16	0.28 J	NA	ND	ND	ND	NA
120-12-7	Benzo(a)anthracene	0.224 or MDL	mg/kg	NA	8	0.15 J	NA	0.043 J	ND	ND	NA
50-32-8	Benzo(a)pyrene	0.061 or MDL	mg/kg	NA	5.4	0.1 J	NA	ND	ND	ND	NA
205-99-2	Benzo(b)fluoranthene	1.1	mg/kg	NA	4.9 J	0.069 J	NA	ND	ND	ND	NA
191-24-2	Benzo(g,h,i)perylene	50	mg/kg	NA	0.86 J	ND	NA	ND	ND	ND	NA
207-08-9	Benzo(k)fluoranthene	1.1	mg/kg	NA	1.7 J	ND	NA	ND	ND	ND	NA
218-01-9	Chrysene	0.4	mg/kg	NA	7.6	0.14 J	NA	ND	ND	ND	NA
53-70-3	Dibenz(a,h)anthracene	0.014 or MDL	mg/kg	NA	0.2 J	ND	NA	ND	ND	ND	NA
206-44-0	Fluoranthene	50	mg/kg	NA	15	0.25 J	NA	0.043 J	ND	ND	NA
86-73-7	Fluorene	50	mg/kg	NA	14	0.4 J	NA	ND	ND	ND	NA
193-39-5	Indeno(1,2,3-cd)pyrene	3.2	mg/kg	NA	0.41 J	ND	NA	ND	ND	ND	NA
91-57-6	2-Methylnaphthalene	36.4	mg/kg	NA	38	1.6	NA	ND	ND	ND	NA
91-20-3	Naphthalene	13	mg/kg	NA	53	1.7	NA	ND	ND	ND	NA
85-01-8	Phenanthrene	50	mg/kg	NA	54	1.1	NA	0.097 J	ND	ND	NA
129-00-0	Pyrene	50	mg/kg	NA	27	0.48	NA	0.11 J	ND	ND	NA
	<b>Total PAHs</b>	<b>--</b>	<b>mg/kg</b>	<b>NA</b>	<b>272.07</b>	<b>7.199</b>	<b>NA</b>	<b>0.354</b>	<b>ND</b>	<b>ND</b>	<b>NA</b>
	<b>Total SVOCs</b>	<b>500</b>	<b>mg/kg</b>	<b>NA</b>	<b>273.27</b>	<b>7.199</b>	<b>NA</b>	<b>0.354</b>	<b>ND</b>	<b>ND</b>	<b>NA</b>

Notes:

- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994).
- (2) Eastern USA Background levels provided in NYSDEC TAGM 4046.
- (3) -- indicates no cleanup objective or background level is available.
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- (5) NA indicates compound was not analyzed for.
- (6) ND indicates compound was not detected.
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- (8) R indicates rejected data.
- (9) MDL is the method detection limit.
- (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives.

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>		Location ID:		MW-1	MW-1	MW-1	MW-2	MW-2	MW-2	Duplicate of	MW-3
				MW-1(11-13)	MW-1(31-33)	MW-1(37-39)	MW-2 (7-9)	MW-2(27-29)	MW-2(31-33)	MW-2 (31-33)	MW-2 (310-330)	MW-3(11-13)	
CAS NO.	COMPOUND	Background <sup>(2)</sup>		UNITS:									
	<b>INORGANICS</b>												
7429-90-5	Aluminum	33000	SB	mg/Kg	NA	13600	12300	NA	2230	2970	4760	NA	NA
7440-36-C	Antimony	--	SB	mg/Kg	NA	R	R	NA	ND	ND	ND	NA	NA
7440-38-2	Arsenic	3-12	7.5 or SB	mg/Kg	NA	5.66 J	4.56 J	NA	2.24	0.693 J	ND	NA	NA
7440-39-3	Barium	15-600	300 or SB	mg/Kg	NA	139	106	NA	19 J	13.1 J	18.4 J	NA	NA
7440-41-7	Beryllium	0-1.75	0.16 or SB	mg/Kg	NA	0.79	0.651	NA	0.126 J	0.139 J	0.224 J	NA	NA
7440-43-5	Cadmium	0.1-1	1 or SB	mg/Kg	NA	ND	ND	NA	ND	ND	ND	NA	NA
7440-70-2	Calcium	130-3500C	SB	mg/Kg	NA	4940	8090	NA	1430 J	802 J	1030 J	NA	NA
7440-47-3	Chromium	1.5-40	10 or SB	mg/Kg	NA	8.14 J	6.55 J	NA	5.59	6.71	9.24	NA	NA
7440-48-4	Cobalt	2.5-60	30 or SB	mg/Kg	NA	15 J	18.8 J	NA	2.27 J	2.15 J	3.54 J	NA	NA
7440-50-8	Copper	1-50	25 or SB	mg/Kg	NA	267 J	282 J	NA	11.4	5.88	9.32	NA	NA
7439-89-€	Iron	2000-55000C	2000 or SB	mg/Kg	NA	44800	48100	NA	4760	4460	6320	NA	NA
7439-92-1	Lead	4-61	SB	mg/Kg	NA	223 J	23.6 J	NA	12.3	0.551 J	2.04 J	NA	NA
7439-95-4	Magnesium	100-5000	SB	mg/Kg	NA	1850	2910	NA	1120	1330	2010	NA	NA
7439-96-5	Manganese	50-5000	SB	mg/Kg	NA	614	742	NA	66.1	37.6	56.4	NA	NA
7439-97-€	Mercury	0.001-0.2	0.1	mg/Kg	NA	0.009 J	0.014 J	NA	0.029 J	0.008 J	0.011 J	NA	NA
7440-02-C	Nickel	0.5-25	13 or SB	mg/Kg	NA	5.19	2.79 J	NA	5.73	8.14	12.2	NA	NA
7440-09-7	Potassium	8500-4300C	SB	mg/Kg	NA	2540 J	4080 J	NA	402 J	684	992	NA	NA
7782-49-2	Selenium	0.1-3.9	2 or SB	mg/Kg	NA	1.91 J	1.44 J	NA	ND	ND	ND	NA	NA
7440-22-4	Silver	--	SB	mg/Kg	NA	ND	2.06	NA	0.346 J	R	R	NA	NA
7440-23-5	Sodium	6000-800C	SB	mg/Kg	NA	R	79.2 J	NA	146 J	397 J	308 J	NA	NA
7440-28-C	Thallium	--	SB	mg/Kg	NA	0.971 J	0.423 J	NA	ND	0.862 J	ND	NA	NA
7440-62-2	Vanadium	1-300	150 or SB	mg/Kg	NA	9.81 J	10.2 J	NA	5.71	6.49	10.2	NA	NA
7440-66-€	Zinc	9-50	20 or SB	mg/Kg	NA	124	60.5	NA	16.9	14.1	23.4	NA	NA
57-12-5	Cyanide	--	SB	mg/Kg	NA	ND	ND	NA	ND	ND	ND	NA	NA

Notes:

- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994)
- (2) Eastern USA Background levels provided in NYSDEC TAGM 4046
- (3) -- indicates no cleanup objective or background level is available
- (4) SB indicates the soil cleanup objective is the site background level
- (5) NA indicates compound was not analyzed for.
- (6) ND indicates compound was not detected.
- (7) J indicates an estimated concentration.
- (8) R indicates rejected data.
- (9) MDL is the method detection limit.
- (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>	Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	MW-3 MW-3(27-29) T2092-02 27-29' Chemtech T2092 SOIL 3/29/2005 5/16/2005	MW-3 MW-3(33-35) T2092-03 33-35' Chemtech T2092 SOIL 3/29/2005 5/16/2005	MW-4 MW-4 (1-2) T5990-01 1-2' Chemtech T5990 SOIL 12/1/2005 2/19/2006	MW-4 MW-4(26-28) X1027-09 26-28' Chemtech X1027 SOIL 1/6/2006 2/22/2006	MW-4 MW-4(36-38) X1027-10 36-38' Chemtech X1027 SOIL 1/6/2006 2/22/2006	MW-5 MW-5 (9-11) T6240-01 11-Sep Chemtech T6240 SOIL 12/19/2005 2/20/2006	MW-5 MW-5(31-33) T6240-02 31-33 Chemtech T6240 SOIL 12/19/2005 2/20/2006	MW-5 MW-5(39-41) T6240-03 39-41 Chemtech T6240 SOIL 12/19/2005 2/20/2006
CAS NO.	COMPOUND		UNITS:								
	<b>VOLATILES</b>										
67-64-1	Acetone	0.2	mg/kg	ND	0.009 J	ND	ND	ND	ND	ND	0.57
71-43-2	Benzene	0.06	mg/kg	ND	ND	0.38 J	0.5 J	0.0065 J	ND	ND	ND
78-93-3	2-Butanone	0.3	mg/kg	ND	ND	ND	ND	ND	0.021 J	ND	0.031 J
75-15-0	Carbon Disulfide	2.7	mg/kg	0.0026 J	0.0039 J	ND	ND	ND	ND	ND	ND
156-59-2	cis-1,2-Dichloroethene	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
100-41-4	Ethyl Benzene	5.5	mg/kg	ND	ND	0.27 J	25	0.046	ND	ND	ND
75-09-2	Methylene Chloride	0.1	mg/kg	0.0024 J	ND	ND	ND	ND	ND	ND	ND
100-42-5	Styrene	--	mg/kg	ND	ND	0.56 J	ND	ND	ND	ND	ND
108-88-3	Toluene	1.5	mg/kg	ND	ND	1.5	0.19 J	ND	ND	ND	ND
79-01-6	Trichloroethene	0.7	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
136777-61-2	m/p-Xylenes	1.2	mg/kg	ND	ND	2	18	0.039	ND	ND	ND
1330-20-7	o-Xylene	1.2	mg/kg	ND	ND	0.63 J	9.2	0.022 J	ND	ND	ND
	<b>Total VOCs</b>	<b>10</b>	<b>mg/kg</b>	<b>0.005</b>	<b>0.0129</b>	<b>5.34</b>	<b>52.89</b>	<b>0.1135</b>	<b>0.021</b>	<b>ND</b>	<b>0.601</b>
	<b>SEMIVOLATILES</b>										
117-81-7	Bis(2-ethylhexyl)phthalate	50	mg/kg	0.04 J	0.092 J	ND	ND	ND	NA	ND	ND
86-74-8	Carbazole	--	mg/kg	ND	ND	ND	ND	ND	NA	ND	ND
132-64-9	Dibenzofuran	6.2	mg/kg	ND	ND	ND	ND	ND	NA	ND	ND
84-74-2	Di-n-butylphthalate	8.1	mg/kg	ND	ND	ND	ND	ND	NA	ND	ND
	<b>PAHs</b>										
83-32-9	Acenaphthene	50	mg/kg	ND	ND	ND	90 J	0.71	NA	ND	ND
208-96-8	Acenaphthylene	41	mg/kg	ND	ND	ND	8.7 J	0.089 J	NA	ND	ND
120-12-7	Anthracene	50	mg/kg	ND	ND	ND	35 J	0.32 J	NA	ND	ND
120-12-7	Benzo(a)anthracene	0.224 or MDL	mg/kg	ND	ND	ND	13 J	0.12 J	NA	ND	ND
50-32-8	Benzo(a)pyrene	0.061 or MDL	mg/kg	ND	ND	ND	7.8 J	0.078 J	NA	ND	ND
205-99-2	Benzo(b)fluoranthene	1.1	mg/kg	ND	ND	ND	5.4 J	0.05 J	NA	ND	ND
191-24-2	Benzo(g,h,i)perylene	50	mg/kg	ND	ND	ND	2.7 J	ND	NA	ND	ND
207-08-9	Benzo(k)fluoranthene	1.1	mg/kg	ND	ND	ND	ND	ND	NA	ND	ND
218-01-9	Chrysene	0.4	mg/kg	ND	ND	ND	14 J	0.14 J	NA	ND	ND
53-70-3	Dibenz(a,h)anthracene	0.014 or MDL	mg/kg	ND	ND	ND	ND	ND	NA	ND	ND
206-44-0	Fluoranthene	50	mg/kg	ND	ND	ND	24 J	0.24 J	NA	ND	ND
86-73-7	Fluorene	50	mg/kg	ND	ND	ND	37 J	0.34 J	NA	ND	ND
193-39-5	Indeno(1,2,3-cd)pyrene	3.2	mg/kg	ND	ND	ND	2.7 J	ND	NA	ND	ND
91-57-6	2-Methylnaphthalene	36.4	mg/kg	ND	ND	ND	330	2	NA	ND	ND
91-20-3	Naphthalene	13	mg/kg	ND	ND	ND	590	3.7 J	NA	ND	ND
85-01-8	Phenanthrene	50	mg/kg	ND	ND	ND	130	1.1	NA	ND	ND
129-00-0	Pyrene	50	mg/kg	ND	ND	ND	40 J	0.41	NA	ND	ND
	<b>Total PAHs</b>	<b>--</b>	<b>mg/kg</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>1330.3</b>	<b>9.297</b>	<b>NA</b>	<b>ND</b>	<b>ND</b>
	<b>Total SVOCs</b>	<b>500</b>	<b>mg/kg</b>	<b>0.04</b>	<b>0.092</b>	<b>ND</b>	<b>1330.3</b>	<b>9.297</b>	<b>NA</b>	<b>ND</b>	<b>ND</b>

Notes:

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**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>		Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	MW-3 MW-3(27-29) T2092-02 27-29' Chemtech T2092 SOIL 3/29/2005 5/16/2005	MW-3 MW-3(33-35) T2092-03 33-35' Chemtech T2092 SOIL 3/29/2005 5/16/2005	MW-4 MW-4 (1-2) T5990-01 1-2' Chemtech T5990 SOIL 12/1/2005 2/19/2006	MW-4 MW-4(26-28) X1027-09 26-28' Chemtech X1027 SOIL 1/6/2006 2/22/2006	MW-4 MW-4(36-38) X1027-10 36-38' Chemtech X1027 SOIL 1/6/2006 2/22/2006	MW-5 MW-5 (9-11) T6240-01 11-Sep Chemtech T6240 SOIL 12/19/2005 2/20/2006	MW-5 MW-5(31-33) T6240-02 31-33 Chemtech T6240 SOIL 12/19/2005 2/20/2006	MW-5 MW-5(39-41) T6240-03 39-41 Chemtech T6240 SOIL 12/19/2005 2/20/2006
CAS NO.	COMPOUND	Background <sup>(2)</sup>		UNITS:								
	<b>INORGANICS</b>											
7429-90-5	Aluminum	33000	SB	mg/Kg	2710	2990	7310	2620	3260	NA	5680	3590
7440-36-C	Antimony	--	SB	mg/Kg	ND	ND	ND	ND	ND	NA	9.26 J	ND
7440-38-2	Arsenic	3-12	7.5 or SB	mg/Kg	0.809 J	1.04 J	5.57	0.552 J	0.96 J	NA	2.51	0.499 J
7440-39-3	Barium	15-600	300 or SB	mg/Kg	10.1 J	37.7 J	206 J	14.2 J	28 J	NA	14 J	18.7 J
7440-41-7	Beryllium	0-1.75	0.16 or SB	mg/Kg	0.183 J	0.202 J	0.432 J	0.16 J	0.28 J	NA	0.369 J	0.377 J
7440-43-5	Cadmium	0.1-1	1 or SB	mg/Kg	ND	ND	ND	ND	ND	NA	ND	ND
7440-70-2	Calcium	130-3500C	SB	mg/Kg	776 J	736 J	21000	848	7820	NA	1330 J	1280 J
7440-47-3	Chromium	1.5-40	10 or SB	mg/Kg	5.94	7.59	15.9	6.67	8.48	NA	8.18 J	9.47 J
7440-48-4	Cobalt	2.5-60	30 or SB	mg/Kg	2.3 J	2.4 J	7.22	1.71 J	4.36 J	NA	3.46 J	3.05 J
7440-50-8	Copper	1-50	25 or SB	mg/Kg	6.02	6.87	46.2	7.38	12.6	NA	10.1	7.96
7439-89-€	Iron	2000-55000C	2000 or SB	mg/Kg	4300	5380	14500	4850	8800	NA	8630	7900
7439-92-1	Lead	4-61	SB	mg/Kg	2.7	2.64	212	2.12	3.03	NA	4.61	4.61
7439-95-4	Magnesium	100-5000	SB	mg/Kg	1380	1580	6660	1310	4860	NA	2450	2000
7439-96-5	Manganese	50-5000	SB	mg/Kg	47.9 J	59.8 J	257	34.7	309	NA	84.7	54.2
7439-97-€	Mercury	0.001-0.2	0.1	mg/Kg	ND	ND	0.606 J	R	R	NA	0.011 J	ND
7440-02-C	Nickel	0.5-25	13 or SB	mg/Kg	6.5	6.73	16.8 J	2.83 J	14.7 J	NA	6.86	6.85
7440-09-7	Potassium	8500-4300C	SB	mg/Kg	358 J	426 J	2040 J	610	1190	NA	899 J	1200 J
7782-49-2	Selenium	0.1-3.9	2 or SB	mg/Kg	0.479 J	1.08 J	0.721 J	0.456 J	ND	NA	ND	ND
7440-22-4	Silver	--	SB	mg/Kg	ND	0.474 J	0.186 J	0.302 J	0.44 J	NA	0.352 J	0.116 J
7440-23-5	Sodium	6000-800C	SB	mg/Kg	276 J	335 J	366 J	248 J	528 J	NA	564 J	682
7440-28-C	Thallium	--	SB	mg/Kg	ND	0.463 J	ND	ND	ND	NA	ND	ND
7440-62-2	Vanadium	1-300	150 or SB	mg/Kg	6.65	8.11	24.1 J	6.61	11	NA	8.7 J	10.1 J
7440-66-€	Zinc	9-50	20 or SB	mg/Kg	14.1 J	18 J	170	14 J	19.3 J	NA	27.3	23.8
57-12-5	Cyanide	--	SB	mg/Kg	ND	ND	4.46	0.668	ND	NA	ND	ND

- Notes:
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  - (5) NA indicates compound was not analyzed for.
  - (6) ND indicates compound was not detected.
  - (7) J indicates an estimated concentration.
  - (8) R indicates rejected data.
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**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>	Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	MW-6 MW-6 (7-9) T6110-01 7-9' Chemtech T6110 SOIL 12/12/2005 2/19/2006	MW-6 MW-6(33-35) T6110-02 33-35' Chemtech T6110 SOIL 12/12/2005 2/19/2006	MW-6 MW-6(43-45) T6110-03 43-45' Chemtech T6110 SOIL 12/12/2005 2/19/2006	MW-7 MW-7 (9-11) T5751-02 9-11' Chemtech T5751 SOIL 11/14/2005 1/2/2006	MW-7 MW-7(28-30) T5751-03 28-30' Chemtech T5751 SOIL 11/14/2005 1/2/2006	MW-7 MW-7(38-40) T5751-04 38-40' Chemtech T5751 SOIL 11/14/2005 1/2/2006	MW-8 MW-8 (9-11) T6240-06 11-Sep Chemtech T6240 SOIL 12/20/2005 2/20/2006	MW-8 MW-8(31-33) T6240-07 31-33 Chemtech T6240 SOIL 12/20/2005 2/20/2006
CAS NO.	COMPOUND		UNITS:								
	<b>VOLATILES</b>										
67-64-1	Acetone	0.2	mg/kg	ND	0.56 J	ND	ND	ND	ND	0.66	ND
71-43-2	Benzene	0.06	mg/kg	ND	0.0049 J	ND	ND	ND	ND	ND	ND
78-93-3	2-Butanone	0.3	mg/kg	ND	0.037 J	ND	ND	ND	ND	0.034 J	0.022 J
75-15-0	Carbon Disulfide	2.7	mg/kg	0.0073 J	ND	ND	ND	ND	ND	ND	ND
156-59-2	cis-1,2-Dichloroethene	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
100-41-4	Ethyl Benzene	5.5	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
75-09-2	Methylene Chloride	0.1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
100-42-5	Styrene	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
108-88-3	Toluene	1.5	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
79-01-6	Trichloroethene	0.7	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
136777-61-2	m/p-Xylenes	1.2	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
1330-20-7	o-Xylene	1.2	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
	<b>Total VOCs</b>	<b>10</b>	<b>mg/kg</b>	<b>0.0073</b>	<b>0.6019</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>0.694</b>	<b>0.022</b>
	<b>SEMIVOLATILES</b>										
117-81-7	Bis(2-ethylhexyl)phthalate	50	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
86-74-8	Carbazole	--	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
132-64-9	Dibenzofuran	6.2	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
84-74-2	Di-n-butylphthalate	8.1	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
	<b>PAHs</b>										
83-32-9	Acenaphthene	50	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
208-96-8	Acenaphthylene	41	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
120-12-7	Anthracene	50	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
120-12-7	Benzo(a)anthracene	0.224 or MDL	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
50-32-8	Benzo(a)pyrene	0.061 or MDL	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
205-99-2	Benzo(b)fluoranthene	1.1	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
191-24-2	Benzo(g,h,i)perylene	50	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
207-08-9	Benzo(k)fluoranthene	1.1	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
218-01-9	Chrysene	0.4	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
53-70-3	Dibenz(a,h)anthracene	0.014 or MDL	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
206-44-0	Fluoranthene	50	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
86-73-7	Fluorene	50	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
193-39-5	Indeno(1,2,3-cd)pyrene	3.2	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
91-57-6	2-Methylnaphthalene	36.4	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
91-20-3	Naphthalene	13	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
85-01-8	Phenanthrene	50	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
129-00-0	Pyrene	50	mg/kg	NA	ND	ND	NA	ND	ND	NA	ND
	<b>Total PAHs</b>	<b>--</b>	<b>mg/kg</b>	<b>NA</b>	<b>ND</b>	<b>ND</b>	<b>NA</b>	<b>ND</b>	<b>ND</b>	<b>NA</b>	<b>ND</b>
	<b>Total SVOCs</b>	<b>500</b>	<b>mg/kg</b>	<b>NA</b>	<b>ND</b>	<b>ND</b>	<b>NA</b>	<b>ND</b>	<b>ND</b>	<b>NA</b>	<b>ND</b>

Notes:

- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994).
- (2) Eastern USA Background levels provided in NYSDEC TAGM 4046.
- (3) -- indicates no cleanup objective or background level is available.
- (4) SB indicates the soil cleanup objective is the site background level.
- (5) NA indicates compound was not analyzed for.
- (6) ND indicates compound was not detected.
- (7) J indicates an estimated concentration.
- (8) R indicates rejected data.
- (9) MDL is the method detection limit.
- (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives.

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>		Location ID: Sample ID: Lab Sample ID: Depth:	MW-6 MW-6 (7-9) T6110-01 7-9'	MW-6 MW-6(33-35) T6110-02 33-35'	MW-6 MW-6(43-45) T6110-03 43-45'	MW-7 MW-7 (9-11) T5751-02 9-11'	MW-7 MW-7(28-30) T5751-03 28-30'	MW-7 MW-7(38-40) T5751-04 38-40'	MW-8 MW-8 (9-11) T6240-06 11-Sep	MW-8 MW-8(31-33) T6240-07 31-33
				Source: SDG: Matrix: Sampled: Validated:	Chemtech T6110 SOIL 12/12/2005 2/19/2006	Chemtech T6110 SOIL 12/12/2005 2/19/2006	Chemtech T6110 SOIL 12/12/2005 2/19/2006	Chemtech T5751 SOIL 11/14/2005 1/2/2006	Chemtech T5751 SOIL 11/14/2005 1/2/2006	Chemtech T5751 SOIL 11/14/2005 1/2/2006	Chemtech T6240 SOIL 12/20/2005 2/20/2006	Chemtech T6240 SOIL 12/20/2005 2/20/2006
CAS NO.	COMPOUND	Background <sup>(2)</sup>		UNITS:								
	<b>INORGANICS</b>											
7429-90-5	Aluminum	33000	SB	mg/Kg	NA	3760 J	2650 J	NA	6940 J	4720 J	NA	2670
7440-36-C	Antimony	--	SB	mg/Kg	NA	ND	14 J	NA	1.7 J	ND	NA	ND
7440-38-2	Arsenic	3-12	7.5 or SB	mg/Kg	NA	1.12 J	0.562 J	NA	1.5	ND	NA	0.711 J
7440-39-3	Barium	15-600	300 or SB	mg/Kg	NA	31.6 J	12.5 J	NA	18 J	74.8 J	NA	11.6 J
7440-41-7	Beryllium	0-1.75	0.16 or SB	mg/Kg	NA	0.341 J	0.288 J	NA	0.25 J	0.32 J	NA	0.255 J
7440-43-5	Cadmium	0.1-1	1 or SB	mg/Kg	NA	ND	ND	NA	ND	ND	NA	ND
7440-70-2	Calcium	130-3500C	SB	mg/Kg	NA	1430 J	7100 J	NA	736 J	12900 J	NA	802 J
7440-47-3	Chromium	1.5-40	10 or SB	mg/Kg	NA	12.2 J	7.98 J	NA	10.7	11.8	NA	5.26 J
7440-48-4	Cobalt	2.5-60	30 or SB	mg/Kg	NA	3.09 J	6.54 J	NA	4 J	5.1 J	NA	2.03 J
7440-50-8	Copper	1-50	25 or SB	mg/Kg	NA	7.55	11.3	NA	10.7	11.2	NA	5.98
7439-89-€	Iron	2000-55000C	2000 or SB	mg/Kg	NA	8400 J	6720 J	NA	12900 J	11000 J	NA	5360
7439-92-1	Lead	4-61	SB	mg/Kg	NA	13.5 J	4.02 J	NA	10.3 J	7.6 J	NA	2.15
7439-95-4	Magnesium	100-5000	SB	mg/Kg	NA	2040 J	4900 J	NA	2730	5110	NA	1400
7439-96-5	Manganese	50-5000	SB	mg/Kg	NA	68.9 J	219 J	NA	82.9 J	298 J	NA	50.2
7439-97-€	Mercury	0.001-0.2	0.1	mg/Kg	NA	0.274 J	ND	NA	0.033	ND	NA	ND
7440-02-C	Nickel	0.5-25	13 or SB	mg/Kg	NA	10.3 J	22.6 J	NA	10.4 J	13.5 J	NA	3.49 J
7440-09-7	Potassium	8500-4300C	SB	mg/Kg	NA	1750 J	1430 J	NA	997 J	1850 J	NA	417 J
7782-49-2	Selenium	0.1-3.9	2 or SB	mg/Kg	NA	ND	ND	NA	ND	ND	NA	ND
7440-22-4	Silver	--	SB	mg/Kg	NA	0.364 J	0.235 J	NA	0.44 J	0.41 J	NA	0.114 J
7440-23-5	Sodium	6000-800C	SB	mg/Kg	NA	1330 J	2050 J	NA	426 J	738 J	NA	278 J
7440-28-C	Thallium	--	SB	mg/Kg	NA	ND	ND	NA	ND	ND	NA	ND
7440-62-2	Vanadium	1-300	150 or SB	mg/Kg	NA	13.1 J	10 J	NA	13.9 J	13.4 J	NA	4.78 J
7440-66-€	Zinc	9-50	20 or SB	mg/Kg	NA	23.2 J	15.5 J	NA	47.2 J	27.6 J	NA	14.3
57-12-5	Cyanide	--	SB	mg/Kg	NA	ND	ND	NA	ND	ND	NA	ND

Notes:

- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994)
- (2) Eastern USA Background levels provided in NYSDEC TAGM 404€
- (3) -- indicates no cleanup objective or background level is available
- (4) SB indicates the soil cleanup objective is the site background level
- (5) NA indicates compound was not analyzed for.
- (6) ND indicates compound was not detected.
- (7) J indicates an estimated concentration.
- (8) R indicates rejected data.
- (9) MDL is the method detection limit.
- (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>	Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	MW-8 MW-8(39-41) T6240-08 39-41 Chemtech T6240 SOIL 12/20/2005 2/20/2006	SB-02 SB-2(27-29) T2175-08 27-29' Chemtech T2175 SOIL 4/6/2005 5/17/2005	SB-02 SB-2(43-45) T2175-09 43-45' Chemtech T2175 SOIL 4/6/2005 5/17/2005	SB-03 SB-3(33-35) T2175-12 33-35' Chemtech T2175 SOIL 4/7/2005 5/17/2005	SB-03 SB-3(47-49) T2175-13 47-49' Chemtech T2175 SOIL 4/7/2005 5/17/2005	SB-04 SB-4 (5-7) T2175-15 5-7' Chemtech T2175 SOIL 4/8/2005 5/17/2005	SB-04 SB-4(31-33) T2175-16 31-33' Chemtech T2175 SOIL 4/8/2005 5/17/2005	SB-04 SB-4(47-49) T2175-17 47-49' Chemtech T2175 SOIL 4/8/2005 5/17/2005
CAS NO.	COMPOUND		UNITS:								
<b>VOLATILES</b>											
67-64-1	Acetone	0.2	mg/kg	ND	ND	ND	ND	ND	0.14	ND	ND
71-43-2	Benzene	0.06	mg/kg	ND	0.17	ND	ND	ND	0.0046 J	ND	0.0025 J
78-93-3	2-Butanone	0.3	mg/kg	ND	ND	ND	ND	ND	0.014 J	ND	ND
75-15-0	Carbon Disulfide	2.7	mg/kg	ND	0.021 J	0.0033 J	0.017 J	0.0047 J	0.0035 J	0.0055 J	0.0056 J
156-59-2	cis-1,2-Dichloroethene	--	mg/kg	ND	ND	ND	ND	0.012	ND	0.0014 J	0.0033 J
100-41-4	Ethyl Benzene	5.5	mg/kg	ND	0.25	ND	0.17	ND	ND	ND	ND
75-09-2	Methylene Chloride	0.1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
100-42-5	Styrene	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
108-88-3	Toluene	1.5	mg/kg	ND	0.0018 J	ND	ND	ND	ND	ND	ND
79-01-6	Trichloroethene	0.7	mg/kg	ND	ND	ND	ND	0.0025 J	ND	ND	ND
136777-61-2	m/p-Xylenes	1.2	mg/kg	ND	0.033	ND	0.1	ND	ND	ND	ND
1330-20-7	o-Xylene	1.2	mg/kg	ND	0.075	ND	0.062	ND	ND	ND	ND
<b>Total VOCs</b>		<b>10</b>	<b>mg/kg</b>	<b>ND</b>	<b>0.5508</b>	<b>0.0033</b>	<b>0.349</b>	<b>0.0192</b>	<b>0.1621</b>	<b>0.0069</b>	<b>0.0114</b>
<b>SEMIVOLATILES</b>											
117-81-7	Bis(2-ethylhexyl)phthalate	50	mg/kg	ND	ND	ND	ND	ND	0.093 J	ND	ND
86-74-8	Carbazole	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
132-64-9	Dibenzofuran	6.2	mg/kg	ND	ND	ND	0.69 J	ND	ND	ND	ND
84-74-2	Di-n-butylphthalate	8.1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
<b>PAHs</b>											
83-32-9	Acenaphthene	50	mg/kg	ND	ND	ND	4.3	ND	ND	ND	ND
208-96-8	Acenaphthylene	41	mg/kg	ND	ND	ND	15	ND	ND	ND	ND
120-12-7	Anthracene	50	mg/kg	ND	ND	ND	11	ND	ND	ND	ND
120-12-7	Benzo(a)anthracene	0.224 or MDL	mg/kg	ND	ND	ND	18	ND	ND	ND	ND
50-32-8	Benzo(a)pyrene	0.061 or MDL	mg/kg	ND	ND	ND	12 J	ND	ND	ND	ND
205-99-2	Benzo(b)fluoranthene	1.1	mg/kg	ND	ND	ND	12	ND	ND	ND	ND
191-24-2	Benzo(g,h,i)perylene	50	mg/kg	ND	ND	ND	2	ND	ND	ND	ND
207-08-9	Benzo(k)fluoranthene	1.1	mg/kg	ND	ND	ND	3.8	ND	ND	ND	ND
218-01-9	Chrysene	0.4	mg/kg	ND	ND	ND	17	ND	ND	ND	ND
53-70-3	Dibenz(a,h)anthracene	0.014 or MDL	mg/kg	ND	ND	ND	0.43 J	ND	ND	ND	ND
206-44-0	Fluoranthene	50	mg/kg	ND	ND	ND	18	ND	ND	ND	ND
86-73-7	Fluorene	50	mg/kg	ND	ND	ND	8.1	ND	ND	ND	ND
193-39-5	Indeno(1,2,3-cd)pyrene	3.2	mg/kg	ND	ND	ND	1.4 J	ND	ND	ND	ND
91-57-6	2-Methylnaphthalene	36.4	mg/kg	ND	ND	ND	24	ND	ND	ND	ND
91-20-3	Naphthalene	13	mg/kg	ND	0.45	ND	11	ND	ND	ND	ND
85-01-8	Phenanthrene	50	mg/kg	ND	ND	ND	28	ND	ND	ND	ND
129-00-0	Pyrene	50	mg/kg	ND	ND	ND	39	ND	ND	ND	ND
<b>Total PAHs</b>		<b>--</b>	<b>mg/kg</b>	<b>ND</b>	<b>0.45</b>	<b>ND</b>	<b>225.03</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>
<b>Total SVOCs</b>		<b>500</b>	<b>mg/kg</b>	<b>ND</b>	<b>0.45</b>	<b>ND</b>	<b>225.72</b>	<b>ND</b>	<b>0.093</b>	<b>ND</b>	<b>ND</b>

Notes:

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**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>		Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	MW-8 MW-8(39-41) T6240-08 39-41 Chemtech T6240 SOIL 12/20/2005 2/20/2006	SB-02 SB-2(27-29) T2175-08 27-29' Chemtech T2175 SOIL 4/6/2005 5/17/2005	SB-02 SB-2(43-45) T2175-09 43-45' Chemtech T2175 SOIL 4/6/2005 5/17/2005	SB-03 SB-3(33-35) T2175-12 33-35' Chemtech T2175 SOIL 4/7/2005 5/17/2005	SB-03 SB-3(47-49) T2175-13 47-49' Chemtech T2175 SOIL 4/7/2005 5/17/2005	SB-04 SB-4 (5-7) T2175-15 5-7' Chemtech T2175 SOIL 4/8/2005 5/17/2005	SB-04 SB-4(31-33) T2175-16 31-33' Chemtech T2175 SOIL 4/8/2005 5/17/2005	SB-04 SB-4(47-49) T2175-17 47-49' Chemtech T2175 SOIL 4/8/2005 5/17/2005
CAS NO.	COMPOUND	Background <sup>(2)</sup>		UNITS:								
	<b>INORGANICS</b>											
7429-90-5	Aluminum	33000	SB	mg/Kg	3030	9160	3720	2150	4610	7430	4430	3920
7440-36-C	Antimony	--	SB	mg/Kg	3.24 J	R	R	ND	ND	5.43 J	ND	ND
7440-38-2	Arsenic	3-12	7.5 or SB	mg/Kg	0.876 J	3.89 J	0.492 J	1.72	1.33	7.88	ND	1.49
7440-39-3	Barium	15-600	300 or SB	mg/Kg	31.5	19.9 J	28.7 J	7.33 J	53 J	95.5 J	23.1 J	64.5 J
7440-41-7	Beryllium	0-1.75	0.16 or SB	mg/Kg	0.329 J	0.434 J	0.26 J	0.085 J	0.316 J	0.346 J	0.206 J	0.29 J
7440-43-5	Cadmium	0.1-1	1 or SB	mg/Kg	ND	ND	ND	ND	ND	ND	ND	ND
7440-70-2	Calcium	130-3500C	SB	mg/Kg	6880 J	931	1720	645	1610	11000	786	13000
7440-47-3	Chromium	1.5-40	10 or SB	mg/Kg	7.35 J	14.8 J	9.64 J	6.07 J	14.7 J	15.1 J	9.22 J	12.7 J
7440-48-4	Cobalt	2.5-60	30 or SB	mg/Kg	4.13 J	9.12 J	4.68 J	3.02 J	5.42 J	6.26	2.93 J	5.73 J
7440-50-8	Copper	1-50	25 or SB	mg/Kg	14.6	18.3	8.23	5.98	12.8	144	14.3	14
7439-89-€	Iron	2000-55000C	2000 or SB	mg/Kg	7390	13400	9100	5240	12700	12500	7230	10800
7439-92-1	Lead	4-61	SB	mg/Kg	4.04	9.33 J	3.41 J	1.25	4.76	194	3.47	5.99
7439-95-4	Magnesium	100-5000	SB	mg/Kg	4270	3270	3060	1110	2710	3320	1790	5440
7439-96-5	Manganese	50-5000	SB	mg/Kg	352	109 J	75.4 J	27.7	72.9	384	48	620
7439-97-€	Mercury	0.001-0.2	0.1	mg/Kg	ND	ND	ND	0.015	0.02	1.2	0.011 J	0.012 J
7440-02-C	Nickel	0.5-25	13 or SB	mg/Kg	9.78	15.1 J	19.2 J	7.1	19	14.1	8.76	17.2
7440-09-7	Potassium	8500-4300C	SB	mg/Kg	1160 J	1090 J	1310 J	343 J	1640	918	676	1260
7782-49-2	Selenium	0.1-3.9	2 or SB	mg/Kg	ND	R	R	ND	ND	0.435 J	0.569 J	ND
7440-22-4	Silver	--	SB	mg/Kg	0.389 J	0.225 J	ND	R	0.793 J	R	4.28 J	R
7440-23-5	Sodium	6000-800C	SB	mg/Kg	1020	951 J	413 J	167 J	496 J	1230	304 J	466 J
7440-28-C	Thallium	--	SB	mg/Kg	ND	ND	ND	ND	ND	ND	ND	ND
7440-62-2	Vanadium	1-300	150 or SB	mg/Kg	7.4 J	18.1 J	12.2 J	5.47 J	19.1	18.5	12.1	14.1
7440-66-€	Zinc	9-50	20 or SB	mg/Kg	20.2	44.4 J	19.7 J	15.5	25	148	18.6	24.5
57-12-5	Cyanide	--	SB	mg/Kg	ND	ND	ND	ND	ND	ND	ND	ND

- Notes:
- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994)
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**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>	Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-05 SB-5(35-37) T2092-12 35-37' Chemtech T2092 SOIL 4/1/2005 5/16/2005	SB-05 SB-5(49-51) T2092-13 49-51' Chemtech T2092 SOIL 4/1/2005 5/16/2005	SB-06 SB-6(29-31) T2092-06 29-31' Chemtech T2092 SOIL 3/31/2005 5/16/2005	SB-06 SB-6(49-51) T2092-07 49-51' Chemtech T2092 SOIL 3/31/2005 5/16/2005	SB-07 SB-7 (7-9) T1960-04 7-9' Chemtech T1960 SOIL 3/16/2005 5/16/2005	SB-07 SB-7(49-51) T1960-03 49-51' Chemtech T1960 SOIL 3/18/2005 2/19/2006	SB-10 SB-10 (9-11) T6110-05 9-11' Chemtech T6110 SOIL 12/13/2005 2/19/2006	SB-10 SB-10(25-27) T6110-06 25-27' Chemtech T6110 SOIL 12/13/2005 2/19/2006
CAS NO.	COMPOUND		UNITS:								
<b>VOLATILES</b>											
67-64-1	Acetone	0.2	mg/kg	ND	ND	ND	ND	ND	ND	R	R
71-43-2	Benzene	0.06	mg/kg	9	ND	0.021	ND	0.0048 J	ND	0.18 J	0.17 J
78-93-3	2-Butanone	0.3	mg/kg	ND	ND	ND	ND	0.019 J	ND	ND	ND
75-15-0	Carbon Disulfide	2.7	mg/kg	ND	ND	0.004 J	ND	0.0087 J	ND	ND	ND
156-59-2	cis-1,2-Dichloroethene	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
100-41-4	Ethyl Benzene	5.5	mg/kg	440	0.0076	0.0054 J	ND	ND	ND	22	1.7 J
75-09-2	Methylene Chloride	0.1	mg/kg	ND	ND	ND	ND	0.0048 J	ND	ND	ND
100-42-5	Styrene	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
108-88-3	Toluene	1.5	mg/kg	150	0.005 J	ND	ND	0.0015 J	ND	0.12 J	ND
79-01-6	Trichloroethene	0.7	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
136777-61-2	m/p-Xylenes	1.2	mg/kg	300	0.0067	ND	ND	ND	ND	9.9	1.3 J
1330-20-7	o-Xylene	1.2	mg/kg	140	0.0052 J	ND	ND	ND	ND	6.9	0.67 J
<b>Total VOCs</b>		<b>10</b>	<b>mg/kg</b>	<b>1039</b>	<b>0.0245</b>	<b>0.0304</b>	<b>ND</b>	<b>0.0388</b>	<b>ND</b>	<b>39.1</b>	<b>3.84</b>
<b>SEMIVOLATILES</b>											
117-81-7	Bis(2-ethylhexyl)phthalate	50	mg/kg	0.29 J	0.061 J	ND	ND	ND	ND	ND	ND
86-74-8	Carbazole	--	mg/kg	0.14 J	ND	ND	ND	ND	ND	ND	ND
132-64-9	Dibenzofuran	6.2	mg/kg	1	ND	ND	ND	ND	ND	1.7 J	ND
84-74-2	Di-n-butylphthalate	8.1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
<b>PAHs</b>											
83-32-9	Acenaphthene	50	mg/kg	2.9	ND	ND	ND	0.26 J	ND	23	11
208-96-8	Acenaphthylene	41	mg/kg	8	ND	ND	ND	0.16 J	ND	3	1.2 J
120-12-7	Anthracene	50	mg/kg	3.7	ND	ND	ND	0.34 J	ND	11	9
120-12-7	Benzo(a)anthracene	0.224 or MDL	mg/kg	2.1	ND	ND	ND	0.37 J	ND	7.6	4.2
50-32-8	Benzo(a)pyrene	0.061 or MDL	mg/kg	1.5 J	ND	ND	ND	0.41 J	ND	5.1	2.2 J
205-99-2	Benzo(b)fluoranthene	1.1	mg/kg	1.4 J	ND	ND	ND	0.25 J	ND	4.7	1.8 J
191-24-2	Benzo(g,h,i)perylene	50	mg/kg	0.24 J	ND	ND	ND	0.28 J	ND	1.1 J	ND
207-08-9	Benzo(k)fluoranthene	1.1	mg/kg	0.46 J	ND	ND	ND	0.18 J	ND	1.2 J	ND
218-01-9	Chrysene	0.4	mg/kg	2.2	ND	ND	ND	0.44 J	ND	7.7	4.4
53-70-3	Dibenz(a,h)anthracene	0.014 or MDL	mg/kg	0.059 J	ND	ND	ND	ND	ND	0.38 J	ND
206-44-0	Fluoranthene	50	mg/kg	3.6	ND	ND	ND	0.57	ND	15 J	7.6
86-73-7	Fluorene	50	mg/kg	6	ND	ND	ND	ND	ND	12	5.9
193-39-5	Indeno(1,2,3-cd)pyrene	3.2	mg/kg	0.12 J	ND	ND	ND	ND	ND	0.69 J	ND
91-57-6	2-Methylnaphthalene	36.4	mg/kg	32	0.086 J	ND	ND	ND	ND	44	9.2
91-20-3	Naphthalene	13	mg/kg	55	0.26 J	0.13 J	ND	0.084 J	ND	60	6.6
85-01-8	Phenanthrene	50	mg/kg	13	ND	ND	ND	0.08 J	ND	44	22
129-00-0	Pyrene	50	mg/kg	5.8	ND	ND	ND	1.2	ND	16 J	10
<b>Total PAHs</b>		<b>--</b>	<b>mg/kg</b>	<b>138.079</b>	<b>0.346</b>	<b>0.13</b>	<b>ND</b>	<b>4.624</b>	<b>ND</b>	<b>256.47</b>	<b>95.1</b>
<b>Total SVOCs</b>		<b>500</b>	<b>mg/kg</b>	<b>139.509</b>	<b>0.407</b>	<b>0.13</b>	<b>ND</b>	<b>4.624</b>	<b>ND</b>	<b>258.17</b>	<b>95.1</b>

Notes:

- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994).
- (2) Eastern USA Background levels provided in NYSDEC TAGM 4046.
- (3) -- indicates no cleanup objective or background level is available.
- (4) SB indicates the soil cleanup objective is the site background level.
- (5) NA indicates compound was not analyzed for.
- (6) ND indicates compound was not detected.
- (7) J indicates an estimated concentration.
- (8) R indicates rejected data.
- (9) MDL is the method detection limit.
- (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives.

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>		Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-05 SB-5(35-37) T2092-12 35-37' Chemtech T2092 SOIL 4/1/2005 5/16/2005	SB-05 SB-5(49-51) T2092-13 49-51' Chemtech T2092 SOIL 4/1/2005 5/16/2005	SB-06 SB-6(29-31) T2092-06 29-31' Chemtech T2092 SOIL 3/31/2005 5/16/2005	SB-06 SB-6(49-51) T2092-07 49-51' Chemtech T2092 SOIL 3/31/2005 5/16/2005	SB-07 SB-7 (7-9) T1960-04 7-9' Chemtech T1960 SOIL 3/16/2005 5/16/2005	SB-07 SB-7(49-51) T1960-03 49-51' Chemtech T1960 SOIL 3/18/2005 5/16/2005	SB-10 SB-10 (9-11) T6110-05 9-11' Chemtech T6110 SOIL 12/13/2005 2/19/2006	SB-10 SB-10(25-27) T6110-06 25-27' Chemtech T6110 SOIL 12/13/2005 2/19/2006
CAS NO.	COMPOUND	Background <sup>(2)</sup>		UNITS:								
	<b>INORGANICS</b>											
7429-90-5	Aluminum	33000	SB	mg/Kg	4110	4550	2480	4300	3910	4490	12200 J	3540 J
7440-36-C	Antimony	--	SB	mg/Kg	0.914 J	ND	ND	ND	ND	ND	33.8 J	ND
7440-38-2	Arsenic	3-12	7.5 or SB	mg/Kg	1.6	1.78	0.788 J	1.54	7.14	1.44	5.13	1.31
7440-39-3	Barium	15-600	300 or SB	mg/Kg	40.6	57.3	19.8 J	57.8	118	84.6	145 J	25 J
7440-41-7	Beryllium	0-1.75	0.16 or SB	mg/Kg	0.383 J	0.428 J	0.179 J	0.398 J	0.347 J	0.328 J	0.531 J	0.213 J
7440-43-5	Cadmium	0.1-1	1 or SB	mg/Kg	ND	ND	ND	ND	0.223 J	ND	ND	ND
7440-70-2	Calcium	130-3500C	SB	mg/Kg	1310	15700	635	17800	8580	11600	10300 J	873 J
7440-47-3	Chromium	1.5-40	10 or SB	mg/Kg	10.3 J	10.7 J	8.35 J	9.88 J	8.76	10.4	24.6 J	6.19 J
7440-48-4	Cobalt	2.5-60	30 or SB	mg/Kg	4.33 J	5.25 J	1.81 J	5.11 J	5.85 J	4.84 J	10.8 J	2.32 J
7440-50-8	Copper	1-50	25 or SB	mg/Kg	10.1	11.3	5.19	14.8	350	10.3	38.4	10.2
7439-89-€	Iron	2000-55000C	2000 or SB	mg/Kg	8900	9220	5310	9220	7330	8940	19500 J	5850 J
7439-92-1	Lead	4-61	SB	mg/Kg	5.27	5.1	1.1	5.33	325	3.89	180 J	6.39 J
7439-95-4	Magnesium	100-5000	SB	mg/Kg	2330	5450	1220	5300	832	5980	4780 J	1740 J
7439-96-5	Manganese	50-5000	SB	mg/Kg	64.4	442	40.3	626	89.9	319	304 J	49.5 J
7439-97-€	Mercury	0.001-0.2	0.1	mg/Kg	ND	ND	ND	ND	1.9 J	ND	0.235 J	0.017 J
7440-02-C	Nickel	0.5-25	13 or SB	mg/Kg	13.4	12.9	5.2	13.5	13.8 J	19.1 J	18.7 J	4.27 J
7440-09-7	Potassium	8500-4300C	SB	mg/Kg	1410 J	1980 J	438 J	1620 J	741 J	2390 J	4700 J	547 J
7782-49-2	Selenium	0.1-3.9	2 or SB	mg/Kg	0.672 J	ND	ND	ND	6.31	ND	ND	ND
7440-22-4	Silver	--	SB	mg/Kg	ND	ND	ND	ND	0.916 J	ND	1.01 J	ND
7440-23-5	Sodium	6000-800C	SB	mg/Kg	463 J	1810 J	179 J	1760 J	1570 J	1980 J	676 J	338 J
7440-28-C	Thallium	--	SB	mg/Kg	0.574 J	ND	ND	ND	1.69	0.497 J	ND	ND
7440-62-2	Vanadium	1-300	150 or SB	mg/Kg	13.9	14.2	7.6	13.8	26.9	12.3	34.6 J	6.5 J
7440-66-€	Zinc	9-50	20 or SB	mg/Kg	24.3	27.7	13.2	25.1	223	23	101 J	19.7 J
57-12-5	Cyanide	--	SB	mg/Kg	ND	ND	ND	ND	ND	ND	ND	ND

- Notes:
- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994)
  - (2) Eastern USA Background levels provided in NYSDEC TAGM 4046
  - (3) -- indicates no cleanup objective or background level is available
  - (4) SB indicates the soil cleanup objective is the site background level
  - (5) NA indicates compound was not analyzed for.
  - (6) ND indicates compound was not detected.
  - (7) J indicates an estimated concentration.
  - (8) R indicates rejected data.
  - (9) MDL is the method detection limit.
  - (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

				Duplicate of SB-10 (48-50)		SB-12	SB-13	SB-13	SB-13	SB-15	SB-16
Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>	Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-10 SB-10(48-50)	SB-10 SB-10(480-500)	SB-12(20-30)	SB-13 (5-7)	SB-13(15-17)	SB-13(37-39)	SB-15 (5-9)	SB-16 (5-7)
CAS NO.	COMPOUND		UNITS:								
	<b>VOLATILES</b>										
67-64-1	Acetone	0.2	mg/kg	ND	ND	R	ND	ND	ND	R	0.11 J
71-43-2	Benzene	0.06	mg/kg	ND	ND	0.87	0.52	0.23 J	0.0046 J	ND	0.04
78-93-3	2-Butanone	0.3	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
75-15-0	Carbon Disulfide	2.7	mg/kg	ND	ND	0.55 J	ND	ND	ND	0.69 J	ND
156-59-2	cis-1,2-Dichloroethene	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
100-41-4	Ethyl Benzene	5.5	mg/kg	ND	ND	29	0.29	14	0.014 J	11 J	0.17
75-09-2	Methylene Chloride	0.1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
100-42-5	Styrene	--	mg/kg	ND	ND	0.37 J	ND	ND	0.0093 J	0.25 J	0.063
108-88-3	Toluene	1.5	mg/kg	ND	ND	0.28 J	0.016 J	ND	0.011 J	0.3 J	0.052
79-01-6	Trichloroethene	0.7	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
136777-61-2	m/p-Xylenes	1.2	mg/kg	ND	ND	11	0.31	9.9	0.021 J	7.9 J	0.24
1330-20-7	o-Xylene	1.2	mg/kg	ND	ND	4.8	0.22	4.8	0.011 J	3.7 J	0.24
	<b>Total VOCs</b>	<b>10</b>	<b>mg/kg</b>	<b>ND</b>	<b>ND</b>	<b>46.87</b>	<b>1.356</b>	<b>28.93</b>	<b>0.0709</b>	<b>23.84</b>	<b>0.915</b>
	<b>SEMIVOLATILES</b>										
117-81-7	Bis(2-ethylhexyl)phthalate	50	mg/kg	ND	ND	ND	ND	ND	ND	ND	NA
86-74-8	Carbazole	--	mg/kg	ND	ND	ND	ND	3.2 J	ND	1.3 J	NA
132-64-9	Dibenzofuran	6.2	mg/kg	ND	ND	0.34 J	ND	13 J	ND	1.6 J	NA
84-74-2	Di-n-butylphthalate	8.1	mg/kg	ND	ND	ND	ND	ND	ND	ND	NA
	<b>PAHs</b>										
83-32-9	Acenaphthene	50	mg/kg	ND	ND	6.8	2.4	32	ND	22	NA
208-96-8	Acenaphthylene	41	mg/kg	ND	ND	0.9	0.3 J	190 J	0.46	4.8	NA
120-12-7	Anthracene	50	mg/kg	ND	ND	2.3	1.3	120	0.16 J	9.6	NA
120-12-7	Benzo(a)anthracene	0.224 or MDL	mg/kg	ND	ND	1.6	0.91	52	0.088 J	6.6	NA
50-32-8	Benzo(a)pyrene	0.061 or MDL	mg/kg	ND	ND	1.1	0.7	31	ND	4.2 J	NA
205-99-2	Benzo(b)fluoranthene	1.1	mg/kg	ND	ND	0.96	0.83	23	0.26 J	3.8 J	NA
191-24-2	Benzo(g,h,i)perylene	50	mg/kg	ND	ND	0.41 J	0.15 J	4.4	ND	1.7 J	NA
207-08-9	Benzo(k)fluoranthene	1.1	mg/kg	ND	ND	0.35 J	0.24 J	14	ND	1.2 J	NA
218-01-9	Chrysene	0.4	mg/kg	ND	ND	1.5	0.92	43	ND	6.5	NA
53-70-3	Dibenz(a,h)anthracene	0.014 or MDL	mg/kg	ND	ND	ND	ND	1.6 J	ND	0.29 J	NA
206-44-0	Fluoranthene	50	mg/kg	ND	ND	2.3	2.1	88	0.12 J	9.3	NA
86-73-7	Fluorene	50	mg/kg	ND	ND	ND	1.3	59 J	0.2 J	13	NA
193-39-5	Indeno(1,2,3-cd)pyrene	3.2	mg/kg	ND	ND	0.22 J	0.12 J	2.3 J	ND	1.1 J	NA
91-57-6	2-Methylnaphthalene	36.4	mg/kg	ND	ND	16	3.7	840	1.7	72	NA
91-20-3	Naphthalene	13	mg/kg	ND	0.098 J	32	0.59	1200	ND	100	NA
85-01-8	Phenanthrene	50	mg/kg	ND	0.069 J	9.6	4	230	0.56	39	NA
129-00-0	Pyrene	50	mg/kg	ND	ND	7.9	2.4	84 J	0.23 J	29	NA
	<b>Total PAHs</b>	<b>--</b>	<b>mg/kg</b>	<b>ND</b>	<b>0.167</b>	<b>83.94</b>	<b>21.96</b>	<b>3014.3</b>	<b>3.778</b>	<b>324.09</b>	<b>NA</b>
	<b>Total SVOCs</b>	<b>500</b>	<b>mg/kg</b>	<b>ND</b>	<b>0.167</b>	<b>84.28</b>	<b>21.96</b>	<b>3030.5</b>	<b>3.778</b>	<b>326.99</b>	<b>NA</b>

Notes:

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- (2) Eastern USA Background levels provided in NYSDEC TAGM 4046.
- (3) -- indicates no cleanup objective or background level is available.
- (4) SB indicates the soil cleanup objective is the site background level.
- (5) NA indicates compound was not analyzed for.
- (6) ND indicates compound was not detected.
- (7) J indicates an estimated concentration.
- (8) R indicates rejected data.
- (9) MDL is the method detection limit.
- (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives.

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

				Duplicate of SB-10 (48-50)								
Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>		Location ID:	SB-10	SB-10	SB-12	SB-13	SB-13	SB-13	SB-15	SB-16
		Sample ID:	SB-10(48-50)	SB-10(480-500)	SB-12(20-30)	SB-13 (5-7)	SB-13(15-17)	SB-13(37-39)	SB-15 (5-9)	SB-16 (5-7)		
		Lab Sample ID:	T6110-10	T6110-11	X3217-01	X1027-02	X1027-03	X1027-04	X3217-02	X1027-06		
		Depth:	48-50'	48-50'	20-30"	5-7'	15-17'	37-39'	5-9'	5-7'		
		Source:	Chemtech	Chemtech	Chemtech	Chemtech	Chemtech	Chemtech	Chemtech	Chemtech		
SDG:	T6110	T6110	X3217	X1027	X1027	X1027	X3217	X1027				
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sampled:	12/14/2005	12/14/2005	6/9/2006	1/4/2006	1/4/2006	1/4/2006	6/9/2006	1/5/2006				
Validated:	2/19/2006	2/19/2006	7/24/2006	2/22/2006	2/22/2006	2/22/2006	7/24/2006	2/22/2006				
CAS NO.	COMPOUND	Background <sup>(2)</sup>		UNITS:								
<b>INORGANICS</b>												
7429-90-5	Aluminum	33000	SB	mg/Kg	3310	2970 J	6330 J	9500	7930	3810	6970 J	NA
7440-36-C	Antimony	--	SB	mg/Kg	4.4 J	ND	ND	3.48 J	24.5	11.2	ND	NA
7440-38-2	Arsenic	3-12	7.5 or SB	mg/Kg	0.898 J	1.4	10.7	10.8	3.02	ND	7.16	NA
7440-39-3	Barium	15-600	300 or SB	mg/Kg	77.5 J	82.7 J	157 J	279	12.5 J	19.3 J	186 J	NA
7440-41-7	Beryllium	0-1.75	0.16 or SB	mg/Kg	0.288 J	0.29 J	0.415 J	0.576 J	0.48 J	0.378 J	0.365 J	NA
7440-43-5	Cadmium	0.1-1	1 or SB	mg/Kg	ND	ND	0.239 J	ND	ND	ND	ND	NA
7440-70-2	Calcium	130-3500C	SB	mg/Kg	10200 J	12200 J	15000 J	14100	1220	2420	8720 J	NA
7440-47-3	Chromium	1.5-40	10 or SB	mg/Kg	8.29 J	7.79 J	15.8 J	19.6	11.8	9.55	14.2 J	NA
7440-48-4	Cobalt	2.5-60	30 or SB	mg/Kg	5.57 J	4.78 J	6.99 J	8.55	5.62 J	5.13 J	6.91 J	NA
7440-50-8	Copper	1-50	25 or SB	mg/Kg	11.3	10.7	126 J	63.6	15.4	9.51	45 J	NA
7439-89-€	Iron	2000-55000C	2000 or SB	mg/Kg	7480 J	7440 J	16000 J	19700	12600	8790	18800 J	NA
7439-92-1	Lead	4-61	SB	mg/Kg	5.67 J	4.25 J	455	470	5.81	2.77	365	NA
7439-95-4	Magnesium	100-5000	SB	mg/Kg	5150 J	4750 J	3100 J	4210	3390	3600	2780 J	NA
7439-96-5	Manganese	50-5000	SB	mg/Kg	305 J	335 J	202 J	281 J	112 J	105 J	208 J	NA
7439-97-€	Mercury	0.001-0.2	0.1	mg/Kg	ND	ND	2.3 J	2.7	ND	ND	0.402 J	NA
7440-02-C	Nickel	0.5-25	13 or SB	mg/Kg	19.4 J	12.4 J	15.5	18.1	12.5	20.6	15	NA
7440-09-7	Potassium	8500-4300C	SB	mg/Kg	1740 J	1370 J	1500	2700	1190	1520	1900	NA
7782-49-2	Selenium	0.1-3.9	2 or SB	mg/Kg	ND	ND	0.811 J	1.06 J	ND	ND	0.447 J	NA
7440-22-4	Silver	--	SB	mg/Kg	0.149 J	0.233 J	0.472 J	2.67	2.44	1.36	ND	NA
7440-23-5	Sodium	6000-800C	SB	mg/Kg	1060 J	1070 J	690	721	396 J	486 J	440 J	NA
7440-28-C	Thallium	--	SB	mg/Kg	ND	ND	ND	ND	ND	ND	ND	NA
7440-62-2	Vanadium	1-300	150 or SB	mg/Kg	10.2 J	10.6 J	22.7 J	28.6 J	15.8 J	11.6 J	24.2 J	NA
7440-66-€	Zinc	9-50	20 or SB	mg/Kg	21.7 J	21.3 J	336 J	290	37.5	19.2	170 J	NA
57-12-5	Cyanide	--	SB	mg/Kg	ND	ND	ND	ND	ND	ND	ND	NA

- Notes:
- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994)
  - (2) Eastern USA Background levels provided in NYSDEC TAGM 4046
  - (3) -- indicates no cleanup objective or background level is available
  - (4) SB indicates the soil cleanup objective is the site background level
  - (5) NA indicates compound was not analyzed for.
  - (6) ND indicates compound was not detected.
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  - (8) R indicates rejected data.
  - (9) MDL is the method detection limit.
  - (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>	Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-17 SB-17(15-27) X3616-01 15-27" Chemtech X3616 SOIL 7/6/2006 7/24/2006	SB-18 SB-18 (9-11) T6110-13 9-11" Chemtech T6110 SOIL 12/16/2005 2/19/2006	SB-18 SB-18(31-33) T6110-14 31-33" Chemtech T6110 SOIL 12/16/2005 2/19/2006	SB-18 SB-18(47-49) T6110-17 47-49" Chemtech T6110 SOIL 12/16/2005 2/19/2006	SB-20 SB-20 (1-2) T5990-04 1-2' Chemtech T5990 SOIL 12/16/2005 2/19/2006	SB-20 SB-20 (7-9) T5990-05 7-9' Chemtech T5990 SOIL 12/8/2005 2/19/2006	SB-20 SB-20(27-29) T5990-06 27-29' Chemtech T5990 SOIL 12/8/2005 2/19/2006	SB-20 SB-20(47-49) T5990-08 47-49' Chemtech T5990 SOIL 12/8/2005 2/19/2006
CAS NO.	COMPOUND		UNITS:								
<b>VOLATILES</b>											
67-64-1	Acetone	0.2	mg/kg	ND	0.28 J	0.27 J	ND	ND	ND	ND	ND
71-43-2	Benzene	0.06	mg/kg	0.01 J	ND	ND	0.0041 J	0.14 J	ND	ND	ND
78-93-3	2-Butanone	0.3	mg/kg	ND	0.03 J	ND	ND	ND	ND	ND	ND
75-15-0	Carbon Disulfide	2.7	mg/kg	0.014 J	ND	0.051	0.015 J	0.049 J	ND	ND	ND
156-59-2	cis-1,2-Dichloroethene	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
100-41-4	Ethyl Benzene	5.5	mg/kg	ND	ND	ND	ND	0.2	0.0056 J	ND	ND
75-09-2	Methylene Chloride	0.1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
100-42-5	Styrene	--	mg/kg	ND	ND	ND	ND	0.3	ND	ND	ND
108-88-3	Toluene	1.5	mg/kg	0.0062 J	ND	ND	ND	0.68	ND	ND	ND
79-01-6	Trichloroethene	0.7	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
136777-61-2	m/p-Xylenes	1.2	mg/kg	ND	ND	ND	ND	1.3	ND	ND	ND
1330-20-7	o-Xylene	1.2	mg/kg	ND	ND	ND	ND	0.48	0.0077 J	ND	ND
<b>Total VOCs</b>		<b>10</b>	<b>mg/kg</b>	<b>0.0302</b>	<b>0.31</b>	<b>0.321</b>	<b>0.0191</b>	<b>3.149</b>	<b>0.0133</b>	<b>ND</b>	<b>ND</b>
<b>SEMIVOLATILES</b>											
117-81-7	Bis(2-ethylhexyl)phthalate	50	mg/kg	ND	0.076 J	ND	ND	ND	ND	ND	ND
86-74-8	Carbazole	--	mg/kg	ND	ND	ND	ND	ND	0.77 J	ND	ND
132-64-9	Dibenzofuran	6.2	mg/kg	ND	ND	ND	ND	ND	1.7 J	ND	ND
84-74-2	Di-n-butylphthalate	8.1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
<b>PAHs</b>											
83-32-9	Acenaphthene	50	mg/kg	0.32 J	ND	ND	ND	0.32 J	35 J	ND	ND
208-96-8	Acenaphthylene	41	mg/kg	0.11 J	ND	ND	ND	ND	5.7	ND	ND
120-12-7	Anthracene	50	mg/kg	0.27 J	ND	ND	ND	0.45 J	11	ND	ND
120-12-7	Benzo(a)anthracene	0.224 or MDL	mg/kg	0.82	ND	ND	ND	0.48 J	8.7	ND	ND
50-32-8	Benzo(a)pyrene	0.061 or MDL	mg/kg	0.75 J	ND	ND	ND	0.33 J	7.4 J	ND	ND
205-99-2	Benzo(b)fluoranthene	1.1	mg/kg	0.76 J	ND	ND	ND	0.41 J	7 J	ND	ND
191-24-2	Benzo(g,h,i)perylene	50	mg/kg	0.7 J	ND	ND	ND	0.19 J	1.7 J	ND	ND
207-08-9	Benzo(k)fluoranthene	1.1	mg/kg	0.33 J	ND	ND	ND	ND	2.5 J	ND	ND
218-01-9	Chrysene	0.4	mg/kg	0.76 J	ND	ND	ND	0.48 J	9.4	ND	ND
53-70-3	Dibenz(a,h)anthracene	0.014 or MDL	mg/kg	R	ND	ND	ND	ND	0.27 J	ND	ND
206-44-0	Fluoranthene	50	mg/kg	0.88 J	0.07 J	ND	ND	1.1	31 J	ND	ND
86-73-7	Fluorene	50	mg/kg	ND	ND	ND	ND	0.27 J	11	ND	ND
193-39-5	Indeno(1,2,3-cd)pyrene	3.2	mg/kg	0.37 J	ND	ND	ND	0.14 J	0.96 J	ND	ND
91-57-6	2-Methylnaphthalene	36.4	mg/kg	ND	ND	ND	ND	0.14 J	6.8	ND	ND
91-20-3	Naphthalene	13	mg/kg	0.09 J	0.065 J	ND	ND	0.42 J	28 J	ND	0.12 J
85-01-8	Phenanthrene	50	mg/kg	0.53	0.082 J	ND	ND	1.3	94 J	0.13 J	0.12 J
129-00-0	Pyrene	50	mg/kg	2.6	0.087 J	ND	ND	1.1	40 J	0.077 J	0.08 J
<b>Total PAHs</b>		<b>--</b>	<b>mg/kg</b>	<b>9.29</b>	<b>0.304</b>	<b>ND</b>	<b>ND</b>	<b>7.13</b>	<b>300.43</b>	<b>0.207</b>	<b>0.32</b>
<b>Total SVOCs</b>		<b>500</b>	<b>mg/kg</b>	<b>9.29</b>	<b>0.38</b>	<b>ND</b>	<b>ND</b>	<b>7.13</b>	<b>302.9</b>	<b>0.207</b>	<b>0.32</b>

Notes:

- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994).
- (2) Eastern USA Background levels provided in NYSDEC TAGM 4046.
- (3) -- indicates no cleanup objective or background level is available.
- (4) SB indicates the soil cleanup objective is the site background level.
- (5) NA indicates compound was not analyzed for.
- (6) ND indicates compound was not detected.
- (7) J indicates an estimated concentration.
- (8) R indicates rejected data.
- (9) MDL is the method detection limit.
- (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives.

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>		Location ID: Sample ID:	SB-17 SB-17(15-27)	SB-18 SB-18 (9-11)	SB-18 SB-18(31-33)	SB-18 SB-18(47-49)	SB-20 SB-20 (1-2)	SB-20 SB-20 (7-9)	SB-20 SB-20(27-29)	SB-20 SB-20(47-49)
				Lab Sample ID:	X3616-01	T6110-13	T6110-14	T6110-17	T5990-04	T5990-05	T5990-06	T5990-08
				Depth:	15-27"	9-11'	31-33'	47-49'	1-2'	7-9'	27-29'	47-49'
				Source:	Chemtech	Chemtech	Chemtech	Chemtech	Chemtech	Chemtech	Chemtech	Chemtech
				SDG:	X3616	T6110	T6110	T6110	T5990	T5990	T5990	T5990
				Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Sampled:	7/6/2006	12/16/2005	12/16/2005	12/16/2005	12/6/2005	12/8/2005	12/8/2005	12/8/2005
				Validated:	7/24/2006	2/19/2006	2/19/2006	2/19/2006	2/19/2006	2/19/2006	2/19/2006	2/19/2006
CAS NO.	COMPOUND	Background <sup>(2)</sup>		UNITS:								
<b>INORGANICS</b>												
7429-90-5	Aluminum	33000	SB	mg/Kg	8640	11700 J	5620 J	4330 J	8340	7540	3720	3690
7440-36-C	Antimony	--	SB	mg/Kg	ND	22 J	ND	ND	22.9 J	9.42 J	0.752 J	7.65 J
7440-38-2	Arsenic	3-12	7.5 or SB	mg/Kg	8.07	2.7	4.1	1.72	2.76 J	2.43 J	0.945 J	0.765 J
7440-39-3	Barium	15-600	300 or SB	mg/Kg	259	152 J	17.3 J	35.4 J	113	97.3	6.65 J	55.6
7440-41-7	Beryllium	0-1.75	0.16 or SB	mg/Kg	0.414 J	0.515 J	0.321 J	0.215 J	0.313 J	0.32 J	0.122 J	0.161 J
7440-43-5	Cadmium	0.1-1	1 or SB	mg/Kg	0.205 J	ND	ND	ND	ND	ND	ND	ND
7440-70-2	Calcium	130-3500C	SB	mg/Kg	11600 J	1690 J	1130 J	1310 J	12800	16000	688	7420
7440-47-3	Chromium	1.5-40	10 or SB	mg/Kg	21.2 J	29.3 J	10.2 J	11.1 J	14.3 J	12.1 J	4.59 J	5.38 J
7440-48-4	Cobalt	2.5-60	30 or SB	mg/Kg	9.2	12 J	6 J	3.57 J	7.82	6.64	1.41 J	2.57 J
7440-50-8	Copper	1-50	25 or SB	mg/Kg	63.4	34.1	12.7	11.5	34.2 J	35.3 J	3.48 J	6.2 J
7439-89-€	Iron	2000-55000C	2000 or SB	mg/Kg	18200	20500 J	10700 J	9630 J	15600	15500	6240	8090
7439-92-1	Lead	4-61	SB	mg/Kg	430	24.3 J	14.8 J	12.6 J	264	186	1.22	2.48
7439-95-4	Magnesium	100-5000	SB	mg/Kg	3940	5610 J	2510 J	2140 J	3640	3490	1370	4480
7439-96-5	Manganese	50-5000	SB	mg/Kg	230 J	214 J	75.4 J	63.2 J	316	257	49	246
7439-97-€	Mercury	0.001-0.2	0.1	mg/Kg	0.801 J	1.1 J	0.051 J	0.054 J	0.777 J	0.233 J	R	R
7440-02-C	Nickel	0.5-25	13 or SB	mg/Kg	22.6	21.6 J	11.8 J	8.47 J	15.3 J	12.8 J	4.06 J	13.4 J
7440-09-7	Potassium	8500-4300C	SB	mg/Kg	2400 J	6000 J	1100 J	1130 J	3780 J	3080 J	658 J	1590 J
7782-49-2	Selenium	0.1-3.9	2 or SB	mg/Kg	2	ND	ND	ND	1.54 J	1.65 J	0.865 J	0.786 J
7440-22-4	Silver	--	SB	mg/Kg	ND	0.702 J	0.274 J	0.132 J	3.14	2.91	0.825 J	1.28
7440-23-5	Sodium	6000-800C	SB	mg/Kg	534 J	313 J	451 J	599 J	262 J	346 J	557 J	1550 J
7440-28-C	Thallium	--	SB	mg/Kg	ND	ND	ND	ND	ND	ND	ND	ND
7440-62-2	Vanadium	1-300	150 or SB	mg/Kg	27.8	39.8 J	10.6 J	14.9 J	24.4 J	25 J	10.5 J	10.1 J
7440-66-€	Zinc	9-50	20 or SB	mg/Kg	268	60 J	31 J	27.1 J	257 J	156 J	10.8 J	9.52 J
57-12-5	Cyanide	--	SB	mg/Kg	1.52	ND	ND	ND	1.76	0.636	ND	ND

Notes:

- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994)
- (2) Eastern USA Background levels provided in NYSDEC TAGM 404€
- (3) -- indicates no cleanup objective or background level is available
- (4) SB indicates the soil cleanup objective is the site background level
- (5) NA indicates compound was not analyzed for.
- (6) ND indicates compound was not detected.
- (7) J indicates an estimated concentration.
- (8) R indicates rejected data.
- (9) MDL is the method detection limit.
- (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

				Duplicate of SB-20 (47-49)	SB-21	SB-21	SB-21	SB-21	SB-23	SB-23	SB-24	SB-24
Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>	Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-20 SB-20(470-490) T5990-09 47-49' Chemtech T5990 SOIL 12/8/2005 2/19/2006	SB-21 (5-7) SB-21(470-490) T6240-11 7-May Chemtech T6240 SOIL 12/22/2005 2/20/2006	SB-21(29-31) SB-21(29-31) T6240-12 29-31 Chemtech T6240 SOIL 12/22/2005 2/20/2006	SB-21(47-49) SB-21(47-49) T6240-13 47-49 Chemtech T6240 SOIL 12/22/2005 2/20/2006	SB-23(29-31) SB-23(29-31) T5751-07 29-31' Chemtech T5751 SOIL 11/16/2005 1/2/2006	SB-23(47-49) SB-23(47-49) T5751-08 47-49' Chemtech T5751 SOIL 11/16/2005 1/2/2006	SB-24 (7-9) SB-24 (7-9) T5751-10 7-9' Chemtech T5751 SOIL 11/18/2005 1/2/2006	SB-24(27-29) SB-24(27-29) T5751-11 27-29' Chemtech T5751 SOIL 11/18/2005 1/2/2006	
CAS NO.	COMPOUND		UNITS:									
	<b>VOLATILES</b>											
67-64-1	Acetone	0.2	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
71-43-2	Benzene	0.06	mg/kg	ND	0.0061 J	ND	ND	ND	ND	ND	ND	ND
78-93-3	2-Butanone	0.3	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
75-15-0	Carbon Disulfide	2.7	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
156-59-2	cis-1,2-Dichloroethene	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
100-41-4	Ethyl Benzene	5.5	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
75-09-2	Methylene Chloride	0.1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
100-42-5	Styrene	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
108-88-3	Toluene	1.5	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
79-01-6	Trichloroethene	0.7	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
136777-61-2	m/p-Xylenes	1.2	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
1330-20-7	o-Xylene	1.2	mg/kg	ND	ND	ND	ND	ND	ND	0.025 J	ND	ND
	<b>Total VOCs</b>	<b>10</b>	<b>mg/kg</b>	<b>ND</b>	<b>0.0061</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>0.025</b>	<b>ND</b>
	<b>SEMIVOLATILES</b>											
117-81-7	Bis(2-ethylhexyl)phthalate	50	mg/kg	ND	NA	ND	ND	ND	0.12 J	NA	ND	ND
86-74-8	Carbazole	--	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
132-64-9	Dibenzofuran	6.2	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
84-74-2	Di-n-butylphthalate	8.1	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
	<b>PAHs</b>											
83-32-9	Acenaphthene	50	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
208-96-8	Acenaphthylene	41	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
120-12-7	Anthracene	50	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
120-12-7	Benzo(a)anthracene	0.224 or MDL	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
50-32-8	Benzo(a)pyrene	0.061 or MDL	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
205-99-2	Benzo(b)fluoranthene	1.1	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
191-24-2	Benzo(g,h,i)perylene	50	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
207-08-9	Benzo(k)fluoranthene	1.1	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
218-01-9	Chrysene	0.4	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
53-70-3	Dibenz(a,h)anthracene	0.014 or MDL	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
206-44-0	Fluoranthene	50	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
86-73-7	Fluorene	50	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
193-39-5	Indeno(1,2,3-cd)pyrene	3.2	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
91-57-6	2-Methylnaphthalene	36.4	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
91-20-3	Naphthalene	13	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
85-01-8	Phenanthrene	50	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
129-00-0	Pyrene	50	mg/kg	ND	NA	ND	ND	ND	ND	NA	ND	ND
	<b>Total PAHs</b>	<b>--</b>	<b>mg/kg</b>	<b>ND</b>	<b>NA</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>NA</b>	<b>ND</b>	<b>ND</b>
	<b>Total SVOCs</b>	<b>500</b>	<b>mg/kg</b>	<b>ND</b>	<b>NA</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>0.12</b>	<b>NA</b>	<b>ND</b>	<b>ND</b>

Notes:

- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994).
- (2) Eastern USA Background levels provided in NYSDEC TAGM 4046.
- (3) -- indicates no cleanup objective or background level is available.
- (4) SB indicates the soil cleanup objective is the site background level.
- (5) NA indicates compound was not analyzed for.
- (6) ND indicates compound was not detected.
- (7) J indicates an estimated concentration.
- (8) R indicates rejected data.
- (9) MDL is the method detection limit.
- (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives.



**Table 4  
Soil Analytical Results  
Summary of Detected Compounds**

				Duplicate of SB-20 (47-49)		SB-21	SB-21	SB-21	SB-21	SB-23	SB-23	SB-24	SB-24
Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>		Location ID: Sample ID:	SB-20 SB-20(470-490)	SB-21 SB-21 (5-7)	SB-21 SB-21(29-31)	SB-21 SB-21(47-49)	SB-23 SB-23(29-31)	SB-23 SB-23(47-49)	SB-24 SB-24 (7-9)	SB-24 SB-24(27-29)	
		Lab Sample ID:	T5990-09	T6240-11	T6240-12	T6240-13	T5751-07	T5751-08	T5751-10	T5751-11			
		Depth:	47-49'	7-May	29-31'	47-49'	29-31'	47-49'	7-9'	7-9'	27-29'		
		Source:	Chemtech	Chemtech	Chemtech	Chemtech	Chemtech	Chemtech	Chemtech	Chemtech	Chemtech		
		SDG:	T5990	T6240	T6240	T6240	T5751	T5751	T5751	T5751	T5751		
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sampled:	12/8/2005	12/22/2005	12/22/2005	12/22/2005	11/16/2005	11/16/2005	11/16/2005	11/16/2005	11/18/2005				
Validated:	2/19/2006	2/20/2006	2/20/2006	2/20/2006	1/2/2006	1/2/2006	1/2/2006	1/2/2006	1/2/2006				
CAS NO.	COMPOUND	Background <sup>(2)</sup>		UNITS:									
	<b>INORGANICS</b>												
7429-90-5	Aluminum	33000	SB	mg/Kg	2880	NA	6180 J	2720 J	9110 J	4320 J	NA	4370 J	
7440-36-C	Antimony	--	SB	mg/Kg	4.49 J	NA	12.5 J	2.92 J	ND	ND	NA	ND	
7440-38-2	Arsenic	3-12	7.5 or SB	mg/Kg	0.877 J	NA	2.14 J	ND	1.54	ND	NA	0.746 J	
7440-39-3	Barium	15-600	300 or SB	mg/Kg	71.5	NA	14.3 J	56.6 J	30.4 J	76.4 J	NA	17.1 J	
7440-41-7	Beryllium	0-1.75	0.16 or SB	mg/Kg	0.134 J	NA	0.2 J	0.156 J	0.699	0.557 J	NA	0.443 J	
7440-43-5	Cadmium	0.1-1	1 or SB	mg/Kg	ND	NA	ND	ND	ND	ND	NA	ND	
7440-70-2	Calcium	130-3500C	SB	mg/Kg	10600	NA	1350 J	10100 J	466 J	14200 J	NA	664 J	
7440-47-3	Chromium	1.5-40	10 or SB	mg/Kg	4.24 J	NA	8.8 J	5.59 J	16.1	10.8	NA	10.4	
7440-48-4	Cobalt	2.5-60	30 or SB	mg/Kg	2.21 J	NA	3.36 J	3.45 J	7.7 J	5.9 J	NA	3.71 J	
7440-50-8	Copper	1-50	25 or SB	mg/Kg	5.91 J	NA	5.99 J	5.54 J	26.4	13.1	NA	10.6	
7439-89-6	Iron	2000-55000C	2000 or SB	mg/Kg	6990	NA	11800	7110	18800 J	10000 J	NA	9610 J	
7439-92-1	Lead	4-61	SB	mg/Kg	2.06	NA	4.04 J	2.35 J	6.67 J	5.01 J	NA	3.05 J	
7439-95-4	Magnesium	100-5000	SB	mg/Kg	5170	NA	3370 J	5080 J	3660	5120	NA	1800	
7439-96-5	Manganese	50-5000	SB	mg/Kg	345	NA	167	251	169 J	329 J	NA	70.1 J	
7439-97-6	Mercury	0.001-0.2	0.1	mg/Kg	R	NA	0.019	ND	0.044 J	R	NA	0.013 J	
7440-02-C	Nickel	0.5-25	13 or SB	mg/Kg	13.9 J	NA	9.27 J	15.5 J	14.8 J	12.7 J	NA	8.39 J	
7440-09-7	Potassium	8500-4300C	SB	mg/Kg	1620 J	NA	1750 J	1280 J	1320 J	1790 J	NA	806 J	
7782-49-2	Selenium	0.1-3.9	2 or SB	mg/Kg	0.666 J	NA	1.17 J	0.52 J	ND	ND	NA	ND	
7440-22-4	Silver	--	SB	mg/Kg	0.971 J	NA	1.56	0.768 J	ND	ND	NA	ND	
7440-23-5	Sodium	6000-800C	SB	mg/Kg	2450 J	NA	1330	2410	667	622 J	NA	288 J	
7440-28-C	Thallium	--	SB	mg/Kg	ND	NA	ND	ND	ND	ND	NA	ND	
7440-62-2	Vanadium	1-300	150 or SB	mg/Kg	7.99 J	NA	13.6 J	10.4 J	17.3 J	13 J	NA	13.5 J	
7440-66-6	Zinc	9-50	20 or SB	mg/Kg	8.67 J	NA	18.7 J	9.21 J	63.1 J	28.4 J	NA	22.6 J	
57-12-5	Cyanide	--	SB	mg/Kg	ND	NA	ND	ND	ND	ND	NA	ND	

Notes:

- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994)
- (2) Eastern USA Background levels provided in NYSDEC TAGM 4046
- (3) -- indicates no cleanup objective or background level is available
- (4) SB indicates the soil cleanup objective is the site background level
- (5) NA indicates compound was not analyzed for.
- (6) ND indicates compound was not detected.
- (7) J indicates an estimated concentration.
- (8) R indicates rejected data.
- (9) MDL is the method detection limit.
- (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>	Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-24 SB-24(47-49) T5846-02 47-49' Chemtech T5846 SOIL 11/21/2005 1/3/2006	SB-26 SB-26(33-35) T5846-04 33-35' Chemtech T5846 SOIL 11/23/2005 1/3/2006	SB-26 SB-26(47-49) T5846-05 47-49' Chemtech T5846 SOIL 11/23/2005 1/3/2006	SB-27 SB-27(31-33) T5619-14 31-33' Chemtech T5619 SOIL 11/10/2005 12/31/2005	SB-27 SB-27(47-49) T5619-15 47-49' Chemtech T5619 SOIL 11/10/2005 12/31/2005	SB-28 SB-28 (5-7) T5619-08 5-7' Chemtech T5619 SOIL 11/9/2005 12/31/2005	SB-28 SB-28(31-33) T5619-09 31-33' Chemtech T5619 SOIL 11/9/2005 12/31/2005	SB-28 SB-28(47-49) T5619-10 47-49' Chemtech T5619 SOIL 11/9/2005 12/31/2005
CAS NO.	COMPOUND		UNITS:								
<b>VOLATILES</b>											
67-64-1	Acetone	0.2	mg/kg	ND	ND	ND	R	R	ND	ND	ND
71-43-2	Benzene	0.06	mg/kg	ND	ND	ND	0.016 J	ND	ND	ND	ND
78-93-3	2-Butanone	0.3	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
75-15-0	Carbon Disulfide	2.7	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
156-59-2	cis-1,2-Dichloroethene	--	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
100-41-4	Ethyl Benzene	5.5	mg/kg	ND	0.014	ND	0.031 J	ND	ND	ND	ND
75-09-2	Methylene Chloride	0.1	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
100-42-5	Styrene	--	mg/kg	ND	0.0015 J	ND	ND	ND	ND	ND	ND
108-88-3	Toluene	1.5	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
79-01-6	Trichloroethene	0.7	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
136777-61-2	m/p-Xylenes	1.2	mg/kg	ND	0.0016 J	ND	ND	ND	ND	ND	ND
1330-20-7	o-Xylene	1.2	mg/kg	ND	0.0094	ND	0.0095 J	ND	ND	ND	ND
<b>Total VOCs</b>		<b>10</b>	<b>mg/kg</b>	<b>ND</b>	<b>0.0265</b>	<b>ND</b>	<b>0.0565</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>
<b>SEMIVOLATILES</b>											
117-81-7	Bis(2-ethylhexyl)phthalate	50	mg/kg	ND	ND	ND	ND	ND	NA	ND	ND
86-74-8	Carbazole	--	mg/kg	ND	ND	ND	ND	ND	NA	ND	ND
132-64-9	Dibenzofuran	6.2	mg/kg	ND	1.1	ND	ND	ND	NA	ND	ND
84-74-2	Di-n-butylphthalate	8.1	mg/kg	ND	ND	0.3 J	ND	ND	NA	ND	ND
<b>PAHs</b>											
83-32-9	Acenaphthene	50	mg/kg	ND	5.8	ND	ND	ND	NA	ND	ND
208-96-8	Acenaphthylene	41	mg/kg	ND	2.6	ND	ND	ND	NA	ND	ND
120-12-7	Anthracene	50	mg/kg	ND	12	ND	ND	ND	NA	ND	ND
120-12-7	Benzo(a)anthracene	0.224 or MDL	mg/kg	ND	5	ND	ND	ND	NA	ND	ND
50-32-8	Benzo(a)pyrene	0.061 or MDL	mg/kg	ND	3.7 J	ND	ND	ND	NA	ND	ND
205-99-2	Benzo(b)fluoranthene	1.1	mg/kg	ND	2.6 J	0.23 J	ND	ND	NA	ND	ND
191-24-2	Benzo(g,h,i)perylene	50	mg/kg	ND	0.71 J	ND	ND	ND	NA	ND	ND
207-08-9	Benzo(k)fluoranthene	1.1	mg/kg	ND	1.1 J	ND	ND	ND	NA	ND	ND
218-01-9	Chrysene	0.4	mg/kg	ND	5	ND	ND	ND	NA	ND	ND
53-70-3	Dibenz(a,h)anthracene	0.014 or MDL	mg/kg	ND	0.12 J	ND	ND	ND	NA	ND	ND
206-44-0	Fluoranthene	50	mg/kg	ND	11	ND	ND	ND	NA	ND	ND
86-73-7	Fluorene	50	mg/kg	ND	12	0.086 J	ND	ND	NA	ND	ND
193-39-5	Indeno(1,2,3-cd)pyrene	3.2	mg/kg	ND	0.33 J	ND	ND	ND	NA	ND	ND
91-57-6	2-Methylnaphthalene	36.4	mg/kg	ND	4.1	ND	ND	ND	NA	ND	ND
91-20-3	Naphthalene	13	mg/kg	ND	8.7	0.078 J	0.26 J	ND	NA	ND	ND
85-01-8	Phenanthrene	50	mg/kg	ND	38	0.2 J	ND	ND	NA	ND	ND
129-00-0	Pyrene	50	mg/kg	ND	20	0.082 J	ND	ND	NA	ND	ND
<b>Total PAHs</b>		<b>--</b>	<b>mg/kg</b>	<b>ND</b>	<b>132.76</b>	<b>0.676</b>	<b>0.26</b>	<b>ND</b>	<b>NA</b>	<b>ND</b>	<b>ND</b>
<b>Total SVOCs</b>		<b>500</b>	<b>mg/kg</b>	<b>ND</b>	<b>133.86</b>	<b>0.976</b>	<b>0.26</b>	<b>ND</b>	<b>NA</b>	<b>ND</b>	<b>ND</b>

Notes:

- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994).
- (2) Eastern USA Background levels provided in NYSDEC TAGM 4046.
- (3) -- indicates no cleanup objective or background level is available.
- (4) SB indicates the soil cleanup objective is the site background level.
- (5) NA indicates compound was not analyzed for.
- (6) ND indicates compound was not detected.
- (7) J indicates an estimated concentration.
- (8) R indicates rejected data.
- (9) MDL is the method detection limit.
- (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives.

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>		Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-24 SB-24(47-49) T5846-02 47-49' Chemtech T5846 SOIL 11/21/2005 1/3/2006	SB-26 SB-26(33-35) T5846-04 33-35' Chemtech T5846 SOIL 11/23/2005 1/3/2006	SB-26 SB-26(47-49) T5846-05 47-49' Chemtech T5846 SOIL 11/23/2005 1/3/2006	SB-27 SB-27(31-33) T5619-14 31-33' Chemtech T5619 SOIL 11/10/2005 12/31/2005	SB-27 SB-27(47-49) T5619-15 47-49' Chemtech T5619 SOIL 11/10/2005 12/31/2005	SB-28 SB-28 (5-7) T5619-08 5-7' Chemtech T5619 SOIL 11/9/2005 12/31/2005	SB-28 SB-28(31-33) T5619-09 31-33' Chemtech T5619 SOIL 11/9/2005 12/31/2005	SB-28 SB-28(47-49) T5619-10 47-49' Chemtech T5619 SOIL 11/9/2005 12/31/2005
CAS NO.	COMPOUND	Background <sup>(2)</sup>		UNITS:								
	<b>INORGANICS</b>											
7429-90-5	Aluminum	33000	SB	mg/Kg	4360	3830 J	5100 J	3270 J	4520 J	NA	3380 J	5340 J
7440-36-C	Antimony	--	SB	mg/Kg	ND	ND	ND	ND	0.88 J	NA	ND	ND
7440-38-2	Arsenic	3-12	7.5 or SB	mg/Kg	0.82 J	ND	ND	1.4	ND	NA	ND	ND
7440-39-3	Barium	15-600	300 or SB	mg/Kg	57	19.1 J	81.8 J	17.8 J	83.8 J	NA	20.8 J	55.7 J
7440-41-7	Beryllium	0-1.75	0.16 or SB	mg/Kg	0.41 J	0.181 J	0.317 J	0.14 J	0.33 J	NA	0.13 J	0.35 J
7440-43-5	Cadmium	0.1-1	1 or SB	mg/Kg	ND	ND	ND	ND	ND	NA	ND	ND
7440-70-2	Calcium	130-3500C	SB	mg/Kg	12700 J	886 J	16400 J	670 J	11500 J	NA	865 J	13300 J
7440-47-3	Chromium	1.5-40	10 or SB	mg/Kg	9.4	8.9	9.9	6.7 J	12.1 J	NA	8.2 J	12.7 J
7440-48-4	Cobalt	2.5-60	30 or SB	mg/Kg	5.3 J	2.29 J	5.73 J	1.6 J	5.2 J	NA	1.7 J	5.2 J
7440-50-8	Copper	1-50	25 or SB	mg/Kg	10.7	9.24	14.6	6.7	8.7	NA	10.9	9.7
7439-89-€	Iron	2000-55000C	2000 or SB	mg/Kg	9210	6430 J	11100 J	6770 J	11100 J	NA	6330 J	13600 J
7439-92-1	Lead	4-61	SB	mg/Kg	7.8	1.83 J	3.43 J	5.4	6.3	NA	3.5	7.9
7439-95-4	Magnesium	100-5000	SB	mg/Kg	4560 J	1850 J	5910 J	1270 J	5000 J	NA	1380 J	5410 J
7439-96-5	Manganese	50-5000	SB	mg/Kg	293	53.2 J	481 J	41.6 J	273 J	NA	42.4 J	309 J
7439-97-€	Mercury	0.001-0.2	0.1	mg/Kg	ND	ND	ND	0.011 J	ND	NA	ND	ND
7440-02-C	Nickel	0.5-25	13 or SB	mg/Kg	11.5	6.57	12	6.8 J	14.7 J	NA	5.6 J	15.5 J
7440-09-7	Potassium	8500-4300C	SB	mg/Kg	1480	920	1810	501 J	2150	NA	600	2250
7782-49-2	Selenium	0.1-3.9	2 or SB	mg/Kg	1.2 J	ND	ND	1.8	ND	NA	ND	ND
7440-22-4	Silver	--	SB	mg/Kg	0.41 J	ND	ND	0.15 J	0.34 J	NA	0.24 J	0.49 J
7440-23-5	Sodium	6000-800C	SB	mg/Kg	411 J	399 J	820 J	76.4 J	1160 J	NA	ND	1040 J
7440-28-C	Thallium	--	SB	mg/Kg	0.82 J	ND	ND	ND	ND	NA	ND	ND
7440-62-2	Vanadium	1-300	150 or SB	mg/Kg	12.3 J	11.2	13.7	8.6 J	15.6 J	NA	10.1 J	16.4 J
7440-66-€	Zinc	9-50	20 or SB	mg/Kg	25.8 J	18.5 J	29.4 J	17.1 J	23.1 J	NA	16.5 J	27.8 J
57-12-5	Cyanide	--	SB	mg/Kg	ND	ND	ND	ND	ND	NA	ND	ND

- Notes:
- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994)
  - (2) Eastern USA Background levels provided in NYSDEC TAGM 4046
  - (3) -- indicates no cleanup objective or background level is available
  - (4) SB indicates the soil cleanup objective is the site background level
  - (5) NA indicates compound was not analyzed for.
  - (6) ND indicates compound was not detected.
  - (7) J indicates an estimated concentration.
  - (8) R indicates rejected data.
  - (9) MDL is the method detection limit.
  - (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives

**Table 4**  
**Soil Analytical Results**  
**Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>	Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:	SB-29	SB-29	Duplicate of	SB-29
CAS NO.	COMPOUND			SB-29(21-23)	SB-29(33-35)	SB-29(33-35)DUP	SB-29(47-49)
	<b>VOLATILES</b>						
67-64-1	Acetone	0.2	mg/kg	ND	ND	0.013 J	ND
71-43-2	Benzene	0.06	mg/kg	ND	ND	0.0017 J	ND
78-93-3	2-Butanone	0.3	mg/kg	ND	ND	ND	ND
75-15-0	Carbon Disulfide	2.7	mg/kg	ND	ND	ND	ND
156-59-2	cis-1,2-Dichloroethene	--	mg/kg	ND	ND	ND	ND
100-41-4	Ethyl Benzene	5.5	mg/kg	ND	ND	0.016 J	0.0023 J
75-09-2	Methylene Chloride	0.1	mg/kg	ND	ND	ND	ND
100-42-5	Styrene	--	mg/kg	ND	ND	ND	ND
108-88-3	Toluene	1.5	mg/kg	ND	ND	0.0026 J	ND
79-01-6	Trichloroethene	0.7	mg/kg	ND	ND	ND	ND
136777-61-2	m/p-Xylenes	1.2	mg/kg	ND	ND	0.011 J	0.0018 J
1330-20-7	o-Xylene	1.2	mg/kg	ND	ND	0.1 J	0.001 J
	<b>Total VOCs</b>	<b>10</b>	<b>mg/kg</b>	<b>ND</b>	<b>ND</b>	<b>0.1443</b>	<b>0.0051</b>
	<b>SEMIVOLATILES</b>						
117-81-7	Bis(2-ethylhexyl)phthalate	50	mg/kg	ND	ND	0.086 J	ND
86-74-8	Carbazole	--	mg/kg	ND	0.2 J	0.74 J	ND
132-64-9	Dibenzofuran	6.2	mg/kg	ND	1.8 J	9.2 J	ND
84-74-2	Di-n-butylphthalate	8.1	mg/kg	ND	ND	ND	ND
	<b>PAHs</b>						
83-32-9	Acenaphthene	50	mg/kg	ND	2.4 J	12 J	ND
208-96-8	Acenaphthylene	41	mg/kg	ND	0.13 J	0.78 J	ND
120-12-7	Anthracene	50	mg/kg	ND	0.45 J	1.7 J	ND
120-12-7	Benzo(a)anthracene	0.224 or MDL	mg/kg	ND	0.48 J	2.3 J	ND
50-32-8	Benzo(a)pyrene	0.061 or MDL	mg/kg	ND	0.1 J	0.33 J	ND
205-99-2	Benzo(b)fluoranthene	1.1	mg/kg	ND	0.18 J	0.91 J	ND
191-24-2	Benzo(g,h,i)perylene	50	mg/kg	ND	ND	0.089 J	ND
207-08-9	Benzo(k)fluoranthene	1.1	mg/kg	ND	ND	0.3 J	ND
218-01-9	Chrysene	0.4	mg/kg	ND	0.39 J	2 J	ND
53-70-3	Dibenz(a,h)anthracene	0.014 or MDL	mg/kg	ND	ND	ND	ND
206-44-0	Fluoranthene	50	mg/kg	ND	3 J	16 J	0.079 J
86-73-7	Fluorene	50	mg/kg	ND	2.1 J	10 J	ND
193-39-5	Indeno(1,2,3-cd)pyrene	3.2	mg/kg	ND	ND	0.1 J	ND
91-57-6	2-Methylnaphthalene	36.4	mg/kg	ND	2.2 J	14 J	ND
91-20-3	Naphthalene	13	mg/kg	0.67	2.3 J	16 J	ND
85-01-8	Phenanthrene	50	mg/kg	ND	5.2 J	28 J	0.14 J
129-00-0	Pyrene	50	mg/kg	ND	2.1 J	10 J	ND
	<b>Total PAHs</b>	<b>--</b>	<b>mg/kg</b>	<b>0.67</b>	<b>21.03</b>	<b>114.509</b>	<b>0.219</b>
	<b>Total SVOCs</b>	<b>500</b>	<b>mg/kg</b>	<b>0.67</b>	<b>23.03</b>	<b>124.535</b>	<b>0.219</b>

Notes:

- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994).
- (2) Eastern USA Background levels provided in NYSDEC TAGM 4046.
- (3) -- indicates no cleanup objective or background level is available.
- (4) SB indicates the soil cleanup objective is the site background level.
- (5) NA indicates compound was not analyzed for.
- (6) ND indicates compound was not detected.
- (7) J indicates an estimated concentration.
- (8) R indicates rejected data.
- (9) MDL is the method detection limit.
- (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives.

**Table 4  
Soil Analytical Results  
Summary of Detected Compounds**

Consolidated Edison 99th Street Gas Works Site Validated Soil Analytical Data Detected Compound Summary		TAGM 4046 Soil Cleanup Objectives <sup>(1)</sup>		Location ID: Sample ID: Lab Sample ID: Depth: Source: SDG: Matrix: Sampled: Validated:		SB-29 SB-29(21-23) T5619-01 21-23' Chemtech T5619 SOIL 11/7/2005 12/31/2005		SB-29 SB-29(33-35) T5619-02 33-35' Chemtech T5619 SOIL 11/7/2005 12/31/2005		Duplicate of SB-29 (33-35) SB-29 SB-29(33-35)DUP T5619-03 33-35' Chemtech T5619 SOIL 11/7/2005 12/31/2005		SB-29 SB-29(47-49) T5619-04 47-49' Chemtech T5619 SOIL 11/7/2005 12/31/2005	
CAS NO.	COMPOUND	Background <sup>(2)</sup>		UNITS:									
	<b>INORGANICS</b>												
7429-90-5	Aluminum	33000	SB	mg/Kg	11600 J	3870 J	3090 J	5050 J					
7440-36-C	Antimony	--	SB	mg/Kg	ND	ND	ND	0.83 J					
7440-38-2	Arsenic	3-12	7.5 or SB	mg/Kg	2.2	ND	ND	ND					
7440-39-3	Barium	15-600	300 or SB	mg/Kg	20.3 J	36.8 J	29.6 J	84.5 J					
7440-41-7	Beryllium	0-1.75	0.16 or SB	mg/Kg	0.5 J	0.26 J	0.17 J	0.35 J					
7440-43-5	Cadmium	0.1-1	1 or SB	mg/Kg	ND	ND	ND	ND					
7440-70-2	Calcium	130-3500C	SB	mg/Kg	1150 J	1640 J	1080 J	14000 J					
7440-47-3	Chromium	1.5-40	10 or SB	mg/Kg	17.4 J	11 J	8.2 J	12.6 J					
7440-48-4	Cobalt	2.5-60	30 or SB	mg/Kg	7.8	3.4 J	2.1 J	5.3 J					
7440-50-8	Copper	1-50	25 or SB	mg/Kg	17.3	8	10.4	18.2					
7439-89-€	Iron	2000-55000C	2000 or SB	mg/Kg	19400 J	11300 J	7560 J	12200 J					
7439-92-1	Lead	4-61	SB	mg/Kg	13	5.6	4.3	7.3					
7439-95-4	Magnesium	100-5000	SB	mg/Kg	4190 J	2460 J	1510 J	5660 J					
7439-96-5	Manganese	50-5000	SB	mg/Kg	154 J	61.3 J	42.7 J	359 J					
7439-97-€	Mercury	0.001-0.2	0.1	mg/Kg	0.019	ND	ND	ND					
7440-02-C	Nickel	0.5-25	13 or SB	mg/Kg	16.5 J	14.2 J	8 J	15 J					
7440-09-7	Potassium	8500-4300C	SB	mg/Kg	1940	1460	971	2410					
7782-49-2	Selenium	0.1-3.9	2 or SB	mg/Kg	ND	ND	ND	ND					
7440-22-4	Silver	--	SB	mg/Kg	0.71 J	0.29 J	0.18 J	0.44 J					
7440-23-5	Sodium	6000-800C	SB	mg/Kg	1170 J	417 J	247 J	1550 J					
7440-28-C	Thallium	--	SB	mg/Kg	ND	ND	ND	ND					
7440-62-2	Vanadium	1-300	150 or SB	mg/Kg	25.6 J	14.8 J	9.6 J	16.8 J					
7440-66-€	Zinc	9-50	20 or SB	mg/Kg	44.6 J	20.5 J	15 J	26.9 J					
57-12-5	Cyanide	--	SB	mg/Kg	ND	ND	ND	ND					

- Notes:
- (1) NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (January 1994)
  - (2) Eastern USA Background levels provided in NYSDEC TAGM 4046
  - (3) -- indicates no cleanup objective or background level is available
  - (4) SB indicates the soil cleanup objective is the site background level
  - (5) NA indicates compound was not analyzed for.
  - (6) ND indicates compound was not detected.
  - (7) J indicates an estimated concentration.
  - (8) R indicates rejected data.
  - (9) MDL is the method detection limit.
  - (10) Shaded values exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives

Table 5  
Groundwater Analytical Results  
Summary of Detected Compounds

Consolidated Edison 99th Street Gas Works Site Validated Groundwater Analytical Data Detected Compound Summary		NYSDEC Class GA Groundwater Standards/Guidance Values <sup>(1)</sup>	Sample ID: Lab Sample Id Source: SDG: Matrix: Sampled: Validated:	MW-1 C5D230163-004 Chemtech C5D230163 WATER 4/21/2005 5/17/2005	MW-2 C5D230163-003 Chemtech C5D230163 WATER 4/21/2005 5/17/2005	MW-3 C5D230163-001 Chemtech C5D230163 WATER 4/21/2005 5/17/2005	Dup of MW-3 MW-300 C5D230163-002 Chemtech C5D230163 WATER 4/21/2005 5/17/2005	MW-4 X1245-05 Chemtech X1245 WATER 1/18/2006 4/13/2006	Dup of MW-4 MW-400 X1245-06 Chemtech X1245 WATER 1/18/2006 4/13/2006	MW-5 X1245-01 Chemtech X1245 WATER 1/18/2006 4/13/2006	MW-6 X1245-08 Chemtech X1245 WATER 1/20/2006 4/13/2006	MW-7 X1245-02 Chemtech X1245 WATER 1/17/2006 4/13/2006	MW-8 X1245-07 Chemtech X1245 WATER 1/20/2006 4/13/2006
CAS NO.	COMPOUND		UNITS:										
<b>VOLATILES</b>													
71-43-2	Benzene	1	ug/L	170	4.2 J	9.9	9	2300	2000	2 J	29	3.2 J	7.4
75-15-0	Carbon Disulfide	--	ug/L	ND	ND	ND	ND	0.61 J	0.54 J	ND	ND	ND	ND
156-59-2	cis-1,2-Dichloroethene	5	ug/L	1.1 J	ND	ND	0.61 J	9.2	8.7	ND	ND	6.6	0.73 J
156-60-5	trans-1,2-Dichloroethene	5	ug/L	ND	ND	ND	0.66 J	0.57 J	0.7 J	ND	ND	ND	ND
100-41-4	Ethyl Benzene	5	ug/L	130	ND	ND	ND	1200	1000	ND	5.4	ND	ND
1634-04-4	Methyl tert-butyl Ether	10 (G)	ug/L	ND	2.8 J	ND	ND	ND	ND	ND	ND	ND	ND
100-42-5	Styrene	5	ug/L	1.8 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
108-88-3	Toluene	5	ug/L	30	ND	ND	ND	490 J	380 J	ND	0.64 J	ND	ND
75-01-4	Vinyl chloride	2	ug/L	ND	ND	ND	ND	5.4	5.1	ND	ND	ND	1.4 J
136777-61-2	m/p-Xylenes	5	ug/L	94	ND	ND	ND	680	630	ND	1.5 J	ND	ND
1330-20-7	o-Xylene	5	ug/L	57	ND	ND	ND	490 J	470 J	0.66 J	2.2 J	ND	ND
	<b>Total VOCs</b>	--		<b>483.9</b>	<b>7</b>	<b>9.9</b>	<b>10.27</b>	<b>5175.78</b>	<b>4495.04</b>	<b>2.66</b>	<b>38.74</b>	<b>9.8</b>	<b>9.53</b>
<b>SEMIVOLATILES</b>													
106-46-7	1,4-Dichlorobenzene	3	ug/L	ND	1.5 J	3 J	2.4 J	ND	ND	ND	ND	ND	ND
105-67-9	2,4-Dimethylphenol	50 (G)	ug/L	ND	ND	ND	ND	ND	ND	ND	28	ND	ND
50-32-8	2-Methylphenol	1	ug/L	ND	ND	ND	ND	ND	16 J	ND	ND	ND	ND
108-95-2	Phenol	1	ug/L	2.8 J	ND	ND	ND	59 J	71 J	ND	ND	ND	ND
<b>PAHs</b>													
83-32-9	Acenaphthene	20 (G)	ug/L	49	3.9 J	ND	ND	160	180	ND	1.8 J	ND	1.7 J
208-96-8	Acenaphthylene	--	ug/L	14	ND	ND	ND	ND	ND	ND	ND	ND	ND
120-12-7	Anthracene	50 (G)	ug/L	8.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
206-44-0	Fluoranthene	50 (G)	ug/L	3.1 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
86-73-7	Fluorene	50 (G)	ug/L	28	ND	ND	ND	ND	ND	ND	ND	ND	ND
91-57-6	2-Methylnaphthalene	--	ug/L	ND	ND	ND	ND	550	560	ND	ND	ND	ND
85-01-8	Phenanthrene	50 (G)	ug/L	27	ND	ND	ND	2400	1800	ND	7.3 J	ND	ND
129-00-0	Pyrene	50 (G)	ug/L	3.4 J	ND	ND	ND	28 J	34 J	ND	ND	ND	ND
	<b>Total PAHs</b>	--		<b>132.9</b>	<b>3.9</b>	<b>0</b>	<b>0</b>	<b>3138</b>	<b>2574</b>	<b>ND</b>	<b>9.1</b>	<b>ND</b>	<b>1.7</b>
	<b>Total SVOCs</b>	--		<b>135.7</b>	<b>5.4</b>	<b>3</b>	<b>2.4</b>	<b>3197</b>	<b>2661</b>	<b>ND</b>	<b>37.1</b>	<b>ND</b>	<b>1.7</b>
<b>INORGANICS</b>													
7429-90-5	Aluminum	--	ug/L	28.7 J	60.8 J	25.5 J	9.8 J	159 J	148 J	431	5010 J	61 J	1900 J
7440-36-0	Antimony	1000	ug/L	ND	ND	ND	ND	ND	ND	6.71 J	32.6 J	6.27 J	6.06 J
7440-38-2	Arsenic	3 (G)	ug/L	ND	ND	ND	ND	ND	3.54 J	ND	10.8	ND	4.54 J
7440-39-3	Barium	1000	ug/L	112 J	130 J	212	212	139 J	137 J	68.6 J	414 J	88.8 J	101 J
7440-41-7	Beryllium	3 (G)	ug/L	0.31 J	0.27 J	0.28 J	0.24 J	ND	ND	ND	0.37 J	ND	0.42 J
7440-43-9	Cadmium	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.34 J
7440-70-2	Calcium	--	ug/L	41300	116000	69900	70200	55800 J	52400 J	101000 J	288000 J	30800 J	82600 J
7440-47-3	Chromium	50	ug/L	1 J	1.98 J	3.76 J	1.53 J	2.63 J	1.78 J	2.82 J	12.4	2.76 J	7.5 J
7440-48-4	Cobalt	--	ug/L	ND	0.93 J	2.1 J	1.59 J	5.67 J	4.23 J	1.44 J	6.56 J	1.72 J	ND
7440-50-8	Copper	200	ug/L	ND	4.91 J	ND	4.64 J	8.67 J	6.74 J	11.1 J	36.2	7.07 J	17.5 J
7439-89-6	Iron	300	ug/L	2660 J	2050 J	2070 J	1940 J	1920 J	1620 J	2230 J	19900 J	3170 J	3350 J
7439-92-1	Lead	25	ug/L	ND	ND	ND	ND	ND	ND	6.02	150	3.8 J	37.2
7439-95-4	Magnesium	35000 (G)	ug/L	55300	93200	108000	108000	62200 J	61300 J	82700 J	784000 J	54400 J	76300 J
7439-96-5	Manganese	300	ug/L	343	800	220	220	227	223	457	2190 J	157	339 J
7439-97-6	Mercury	0.7	ug/L	ND	ND	0.04 J	0.04 J	0.04 J	ND	0.1 J	2.3 J	ND	0.21 J
7440-02-0	Nickel	100	ug/L	1.93 J	1.84 J	ND	ND	ND	ND	ND	ND	ND	ND
7440-09-7	Potassium	--	ug/L	62100 J	80300 J	96300 J	98200 J	63000 J	61400 J	115000 J	444000 J	57800 J	75400 J
7782-49-2	Selenium	10	ug/L	7.11 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
7440-22-4	Silver	50	ug/L	ND	ND	ND	ND	ND	ND	ND	3 J	ND	ND
7440-23-5	Sodium	20000	ug/L	892000	1180000	1470000	1490000	763000	764000	992000	9230000	757000	1150000
7440-28-0	Thallium	0.5 (G)	ug/L	8.89 J	ND	ND	ND	ND	ND	ND	4.26 J	ND	ND
7440-62-2	Vanadium	--	ug/L	2.59 J	3.59 J	2.58 J	2.9 J	ND	ND	ND	ND	ND	ND
7440-66-6	Zinc	2000 (G)	ug/L	13.4 J	25.6	11.2 J	11.2 J	28.9	20.1	38.5	99.8 J	19 J	57.8 J
57-12-5	Cyanide	200	ug/L	ND	ND	ND	ND	2480	2380	ND	ND	ND	33
57-12-5A	Available Cyanide	--	ug/L	ND	ND	ND	ND	18 J	9 J	ND	4.4 J	ND	ND

Notes:

(1) NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values (October 1998).

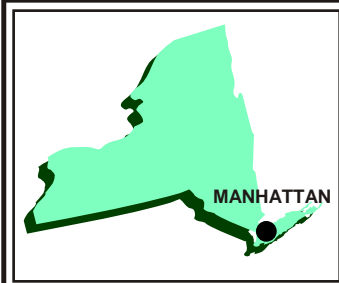
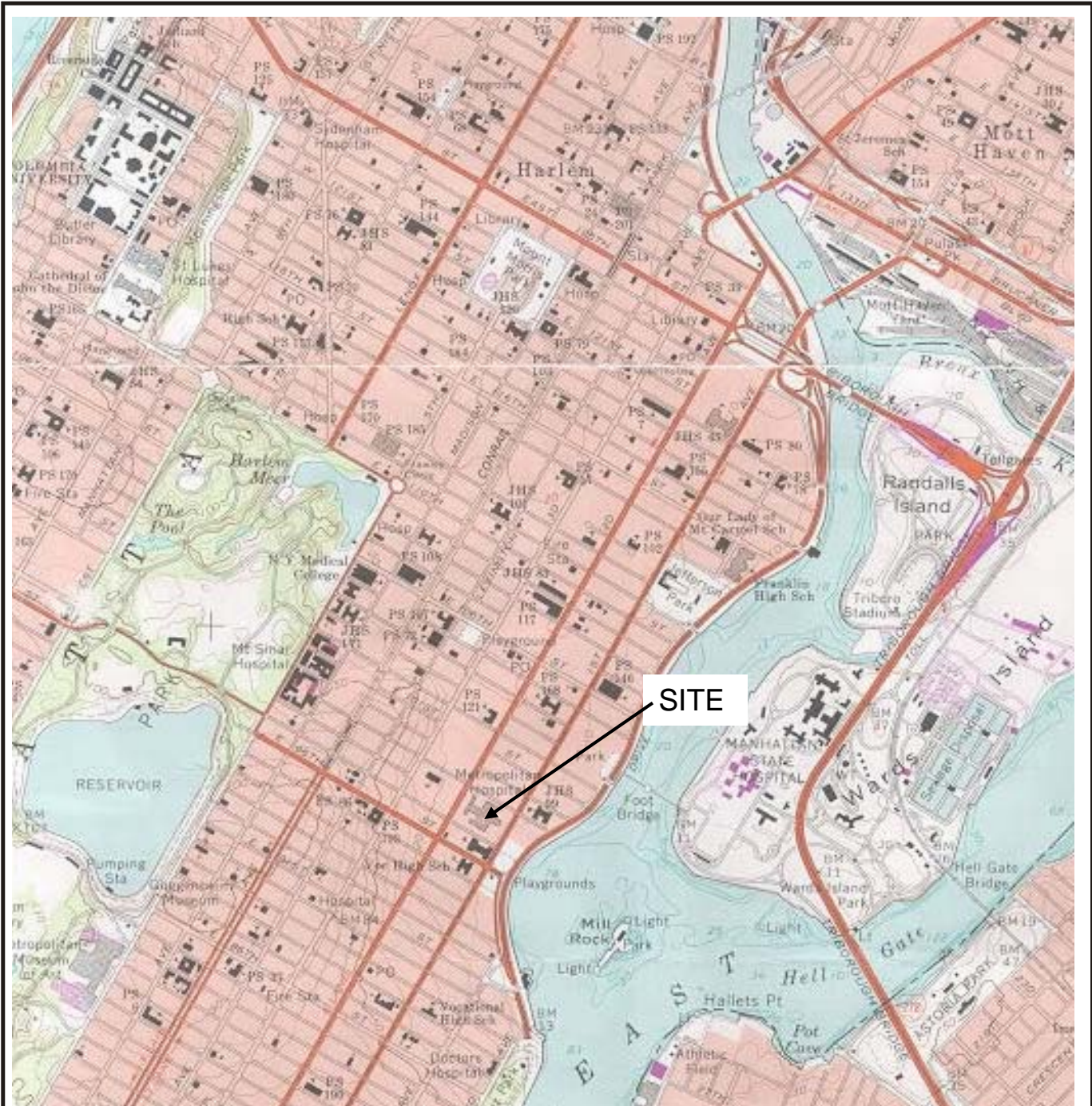
(2) -- indicates no standard or guidance value is available.

(3) (G) indicates guidance value.

(4) ND indicates compound was not detected.

(5) J indicates an estimated concentration.

(6) Shaded values exceed NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance values (October 1998).



New York  
Quadrangle

LATITUDE: N40° 47' 06"  
LONGITUDE: W73° 56' 41"



SOURCE: DeLORME 3-D  
TOPOQUAD PROGRAM

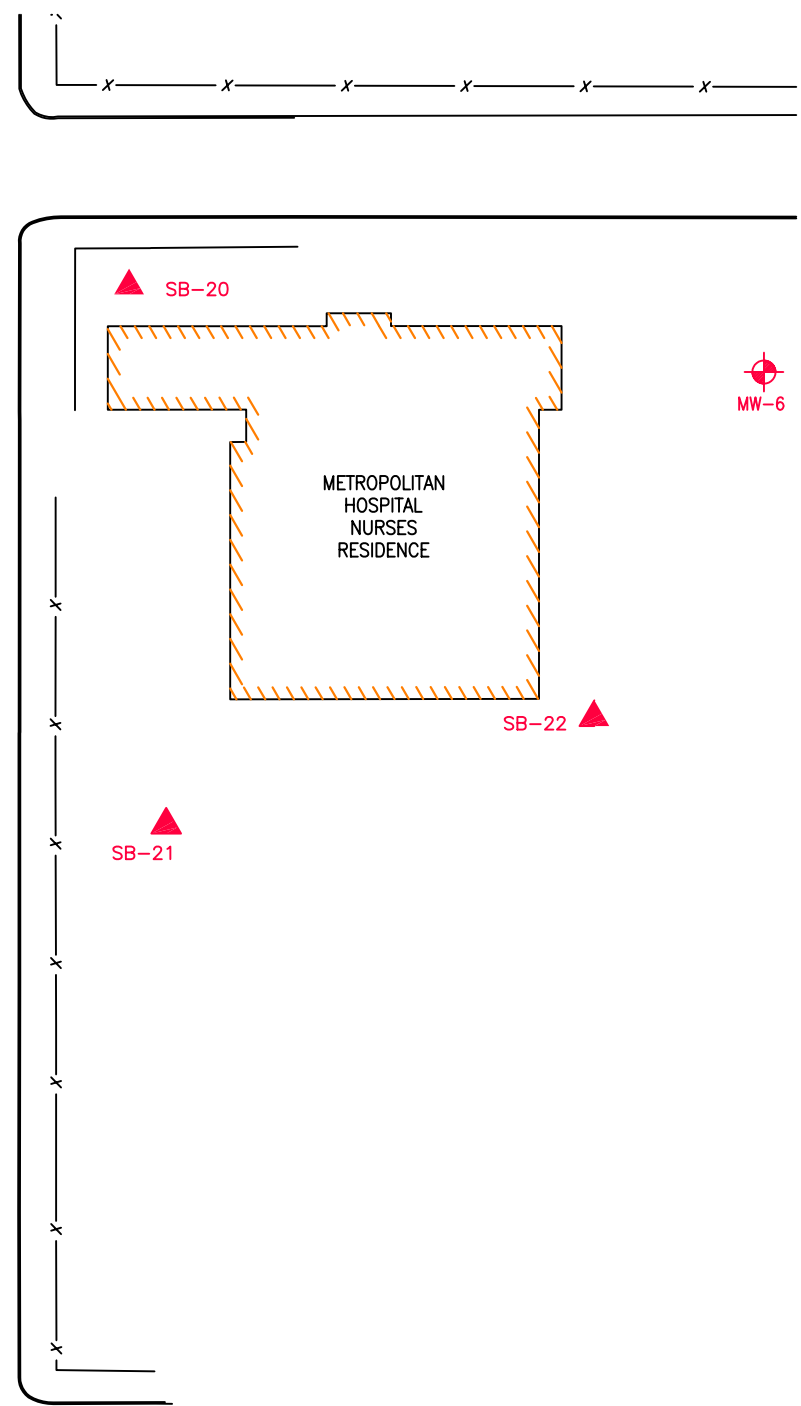
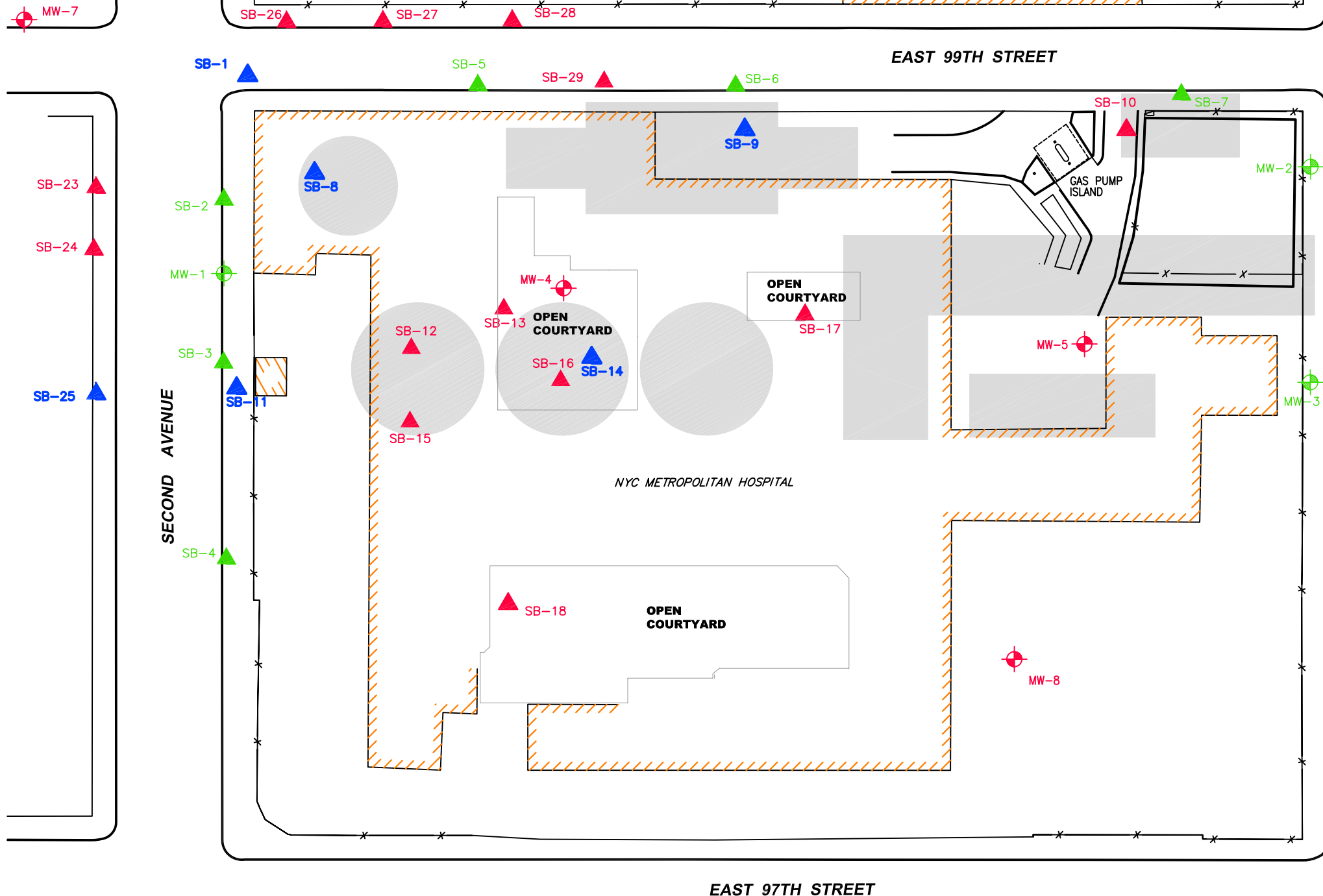
**FIGURE 1**

CON EDISON  
FORMER EAST 99<sup>th</sup> STREET WORKS  
NEW YORK, NEW YORK


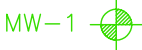

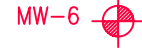

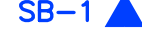
**SITE LOCATION MAP**

**PARSONS**

290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, NY 13088 PHONE: (315) 451-9560



**LEGEND:**

-  FORMER MGP STRUCTURES
-  MW-1 PHASE I MONITORING WELL
-  SB-4 PHASE I SOIL BORING
-  MW-6 PHASE II MONITORING WELL
-  SB-10 PHASE II SOIL BORING
-  SB-1 NOT ACCESSIBLE DUE TO UNDERGROUND UTILITIES/SUBSURFACE CONDITIONS

**NOTES:**

1. EXTERIOR SAMPLING LOCATIONS BASED ON SURVEY CONDUCTED BY CHAZEN ENGINEERING & LAND SURVEYING CO., P.C. IN JUNE 2006.
2. INTERIOR SOIL BORING LOCATIONS (SB-8, SB-11, SB-12, SB-15, AND SB-17) ARE APPROXIMATE.



SCALE: 1"=80'

**FIGURE 2**

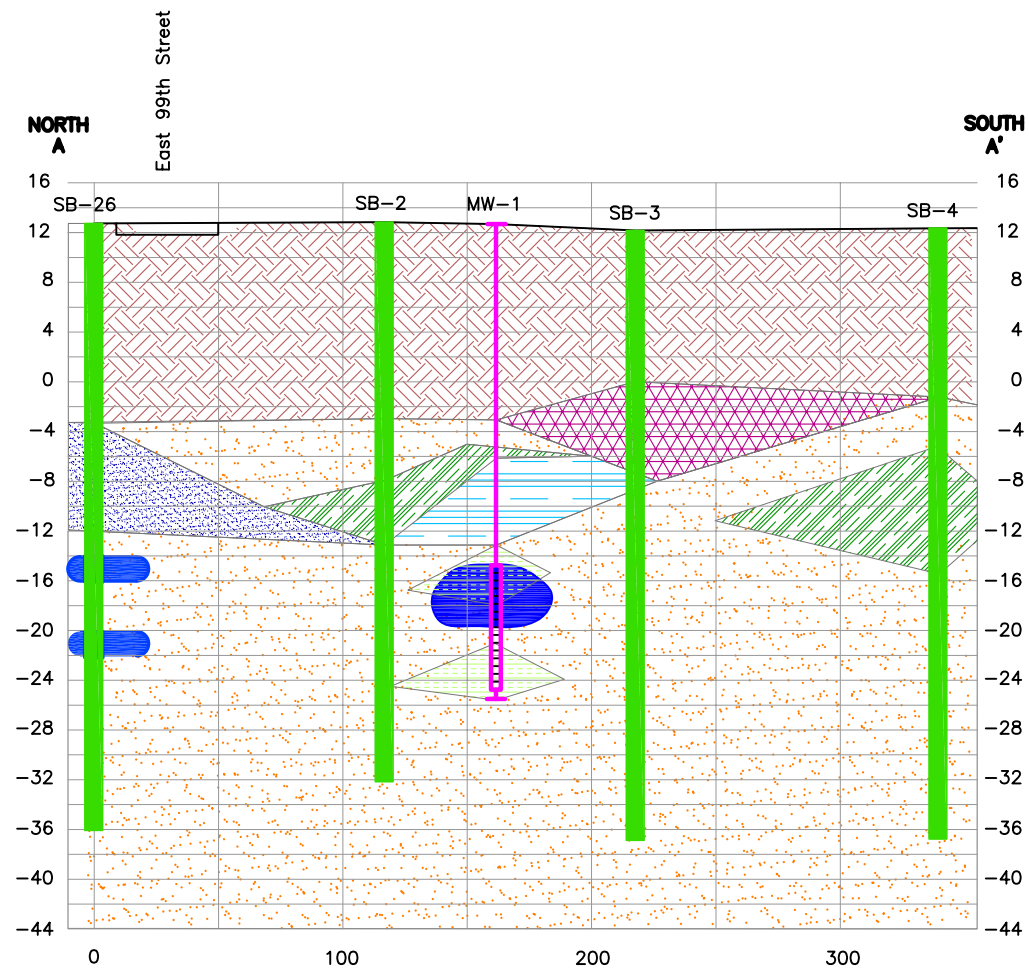
CON EDISON  
FORMER EAST 99TH STREET WORKS  
NEW YORK, NEW YORK

SAMPLE LOCATION MAP











**PARSONS**

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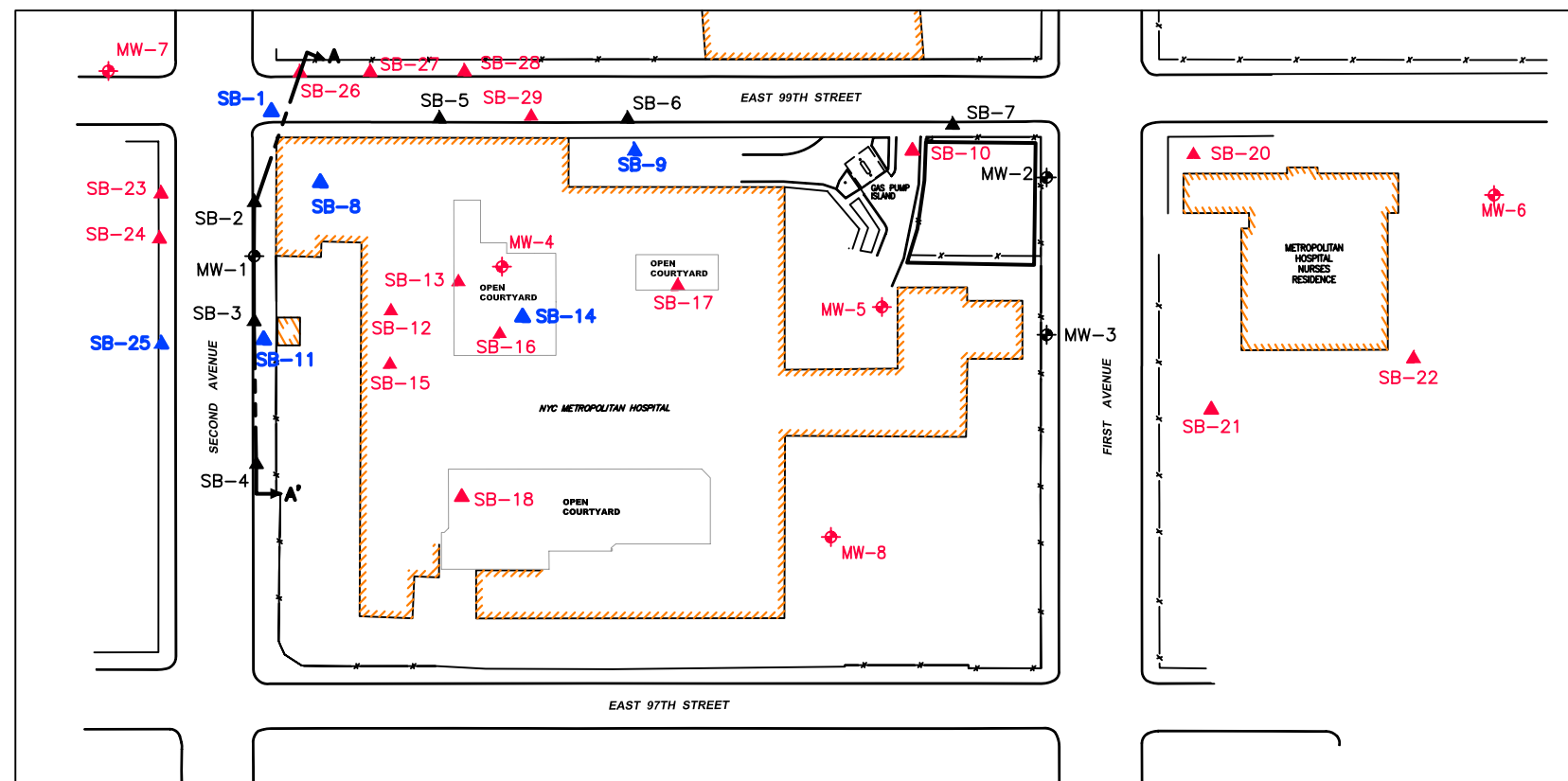


**LEGEND:**

-  WELL SCREEN FOR MONITORING WELL
-  SOIL BORING
-  NAPL ENCOUNTERED
-  FILL
-  CLAY/SAND
-  SAND
-  PEAT
-  SILT
-  CLAY/SILT
-  CLAY

**NOTE:**

ALL ELEVATIONS BASED ON NAVD 88



**KEY MAP**  
SHOWING CROSS-SECTION LINE A-A'



VERTICAL SCALE: 1"=16'



HORIZONTAL SCALE: 1"=80'

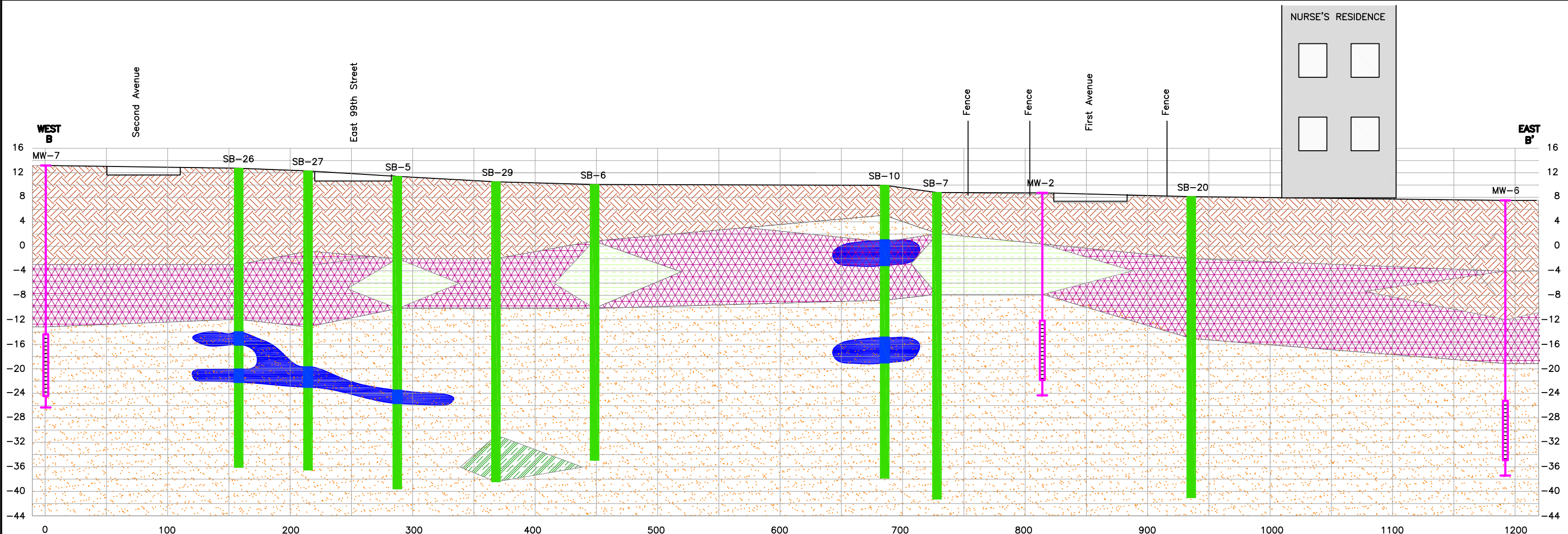
**FIGURE 3**

CONSOLIDATED EDISON  
FORMER EAST 99th STREET GAS WORKS  
NEW YORK, NY

CROSS-SECTION A-A'



290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560

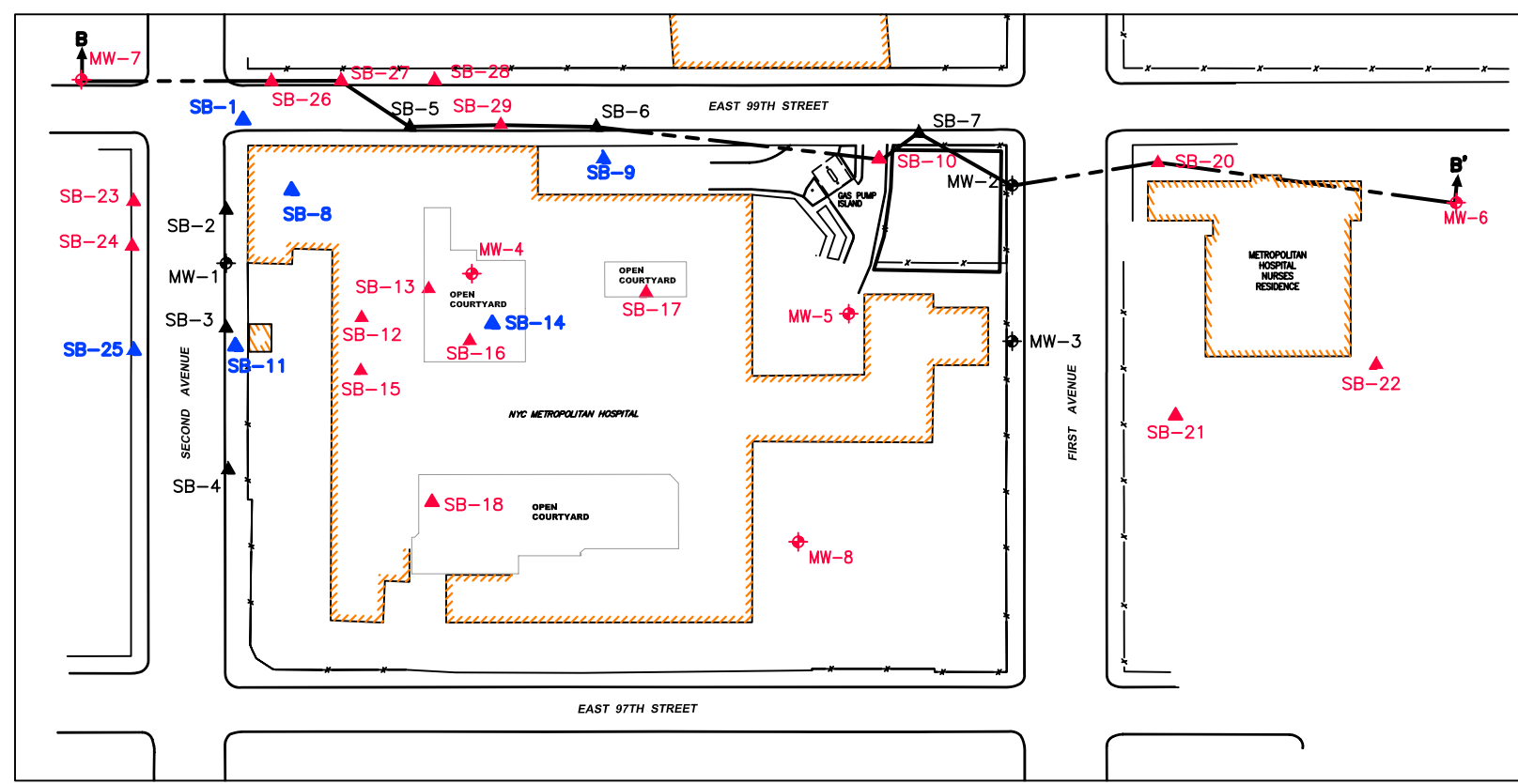


**LEGEND:**

- WELL SCREEN FOR MONITORING WELL
- SOIL BORING
- NAPL ENCOUNTERED
- FILL/ASH/CINDER/GRAVEL
- SAND
- PEAT
- SILT
- CLAY/SILT

**NOTE:**

ALL ELEVATIONS BASED ON NAVD 88



VERTICAL SCALE: 1"=16'



HORIZONTAL SCALE: 1"=80'

FIGURE 4

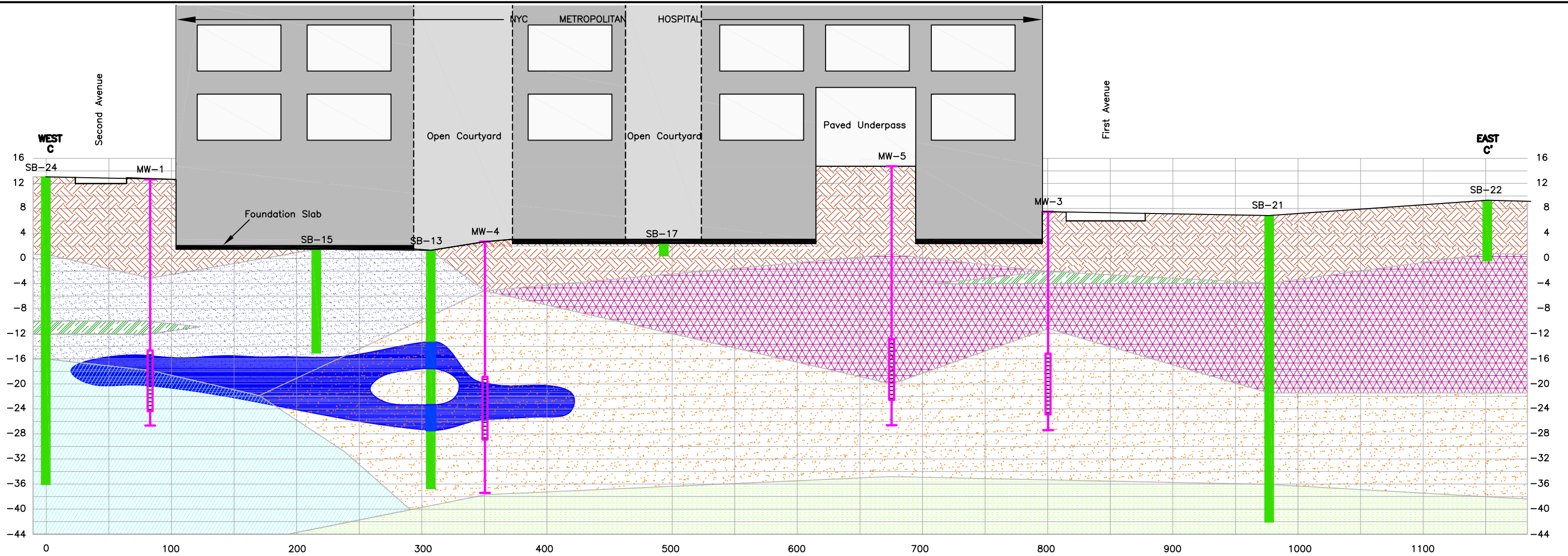
CONSOLIDATED EDISON  
FORMER EAST 99th STREET GAS WORKS  
NEW YORK, NY

CROSS-SECTION B-B'



290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560

KEY MAP  
SHOWING CROSS-SECTION LINE B-B'

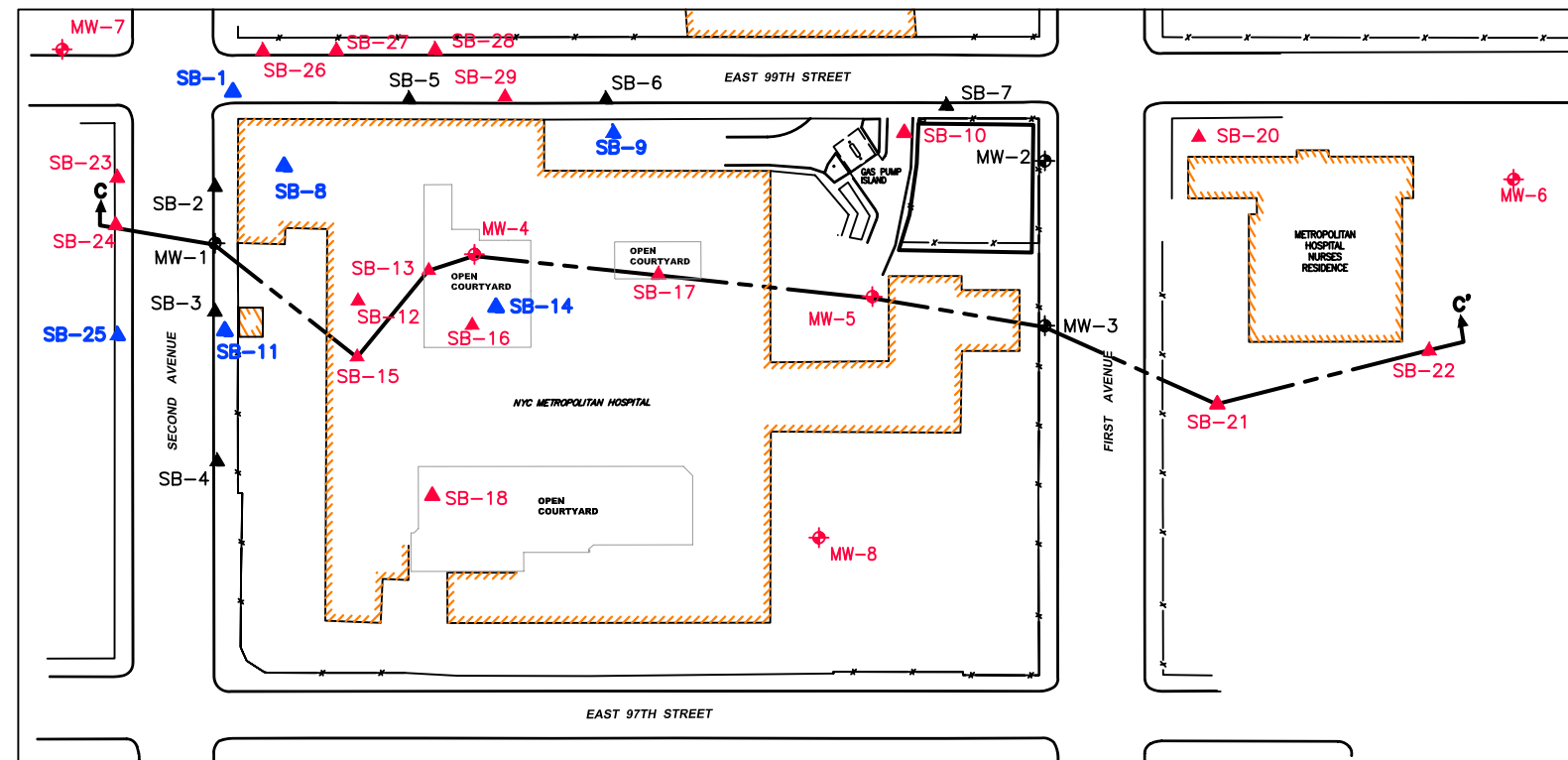


**LEGEND:**

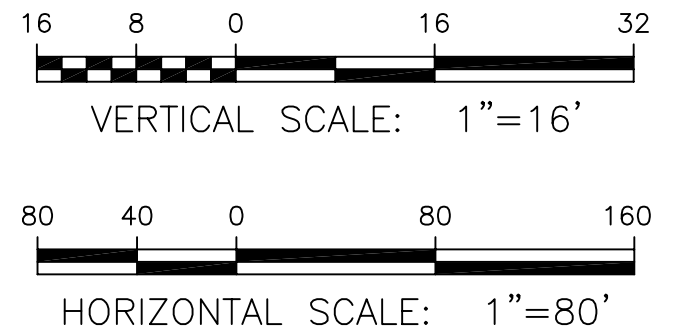
- WELL SCREEN FOR MONITORING WELL
- SOIL BORING
- NAPL ENCOUNTERED
- FILL/ASH/CINDER/GRAVEL
- SAND
- PEAT
- SILT
- CLAY/SILT
- CLAY/SAND
- SAND/SILT

**NOTE:**

ALL ELEVATIONS BASED ON NAVD 88



**KEY MAP**  
SHOWING CROSS-SECTION LINE C-C'



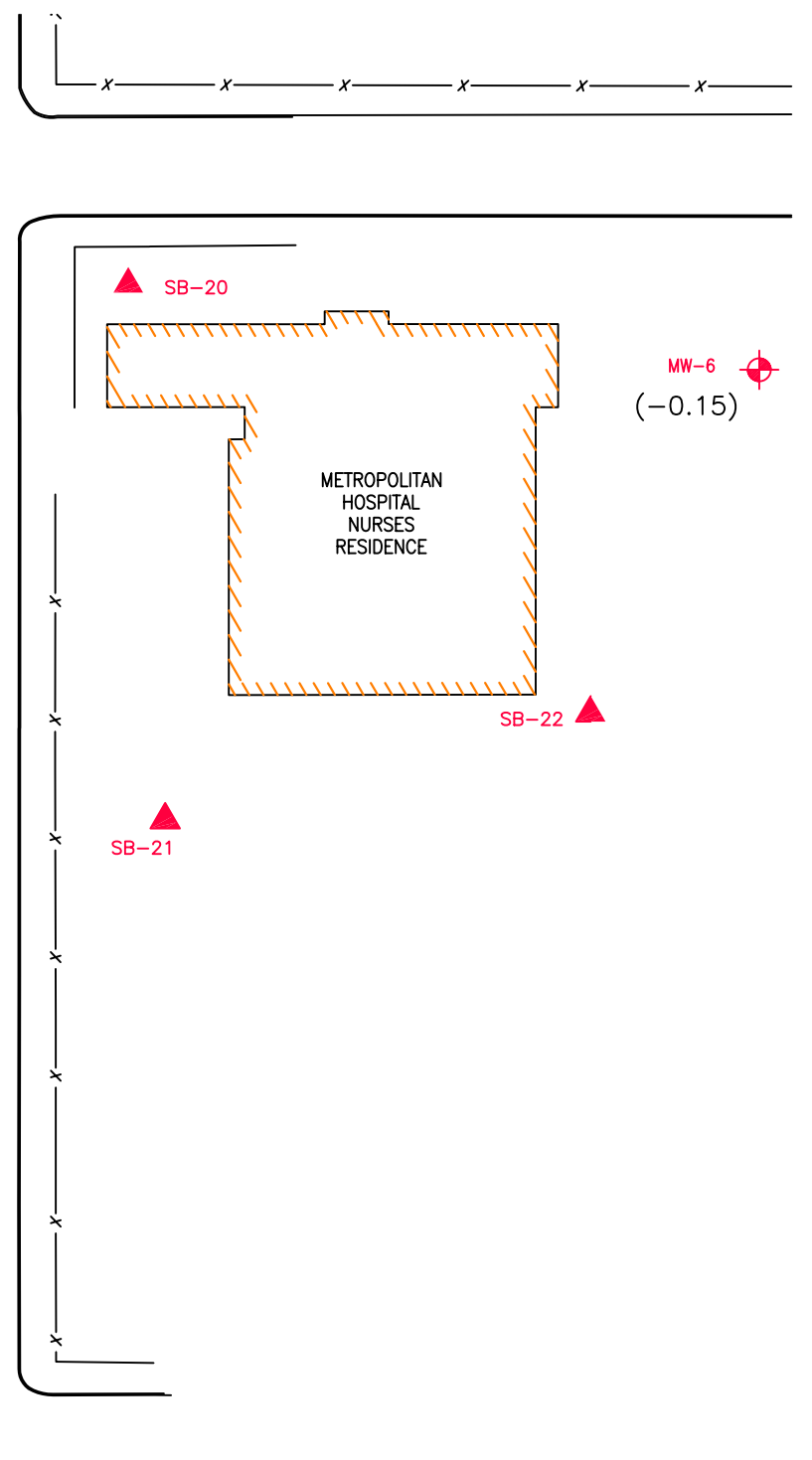
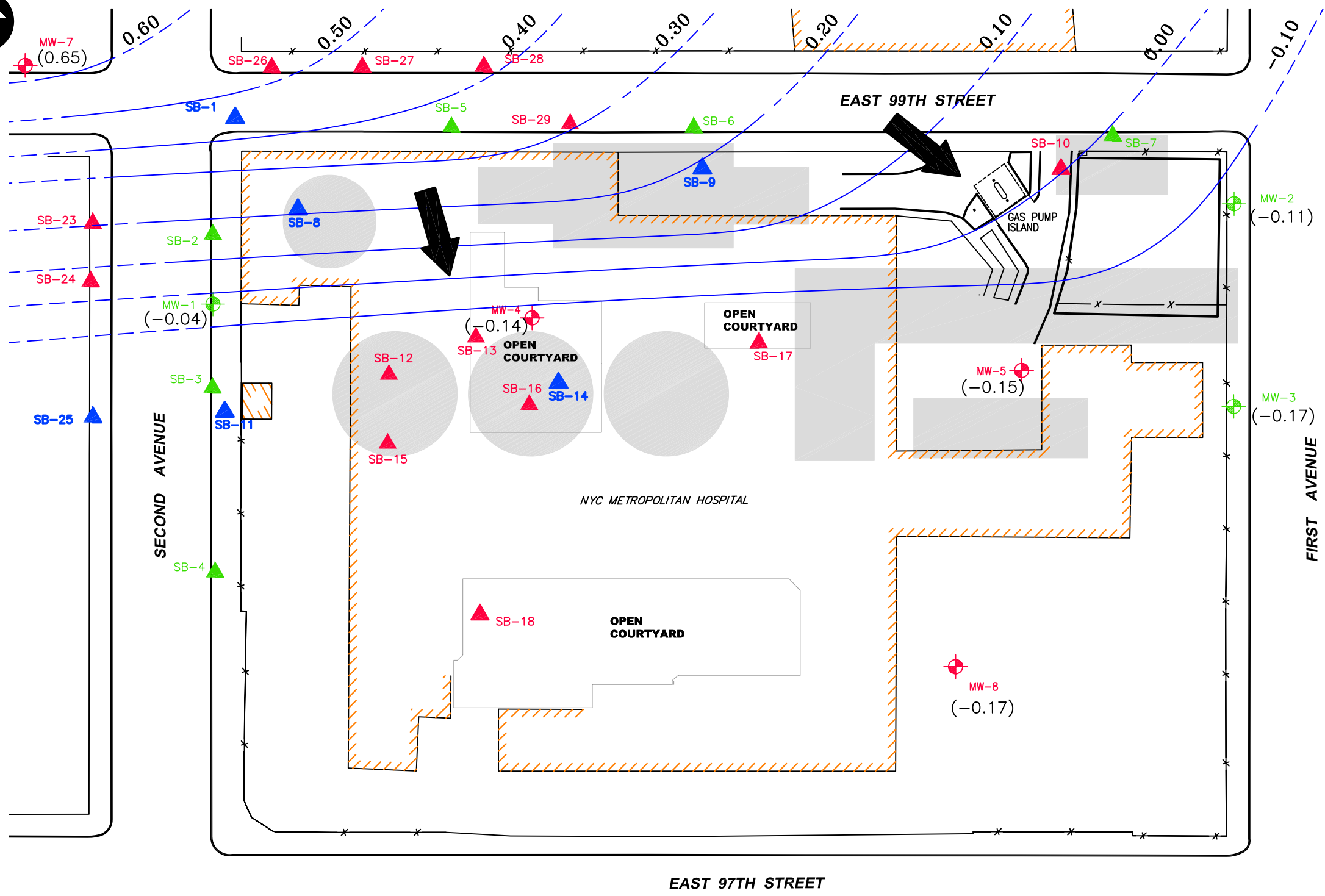
**FIGURE 5**

CONSOLIDATED EDISON  
FORMER EAST 99th STREET GAS WORKS  
NEW YORK, NY






CROSS-SECTION C-C'



**PARSONS**


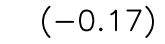
290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560



**LEGEND:**

-  FORMER MGP STRUCTURES
-  MW-1 PHASE I MONITORING WELL
-  SB-4 PHASE I SOIL BORING
-  MW-6 PHASE II MONITORING WELL
-  SB-10 PHASE II SOIL BORING

-  SB-1 NOT ACCESSIBLE DUE TO UNDERGROUND UTILITIES/SUBSURFACE CONDITIONS
-  GROUNDWATER FLOW DIRECTION

-  GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
-  (-0.17) GROUNDWATER ELEVATIONS MEASURED ON 1/17/2006. ELEVATIONS IN FEET BASED ON NAVD 88.



SCALE: 1"=80'

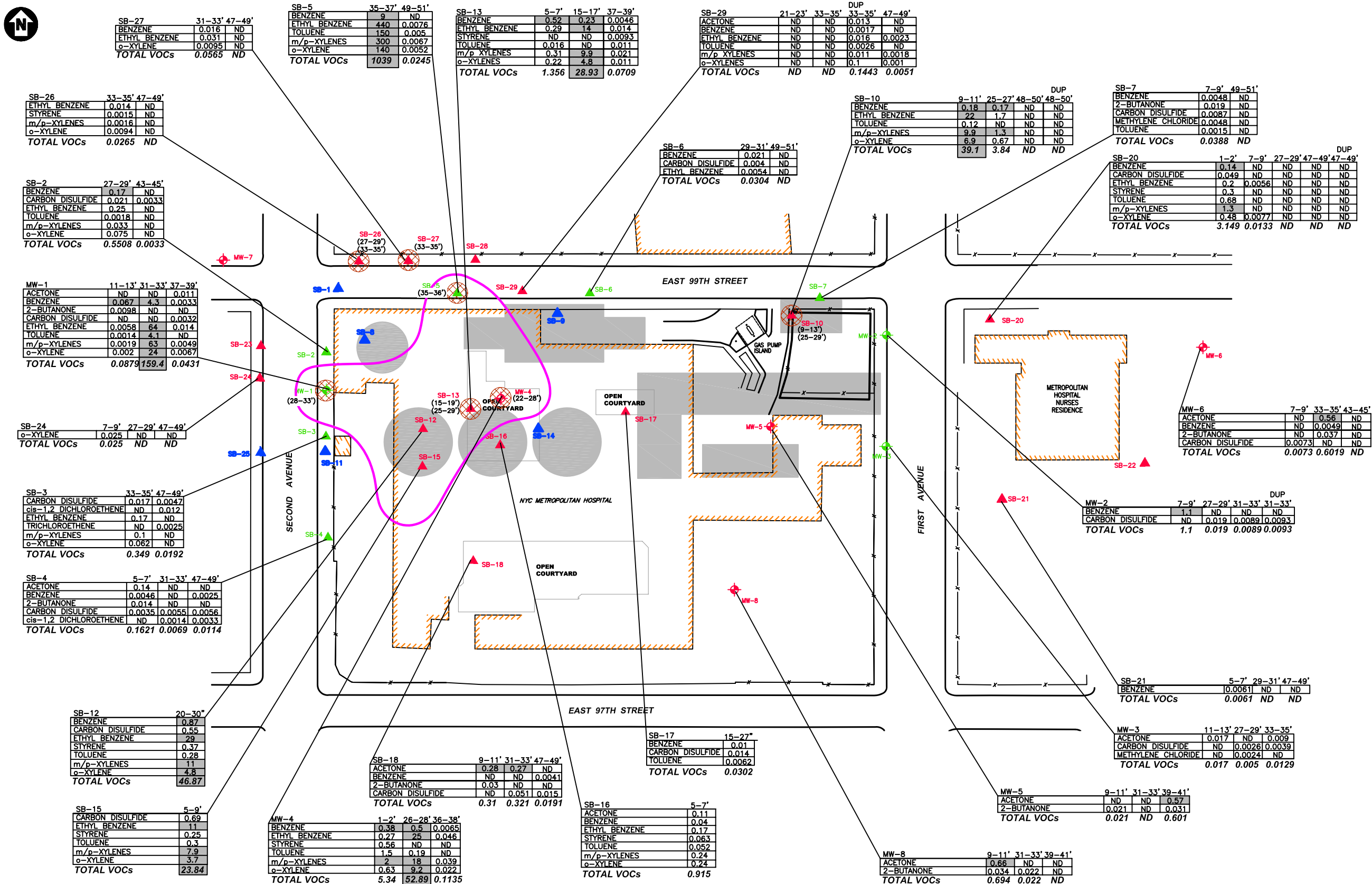
**FIGURE 6**

CON EDISON  
FORMER EAST 99TH STREET WORKS  
NEW YORK, NEW YORK

GROUNDWATER CONTOUR MAP

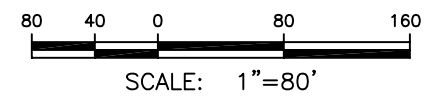
**PARSONS**

290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560



NOTES:

- ALL CONCENTRATIONS ARE IN PARTS PER MILLION (ppm).
- SHADED VALUES EXCEED NYSDEC RECOMMENDED SOIL CLEANUP OBJECTIVES (TAGM 4046).
- ND = NOT DETECTED
- VOCs WERE NOT DETECTED IN SUBSURFACE SOIL SAMPLES COLLECTED FROM MONITORING WELL AND BORING LOCATIONS MW-7, SB-23 AND SB-28.



**FIGURE 7**  
 CON EDISON  
 FORMER EAST 99TH STREET WORKS  
 NEW YORK, NEW YORK  
 SUMMARY OF VOCs  
 DETECTED IN SUBSURFACE SOIL

**PARSONS**  
 290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-461-9560



SB-13	5-7'	15-17'	37-39'
CARBAZOLE	ND	3.2	ND
DIBENZOFURAN	ND	1.3	ND
ACENAPHTHENE	2.4	32	ND
ACENAPHTHYLENE	0.3	190	0.46
ANTHRACENE	1.3	120	0.16
BENZO(a)ANTHRACENE	0.91	52	0.088
BENZO(a)PYRENE	0.7	31	ND
BENZO(b)FLUORANTHENE	0.83	23	0.26
BENZO(g,h,i)PERYLENE	0.15	4.4	ND
BENZO(k)FLUORANTHENE	0.24	14	ND
CHRYSENE	0.92	43	ND
DIBENZ(g,h)ANTHRACENE	ND	1.6	ND
FLUORANTHENE	2.1	89	0.12
FLUORENE	1.3	59	0.2
INDENO(1,2,3-cd)PYRENE	0.12	2.3	ND
2-METHYLNAPHTHALENE	3.7	840	1.7
NAPHTHALENE	0.59	1200	ND
PHENANTHRENE	4	230	0.56
PYRENE	2.4	84	0.23
TOTAL SVOCs	21.96	3030.5	3.778

SB-26	33-35'	47-49'
DIBENZOFURAN	1.1	ND
DI-N-BUTYLPHALATE	ND	0.3
ACENAPHTHENE	5.8	ND
ACENAPHTHYLENE	2.6	ND
ANTHRACENE	12	ND
BENZO(a)ANTHRACENE	5	ND
BENZO(a)PYRENE	3.7	ND
BENZO(b)FLUORANTHENE	2.6	0.23
BENZO(g,h,i)PERYLENE	0.71	ND
BENZO(k)FLUORANTHENE	1.1	ND
CHRYSENE	5	ND
DIBENZ(g,h)ANTHRACENE	0.12	ND
FLUORANTHENE	11	ND
FLUORENE	12	0.086
INDENO(1,2,3-cd)PYRENE	0.33	ND
2-METHYLNAPHTHALENE	4.1	ND
NAPHTHALENE	8.7	0.078
PHENANTHRENE	38	0.2
PYRENE	20	0.082
TOTAL SVOCs	133.86	0.976

SB-5	35-37'	49-51'
BIS(2-ETHYLHEXYL)PHTHALATE	0.29	0.061
CARBAZOLE	0.14	ND
DIBENZOFURAN	1	ND
ACENAPHTHENE	2.9	ND
ACENAPHTHYLENE	8	ND
ANTHRACENE	3.7	ND
BENZO(a)ANTHRACENE	2.1	ND
BENZO(a)PYRENE	1.5	ND
BENZO(b)FLUORANTHENE	1.4	ND
BENZO(g,h,i)PERYLENE	0.24	ND
BENZO(k)FLUORANTHENE	0.46	ND
CHRYSENE	2.2	ND
DIBENZ(g,h)ANTHRACENE	0.059	ND
FLUORANTHENE	3.6	ND
FLUORENE	6	ND
INDENO(1,2,3-cd)PYRENE	0.12	ND
2-METHYLNAPHTHALENE	32	0.086
PHENANTHRENE	55	0.26
PYRENE	13	ND
TOTAL SVOCs	139.509	0.407

SB-29	21-23'	33-35'	33-35'	47-49'
BIS(2-ETHYLHEXYL)PHTHALATE	ND	ND	0.086	ND
CARBAZOLE	ND	0.2	0.74	ND
DIBENZOFURAN	ND	1.8	9.2	ND
ACENAPHTHENE	ND	2.4	12	ND
ACENAPHTHYLENE	ND	0.13	0.78	ND
ANTHRACENE	ND	0.45	1.7	ND
BENZO(a)ANTHRACENE	ND	0.48	2.3	ND
BENZO(a)PYRENE	ND	0.1	0.33	ND
BENZO(b)FLUORANTHENE	ND	0.18	0.91	ND
BENZO(g,h,i)PERYLENE	ND	ND	0.089	ND
BENZO(k)FLUORANTHENE	ND	ND	0.3	ND
CHRYSENE	ND	0.39	2	ND
FLUORANTHENE	ND	3	16	0.079
FLUORENE	ND	2.1	10	ND
INDENO(1,2,3-cd)PYRENE	ND	ND	0.1	ND
2-METHYLNAPHTHALENE	ND	2.2	14	ND
NAPHTHALENE	ND	6.7	23	16
PHENANTHRENE	ND	5.2	28	0.14
PYRENE	ND	2.1	10	ND
TOTAL SVOCs	0.67	23.03	124.535	0.219

MW-4	1-2'	26-28'	36-38'
ACENAPHTHENE	ND	90	0.71
ACENAPHTHYLENE	ND	8.7	0.089
ANTHRACENE	ND	35	0.32
BENZO(a)ANTHRACENE	ND	13	0.12
BENZO(a)PYRENE	ND	7.8	0.078
BENZO(b)FLUORANTHENE	ND	5.4	0.05
BENZO(g,h,i)PERYLENE	ND	2.7	ND
CHRYSENE	ND	14	0.14
FLUORANTHENE	ND	24	0.24
FLUORENE	ND	37	0.34
INDENO(1,2,3-cd)PYRENE	ND	2.7	ND
2-METHYLNAPHTHALENE	ND	330	2
NAPHTHALENE	ND	590	3.7
PHENANTHRENE	ND	130	1.1
PYRENE	ND	40	0.41
TOTAL SVOCs	ND	1330.3	9.297

SB-7	7-9'	49-51'
ACENAPHTHENE	0.26	ND
ACENAPHTHYLENE	0.16	ND
ANTHRACENE	0.34	ND
BENZO(a)ANTHRACENE	0.37	ND
BENZO(a)PYRENE	0.41	ND
BENZO(b)FLUORANTHENE	0.25	ND
BENZO(g,h,i)PERYLENE	0.28	ND
BENZO(k)FLUORANTHENE	0.18	ND
CHRYSENE	0.44	ND
FLUORANTHENE	0.57	ND
FLUORENE	0.084	ND
NAPHTHALENE	0.08	ND
PHENANTHRENE	1.2	ND
PYRENE	4.624	ND
TOTAL SVOCs	4.624	ND

SB-2	27-29'	43-45'
NAPHTHALENE	0.45	ND
TOTAL SVOCs	0.45	ND

SB-27	31-33'	47-49'
NAPHTHALENE	0.26	ND
TOTAL SVOCs	0.26	ND

SB-6	29-31'	49-51'
NAPHTHALENE	0.13	ND
TOTAL SVOCs	0.13	ND

SB-23	29-31'	47-49'
BIS(2-ETHYLHEXYL)PHTHALATE	ND	0.12
TOTAL SVOCs	ND	0.12

MW-1	31-33'	37-39'
DIBENZOFURAN	1.2	ND
ACENAPHTHENE	14	0.82
ACENAPHTHYLENE	12	0.11
ANTHRACENE	16	0.28
BENZO(a)ANTHRACENE	8	0.15
BENZO(a)PYRENE	5.4	0.1
BENZO(b)FLUORANTHENE	4.9	0.069
BENZO(g,h,i)PERYLENE	0.86	ND
BENZO(k)FLUORANTHENE	1.7	ND
CHRYSENE	7.8	0.14
DIBENZ(g,h)ANTHRACENE	0.2	ND
FLUORANTHENE	15	0.25
FLUORENE	14	0.4
INDENO(1,2,3-cd)PYRENE	0.41	ND
2-METHYLNAPHTHALENE	38	1.6
NAPHTHALENE	53	1.7
PHENANTHRENE	54	1.1
PYRENE	27	0.48
TOTAL SVOCs	273.27	7.199

SB-3	33-35'	47-49'
DIBENZOFURAN	0.69	ND
ACENAPHTHENE	4.2	ND
ACENAPHTHYLENE	15	ND
ANTHRACENE	11	ND
BENZO(a)ANTHRACENE	18	ND
BENZO(a)PYRENE	12	ND
BENZO(b)FLUORANTHENE	12	ND
BENZO(g,h,i)PERYLENE	2	ND
BENZO(k)FLUORANTHENE	3.8	ND
CHRYSENE	17	ND
DIBENZ(g,h)ANTHRACENE	0.43	ND
FLUORANTHENE	18	ND
FLUORENE	8.1	ND
INDENO(1,2,3-cd)PYRENE	1.4	ND
2-METHYLNAPHTHALENE	24	ND
NAPHTHALENE	11	ND
PHENANTHRENE	28	ND
PYRENE	39	ND
TOTAL SVOCs	255.72	ND

SB-4	5-7'	31-33'	47-49'
BIS(2-ETHYLHEXYL)PHTHALATE	0.093	ND	ND
TOTAL SVOCs	0.093	ND	ND

SB-12	20-30'
DIBENZOFURAN	0.34
ACENAPHTHENE	6.8
ACENAPHTHYLENE	0.9
ANTHRACENE	2.3
BENZO(a)ANTHRACENE	1.6
BENZO(a)PYRENE	1.1
BENZO(b)FLUORANTHENE	0.96
BENZO(g,h,i)PERYLENE	0.41
BENZO(k)FLUORANTHENE	0.35
CHRYSENE	1.5
FLUORANTHENE	2.3
INDENO(1,2,3-cd)PYRENE	0.22
2-METHYLNAPHTHALENE	16
NAPHTHALENE	32
PHENANTHRENE	9.6
PYRENE	7.9
TOTAL SVOCs	84.28

SB-15	5-9'
CARBAZOLE	1.3
DIBENZOFURAN	1.6
ACENAPHTHENE	4.8
ACENAPHTHYLENE	2.2
ANTHRACENE	9.6
BENZO(a)ANTHRACENE	6.6
BENZO(a)PYRENE	4.2
BENZO(b)FLUORANTHENE	3.8
BENZO(g,h,i)PERYLENE	1.7
BENZO(k)FLUORANTHENE	1.2
CHRYSENE	6.5
DIBENZ(g,h)ANTHRACENE	0.29
FLUORANTHENE	9.3
FLUORENE	13
INDENO(1,2,3-cd)PYRENE	1.1
2-METHYLNAPHTHALENE	72
NAPHTHALENE	100
PHENANTHRENE	39
PYRENE	29
TOTAL SVOCs	326.99

SB-18	9-11'	31-33'	47-49'
BIS(2-ETHYLHEXYL)PHTHALATE	0.076	ND	ND
FLUORANTHENE	0.07	ND	ND
NAPHTHALENE	0.065	ND	ND
PHENANTHRENE	0.082	ND	ND
PYRENE	0.087	ND	ND
TOTAL SVOCs	0.38	ND	ND

SB-17	15-27"
ACENAPHTHENE	0.32
ACENAPHTHYLENE	0.11
ANTHRACENE	0.27
BENZO(a)ANTHRACENE	0.82
BENZO(a)PYRENE	0.75
BENZO(b)FLUORANTHENE	0.76
BENZO(g,h,i)PERYLENE	0.7
BENZO(k)FLUORANTHENE	0.33
CHRYSENE	0.76
FLUORANTHENE	0.88
INDENO(1,2,3-cd)PYRENE	0.37
NAPHTHALENE	0.09
PHENANTHRENE	0.53
PYRENE	2.6
TOTAL SVOCs	9.29

SB-10	9-11'	25-27'	48-50'	48-50'
DIBENZOFURAN	1.7	ND	ND	ND
ACENAPHTHENE	23	11	ND	ND
ACENAPHTHYLENE	3	1.2	ND	ND
ANTHRACENE	11	9	ND	ND
BENZO(a)ANTHRACENE	7.6	4.2	ND	ND
BENZO(a)PYRENE	5.1	2.2	ND	ND
BENZO(b)FLUORANTHENE	4.7	1.8	ND	ND
BENZO(g,h,i)PERYLENE	1.1	ND	ND	ND
BENZO(k)FLUORANTHENE	1.2	ND	ND	ND
CHRYSENE	7.7	4.4	ND	ND
DIBENZ(g,h)ANTHRACENE	0.38	ND	ND	ND
FLUORANTHENE	15	7.6	ND	ND
FLUORENE	15	5.9	ND	ND
INDENO(1,2,3-cd)PYRENE	0.69	ND	ND	ND
2-METHYLNAPHTHALENE	44	9.2	ND	ND
NAPHTHALENE	60	6.6	ND	0.098
PHENANTHRENE	44	22	ND	0.069
PYRENE	16	10	ND	ND
TOTAL SVOCs	258.17	95.1	ND	0.167

SB-20	1-2'	7-9'	27-29'	47-49'	47-49'
CARBAZOLE	ND	1.7	ND	ND	ND
DIBENZOFURAN	ND	0.77	ND	ND	ND
ACENAPHTHENE	0.32	35	ND	ND	ND
ACENAPHTHYLENE	ND	5.7	ND	ND	ND
ANTHRACENE	0.45	11	ND	ND	ND
BENZO(a)ANTHRACENE	0.48	8.7	ND	ND	ND
BENZO(a)PYRENE	0.33	7.4	ND	ND	ND
BENZO(b)FLUORANTHENE	0.41	7	ND	ND	ND
BENZO(g,h,i)PERYLENE	0.19	1.7	ND	ND	ND
BENZO(k)FLUORANTHENE	ND	2.5	ND	ND	ND
CHRYSENE	0.48	9.4	ND	ND	ND
DIBENZ(g,h)ANTHRACENE	ND	0.27	ND	ND	ND
FLUORANTHENE	1.1	31	ND	ND	ND
FLUORENE	0.27	11	ND	ND	ND
INDENO(1,2,3-cd)PYRENE	0.14	0.96	ND	ND	ND
2-METHYLNAPHTHALENE	0.14	6.8	ND	ND	ND
NAPHTHALENE	0.42	28	ND	0.12	ND
PHENANTHRENE	1.3	94	0.13	0.12	ND
PYRENE	1.1	40	0.077	0.08	ND
TOTAL SVOCs	7.13	302.9	0.207	0.32	ND

MW-2	27-29'	31-33'	31-33'
ACENAPHTHENE	0.061	ND	ND
BENZO(a)ANTHRACENE	0.043	ND	ND
FLUORANTHENE	0.043	ND	ND
PHENANTHRENE	0.097	ND	ND
PYRENE	0.11	ND	ND
TOTAL SVOCs	0.354	ND	ND

MW-3	27-29'	33-35'
BIS(2-ETHYLHEXYL)PHTHALATE	0.04	0.092
TOTAL SVOCs	0.04	0.092

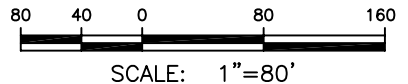
NOTES:

- ALL CONCENTRATIONS ARE IN PARTS PER MILLION (ppm).
- SHADED VALUES EXCEED NYSDEC RECOMMENDED SOIL CLEANUP OBJECTIVES (TAGM 4046).
- ND = NOT DETECTED

- SVOCs WERE NOT DETECTED IN SUBSURFACE SOIL SAMPLES COLLECTED FROM MONITORING WELL AND BORING LOCATIONS MW-5, MW-6, MW-7, MW-8, SB-21, SB-24 AND SB-28.
- SUBSURFACE SOIL SAMPLES FROM SOIL BORING LOCATIONS SB-16 AND SB-22 WERE NOT ANALYZED FOR SVOCs.

**LEGEND:**

- FORMER MGP STRUCTURES
- MW-1 PHASE I MONITORING WELL
- SB-4 PHASE I SOIL BORING
- MW-1 PHASE II MONITORING WELL
- SB-4 PHASE II SOIL BORING
- SB-1 NOT ACCESSIBLE DUE TO UNDERGROUND UTILITIES/SUBSURFACE CONDITIONS
- NAPL OBSERVED IN SOIL BORING
- (22-28') OBSERVED NAPL DEPTH INTERVAL (FEET BGS)
- ESTIMATED EXTENT OF AREAS WHERE TOTAL SVOC CONCENTRATIONS EXCEED 500ppm



**FIGURE 8**

CON EDISON  
FORMER EAST 99TH STREET WORKS  
NEW YORK, NEW YORK

**SUMMARY OF SVOCs  
DETECTED IN SUBSURFACE SOIL**

**PARSONS**  
290 ELWOOD DAWS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9590



MW-7 VOCs

BENZENE	3.2
cis-1,2-DICHLOROETHENE	6.6

MW-1 VOCs

BENZENE	170
cis-1,2-DICHLOROETHENE	1.1
ETHYL BENZENE	130
STYRENE	1.8
TOLUENE	30
m/p-XYLENES	94
o-XYLENE	57

SVOCs

PHENOL	2.8
ACENAPHTHENE	49
ACENAPHTHYLENE	14
ANTHRACENE	8.4
FLUORANTHENE	3.1
FLUORENE	28
PHENANTHRENE	27
PYRENE	3.4

MW-4 VOCs

BENZENE	2300	DUP	2000
CARBON DISULFIDE	0.61		0.54
cis-1,2-DICHLOROETHENE	9.2		8.7
trans-1,2-DICHLOROETHENE	0.57		0.7
ETHYL BENZENE	1200		1000
TOLUENE	490		380
VINYL CHLORIDE	5.4		5.1
m/p-XYLENES	680		630
o-XYLENE	490		470

SVOCs

2-METHYLPHENOL	ND	16
PHENOL	59	71
ACENAPHTHALENE	160	180
2-METHYLNAPHTHALENE	550	560
PHENANTHRENE	2400	1800
PYRENE	28	34

EAST 99TH STREET

SB-1

SB-5

SB-29

SB-6

SB-7

SB-10

SB-8

SB-9

MW-1

MW-4  
OPEN COURTYARD

OPEN COURTYARD

MW-5

MW-2

SECOND AVENUE

SB-2

SB-3

SB-11

SB-12

SB-13

SB-16

SB-14

SB-15

NYC METROPOLITAN HOSPITAL

SB-18

OPEN COURTYARD

MW-8

EAST 97TH STREET

MW-8 VOCs

BENZENE	7.4
cis-1,2-DICHLOROETHENE	0.73
VINYL CHLORIDE	1.4

SVOCs

ACENAPHTHENE	1.7
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MW-5 VOCs

BENZENE	2
o-XYLENE	0.66

FIRST AVENUE

SB-20

METROPOLITAN HOSPITAL NURSES RESIDENCE

SB-22

MW-2 VOCs

BENZENE	4.2
METHYL tert-butyl ETHER	2.8

SVOCs

1,4-DICHLOROBENZENE	1.5
ACENAPHTHENE	3.9

MW-6 VOCs

BENZENE	29
ETHYL BENZENE	5.4
TOLUENE	0.64
m/p-XYLENES	1.5
o-XYLENE	2.2

SVOCs

2,4-DIMETHYLPHENOL	28
ACENAPHTHENE	1.8
PHENANTHRENE	7.3

MW-3 VOCs

BENZENE	9.9	DUP	9.0
cis-1,2-DICHLOROETHENE	ND		0.61
trans-1,2-DICHLOROETHENE	ND		0.66

SVOCs

1,4-DICHLOROBENZENE	3	2.4
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LEGEND:

- FORMER MGP STRUCTURES
- MW-1 PHASE I MONITORING WELL
- SB-4 PHASE I SOIL BORING
- MW-6 PHASE II MONITORING WELL
- SB-10 PHASE II SOIL BORING

SB-1 NOT ACCESSIBLE DUE TO UNDERGROUND UTILITIES/SUBSURFACE CONDITIONS

NOTES:

- ALL CONCENTRATIONS ARE IN PARTS PER BILLION (ppb).
- SHADED VALUES EXCEED NYSDEC GROUNDWATER QUALITY STANDARD OR GUIDANCE VALUE (TOGS 1.1.1).
- ND = NOT DETECTED



SCALE: 1"=80'

FIGURE 9

CON EDISON  
FORMER EAST 99TH STREET WORKS  
NEW YORK, NEW YORK

SUMMARY OF VOCs & SVOCs  
DETECTED IN GROUNDWATER



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