

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

**Haven Plaza – Supplemental  
Investigation Report**

East 11<sup>th</sup> Street Works  
Manhattan, New York

October 2011



A handwritten signature in black ink, appearing to read "Margaret Carrillo-Sheridan".

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Margaret Carrillo-Sheridan, P.E.  
Vice President

A handwritten signature in blue ink, appearing to read "Bruce W. Ahrens".

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Bruce W. Ahrens  
Associate Vice President

**Haven Plaza – Supplemental  
Investigation Report**

East 11<sup>th</sup> Street Works Site,  
Manhattan, New York

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Our Ref.:  
B0043013.0002

Date:  
October 2011

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## **1. Introduction**

This *Supplemental Investigation Report* (SI Report) presents a summary of the results from the supplemental investigation (SI) conducted within the parking garage at the eastern portion of the Haven Plaza property, which comprises a portion of the East 11<sup>th</sup> Street Works site (site) located in Manhattan, New York. The parking garage exists underneath the second story of 710 East 13<sup>th</sup> Street, One Haven Plaza, and Three Haven Plaza. The SI was conducted in accordance with the New York State Department of Environmental Conservation- (NYSDEC-) approved *Haven Plaza – Supplemental Investigation Work Plan* (ARCADIS, June 2010) (SI Work Plan).

### **1.1 Project Background and Objective**

The former East 11<sup>th</sup> Street Works (Works) was located on the Lower East Side of the Borough of Manhattan, New York City, New York. Based on review of historic Sanborn maps, it appears that a portion of the Works, at its most developed stage, existed in the area that is now occupied by the eastern portion of the Haven Plaza development. Sanborn maps from 1903 and 1920 show the presence of a purifier house in the area now occupied by the eastern portion of the parking garage and 710 East 13<sup>th</sup> Street, and Three Haven Plaza. The Sanborn maps do not show the presence of underground/aboveground storage tanks in the area of the purifier house. Subsequent to the closure of the Works and purifier house (circa 1933), and prior to the development of Haven Plaza (circa 1970), the Premium Ice Company operated on the parcel now occupied by the eastern portion of the parking garage and 710 East 13<sup>th</sup> Street, and Three Haven Plaza (i.e., the SI study area).

Based on the results from a Phase II Environmental Site Assessment (Phase II Assessment) conducted by CA Rich Consultants, Inc. (CA Rich) in unsaturated soil in the eastern portion of the parking garage in 2008, CA Rich concluded that the volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metal constituents detected in all borings, except SB-11, were indicative of typical concentrations characteristic of construction fill throughout New York City. CA Rich concluded that the VOCs and SVOCs detected at soil boring location SB-11 were likely related to historical industrial use or the presence of an underground storage tank. CA Rich further concluded that the results from groundwater testing indicated that groundwater conditions were not indicative of a release or spill. Based on the Phase II Assessment analytical results, the NYSDEC required the area around SB-11 be excavated due to elevated detections of naphthalene at SB-11. Excavation activities were conducted in March/April 2009. Laboratory analyses from endpoint sampling indicated that the soil from the bottom (approximately 3.5 feet below ground surface [bgs]), south, east, and west sidewalls were within regulatory guidelines or consistent with similar properties in New York City or urban fill (CA Rich, 2009).

As described in the SI Work Plan, the primary objective of the SI was to investigate the western extent of soil within the saturated zone potentially impacted by the former Works, specifically in the vicinity of existing soil

boring SB-12 (Figure 1). A soil sample collected from SB-12 during the Phase II Assessment from 0 to 4 feet bgs contained naphthalene at a concentration of 24 milligrams per kilogram (mg/kg), which exceeded the NYSDEC Unrestricted Use Soil Cleanup Objective (SCO) of 12 mg/kg. The boring was terminated at the top of groundwater (8 to 10 bgs); therefore, no data existed within the saturated zone.

To investigate the western extent of impacts in the saturated zone, two soil borings were completed during the SI:

- SB-142; located adjacent to historical soil boring SB-12 where naphthalene was detected in shallow soil at approximately 24 mg/kg. Boring SB-142 was installed to evaluate the potential presence of impacts within the saturated zone at this location.
- SB-143; located approximately 20 feet north of existing soil boring SB-9 (that was also installed during the Phase II Assessment). Soil boring SB-143 was also installed to evaluate the potential presence of impacts within the saturated zone at this location.

## **2. Field Activities**

Field activities associated with the SI were completed from July 11 to July 15, 2011 in accordance with the SI Work Plan. Activities completed as part of the SI included:

- Site Reconnaissance Visit
- Utility Clearance
- Community Air Monitoring
- Subsurface Soil Investigation
- Management of investigation derived waste (IDW)
- Site Survey

Summaries of these activities are included below. Tabulated laboratory results from soil samples collected from SB-142 and SB-143, a figure showing the soil boring locations, a photographic log, a copy of the Data Usability Summary Report (DUSR), and laboratory analytical reports (on compact disk) are included as appendices.

### **2.1 Site Reconnaissance Visit**

A site reconnaissance to meet with Ms. Daisy Lopez, On-Site Property Manager, Haven Plaza HDFC, was conducted on June 30, 2011 by an ARCADIS representative and Consolidated Edison Company of New York, Inc. (Con Edison). The objectives of the site reconnaissance were to:

- Arrange for access into the garage and confirm a start date for the field activities.
- Identify/confirm the general locations of soil borings SB-142 and SB-143 (vehicles were still in garage).
- Observe/document the physical restrictions of the garage for potential access and overhead clearance issues.

During the site visit, July 11, 2011 was confirmed as the start of field activities; no modifications to the SI Work Plan were identified. An additional site visit was conducted by ARCADIS on July 8 to obtain keys to open the overhead door to enter the parking garage.

## **2.2 Utility Clearance**

Prior to initiating intrusive investigation activities, sample locations were cleared in accordance with Con Edison's utility clearance procedures. As an initial step, the New York City "One Call" organization was contacted by the drilling subcontractor (Aquifer Drilling & Testing, Inc.) prior to the start of fieldwork to request utility mark-outs in accordance with Code 753. All mark outs responses by Code 753 participating companies were received by the July 11 field start date. Because the site was located inside a private building, the responders were not able to mark utilities at the site.

Subsequent to completion of the Code 753 responses and review of available New York City Department of Environmental Protection (NYCDEP) drawings and Con Edison utility plates for gas and electric service, the inside of the building was inspected to observe the distribution/layout of the various utilities that could be identified when entering the building, as well as building-specific utilities (e.g., roof and or floor drains).

In addition, Naeva Geophysics, Inc. (Naeva) was subcontracted to perform a geophysical investigation on July 11, including both electromagnetic metal detection and ground penetrating radar. ARCADIS was present to observe the activities. Naeva marked the approximate locations of below grade electrical lines along with the below grade floor drains that were located near the proposed soil boring locations; no additional utilities were positively identified. Due to the presence of utilities around the area of SB-142, this boring was relocated to maintain a safe distance from a suspected utility.

As an added precaution for worker safety and to minimize the potential for damage to subsurface utilities, boring locations were cleared by non-mechanical means (e.g., hand digging) by the drilling contractor. Soil was excavated, typically to a minimum depth of 5 feet bgs, to physically confirm the presence/absence of subsurface utilities at each of the proposed boring locations.

## **2.3 Community Air Monitoring**

Community air monitoring was conducted in accordance with the generic New York State Department of Health's (NYSDOH's) Community Air Monitoring Plan (CAMP) included in ARCADIS' site-specific Health and Safety Plan (HASP). CAMP monitoring included monitoring for VOC vapors using photoionization detectors (PIDs) and particulates (i.e., dust) using PDR100 particulate meters at two dedicated monitoring stations. Because intrusive activities were performed indoors, each monitoring station was located near an open door/garage bay. No exceedances for VOCs or particulates were measured that caused site operations to stop or for mitigation activities (i.e., foam, wetting surfaces) to be implemented. CAMP monitoring data are maintained on file at ARCADIS' office in Syracuse, New York.



## **2.4 Subsurface Soil Investigation**

Subsurface soil investigation activities were conducted from July 12 to 15, 2011 and included completion of two soil borings (SB-142 and SB-143) and subsurface soil sampling. SB-142 was completed using a portable Geoprobe unit due to ceiling constraints (i.e. column supports) while SB-143 was completed using a direct push track-mounted Geoprobe rig. During soil boring installation soil samples were collected continuously to the bottom of the borings using 3 foot long, 2-inch-diameter Macro Core® samplers lined with an acetate sleeve. Due to ceiling height constraints, the standard 4 foot Macro Core® sampler associated with the track-mounted drill rig (Geoprobe® Track mounted 6610) could not be utilized. Soil boring logs describing the soils encountered and soil boring depth are provided in Appendix A.

The completion of the soil borings followed a consistent methodology:

- Soil samples were retrieved continuously from grade to the total boring depth using direct push methods.
- Recovered soil samples were reviewed and screened for VOCs using an organic vapor meter equipped with a PID.
- Selected samples were submitted for laboratory analyses, as described in Section 3.2.
- Upon completion, borings were tremie-grouted from the bottom of the boring to grade.

Select photographs from each boring location are included as Appendix B.

During pre-clearing activities at soil boring SB-142, a concrete pad was encountered at 1.5 feet bgs. The soil boring location was moved approximately 8 feet to the east (i.e., closer to SB-12) and cleared to 5 feet bgs. The boring was drilled to a depth of 22.5 feet bgs where a confining layer of silty clay was encountered. The initial boring location was subsequently labeled SB-142A and the second location was labeled SB-142B. No visual impacts were observed over the length of the soil boring; PID measurements were all less than 1.0 part per million (ppm). Three soil samples from SB-142B were selected for laboratory analysis.

Soil boring SB-143 was completed to a depth of 40 feet bgs. Similar to SB-142B, no visual impacts were observed over the length of the soil boring; PID measurements were less than 1.0 ppm.

Soil boring locations are presented on Figure 1. For completeness, the soil borings completed during CA Rich's Phase II investigation are also shown on the figure.

Three soil samples were retained from each soil boring and submitted under chain of custody protocols to TestAmerica Laboratories (TestAmerica) of Shelton, Connecticut for analysis of:

- Target Compound List (TCL) VOCs by United States Environmental Protection Agency (USEPA) Method 8260B.
- TCL SVOCs by USEPA Method 8270C.

The selection rationale of soil samples for analysis followed the procedures presented in the SI Work Plan. Note that only three samples were selected from each boring for laboratory analysis because no interval existed where evidence of suspected impacts was identified based on PID readings, visual observation, and/or odors.

Quality assurance/quality control samples were collected as required by the SI Work Plan.

Work space air monitoring was conducted in accordance with the HASP using real-time, hand-held monitoring instruments including a multi-gas monitor (Lower Explosive Limit, oxygen, carbon monoxide, and hydrogen sulfide), a PID, and a particulate meter. No action levels or personal protective equipment (PPE) upgrades were required based on the work space air monitoring.

In addition, background/baseline noise levels were monitored using a decibel meter prior to initiating site activities. Due primarily to construction activities related to the Haven Plaza parking garage that were ongoing during the supplemental investigation activities (i.e., not related to investigation activities), baseline noise levels were >85 decibels (dB). Based on the background/baseline noise monitoring results, hearing protection was required at all times. Noise monitoring results averaged approximately 88 dBs over the three days of site activities (i.e., including investigation activities).

Equipment decontamination was completed prior to the start of drilling activities, between each investigation location, and prior to demobilization. Equipment decontamination was conducted in accordance with the procedures outlined in ARCADIS' Standard Operating Procedures. The integrity of the decontamination procedures was verified with the use of equipment rinse blanks, as required by the Quality Assurance Project Plan.

#### 2.4.1 Management of Investigation Derived Waste

IDW generated during the site characterization included drill cuttings, debris/soils from concrete coring (i.e. concrete, brick), decontamination fluids, PPE, and disposable sampling equipment. All IDW was placed in Department of Transportation-approved 55-gallon drums. All drums were labeled as IDW and temporarily staged in a secured area designated by the property owners and Con Edison. Upon the completion of the

field activities, the IDW was transported off site by Clean Ventures of Elizabeth, New Jersey, and disposed of at a Con Edison-approved disposal facility.

## **2.5 Site Survey**

Following completion of the subsurface soil investigation and restoration activities, Borbas Surveying & Mapping, LLC completed a field survey of the boring locations (SB-142A, SB-142B, and SB-143) to obtain accurate soil boring locations and surface elevations. The survey was tied to the New York State Plane Coordinate System (NAD 83) and the North American Vertical Datum of 1988 (NAVD 88). The figure presented in this report was developed using this survey data.

## **2.6 Data Review/DUSR Preparation**

VOC and SVOC analytical data were reviewed for compliance by ARCADIS according to the most recent USEPA and NYSDOH guidance documents. The review was conducted as a Tier III evaluation and included review of data package completeness. As reported in the DUSR, the overall data quality was within the guidelines specified in the methods, and therefore considered usable.

DUSRs for laboratory sample delivery groups are presented in Appendix C.

### **3. Results**

This section presents the findings of the SI field investigation activities described in Section 2. These findings include interpretations of the site geology based on field observations and the occurrence and distribution of impacts based on field screening and laboratory sample results.

#### **3.1 Site Geology**

Two stratigraphic units were encountered during the SI; a Fill Unit and a Sand-Silt Unit. The Fill Unit was the uppermost unit encountered which represents the present-day surface of the site. The Fill Unit is underlain by the Sand-Silt Unit. The Fill Unit comprises materials typically found in urban environments such as Manhattan (urban fill), and consisted of construction debris (brick, concrete, metal, wood) intermingled with undifferentiated yellow to brown sand, and gravel.

Previous data collected from the areas east and north of the Haven Plaza garage indicated the thickness of the Fill Unit range from 7 to 30 feet; however, only 2 to 4 feet of fill material were encountered at Haven Plaza during the SI. The absence of a thicker Fill Unit under the Haven Plaza garage is likely attributed to the redevelopment of the site with a subterranean garage, coupled with the estimated historical location of the shoreline being between SB-142A/B and SB-143 as shown on Figure 1. It would be anticipated that the locations to the south and west of the historical shoreline would exhibit less fill material compared to portions of the site to the north and east.

The Sand-Silt Unit underlying the Fill Unit consisted of fine to medium sand with silt and clay lenses. The top of the Sand-Silt Unit was identified as 3 feet bgs at SB-142A and at 5 feet bgs at SB-143.

The findings of the geologic setting from the SI were consistent with the geology reported in historical borings completed at the site.

#### **3.2 Analysis Results**

Soil analytical results for VOCs and SVOCs are provided in Table 1. For discussion purposes, results are compared to the 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (SCOs) and typical Manhattan Background concentrations (RETEC, 2007). A reported result that exceeded its respective SCO is bolded and shaded in the summary table; an analytical result that exceeds its reported Manhattan background concentration is bolded in the summary table. The analytical reports from TestAmerica are provided on a compact disk included as Appendix D.

### 3.2.1 VOCs

VOCs were detected in all six soil samples sent for laboratory analysis; however, none of the detected concentrations exceeded the Unrestricted Use SCOs.

Total VOC concentrations ranged between 0.14J micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ) and 6.4J  $\mu\text{g}/\text{kg}$ . The most commonly detected analyte was toluene, which was detected in five of the six samples at concentrations between 0.14J  $\mu\text{g}/\text{kg}$  and 0.42J  $\mu\text{g}/\text{kg}$  (all below the Unrestricted Use SCO of 700  $\mu\text{g}/\text{kg}$ ). Other detected VOCs included 1,1,1-trichloroethane, 1,1-dichloroethene, acetone, benzene, carbon disulfide, and xylene all at concentrations below the Unrestricted Use SCO.

The highest concentration of Total VOCs (6.4  $\mu\text{g}/\text{kg}$ ) was detected at SB-142B from 2 to 3 feet bgs (i.e., in the Fill Unit).

### 3.2.2 SVOCs

SVOCs were detected in two of the six samples sent for laboratory analysis (SB-142B at 2 to 3 feet bgs and SB-142B at 3 to 4 feet bgs). Note that the sample collected from 3 to 4 feet bgs at SB-142B contained only one detected SVOC (pyrene) at a concentration of 24  $\mu\text{g}/\text{kg}$ , which is below its Unrestricted Use SCO (100,000  $\mu\text{g}/\text{kg}$ ) and the Manhattan Background criteria (2,500  $\mu\text{g}/\text{kg}$ ). No SVOCs were detected in samples collected from the saturated zone.

Only one soil sample (SB-142B at 2 to 3 feet bgs) contained SVOC analytes above their respected Unrestricted Use SCO or Manhattan Background concentration. This sample contained 20 detected SVOCs; five of the detected SVOCs were polycyclic aromatic hydrocarbons (PAHs), including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene. Each of the PAHs exceeded their respective Unrestricted Use SCO. The remaining detected concentrations were below their respective Unrestricted Use SCOs.

Total SVOC concentrations ranged from non-detect (4 samples) to 22,000  $\mu\text{g}/\text{kg}$  (SB-142B at 2 to 3 feet bgs). Naphthalene was only detected in one soil sample (SB-142B at 2 to 3 feet bgs) at a concentration of 1,400  $\mu\text{g}/\text{kg}$  (below its Unrestricted Use SCO).

#### **4. Conclusions**

Based on the results of the SI activities, the following conclusions are presented:

- No visual evidence of impacts were observed in soil collected from either SB-142B or SB-143.
- SVOCs, including naphthalene, were not detected within the saturated zone from either SB-142B or SB-143.
- The highest concentrations of SVOCs were located at SB-142B from 2-3 feet bgs (22,000J  $\mu\text{g}/\text{kg}$ ). The material within this area, based on photos and soil logs obtained during field activities, appears to be fill material located immediately beneath the parking garage concrete slab.
- The location of SB-142B is located near SB-12, which contained naphthalene from 0 to 4 feet bgs at 24 milligrams per kilogram (mg/kg), or 24,000  $\mu\text{g}/\text{kg}$ . The sample collected from SB-142B at 2 to 3 feet contained naphthalene at 1,400J  $\mu\text{g}/\text{kg}$ , which is below the Unrestricted Use SCO (12,000  $\mu\text{g}/\text{kg}$ ). Samples collected from SB-142B at 3 to 4 and 22 to 22.5 feet did not possess naphthalene above the laboratory detection limit, therefore the vertical extent of naphthalene is delineated; the source appears to originate from the fill material.
- Sample results from SB-143 within the saturated zone indicate that there are no exceedances of either Unrestricted Use SCOs or Manhattan Background criteria. These results from the three samples collected at SB-143 have bounded the western extent of impacts identified at SB-132.

The supplemental investigation identified the vertical and horizontal extent of naphthalene, and confirmed that naphthalene is present within the fill material immediately beneath the concrete slab. The supplemental investigation also confirmed the western extent of impacts from previously identified at SB-132.

Based on the conclusions presented above, no further investigation work is warranted.



**Haven Plaza –  
Supplemental  
Investigation Report**

Former East 11<sup>th</sup> Street  
Works, Manhattan, New York

**5. References**

The RETEC Group, Inc. *Characterization of Soil Background PAH and Metal Concentrations, Manhattan, New York*. March 24, 2007.

New York State Department of Environmental Conservation. *6 NYCRR Part 375 Environmental Remediation Program*. December 2006

ARCADIS. *Haven Plaza – Supplemental Investigation Work Plan, Former East 11<sup>th</sup> Street Works*. June 2010.

**Table**



**Table 1**  
**Subsurface Soil Analytical Results**

**Consolidated Edison of New York, Inc.**  
**Haven Plaza Supplemental Investigation**

Location ID: Sample Depth(ft bgs): Date Collected:	Manhattan Background 95th Percentile Sub-	Unrestricted Use SCOs	Units	SB-142B 2 - 3 07/13/11	SB-142B 3 - 4 07/13/11	SB-142B 22 - 22.5 07/14/11	SB-143 3 - 4 07/14/11	SB-143 32 - 33 07/14/11	SB-143 39 - 40 07/14/11
<b>Detected Volatiles</b>									
1,1,1-Trichloroethane	--	680	µg/kg	2.2 J	5.7 U	7.0 U	6.3 U	6.0 U [6.0 U]	6.2 U
1,1-Dichloroethene	--	330	µg/kg	0.85 J	5.7 U	7.0 U	6.3 U	6.0 U [6.0 U]	6.2 U
Acetone	--	50	µg/kg	23 UB	23 UB	28 UB	25 UB	24 UB [4.6 J]	4.5 J
Benzene	--	60	µg/kg	5.6 U	3.5 J	7.0 U	6.3 U	6.0 U [6.0 U]	6.2 U
Carbon Disulfide	--	--	µg/kg	0.76 J	5.7 U	7.0 U	6.3 U	6.0 U [6.0 U]	6.2 U
Toluene	--	700	µg/kg	0.42 J	0.16 J	0.37 J	0.15 J	0.14 J [6.0 U]	6.2 U
Xylenes (total)	--	260	µg/kg	2.2 J	5.7 U	7.0 U	6.3 U	6.0 U [6.0 U]	6.2 U
Total BTEX	--	--	µg/kg	2.6 J	3.7 J	0.37 J	0.15 J	0.14 J [ND]	ND
Total VOCs	--	--	µg/kg	6.4 J	3.7 J	0.37 J	0.15 J	0.14 J [4.6 J]	4.5 J
<b>Detected Semivolatiles</b>									
2-Methylnaphthalene	--	--	µg/kg	430	310 U	370 U	320 U	310 U [310 U]	330 U
Acenaphthene	400	20,000	µg/kg	<b>410</b>	310 U	370 U	320 U	310 U [310 U]	330 U
Acenaphthylene	100	100,000	µg/kg	52 J	310 U	370 U	320 U	310 U [310 U]	330 U
Anthracene	700	100,000	µg/kg	<b>920</b>	310 U	370 U	320 U	310 U [310 U]	330 U
Benzo(a)anthracene	1,600	1,000	µg/kg	<b>1,700</b>	310 U	370 U	320 U	310 U [310 U]	330 U
Benzo(a)pyrene	2,000	1,000	µg/kg	<b>1,400</b>	310 U	370 U	320 U	310 U [310 U]	330 U
Benzo(b)fluoranthene	2,100	1,000	µg/kg	<b>1,600</b>	310 U	370 U	320 U	310 U [310 U]	330 U
Benzo(g,h,i)perylene	1,500	100,000	µg/kg	970 J	310 UJ	370 UJ	320 UJ	310 UJ [310 UJ]	330 UJ
Benzo(k)fluoranthene	1,800	800	µg/kg	560	310 U	370 U	320 U	310 U [310 U]	330 U
Carbazole	--	--	µg/kg	360	310 U	370 U	320 U	310 U [310 U]	330 U
Chrysene	1,800	1,000	µg/kg	<b>1,700 J</b>	310 UJ	370 UJ	320 UJ	310 UJ [310 UJ]	330 UJ
Dibenz(a,h)anthracene	400	330	µg/kg	300	310 U	370 U	320 U	310 U [310 U]	330 U
Dibenzofuran	--	7,000	µg/kg	330	310 U	370 U	320 U	310 U [310 U]	330 U
Fluoranthene	2,800	100,000	µg/kg	2,300	310 U	370 U	320 U	310 U [310 U]	330 U
Fluorene	300	30,000	µg/kg	<b>620</b>	310 U	370 U	320 U	310 U [310 U]	330 U
Indeno(1,2,3-cd)pyrene	1,800	500	µg/kg	<b>990</b>	310 U	370 U	320 U	310 U [310 U]	330 U
Naphthalene	200	12,000	µg/kg	<b>1,400</b>	310 U	370 U	320 U	310 U [310 U]	330 U
N-Nitrosodiphenylamine	--	--	µg/kg	220 J	310 U	370 U	320 U	310 U [310 U]	330 U
Phenanthrene	2,500	100,000	µg/kg	<b>2,600</b>	310 U	370 U	320 U	310 U [310 U]	330 U
Pyrene	2,500	100,000	µg/kg	<b>2,700 J</b>	24 J	370 UJ	320 UJ	310 UJ [310 UJ]	330 UJ
Total PAHs	--	--	µg/kg	21,000 J	24 J	ND	ND	ND [ND]	ND
Total SVOCs	--	--	µg/kg	22,000 J	24 J	ND	ND	ND [ND]	ND

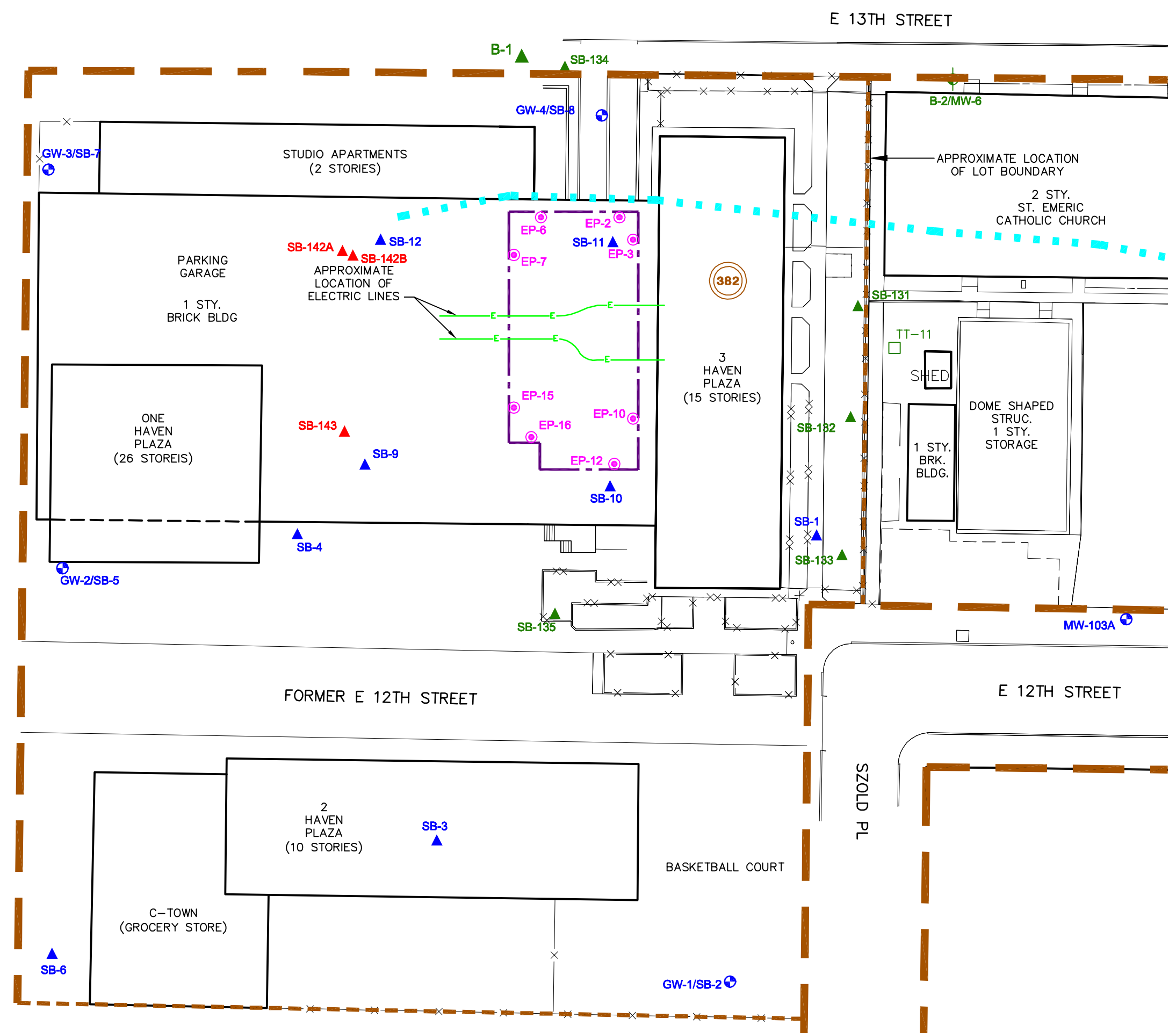
**Notes:**

- This table includes detected compounds only.
- Bolded/shaded data indicates exceedances of Unrestricted Use Soil Cleanup Objectives as per NYCRR Part 375, Table 375-6.8(a).
- Shaded data indicates exceedances of the Manhattan Background 95th Percentile Sub-Surface criteria.
- Samples were collected by ARCADIS.
- Samples were analyzed by TestAmerica, Inc. of Shelton, Connecticut.
- Data validated by ARCADIS.
- Results reported are [ ] are for field duplicate sample collected at that location.
- µg/kg = micrograms per kilogram
- = no SCO or background criteria exists for the specified compound
- ft bgs = feet below ground surface
- Lab Qualifiers:  
 J = Estimated value  
 U = Compound not detected at indicated detection limit  
 B = Analyte was also detected in the associated method blank  
 ND = None detected

**Figure**

CITY: SYRACUSE, NY DIV/GROUP: 141/ENVCAD DB: LPOSENAUER LD: (Op) PIC: (Op) PM: B.AHERNS TM: (Op) LVR: (Op) ON: "OFF" REF: G:\ENVCAD\SYRACUSE\ENVCAD\1904301300202000190\DWG\SR\143013801.dwg LAYOUT: 1SAVED: 9/20/2011 11:23 AM ACADVER: 18.05 (LMS TECH) PAGES: 18 PLOT: 9/20/2011 11:23 AM BY: POSENAUER, LISA

AVENUE C (AKA LOISIDA AVENUE)



**LEGEND:**

- ▲ RI SOIL BORING
- RI TEST TRENCH
- ⊕ RI MONITORING WELL
- ▲ APPROXIMATE LOCATION OF CA RICH SOIL BORING
- ⊕ APPROXIMATE LOCATION OF CA RICH MONITORING WELL
- ⊙ APPROXIMATE LOCATION OF CA RICH END POINT SAMPLE
- ▲ APPROXIMATE SOIL BORING LOCATION
- × FENCE
- BUILDING
- BLOCK BOUNDARY
- - - LOT BOUNDARY
- Ⓢ BLOCK NUMBER
- - - APPROXIMATE CA RICH EXCAVATION BOUNDARY
- - - ORIGINAL SHORELINE AS PRESENTED IN THE REMEDIAL INVESTIGATION REPORT (ARCADIS 2007)

**NOTES:**

1. BASE MAP AND SURVEY CONTROL WAS TAKEN FROM ORIGINAL SURVEY DATED 9/3/2004; SUBMITTED BY B.B.L. ON 8/25/2006.
2. BLOCK AND LOT BOUNDARIES TAKEN FROM THE NEW YORK CITY OPEN ACCESSIBLE SPACE INFORMATION SYSTEM (OASIS).
3. LOCATIONS OF BORINGS AND WELLS IDENTIFIED AS "CA RICH" WERE TAKEN FROM FIGURE 2 OF THE SPILL CLOSURE REPORT, DATED JUNE 4, 2009 (CA RICH CONSULTANTS, INC.)
4. LOCATIONS OF ELECTRIC LINES AND DRAIN LINE ARE APPROXIMATE AND TAKEN FROM SPILL CLOSURE REPORT, DATED JUNE 2009 (CA RICH CONSULTANTS, INC.)



CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
FORMER EAST 11th STREET WORKS  
**SUPPLEMENTAL REMEDIAL INVESTIGATION**

**HAVEN PLAZA SITE MAP**

FIGURE  
**1**