FORMER MUGLER SHORING INC. SITE

SITE No. C203052

2401 THIRD AVENUE, BRONX, NY

Block 2319 Lot 2

REMEDIAL ACTION WORK PLAN

May 2016
Revised August 2016

Prepared for:
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CERTIFICATIONS

I _____certify that I am currently a NYS registered professional engineer and that this Remedial Action Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

_____	_____	_____
NYS Professional Engineer #	Date	Signature

It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.

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LIST OF ACRONYMS

Acronym	Definition
AMC	AMC Engineering
AWQS	Ambient Water Quality Standards
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
CQMP	Construction Quality Management Plan
DUSR	Data Usability Statement Report
EBC	Environmental Business Consultants
FER	Final Engineering Report
HDPE	High Density Polyethylene
IRM	Interim Remedial Measure
NYC	New York City
NYCDEP	New York City Department of Environmental Protection
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PS	Public School
PVC	Polyvinyl Chloride
RAO	Remedial Action Objectives
RAWP	Remedial Action Work Plan
RI	Remedial Investigation
RSCOs	Recommended Site Cleanup Objectives
SCG	Standards, Criteria, and Guidelines
SMMP	Soil/Materials Management Plan
SMP	Site Management Plan
SSDS	Sub-slab Depressurization System
SWPPP	Stormwater Pollution Prevention Plan
SVOCs	Semi-Volatile Organic Compounds
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

EXECUTIVE SUMMARY

Site Description/Physical Setting/Site History

This Remedial Action Work Plan (RAWP) was prepared on behalf 2401 3rd Ave Associates Property LLC for the property known as the Former Mugler Shoring Inc. Site, located at 2401 Third Avenue, Bronx, New York. An application for acceptance into the New York State Brownfield Cleanup Program (BCP) was submitted to the New York State Department of Environmental Conservation (NYSDEC) on May 6, 2015. The application was determined to be complete on May 15, 2015. On June 29, 2015, the DEC notified 2401 3rd Ave Associates Property LLC that the Site had been accepted to the BCP (Site No. C203052) with the applicant defined as a Volunteer. The Brownfield Cleanup Agreement was executed on September 9, 2015.

A Restricted Residential use is proposed for the property. When completed, the Site will be redeveloped with 2 new 25-story residential buildings. Refer to the Brownfield Cleanup Program (BCP) application for additional details.

The street address for the Site is 2401 Third Avenue, Bronx, NY (**Figure 1**). The Site is located in the City of New York in the Port Morris neighborhood of the Borough of the Bronx. The Site is comprised of a single tax parcel covering 61,034.98 (1.4 acres). The subject property is located in the City of New York and Borough of the Bronx (Bronx County). The lot is located on the west side of Third Avenue and is identified as Block 2319 Lot 2 on the NY City tax map. The property has 159 feet of street frontage on Third Avenue and approximately 346 ft of frontage along the north side of the Harlem River (**Figure 2**).

The Site is currently owned by the Volunteer, 2401 3rd Ave Associates Property LLC. The property is currently vacant but was must recently used by a shoring company The Volunteer purchased the property in January 2015.

Summary of the Remedial Investigation

A Remedial Investigation was completed at the Site in November 2015 through December 2015 and documented in a Remedial Investigation Report dated February 2016. The goals of the Remedial Investigation were to define the nature and extent of contamination in soil,

groundwater and any other impacted media; to identify the source(s) of the contamination; to assess the impact of the contamination on public health and/or the environment; and to provide information to support the development of a Remedial Work Plan to address the contamination.

Activities completed under the RI:

- Sampling for non-petroleum contaminants such as pesticides, PCBs and metals in soil and groundwater including the analysis of soil and groundwater samples
- Soil sampling and analysis for petroleum compounds in soil samples from 23 soil boring locations;
- The installation of 12 groundwater monitoring wells
- The collection and analysis of groundwater samples for petroleum compounds;
- The collection of analysis of soil gas samples for VOCs from 8 soil gas sampling locations and 5 subslab vapor sampling locations.

The results of sampling performed during the RI, identified petroleum related contaminants in soil to a depth of 8 feet in the vicinity of a suspect 550 gallon underground storage tank (UST) that was previously abandoned in place.

Historic fill material has been identified across the Site to depths as great as 7 feet below grade. The historic fill material contains semi-volatile organic compounds and metals including arsenic, barium, chromium, copper, lead, mercury, nickel, silver and zinc above unrestricted, restricted residential or restricted commercial use SCOs.

Groundwater impacts from petroleum were not reported during the RI but were reported previously in the vicinity of the suspect underground gasoline tank. SVOC detections above groundwater standards were limited to those polynuclear aromatic hydrocarbons (PAHs) with a 2 per trillion standard. Exceedances of the part per trillion standards for PAHs were reported in well MW9. SVOCs reported in the parts per trillion range are a function of the laboratories ability to achieve extremely low detection limits and general background conditions. The PCB Arochlor 1254 was also reported above standards in MW9.

Several dissolved metals were detected above standards including sodium, iron and manganese were detected above standards throughout the Site. The metals detected in groundwater are related to brackish conditions and are associated with the Site's proximity to the Harlem River.

With the exception of lighter compounds such as heptane and hexane in several samples, total petroleum-related VOCs were generally low in soil vapor samples across the Site. There did not appear to be any correlation in concentration or distribution of petroleum VOCs in soil vapor with the source area.

CVOCs were also generally low and were reported in all of the soil vapor samples with concentrations ranging from 0.28 µg/m3 to 26.06 µg/m3.

Qualitative Human Health Exposure Assessment

The qualitative exposure assessment identified potential completed routes of exposure to construction workers and remediation workers through inhalation, ingestion and dermal contact of petroleum VOCs, SVOCs, CVOCs, pesticides and heavy metals during excavation activities. The Health and Safety Plan prepared for the site identifies such exposures and provides instructions for on-site workers to minimize potential exposure.

Potential completed routes of exposure were also identified for future occupants of the new building including commercial retail workers, residents and visitors to SVOCs and heavy metals in soil through ingestion and dermal contact if these contaminants were to remain in exposed soils at the Site.

Off-Site residents could also be exposed to dust or vapors during the excavation of impacted soil. A site specific Community Air Monitoring Plan has been developed to identify and minimize the potential for off-site exposure to residents through continuous air monitoring during excavation activity.

Potential environmental impacts through the groundwater to surface water discharge were considered unlikely based on the concentrations of VOCs in groundwater and the absence of any evidence of migration toward the River.

Summary of the Remedy

The remedy recommended for the Site is a Track 4 alternative (Alternative 2) which consists of the excavation of petroleum impacted soil to a depth of 9 feet within the UST source area (USTs 1 & 2), excavation and disposal of historic fill within the planned landscape areas with soil above Restricted Residential SCOs and capping the entire Site with the building foundations, concrete walkways / driveways or 2 ft of soil meeting Restricted Residential SCOs. The remedy will include the following items:

1. Removal of underground storage tanks (USTs);
2. Excavation of soil/fill exceeding groundwater protection SCOs for those VOC parameters in groundwater above standards as listed in **Table 1** to depths as great as 9 feet below grade, or as needed to remove impacted soil in the UST source area (USTs 1 &2);
3. Screening for indications of contamination (by visual means, odor, and monitoring with PID) of all excavated soil during any intrusive Site work;
4. Excavation and disposal of historic fill materials with parameters above RRSCOs from the buildings basement level foundations;
5. Capping areas of the Site in which soil is present with parameters above Restricted Residential SCOs with the concrete building slab, concrete driveways, concrete pavers or 2 feet of clean soil meeting RRSCOs;
6. Collection and analysis of end-point samples to evaluate the performance of the remedy with respect to attainment of groundwater protection SCOs for VOCs present in groundwater above standards;
7. Appropriate off-Site disposal of all material removed from the Site in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal;
8. Import of materials to be used for backfill and cover in compliance with: (1) chemical limits and other specifications included in **Table 1**, (2) all Federal, State and local rules and regulations for handling and transport of material.
9. Implementation of a Site Management Plan (SMP) for long term maintenance of the Engineering Controls.An Environmental Easement will be filed against the Site to ensure implementation of the SMP.

REMEDIAL ACTION WORK PLAN

1.0 INTRODUCTION

This Remedial Action Work Plan (RAWP) was prepared on behalf 2401 3rd Ave Associates Property LLC for the property known as the Former Mugler Shoring Inc. Site, located at 2401 Third Avenue, Bronx, New York. An application for acceptance into the New York State Brownfield Cleanup Program (BCP) was submitted to the New York State Department of Environmental Conservation (NYSDEC) on May 6, 2015. The application was determined to be complete on May 15, 2015. On June 29, 2015, the DEC notified 2401 3rd Ave Associates Property LLC that the Site had been accepted to the BCP (Site No. C203052) with the applicant defined as a Volunteer. The Brownfield Cleanup Agreement was executed on September 9, 2015.

This RAWP summarizes the nature and extent of contamination as determined from data gathered during the Remedial Investigation (RI), performed between November 20, 2015 and December 2, 2015. It provides an evaluation of a Track 1 cleanup and other applicable Remedial Action alternatives, their associated costs, and the recommended and preferred remedy. The remedy described in this document is consistent with the procedures defined in DER-10 and complies with all applicable standards, criteria and guidance. The remedy described in this document also complies with all applicable Federal, State and local laws, regulations and requirements. The NYSDEC and New York State Department of Health (NYSDOH) have determined that this Site does not pose a significant threat to human health and the environment. The RI for this Site did not identify fish and wildlife resources.

A formal Remedial Design document will not be prepared.

1.1 SITE LOCATION AND DESCRIPTION

The street address for the Site is 2401 Third Avenue, Bronx, NY (**Figure 1**). The Site is located in the City of New York in the Port Morris neighborhood of the Borough of the Bronx. The Site is comprised of a single tax parcel covering 61,034.98 (1.4 acres). The subject property is located in the City of New York and Borough of the Bronx (Bronx County). The lot is located on the

west side of Third Avenue and is identified as Block 2319 Lot 2 on the NY City tax map. The property has 159 feet of street frontage on Third Avenue and approximately 346 ft of frontage along the north side of the Harlem River (**Figure 2**).

The lot is developed with a one-story 19,450 sf commercial building which according to the NYC Department of Buildings was constructed in 1931. The Property was assigned "E" designations (E-143) for air, noise, and hazardous materials as a result of the Port Morris/Bruckner Boulevard Rezoning action completed by the City in March 2005 (CEQR # 05DCP005X).

The property has an elevation of approximately 2 feet above the National Geodetic Vertical Datum (NGVD). Based upon regional groundwater contour maps, the depth to groundwater beneath the site is approximately 5-10 feet below existing grade and flows southwest toward the Harlem River.

A boundary map will be attached to the BCA as required by Environmental Conservation Law (ECL) Title 14 Section 27-1419. The 0.43-acre property is fully described in **Attachment A – Metes and Bounds.**

1.2 CONTEMPLATED REDEVELOPMENT PLAN

The redevelopment project consists of the construction of two new 25-story residential tower buildings identified as the east and the west towers. The two towers flank an entry court which is open to the river and Manhattan views to the south. The East Tower is free-standing, serving as a "portal" on Third Avenue, whereas the West Tower has a 7-story base with common amenities and parking for 200 cars. The residential component consists of 475 rental units in an area of 399,798 gross square feet. Commercial (retail) and community space will be included in the west tower base.

1.3 DESCRIPTION OF SURROUNDING PROPERTY

The area surrounding the property (**Figure 3**) is highly urbanized and predominantly consists of heavy commercial / industrial / warehouse properties to the north along a corridor adjacent to the

Harlem River. Multi-use residential / commercial (retail) properties are present to the east along Bruckner Boulevard and a large housing project is located to the northeast.

2.0 DESCRIPTION OF REMEDIAL INVESTIGATION FINDINGS

The field work portion of the Remedial Investigation was conducted by EBC in November and December 2015. The investigation is summarized in the sections below. Further details are provided in the Remedial Investigation Report (EBC February 2016).

2.1 SUMMARY OF REMEDIAL INVESTIGATIONS PERFORMED

2.1.1 Soil Borings

A total of twenty-Three soil borings (15B1-15B23) were advanced on November 20, 23 and 24, 2015 to identify source areas and to obtain general soil quality information present at the Site (**Figure 4**).

At each soil boring location soil samples were collected continuously in 5-foot intervals from grade to a depth of 15 feet below grade using a Geoprobe™ 6720DT, probe drilling machine. The Geoprobe™ system uses a direct push hydraulic percussion system to drive and retrieve core samplers. Soil samples were retrieved using a 1.25-inch diameter, 5-foot long dual-tube sampler with disposable acetate liners. Soil recovered from each soil boring was field screened by an environmental professional for the presence of VOCs with a photo-ionization detector (PID) and visually inspected for evidence of contamination. Soil samples were retained for laboratory analysis from all borings in accordance with the RIWP with the exception of B16 due to an error in completing the chain of custody form..

Retained samples were submitted for laboratory analysis of one or more of the following analyses: volatile organic compounds (VOCs) by EPA Method 8260, semi-volatile organic compounds (SVOCs) by EPA Method 8270, TAL Metals, pesticides and PCBs by EPA Method 8081/8082. Soil boring locations are identified in **Figure 4**.

2.1.2 Monitoring Wells

Twelve groundwater monitoring wells, MW1 - MW5 and MW7 - MW13D, were installed at the Site on November 20, November 24 and December 2, 2015. All of the wells were installed with a track mounted probe drilling machine. Wells MW1-MW10 were installed to a depth of

approximately 15 feet below grade with 10 feet of 1-inch diameter 0.010-inch slotted PVC well screen and 5 feet of PVC riser. Wells MW11D-MW13D were installed to a depth of 30 ft with 10 ft of well screen.

A No. 00 morie filter-pack sand filled the annulus surrounding the screen within two feet above the top of the screen. A one-foot hydrated bentonite seal was then placed on top of the filter sand and the remainder of the borehole was backfilled to grade. Following installation, each of the wells were surveyed to determine relative casing elevation to the nearest 0.01 ft and horizontal position to the nearest 0.1 ft. Monitoring well locations are identified in **Figure 5.** Well completion reports detailing monitoring well construction are provided in **Appendix B**.

Prior to sampling, a synoptic round of depth-to-groundwater (DTW) measurements was obtained from the wells on December 1, 2015 to determine the water table elevation and to calculate the volume of standing water in the well.

2.1.3 Samples Collected

A summary of the sampling performed during the RI is provided in **Table 2**.

2.1.3.1 Soil Samples

A total of thirty-four soil samples were collected from 23 soil borings for laboratory analysis of one or more of the following parameters: VOCs (EPA Method 8260), SVOCs (EPA Method 8270), TAL metals and pesticides/PCBs (EPA Method 8081/8082).

2.1.3.2 Groundwater Samples

A total of twelve groundwater samples were collected from the groundwater monitoring wells for laboratory analysis of VOCs (EPA Method 8260), SVOCs (EPA Method 8270), TAL metals and pesticides/PCBs (EPA Method 8081/8082).

2.1.3.3 Soil Vapor Samples

To assess the presence of VOCs in soil vapor beneath the site, eight soil vapor implants and five subslab vapor points were installed at the Site and sampled on December 1 and 2, 2015. The

vapor implants (Geoprobe™ Model AT86 series), were constructed of a 6-inch length of double woven stainless steel wire and installed to a depth of 3.5 ft below grade using Geoprobe™ equipment. Five subslab samples installed by drilling a 1/2 inch hole through the concrete slab with a handheld drill and inserting 1/4 inch polyethylene tubing to no more than 2 inches below the base of the slab. The tubing was then sealed at the surface with hydrated granular bentonite.

All soil vapor samples were collected over a 2 hr sampling period.

Soil vapor samples were collected in accordance with the procedures as described in section 2.4 of the approved RIR and the *Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH 10/06).*

2.1.4 Chemical Analytical Work Performed

Each soil and groundwater sample was placed in pre-cleaned laboratory supplied glassware, and placed in a cooler packed with ice for transport to the laboratory. Laboratory services for soil and groundwater sample analysis were provided by Phoenix Environmental Laboratories of Manchester, CT, a New York State ELAP certified environmental laboratory (ELAP Certification No. 11301).

Retained soil samples were submitted for laboratory analysis of one or more of the following analyses: volatile organic compounds (VOCs) by EPA Method 8260, semi-volatile organic compounds (SVOCs) by EPA Method 8270, TAL Metals, pesticides and PCBs by EPA Method 8081/8082.

All groundwater samples from the monitoring wells were analyzed for VOCs / SVOCs by EPA method 8260 / 8270, target analyte list (TAL) metals by EPA method 6010 and Pesticides/PCBs by method 8081/8082. Soil gas samples were analyzed for VOCs by USEPA Method TO-15.

2.1.5 Documentation

A map showing the locations of the soil borings is provided in **Figure 4.** The locations of the monitoring wells and soil gas sample collection points are provided in **Figures 5** and **6**. The

results of sample soil, groundwater and soil gas samples collected during the RI are summarized in **Tables 3** through **14**. Below is a summary of the RI findings.

The results of sampling performed during the RI, identified petroleum related contaminants in soil to a depth of 8 feet in the vicinity of a suspect 550 gallon underground storage tank (UST) that was previously abandoned in place.

Historic fill material has been identified across the Site to depths as great as 7 feet below grade. The historic fill material contains semi-volatile organic compounds and metals including arsenic, barium, chromium, copper, lead, mercury, nickel, silver and zinc above unrestricted, restricted residential or restricted commercial use SCOs.

Groundwater impacts from petroleum were not reported during the RI but were reported previously in the vicinity of the suspect underground gasoline tank. SVOC detections above groundwater standards were limited to those polynuclear aromatic hydrocarbons (PAHs) with a 2 per trillion standard. Exceedances of the part per trillion standards for PAHs were reported in well MW9. SVOCs reported in the parts per trillion range are a function of the laboratories ability to achieve extremely low detection limits and general background conditions.

The PCB Arochlor 1254 was also reported above standards in MW9.

Several dissolved metals were detected above standards including sodium, iron and manganese were detected above standards throughout the Site. The metals detected in groundwater are related to brackish conditions and are associated with the Site's proximity to the Harlem River.

With the exception of lighter compounds such as heptane and hexane in several samples, total petroleum-related VOCs were generally low in soil vapor samples across the Site. There did not appear to be any correlation in concentration or distribution of petroleum VOCs in soil vapor with the source area.

CVOCs were reported in all of the soil vapor and subslab samples with total CVOCs ranging from 0.28 µg/m3 (SG1) to 26.06 µg/m3 (SG9) in the soil gas samples and from 0.69 µg/m3 (SS4) to 5.15 µg/m3 (SS2) in the subslab samples.

2.2 SIGNIFICANT THREAT

The NYSDEC and NYSDOH will review the RI Report and will determine whether the Site does or does not pose a significant threat to human health and the environment. Notice of that determination will be provided during the public comment period, through fact sheet No. 2 and the Proposed Decision Document.

2.3 SITE HISTORY

2.3.1 Past Uses and Ownership

The Site is currently owned by the Requestor, 2401 3rd Ave Associates Property LLC. The property is currently vacant but was must recently used by a shoring company and has historically been used as an iron works, steel fabrication, gear manufacturing, gasket manufacturing and shoring equipment fabrication. The Requestor purchased the property in January 2015.

2401 3rd Avenue Associates Property LLC (the Requestor) is the current owner of the property and has owned the property since January 20, 2015. The property has been owned by various corporations associated with the Mugler family since at least 1986. The Muglers have operated a shoring equipment business on the premises since at least 1965. There appear to have been multiple tenants on the property through the 1960's and 1970's with the Mugler operation. The property has been underutilized for years and was proposed for inclusion in a newly designated BOA as a strategic property by the South Bronx Overall Economic Development Corp.

Previous Owners

Dates	Name	Comments	Contact Info
From 1953 to 2/1/1986	Richard C. Mugler Mary Mugler	Deed Owner Knowledge	Red Rock Road Austerlitz, NY 12017
From 2/1/1986 to 11/25/1997	Richard C. Mugler, Jr.	Deed	177 Hudson Avenue Tenafly, New Jersey 07670
From 11/25/1997 to 3/20/2000	KAI Development Corp.	Deed	732 W. 58th Street, New York, NY 10019
From 3/20/2000 to 1/20/2015	2401 3rd Avenue, LLC	Deed	177 Hudson Avenue Tenafly, New Jersey 07670
From 1/20/2015 to present	2401 3rd Ave Associates Property LLC	Deed	512 7th Avenue 15th Floor, New York, NY 10018

Previous Operators

Dates	Name	Comments	Contact Info
From sometime prior to 1891 to sometime between 1908 & 1922	J.L. Mott Iron Works	Sanborn Maps	Unknown 2401 Third Avenue, Bronx, NY 10451
From sometime between 1908 &1922 to sometime between 1928 & 1935	Hydraulic Steel Co.	Sanborn Maps	Unknown 2401 Third Avenue, Bronx, NY 10451
From sometime between 1928 and 1935 to 1956.	General Building Supply Inc. (1949, 1956) Brill Equip. Co. (1949, 1956)	Sanborn Maps City Directory	Unknown 2401 Third Avenue, Bronx, NY 10451
From 1965-1971	US Gear Man. (1965, 1971) Ohio Gasket Co. (1971)	City Directory	2401 Third Avenue, Bronx, NY 10451
From 1965-present	Mugler Shoring Co.	City Directory	2401 Third Avenue, Bronx, NY 10451

2.3.2 Summary of Previous Reports

Environmental investigations performed at the Site include the following:

- Phase I Environmental Site Assessment - Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. October 28, 2014
- Phase II Environmental Site Investigation Report - Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. October 28, 2014

October 2014 - Phase I Environmental Site Assessment Report (Langan)

A Phase I Environmental Site Assessment Report was prepared by Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) on October 28, 2014. Based upon reconnaissance of the subject and surrounding properties, interviews and review of historical records and regulatory agency databases, Langan identified the following recognized environmental conditions:

- Current and Historical Manufacturing and Industrial Use:

  The Subject Property was historically used for manufacturing purposes since at least 1891. Historical operators include; J.L. Mott Iron Works (1891–1922), Hydraulic Steel Company (1922–1935), General Builders Supply Corporation (1935–1968), Brill Equipment Company (1949–1956), US Gear Manufacturing Company (1965–1971), Ohio Gasket Manufacturing Corporation (1971), and Mugler Inc. (1965–present). Inadvertent releases of solvents, petroleum products, metals, polychlorinated biphenyls (PCB) and/or other chemicals used during manufacturing operations may have adversely impacted soil, groundwater, building components and/or soil vapor. The Subject Property is presently operated by Mugler, Inc. for shoring equipment fabrication, storage, truck loading/unloading, and equipment repairs. As such, there are typical tools, maintenance/repair materials, and miscellaneous equipment used and stored throughout. Discoloration and staining were apparent throughout the interior of the building, suggesting incidental releases of petroleum products during truck maintenance, and the concrete slab was compromised in several areas. Because fractures in the slab provide a

conduit for spilled motor oils and/or petroleum products to impact subsurface conditions, current use by Mugler, Inc. constitutes a REC.

- On-Site Petroleum Bulk Storage:
  The following historical underground storage tanks (USTs) were identified:

  - One 550-gallon gasoline UST, located outside the southeast corner of the building, was reportedly closed-in place circa 1999.
  - An area of patched concrete and an apparent abandoned fill port southeast of the building, which is suspected to be associated with another decommissioned UST, was identified during the site reconnaissance.
  - One 1,550-gallon gasoline UST was identified on the 1935 through 1946 Sanborn maps.

Based on the known and suspected presence of historic tanks and lack of any documentation of tank closure, the historical USTs are a REC.

- Current and Historical Use of Surrounding Properties:
  Include a private garage (1946–1951), lubricating oils storage (1935–1983), two chemical corporations (1935–1947), a paint manufacturer (1951), a coal yard (1935–1951), an auto building (1908–1947), an auto house (1935–1944), a private garage (1935–1944), a printing facility (1935–1947), and several auto repair shops (2005–2012). In addition, an active New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) site was identified approximately 660 feet northeast (up-gradient) of the Subject Property. Based on investigations conducted to date, the primary contaminants of concern in soil and groundwater are petroleum related compounds. No information was provided with respect to the off-Site migration of contaminants; however, the Environmental Database Report (EDR) report indicates that the potential exists for off-Site migration of site-related contaminants in soil vapor. Potential petroleum and solvent releases associated with the historical surrounding

property uses may have adversely impacted groundwater and/or soil vapor at the Subject Property and is considered a REC.

October 2014 – Phase II Environmental Site Investigation Report (Langan)

A remedial investigation was performed by Langan for the property in July and August of 2014. The Phase II included the following scope of work:

1. Completion of a geophysical investigation;
2. Completion of seven soil borings and collection of 14 soil samples;
3. Installation and sampling of six temporary monitoring wells; and
4. Installation and sampling of six soil vapor points. Installed five soil vapor probes around Site perimeter and collected five samples for chemical analysis.

The findings of the Phase II are summarized as follows:

- The geophysical survey identified two major anomaly areas along the southeast corner of the Subject Property Building. Based on their reflection rates and their proximities, these anomalies are indicative of USTs located approximately 2 to 3 ft bgs. Another anomaly area consistent with disturbed soil was located along the western edge of the Subject Property.

- A layer of historic fill was identified throughout the Subject Property with thicknesses ranging from approximately 5 to 13 feet. This fill layer contained SCO exceedances (SVOC and metal) throughout the majority of the Site.

- The suite of metals and SVOCs and their concentrations detected in soil and groundwater across the site are attributed to historic fill material.

- One of the seven soil borings (SB-3) was installed next to a suspect 550-gallon gasoline UST that was reportedly decommissioned in 1999. Petroleum-like odors and PID readings (up to 700 ppm) were observed in the soil boring at depths of approximately 8 to 9 ft bgs. Groundwater analytical sampling results from this location confirmed the

presence of a petroleum release. Article 12 of the New York State Navigation Law requires that anyone with knowledge of a petroleum release must report the discovery to the New York State Spill Hotline as soon as possible. Therefore, on 13 August, 2014, Langan called in a spill and Spill Case No. 1405230 was opened by NYSDEC.

- Soil vapor concentrations are below NYSDOH AGV values; however, based on the presence of VOCs in the soil vapor, remedial measures should include installation of a soil vapor mitigation system.

- Due to the E-designation of the site, additional investigation including soil, groundwater and soil vapor sampling will be required in order to comply with NYCOER guidelines and obtain permits for construction and occupancy of proposed building structures.

- If site development is planned, a Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) should be prepared and implemented. In accordance with the requirements of the E-Designation program, these documents must be submitted to OER for approval prior to the start of Site work. OER will require additional site investigation to support preparation of the RAP. The RAP and CHASP may need to address the following:

    - Handling, transport and disposal of excess material including fill and debris as required for development with all appropriate requirements.
    - A composite cover system for impacted material that may be left in-place after development. The cover system will prevent direct contact with or inhalation of contaminated material.
    - Odor and soil vapor intrusion should be addressed if odorous or VOC-impacted material is left in-place as part of the development.
    - Registration, removal and closure of known petroleum storage tanks.
    - Permitting and treatment, if required, of dewatering effluent.
    - Health and safety requirements addressing the contaminants of concern including a Community Air Monitoring Plan (CAMP) to monitor odor and dust.
    - A contingency plan for removal of currently unknown underground storage tanks or other subsurface structures

2.4 GEOLOGICAL CONDITIONS

The bedrock geology at the property and in the immediate vicinity consists of Inwood Marble of Lower Ordovician to Lower Cambrian age with steep westerly dip of its upper surface. The depth to bedrock is anticipated at approximately 20 to 30 feet below land surface (ft-bls). Bedrock is overlain by an unconsolidated overburden of an unsorted heterogeneous mix of Pleistocene and Recent glacial material (i.e., glacial till) including clay, silt, sands, gravel, cobbles, and boulders. This overburden is overlain by historic urban fill.

Subsurface soils at the Site consist of historic fill materials in and silty-sand matrix to a depth of approximately 5 feet below grade. A silty clay was present below this layer to a depth of 15 feet in those borings located closer to the shore. Further inland a medium to coarse sand was encountered beneath the fill to a depth of 15 feet (**Figure 7**).

Groundwater at the Site is present under water table conditions at a depth of 5.17 to 6.75 feet below grade. Based upon on-site measurements, groundwater flow is to the southwest (**Figure 8**).

Considering the poor quality of groundwater in the area, including high levels of sodium and magnesium associated with saltwater intrusion, there is no anticipated future groundwater use.

2.5 CONTAMINATION CONDITIONS

2.5.1 Conceptual Model of Site Contamination

VOC contamination at the Site consists of petroleum related contaminants in soil to a depth of 8 feet in the vicinity of a suspect 550 gallon underground storage tank (UST) that was previously abandoned in place. Released gasoline migrated through the soil column to the water table. Some gasoline constituents dissolved into the groundwater in the immediate vicinity of the tank. There does not appear to be any migration of dissolved VOCs from the source area.

Lighter end VOC components such as heptane and hexane have transferred to the vapor phase from impacted soil and / or groundwater.

2.5.2 Description of Areas of Concern

The source area identified during the RI includes petroleum VOCs in the north-central area of the Site in the vicinity of a suspect UST.

2.5.3 Soil/Fill Contamination

VOC contamination at the Site consists of petroleum related contaminants in soil to a depth of 8 feet in the north-central area of the Site in the vicinity of a suspect UST.

Historic fill material has been identified across the Site to depths as great as 7 feet below grade. The historic fill material contains semi-volatile organic compounds and metals including arsenic, barium, chromium, copper, lead, mercury, nickel, silver and zinc above unrestricted, restricted residential or restricted commercial use SCOs.

2.5.3.1 Summary of Soil/Fill Data

Soil sample results from the RI are summarized in **Tables 3-6**. Further information on soil sample collection, handling and analysis can be found in the RI Report (EBC 2/16).

2.5.3.2 Comparison of Soil/Fill with SCGs

Table 7 shows sample results above Track 1 Unrestricted SCOs for all overburden soil at the Site. **Figure 9** is spider map which shows soil sampling locations and summarizes shallow and deep sample results above Track 1 Unrestricted SCOs for all overburden soil.

2.5.4 On-Site and Off-Site Groundwater Contamination

Groundwater impacts from petroleum were limited to methyl tertiary butyl ether (MTBE) at two locations during the RI but were not near the underground gasoline tank. However petroleum impacts were reported previously during a Phase II investigation (Langan 10/2014) in the vicinity of this tank. Chloromethane was also reported above its groundwater standard at one location.

SVOC detections above groundwater standards were limited to those polynuclear aromatic hydrocarbons (PAHs) with a 2 per trillion standard. Exceedances of the part per trillion standards

for PAHs were reported in well MW9. SVOCs reported in the parts per trillion range are a function of the laboratories ability to achieve extremely low detection limits and general background conditions.

The PCB Arochlor 1254 was also reported above standards in MW9.

Several dissolved metals were detected above standards including sodium, iron and manganese were detected above standards throughout the Site. The metals detected in groundwater are related to brackish conditions and are associated with the Site's proximity to the Harlem River.

2.5.4.1 Summary of Groundwater Data

The results of groundwater samples collected during the RI are summarized in **Tables 8-12**. Further information on groundwater sample collection, handling and analysis can be found in the RI Report (EBC 2/16).

2.5.4.2 Comparison of Groundwater with SCGs

Sample results above GA groundwater standards in monitor wells prior to the remedy are shown in **Table 13**. Spider maps which show groundwater sampling locations and summarize results above GA groundwater standards prior to the remedy are shown in **Figure 10**.

2.5.5 On-Site and Off-Site Soil Vapor Contamination

With the exception of lighter compounds such as heptane and hexane in several samples, total petroleum-related VOCs were generally low in soil vapor samples across the Site. There did not appear to be any correlation in concentration or distribution of petroleum VOCs in soil vapor with the source area.

CVOCs were also generally low and were reported in all of the soil vapor samples with concentrations ranging from 0.28 µg/m^3 to 26.06 µg/m^3.

2.5.5.1 Summary of Soil Vapor Data

A table of soil vapor data collected prior to the remedy is shown in **Table 14**. Further information on soil gas sample collection, handling and analysis can be found in the RI Report (EBC 2/16). Soil vapor results are posted on **Figure 11**.

2.6 ENVIRONMENTAL AND PUBLIC HEALTH ASSESSMENTS

2.6.1 Qualitative Human Health Exposure Assessment

The objective of the qualitative exposure assessment under the Brownfields Cleanup Program (BCP) is to identify potential receptors to the contaminants of concern (COC) that are present at, or migrating from, the Site. The identification of exposure pathways describes the route that the COC takes to travel from the source to the receptor. An identified pathway indicates that the potential for exposure exists; it does not imply that exposures actually occur. An exposure pathway has five elements; a contaminant source, release and transport mechanisms, point of exposure, route of exposure and a receptor population.

The potential exposure pathways identified below, represent both current and future exposure scenarios.

Contaminant Source

Source areas of the Site include petroleum VOCs in the north-central area of the Site in the vicinity of a suspect UST.

Elevated levels of metals and PAHs are also present in fill materials throughout the Site to depths as great as 7 ft below grade.

Contaminant Release and Transport Mechanism

Petroleum contamination is present in subsurface soil in the north-central area of the Site in the vicinity of a suspect gasoline storage tank. The contamination extends vertically to the groundwater interface. There appears to be minimal transfer of petroleum VOCs to the groundwater despite the fact that impacted soil is in contact with the groundwater. There does

not appear to be any significant transfer of petroleum VOCs to the vapor phase or concern for off-site vapor migration.

Point of Exposure, Route of Exposure and Potentially Exposed Populations

Potential On-Site Exposures: Remediation workers and construction workers engaged in the excavation of impacted and non-impacted soil at the site may be exposed to petroleum VOCs / SVOCs, and heavy metals through several routes including , ingestion and dermal contact. A site specific Health and Safety Plan has been developed to identify and minimize the potential hazards to on-site workers. Site trespassers could also be exposed to impacted soil during excavation, however security measures including an 8 ft high construction fence and 24 hr security will minimize potential exposure through this route.

Future occupants of the new building including commercial retail workers, residents and visitors could be exposed to SVOCs and heavy metals in soil through ingestion and dermal contact if these contaminants were to remain in exposed soils at the Site.

Potential Off-Site Exposures: Off-Site residents could also be exposed to dust or vapors during the excavation of impacted soil. A site specific Community Air Monitoring Plan has been developed to identify and minimize the potential for off-site exposure to residents through continuous air monitoring during excavation activity.

The entire area is serviced by the New York City Water System which distributes water from the Croton Reservoir system. Since there are no public or private potable supply wells in the area, exposure from contact with tap water is not a concern.

Potential Off-Site Environmental Impacts: Since petroleum VOCs in groundwater were reported in the vicinity of the suspect gasoline tank during a previous investigation at the Site, the groundwater to surface water discharge pathway was evaluated. The nearest body of water is the Harlem River which borders the Site to the south. Based on the low concentrations of contaminants reported and the absence of VOCs in groundwater during the RI downgradient of

the tank area, there are no expected impacts to surface water environments from contaminants migrating from the Site.

2.6.2 Fish & Wildlife Remedial Impact Analysis

Based on the nature and location of the contamination at the site, with limited impact to subsurface soils and groundwater and no evidence of migration / discharge of contaminants to the River, there are no expected adverse impacts to River. However, the presence of elevated levels of SVOCs, metals and pesticides in surficial soil at the Site would be a concern if these contaminants were to be discharged to the river in sediments from surface runoff. Therefore, capping or otherwise stabilizing surficial soil should be included in the Remedial Plan developed for the Site.

2.7 REMEDIAL ACTION OBJECTIVES

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAOs) have been identified for this Site.

2.7.1 Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles emanating from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer, to the extent practicable, to pre-disposal/pre-release conditions.
- Prevent the discharge of contaminants to surface water.

2.7.2 Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

2.7.3 Soil Vapor

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

3.0 DESCRIPTION OF REMEDIAL ACTION PLAN

3.1 EVALUATION OF REMEDIAL ALTERNATIVES

The goal of the remedy selection process under the BCP is to select a remedy that is protective of human health and the environment taking into consideration the current, intended and reasonably anticipated future use of the property. The remedy selection process begins by establishing RAOs for media in which chemical constituents were found in exceedance of NYSDEC standards, criteria and guidance values (SCGs). A remedy is then developed based on the following nine criteria:

- Protection of human health and the environment;
- Compliance with SCGs;
- Short-term effectiveness and impacts;
- Long-term effectiveness and permanence;
- Reduction of toxicity, mobility, or volume of contaminated material;
- Implementability;
- Cost effectiveness;
- Community Acceptance; and
- Land use.

The first two criteria are threshold criteria and must be satisfied in order for an alternative to be considered for selection. The remaining seven criteria are balancing criteria which are used to compare the positive and negative aspects of each of the remedial alternatives, provided the alternative satisfies the threshold criteria.

3.2 STANDARDS, CRITERIA AND GUIDANCE (SCG)

A criterion for remedy selection is evaluation for conformance with SCGs that are applicable, relevant and appropriate. Principal SCGs that are applicable, relevant and appropriate for evaluating the alternatives for remediation of this BCP site include the following:

- 29 CFR Part 1910.120 - Hazardous Waste Operations and Emergency Response

- 10 NYCRR Part 67 – Lead
- 6 NYCRR Part 371 - Identification and Listing of Hazardous Wastes (November 1998)
- 6 NYCRR Part 372 - Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities (November 1998)
- 6 NYCRR Subpart 374-1 - Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities (November 1998)
- 6 NYCRR Part 375 - 6 NYCRR Part 375 Environmental Remediation Programs Subparts 375-1, 375-3 and 375-6 (December 2006)
- 6 NYCRR Part 376 - Land Disposal Restrictions
- 6 NYCRR Part 608 - Use and Protection of Waters
- 6 NYCRR Parts 700-706 - Water Quality Standards (June 1998)
- 6 NYCRR Part 750 through 758 - Implementation of NPDES Program in NYS ("SPDES Regulations")
- 6 NYCRR Part 375-6 Soil Cleanup Objectives
- New York State Groundwater Quality Standards – 6 NYCRR Part 703;
- NYSDEC Ambient Water Quality Standards and Guidance Values – TOGS 1.1.1;
- NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation - May 2010;
- NYSDEC Draft Brownfield Cleanup Program Guide – May 2004;
- New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan
- NYS Waste Transporter Permits – 6 NYCRR Part 364;
- NYS Solid Waste Management Requirements – 6 NYCRR Part 360 and Part 364.
- TAGM 4059 - Making Changes To Selected Remedies (May 1998)
- STARS #1 - Petroleum-Contaminated Soil Guidance Policy
- TAGM 3028 - "Contained In" Criteria for Environmental Media: Soil Action Levels (August 1997)
- DER-10, Technical Guidance for Site Investigation and Remediation, May 2010
- DER-23 / Citizen Participation Handbook for Remedial Programs, January 2010

- OSWER Directive 9200.4-17 - Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites (November 1997)

Additional regulations and guidance are applicable, relevant, and appropriate to the remedial alternatives and will be complied in connection with implementation of the remedial program; however, the list above is intended to represent the principal SCGs which should be considered in evaluating the remedial alternatives for the BCP site.

Conformance with the appropriate standards for remediation of contaminated soil is an important criterion in evaluating the remedial alternatives for the BCP site. Presently, in New York State 6 NYCRR Part 375 establishes the primary SCGs associated with remediation of contaminated soil at sites which are in the BCP. If proposing remediation pursuant to a Track other than Track 1 (Unrestricted Use), 6 NYCRR Part 375 requires evaluation of at least one remedial alternative pursuant to Track I (Unrestricted Use) and one other alternative developed by the applicant for the proposed use of the BCP site. The remedial alternatives presented in Section 3.3 of this work plan have been prepared in conformance with this requirement.

3.3 ALTERNATIVES ANALYSIS

The goal of the remedy selection process under the BCP is to select a remedy that is protective of human health and the environment taking into consideration the current, intended and reasonably anticipated future use of the property. The remedy selection process begins by establishing RAOs for media in which chemical constituents were found in exceedance of NYSDEC standards, criteria and guidance values (SCGs). A remedy is then developed based on the following nine criteria:

- Protection of human health and the environment;
- Compliance with SCGs;
- Short-term effectiveness and impacts;
- Long-term effectiveness and permanence;
- Reduction of toxicity, mobility, or volume of contaminated material;
- Implementability;

- Cost effectiveness;
- Community Acceptance; and
- Land use.

The following is a detailed description of the alternatives analysis and remedy selection to address impacted media at the Site. This analysis was prepared in accordance with 6 NYCRR Part 375-1.8(f) and Part 375-3.8(f) and Section 4.3(c) of NYSDEC DER-10. As required, a minimum of two remedial alternatives (including a Track 1 scenario) are evaluated, as follows:

- Alternative 1 - Track 1, remediation of all soils above bedrock to unrestricted use criteria. Excavation to a minimum depth of 8 feet across the Site with the excavation of the petroleum impacted area to a depth of approximately 9 feet. This alternative does not allow the use of long-term institutional /engineering controls to address impacted media or prevent exposures which may be required beneath the new building.

- Alternative 2 - Track 4, removal / replacement of the top 2 feet of soil in all planned exposed soil areas, and excavation / removal of all petroleum impacted soils with VOCs above groundwater protection SCOs which are also present above groundwater standards. This alternative would require a lesser degree of excavation than Alternative 1 consisting of the excavation of petroleum impacted soil in the UST source area to an approximate depth of 9 feet. An engineered cap consisting of the concrete building slab, paved driveways and walkways and removal /replacement of soil within landscaped areas with 2 feet of clean fill / soil meeting Restricted Residential use SCOs. Long-term institutional /engineering controls are not necessary but would be allowed to address or prevent exposures from soil vapor, if required.

3.4 REMEDIAL ALTERNATIVE 1

The following sections provide an evaluation of Alternative 1 based on the nine evaluation criteria as previously discussed.

3.4.1 Overall Protection of Human Health and the Environment

Alternative 1 will be protective of human health and the environment by eliminating constituents in soil related to petroleum and historic fill. The potential for human and environmental exposure to these constituents on-site will be eliminated by excavation of all petroleum contaminated and historic fill soils with parameters in excess of unrestricted criteria, disposing of excavated materials off-site and backfilling as needed with certified clean fill, virgin mined materials or recycled concrete materials from a NYSDEC permitted recycling facility.

Potential post-remediation exposures to on-site residents from soil vapors are not expected to require the operation of SSD systems, though groundwater will be restricted at the Site even though such a restriction is unnecessary due to brackish conditions and NYC prohibitions on groundwater usage.

During remedial and construction activity workers and area residents may be exposed to impacted soil and vapors. Worker exposure to soil and vapors will be minimized through implementation of a Health and Safety Plan. Exposures to area residents from dust and/or vapors will be minimized through the use of engineering controls and through implementation of a Community Air Monitoring Plan (CAMP).

3.4.2 Compliance with Remedial Goals, SCGs and RAOs

Alternative 1 will achieve compliance with the remedial goals, SCGs and RAOs for soil through source removal to Track 1 unrestricted cleanup levels. SCGs for groundwater may not be achieved as the groundwater is of poor quality affected by brackish conditions from the adjacent river. Compliance with SCGs for soil vapor is expected following completion of the remedial action.

3.4.3 Long-Term Effectiveness and Permanence

Alternative 1 achieves long term effectiveness and permanence by permanently removing and/or remediating all soils affected by Site contaminants or historic fill materials and by remediating groundwater. Under this Alternative, risk from soil impacts and groundwater will be eliminated.

Alternative 1 will continue to meet RAOs for soil, groundwater and soil vapor in the future, providing a permanent long-term solution for the Site.

3.4.4 Reduction in Toxicity, Mobility or Volume through Treatment

Alternative 1 will permanently eliminate the toxicity, mobility, and volume of contaminants from on-site soil by meeting unrestricted objectives.

3.4.5 Short-Term Effectiveness

The potential for short-term adverse impacts and risks to the workers, the community, and the environment during the implementation of Alternative 1 is minimal.

Short-term exposure to on-site workers during excavation and loading activities will be addressed with a HASP and mitigated through the use of personal protective equipment, monitoring and engineering controls. Potential short-term exposure to the surrounding community will be addressed through the use of odor and dust-suppression techniques and through the implementation of a CAMP which will require air monitoring activities during all excavation and soil disturbance activities.

Other potential impacts to the community such as construction-related noise, vibrations and traffic, will be controlled and regulated under the terms of the NYS Department of Buildings issued building permit which can place a Stop Work Order on the property for unsafe conditions, community impacts or violation of the terms and conditions of the permit. Decontamination procedures of equipment, including trucks transporting soil to off-site disposal facilities, will minimize the potential for impacted soil to be dispersed beyond the Site boundary. A truck traffic plan has also been prepared to minimize disturbance to the local roads and community.

3.4.6 Implementability

The techniques, materials and equipment to implement Alternative 1 are readily available and have been proven effective in remediating the contaminants associated with the Site. Excavation for the remediation of soils is both a "low tech" and reliable method which has a long and proven track record on the remediation of hazardous waste and petroleum spill sites.

However, excavation to a depth of 8 ft or more over a 1.4 acre site located adjacent to a river represents considerable technical challenges which in this case limit its feasibility. Sloping and shoring requirements and dewatering would present significant construction challenges and would impede and interfere with the construction of the new buildings.

3.4.7 Cost

Costs associated with Alternative 1 are estimated at approximately $ 4,155,490. This cost estimate includes the following elements and assumptions:

- Removal of existing USTs;
- Excavate a minimum of 8 feet across entire Site. Over-excavate as necessary to remediate hotspot areas and remove all historic fill at the Site;
- Excavate petroleum impacted soil area to a depth of 9 ft in the UST source area;
- Shoring to allow excavation to 8 ft depth at property lines;
- Dewatering in southern third of the Site to allow excavation to 8 ft depth;
- Disposal of approximately 150 tons of petroleum impacted non-hazardous soil from the former fueling area;
- Disposal of approximately 27,126 tons of historic fill soil as non-hazardous;
- Backfilling excavations with certified clean fill meeting unrestricted SCOs (approximately 15,861 cy);
- HASP and CAMP monitoring for the duration of the remedial activities.

3.4.8 Compatibility with Land Use

The proposed redevelopment of the Site is compatible with its current M1-2 / R6A zoning. Following remediation, the Site will meet unrestricted use objectives which will exceed the objectives for its planned commercial-retail and residential use. A groundwater use restriction may be required to prevent future exposure to affected groundwater.

3.4.9 Community Acceptance

No questions regarding the Site have been raised regarding remedial options to date. This RAWP will be subject to a 45-day public comment period to determine if the community had comments

on the presented remedial alternatives and selected remedy. If no comments are received regarding Alternative 1, it will be considered to be acceptable to the community.

3.5 REMEDIAL ALTERNATIVE 2

The following sections provide an evaluation of Alternative 2 based on the nine evaluation criteria as previously discussed.

3.5.1 Overall Protection of Human Health and the Environment

Alternative 2 will be protective of human health and the environment by eliminating constituents related to petroleum in soil. The potential for human and environmental exposure to these constituents on-site will be eliminated by excavation of the petroleum impacted areas and then capping exposed soil areas with a combination of the concrete building slab, concrete walkways / driveways and 2 feet of soil / fill which meets restricted residential SCOs.

Potential post-remediation exposures to on-site residents from soil vapors are not expected to require the operation of SSD systems, though groundwater use will be restricted at the Site due to brackish conditions.

During remedial and construction activity, workers and area residents may be exposed to impacted soil and vapors. Worker exposure to soil and vapors will be minimized through implementation of a HASP. Exposures to area residents from dust and or vapors will be minimized through the use of engineering controls and through implementation of a CAMP.

3.5.2 Compliance with Remedial Goals, SCGs and RAOs

Alternative 2 will achieve compliance with the remedial goals, SCGs and RAOs for soil through petroleum source and then capping the remainder of the Site with concrete building slab, concrete walkways / driveways and 2 feet of soil / fill which meets restricted residential SCOs. SCGs for groundwater may not be achieved as the groundwater is affected by brackish conditions from the adjacent river. Compliance with SCGs for soil vapor is expected following completion of the remedial action.

3.5.3 Long-term Effectiveness and Permanence

Alternative 2 achieves long term effectiveness and permanence by permanently removing and/or remediating soils affected by Site contaminants above site specific objectives. Under this Alternative risk from soil impacts is eliminated for on-site residents. Alternative 2 will continue to meet RAOs for soil in the future, providing a permanent long-term solution for the Site.

3.5.4 Reduction in Toxicity, Mobility or Volume through Treatment

Alternative 2 will permanently eliminate the toxicity, mobility, and volume of contaminants from on-site soil by removing petroleum impacted soil and by meeting groundwater protection SCOs for VOCs present above standards in groundwater and restricted residential objectives in the upper 2 feet of exposed soil.

3.5.5 Short-term Effectiveness

The potential for short-term adverse impacts and risks to the workers, the community, and the environment during the implementation of Alternative 2 is minimal. Short-term exposure to on-site workers during excavation and loading activities will be addressed with a HASP and mitigated through the use of personal protective equipment, monitoring and engineering controls. Potential short-term exposure to the surrounding community will be addressed through the use of odor and dust-suppression techniques and through the implementation of a CAMP which will require air monitoring activities during all excavation and soil disturbance activities.

Other potential impacts to the community such as construction-related noise, vibrations and traffic will be controlled and regulated under the terms of the NYS Department of Buildings issued building permit which can place a Stop Work Order on the property for unsafe conditions, community impacts or violation of the terms and conditions of the permit. Decontamination procedures of equipment, including trucks transporting soil to off-site disposal facilities will minimize the potential for impacted soil to be dispersed beyond the Site boundary. A truck traffic plan will also be prepared to minimize disturbance to the local roads and community.

3.5.6 Implementability

The techniques, materials and equipment to implement Alternative 2 are readily available and have been proven effective in remediating the contaminants associated with the Site. Excavation for the remediation of soils is both a "low tech" and reliable method which has a long and proven track record on the remediation of hazardous waste and petroleum spill sites.

3.5.7 Cost

Costs associated with Alternative 2 are estimated at approximately $ 916,038. This cost estimate includes the following elements and assumptions:

- Removal and close - out of existing USTs;
- Excavate petroleum impacted soil area to a depth of 9 ft in the UST source area;
- Disposal of approximately 150 tons of petroleum impacted non-hazardous soil from the UST source area;
- Disposal of approximately 7,641 tons of non-hazardous, historic fill soil with parameters above RRSCOs from the building excavation;
- Backfilling excavations and exposed soil areas with certified clean fill meeting Restricted Residential Use and Groundwater Protection SCOs (approximately 1,000 cy);
- HASP and CAMP monitoring for the duration of the remedial activities;
- Implementation of a Site Management Plan (SMP) for long term maintenance of the Engineering Controls;
- Filing an Environmental Easement to ensure implementation of the SMP.

3.5.8 Compatibility with Land Use

The proposed redevelopment of the Site is compatible with its current M1-3 / R8 zoning. Following remediation, the Site will meet restricted-residential use objectives in the top 2 feet of soil which will meet objectives for its planned mixed commercial-retail and residential use. A groundwater use restriction may be required to prevent future exposure to brackish groundwater.

3.5.9 Community Acceptance

No questions regarding the Site have been raised regarding remedial options to date. This RAWP will be subject to a 45-day public comment period to determine if the community has any comments on the presented remedial alternatives and selected remedy. If no comments are received, it will be considered to be acceptable to the community.

3.6 SELECTION OF THE PREFERRED REMEDY

The remedy recommended for the site is a Track 4 alternative (Alternative 2) which consists of the removal of existing USTs, excavation of petroleum impacted soil to a depth of approximately 9 feet within the UST source area (USTs 1&2), excavation and disposal of historic fill soil from the building foundation areas and capping areas of the Site where soil remains above RRSCOs with the building foundations, concrete walkways / driveways or 2 ft of soil meeting Restricted Residential SCOs.

Any backfill materials used at the site will either consist of clean native soil excavated from other areas of the site, virgin mined materials, recycled materials or certified fill which meets Restricted Residential SCOs.

3.6.1 Preferred Remedy Land Use Factor Evaluation

As required by Article 27, Title 14 of the Environmental Conservation Law 27-1415, the following land use factor evaluation examines whether the preferred alternative is acceptable based on the 14 criteria presented in the following subsections.

Zoning

The proposed redevelopment project, which includes the construction of two new 25-story residential tower buildings, is in compliance with the M1-3 / R8 zoning. Therefore the project will be constructed as-of-right regardless of the remedy implemented. The preferred remedy will comply with current zoning.

Applicable Comprehensive Community Master Plans or Land Use Plans

The proposed redevelopment project and selected remedy are consistent with comprehensive master and land use plans, specifically the Port Morris / Bruckner Boulevard rezoning action (CEQR No. 05DCP005X), and the Port Morris Harlem Riverfront Brownfield Opportunity Area (BOA).

The rezoning action, covering an eleven block area of Port Morris, Bronx Community District 1, was completed by the New York City Department of City Planning and adopted by the City Council in March 2005. The BOA, which was designated in April 2015, identified the Site as a strategic Site in the nomination document, referring to it as a sizeable and underutilized waterfront site strategically located on the Harlem River waterfront.

The preferred remedy will be in full compliance with these applicable land use plans.

Surrounding Property Uses

The area surrounding the property is highly urbanized and predominantly consists of heavy commercial / industrial / warehouse properties to the north along a corridor adjacent to the Harlem River. Multi-use residential / commercial (retail) properties are present to the east along Bruckner Boulevard and a large housing project is located to the northeast.

The Lot is currently zoned M1-3/R8 residential / commercial. The M1-3/R8 is a Special Mixed Use District established to encourage investment in, and enhance the vitality of, existing neighborhoods with mixed residential and industrial uses in close proximity and create expanded opportunities for new mixed use communities. New residential and non-residential uses (commercial, community facility and light industrial) can be developed as-of-right and be located side-by-side or within the same building. Pairing an M1 district with an R3 through R10 district ensures a balanced variety of uses.

The proposed project is compatible with the surrounding land use and will be in compliance with the current zoning. The proposed remedy will not interfere with surrounding property uses and considers the short term affects to neighboring properties.

Citizen Participation

Citizen participation for implementation of the preferred alternative will be performed in accordance with DER 23 and NYCRR Part 375-1.10 and Part 375-3.10. A Citizen Participation Plan has been prepared and is available for public review at the identified document repositories (NYSDEC Region 2 Office, Mott Haven Branch of the New York Public Library).

Environmental Justice Concerns

The Site is not located within a potential environmental justice area. The NYSDEC defines a potential environmental justice area as a "minority or low-income community that may bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

Environmental justice means the fair treatment and meaningful involvement of all people regardless of race, color, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

Since the goal of the remedy will achieve the highest level of cleanup and will remove contaminated materials from the community, the remedy poses no environmental justice concerns.

Land use designations

The proposed remedy is consistent with land-use designations.

Population growth patterns

Population growth patterns support the proposed use for the Site. The preferred remedy will not negatively affect on population growth patterns.

Accessibility to existing infrastructure

The Site is accessible to existing infrastructure. The close proximity of the Site to the Major Deegan Expressway (I-87) will assist soil transportation and contractor access to the Site. The Site is also accessible to mass transit and is within walking distance to the 6 line of the NYC Subway system with a stop located on 138th Street at Third Avenue (2 blocks to the north). The preferred remedy will not alter accessibility to existing infrastructure.

Proximity to cultural resources

The proposed remedy will not negatively impact cultural resources.

Proximity to natural resources

The proposed remedy will improve the local environment and will not negatively impact affect natural resources.

Off-Site groundwater impacts

The proposed remedy will improve potential off-site groundwater impacts by removing petroleum impacted soil from the Site and capping exposed fill. The proposed remedy will not affect natural resources other than to potentially improve the quality of groundwater on a local basis and eliminate potentially impacted surface runoff and sediment into the Harlem River.

Proximity to floodplains

The entire Site is located within a designated high risk flood zone area. Capping of the Site will reduce the potential impacts from flooding.

Geography and geology of the Site

The selected remedy will excavate petroleum impacted soils from the source area and historic fill materials to a depth of 6 feet within the proposed building footprint areas and to a depth of 2 feet in the proposed landscaped areas. The selected alternative and development of the site have considered the geography and geology of the Site.

Current Institutional Controls

The Site was assigned an E-designation for hazardous materials as part of the rezoning action completed by the City. The compliance with the E-designation for hazardous materials will require the approval of the NYC Office of Environmental Remediation (NYCOER) of this RAWP. NYCOER must approve this RAWP in the form of a Notice to Proceed (NTP) letter before building permits will be released by the NYC Department of Buildings (DOB). Documentation in the form of a Final Engineering Report (FER) for site remediation must be approved by NYCOER in the form of a Notice of Satisfaction (NOS) before the NYCDOB will issue permanent Certificates of Occupancy for the new buildings.

3.7 SUMMARY OF SELECTED REMEDIAL ACTIONS

Summary of the Remedy

The remedy recommended for the Site is a Track 4 alternative (Alternative 2) which consists of the excavation of petroleum impacted soil to a depth of 9 feet within the UST source area (USTs 1 & 2), excavation and disposal of historic fill within the planned landscape areas with soil above Restricted Residential SCOs and capping the entire Site with the building foundations, concrete walkways / driveways or 2 ft of soil meeting Restricted Residential SCOs. The remedy will include the following items:

1. Removal of underground storage tanks (USTs);
2. Excavation of soil/fill exceeding groundwater protection SCOs for those VOC parameters in groundwater above standards as listed in **Table 1** to depths as great as 9 feet below grade, or as needed to remove impacted soil in the UST source area;
3. Screening for indications of contamination (by visual means, odor, and monitoring with PID) of all excavated soil during any intrusive Site work;
4. Excavation and disposal of historic fill materials with parameters above RRSCOs from the buildings basement level foundations;
5. Capping areas of the Site in which soil is present with parameters above Restricted Residential SCOs with the concrete building slab, concrete driveways, concrete pavers or 2 feet of clean soil meeting RRSCOs;

6. Collection and analysis of end-point samples to evaluate the performance of the remedy with respect to attainment of groundwater protection SCOs for VOCs present in groundwater above standards;
7. Appropriate off-Site disposal of all material removed from the Site in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal;
8. Import of materials to be used for backfill and cover in compliance with: (1) chemical limits and other specifications included in **Table 1**, (2) all Federal, State and local rules and regulations for handling and transport of material.
9. Implementation of a Site Management Plan (SMP) for long term maintenance of the Engineering Controls.An Environmental Easement will be filed against the Site to ensure implementation of the SMP.

All responsibilities associated with the Remedial Action, including permitting requirements and pretreatment requirements, will be addressed in accordance with all applicable Federal, State and local rules and regulations.

Remedial activities will be performed at the Site in accordance with this NYSDEC-approved RAWP. Any anticipated deviations to the RAWP shall be submitted to the NYSDEC for review.

4.0 REMEDIAL ACTION PROGRAM

The objective of this section of the Remedial Action Work Plan, is to present a scope of work which will be approved by NYSDEC and when completely implemented will ready the BCP site for development under the Contemplated Use consistent with the requirements of the Brownfield Cleanup Program.

4.1 GOVERNING DOCUMENTS

Governing documents and procedures included in the Remedial Work Plan include a Site-specific Health and Safety Plan (HASP), a Community Air Monitoring Plan (CAMP), a Citizen Participation Plan, a Soil Management Plan (SoMP), a Quality Assurance Project Plan (QAPP), fluid management procedures, and contractors' site operations and quality control procedures. Highlights of these documents and procedures are provided in the following sections.

4.1.1 Health & Safety Plan (HASP)

Contractors and subcontractors will have the option of adopting this HASP or developing their own site-specific document. If a contractor or subcontractor chooses to prepare their own HASP, the Remedial Engineer will insure that it meets the minimum requirements as detailed in the site-specific HASP prepared for the Site.

Activities performed under the HASP will comply with applicable parts of OSHA Regulations, primarily 29 CFR Parts 1910 and 1926. Modifications to the HASP may be made with the approval of the Remedial Engineer (RE), Site Safety Manager (SSM) and/or Project Manager (PM).

All remedial work performed under this plan will be in full compliance with governmental requirements, including Site and worker safety requirements mandated by Federal OSHA.

The Volunteer and associated parties preparing the remedial documents submitted to the State and those performing the construction work, are completely responsible for the preparation of an

appropriate Health and Safety Plan and for the appropriate performance of work according to that plan and applicable laws.

The Health and Safety Plan (HASP) and requirements defined in this Remedial Action Work Plan pertain to all remedial and invasive work performed at the Site until the issuance of a Certificate of Completion.

The Site Safety Coordinator will be Ms. Chawinie Miller. Her resume is provided in **Attachment F**. Confined space entry will comply with all OSHA requirements to address the potential risk posed by combustible and toxic gasses. A copy of the Site Specific Health and Safety Plan is provided in **Attachment B.**

4.1.2 Quality Assurance Project Plan (QAPP)

The fundamental QA objective with respect to accuracy, precision, and sensitivity of analysis for laboratory analytical data is to achieve the QC acceptance of the analytical protocol. The accuracy, precision and completeness requirements will be addressed by the laboratory for all data generated.

Collected samples will be appropriately packaged, placed in coolers and shipped via overnight courier or delivered directly to the analytical laboratory by field personnel. Samples will be containerized in appropriate laboratory provided glassware and shipped in plastic coolers. Samples will be preserved through the use of ice or a cold-pak(s) to maintain a temperature of $4^{o}C$.

Dedicated disposable sampling materials will be used for both soil and groundwater samples (if collected), eliminating the need to prepare field equipment (rinsate) blanks. However, if non-disposable equipment is used, (stainless steel scoop, etc.) field rinsate blanks will be prepared at the rate of 1 for every eight samples collected.

Decontamination of non-dedicated sampling equipment will consist of the following:

- Gently tap or scrape to remove adhered soil
- Rinse with tap water
- Wash with alconox® detergent solution and scrub
- Rinse with tap water
- Rinse with distilled or deionized water

Prepare field blanks by poring distilled or deionized water over decontaminated equipment and collecting the water in laboratory provided containers. Trip blanks will accompany samples each time they are transported to the laboratory. Matrix spike and matrix spike duplicates (MS/MSD) will be collected at the rate of one per 20 samples submitted to the laboratory. Laboratory reports will be upgradeable to ASP category B deliverables for use in the preparation of a data usability report (DUSR). The QAPP for the Site is provided in **Attachment C**.

4.1.3 Construction Quality Assurance Plan (CQAP)

All construction work related to the remedy (i.e. soil excavation) will be monitored by EBC / AMC field personnel under the direct supervision of the Remedial Engineer. Monitoring during soil excavation will be performed to protect the health of site workers and the surrounding community. A Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) have been specifically developed for this project. These plans specify the monitoring procedures, action levels, and contingency measures that are required to protect public health.

All intrusive and soil disturbance activities will be monitored by an environmental professional (EP) under the direct supervision of the Remedial Engineer who will record observations in the site field book and complete a photographic log of the daily activities. The EP will provide daily updates to the Project Manager and Remedial Engineer who will both make periodic visits to the site as needed to assure construction quality. Daily updates will also be submitted to the NYSDEC. See section 4.4.1 Daily Reports.

4.1.4 Soil/Materials Management Plan (SoMP)

A SoMP has been prepared for excavation, handling, storage, transport and disposal of all soils/materials that are disturbed / excavated at the Site. The SoMP includes all of the controls that will be applied to these efforts to assure effective, nuisance-free performance in compliance with all applicable Federal, State and local laws and regulations. The SoMP is presented in Section 5.4.

4.1.5 Erosion and Sediment Control Plan (ESCP)

Erosion and sediment controls will be performed in conformance with requirements presented in the New York State Guidelines for Urban Erosion and Sediment Control. Typical measures that will be utilized at various stages of the project to limit the potential for erosion and migration of soil include the use of hay bales, temporary stabilized construction entrances/exits, placement of silt fencing and/or hay bales around soil stockpiles, and dust control measures.

4.1.6 Community Air Monitoring Plan (CAMP)

The CAMP provides measures for protection for on-site workers and the downwind community (i.e., off-site receptors including residences, businesses, and on-site workers not directly involved in the remedial work) from potential airborne contaminant releases resulting from remedial activities.

The action levels specified require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that the remedial work did not spread contamination off-site through the air. The primary concerns for this site are vapors, nuisance odors and dust particulates.

The primary concerns for this site are vapors, nuisance odors and dust particulates. The CAMP prepared for implementation of the RAWP is provided in **Attachment D**.

4.1.7 Contractors Site Operations Plan (SOP)

The Remedial Engineer has reviewed all plans and submittals for this remedial project (including those listed above and contractor and sub-contractor document submittals) and confirms that they

are in compliance with this RAWP. The Remedial Engineer is responsible to ensure that all later document submittals for this remedial project, including contractor and sub-contractor document submittals, are in compliance with this RAWP. All remedial documents will be submitted to NYSDEC and NYSDOH in a timely manner and prior to the start of work.

4.1.8 Citizen Participation Plan (CPP)

The Citizen Participation Plan prepared for this project is provided in **Attachment E**. The public will be informed of key project documents and events through the distribution of fact sheets through the Department's List Serv. The public was initially informed of the Site and the opportunity to join the List Serv through an ad placed in the local newspaper and mailed fact sheets.

No changes will be made to approved Fact Sheets authorized for release by NYSDEC without written consent of the NYSDEC. No other information, such as brochures and flyers, will be included with the Fact Sheet mailing.

Document repositories have been established at the following locations and contain all applicable project documents:

New York Public Library - Mott Haven Branch
321 East 140th Street
Bronx, NY 10454
(718) 665-4878

Hours:
Mon 10:00 AM - 6:00 PM
Tue 10:00 AM - 7:00 PM
Wed 10:00 AM - 7:00 PM
Thu 10:00 AM - 6:00 PM
Fri 10:00 AM - 5:00 PM
Sat 10:00 AM - 5:00 PM
Sun closed

Bronx 1 Community District Information
Chairperson: George Rodriguez
District Manager: Mr. Cedric Loftin
Address: 3024 Third Avenue, Bronx, NY, 10455
Phone: 718-585-7117

4.2 GENERAL REMEDIAL ACTION INFORMATION

4.2.1 Project Organization

The Project Manager for the Remedial Activity will be Mr. Robert Bennett. Overall responsibility for the BCP project will be Mr. Charles B. Sosik, P.G., P.HG. The Remedial Engineer for this project is Mr. Ariel Czemerinski, P.E. Resumes of key personnel involved in the Remedial Action are included in **Attachment F**.

4.2.2 Remedial Engineer

The Remedial Engineer for this project will be Mr. Ariel Czemerinski, P.E. The Remedial Engineer is a registered professional engineer licensed by the State of New York. The Remedial Engineer will have primary direct responsibility for implementation of the remedial program for the Site. The Remedial Engineer will certify in the Final Engineering Report that the remedial activities were observed by qualified environmental professionals under his supervision and that the remediation requirements set forth in the Remedial Action Work Plan and any other relevant provisions of ECL 27-1419 have been achieved in full conformance with that Plan. Other Remedial Engineer certification requirements are listed later in this RAWP.

The Remedial Engineer will review all pre-remedial plans submitted by contractors and subcontractors involved in all aspects of remedial construction, including soil excavation, stockpiling, characterization, removal and disposal, air monitoring, emergency spill response services, import of back fill material, and management of waste transport and disposal, and will certify compliance in the Final Remediation Report. The Remedial Engineer will provide the certifications listed in Section 10.1 in the Final Engineering Report.

4.2.3 Remedial Action Schedule

The remedial action will begin with mobilization of equipment and material to the Site, which will begin following RAWP approval and 10 days after the distribution of the remedial construction Fact Sheet. A pre-construction meeting will be held among NYSDEC, the Remedial Engineer, and the selected remedial contractor prior to site mobilization. Mobilization will be

followed by soil removal and disposal and confirmation sampling. The work is expected to take 6 months as part of the construction excavation and foundation installation.

4.2.4 Work Hours

The hours for operation of remedial construction will conform to the New York City Department of Buildings construction code requirements or according to specific variances issued by that agency. DEC will be notified by the Applicant of any variances issued by the Department of Buildings. NYSDEC reserves the right to deny alternate remedial construction hours.

4.2.5 Site Security

A construction fence will be erected around the entire property as required by the NYC Department of Buildings. The fence will be maintained as required and secured at the end of each work day.

4.2.6 Traffic Control

The Volunteer's construction management personnel will direct the arrival or departure of construction vehicles, and provide flag services as needed to maintain safe travel exiting and entering the Site from Third Avenue. All traffic will enter and leave the Site via existing gates on Third Avenue. The excavation contractor will direct the arrival or departure of construction vehicles, and provide flag services as needed to maintain safe travel exiting and entering the Site from the Third Avenue exit / entrance. Traffic related to the Work Plan activity will not require the staging of trucks or equipment along the streets. All trucks and equipment will remain on-site within the construction fence. The local transport route will be as follows:

- ENTERING SITE - from the Major Deegan Expressway (I87) heading south; take the Willis Ave / Third Ave Exit (Exit 2) and turn right heading north on Bruckner Blvd. to Third Avenue. Turn left, heading west on Third Avenue 1 block to Site entrance on the left.

- EXITING SITE – Turn left onto Third Avenue heading northeast to 138th Street. Turn right onto 138th Street heading southeast to Willis Avenue. Turn right onto Willis

Avenue heading south to E. 135th Street. Turn right on E.135th Street and continue to the on-ramp (bearing left) for the Major Deegan Expressway (I-87).

- This route was designed to minimize or eliminate the time trucks will be on local streets. Equipment and trucks needed to install the grade beam will remain within the Site boundaries and not on residential Streets. Site personnel will be required to park on Site or in legal all-day on-street parking spaces, near the Site or in an off-street parking lot/garage.

A map showing the truck routes is included as **Figure 12**.

4.2.7 Worker Training and Monitoring

An excavation contractor with appropriate experience, personnel and training (40 hr OSHA) is required to perform the removal of the UST and VOC impacted soil. After this material is removed the contractor will remove historic fill as needed for the foundation installation and landscaped areas. The excavation contractor's on-site personnel engaged in historic fill and / or native soil removal (if present) will have a minimum of 24 hour Hazardous Waste Operations and Emergency Response Operations training.

All field personnel involved in remedial activities will participate in training, if required under 29 CFR 1910.120, including 24 and 40-hour hazardous waste operator training and annual 8-hour refresher training. The Site Safety Officer will be responsible for maintaining workers training records.

Personnel entering any exclusion zone will be trained in the provisions of the HASP and be required to sign a HASP acknowledgment.

All on-site personnel engaged in remedial or sampling activities must receive adequate site-specific training in the form of an on-site Health and Safety briefing prior to participating in field work with emphasis on the following:

- Protection of the adjacent community from hazardous vapors and / or dust which may be released during intrusive activities.
- Identification of chemicals known or suspected to be present on-site and the health effects and hazards of those substances.
- The need for vigilance in personnel protection, and the importance of attention to proper use, fit and care of personnel protective equipment.
- Decontamination procedures.
- Site control including work zones, access and security.
- Hazards and protection against heat or cold.
- The proper observance of daily health and safety practices, such as entry and exit of work zones and site. Proper hygiene during lunch, break, etc.
- Emergency procedures to be followed in case of fire, explosion and sudden release of hazardous gases.

4.2.8 Agency Approvals

The Applicant has addressed all SEQRA requirements for this Site. All permits or government approvals required for remedial construction have been, obtained prior to the start of remedial construction.

The planned end use for the Site is in conformance with the current zoning for the property as determined by New York City Department of Planning. A Certificate of Completion will not be issued for the project unless conformance with zoning designation is demonstrated.

A complete list of all local, regional and national governmental permits, certificates or other approvals or authorizations required to perform the remedial and development work is attached in **Table 15**. This list includes a citation of the law, statute or code to be complied with, the originating agency, and a contact name and phone number in that agency. This list will be updated in the Final Remediation Report.

4.2.9 NYSDEC BCP Signage

A project sign will be erected at the main entrance to the Site prior to the start of any remedial activities. The sign will indicate that the project is being performed under the New York State Brownfield Cleanup Program. The sign will meet the detailed specifications provided by the NYSDEC Project Manager and contained in **Attachment G**.

4.2.10 Pre-Construction Meeting with NYSDEC

A pre-construction meeting or conference call with the Project Manager, Remedial Engineer, Construction Manager, Owner's Representative and the NYSDEC will take place prior to the start of major construction activities.

4.2.11 Emergency Contact Information

An emergency contact sheet with names and phone numbers is included in **Table 16**. That document will define the specific project contacts for use by NYSDEC and NYSDOH in the case of a day or night emergency.

4.2.12 Remedial Action Costs

The total estimated cost of the Remedial Action is $ 1,857,574. An itemized and detailed summary of estimated costs for all remedial activity is provided as **Attachment H**. This will be revised based on actual costs and submitted as an Appendix to the Final Remediation Report.

4.3 SITE PREPARATION

4.3.1 Mobilization

Mobilization will include the delivery of construction equipment and materials to the site. All construction personnel will receive site orientation and training in accordance with the site specific HASP, CAMP and established policies and procedures to be followed during the implementation of the RAWP. The remediation contractor, construction manager and all associated subcontractors will each receive a copy of the RAWP and the site specific HASP and will be briefed on their contents.

4.3.2 Erosion and Sedimentation Controls

Soil erosion and sediment control measures for management of storm water will be installed in accordance with the New York Guidelines for Urban Erosion and Sediment Control. Haybales and/or silt fence will be placed by the remedial contractor at locations surrounding excavation areas and within the perimeter fencing as needed, to control stormwater runoff and surface water from exiting the excavation. These control measures will be installed prior to initiating the soil excavation.

4.3.3 Stabilized Construction Entrance(s)

Stabilized construction entrances will be installed at all points of vehicle ingress and egress to the Site. The construction entrance will be stabilized with crushed stone, gravel, plywood sheeting, existing asphalt or existing concrete as necessary to provide a safe egress and ingress to the Site. The stabilized entrances will be inspected on a daily basis during soil loading activities and reinforced as needed with additional stone/concrete material to prevent the accumulation of ruts, mud or soil.

4.3.4 Utility Marker and Easements Layout

The Applicant and its contractors are solely responsible for the identification of utilities that might be affected by work under the RAWP and implementation of all required, appropriate, or necessary health and safety measures during performance of work under this RAWP. The Applicant and its contractors are solely responsible for safe execution of all invasive and other work performed under this RAWP. The Applicant and its contractors must obtain any local, State or Federal permits or approvals pertinent to such work that may be required to perform work under this RAWP. Approval of this RAWP by NYSDEC does not constitute satisfaction of these requirements.

The presence of utilities and easements on the Site has been investigated by the Remedial Engineer. It has been determined that no risk or impediment to the planned work under this Remedial Action Work Plan is posed by utilities or easements on the Site.

4.3.5 Sheeting and Shoring

Appropriate management of structural stability of on-Site or off-Site structures during on-Site activities including excavation is the sole responsibility of the Applicant and its contractors. The Applicant and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan. The Applicant and its contractors must obtain any local, State or Federal permits or approvals that may be required to perform work under this Plan. Further, the Applicant and its contractors are solely responsible for the implementation of all required, appropriate, or necessary health and safety measures during performance of work under the approved Plan.

4.3.6 Equipment and Material Staging

Equipment used for excavation work will be staged on Site within the fenced perimeter. All equipment and work materials will be staged on-Site in areas as designated by the General Contractor, and / or Construction Site Superintendant.

4.3.7 Decontamination Area

All materials and equipment (except disposable items) will be decontaminated on specially constructed “pads”, an existing asphalt surface or an existing concrete surface located at the exit point from the Site. At a minimum, the constructed pad (if used) will consist of a layer of crushed stone underlain by an impervious plastic liner that has been graded to drain to the interior of the Site. If an existing surface is used it will be surrounded by hay bales or other silt controlling materials. The pad will be sized to accommodate the largest piece of equipment used on the project. Where effective, the equipment will be “dry” decontaminated using a broom and/or brushes. If significant amounts of soil or other contaminants remain after the dry decontamination, the equipment will also be pressure washed before leaving the Site. Disposable items will be containerized within the site and transported for appropriate off- site disposal.

4.3.8 Site Fencing

The lot currently has an 8 ft high chain link fence and gate along Third Avenue (south side). It also has a 6 ft high chain link fence along the north and a portion of the east property lines. The remainder of the east property line is bordered by an adjacent building. The west side of the

property is bordered by the Harlem River. The fences and gates will be maintained during the pile driving activity and properly secured at the end of the day.

4.3.9 Demobilization

Demobilization will consist of the restoration of material staging areas and the disposal of materials and/or general refuse in accordance with acceptable rules and regulations. Materials used in remedial activities will be removed and disposed properly. All equipment will be decontaminated prior to leaving the Site.

4.4 REPORTING

All daily and monthly Reports will be included in the Final Engineering Report.

4.4.1 Daily Reports

Daily reports will be submitted to NYSDEC and NYSDOH Project Managers by the end of each day in which remedial activity takes place. Daily reports will include:

- An update of progress made during the reporting day;
- A summary of any and all complaints with relevant details (names, phone numbers);
- A summary of CAMP finding, including excursions;
- An explanation of notable Site conditions.

Daily reports are not intended to be the mode of communication for notification to the NYSDEC of emergencies (accident, spill), requests for changes to the RAWP or other sensitive or time critical information. However, such conditions must also be included in the daily reports. Emergency conditions and changes to the RAWP will be addressed directly to NYSDEC Project Manager via personal communication.

These reports will include a summary of air sampling results, odor and dust problems and corrective actions, and all complaints received from the public.

4.4.2 Monthly Reports

Monthly reports will be submitted to NYSDEC and NYSDOH Project Managers within one week following the end of the month of the reporting period and will include:

- Activities relative to the Site during the previous reporting period and those anticipated for the next reporting period, including a quantitative presentation of work performed (i.e. tons of material exported and imported, etc.);
- Description of approved activity modifications, including changes of work scope and/or schedule;
- Sampling results received following internal data review and validation, as applicable; and,
- An update of the remedial schedule including the percentage of project completion, unresolved delays encountered or anticipated that may affect the future schedule, and efforts made to mitigate such delays.

4.4.3 Other Reporting

Photographs will be taken of all remedial activities and submitted to NYSDEC in digital (JPEG, PDF) format. Photos will illustrate all remedial program elements and will be of acceptable quality. Representative photos of the Site prior to any Remedial Actions will be provided. Representative photos will be provided of each contaminant source, source area and Site structures before, during and after remediation. Photos will be included in the daily reports as needed, and a comprehensive collection of photos will be included in the Final Engineering Report.

Job-site record keeping for all remedial work will be appropriately documented. These records will be maintained on-Site at all times during the project and be available for inspection by NYSDEC and NYSDOH staff.

4.4.4 Complaint Management Plan

Complaints from the public regarding nuisance or other Site conditions including noise, odor, truck traffic etc., will be recorded in the Site field book and reported to the NYSDEC via email on the same day as the complaint is received.

4.4.5 Deviations from the Remedial Action Work Plan

Minor deviations from the RAWP will be identified in the daily update report and will be noted in the Final Engineering Report. When deviations are reported, a brief discussion will be provided which will state the following:

- Reasons for deviating from the approved RAWP;
- Effect of the deviations on overall remedy.

Major changes to the scope of work must be discussed with the NYSDEC and the NYSDOH prior to implementation. If the changes are considered to be significant enough, an addendum to the RAWP Work Plan will be prepared and submitted to NYSDEC / NYSDOH for review.

5.0 REMEDIAL ACTION: MATERIAL REMOVAL FROM SITE

The removal of materials from the Site includes the following; the removal of existing USTs, the excavation and off-Site disposal of petroleum impacted soil to a depth of 9 feet within the UST source area (150 cy) and the excavation and offsite disposal of historic fill soil to a depth of 4 feet within the building footprint area (5,094 cy).

Soil excavation and loading will be performed using conventional equipment such as track-mounted excavators, backhoes and loaders.

All excavation work will be performed in accordance with the Site-specific HASP and CAMP. Removal of the petroleum impacted soil and historic fill soil will be performed by a qualified contractor and trained personnel (Minimum 24HR OSHA HAZWOPER). Removal of underground storage tanks (UST) believed to be present will be removed by a qualified contractor and trained personnel (Minimum 40HR OSHA HAZWOPER).in accordance with DER-10, NYSDEC PBS regulations and NYC Fire Department regulations. It is anticipated that the excavation of petroleum impacted and historic fill materials will be performed by the excavation contractor for the construction project.

An excavation plan showing the excavation depths to achieve the Track 4 remedy is provided in **Figure 13**. Some dewatering may be needed for the excavation of contaminated areas but is not anticipated for foundation construction.

5.1 UST REMOVAL METHODS

USTs, which are believed to be present at the Site, will be removed in accordance with the procedures described under the NYSDEC Memorandum for the Permanent Abandonment of Petroleum Storage Tanks and Section 5.5 of Draft DER-10 as follows:

- Remove all product to its lowest draw-off point
- Drain and flush piping into the tank
- Vacuum out the tank bottom consisting of water product and sludge
- Dig down to the top of the tank and expose the upper half of the tank

- Remove the fill tube and disconnect the fill, gauge, product and vent lines and pumps. Cap and plug open ends of lines
- Temporarily plug all tank openings, complete the excavation, remove the tank and place it in a secure location
- Render the tank safe and check the tank atmosphere to ensure that petroleum vapors have been satisfactorily purged from the tank
- Clean tank or remove to a storage yard for cleaning
- If the tank is to be moved it must be transported by licensed waste transported. Plug and cap all holes prior to transport leaving a 1/8 inch vent hole located at the top of the tank during transport
- After cleaning the tank must be made acceptable for disposal at a scrap yard cleaning the tank interior with a high pressure rinse and cutting the tank in several pieces.

During the tank and pipe line removal the following field observations should be made and recorded:

- A description and photographic documentation of the tank and pipe line condition (pitting, holes, staining, leak points, evidence of repairs, etc.)
- Examination of the excavation floor and sidewalls for physical evidence of contamination (odor, staining, sheen, etc.)
- Periodic field screening (through bucket return) of the floor and sidewalls of the excavation with a calibrated photoionization detector (PID).

5.2 SOIL CLEANUP OBJECTIVES

The Soil Cleanup Objectives for this Site are listed in **Table 1**. **Table 7** summarizes all soil samples that exceed unrestricted SCOs at the Site. Spider maps showing all soil samples that exceed the unrestricted SCO are shown in **Figure 9**.

5.3 REMEDIAL PERFORMANCE EVALUATION (POST EXCAVATION END-POINT SAMPLING)

Post excavation (endpoint) soil samples will be collected from across the Site to verify that remedial goals have been achieved. Endpoint soil samples will be collected from the Site as follows:

(1) Endpoint soil samples will be collected following the removal of soil from the petroleum areas to verify that remedial goals have been achieved (**Figure 14**). The endpoint soil samples from the petroleum area hotspot will be analyzed for VOCs and SVOCs. Sidewall endpoint soil samples will also be collected from each of the petroleum impacted and SVOC hotspot excavation areas.

5.3.1 End-Point Sampling Frequency

Endpoint sampling frequency will be in accordance with DER-10 section 5.4 which recommends the collection of one bottom sample per 900 sf of bottom area and one sidewall sample per 30 liner feet.

5.3.2 Methodology

Collected samples be placed in glass jars supplied by the analytical laboratory and stored in a cooler with ice to maintain a temperature of 4 degrees C. Samples will either be picked up at the Site by a laboratory dispatched courier at the end of the day or transported back to the EBC /AMC office where they will be picked up the following day by the laboratory courier. All samples will be analyzed by a NYSDOH ELAP certified environmental laboratory

All post excavation (endpoint) soil samples will be analyzed for VOCs by EPA Method 8260B, SVOCs by EPA method 8270 PAHs.

5.3.3 Reporting of Results

Sample analysis will be provided by a New York State certified environmental laboratory. Laboratory reports will include ASP category B deliverables for use in the preparation of a data usability summary report (DUSR). All results will be provided in accordance with the NYSDEC Environmental Information Management System (EIMS) electronic data deliverable (EDD) format.

5.3.4 QA/QC

The fundamental QA objective with respect to accuracy, precision, and sensitivity of analysis for laboratory analytical data is to achieve the QC acceptance of the analytical protocol. The accuracy, precision and completeness requirements will be addressed by the laboratory for all data generated.

Collected samples will be appropriately packaged, placed in coolers and shipped via overnight courier or delivered directly to the analytical laboratory by field personnel. Samples will be containerized in appropriate laboratory provided glassware and shipped in plastic coolers. Samples will be preserved through the use of ice or cold-pak(s) to maintain a temperature of 4^{o}C.

Dedicated disposable sampling materials will be used for soil samples, eliminating the need to prepare field equipment (rinsate) blanks. However, if non-disposable equipment is used, (stainless steel scoop, etc.) field rinsate blanks will be prepared at the rate of 1 for every eight samples collected. Field blanks will be prepared by pouring distilled or deionized water over decontaminated equipment and collecting the water in laboratory provided containers.

Trip blanks will accompany samples each time they are transported to the laboratory. Matrix spike and matrix spike duplicates (MS/MSD) will be collected at the rate of one per 20 samples submitted to the laboratory.

5.3.5 DUSR

The DUSR provides a thorough evaluation of analytical data without third party data validation. The primary objective of a DUSR is to determine whether or not the data, as presented, meets the

site/project specific criteria for data quality and data use. Verification and/or performance monitoring samples collected under this RAWP will be reviewed and evaluated in accordance with the Guidance for the Development of Data Usability Summary Reports as presented in Appendix 2B of DER-10. The completed DUSR for verification/performance samples collected during implementation of this RAWP will be included in the final Engineering Report.

5.3.6 Reporting of End-Point Data in FER

All endpoint data collected as part of this remedial action will be summarized and presented in the Final Engineering Report. The summary tables will include comparison of results to unrestricted SCOs to verify attainment of Track 1. Laboratory reports and the DUSR will be included as an appendix in the FER.

5.4 ESTIMATED MATERIAL REMOVAL QUANTITIES

It is expected that 150 cubic yards (225 tons) of petroleum impacted soil will be generated by excavating the UST source area to a depth of 9 ft. Historic fill material was also documented throughout the Site to depths as great as 5 feet below grade. Therefore, an estimated 5,094 cubic yards (7,641 tons) of historic fill material will be generated by excavating the basement foundations of the new buildings.

5.5 SOIL/MATERIALS MANAGEMENT PLAN

Excavated soil will be secured and temporarily stored on-site until arrangements can be made for off-site disposal. As an alternative, pre-characterization samples may be collected to allow the soil to be loaded directly on to trucks for transport to the disposal facility. Excavated soils including petroleum contaminated soil and historic fill soil are expected to be classified as non-hazardous.

The final determination on classification will be based on the results of waste characterization analysis and the NYSDEC.

Soil excavation will be performed in accordance with the procedures described under Section 5.5 of DER-10 as follows:

- A description and photographic documentation of the excavation.
- Examination of the excavation floor and sidewalls for physical evidence of contamination (odor, staining, sheen, etc.).
- Periodic field screening (through bucket return) of the floor and sidewalls of the excavation with a calibrated photoionization detector (PID).

Final excavation depth, length, and width will be determined by the Remedial Engineer or his designee, and will depend on the horizontal and vertical extent of contaminated soils as identified through physical examination (PID response, odor, staining, etc.). Expansion of the excavation beyond the planned hotspot area is anticipated and can easily be accommodated.

The following procedure will be used for the excavation of impacted soil (as necessary and appropriate):

- Wear appropriate health and safety equipment as outlined in the HASP;

- Prior to excavation, ensure that the area is clear of utility lines or other obstructions. Lay plastic sheeting on the ground next to the area to be excavated;

- Using a rubber-tired backhoe or track mounted excavator, remove overburden soils and stockpile or dispose of separate from the impacted soil;

- If USTs are discovered, the NYSDEC will be notified and the best course of action to remove the structure should be determined in the field. This may involve the continued removal of overburden to access the top of the structure or continued trenching around the perimeter to minimize its disturbance;

- If physically contaminated soil is present (e.g., staining, odors, sheen, PID response, etc), an attempt will be made to remove it to the extent not limited by the site boundaries. If possible, physically impacted soil will be removed using the backhoe or excavator,

segregated from clean soils and overburden, and staged on separate dedicated plastic sheeting or live loaded into trucks from the disposal facility. Removal of the impacted soils will continue until visibly clean material is encountered and monitoring instruments indicate that no contaminants are present;

- Excavated soils which are temporarily stockpiled on-site will be covered with 6-mil polyethylene sheeting while disposal options are determined. Sheeting will be checked on a daily basis and replaced, repaired or adjusted as needed to provide full coverage. The sheeting will be shaped and secured in such a manner as to drain runoff and direct it toward the interior of the property;

- Once the Remedial Engineer is satisfied with the removal effort, verification or confirmatory samples will be collected from the excavation as described in **Section 6.2** of this document.

5.5.1 Excavation of Petroleum Contaminated Soil

Petroleum impacted soil is known to be present in the vicinity of a suspect UST located in the north-central area of the Site. The vertical extent is approximately 9 feet below grade. However, soil screening will be performed to determine the limits of the excavation with verification sampling performed to confirm removal of all petroleum impacted soil. The excavation of the petroleum soil will be performed by a qualified contractor and trained (24 hr HAZWOPER) personnel.

5.5.2 Excavation of Historic Fill Soil

Historic fill material is present beneath the Site to depths which vary from 5 to 8 feet below grade. The historic fill material contains SVOCs, metals and pesticides above unrestricted and restricted-residential use SCOs. Historic fill material will be segregated from non-contaminated native soils and disposed of off-Site at a permitted disposal facility.

Excavated historic fill materials will either be pre-characterized and live-loaded into trucks for transport to the disposal facility or temporarily stored on-Site until arrangements can be made for

off-Site disposal. It is anticipated that the historic fill material will be classified as non-hazardous material. If this material is classified as non-hazardous, then the excavation of historic fill material will be performed by the excavation contractor for the construction project using trained personnel (24 hr HAZWOPER). If this material is classified as hazardous, then 40 hr HAZWOPER trained personnel will be needed to perform the excavation of this material.

5.5.3 Excavation of Native Soils

Native soils are present directly below the fill materials and may be encountered during excavation for basement areas and foundation components during construction of the new buildings. Since excavation of the basement areas will begin following removal of petroleum / CVOC contaminated soil and historic fill, it is expected that native soils will not be contaminated. However, if evidence of contamination is discovered during the excavation of basement areas, the contamination will be removed to the extent possible and segregated from clean native soils for proper disposal. Clean native soils will be stockpiled on-site and characterized for reuse on-site in areas over-excavated to remove historic fill or petroleum. Any excess soil will be disposed of off-site as a beneficial re-use material upon approval by the NYSDEC Region 2's Division of Materials Management. Clean native soils utilized on-site will be subject to a testing program to verify that they meet restricted residential SCOs prior to use.

It is anticipated that the excavation of native soil materials will be performed by the excavation contractor for the construction project.

5.5.4 Soil Screening Methods

Visual, olfactory and PID soil screening and assessment will be performed by an environmental professional during all remedial and development excavations into known or potentially contaminated material (Residual Contamination Zone). Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during the remedy and during development phase, such as excavations for foundations and utility work, prior to issuance of the COC.

All primary contaminant sources (including but not limited to tanks and hotspots) identified during Site Characterization, Remedial Investigation, and Remedial Action will be surveyed by a surveyor licensed to practice in the State of New York. This information will be provided on maps in the Final Engineering Report.

Screening will be performed by qualified environmental professionals. Resumes will be provided for all personnel responsible for field screening (i.e. those representing the Remedial Engineer) of invasive work for unknown contaminant sources during remediation and development work.

5.5.5 Stockpile Methods

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced. Soils which exhibit strong odors will be completely sealed with heavy tarps or vapor suppressant foam.

5.5.6 Materials Excavation and Load Out

The Remedial Engineer or an EP under his/her supervision will oversee all invasive work and the excavation and load-out of all excavated material. The Volunteer and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

Where effective, the equipment will be “dry” decontaminated using a broom and/or brushes. If significant amounts of soil or other contaminants remain after the dry decontamination, the equipment will also be pressure washed before leaving the Site. The EP will be responsible for ensuring that all outbound trucks are dry-brushed or washed on the truck wash/equipment pad before leaving the Site until the remedial construction is complete. Locations where vehicles

enter or exit the Site shall be inspected daily for evidence of off-Site sediment tracking. The EP will be responsible for ensuring that all egress points for truck and equipment transport from the Site will be clean of dirt and other materials derived from the Site during Site remediation and development. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site derived materials.

The Volunteer and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all invasive work, the structural integrity of excavations, and for structures that may be affected by excavations (such as building foundations and bridge footings).

The Remedial Engineer will ensure that Site development activities will not interfere with, or otherwise impair or compromise, remedial activities proposed in this Remedial Action Work Plan.

Development-related grading cuts and fills will not interfere with, or otherwise impair or compromise, the performance of remediation required by this plan.

Mechanical processing of historical fill material and contaminated soil on-Site is prohibited. All primary contaminant sources (including but not limited to tanks and hotspots) identified during Site Characterization, Remedial Investigation, and Remedial Action will be located and shown on maps to be reported in the Final Engineering Report.

5.5.7 Materials Transport Off-Site

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

All traffic will enter and leave the Site via existing gates on Third Avenue. The excavation contractor will direct the arrival or departure of construction vehicles, and provide flag services as needed to maintain safe travel exiting and entering the Site from the Third Avenue exit / entrance. The local transport route will be as follows:

- ENTERING SITE - from the Major Deegan Expressway (I87) heading south; take the Willis Ave / Third Ave Exit (Exit 2) and turn right heading north on Bruckner Blvd. to Third Avenue. Turn left, heading west on Third Avenue 1 block to Site entrance on the left.

- EXITING SITE – Turn left onto Third Avenue heading northeast to 138th Street. Turn right onto 138th Street heading southeast to Willis Avenue. Turn right onto Willis Avenue heading south to E. 135th Street. Turn right on E.135th Street and continue to the on-ramp (bearing left) for the Major Deegan Expressway (I-87).

- This route was designed to minimize or eliminate the time trucks will be on local streets. Equipment and trucks needed to install the grade beam will remain within the Site boundaries and not on residential Streets. Site personnel will be required to park on Site or in legal all-day on-street parking spaces, near the Site or in an off-street parking lot/garage.

These routes are shown in **Figure 12**.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site. Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during Site remediation and development. Wet loads are not anticipated since the entire site will be dewatered prior to excavating soils. However, if wet soils are excavated they will be stockpiled within the excavation to dry or blended with dry soils. No loads of material capable of generating free liquid will be allowed to leave the Site. All trucks will be inspected, dry-brushed and / or washed, as needed, before leaving the site.

5.5.8 Materials Disposal Off-Site

Multiple disposal facility designations may be employed for the materials removed from the Site. Once final arrangements have been made, the disposal location(s) will be reported to the NYSDEC Project Manager. It is anticipated that the soil will be disposed of at up to 3 different facilities, based on the following classification:

- Non Hazardous - Contaminated (petroleum) Low Lead < 1,000 mg/kg
- Non Hazardous - Contaminated (historic fill) Low Lead < 1,000 mg/kg
- Uncontaminated Native Soil - meets NJDSC Criteria for beneficial Reuse

The total quantity of material expected to be disposed off-Site is 5,244 cubic yards, including 150 cubic yards of petroleum impacted soil and 5,094 cubic yards of historic fill material from the cellar level and foundation excavations.

Hazardous Soil Disposal and Transport

Although not anticipated to be present, soil classified as hazardous will be shipped under a hazardous waste manifest system. All hazardous waste transported and disposed of must have a USEPA ID Number and waste code and must be distributed in accordance with the regulatory requirements.

The multi-part manifest will be filled out for each load of soil shipped off of the Site. At a minimum, the following information will be recorded on each manifest:

1) Generator's Name, Address, and Phone Number
2) Destination Facility Name, Address and Phone Number
3) EPA ID Number
4) Waste classification code
5) Transporter Name, Address, Phone Number, License Plate Number, Driver Name, and SW Haulers Permit #
6) Signatures – Generator or an authorized agent for the generator shall print, sign, and date each non-hazardous material manifest after each truck is loaded. The transporter shall then sign and date noting time material was picked up at the site. Both the transporter and a representative of the disposal facility will sign the non-hazardous material manifest when the material has been delivered to disposal facility.

Non-Hazardous Soil Disposal and Transport

Non-hazardous historic fill material and petroleum contaminated soil classified as non-hazardous, will be handled, at a minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Historical fill material and contaminated soils from the Site are prohibited from being disposed at Part 360-16 Registration Facilities (also known as Soil Recycling Facilities).

Soils that are contaminated but non-hazardous and are being removed from the Site are considered by the Division of Materials Management (DMM) in NYSDEC to be Construction and Demolition (C/D) materials with contamination not typical of virgin soils. These soils may be sent to a permitted Part 360 landfill. They may be sent to a permitted C/D processing facility without permit modifications only upon prior notification of NYSDEC Region 2 DSHM. This material is prohibited from being sent or redirected to a Part 360-16 Registration Facility. In this case, as dictated by DMM, special procedures will include, at a minimum, a letter to the C/D facility that provides a detailed explanation that the material is derived from a DER remediation Site, that the soil material is contaminated and that it must not be redirected to on-Site or off-Site Soil Recycling Facilities. The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include as an attachment a summary of all chemical data for the material being transported.

Soil classified as non-hazardous fill will be transported under a non-hazardous waste manifest obtained from the selected disposal facility. The multi-part manifest will be filled out for each load of soil shipped off of the Site. At a minimum, the following information will be recorded on each manifest:

1) Generator's Name, Address, and Phone Number
2) Destination Facility Name, Address and Phone Number
3) Transporter Name, Address, Phone Number, License Plate Number, Driver Name, and SW Haulers Permit #
4 Signatures – Generator or an authorized agent for the generator shall print, sign, and date each non-hazardous material manifest after each truck is loaded. The transporter shall then sign and date noting time material was picked up at the site. Both the transporter and

a representative of the disposal facility will sign the non-hazardous material manifest when the material has been delivered to disposal facility.

A copy of the manifest will be retained by on-Site personnel for each shipment. Final signed manifests will be forwarded by the disposal facility to the generator. Copies of the final manifests will be presented in the FER.

Clean Soil Disposal

Clean native soil removed from the Site for development purposes (i.e. basement levels) will be handled as unregulated or beneficial use disposal. This soil will undergo a testing program to confirm that it meets Unrestricted Use SCOs or Residential / Groundwater Protection SCOs prior to unregulated disposal or meets Restricted Residential Use SCOs prior to reuse on-Site. Confirmation testing of clean soils will be in accordance with DER-10 Section 5.4(e)(10) as follows:

Contaminant	**VOCs**	**SVOCs, Inorganics & PCBs/Pesticides**	
Soil Quantity (cubic yards)	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
0-50	1	1	Each composite sample for analysis is created from 3-5 discrete samples from representative locations in the fill.
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1000	7	2	
1000	Add an additional 2 VOC and 1 composite for each additional 1000 Cubic yards or consult with DER		

Uncontaminated native soil confirmed by the above testing program and removed from the site, will be disposed of as C&D material (if approved) or sent to a beneficial re-use facility. The final destination of soils whether classified as contaminated or uncontaminated must be approved by the NYSDEC.

C&D and Scrap Metal Disposal

Concrete demolition material generated on the Site from building slabs, parking areas and other structures will be segregated, sized and shipped to a concrete recycling facility. Concrete

crushing or processing on-Site is prohibited. Asphalt removed from the parking areas will be sent to a separate recycling facility.

Additionally, it is common to encounter scrap metals and large boulders (greater than one foot in diameter) during excavation which may not be accepted by either the licensed disposal facility or the C&D facility. These materials will be segregated and subsequently recycled at local facilities. Uncontaminated metal objects will be taken to a local scrap metal facility.

Bricks and other C&D material are also not accepted by most soil disposal facilities if present at greater then 5% by volume. This material, if encountered, will be sent to a C&D landfill or other C&D processing facility if approved by the DEC. C&D material of this type is most often encountered on sites in which former basement structures have been filled in with material from demolishing a former building. There was no evidence of former basement areas identified during previous investigations performed at the Site.

Scale Tickets

All trucks to be utilized for transport of hazardous or non-hazardous contaminated soil shall be weighed before and after unloading at the disposal facility. Disposal facilities must provide truck scales capable of generating load tickets measured in tons. The tonnage transported and disposed will be determined by the disposal facility and reported on a certified scale ticket which will be attached to each returned manifest. Weights will be reported on the certified scale ticket as Tare and Gross weights.

C&D Transport Tickets / Bills of Lading

Bill of Lading system or equivalent will be used for the disposal of C&D and related materials. Documentation for materials disposed of at recycling facilities (such as metal, concrete, asphalt) and as non-regulated C&D will include transport tickets for each load stating the origin of the material, the destination of the material and the quantity transported. This information will be reported in the Final Engineering Report.

Disposal Facility Documentation

The following documentation will be obtained and reported by the Remedial Engineer for each disposal location used in this project to fully demonstrate and document that the disposal of material derived from the Site conforms with all applicable laws: (1) a letter from the Remedial Engineer or BCP Applicant to the receiving facility describing the material to be disposed and requesting formal written acceptance of the material. This letter will state that material to be disposed is contaminated material generated at an environmental remediation Site in New York State. The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include as an attachment a summary of all chemical data for the material being transported (including Site Characterization data); and (2) a letter from all receiving facilities stating it is in receipt of the correspondence (above) and is approved to accept the material. These documents will be included in the FER.

The Final Engineering Report will include an accounting of the destination of all material removed from the Site during this Remedial Action, including excavated soil, contaminated soil, historic fill, solid waste, and hazardous waste, non-regulated material, and fluids. Documentation associated with disposal of all material must also include records and approvals for receipt of the material. This information will also be presented in a tabular form in the FER.

5.5.9 Materials Reuse On-Site

Re-use of on-Site soil will only be allowed if the material is found to meet Restricted Residential Use SCOs through the verification testing program detailed above. The Remedial Engineer will ensure that procedures defined for materials reuse in this RAWP are followed and that unacceptable material will not remain on-Site.

Acceptable demolition material proposed for reuse on-Site, if any, will be sampled for asbestos. Concrete crushing or processing on-Site is prohibited. Contaminated on-Site material, including historic fill material and contaminated soil, removed for grading or other purposes will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

5.5.10 Fluids Management

As the depth to groundwater at the site is approximately 6 to 7 feet below grade in the planned basement excavation areas, some dewatering operations may be employed during construction. Dewatering fluids will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Liquids discharged into the New York City sewer system will be addressed through approval by the NYCDEP.

Dewatered fluids will not be recharged back to the land surface or subsurface of the Site. Dewatering fluids will be managed off-Site. Discharge of water generated during remedial construction to surface waters (i.e. a local pond, stream or river) is prohibited without a SPDES permit.

5.5.11 Backfill from Off-Site Sources

Off-site fill material may be needed to stabilize the entrance - exit areas of the Site, for temporary driveways for loading trucks and as an underlayment to structural components of the new buildings including slabs and footings. Recycled Concrete Aggregate (RCA) derived from recognizable and uncontaminated concrete and supplied by facilities permitted by, and in full compliance with Part 360-16 and DSNY regulations, is an acceptable form of backfill material. The Remedial Engineer is responsible for ensuring that the facility is compliant with the registration and permitting requirements of 6 NYCRR Part 360 and DSNY regulations at the time the RCA is acquired. RCA imported from compliant facilities does not require additional testing unless required by NYS DEC and DSNY under its terms of operations for the facility. Documentation of part 360-16 and DSNY compliance must be provided to the Remedial Engineer before the RCA is transported to the Site.

Fill material may also consist of virgin mined sand, gravel or stone products. Materials from a virgin mined source may be imported to the Site without testing provided that that the material meets the specifications of the geotechnical engineer, Remedial Engineer, and Redevelopment Construction Documents and that the source of the material is approved by the Remediation Engineer and the NYSDEC Project Manager.

The source approval process will require a review of the following information:

- The origin of the material;
- The address of the facility which mines/processes the material;
- A letter from the facility stating that the material to be delivered to the site is a virgin mined material and that it has not been co-mingled with other materials during processing or stockpiling.

All materials proposed for import onto the Site will be approved by the Remedial Engineer and will be in compliance with provisions in this RAWP prior to receipt at the Site. Material from industrial sites, spill sites or other potentially contaminated sites will not be imported to the Site.

The Final Engineering Report will include the following certification by the Remedial Engineer: "I certify that all import of soils from off-Site, including source evaluation, approval and sampling, has been performed in a manner that is consistent with the methodology defined in the Remedial Action Work Plan".

Under no circumstances will fill materials be imported to the site without prior approval from the NYSDEC Project Manager. If sufficient documentation is not obtained, fill materials will be tested at a frequency consistent with that as specified in Table 4 of NYSDEC CP-51 Soil Cleanup Guidance Policy. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Solid waste will not be imported onto the Site.

5.5.12 Stormwater Pollution Prevention

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs shall be made immediately. Accumulated sediments will be removed as required to keep the barrier and hay bale check functional. All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials. Manufacturer's recommendations will be followed for

replacing silt fencing damaged due to weathering. Erosion and sediment control measures identified in the RAWP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters Silt fencing or hay bales will be installed around the entire perimeter of the remedial construction area.

5.5.13 Contingency Plan

If underground tanks or other previously unidentified contaminant sources are found during on-Site remedial excavation or development related construction, sampling will be performed on product, sediment and surrounding soils, etc. Chemical analytical work will be for full scan parameters (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs) if the use/contents of the tank cannot be verified as petroleum. These analyses will not be limited to STARS parameters where tanks are identified without prior approval by NYSDEC.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to NYSDEC's Project Manager. These findings will be also included in daily and periodic electronic media reports.

5.5.14 Community Air Monitoring Plan

The Community Air Monitoring Plan (CAMP) provides measures for protection for on-site workers and the downwind community (i.e., off-site receptors including residences, businesses, and on-site workers not directly involved in the remedial work) from potential airborne contaminant releases resulting from remedial activities at construction sites.

The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that the remedial work did not spread contamination off-site through the air. The primary concerns for this site are odors associated with groundwater purging and sampling.

Exceedances observed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers and included in the Daily Report. The complete CAMP developed for this site is included in **Attachment D** or this Work Plan.

5.5.15 Odor, Dust and Nuisance Control Plan

The Final Engineering Report will include the following certification by the Remedial Engineer: "I certify that all invasive work during the remediation and all invasive development work were conducted in accordance with dust and odor suppression methodology defined in the Remedial Action Work Plan."

5.5.15.1 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors off-Site and on-Site. If nuisance odors are identified, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of all other complaints about the project. Implementation of all odor controls, including the halt of work, will be the responsibility of the Applicant's Remediation Engineer, who is responsible for certifying the Final Engineering Report.

All necessary means will be employed to prevent on and off-Site nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

Where odor nuisances have developed during remedial work and cannot be corrected, or where the release of nuisance odors cannot otherwise be avoided due to on-Site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering excavation and

handling areas under tented containment structures equipped with appropriate air venting/filtering systems.

5.5.15.2 Dust Control Plan

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

- Dust suppression will be achieved though spraying water directly onto off-road areas including excavations and stockpiles.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-Site roads will be limited in total area to minimize the area required for water application.

5.5.15.3 Nuisance Control Plan

A plan for rodent control will be developed and utilized by the contractor prior to and during Site clearing and Site grubbing, and during all remedial work. A plan will be developed and utilized by the contractor for all remedial work and conforms, to NYCDEP noise control standards.

6.0 RESIDUAL CONTAMINATION TO REMAIN ON-SITE

Since soil with parameters above restricted residential SCOs will remain at depth after the remedy is complete, an Institutional Control (IC) is required to protect human health and the environment. The IC is described hereafter. Long-term management of the IC will be executed under a deed restriction recorded with the NYC Department of Finance, Office of the City Register.

ECs will be implemented to protect public health and the environment by appropriately managing residual contamination. The Controlled Property (the Site) will have the following EC systems:

1. Site Cover will be required to allow for residential use of the Site. The cover will consist of the new building foundation, concrete capped rear parking area, and a demarcation barrier and 2 feet of certified clean soil/top soil in landscaped areas.

The FER will report residual contamination on the Site in tabular and map form.

7.0 ENGINEERING CONTROLS

A site cover (**Figure 14**) will be required to allow for restricted residential use of the site. The cover will consist of the structures such as buildings, pavement, sidewalks comprising the site development and / or a soil cover in areas where the upper one foot (for commercial use) or two feet (for restricted residential use) of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of one foot (for commercial use) or two feet (for restricted residential use) of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d). The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

A Soil Management Plan will be included in the Site Management Plan and will outline the procedures to be followed in the event that the soil cover system and underlying residual contamination are disturbed after the Remedial Action is complete. Maintenance of the soil cover system will be described in the Site Management Plan in the FER.

8.0 INSTITUTIONAL CONTROLS

Institutional Controls (ICs) will be incorporated into the remedy to render the overall Site remedy protective of public health and the environmental. Two elements have been designed to ensure continual and proper management of residual contamination in perpetuity: an Environmental Easement and a Site Management Plan (SMP).

All as-build drawings, diagram, calculation and manufacturer documentation for treatment will be presented in the FER. A Site-Specific Environmental Easement will be recorded with the City of New York to provide an enforceable means of ensuring the continual and proper management of residual contamination and protection of public health and the environment in perpetuity or until released in writing by NYSDEC. It requires that the grantor of the Environmental Easement and the grantor's successors and assigns adhere to all Engineering and Institutional Controls (ECs/ICs) placed on the Site by this NYSDEC-approved remedy. ICs provide restrictions on Site usage and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs.

The SMP describes appropriate methods and procedures to ensure compliance with all ECs and ICs that are required by the Environmental Easement. Once the SMP has been approved by the NYSDEC, compliance with the SMP is required by the grantor of the Environmental Easement and grantor's successors and assigns.

8.1 ENVIRONMENTAL EASEMENT

An Environmental Easement, as defined in Article 71 Title 36 of the Environmental Conservation Law, is required when residual contamination is left on-Site after the Remedial Action is complete. If the Site will have residual contamination after completion of all Remedial Actions than an Environmental Easement is required. If an Environmental Easement is needed following completion of the remedy an Environmental Easement approved by NYSDEC will be filed and recorded with the City of New York. The Environmental Easement (if needed) will be submitted as part of the Final Remediation Report.

The Environmental Easement renders the Site a Controlled Property. The Environmental Easement must be recorded with the City of New York before the Certificate of Completion can be issued by NYSDEC. These Institutional Controls are requirements or restrictions placed on the Site that are listed in, and required by, the Environmental Easement. Institutional Controls can, generally, be subdivided between controls that support Engineering Controls, and those that place general restrictions on Site usage or other requirements. Institutional Controls in both of these groups are closely integrated with the Site Management Plan (SMP), which provides all of the methods and procedures to be followed to comply with this remedy.

The Institutional Controls which will be needed to support Engineering Controls are:

- Use of groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for intended purpose;
- Compliance with the Environmental Easement by the Grantee and the Grantee's successor's is required;
- Grantor agrees to submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the Controls;
- NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow. This annual statement must be certified by an expert that the NYSDEC finds acceptable;

8.2 SITE MANAGEMENT PLAN

Site Management is the last phase of remediation and begins with the approval of the Final Engineering Report and issuance of the Certificate of Completion (COC) for the Remedial

Action. The Site Management Plan is submitted as a separate and independent document from the FER. Site Management continues in perpetuity or until released in writing by NYSDEC. The property owner is responsible to ensure that all Site Management responsibilities defined in the Environmental Easement and the Site Management Plan are performed.

The SMP is intended to provide a detailed description of the procedures required to manage residual contamination left in place at the Site following completion of the Remedial Action in accordance with the BCA with the NYSDEC. This includes: (1) development, implementation, and management of all Engineering and Institutional Controls; (2) development and implementation of monitoring systems and a Monitoring Plan; (3) development of a plan to operate and maintain any treatment, collection, containment, or recovery systems (including, where appropriate, preparation of an Operation and Maintenance Manual); (4) submittal of Site Management Reports, performance of inspections and certification of results, and demonstration of proper communication of Site information to NYSDEC; and (5) defining criteria for termination of treatment system operation.

To address these needs, this SMP will include four plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for implementation of Site Monitoring; (3) an Operation and Maintenance Plan for implementation of remedial collection, containment, treatment, and recovery systems; and (4) a Site Management Reporting Plan for submittal of data, information, recommendations, and certifications to NYSDEC. The SMP will be prepared in accordance with the requirements in NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation, dated [month, year], and the guidelines provided by NYSDEC.

Site management activities, reporting, and EC/IC certification will be scheduled on a certification period basis. The certification period will be annually. The Site Management Plan will be based on a calendar year and will be due for submission to NYSDEC by March 1 of the year following the reporting period.

No exclusions for handling of residual contaminated soils will be provided in the Site Management Plan (SMP). All handling of residual contaminated material will be subject to provisions contained in the SMP.

9.0 FINAL ENGINEERING REPORT

A Final Engineering Report (FER) and Certificate of Completion (COC) will be submitted to NYSDEC following implementation of the Remedial Action defined in this RAWP. The FER provides the documentation that the remedial work required under this RAWP has been completed and has been performed in compliance with this plan. The FER will provide a comprehensive account of the locations and characteristics of all material removed from the Site including the surveyed map(s) of all sources. The Final Engineering Report will include as-built drawings for all constructed elements, certifications, manifests, bills of lading as well as the complete Site Management Plan (formerly the Operation and Maintenance Plan). The FER will provide a description of the changes in the Remedial Action from the elements provided in the RAWP and associated design documents. The FER will provide a tabular summary of all performance evaluation sampling results and all material characterization results and other sampling and chemical analysis performed as part of the Remedial Action. The FER will provide test results demonstrating that all mitigation and remedial systems are functioning properly. The FER will be prepared in conformance with DER-10.

Where determined to be necessary by NYSDEC, a Financial Assurance Plan will be required to ensure the sufficiency of revenue to perform long-term operations, maintenance and monitoring tasks defined in the Site Management Plan and Environmental Easement. This determination will be made by NYSDEC in the context of the Final Engineering Report review.

The Final Engineering Report will include written and photographic documentation of all remedial work performed under this remedy. The FER will include an itemized tabular description of actual costs incurred during all aspects of the Remedial Action.

The FER will provide a thorough summary of all residual contamination left on the Site after the remedy is complete. Residual contamination includes all contamination that exceeds the Track 1 Unrestricted Use SCO in 6NYCRR Part 375-6. A table that shows exceedances from Track 1 Unrestricted SCOs for all soil/fill remaining at the Site after the Remedial Action and a map that

shows the location and summarizes exceedances from Track 1 Unrestricted SCOs for all soil/fill remaining at the Site after the Remedial Action will be included in the FER.

The FER will provide a thorough summary of all residual contamination that exceeds the SCOs defined for the Site in the RAWP and must provide an explanation for why the material was not removed as part of the Remedial Action. A table that shows residual contamination in excess of Site SCOs and a map that shows residual contamination in excess of Site SCOs will be included in the FER.

The Final Engineering Report will include an accounting of the destination of all material removed from the Site, including excavated contaminated soil, historic fill, solid waste, hazardous waste, non-regulated material, and fluids. Documentation associated with disposal of all material must also include records and approvals for receipt of the material. It will provide an accounting of the origin and chemical quality of all material imported onto the Site.

Before approval of a FER and issuance of a Certificate of Completion, all project reports must be submitted in digital form on electronic media (PDF).

9.1 CERTIFICATIONS

The following certification will appear in front of the Executive Summary of the Final Engineering Report. The certification will be signed by the Remedial Engineer who is a Professional Engineer registered in New York State. This certification will be appropriately signed and stamped. The certification will include the following statements:

I _____certify that I am currently a NYS registered professional engineer, I had primary direct responsibility for the implementation of the subject construction program, and I certify that the Remedial Work Plan (or Remedial Design or Plans and Specifications) was implemented and that all construction activities were completed in substantial conformance with the DER-approved Remedial Work Plan (or Remedial Design or Plans and Specifications).

If the Remedial Action Work Plan (or Remedial Design or Plans and Specifications) identifies time frames to be achieved by the remedial program, the certification must include:

The data submitted to DER demonstrates that the remediation requirements set forth in the Remedial Work Plan (or Remedial Design or Plans and Specifications) and all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established in the work plan (or Remedial Design or Plans and Specifications).

If the remedial program requires ICs or ECs, the certification will include:

All use restrictions, institutional controls, engineering controls and/or any operation and maintenance requirements applicable to the site are contained in an environmental easement created and recorded pursuant to ECL 71-3605 and that any affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded.

If the remedial program requires applicable SMP, the certification will include:

A Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of any engineering controls employed at the site including the proper maintenance of any remaining monitoring wells, and that such plan has been approved by DER.

If the remedial program requires financial assurance, the certification will include:

Any financial assurance mechanisms required by DEC pursuant to Environmental Conservation Law have been executed.

10.0 SCHEDULE

The remedial action will begin with mobilization of equipment and material to the Site which will begin approximately 4 weeks following RAWP approval and within 10 days of the distribution of the Construction Fact Sheet. Mobilization will be followed by removal and disposal of the USTs (if present) followed by excavation and disposal of petroleum impacted soil, historic fill materials and native soil, followed by confirmation sampling. The work is expected to take approximately 6 months as part of the construction excavation and foundation installation. The schedule of tasks completed under this RAWP is as follows:

Conduct pre-construction meeting with NYSDEC	Within 2 weeks of RAWP approval (Oct 2016)
Mobilize equipment to the site and construct truck pad and other designated areas	Within 2 weeks following the pre-construction meeting and issuance of Pre-Construction Fact Sheet (Oct 2016)
Begin excavation of USTs (if present)	Immediately following mobilization (Oct 2016)
Mobilize Excavation Contractor and equipment to the Site	Immediately following excavation of UST Week (Oct 2016)
Complete excavation and disposal of historic fill material and clean native soil.	Within 6 months of mobilization (May 2017)
Perform endpoint verification of UST areas	Performed in sequence as final depth of each excavated area is complete (Oct. 2016-May2017)
Submit SMP (as a contingency) if Track 1 Cleanup is not achieved	By August 15th of the year in which the COC is sought (Dec 2017) or as required by DEC.
Submit FER	By September 15th of the year in which the COC is sought (Dec 2017) or as required by DEC.

TABLES

TABLE 1
Soil Cleanup Objectives
Soil Import Criteria

Contaminant	CAS Number	Top 2 ft in Eaposed Soil Areas: Restricted-Residential
METALS		
Arsenic	7440-38 -2	16f
Barium	7440-39 -3	400
Beryllium	7440-41 -7	72
Cadmium	7440-43 -9	4.3
Chromium, hexavalent h	18540-29-9	110
Chromium, trivalenth	16065-83-1	180
Copper	7440-50 -8	270
Total Cyanide h		27
Lead	7439-92 -1	400
Manganese	7439-96 -5	2,000f
Total Mercury		0.81j
Nickel	7440-02 -0	310
Selenium	7782-49 -2	180
Silver	7440-22 -4	180
Zinc	7440-66 -6	10,000 d
PESTICIDES / PCBs		
2,4,5-TP Acid (Silvex)	93-72-1	100a
4,4'-DDE	72-55-9	8.9
4,4'-DDT	50-29-3	7.9
4,4'-DDD	72-54-8	13
Aldrin	309-00-2	0.097
alpha-BHC	319-84-6	0.48
beta-BHC	319-85-7	0.36
Chlordane (alpha)	5103-71 -9	4.2
delta-BHC	319-86-8	100a
Dibenzofuran	132-64-9	59
Dieldrin	60-57-1	0.2
Endosulfan I	959-98-8	24i
Endosulfan II	33213-65-9	24i
Endosulfan sulfate	1031-07 -8	24i
Endrin	72-20-8	11
Heptachlor	76-44-8	2.1
Lindane	58-89-9	1.3
Polychlorinated biphenyls	1336-36 -3	1

Contaminant	CAS Number	Top 2 ft in Eaposed Soil Areas: Restricted-Residential
VOLATILES		
1,1,1-Trichloroethane	71-55-6	100a
1,1-Dichloroethane	75-34-3	26
1,1-Dichloroethene	75-35-4	100a
1,2-Dichlorobenzene	95-50-1	100a
1,2-Dichloroethane	107-06-2	3.1
cis-1,2-Dichloroethene	156-59-2	100a
trans-1,2-Dichloroethene	156-60-5	100a
1,3-Dichlorobenzene	541-73-1	49
1,4-Dichlorobenzene	106-46-7	13
1,4-Dioxane	123-91-1	13
Acetone	67-64-1	100b
Benzene	71-43-2	4.8
Butylbenzene	104-51-8	100a
Carbon tetrachloride	56-23-5	2.4
Chlorobenzene	108-90-7	100a
Chloroform	67-66-3	49
Ethylbenzene	100-41-4	41
Hexachlorobenzene	118-74-1	1.2
Methyl ethyl ketone	78-93-3	100a
Methyl tert-butyl ether	1634-04 -4	100a
Methylene chloride	75-09-2	100a
n-Propylbenzene	103-65-1	100a
sec-Butylbenzene	135-98-8	100a
tert-Butylbenzene	98-06-6	100a
Tetrachloroethene	127-18-4	19
Toluene	108-88-3	100a
Trichloroethene	79-01-6	21
1,2,4-Trimethylbenzene	95-63-6	52
1,3,5-Trimethylbenzene	108-67-8	52
Vinyl chloride	75-01-4	0.9
Xylene (mixed)	1330-20 -7	100a

Contaminant	CAS Number	Top 2 ft in Eaposed Soil Areas: Restricted-Residential
SEMI-VOLATILES		
Acenaphthene	83-32-9	100a
Acenapthylene	208-96-8	100a
Anthracene	120-12-7	100a
Benz(a)anthracene	56-55-3	1f
Benzo(a)pyrene	50-32-8	1f
Benzo(b) fluoranthene	205-99-2	1f
Benzo(g,h,i) perylene	191-24-2	100a
Benzo(k) fluoranthene	207-08-9	3.9
Chrysene	218-01-9	3.9
Dibenz(a,h) anthracene	53-70-3	0.33e
Fluoranthene	206-44-0	100a
Fluorene	86-73-7	100a
Indeno(1,2,3-cd) pyrene	193-39-5	0.5f
m-Cresol	108-39-4	100a
Naphthalene	91-20-3	100a
o-Cresol	95-48-7	100a
p-Cresol	106-44-5	100a
Pentachlorophenol	87-86-5	6.7
Phenanthrene	85-01-8	100a
Phenol	108-95-2	100a
Pyrene	129-00-0	100a

All soil cleanup objectives (SCOs) are in parts per million (ppm).

TABLE 2
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Remedial Investigation Sampling Summary

Matrix	Location	Number of Samples	Rationale for Sampling	Laboratory Analysis
Total (Soils)		**34**		
Subsurface soil (0 to 5 feet)	11 soil borings throughout the Site. Samples collected at 0-2 ft, 2-4 ft, and 3-5 ft intervals.	11	To evaluate the extent of soil impact and obtain information on soil quality at the Site.	VOCs EPA Method 8260B, SVOCs EPA Method 8270, Pesticides / PCBs EPA Method 8081/8082, TAL Metals
Subsurface soil (5 to 10 feet)	10 soil borings throughout the Site. Samples collected at 5-7 ft and 6-8 ft intervals.	10	To evaluate the extent of soil impact and obtain information on soil quality at the Site.	VOCs EPA Method 8260B, SVOCs EPA Method 8270, Pesticides / PCBs EPA Method 8081/8082, TAL Metals
Subsurface soil (5 to 10 feet)	10 soil borings throughout the Site. Samples collected at 5-7 ft, 6-8 ft and 8-10 ft intervals.	10	To evaluate the extent of soil impact and obtain information on soil quality at the Site.	VOCs EPA Method 8260B, SVOCs EPA Method 8270
Subsurface soil (10 to 15 feet)	1 soil boring throughout the site. Samples collected at the 10-12 ft interval.	1	To evaluate the extent of soil impact and obtain information on soil quality at the Site.	VOCs EPA Method 8260B, SVOCs EPA Method 8270, Pesticides / PCBs EPA Method 8081/8082, TAL Metals
Subsurface soil (10 to 15 feet)	2 soil boring throughout the site. Samples collected at 10-12 ft and 13-15 ft intervals.	2	To evaluate the extent of soil impact and obtain information on soil quality at the Site.	VOCs EPA Method 8260B and SVOCs EPA Method 8270
Total (Groundwater)		**12**		
Groundwater (below water table)	From 12 monitoring wells across the Site.	12	To assess groundwater quality at the Site.	VOCs EPA Method 8260B, SVOCs EPA Method 8270, Pesticide / PCBs EPA Method 8081/8082, Dissolved Metals
Total (Soil Gas)		**13**		
Soil Gas (3 ft below grade)	8 soil gas implant locations installed 3 ft beneath the first floor level across the Site.	8	Evaluate soil gas across the Site.	VOCs EPA Method TO15
Sub-Slab Soil Gas (6 in. below basement slab)	5 soil gas implant locations installed beneath the basement level slab-on-grade foundation throughout the Site.	5	Evaluate soil gas across the Site.	VOCs EPA Method TO15
Total (QA / QC Samples)		**4**		
Trip Blanks (Groundwater)	Two laboratory prepared trip blanks to accompany samples each time they are delivered to the laboratory.	2	To meet requirements of QA / QC program.	VOCs EPA Method 8260B
Duplicates (Soil)	Created a duplicate of another soil sample in the field for the purpose of comparison and quality control.	2	To meet requirements of QA / QC program.	VOCs EPA Method 8260B, SVOCs EPA Method 8270, Pesticides / PCBs EPA Method 8081/8082, TAL Metals

TABLE 3
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B1 11/24/2015 (0-2') µg/Kg				15B1 11/24/2015 (5-7') µg/Kg				15B2 11/24/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,1,1,2-Tetrachlorothane			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
1,1,1-Trichloroethane	680	100,000	< 1100	1,100	U	55	< 5.3	5.3	U	1.1	< 21	21	U	1.0
1,1,2,2-Tetrachloroethane			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
1,1,2-Trichloroethane			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
1,1-Dichloroethane	270	26,000	< 140	140	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
1,1-Dichloroethene	330	100,000	< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
1,1-Dichloropropene			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
1,2,3-Trichlorobenzene			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
1,2,3-Trichloropropane			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
1,2,4-Trichlorobenzene			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
1,2,4-Trimethylbenzene	3,600	52,000	**100**	270	J	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
1,2-Dibromo-3-chloropropane			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
1,2-Dibromomethane			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
1,2-Dichlorobenzene	1,100	100,000	< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
1,2-Dichloroethane	20	3,100	< 27	27	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
1,2-Dichloropropane			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
1,3,5-Trimethylbenzene	8,400	52,000	**62**	270	J	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
1,3-Dichlorobenzene	2,400	4,900	< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
1,3-Dichloropropane			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
1,4-Dichlorobenzene	1,800	13,000	< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
1,4-dioxane			< 2200	2,200	U	2200	< 100	100	U	42	< 100	100	U	41
2,2-Dichloropropane			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
2-Chlorotoluene			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
2-Hexanone (Methyl Butyl Ketone)			< 1400	1,400	U	270	< 27	27	U	5.3	< 26	26	U	5.1
2-Isopropyltoluene			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
4-Chlorotoluene			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
4-Methyl-2-Pentanone			< 1400	1,400	U	270	< 27	27	U	5.3	< 26	26	U	5.1
Acetone	50	100,000	< 270	270	U	270	**10**	50	JS	5.3	< 50	50	U	5.1
Acrolein			< 1100	1,100	U	140	< 21	21	U	2.7	< 21	21	U	2.6
Acrylonitrile			< 1100	1,100	U	27	< 11	11	U	1.1	< 10	10	U	1.0
Benzene	60	4,800	< 55	55	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Bromobenzene			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Bromochloromethane			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Bromodichloromethane			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
Bromoform			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
Bromomethane			< 270	270	U	110	< 5.3	5.3	U	2.1	< 5.1	5.1	U	2.1
Carbon Disulfide			< 270	270	U	55	< 5.3	5.3	U	1.1	**2.8**	5.1	J	1.0
Carbon tetrachloride	760	2,400	< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
Chlorobenzene	1,100	100,000	< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Chloroethane			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Chloroform	370	49,000	< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Chloromethane			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
cis-1,2-Dichloroethene	250	100,000	< 140	140	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
cis-1,3-Dichloropropene			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Dibromochloromethane			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
Dibromomethane			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
Dichlorodifluoromethane			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Ethylbenzene	1,000	41,000	**60**	270	J	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Hexachlorobutadiene			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Isopropylbenzene			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
m&p-Xylenes	260	100,000	**250**	270	J	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 270	270	U	270	< 32	32	U	5.3	< 31	31	U	5.1
Methyl t-butyl ether (MTBE)	930	100,000	< 550	550	U	55	< 11	11	U	1.1	< 10	10	U	1.0
Methylene chloride	50	100,000	< 270	270	U	270	< 5.3	5.3	U	5.3	< 5.1	5.1	U	5.1
Naphthalene	12,000	100,000	**2,900**	270		55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
n-Butylbenzene	12,000	100,000	< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
n-Propylbenzene	3,900	100,000	< 270	270	U	49	< 5.3	5.3	U	0.95	< 5.1	5.1	U	0.93
o-Xylene	260	100,000	**55**	270	J	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
p-Isopropyltoluene			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
sec-Butylbenzene	11,000	100,000	< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Styrene			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Tert-butyl alcohol			< 5500	5,500	U	1100	< 110	110	U	21	**35**	100	J	21
tert-Butylbenzene	5,900	100,000	< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Tetrachloroethene	1,300	19,000	< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
Tetrahydrofuran (THF)			< 550	550	U	140	< 11	11	U	2.7	< 10	10	U	2.6
Toluene	700	100,000	**400**	270		27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
trans-1,2-Dichloroethene	190	100,000	< 140	140	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
trans-1,3-Dichloropropene			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
trabs-1,4-dichloro-2-butene			< 550	550	U	140	< 11	11	U	2.7	< 10	10	U	2.6
Trichloroethene	470	21,000	< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Trichlorofluoromethane			< 270	270	U	55	< 5.3	5.3	U	1.1	< 5.1	5.1	U	1.0
Trichlorotrifluoroethane			< 270	270	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Vinyl Chloride	20	900	< 27	27	U	27	< 5.3	5.3	U	0.53	< 5.1	5.1	U	0.51
Total BTEX Concentration			**765**				**0**				**0**			
Total VOCs Concentration			**3827**				**10**				**37.8**			

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

TABLE 3
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B3 11/24/2015 (0-2') µg/Kg				(5-7') µg/Kg				(13-15') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,1,1,2-Tetrachlorothane			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
1,1,1-Trichloroethane	680	100,000	< 720	720	U	36	< 920	920	U	46	< 14	14	U	0.70
1,1,2,2-Tetrachloroethane			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
1,1,2-Trichloroethane			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
1,1-Dichloroethane	270	26,000	< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
1,1-Dichloroethene	330	100,000	< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
1,1-Dichloropropene			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
1,2,3-Trichlorobenzene			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
1,2,3-Trichloropropane			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
1,2,4-Trichlorobenzene			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
1,2,4-Trimethylbenzene	3,600	52,000	**63**	180	J	18	**110**	230	J	23	< 3.5	3.5	U	0.35
1,2-Dibromo-3-chloropropane			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
1,2-Dibromomethane			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
1,2-Dichlorobenzene	1,100	100,000	< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
1,2-Dichloroethane	20	3,100	< 18	18	U	18	< 20	20	U	20	< 3.5	3.5	U	0.35
1,2-Dichloropropane			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
1,3,5-Trimethylbenzene	8,400	52,000	**50**	180	J	18	**42**	230	J	23	< 3.5	3.5	U	0.35
1,3-Dichlorobenzene	2,400	4,900	< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
1,3-Dichloropropane			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
1,4-Dichlorobenzene	1,800	13,000	< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
1,4-dioxane			< 1400	1,400	U	1400	< 1800	1,800	U	1800	< 70	70	U	28
2,2-Dichloropropane			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
2-Chlorotoluene			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
2-Hexanone (Methyl Butyl Ketone)			< 900	900	U	180	< 1200	1,200	U	230	< 18	18	U	3.5
2-Isopropyltoluene			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
4-Chlorotoluene			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
4-Methyl-2-Pentanone			< 900	900	U	180	< 1200	1,200	U	230	< 18	18	U	3.5
Acetone	50	100,000	< 180	180	U	180	< 230	230	U	230	**3.8**	35	JS	3.5
Acrolein			< 720	720	U	90	< 920	920	U	120	< 14	14	U	1.8
Acrylonitrile			< 720	720	U	18	< 920	920	U	23	< 7.0	7.0	U	0.70
Benzene	60	4,800	**23**	58	J	18	**65**	230	J	23	< 3.5	3.5	U	0.35
Bromobenzene			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
Bromochloromethane			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
Bromodichloromethane			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
Bromoform			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
Bromomethane			< 180	180	U	72	< 230	230	U	92	< 3.5	3.5	U	1.4
Carbon Disulfide			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
Carbon tetrachloride	760	2,400	< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
Chlorobenzene	1,100	100,000	< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
Chloroethane			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
Chloroform	370	49,000	< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
Chloromethane			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
cis-1,2-Dichloroethene	250	100,000	< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
cis-1,3-Dichloropropene			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
Dibromochloromethane			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
Dibromomethane			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
Dichlorodifluoromethane			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
Ethylbenzene	1,000	41,000	**39**	180	J	18	**65**	230	J	23	< 3.5	3.5	U	0.35
Hexachlorobutadiene			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
Isopropylbenzene			< 180	180	U	18	**72**	230	J	23	< 3.5	3.5	U	0.35
m&p-Xylenes	260	100,000	**60**	180	J	36	**140**	230	J	46	< 3.5	3.5	U	0.70
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 180	180	U	180	< 230	230	U	230	< 21	21	U	3.5
Methyl t-butyl ether (MTBE)	930	100,000	< 360	360	U	36	< 460	460	U	46	< 7.0	7.0	U	0.70
Methylene chloride	50	100,000	< 180	180	U	180	< 230	230	U	230	< 3.5	3.5	U	3.5
Naphthalene	12,000	100,000	**56**	180	J	36	< 230	230	U	46	< 3.5	3.5	U	0.70
n-Butylbenzene	12,000	100,000	< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
n-Propylbenzene	3,900	100,000	< 180	180	U	32	**68**	230	J	42	< 3.5	3.5	U	0.63
o-Xylene	260	100,000	< 180	180	U	36	**58**	230	J	46	< 3.5	3.5	U	0.70
p-Isopropyltoluene			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
sec-Butylbenzene	11,000	100,000	< 180	180	U	18	**75**	230	J	23	< 3.5	3.5	U	0.35
Styrene			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
Tert-butyl alcohol			< 3600	3,600	U	720	< 4600	4,600	U	920	< 70	70	U	14
tert-Butylbenzene	5,900	100,000	< 180	180	U	18	**41**	230	J	23	< 3.5	3.5	U	0.35
Tetrachloroethene	1,300	19,000	< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
Tetrahydrofuran (THF)			< 360	360	U	90	< 460	460	U	120	< 7.0	7.0	U	1.8
Toluene	700	100,000	**54**	180	J	18	**99**	230	J	23	< 3.5	3.5	U	0.35
trans-1,2-Dichloroethene	190	100,000	< 180	180	U	18	< 120	120	U	23	< 3.5	3.5	U	0.35
trans-1,3-Dichloropropene			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
trabs-1,4-dichloro-2-butene			< 360	360	U	90	< 460	460	U	120	< 7.0	7.0	U	1.8
Trichloroethene	470	21,000	< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
Trichlorofluoromethane			< 180	180	U	36	< 230	230	U	46	< 3.5	3.5	U	0.70
Trichlorotrifluoroethane			< 180	180	U	18	< 230	230	U	23	< 3.5	3.5	U	0.35
Vinyl Chloride	20	900	< 18	18	U	18	< 20	20	U	20	< 3.5	3.5	U	0.35
Total BTEX Concentration			**176**				**427**				**0**			
Total VOCs Concentration			**345**				**835**				**3.8**			

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

TABLE 3
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B4 11/24/2015 (0-2') µg/Kg				15B4 11/24/2015 (6-8') µg/Kg				15B4 11/24/2015 (10-12') µg/Kg				15B5 11/24/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,1,1,2-Tetrachlorothane			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
1,1,1-Trichloroethane	680	100,000	< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
1,1,2,2-Tetrachloroethane			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
1,1,2-Trichloroethane			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
1,1-Dichloroethane	270	26,000	< 220	220	U	44	< 170	170	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
1,1-Dichloroethene	330	100,000	< 220	220	U	22	< 170	170	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
1,1-Dichloropropene			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
1,2,3-Trichlorobenzene			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
1,2,3-Trichloropropane			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
1,2,4-Trichlorobenzene			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
1,2,4-Trimethylbenzene	3,600	52,000	< 220	220	U	22	**91**	340	J	34	< 220	220	U	22	< 5.9	5.9	U	0.59
1,2-Dibromo-3-chloropropane			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
1,2-Dibromomethane			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
1,2-Dichlorobenzene	1,100	100,000	< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
1,2-Dichloroethane	20	3,100	< 20	20	U	20	< 34	34	U	34	< 20	20	U	20	< 5.9	5.9	U	0.59
1,2-Dichloropropane			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
1,3,5-Trimethylbenzene	8,400	52,000	< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
1,3-Dichlorobenzene	2,400	4,900	< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
1,3-Dichloropropane			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
1,4-Dichlorobenzene	1,800	13,000	< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
1,4-dioxane			< 1800	1,800	U	1800	< 2700	2,700	U	2700	< 4500	4,500	U	1800	< 94	94	U	47
2,2-Dichloropropane			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
2-Chlorotoluene			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
2-Hexanone (Methyl Butyl Ketone)			< 1100	1,100	U	220	< 1700	1,700	U	340	< 1100	1,100	U	220	< 30	30	U	5.9
2-Isopropyltoluene			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
4-Chlorotoluene			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
4-Methyl-2-Pentanone			< 1100	1,100	U	220	< 1700	1,700	U	340	< 1100	1,100	U	220	< 30	30	U	5.9
Acetone	50	100,000	< 220	220	U	220	< 340	340	U	340	< 220	220	U	220	**29**	47	JS	5.9
Acrolein			< 880	880	U	110	< 1300	1,300	U	170	< 890	890	U	110	< 24	24	U	3.0
Acrylonitrile			< 880	880	U	22	< 670	670	U	67	< 450	450	U	45	< 12	12	U	1.2
Benzene	60	4,800	**43**	57	J	22	**140**	340	J	34	< 58	58	U	22	< 5.9	5.9	U	0.59
Bromobenzene			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Bromochloromethane			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Bromodichloromethane			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
Bromoform			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
Bromomethane			< 220	220	U	88	< 340	340	U	130	< 220	220	U	89	< 5.9	5.9	U	2.4
Carbon Disulfide			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
Carbon tetrachloride	760	2,400	< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
Chlorobenzene	1,100	100,000	< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Chloroethane			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Chloroform	370	49,000	< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Chloromethane			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
cis-1,2-Dichloroethene	250	100,000	< 220	220	U	22	< 170	170	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
cis-1,3-Dichloropropene			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Dibromochloromethane			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
Dibromomethane			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
Dichlorodifluoromethane			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Ethylbenzene	1,000	41,000	< 220	220	U	22	**61**	340	J	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Hexachlorobutadiene			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Isopropylbenzene			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
m&p-Xylenes	260	100,000	< 220	220	U	44	**140**	340	J	67	< 220	220	U	45	< 5.9	5.9	U	1.2
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 220	220	U	220	< 340	340	U	340	< 220	220	U	220	< 35	35	U	5.9
Methyl t-butyl ether (MTBE)	930	100,000	< 440	440	U	44	< 670	670	U	67	< 450	450	U	45	**2.1**	12	J	1.2
Methylene chloride	50	100,000	< 220	220	U	220	< 340	340	U	340	< 220	220	U	220	< 5.9	5.9	U	5.9
Naphthalene	12,000	100,000	< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
n-Butylbenzene	12,000	100,000	< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
n-Propylbenzene	3,900	100,000	< 220	220	U	40	< 340	340	U	61	< 220	220	U	40	< 5.9	5.9	U	1.1
o-Xylene	260	100,000	< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
p-Isopropyltoluene			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
sec-Butylbenzene	11,000	100,000	< 220	220	U	22	**44**	340	J	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Styrene			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Tert-butyl alcohol			< 4400	4,400	U	880	< 6700	6,700	U	1300	< 4500	4,500	U	890	< 120	120	U	24
tert-Butylbenzene	5,900	100,000	< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Tetrachloroethene	1,300	19,000	< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
Tetrahydrofuran (THF)			< 440	440	U	110	< 670	670	U	170	< 450	450	U	110	< 12	12	U	3.0
Toluene	700	100,000	**55**	220	J	22	**87**	340	J	34	< 220	220	U	22	< 5.9	5.9	U	0.59
trans-1,2-Dichloroethene	190	100,000	< 110	110	U	22	< 170	170	U	34	< 110	110	U	22	< 5.9	5.9	U	0.59
trans-1,3-Dichloropropene			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
trabs-1,4-dichloro-2-butene			< 440	440	U	110	< 670	670	U	170	< 450	450	U	110	< 12	12	U	3.0
Trichloroethene	470	21,000	< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Trichlorofluoromethane			< 220	220	U	44	< 340	340	U	67	< 220	220	U	45	< 5.9	5.9	U	1.2
Trichlorotrifluoroethane			< 220	220	U	22	< 340	340	U	34	< 220	220	U	22	< 5.9	5.9	U	0.59
Vinyl Chloride	20	900	< 20	20	U	20	< 34	34	U	34	< 20	20	U	20	< 5.9	5.9	U	0.59
Total BTEX Concentration				**98**				**428**				**0**				**0**		
Total VOCs Concentration				**98**				**563**				**0**				**31.1**		

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

TABLE 3
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B6 11/20/2015 (3-5') µg/Kg				15B6 11/20/2015 (10-12') µg/Kg				15SB7 11/20/2015 (6-8') µg/Kg				15B8 11/20/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,1,1,2-Tetrachlorothane			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
1,1,1-Trichloroethane	680	100,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
1,1,2,2-Tetrachloroethane			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
1,1,2-Trichloroethane			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
1,1-Dichloroethane	270	26,000	< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
1,1-Dichloroethene	330	100,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
1,1-Dichloropropene			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
1,2,3-Trichlorobenzene			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
1,2,3-Trichloropropane			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
1,2,4-Trichlorobenzene			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
1,2,4-Trimethylbenzene	3,600	52,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
1,2-Dibromo-3-chloropropane			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
1,2-Dibromomethane			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
1,2-Dichlorobenzene	1,100	100,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
1,2-Dichloroethane	20	3,100	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
1,2-Dichloropropane			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
1,3,5-Trimethylbenzene	8,400	52,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
1,3-Dichlorobenzene	2,400	4,900	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
1,3-Dichloropropane			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
1,4-Dichlorobenzene	1,800	13,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
1,4-dioxane			< 100	100	U	42	< 100	100	U	71	< 94	94	U	38	< 100	100	U	61
2,2-Dichloropropane			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
2-Chlorotoluene			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
2-Hexanone (Methyl Butyl Ketone)			< 26	26	U	5.3	< 44	44	U	8.9	< 23	23	U	4.7	< 38	38	U	7.6
2-Isopropyltoluene			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
4-Chlorotoluene			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
4-Methyl-2-Pentanone			< 26	26	U	5.3	< 44	44	U	8.9	< 23	23	U	4.7	< 38	38	U	7.6
Acetone	50	100,000	**22**	50	JS	5.3	**39**	50	JS	8.9	**11**	47	JS	4.7	**110**	50	S	7.6
Acrolein			< 21	21	U	2.6	< 35	35	U	4.4	< 19	19	U	2.3	< 31	31	U	3.8
Acrylonitrile			< 11	11	U	1.1	< 18	18	U	1.8	< 9.4	9.4	U	0.94	< 15	15	U	1.5
Benzene	60	4,800	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	**0.91**	7.6	J	0.76
Bromobenzene			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Bromochloromethane			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Bromodichloromethane			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
Bromoform			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
Bromomethane			< 5.3	5.3	U	2.1	< 8.9	8.9	U	3.5	< 4.7	4.7	U	1.9	< 7.6	7.6	U	3.1
Carbon Disulfide			< 5.3	5.3	U	1.1	**8.3**	8.9	J	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
Carbon tetrachloride	760	2,400	< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
Chlorobenzene	1,100	100,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Chloroethane			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Chloroform	370	49,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Chloromethane			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
cis-1,2-Dichloroethene	250	100,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
cis-1,3-Dichloropropene			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Dibromochloromethane			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
Dibromomethane			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
Dichlorodifluoromethane			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Ethylbenzene	1,000	41,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Hexachlorobutadiene			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Isopropylbenzene			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
m&p-Xylenes	260	100,000	< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 32	32	U	5.3	< 53	53	U	8.9	< 28	28	U	4.7	**33**	46	J	7.6
Methyl t-butyl ether (MTBE)	930	100,000	< 11	11	U	1.1	< 18	18	U	1.8	< 9.4	9.4	U	0.94	< 15	15	U	1.5
Methylene chloride	50	100,000	< 5.3	5.3	U	5.3	< 8.9	8.9	U	8.9	< 4.7	4.7	U	4.7	< 7.6	7.6	U	7.6
Naphthalene	12,000	100,000	< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
n-Butylbenzene	12,000	100,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
n-Propylbenzene	3,900	100,000	< 5.3	5.3	U	0.95	< 8.9	8.9	U	1.6	< 4.7	4.7	U	0.84	< 7.6	7.6	U	1.4
o-Xylene	260	100,000	< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
p-Isopropyltoluene			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
sec-Butylbenzene	11,000	100,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Styrene			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Tert-butyl alcohol			< 110	110	U	21	< 180	180	U	35	< 94	94	U	19	< 150	150	U	31
tert-Butylbenzene	5,900	100,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Tetrachloroethene	1,300	19,000	< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
Tetrahydrofuran (THF)			< 11	11	U	2.6	< 18	18	U	4.4	< 9.4	9.4	U	2.3	< 15	15	U	3.8
Toluene	700	100,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
trans-1,2-Dichloroethene	190	100,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
trans-1,3-Dichloropropene			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
trabs-1,4-dichloro-2-butene			< 11	11	U	2.6	< 18	18	U	4.4	< 9.4	9.4	U	2.3	< 15	15	U	3.8
Trichloroethene	470	21,000	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Trichlorofluoromethane			< 5.3	5.3	U	1.1	< 8.9	8.9	U	1.8	< 4.7	4.7	U	0.94	< 7.6	7.6	U	1.5
Trichlorotrifluoroethane			< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Vinyl Chloride	20	900	< 5.3	5.3	U	0.53	< 8.9	8.9	U	0.89	< 4.7	4.7	U	0.47	< 7.6	7.6	U	0.76
Total BTEX Concentration			**0**				**0**				**0**				**0.91**			
Total VOCs Concentration			**22**				**47.3**				**11**				**143.91**			

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

TABLE 3
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B9 11/20/2015 (0-2') µg/Kg				15B9 11/20/2015 (6-8') µg/Kg				15B10 11/20/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,1,1,2-Tetrachlorothane			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
1,1,1-Trichloroethane	680	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
1,1,2,2-Tetrachloroethane			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
1,1,2-Trichloroethane			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
1,1-Dichloroethane	270	26,000	< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
1,1-Dichloroethene	330	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
1,1-Dichloropropene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
1,2,3-Trichlorobenzene			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
1,2,3-Trichloropropane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
1,2,4-Trichlorobenzene			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
1,2,4-Trimethylbenzene	3,600	52,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
1,2-Dibromo-3-chloropropane			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
1,2-Dibromomethane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
1,2-Dichlorobenzene	1,100	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
1,2-Dichloroethane	20	3,100	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
1,2-Dichloropropane			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
1,3,5-Trimethylbenzene	8,400	52,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
1,3-Dichlorobenzene	2,400	4,900	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
1,3-Dichloropropane			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
1,4-Dichlorobenzene	1,800	13,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
1,4-dioxane			< 85	85	U	34	< 89	89	U	35	< 94	94	U	38
2,2-Dichloropropane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
2-Chlorotoluene			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
2-Hexanone (Methyl Butyl Ketone)			< 21	21	U	4.2	< 22	22	U	4.4	< 24	24	U	4.7
2-Isopropyltoluene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
4-Chlorotoluene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
4-Methyl-2-Pentanone			< 21	21	U	4.2	< 22	22	U	4.4	< 24	24	U	4.7
Acetone	50	100,000	**5**	42	JS	4.2	**6.2**	44	JS	4.4	**17**	47	JS	4.7
Acrolein			< 17	17	U	2.1	< 18	18	U	2.2	< 19	19	U	2.4
Acrylonitrile			< 8.5	8.5	U	0.85	< 8.9	8.9	U	0.89	< 9.4	9.4	U	0.94
Benzene	60	4,800	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Bromobenzene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Bromochloromethane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Bromodichloromethane			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
Bromoform			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
Bromomethane			< 4.2	4.2	U	1.7	< 4.4	4.4	U	1.8	< 4.7	4.7	U	1.9
Carbon Disulfide			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
Carbon tetrachloride	760	2,400	< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
Chlorobenzene	1,100	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Chloroethane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Chloroform	370	49,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Chloromethane			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
cis-1,2-Dichloroethene	250	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
cis-1,3-Dichloropropene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Dibromochloromethane			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
Dibromomethane			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
Dichlorodifluoromethane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Ethylbenzene	1,000	41,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Hexachlorobutadiene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Isopropylbenzene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
m&p-Xylenes	260	100,000	< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 25	25	U	4.2	< 27	27	U	4.4	< 28	28	U	4.7
Methyl t-butyl ether (MTBE)	930	100,000	< 8.5	8.5	U	0.85	< 8.9	8.9	U	0.89	< 9.4	9.4	U	0.94
Methylene chloride	50	100,000	< 4.2	4.2	U	4.2	< 4.4	4.4	U	4.4	< 4.7	4.7	U	4.7
Naphthalene	12,000	100,000	< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
n-Butylbenzene	12,000	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
n-Propylbenzene	3,900	100,000	< 4.2	4.2	U	0.76	< 4.4	4.4	U	0.80	< 4.7	4.7	U	0.85
o-Xylene	260	100,000	< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
p-Isopropyltoluene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
sec-Butylbenzene	11,000	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Styrene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Tert-butyl alcohol			< 85	85	U	17	< 89	89	U	18	< 94	94	U	19
tert-Butylbenzene	5,900	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Tetrachloroethene	1,300	19,000	< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
Tetrahydrofuran (THF)			< 8.5	8.5	U	2.1	< 8.9	8.9	U	2.2	< 9.4	9.4	U	2.4
Toluene	700	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
trans-1,2-Dichloroethene	190	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
trans-1,3-Dichloropropene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
trabs-1,4-dichloro-2-butene			< 8.5	8.5	U	2.1	< 8.9	8.9	U	2.2	< 9.4	9.4	U	2.4
Trichloroethene	470	21,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Trichlorofluoromethane			< 4.2	4.2	U	0.85	< 4.4	4.4	U	0.89	< 4.7	4.7	U	0.94
Trichlorotrifluoroethane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Vinyl Chloride	20	900	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 4.7	4.7	U	0.47
Total BTEX Concentration			**0**				**0**				**0**			
Total VOCs Concentration			**5**				**6.2**				**17**			

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

TABLE 3
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B11 11/23/2015 (0-2') µg/Kg				15B11 11/23/2015 (6-8') µg/Kg				15B12 11/23/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,1,1,2-Tetrachlorothane			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
1,1,1-Trichloroethane	680	100,000	< 30	30	U	1.5	< 3.7	3.7	U	0.73	< 18	18	U	0.89
1,1,2,2-Tetrachloroethane			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 270	270	U	54
1,1,2-Trichloroethane			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
1,1-Dichloroethane	270	26,000	< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
1,1-Dichloroethene	330	100,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
1,1-Dichloropropene			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
1,2,3-Trichlorobenzene			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 270	270	U	54
1,2,3-Trichloropropane			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
1,2,4-Trichlorobenzene			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 270	270	U	54
1,2,4-Trimethylbenzene	3,600	52,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
1,2-Dibromo-3-chloropropane			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 270	270	U	54
1,2-Dibromomethane			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
1,2-Dichlorobenzene	1,100	100,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
1,2-Dichloroethane	20	3,100	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
1,2-Dichloropropane			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
1,3,5-Trimethylbenzene	8,400	52,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
1,3-Dichlorobenzene	2,400	4,900	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
1,3-Dichloropropane			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
1,4-Dichlorobenzene	1,800	13,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
1,4-dioxane			< 100	100	U	60	< 73	73	U	29	< 89	89	U	36
2,2-Dichloropropane			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
2-Chlorotoluene			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 270	270	U	54
2-Hexanone (Methyl Butyl Ketone)			< 37	37	U	7.5	< 18	18	U	3.7	< 22	22	U	4.4
2-Isopropyltoluene			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
4-Chlorotoluene			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
4-Methyl-2-Pentanone			< 37	37	U	7.5	< 18	18	U	3.7	< 22	22	U	4.4
Acetone	50	100,000	< 37	37	U	7.5	**19**	37	JS	3.7	**100**	44	S	4.4
Acrolein			< 30	30	U	3.7	< 15	15	U	1.8	< 18	18	U	2.2
Acrylonitrile			< 15	15	U	1.5	< 7.3	7.3	U	0.73	< 8.9	8.9	U	0.89
Benzene	60	4,800	**0.79**	7.5	J	0.75	< 3.7	3.7	U	0.37	**61**	60		27
Bromobenzene			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
Bromochloromethane			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
Bromodichloromethane			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
Bromoform			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
Bromomethane			< 7.5	7.5	U	3.0	< 3.7	3.7	U	1.5	< 4.4	4.4	U	1.8
Carbon Disulfide			**2.8**	7.5	J	1.5	< 3.7	3.7	U	0.73	**2.3**	4.4	J	0.89
Carbon tetrachloride	760	2,400	< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
Chlorobenzene	1,100	100,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
Chloroethane			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
Chloroform	370	49,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
Chloromethane			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
cis-1,2-Dichloroethene	250	100,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
cis-1,3-Dichloropropene			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
Dibromochloromethane			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
Dibromomethane			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
Dichlorodifluoromethane			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
Ethylbenzene	1,000	41,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
Hexachlorobutadiene			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
Isopropylbenzene			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
m&p-Xylenes	260	100,000	< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 45	45	U	7.5	< 22	22	U	3.7	< 27	27	U	4.4
Methyl t-butyl ether (MTBE)	930	100,000	< 15	15	U	1.5	< 7.3	7.3	U	0.73	< 8.9	8.9	U	0.89
Methylene chloride	50	100,000	< 7.5	7.5	U	7.5	< 3.7	3.7	U	3.7	< 4.4	4.4	U	4.4
Naphthalene	12,000	100,000	< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 270	270	U	54
n-Butylbenzene	12,000	100,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
n-Propylbenzene	3,900	100,000	< 7.5	7.5	U	1.3	< 3.7	3.7	U	0.66	< 270	270	U	49
o-Xylene	260	100,000	< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
p-Isopropyltoluene			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
sec-Butylbenzene	11,000	100,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
Styrene			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
Tert-butyl alcohol			< 150	150	U	30	< 73	73	U	15	< 89	89	U	18
tert-Butylbenzene	5,900	100,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 270	270	U	27
Tetrachloroethene	1,300	19,000	< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
Tetrahydrofuran (THF)			< 15	15	U	3.7	< 7.3	7.3	U	1.8	< 8.9	8.9	U	2.2
Toluene	700	100,000	**1.3**	7.5	J	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
trans-1,2-Dichloroethene	190	100,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
trans-1,3-Dichloropropene			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
trabs-1,4-dichloro-2-butene			< 15	15	U	3.7	< 7.3	7.3	U	1.8	< 540	540	U	140
Trichloroethene	470	21,000	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
Trichlorofluoromethane			< 7.5	7.5	U	1.5	< 3.7	3.7	U	0.73	< 4.4	4.4	U	0.89
Trichlorotrifluoroethane			< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
Vinyl Chloride	20	900	< 7.5	7.5	U	0.75	< 3.7	3.7	U	0.37	< 4.4	4.4	U	0.44
Total BTEX Concentration			**2.09**				**0**				**61**			
Total VOCs Concentration			**4.89**				**19**				**163.3**			

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

TABLE 3
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B13 11/20/2015 (0-2') µg/Kg				15B13 11/20/2015 (6-8') µg/Kg				15B14 11/20/2015 (5-7') µg/Kg				15B15 11/20/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,1,1,2-Tetrachlorothane			< 5.9	5.9	U	1.2	< 20	20	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
1,1,1-Trichloroethane	680	100,000	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
1,1,2,2-Tetrachloroethane			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
1,1,2-Trichloroethane			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
1,1-Dichloroethane	270	26,000	< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
1,1-Dichloroethene	330	100,000	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
1,1-Dichloropropene			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
1,2,3-Trichlorobenzene			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
1,2,3-Trichloropropane			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
1,2,4-Trichlorobenzene			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
1,2,4-Trimethylbenzene	3,600	52,000	**85**	410	J	41	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
1,2-Dibromo-3-chloropropane			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
1,2-Dibromomethane			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
1,2-Dichlorobenzene	1,100	100,000	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
1,2-Dichloroethane	20	3,100	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
1,2-Dichloropropane			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
1,3,5-Trimethylbenzene	8,400	52,000	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
1,3-Dichlorobenzene	2,400	4,900	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
1,3-Dichloropropane			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
1,4-Dichlorobenzene	1,800	13,000	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
1,4-dioxane			< 100	100	U	48	< 100	100	U	40	< 100	100	U	62	< 93	93	U	37
2,2-Dichloropropane			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
2-Chlorotoluene			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
2-Hexanone (Methyl Butyl Ketone)			< 30	30	U	5.9	< 25	25	U	5.1	< 39	39	U	7.7	< 23	23	U	4.6
2-Isopropyltoluene			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
4-Chlorotoluene			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
4-Methyl-2-Pentanone			< 30	30	U	5.9	< 25	25	U	5.1	< 39	39	U	7.7	< 23	23	U	4.6
Acetone	50	100,000	**34**	50	JS	5.9	< 50	50	U	5.1	< 50	50	U	7.7	**18**	46	JS	4.6
Acrolein			< 24	24	U	3.0	< 20	20	U	2.5	< 31	31	U	3.9	< 19	19	U	2.3
Acrylonitrile			< 24	24	U	0.59	< 10	10	U	1.0	< 15	15	U	1.5	< 9.3	9.3	U	0.93
Benzene	60	4,800	**0.73**	5.9	J	0.59	< 5.1	5.1	U	0.51	**4.5**	7.7	J	0.77	< 4.6	4.6	U	0.46
Bromobenzene			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Bromochloromethane			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Bromodichloromethane			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
Bromoform			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
Bromomethane			< 5.9	5.9	U	2.4	< 5.1	5.1	U	2.0	< 7.7	7.7	U	3.1	< 4.6	4.6	U	1.9
Carbon Disulfide			**3.8**	5.9	J	1.2	< 5.1	5.1	U	1.0	**3.7**	7.7	J	1.5	**4**	4.6	J	0.93
Carbon tetrachloride	760	2,400	< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
Chlorobenzene	1,100	100,000	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Chloroethane			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Chloroform	370	49,000	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Chloromethane			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
cis-1,2-Dichloroethene	250	100,000	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
cis-1,3-Dichloropropene			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Dibromochloromethane			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
Dibromomethane			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
Dichlorodifluoromethane			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Ethylbenzene	1,000	41,000	**45**	410	J	41	< 5.1	5.1	U	0.51	**1**	7.7	J	0.77	< 4.6	4.6	U	0.46
Hexachlorobutadiene			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Isopropylbenzene			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
m&p-Xylenes	260	100,000	**210**	410	J	82	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 36	36	U	5.9	< 30	30	U	5.1	< 46	46	U	7.7	< 28	28	U	4.6
Methyl t-butyl ether (MTBE)	930	100,000	< 12	12	U	1.2	< 10	10	U	1.0	< 15	15	U	1.5	< 9.3	9.3	U	0.93
Methylene chloride	50	100,000	< 5.9	5.9	U	5.9	< 5.1	5.1	U	5.1	< 7.7	7.7	U	7.7	< 4.6	4.6	U	4.6
Naphthalene	12,000	100,000	**170**	410	J	82	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
n-Butylbenzene	12,000	100,000	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
n-Propylbenzene	3,900	100,000	< 5.9	5.9	U	1.1	< 5.1	5.1	U	0.91	< 7.7	7.7	U	1.4	< 4.6	4.6	U	0.83
o-Xylene	260	100,000	**150**	410	J	82	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
p-Isopropyltoluene			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
sec-Butylbenzene	11,000	100,000	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Styrene			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Tert-butyl alcohol			< 120	120	U	24	< 100	100	U	20	< 150	150	U	31	< 93	93	U	19
tert-Butylbenzene	5,900	100,000	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Tetrachloroethene	1,300	19,000	< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
Tetrahydrofuran (THF)			< 12	12	U	3.0	< 10	10	U	2.5	< 15	15	U	3.9	< 9.3	9.3	U	2.3
Toluene	700	100,000	**96**	410	J	41	< 5.1	5.1	U	0.51	**2.3**	7.7	J	0.77	< 4.6	4.6	U	0.46
trans-1,2-Dichloroethene	190	100,000	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
trans-1,3-Dichloropropene			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
trabs-1,4-dichloro-2-butene			< 12	12	U	3.0	< 10	10	U	2.5	< 15	15	U	3.9	< 9.3	9.3	U	2.3
Trichloroethene	470	21,000	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Trichlorofluoromethane			< 5.9	5.9	U	1.2	< 5.1	5.1	U	1.0	< 7.7	7.7	U	1.5	< 4.6	4.6	U	0.93
Trichlorotrifluoroethane			< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Vinyl Chloride	20	900	< 5.9	5.9	U	0.59	< 5.1	5.1	U	0.51	< 7.7	7.7	U	0.77	< 4.6	4.6	U	0.46
Total BTEX Concentration			**501.73**				**0**				**7.8**				**0**			
Total VOCs Concentration			**794.53**				**0**				**11.5**				**22**			

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

TABLE 3
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B17 11/20/2015 (6-8') µg/Kg				15B18 11/20/2015 (0-2') µg/Kg				15B18 11/20/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,1,1,2-Tetrachlorothane			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
1,1,1-Trichloroethane	680	100,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
1,1,2,2-Tetrachloroethane			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
1,1,2-Trichloroethane			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
1,1-Dichloroethane	270	26,000	< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
1,1-Dichloroethene	330	100,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
1,1-Dichloropropene			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
1,2,3-Trichlorobenzene			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
1,2,3-Trichloropropane			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
1,2,4-Trichlorobenzene			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
1,2,4-Trimethylbenzene	3,600	52,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
1,2-Dibromo-3-chloropropane			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
1,2-Dibromomethane			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
1,2-Dichlorobenzene	1,100	100,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
1,2-Dichloroethane	20	3,100	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
1,2-Dichloropropane			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
1,3,5-Trimethylbenzene	8,400	52,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
1,3-Dichlorobenzene	2,400	4,900	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
1,3-Dichloropropane			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
1,4-Dichlorobenzene	1,800	13,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
1,4-dioxane			< 100	100	U	47	< 69	69	U	28	< 82	82	U	33
2,2-Dichloropropane			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
2-Chlorotoluene			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
2-Hexanone (Methyl Butyl Ketone)			< 29	29	U	5.8	< 17	17	U	3.5	< 20	20	U	4.1
2-Isopropyltoluene			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
4-Chlorotoluene			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
4-Methyl-2-Pentanone			< 29	29	U	5.8	< 17	17	U	3.5	< 20	20	U	4.1
Acetone	50	100,000	< 50	50	U	5.8	**6.1**	35	JS	3.5	< 41	41	U	4.1
Acrolein			< 23	23	U	2.9	< 14	14	U	1.7	< 16	16	U	2.0
Acrylonitrile			< 12	12	U	1.2	< 6.9	6.9	U	0.69	< 8.2	8.2	U	0.82
Benzene	60	4,800	< 5.8	5.8	U	0.58	**1.3**	3.5	J	0.35	< 4.1	4.1	U	0.41
Bromobenzene			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Bromochloromethane			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Bromodichloromethane			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
Bromoform			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
Bromomethane			< 5.8	5.8	U	2.3	< 3.5	3.5	U	1.4	< 4.1	4.1	U	1.6
Carbon Disulfide			**1.2**	5.8	J	1.2	**1.3**	3.5	J	0.69	< 4.1	4.1	U	0.82
Carbon tetrachloride	760	2,400	< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
Chlorobenzene	1,100	100,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Chloroethane			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Chloroform	370	49,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Chloromethane			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
cis-1,2-Dichloroethene	250	100,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
cis-1,3-Dichloropropene			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Dibromochloromethane			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
Dibromomethane			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
Dichlorodifluoromethane			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Ethylbenzene	1,000	41,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Hexachlorobutadiene			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Isopropylbenzene			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
m&p-Xylenes	260	100,000	< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 35	35	U	5.8	< 21	21	U	3.5	< 25	25	U	4.1
Methyl t-butyl ether (MTBE)	930	100,000	< 12	12	U	1.2	< 6.9	6.9	U	0.69	< 8.2	8.2	U	0.82
Methylene chloride	50	100,000	< 5.8	5.8	U	5.8	< 3.5	3.5	U	3.5	< 4.1	4.1	U	4.1
Naphthalene	12,000	100,000	< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
n-Butylbenzene	12,000	100,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
n-Propylbenzene	3,900	100,000	< 5.8	5.8	U	1.1	< 3.5	3.5	U	0.62	< 4.1	4.1	U	0.74
o-Xylene	260	100,000	< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
p-Isopropyltoluene			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
sec-Butylbenzene	11,000	100,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Styrene			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Tert-butyl alcohol			< 120	120	U	23	< 69	69	U	14	< 82	82	U	16
tert-Butylbenzene	5,900	100,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Tetrachloroethene	1,300	19,000	< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
Tetrahydrofuran (THF)			< 12	12	U	2.9	< 6.9	6.9	U	1.7	< 8.2	8.2	U	2.0
Toluene	700	100,000	< 5.8	5.8	U	0.58	**0.65**	3.5	J	0.35	< 4.1	4.1	U	0.41
trans-1,2-Dichloroethene	190	100,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
trans-1,3-Dichloropropene			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
trabs-1,4-dichloro-2-butene			< 12	12	U	2.9	< 6.9	6.9	U	1.7	< 8.2	8.2	U	2.0
Trichloroethene	470	21,000	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Trichlorofluoromethane			< 5.8	5.8	U	1.2	< 3.5	3.5	U	0.69	< 4.1	4.1	U	0.82
Trichlorotrifluoroethane			< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Vinyl Chloride	20	900	< 5.8	5.8	U	0.58	< 3.5	3.5	U	0.35	< 4.1	4.1	U	0.41
Total BTEX Concentration			**0**				**1.95**				**0**			
Total VOCs Concentration			**1.2**				**9.35**				**0**			

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

TABLE 3
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B19 11/20/2015 (0-2') µg/Kg				15B19 11/20/2015 (6-8') µg/Kg				15B20 11/20/2015 (8-10') µg/Kg				15B21 11/20/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,1,1,2-Tetrachlorothane			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 30	30	U	1.5
1,1,1-Trichloroethane	680	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
1,1,2,2-Tetrachloroethane			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
1,1,2-Trichloroethane			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
1,1-Dichloroethane	270	26,000	< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
1,1-Dichloroethene	330	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
1,1-Dichloropropene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
1,2,3-Trichlorobenzene			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
1,2,3-Trichloropropane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
1,2,4-Trichlorobenzene			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
1,2,4-Trimethylbenzene	3,600	52,000	**3.7**	4.2	J	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
1,2-Dibromo-3-chloropropane			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
1,2-Dibromomethane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
1,2-Dichlorobenzene	1,100	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
1,2-Dichloroethane	20	3,100	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
1,2-Dichloropropane			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
1,3,5-Trimethylbenzene	8,400	52,000	**1.7**	4.2	J	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
1,3-Dichlorobenzene	2,400	4,900	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
1,3-Dichloropropane			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
1,4-Dichlorobenzene	1,800	13,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
1,4-dioxane			< 84	84	U	34	< 88	88	U	35	< 70	70	U	28	< 100	100	U	59
2,2-Dichloropropane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
2-Chlorotoluene			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
2-Hexanone (Methyl Butyl Ketone)			< 21	21	U	4.2	< 22	22	U	4.4	< 17	17	U	3.5	< 37	37	U	7.4
2-Isopropyltoluene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
4-Chlorotoluene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
4-Methyl-2-Pentanone			< 21	21	U	4.2	< 22	22	U	4.4	< 17	17	U	3.5	< 37	37	U	7.4
Acetone	50	100,000	**6.8**	42	JS	4.2	< 44	44	U	4.4	**10**	35	JS	3.5	**72**	74	JS	7.4
Acrolein			< 17	17	U	2.1	< 18	18	U	2.2	< 14	14	U	1.7	< 30	30	U	3.7
Acrylonitrile			< 8.4	8.4	U	0.84	< 8.8	8.8	U	0.88	< 7.0	7.0	U	0.70	< 30	30	U	0.74
Benzene	60	4,800	**0.5**	4.2	J	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Bromobenzene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Bromochloromethane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Bromodichloromethane			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
Bromoform			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
Bromomethane			< 4.2	4.2	U	1.7	< 4.4	4.4	U	1.8	< 3.5	3.5	U	1.4	< 7.4	7.4	U	3.0
Carbon Disulfide			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	**5.4**	3.5		0.70	**9.3**	7.4		1.5
Carbon tetrachloride	760	2,400	< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
Chlorobenzene	1,100	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Chloroethane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Chloroform	370	49,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Chloromethane			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
cis-1,2-Dichloroethene	250	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
cis-1,3-Dichloropropene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Dibromochloromethane			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
Dibromomethane			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
Dichlorodifluoromethane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Ethylbenzene	1,000	41,000	**0.61**	4.2	J	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Hexachlorobutadiene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Isopropylbenzene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
m&p-Xylenes	260	100,000	**2.2**	4.2	J	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 25	25	U	4.2	< 26	26	U	4.4	< 21	21	U	3.5	**21**	45	J	7.4
Methyl t-butyl ether (MTBE)	930	100,000	< 8.4	8.4	U	0.84	< 8.8	8.8	U	0.88	< 7.0	7.0	U	0.70	**1.9**	15	J	1.5
Methylene chloride	50	100,000	< 4.2	4.2	U	4.2	< 4.4	4.4	U	4.4	< 3.5	3.5	U	3.5	< 7.4	7.4	U	7.4
Naphthalene	12,000	100,000	**2**	4.2	J	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
n-Butylbenzene	12,000	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
n-Propylbenzene	3,900	100,000	< 4.2	4.2	U	0.76	< 4.4	4.4	U	0.79	< 3.5	3.5	U	0.63	< 7.4	7.4	U	1.3
o-Xylene	260	100,000	**1.2**	4.2	J	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
p-Isopropyltoluene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
sec-Butylbenzene	11,000	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Styrene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Tert-butyl alcohol			< 84	84	U	17	< 88	88	U	18	< 70	70	U	14	< 150	150	U	30
tert-Butylbenzene	5,900	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Tetrachloroethene	1,300	19,000	< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
Tetrahydrofuran (THF)			< 8.4	8.4	U	2.1	< 8.8	8.8	U	2.2	< 7.0	7.0	U	1.7	< 15	15	U	3.7
Toluene	700	100,000	**1.1**	4.2	J	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
trans-1,2-Dichloroethene	190	100,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
trans-1,3-Dichloropropene			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
trabs-1,4-dichloro-2-butene			< 8.4	8.4	U	2.1	< 8.8	8.8	U	2.2	< 7.0	7.0	U	1.7	< 15	15	U	3.7
Trichloroethene	470	21,000	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Trichlorofluoromethane			< 4.2	4.2	U	0.84	< 4.4	4.4	U	0.88	< 3.5	3.5	U	0.70	< 7.4	7.4	U	1.5
Trichlorotrifluoroethane			< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Vinyl Chloride	20	900	< 4.2	4.2	U	0.42	< 4.4	4.4	U	0.44	< 3.5	3.5	U	0.35	< 7.4	7.4	U	0.74
Total BTEX Concentration			**5.61**				**0**				**0**				**0**			
Total VOCs Concentration			**19.81**				**0**				**15.4**				**104.2**			

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

TABLE 3
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B22 11/20/2015 (0-2') µg/Kg				15B22 11/20/2015 (6-8') µg/Kg				15B23 11/20/2015 (2-4') µg/Kg				15B23 11/20/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,1,1,2-Tetrachlorothane			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
1,1,1-Trichloroethane	680	100,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
1,1,2,2-Tetrachloroethane			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
1,1,2-Trichloroethane			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
1,1-Dichloroethane	270	26,000	< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
1,1-Dichloroethene	330	100,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
1,1-Dichloropropene			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
1,2,3-Trichlorobenzene			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
1,2,3-Trichloropropane			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
1,2,4-Trichlorobenzene			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
1,2,4-Trimethylbenzene	3,600	52,000	< 5.0	5.0	U	0.50	**34**	330	J	33	< 230	230	U	23	< 7.3	7.3	U	0.73
1,2-Dibromo-3-chloropropane			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
1,2-Dibromomethane			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
1,2-Dichlorobenzene	1,100	100,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
1,2-Dichloroethane	20	3,100	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 20	20	U	20	< 7.3	7.3	U	0.73
1,2-Dichloropropane			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
1,3,5-Trimethylbenzene	8,400	52,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
1,3-Dichlorobenzene	2,400	4,900	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
1,3-Dichloropropane			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
1,4-Dichlorobenzene	1,800	13,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
1,4-dioxane			< 100	100	U	40	< 100	100	U	51	< 1800	1,800	U	1800	< 100	100	U	58
2,2-Dichloropropane			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
2-Chlorotoluene			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
2-Hexanone (Methyl Butyl Ketone)			< 25	25	U	5.0	< 32	32	U	6.3	< 1100	1,100	U	230	< 36	36	U	7.3
2-Isopropyltoluene			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
4-Chlorotoluene			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
4-Methyl-2-Pentanone			< 25	25	U	5.0	< 32	32	U	6.3	< 1100	1,100	U	230	< 36	36	U	7.3
Acetone	50	100,000	**19**	50	JS	5.0	**1,500**	3,300	JS	330	**510**	2,300	JS	230	**23**	50	JS	7.3
Acrolein			< 20	20	U	2.5	< 25	25	U	3.2	< 910	910	U	110	< 29	29	U	3.6
Acrylonitrile			< 20	20	U	0.50	< 13	13	U	1.3	< 450	450	U	45	< 15	15	U	1.5
Benzene	60	4,800	**0.94**	5.0	J	0.50	< 6.3	6.3	U	0.63	**29**	59	J	23	< 7.3	7.3	U	0.73
Bromobenzene			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
Bromochloromethane			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
Bromodichloromethane			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
Bromoform			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
Bromomethane			< 5.0	5.0	U	2.0	< 6.3	6.3	U	2.5	< 230	230	U	91	< 7.3	7.3	U	2.9
Carbon Disulfide			< 5.0	5.0	U	1.0	**180**	330	J	65	< 230	230	U	45	**6.2**	7.3	J	1.5
Carbon tetrachloride	760	2,400	< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
Chlorobenzene	1,100	100,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
Chloroethane			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
Chloroform	370	49,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
Chloromethane			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	**120**	230	J	45	< 7.3	7.3	U	1.5
cis-1,2-Dichloroethene	250	100,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
cis-1,3-Dichloropropene			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
Dibromochloromethane			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
Dibromomethane			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
Dichlorodifluoromethane			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
Ethylbenzene	1,000	41,000	< 5.0	5.0	U	0.50	**45**	330	J	33	**67**	230	J	23	< 7.3	7.3	U	0.73
Hexachlorobutadiene			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
Isopropylbenzene			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
m&p-Xylenes	260	100,000	< 5.0	5.0	U	1.0	**89**	330	J	65	**58**	230	J	45	< 7.3	7.3	U	1.5
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 30	30	U	5.0	< 38	38	U	6.3	< 230	230	U	230	< 44	44	U	7.3
Methyl t-butyl ether (MTBE)	930	100,000	< 10	10	U	1.0	< 13	13	U	1.3	< 450	450	U	45	< 15	15	U	1.5
Methylene chloride	50	100,000	< 5.0	5.0	U	5.0	< 6.3	6.3	U	6.3	< 230	230	U	230	< 7.3	7.3	U	7.3
Naphthalene	12,000	100,000	< 5.0	5.0	U	1.0	**400**	330		65	< 230	230	U	45	< 7.3	7.3	U	1.5
n-Butylbenzene	12,000	100,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	**29**	230	J	23	< 7.3	7.3	U	0.73
n-Propylbenzene	3,900	100,000	< 5.0	5.0	U	0.90	< 6.3	6.3	U	1.1	< 230	230	U	41	< 7.3	7.3	U	1.3
o-Xylene	260	100,000	< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
p-Isopropyltoluene			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
sec-Butylbenzene	11,000	100,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
Styrene			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
Tert-butyl alcohol			< 100	100	U	20	< 130	130	U	25	< 4500	4,500	U	910	< 150	150	U	29
tert-Butylbenzene	5,900	100,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
Tetrachloroethene	1,300	19,000	< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
Tetrahydrofuran (THF)			< 10	10	U	2.5	< 13	13	U	3.2	< 450	450	U	110	< 15	15	U	3.6
Toluene	700	100,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	**60**	230	J	23	< 7.3	7.3	U	0.73
trans-1,2-Dichloroethene	190	100,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 190	190	U	23	< 7.3	7.3	U	0.73
trans-1,3-Dichloropropene			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
trabs-1,4-dichloro-2-butene			< 10	10	U	2.5	< 13	13	U	3.2	< 450	450	U	110	< 15	15	U	3.6
Trichloroethene	470	21,000	< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
Trichlorofluoromethane			< 5.0	5.0	U	1.0	< 6.3	6.3	U	1.3	< 230	230	U	45	< 7.3	7.3	U	1.5
Trichlorotrifluoroethane			< 5.0	5.0	U	0.50	< 6.3	6.3	U	0.63	< 230	230	U	23	< 7.3	7.3	U	0.73
Vinyl Chloride	20	900	< 5.0	5.0	U	0.50	**0.69**	6.3	J	0.63	< 20	20	U	20	< 7.3	7.3	U	0.73
Total BTEX Concentration			**0.94**				**134**				**214**				**0**			
Total VOCs Concentration			**19.94**				**2248.69**				**873**				**29.2**			

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

TABLE 3
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	Duplicate 11/20/2015 µg/Kg				Duplicate 11/23/2015 µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,1,1,2-Tetrachlorothane			< 9.7	9.7	U	1.9	< 340	340	U	34
1,1,1-Trichloroethane	680	100,000	< 9.7	9.7	U	0.97	< 340	340	U	69
1,1,2,2-Tetrachloroethane			< 9.7	9.7	U	1.9	< 340	340	U	69
1,1,2-Trichloroethane			< 9.7	9.7	U	1.9	< 340	340	U	69
1,1-Dichloroethane	270	26,000	< 9.7	9.7	U	1.9	< 250	250	U	69
1,1-Dichloroethene	330	100,000	< 9.7	9.7	U	0.97	< 330	330	U	34
1,1-Dichloropropene			< 9.7	9.7	U	0.97	< 340	340	U	34
1,2,3-Trichlorobenzene			< 9.7	9.7	U	1.9	< 340	340	U	69
1,2,3-Trichloropropane			< 9.7	9.7	U	0.97	< 340	340	U	34
1,2,4-Trichlorobenzene			< 9.7	9.7	U	1.9	< 340	340	U	69
1,2,4-Trimethylbenzene	3,600	52,000	< 9.7	9.7	U	0.97	< 340	340	U	34
1,2-Dibromo-3-chloropropane			< 9.7	9.7	U	1.9	< 340	340	U	69
1,2-Dibromomethane			< 9.7	9.7	U	0.97	< 340	340	U	34
1,2-Dichlorobenzene	1,100	100,000	< 9.7	9.7	U	0.97	< 340	340	U	34
1,2-Dichloroethane	20	3,100	< 9.7	9.7	U	0.97	< 340	340	U	34
1,2-Dichloropropane			< 9.7	9.7	U	1.9	< 340	340	U	69
1,3,5-Trimethylbenzene	8,400	52,000	**1.6**	9.7	J	0.97	< 340	340	U	34
1,3-Dichlorobenzene	2,400	4,900	< 9.7	9.7	U	0.97	< 340	340	U	34
1,3-Dichloropropane			< 9.7	9.7	U	1.9	< 340	340	U	69
1,4-Dichlorobenzene	1,800	13,000	< 9.7	9.7	U	0.97	< 340	340	U	34
1,4-dioxane			< 100	100	U	77	< 6900	6,900	U	2800
2,2-Dichloropropane			< 9.7	9.7	U	0.97	< 340	340	U	34
2-Chlorotoluene			< 9.7	9.7	U	1.9	< 340	340	U	69
2-Hexanone (Methyl Butyl Ketone)			< 48	48	U	9.7	< 1700	1,700	U	340
2-Isopropyltoluene			< 9.7	9.7	U	0.97	< 340	340	U	34
4-Chlorotoluene			< 9.7	9.7	U	0.97	< 340	340	U	34
4-Methyl-2-Pentanone			< 48	48	U	9.7	< 1700	1,700	U	340
Acetone	50	100,000	**18**	50	JS	9.7	< 340	340	U	340
Acrolein			< 39	39	U	4.8	< 1400	1,400	U	170
Acrylonitrile			< 39	39	U	0.97	< 690	690	U	69
Benzene	60	4,800	< 9.7	9.7	U	0.97	**57**	60	J	34
Bromobenzene			< 9.7	9.7	U	0.97	< 340	340	U	34
Bromochloromethane			< 9.7	9.7	U	0.97	< 340	340	U	34
Bromodichloromethane			< 9.7	9.7	U	1.9	< 340	340	U	69
Bromoform			< 9.7	9.7	U	1.9	< 340	340	U	69
Bromomethane			< 9.7	9.7	U	3.9	< 340	340	U	140
Carbon Disulfide			**3.3**	9.7	J	1.9	< 340	340	U	69
Carbon tetrachloride	760	2,400	< 9.7	9.7	U	1.9	< 340	340	U	69
Chlorobenzene	1,100	100,000	< 9.7	9.7	U	0.97	< 340	340	U	34
Chloroethane			< 9.7	9.7	U	0.97	< 340	340	U	34
Chloroform	370	49,000	< 9.7	9.7	U	0.97	< 340	340	U	34
Chloromethane			< 9.7	9.7	U	1.9	< 340	340	U	69
cis-1,2-Dichloroethene	250	100,000	< 9.7	9.7	U	0.97	< 250	250	U	34
cis-1,3-Dichloropropene			< 9.7	9.7	U	0.97	< 340	340	U	34
Dibromochloromethane			< 9.7	9.7	U	1.9	< 340	340	U	69
Dibromomethane			< 9.7	9.7	U	1.9	< 340	340	U	69
Dichlorodifluoromethane			< 9.7	9.7	U	0.97	< 340	340	U	34
Ethylbenzene	1,000	41,000	< 9.7	9.7	U	0.97	**44**	340	J	34
Hexachlorobutadiene			< 9.7	9.7	U	0.97	< 340	340	U	34
Isopropylbenzene			< 9.7	9.7	U	0.97	< 340	340	U	34
m&p-Xylenes	260	100,000	< 9.7	9.7	U	1.9	**73**	340	J	69
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 58	58	U	9.7	< 340	340	U	340
Methyl t-butyl ether (MTBE)	930	100,000	< 19	19	U	1.9	< 690	690	U	69
Methylene chloride	50	100,000	< 9.7	9.7	U	9.7	< 340	340	U	340
Naphthalene	12,000	100,000	< 9.7	9.7	U	1.9	**160**	340	J	69
n-Butylbenzene	12,000	100,000	< 9.7	9.7	U	0.97	< 340	340	U	34
n-Propylbenzene	3,900	100,000	< 9.7	9.7	U	1.7	< 340	340	U	62
o-Xylene	260	100,000	< 9.7	9.7	U	1.9	< 340	340	U	69
p-Isopropyltoluene			< 9.7	9.7	U	0.97	< 340	340	U	34
sec-Butylbenzene	11,000	100,000	< 9.7	9.7	U	0.97	< 340	340	U	34
Styrene			< 9.7	9.7	U	0.97	< 340	340	U	34
Tert-butyl alcohol			< 190	190	U	39	< 6900	6,900	U	1400
tert-Butylbenzene	5,900	100,000	< 9.7	9.7	U	0.97	< 340	340	U	34
Tetrachloroethene	1,300	19,000	< 9.7	9.7	U	1.9	< 340	340	U	69
Tetrahydrofuran (THF)			< 19	19	U	4.8	< 690	690	U	170
Toluene	700	100,000	< 9.7	9.7	U	0.97	**75**	340	J	34
trans-1,2-Dichloroethene	190	100,000	< 9.7	9.7	U	0.97	< 150	150	U	34
trans-1,3-Dichloropropene			< 9.7	9.7	U	0.97	< 340	340	U	34
trabs-1,4-dichloro-2-butene			< 19	19	U	4.8	< 690	690	U	170
Trichloroethene	470	21,000	< 9.7	9.7	U	0.97	< 340	340	U	34
Trichlorofluoromethane			< 9.7	9.7	U	1.9	< 340	340	U	69
Trichlorotrifluoroethane			< 9.7	9.7	U	0.97	< 340	340	U	34
Vinyl Chloride	20	900	< 9.7	9.7	U	0.97	< 340	340	U	34
Total BTEX Concentration			0				249			
Total VOCs Concentration			22.9				409			

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

TABLE 4
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B1 11/24/2015 (0-2') µg/Kg				15B1 11/24/2015 (5-7') µg/Kg				15B2 11/24/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,2,4,5-Tetrachlorobenzene			< 260	260	U	130	< 280	280	U	140	< 320	320	U	160
1,2,4-Trichlorobenzene			< 260	260	U	110	< 280	280	U	120	< 320	320	U	140
1,2-Dichlorobenzene			< 260	260	U	110	< 280	280	U	110	< 320	320	U	130
1,2-Diphenylhydrazine			< 260	260	U	120	< 280	280	U	130	< 320	320	U	150
1,3-Dichlorobenzene			< 260	260	U	110	< 280	280	U	120	< 320	320	U	130
1,4-Dichlorobenzene			< 260	260	U	110	< 280	280	U	120	< 320	320	U	130
2,4,5-Trichlorophenol			< 260	260	U	210	< 280	280	U	220	< 320	320	U	250
2,4,6-Trichlorophenol			< 260	260	U	120	< 280	280	U	130	< 320	320	U	140
2,4-Dichlorophenol			< 260	260	U	130	< 280	280	U	140	< 320	320	U	160
2,4-Dimethylphenol			< 260	260	U	94	< 280	280	U	98	< 320	320	U	110
2,4-Dinitrophenol			< 760	760	U	260	< 790	790	U	280	< 900	900	U	320
2,4-Dinitrotoluene			< 260	260	U	150	< 280	280	U	160	< 320	320	U	180
2,6-Dinitrotoluene			< 260	260	U	120	< 280	280	U	120	< 320	320	U	140
2-Chloronaphthalene			< 260	260	U	110	< 280	280	U	110	< 320	320	U	130
2-Chlorophenol			< 260	260	U	110	< 280	280	U	110	< 320	320	U	130
2-Methylnaphthalene			**1,900**	260		110	< 280	280	U	120	< 320	320	U	130
2-Methylphenol (o-cresol)	330	100,000	< 260	260	U	180	< 280	280	U	190	< 320	320	U	210
2-Nitroaniline			< 760	760	U	380	< 790	790	U	400	< 900	900	U	460
2-Nitrophenol			< 260	260	U	240	< 280	280	U	250	< 320	320	U	290
3&4-Methylphenol (m&p-cresol)	330	100,000	< 260	260	U	150	< 280	280	U	160	< 320	320	U	180
3,3'-Dichlorobenzidine			< 760	760	U	180	< 790	790	U	190	< 900	900	U	210
3-Nitroaniline			< 760	760	U	760	< 790	790	U	790	< 900	900	U	900
4,6-Dinitro-2-methylphenol			< 1900	1,900	U	410	< 2000	2,000	U	420	< 2300	2,300	U	490
4-Bromophenyl phenyl ether			< 260	260	U	110	< 280	280	U	120	< 320	320	U	130
4-Chloro-3-methylphenol			< 260	260	U	130	< 280	280	U	140	< 320	320	U	160
4-Chloroaniline			< 300	300	U	180	< 320	320	U	180	< 360	360	U	210
4-Chlorophenyl phenyl ether			< 260	260	U	130	< 280	280	U	130	< 320	320	U	150
4-Nitroaniline			< 760	760	U	130	< 790	790	U	130	< 900	900	U	150
4-Nitrophenol			< 380	380	U	170	< 390	390	U	180	< 450	450	U	200
Acenaphthene	20,000	100,000	**2,200**	260		110	< 280	280	U	120	< 320	320	U	140
Acenaphthylene	100,000	100,000	< 260	260	U	110	< 280	280	U	110	< 320	320	U	130
Acetophenone			< 260	260	U	120	< 280	280	U	120	< 320	320	U	140
Aniline			< 300	300	U	300	< 320	320	U	320	< 360	360	U	360
Anthracene	100,000	100,000	**1,600**	260		120	< 280	280	U	130	< 320	320	U	150
Benz(a)anthracene	1,000	1,000	**630**	260		130	< 280	280	U	130	< 320	320	U	150
Benzidine			< 760	760	U	220	< 790	790	U	230	< 900	900	U	270
Benzo(a)pyrene	1,000	1,000	**300**	260		120	< 280	280	U	130	< 320	320	U	150
Benzo(b)fluoranthene	1,000	1,000	**330**	260		130	< 280	280	U	130	< 320	320	U	150
Benzo(ghi)perylene	100,000	100,000	**800**	260		120	< 280	280	U	130	< 320	320	U	150
Benzo(k)fluoranthene	800	3,900	**180**	260	J	130	< 280	280	U	130	< 320	320	U	150
Benzoic acid			< 1900	1,900	U	760	< 2000	2,000	U	790	< 2300	2,300	U	900
Benzyl butyl phthalate			< 260	260	U	97	< 280	280	U	100	< 320	320	U	120
Bis(2-chloroethoxy)methane			< 260	260	U	100	< 280	280	U	110	< 320	320	U	120
Bis(2-chloroethyl)ether			< 260	260	U	100	< 280	280	U	110	< 320	320	U	120
Bis(2-chloroisopropyl)ether			< 260	260	U	100	< 280	280	U	110	< 320	320	U	130
Bis(2-ethylhexyl)phthalate			< 260	260	U	110	< 280	280	U	110	< 320	320	U	130
Carbazole			< 1900	1,900	U	290	< 2000	2,000	U	300	< 2300	2,300	U	340
Chrysene	1,000	3,900	**710**	260		130	< 280	280	U	130	< 320	320	U	150
Dibenz(a,h)anthracene	330	330	< 260	260	U	120	< 280	280	U	130	< 320	320	U	150
Dibenzofuran	7,000	59,000	**990**	260		110	< 280	280	U	120	< 320	320	U	130
Diethyl phthalate			< 260	260	U	120	< 280	280	U	120	< 320	320	U	140
Dimethylphthalate			< 260	260	U	120	< 280	280	U	120	< 320	320	U	140
Di-n-butylphthalate			< 260	260	U	100	< 280	280	U	100	**130**	320	JB	120
Di-n-octylphthalate			< 260	260	U	97	< 280	280	U	100	< 320	320	U	120
Fluoranthene	100,000	100,000	**3,200**	260		120	< 280	280	U	130	< 320	320	U	150
Fluorene	30,000	100,000	**1,400**	260		120	< 280	280	U	130	< 320	320	U	150
Hexachlorobenzene			< 260	260	U	110	< 280	280	U	120	< 320	320	U	130
Hexachlorobutadiene			< 260	260	U	140	< 280	280	U	140	< 320	320	U	160
Hexachlorocyclopentadiene			< 260	260	U	120	< 280	280	U	120	< 320	320	U	140
Hexachloroethane			< 260	260	U	110	< 280	280	U	120	< 320	320	U	140
Indeno(1,2,3-cd)pyrene	500	500	**680**	260		130	< 280	280	U	130	< 320	320	U	150
Isophorone			< 260	260	U	110	< 280	280	U	110	< 320	320	U	130
Naphthalene	12,000	100,000	< 260	260	U	110	< 280	280	U	110	< 320	320	U	130
Nitrobenzene			< 260	260	U	130	< 280	280	U	140	< 320	320	U	160
N-Nitrosodimethylamine			< 260	260	U	110	< 280	280	U	110	< 320	320	U	130
N-Nitrosodi-n-propylamine			< 260	260	U	120	< 280	280	U	130	< 320	320	U	150
N-Nitrosodiphenylamine			< 260	260	U	140	< 280	280	U	150	< 320	320	U	170
Pentachloronitrobenzene			< 260	260	U	140	< 280	280	U	150	< 320	320	U	170
Pentachlorophenol	800	6,700	< 260	260	U	140	< 280	280	U	150	< 320	320	U	170
Phenanthrene	100,000	100,000	**5,400**	260		110	< 280	280	U	110	< 320	320	U	130
Phenol	330	100,000	< 260	260	U	120	< 280	280	U	130	< 320	320	U	140
Pyrene	100,000	100,000	**2,800**	260		130	< 280	280	U	140	< 320	320	U	160
Pyridine			< 260	260	U	93	< 280	280	U	97	< 320	320	U	110

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

RL - Laboratory Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 4
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B3											
			11/24/2015											
			(0-2') µg/Kg				(5-7') µg/Kg				(13-15') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,2,4,5-Tetrachlorobenzene			< 250	250	U	130	< 280	280	U	140	< 260	260	U	130
1,2,4-Trichlorobenzene			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110
1,2-Dichlorobenzene			< 250	250	U	100	< 280	280	U	110	< 260	260	U	100
1,2-Diphenylhydrazine			< 250	250	U	120	< 280	280	U	130	< 260	260	U	120
1,3-Dichlorobenzene			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110
1,4-Dichlorobenzene			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110
2,4,5-Trichlorophenol			< 250	250	U	200	< 280	280	U	220	< 260	260	U	200
2,4,6-Trichlorophenol			< 250	250	U	110	< 280	280	U	130	< 260	260	U	120
2,4-Dichlorophenol			< 250	250	U	130	< 280	280	U	140	< 260	260	U	130
2,4-Dimethylphenol			< 250	250	U	89	< 280	280	U	98	< 260	260	U	91
2,4-Dinitrophenol			< 720	720	U	250	< 790	790	U	280	< 740	740	U	260
2,4-Dinitrotoluene			< 250	250	U	140	< 280	280	U	160	< 260	260	U	140
2,6-Dinitrotoluene			< 250	250	U	110	< 280	280	U	130	< 260	260	U	120
2-Chloronaphthalene			< 250	250	U	100	< 280	280	U	110	< 260	260	U	100
2-Chlorophenol			< 250	250	U	100	< 280	280	U	110	< 260	260	U	100
2-Methylnaphthalene			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110
2-Methylphenol (o-cresol)	330	100,000	< 250	250	U	170	< 280	280	U	190	< 260	260	U	170
2-Nitroaniline			< 720	720	U	360	< 790	790	U	400	< 740	740	U	370
2-Nitrophenol			< 250	250	U	230	< 280	280	U	250	< 260	260	U	230
3&4-Methylphenol (m&p-cresol)	330	100,000	< 250	250	U	140	< 280	280	U	160	< 260	260	U	140
3,3'-Dichlorobenzidine			< 720	720	U	170	< 790	790	U	190	< 740	740	U	170
3-Nitroaniline			< 720	720	U	720	< 790	790	U	790	< 740	740	U	740
4,6-Dinitro-2-methylphenol			< 1800	1,800	U	380	< 2000	2,000	U	430	< 1800	1,800	U	400
4-Bromophenyl phenyl ether			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110
4-Chloro-3-methylphenol			< 250	250	U	130	< 280	280	U	140	< 260	260	U	130
4-Chloroaniline			< 290	290	U	170	< 320	320	U	180	< 290	290	U	170
4-Chlorophenyl phenyl ether			< 250	250	U	120	< 280	280	U	130	< 260	260	U	120
4-Nitroaniline			< 720	720	U	120	< 790	790	U	130	< 740	740	U	120
4-Nitrophenol			< 360	360	U	160	< 400	400	U	180	< 370	370	U	170
Acenaphthene	20,000	100,000	< 250	250	U	110	< 280	280	U	120	< 260	260	U	110
Acenaphthylene	100,000	100,000	< 250	250	U	100	< 280	280	U	110	< 260	260	U	100
Acetophenone			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110
Aniline			< 290	290	U	290	< 320	320	U	320	< 290	290	U	290
Anthracene	100,000	100,000	**220**	250	J	120	< 280	280	U	130	< 260	260	U	120
Benz(a)anthracene	1,000	1,000	**480**	250		120	< 280	280	U	130	< 260	260	U	120
Benzidine			< 720	720	U	210	< 790	790	U	230	< 740	740	U	220
Benzo(a)pyrene	1,000	1,000	**400**	250		120	< 280	280	U	130	< 260	260	U	120
Benzo(b)fluoranthene	1,000	1,000	**330**	250		120	< 280	280	U	140	< 260	260	U	130
Benzo(ghi)perylene	100,000	100,000	**220**	250	J	120	< 280	280	U	130	< 260	260	U	120
Benzo(k)fluoranthene	800	3,900	**330**	250		120	< 280	280	U	130	< 260	260	U	120
Benzoic acid			< 1800	1,800	U	720	< 2000	2,000	U	790	< 1800	1,800	U	740
Benzyl butyl phthalate			< 250	250	U	92	< 280	280	U	100	< 260	260	U	95
Bis(2-chloroethoxy)methane			< 250	250	U	99	< 280	280	U	110	< 260	260	U	100
Bis(2-chloroethyl)ether			< 250	250	U	97	< 280	280	U	110	< 260	260	U	99
Bis(2-chloroisopropyl)ether			< 250	250	U	99	< 280	280	U	110	< 260	260	U	100
Bis(2-ethylhexyl)phthalate			< 250	250	U	100	< 280	280	U	110	< 260	260	U	110
Carbazole			< 1800	1,800	U	270	< 2000	2,000	U	300	< 1800	1,800	U	280
Chrysene	1,000	3,900	**470**	250		120	< 280	280	U	130	< 260	260	U	120
Dibenz(a,h)anthracene	330	330	< 250	250	U	120	< 280	280	U	130	< 260	260	U	120
Dibenzofuran	7,000	59,000	< 250	250	U	100	< 280	280	U	120	< 260	260	U	110
Diethyl phthalate			< 250	250	U	110	< 280	280	U	130	< 260	260	U	120
Dimethylphthalate			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110
Di-n-butylphthalate			**110**	250	JB	95	**110**	280	JB	110	< 260	260	U	98
Di-n-octylphthalate			< 250	250	U	92	< 280	280	U	100	< 260	260	U	95
Fluoranthene	100,000	100,000	**1,100**	250		120	< 280	280	U	130	< 260	260	U	120
Fluorene	30,000	100,000	< 250	250	U	120	< 280	280	U	130	< 260	260	U	120
Hexachlorobenzene			< 250	250	U	100	< 280	280	U	120	< 260	260	U	110
Hexachlorobutadiene			< 250	250	U	130	< 280	280	U	140	< 260	260	U	130
Hexachlorocyclopentadiene			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110
Hexachloroethane			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110
Indeno(1,2,3-cd)pyrene	500	500	**230**	250	J	120	< 280	280	U	130	< 260	260	U	120
Isophorone			< 250	250	U	100	< 280	280	U	110	< 260	260	U	100
Naphthalene	12,000	100,000	< 250	250	U	100	**190**	280	J	110	< 260	260	U	110
Nitrobenzene			< 250	250	U	130	< 280	280	U	140	< 260	260	U	130
N-Nitrosodimethylamine			< 250	250	U	100	< 280	280	U	110	< 260	260	U	100
N-Nitrosodi-n-propylamine			< 250	250	U	120	< 280	280	U	130	< 260	260	U	120
N-Nitrosodiphenylamine			< 250	250	U	140	< 280	280	U	150	< 260	260	U	140
Pentachloronitrobenzene			< 250	250	U	130	< 280	280	U	150	< 260	260	U	140
Pentachlorophenol	800	6,700	< 250	250	U	140	< 280	280	U	150	< 260	260	U	140
Phenanthrene	100,000	100,000	**790**	250		100	< 280	280	U	110	< 260	260	U	110
Phenol	330	100,000	< 250	250	U	110	< 280	280	U	130	< 260	260	U	120
Pyrene	100,000	100,000	**970**	250		120	< 280	280	U	140	< 260	260	U	130
Pyridine			< 250	250	U	88	< 280	280	U	97	< 260	260	U	91

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

RL - Laboratory Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 4
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B4 11/24/2015 (0-2') µg/Kg				15B4 11/24/2015 (6-8') µg/Kg				15B4 11/24/2015 (10-12') µg/Kg				15B5 11/24/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,2,4,5-Tetrachlorobenzene			< 250	250	U	130	< 280	280	U	140	< 260	260	U	130	< 280	280	U	140
1,2,4-Trichlorobenzene			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110	< 280	280	U	120
1,2-Dichlorobenzene			< 250	250	U	100	< 280	280	U	110	< 260	260	U	110	< 280	280	U	110
1,2-Diphenylhydrazine			< 250	250	U	120	< 280	280	U	130	< 260	260	U	120	< 280	280	U	130
1,3-Dichlorobenzene			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110	< 280	280	U	120
1,4-Dichlorobenzene			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110	< 280	280	U	120
2,4,5-Trichlorophenol			< 250	250	U	200	< 280	280	U	220	< 260	260	U	200	< 280	280	U	220
2,4,6-Trichlorophenol			< 250	250	U	120	< 280	280	U	130	< 260	260	U	120	< 280	280	U	130
2,4-Dichlorophenol			< 250	250	U	130	< 280	280	U	140	< 260	260	U	130	< 280	280	U	140
2,4-Dimethylphenol			< 250	250	U	90	< 280	280	U	98	< 260	260	U	93	< 280	280	U	99
2,4-Dinitrophenol			< 730	730	U	250	< 790	790	U	280	< 750	750	U	260	< 800	800	U	280
2,4-Dinitrotoluene			< 250	250	U	140	< 280	280	U	160	< 260	260	U	150	< 280	280	U	160
2,6-Dinitrotoluene			< 250	250	U	110	< 280	280	U	120	< 260	260	U	120	< 280	280	U	130
2-Chloronaphthalene			< 250	250	U	100	< 280	280	U	110	< 260	260	U	110	< 280	280	U	110
2-Chlorophenol			< 250	250	U	100	< 280	280	U	110	< 260	260	U	110	< 280	280	U	110
2-Methylnaphthalene			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110	< 280	280	U	120
2-Methylphenol (o-cresol)	330	100,000	< 250	250	U	170	< 280	280	U	180	< 260	260	U	180	< 280	280	U	190
2-Nitroaniline			< 730	730	U	370	< 790	790	U	400	< 750	750	U	380	< 800	800	U	400
2-Nitrophenol			< 250	250	U	230	< 280	280	U	250	< 260	260	U	240	< 280	280	U	250
3&4-Methylphenol (m&p-cresol)	330	100,000	< 250	250	U	140	< 280	280	U	160	< 260	260	U	150	< 280	280	U	160
3,3'-Dichlorobenzidine			< 730	730	U	170	< 790	790	U	190	< 750	750	U	180	< 800	800	U	190
3-Nitroaniline			< 730	730	U	730	< 790	790	U	790	< 750	750	U	750	< 800	800	U	800
4,6-Dinitro-2-methylphenol			< 1800	1,800	U	390	< 2000	2,000	U	420	< 1900	1,900	U	400	< 2000	2,000	U	430
4-Bromophenyl phenyl ether			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110	< 280	280	U	120
4-Chloro-3-methylphenol			< 250	250	U	130	< 280	280	U	140	< 260	260	U	130	< 280	280	U	140
4-Chloroaniline			< 290	290	U	170	< 310	310	U	180	< 300	300	U	170	< 320	320	U	190
4-Chlorophenyl phenyl ether			< 250	250	U	120	< 280	280	U	130	< 260	260	U	130	< 280	280	U	130
4-Nitroaniline			< 730	730	U	120	< 790	790	U	130	< 750	750	U	120	< 800	800	U	130
4-Nitrophenol			< 360	360	U	160	< 390	390	U	180	< 370	370	U	170	< 400	400	U	180
Acenaphthene	20,000	100,000	< 250	250	U	110	< 280	280	U	120	< 260	260	U	110	< 280	280	U	120
Acenaphthylene	100,000	100,000	**110**	250	J	100	< 280	280	U	110	< 260	260	U	100	< 280	280	U	110
Acetophenone			< 250	250	U	110	< 280	280	U	120	< 260	260	U	120	< 280	280	U	120
Aniline			< 290	290	U	290	< 310	310	U	310	< 300	300	U	300	< 320	320	U	320
Anthracene	100,000	100,000	**450**	250		120	< 280	280	U	130	< 260	260	U	120	< 280	280	U	130
Benz(a)anthracene	1,000	1,000	**1,600**	250		120	< 280	280	U	130	< 260	260	U	130	< 280	280	U	130
Benzidine			< 730	730	U	210	< 790	790	U	230	< 750	750	U	220	< 800	800	U	240
Benzo(a)pyrene	1,000	1,000	**1,300**	250		120	< 280	280	U	130	< 260	260	U	120	< 280	280	U	130
Benzo(b)fluoranthene	1,000	1,000	**1,100**	250		120	< 280	280	U	130	< 260	260	U	130	< 280	280	U	140
Benzo(ghi)perylene	100,000	100,000	**700**	250		120	< 280	280	U	130	< 260	260	U	120	< 280	280	U	130
Benzo(k)fluoranthene	800	3,900	**1,100**	250		120	< 280	280	U	130	< 260	260	U	120	< 280	280	U	130
Benzoic acid			< 1800	1,800	U	730	< 2000	2,000	U	790	< 1900	1,900	U	750	< 2000	2,000	U	800
Benzyl butyl phthalate			< 250	250	U	94	< 280	280	U	100	< 260	260	U	96	< 280	280	U	100
Bis(2-chloroethoxy)methane			< 250	250	U	100	< 280	280	U	110	< 260	260	U	100	< 280	280	U	110
Bis(2-chloroethyl)ether			< 250	250	U	98	< 280	280	U	110	< 260	260	U	100	< 280	280	U	110
Bis(2-chloroisopropyl)ether			< 250	250	U	100	< 280	280	U	110	< 260	260	U	100	< 280	280	U	110
Bis(2-ethylhexyl)phthalate			< 250	250	U	100	< 280	280	U	110	< 260	260	U	110	< 280	280	U	120
Carbazole			< 1800	1,800	U	280	< 2000	2,000	U	300	< 1900	1,900	U	280	< 2000	2,000	U	300
Chrysene	1,000	3,900	**1,500**	250		120	< 280	280	U	130	< 260	260	U	130	< 280	280	U	130
Dibenz(a,h)anthracene	330	330	**180**	250	J	120	< 280	280	U	130	< 260	260	U	120	< 280	280	U	130
Dibenzofuran	7,000	59,000	< 250	250	U	110	< 280	280	U	110	< 260	260	U	110	< 280	280	U	120
Diethyl phthalate			< 250	250	U	110	< 280	280	U	120	< 260	260	U	120	< 280	280	U	130
Dimethylphthalate			< 250	250	U	110	< 280	280	U	120	< 260	260	U	120	< 280	280	U	120
Di-n-butylphthalate			< 250	250	U	97	< 280	280	U	100	**110**	260	JB	99	< 280	280	U	110
Di-n-octylphthalate			< 250	250	U	94	< 280	280	U	100	< 260	260	U	96	< 280	280	U	100
Fluoranthene	100,000	100,000	**3,100**	250		120	< 280	280	U	130	< 260	260	U	120	< 280	280	U	130
Fluorene	30,000	100,000	< 250	250	U	120	< 280	280	U	130	< 260	260	U	120	< 280	280	U	130
Hexachlorobenzene			< 250	250	U	110	< 280	280	U	110	< 260	260	U	110	< 280	280	U	120
Hexachlorobutadiene			< 250	250	U	130	< 280	280	U	140	< 260	260	U	140	< 280	280	U	140
Hexachlorocyclopentadiene			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110	< 280	280	U	120
Hexachloroethane			< 250	250	U	110	< 280	280	U	120	< 260	260	U	110	< 280	280	U	120
Indeno(1,2,3-cd)pyrene	500	500	**820**	250		120	< 280	280	U	130	< 260	260	U	120	< 280	280	U	130
Isophorone			< 250	250	U	100	< 280	280	U	110	< 260	260	U	100	< 280	280	U	110
Naphthalene	12,000	100,000	< 250	250	U	100	< 280	280	U	110	< 260	260	U	110	< 280	280	U	120
Nitrobenzene			< 250	250	U	130	< 280	280	U	140	< 260	260	U	130	< 280	280	U	140
N-Nitrosodimethylamine			< 250	250	U	100	< 280	280	U	110	< 260	260	U	110	< 280	280	U	110
N-Nitrosodi-n-propylamine			< 250	250	U	120	< 280	280	U	130	< 260	260	U	120	< 280	280	U	130
N-Nitrosodiphenylamine			< 250	250	U	140	< 280	280	U	150	< 260	260	U	140	< 280	280	U	150
Pentachloronitrobenzene			< 250	250	U	140	< 280	280	U	150	< 260	260	U	140	< 280	280	U	150
Pentachlorophenol	800	6,700	< 250	250	U	140	< 280	280	U	150	< 260	260	U	140	< 280	280	U	150
Phenanthrene	100,000	100,000	**1,400**	250		100	< 280	280	U	110	< 260	260	U	110	< 280	280	U	110
Phenol	330	100,000	< 250	250	U	120	< 280	280	U	130	< 260	260	U	120	< 280	280	U	130
Pyrene	100,000	100,000	**2,700**	250		130	< 280	280	U	140	< 260	260	U	130	< 280	280	U	140
Pyridine			< 250	250	U	90	< 280	280	U	97	< 260	260	U	92	< 280	280	U	99

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

RL - Laboratory Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 4
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B6 11/20/2015 (3-5') µg/Kg				15B6 11/20/2015 (10-12') µg/Kg				15SB7 11/20/2015 (6-8') µg/Kg				15B8 11/20/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,2,4,5-Tetrachlorobenzene			< 270	270	U	130	< 370	370	U	190	< 290	290	U	140	< 340	340	U	170
1,2,4-Trichlorobenzene			< 270	270	U	110	< 370	370	U	160	< 290	290	U	120	< 340	340	U	150
1,2-Dichlorobenzene			< 270	270	U	110	< 370	370	U	150	< 290	290	U	110	< 340	340	U	140
1,2-Diphenylhydrazine			< 270	270	U	120	< 370	370	U	170	< 290	290	U	130	< 340	340	U	160
1,3-Dichlorobenzene			< 270	270	U	110	< 370	370	U	160	< 290	290	U	120	< 340	340	U	140
1,4-Dichlorobenzene			< 270	270	U	110	< 370	370	U	160	< 290	290	U	120	< 340	340	U	140
2,4,5-Trichlorophenol			< 270	270	U	210	< 370	370	U	290	< 290	290	U	220	< 340	340	U	270
2,4,6-Trichlorophenol			< 270	270	U	120	< 370	370	U	170	< 290	290	U	130	< 340	340	U	160
2,4-Dichlorophenol			< 270	270	U	130	< 370	370	U	190	< 290	290	U	140	< 340	340	U	170
2,4-Dimethylphenol			< 270	270	U	94	< 370	370	U	130	< 290	290	U	100	< 340	340	U	120
2,4-Dinitrophenol			< 760	760	U	270	< 1100	1,100	U	370	< 810	810	U	290	< 970	970	U	340
2,4-Dinitrotoluene			< 270	270	U	150	< 370	370	U	210	< 290	290	U	160	< 340	340	U	190
2,6-Dinitrotoluene			< 270	270	U	120	< 370	370	U	170	< 290	290	U	130	< 340	340	U	150
2-Chloronaphthalene			< 270	270	U	110	< 370	370	U	150	< 290	290	U	120	< 340	340	U	140
2-Chlorophenol			< 270	270	U	110	< 370	370	U	150	< 290	290	U	120	< 340	340	U	140
2-Methylnaphthalene			< 270	270	U	110	< 370	370	U	160	< 290	290	U	120	< 340	340	U	140
2-Methylphenol (o-cresol)	330	100,000	< 270	270	U	180	< 330	330	U	250	< 290	290	U	190	< 330	330	U	230
2-Nitroaniline			< 760	760	U	380	< 1100	1,100	U	530	< 810	810	U	410	< 970	970	U	490
2-Nitrophenol			< 270	270	U	240	< 370	370	U	340	< 290	290	U	260	< 340	340	U	310
3&4-Methylphenol (m&p-cresol)	330	100,000	< 270	270	U	150	< 370	370	U	210	< 290	290	U	160	< 340	340	U	190
3,3'-Dichlorobenzidine			< 760	760	U	180	< 1100	1,100	U	250	< 810	810	U	190	< 970	970	U	230
3-Nitroaniline			< 760	760	U	760	< 1100	1,100	U	1100	< 810	810	U	810	< 970	970	U	970
4,6-Dinitro-2-methylphenol			< 1900	1,900	U	410	< 2600	2,600	U	570	< 2000	2,000	U	440	< 2400	2,400	U	520
4-Bromophenyl phenyl ether			< 270	270	U	110	< 370	370	U	160	< 290	290	U	120	< 340	340	U	140
4-Chloro-3-methylphenol			< 270	270	U	130	< 370	370	U	190	< 290	290	U	140	< 340	340	U	170
4-Chloroaniline			< 300	300	U	180	< 420	420	U	250	< 330	330	U	190	< 390	390	U	230
4-Chlorophenyl phenyl ether			< 270	270	U	130	< 370	370	U	180	< 290	290	U	140	< 340	340	U	160
4-Nitroaniline			< 760	760	U	130	< 1100	1,100	U	180	< 810	810	U	140	< 970	970	U	160
4-Nitrophenol			< 380	380	U	170	< 530	530	U	240	< 410	410	U	180	< 490	490	U	220
Acenaphthene	20,000	100,000	< 270	270	U	120	< 370	370	U	160	< 290	290	U	120	< 340	340	U	150
Acenaphthylene	100,000	100,000	< 270	270	U	110	< 370	370	U	150	< 290	290	U	110	< 340	340	U	140
Acetophenone			< 270	270	U	120	< 370	370	U	170	< 290	290	U	130	< 340	340	U	150
Aniline			< 300	300	U	300	< 420	420	U	420	< 330	330	U	330	< 390	390	U	390
Anthracene	100,000	100,000	< 270	270	U	120	< 370	370	U	170	< 290	290	U	130	< 340	340	U	160
Benz(a)anthracene	1,000	1,000	< 270	270	U	130	< 370	370	U	180	< 290	290	U	140	< 340	340	U	160
Benzidine			< 760	760	U	220	< 1100	1,100	U	310	< 810	810	U	240	< 970	970	U	290
Benzo(a)pyrene	1,000	1,000	< 270	270	U	120	< 370	370	U	170	< 290	290	U	130	< 340	340	U	160
Benzo(b)fluoranthene	1,000	1,000	< 270	270	U	130	< 370	370	U	180	< 290	290	U	140	< 340	340	U	170
Benzo(ghi)perylene	100,000	100,000	< 270	270	U	120	< 370	370	U	170	< 290	290	U	130	< 340	340	U	160
Benzo(k)fluoranthene	800	3,900	< 270	270	U	130	< 370	370	U	180	< 290	290	U	140	< 340	340	U	160
Benzoic acid			< 1900	1,900	U	760	< 2600	2,600	U	1100	< 2000	2,000	U	810	< 2400	2,400	U	970
Benzyl butyl phthalate			< 270	270	U	98	< 370	370	U	140	< 290	290	U	110	< 340	340	U	130
Bis(2-chloroethoxy)methane			< 270	270	U	100	< 370	370	U	150	< 290	290	U	110	< 340	340	U	130
Bis(2-chloroethyl)ether			< 270	270	U	100	< 370	370	U	140	< 290	290	U	110	< 340	340	U	130
Bis(2-chloroisopropyl)ether			< 270	270	U	110	< 370	370	U	150	< 290	290	U	110	< 340	340	U	140
Bis(2-ethylhexyl)phthalate			< 270	270	U	110	< 370	370	U	150	< 290	290	U	120	< 340	340	U	140
Carbazole			< 1900	1,900	U	290	< 2600	2,600	U	400	< 2000	2,000	U	310	< 2400	2,400	U	370
Chrysene	1,000	3,900	< 270	270	U	130	< 370	370	U	180	< 290	290	U	140	< 340	340	U	160
Dibenz(a,h)anthracene	330	330	< 270	270	U	120	< 330	330	U	170	< 290	290	U	130	< 330	330	U	160
Dibenzofuran	7,000	59,000	< 270	270	U	110	< 370	370	U	150	< 290	290	U	120	< 340	340	U	140
Diethyl phthalate			< 270	270	U	120	< 370	370	U	170	< 290	290	U	130	< 340	340	U	150
Dimethylphthalate			< 270	270	U	120	< 370	370	U	160	< 290	290	U	130	< 340	340	U	150
Di-n-butylphthalate			< 270	270	U	100	< 370	370	U	140	< 290	290	U	110	< 340	340	U	130
Di-n-octylphthalate			< 270	270	U	98	< 370	370	U	140	< 290	290	U	110	< 340	340	U	130
Fluoranthene	100,000	100,000	< 270	270	U	120	< 370	370	U	170	< 290	290	U	130	< 340	340	U	160
Fluorene	30,000	100,000	< 270	270	U	120	< 370	370	U	170	< 290	290	U	130	< 340	340	U	160
Hexachlorobenzene			< 270	270	U	110	< 370	370	U	150	< 290	290	U	120	< 340	340	U	140
Hexachlorobutadiene			< 270	270	U	140	< 370	370	U	190	< 290	290	U	150	< 340	340	U	180
Hexachlorocyclopentadiene			< 270	270	U	120	< 370	370	U	160	< 290	290	U	120	< 340	340	U	150
Hexachloroethane			< 270	270	U	110	< 370	370	U	160	< 290	290	U	120	< 340	340	U	150
Indeno(1,2,3-cd)pyrene	500	500	< 270	270	U	130	< 370	370	U	180	< 290	290	U	140	< 340	340	U	160
Isophorone			< 270	270	U	110	< 370	370	U	150	< 290	290	U	110	< 340	340	U	140
Naphthalene	12,000	100,000	< 270	270	U	110	< 370	370	U	150	< 290	290	U	120	< 340	340	U	140
Nitrobenzene			< 270	270	U	130	< 370	370	U	190	< 290	290	U	140	< 340	340	U	170
N-Nitrosodimethylamine			< 270	270	U	110	< 370	370	U	150	< 290	290	U	110	< 340	340	U	140
N-Nitrosodi-n-propylamine			< 270	270	U	120	< 370	370	U	170	< 290	290	U	130	< 340	340	U	160
N-Nitrosodiphenylamine			< 270	270	U	150	< 370	370	U	200	< 290	290	U	160	< 340	340	U	190
Pentachloronitrobenzene			< 270	270	U	140	< 370	370	U	200	< 290	290	U	150	< 340	340	U	180
Pentachlorophenol	800	6,700	< 270	270	U	140	< 370	370	U	200	< 290	290	U	150	< 340	340	U	180
Phenanthrene	100,000	100,000	< 270	270	U	110	< 370	370	U	150	< 290	290	U	120	< 340	340	U	140
Phenol	330	100,000	< 270	270	U	120	< 330	330	U	170	< 290	290	U	130	< 330	330	U	160
Pyrene	100,000	100,000	< 270	270	U	130	< 370	370	U	180	< 290	290	U	140	< 340	340	U	170
Pyridine			< 270	270	U	93	< 370	370	U	130	< 290	290	U	100	< 340	340	U	120

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

RL - Laboratory Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 4
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B9 11/20/2015 (0-2') µg/Kg				15B9 11/20/2015 (6-8') µg/Kg				15B10 11/20/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,2,4,5-Tetrachlorobenzene			< 250	250	U	130	< 290	290	U	150	< 260	260	U	130
1,2,4-Trichlorobenzene			< 250	250	U	110	< 290	290	U	130	< 260	260	U	110
1,2-Dichlorobenzene			< 250	250	U	100	< 290	290	U	120	< 260	260	U	110
1,2-Diphenylhydrazine			< 250	250	U	120	< 290	290	U	140	< 260	260	U	120
1,3-Dichlorobenzene			< 250	250	U	110	< 290	290	U	120	< 260	260	U	110
1,4-Dichlorobenzene			< 250	250	U	110	< 290	290	U	120	< 260	260	U	110
2,4,5-Trichlorophenol			< 250	250	U	200	< 290	290	U	230	< 260	260	U	200
2,4,6-Trichlorophenol			< 250	250	U	110	< 290	290	U	130	< 260	260	U	120
2,4-Dichlorophenol			< 250	250	U	130	< 290	290	U	150	< 260	260	U	130
2,4-Dimethylphenol			< 250	250	U	89	< 290	290	U	100	< 260	260	U	92
2,4-Dinitrophenol			< 710	710	U	250	< 830	830	U	290	< 750	750	U	260
2,4-Dinitrotoluene			< 250	250	U	140	< 290	290	U	160	< 260	260	U	150
2,6-Dinitrotoluene			< 250	250	U	110	< 290	290	U	130	< 260	260	U	120
2-Chloronaphthalene			< 250	250	U	100	< 290	290	U	120	< 260	260	U	110
2-Chlorophenol			< 250	250	U	100	< 290	290	U	120	< 260	260	U	110
2-Methylnaphthalene			< 250	250	U	110	< 290	290	U	120	< 260	260	U	110
2-Methylphenol (o-cresol)	330	100,000	< 250	250	U	170	< 290	290	U	200	< 260	260	U	180
2-Nitroaniline			< 710	710	U	360	< 830	830	U	420	< 750	750	U	380
2-Nitrophenol			< 250	250	U	230	< 290	290	U	260	< 260	260	U	240
3&4-Methylphenol (m&p-cresol)	330	100,000	< 250	250	U	140	< 290	290	U	160	< 260	260	U	150
3,3'-Dichlorobenzidine			< 710	710	U	170	< 830	830	U	200	< 750	750	U	180
3-Nitroaniline			< 710	710	U	710	< 830	830	U	830	< 750	750	U	750
4,6-Dinitro-2-methylphenol			< 1800	1,800	U	380	< 2100	2,100	U	450	< 1900	1,900	U	400
4-Bromophenyl phenyl ether			< 250	250	U	110	< 290	290	U	120	< 260	260	U	110
4-Chloro-3-methylphenol			< 250	250	U	130	< 290	290	U	150	< 260	260	U	130
4-Chloroaniline			< 290	290	U	170	< 330	330	U	190	< 300	300	U	170
4-Chlorophenyl phenyl ether			< 250	250	U	120	< 290	290	U	140	< 260	260	U	130
4-Nitroaniline			< 710	710	U	120	< 830	830	U	140	< 750	750	U	120
4-Nitrophenol			< 360	360	U	160	< 420	420	U	190	< 370	370	U	170
Acenaphthene	20,000	100,000	< 250	250	U	110	< 290	290	U	130	< 260	260	U	110
Acenaphthylene	100,000	100,000	< 250	250	U	100	< 290	290	U	120	< 260	260	U	100
Acetophenone			< 250	250	U	110	< 290	290	U	130	< 260	260	U	120
Aniline			< 290	290	U	290	< 330	330	U	330	< 300	300	U	300
Anthracene	100,000	100,000	< 250	250	U	120	< 290	290	U	140	< 260	260	U	120
Benz(a)anthracene	1,000	1,000	< 250	250	U	120	< 290	290	U	140	< 260	260	U	130
Benzidine			< 710	710	U	210	< 830	830	U	240	< 750	750	U	220
Benzo(a)pyrene	1,000	1,000	< 250	250	U	120	< 290	290	U	140	< 260	260	U	120
Benzo(b)fluoranthene	1,000	1,000	< 250	250	U	120	< 290	290	U	140	< 260	260	U	130
Benzo(ghi)perylene	100,000	100,000	< 250	250	U	120	< 290	290	U	130	< 260	260	U	120
Benzo(k)fluoranthene	800	3,900	< 250	250	U	120	< 290	290	U	140	< 260	260	U	120
Benzoic acid			< 1800	1,800	U	710	< 2100	2,100	U	830	< 1900	1,900	U	750
Benzyl butyl phthalate			< 250	250	U	92	< 290	290	U	110	< 260	260	U	96
Bis(2-chloroethoxy)methane			< 250	250	U	99	< 290	290	U	110	< 260	260	U	100
Bis(2-chloroethyl)ether			< 250	250	U	96	< 290	290	U	110	< 260	260	U	100
Bis(2-chloroisopropyl)ether			< 250	250	U	99	< 290	290	U	120	< 260	260	U	100
Bis(2-ethylhexyl)phthalate			< 250	250	U	100	< 290	290	U	120	< 260	260	U	110
Carbazole			< 1800	1,800	U	270	< 2100	2,100	U	320	< 1900	1,900	U	280
Chrysene	1,000	3,900	< 250	250	U	120	< 290	290	U	140	< 260	260	U	130
Dibenz(a,h)anthracene	330	330	< 250	250	U	120	< 290	290	U	130	< 260	260	U	120
Dibenzofuran	7,000	59,000	< 250	250	U	100	< 290	290	U	120	< 260	260	U	110
Diethyl phthalate			< 250	250	U	110	< 290	290	U	130	< 260	260	U	120
Dimethylphthalate			< 250	250	U	110	< 290	290	U	130	< 260	260	U	120
Di-n-butylphthalate			< 250	250	U	95	< 290	290	U	110	< 260	260	U	99
Di-n-octylphthalate			< 250	250	U	92	< 290	290	U	110	< 260	260	U	96
Fluoranthene	100,000	100,000	**130**	250	J	120	< 290	290	U	130	< 260	260	U	120
Fluorene	30,000	100,000	< 250	250	U	120	< 290	290	U	140	< 260	260	U	120
Hexachlorobenzene			< 250	250	U	100	< 290	290	U	120	< 260	260	U	110
Hexachlorobutadiene			< 250	250	U	130	< 290	290	U	150	< 260	260	U	130
Hexachlorocyclopentadiene			< 250	250	U	110	< 290	290	U	130	< 260	260	U	110
Hexachloroethane			< 250	250	U	110	< 290	290	U	120	< 260	260	U	110
Indeno(1,2,3-cd)pyrene	500	500	< 250	250	U	120	< 290	290	U	140	< 260	260	U	120
Isophorone			< 250	250	U	100	< 290	290	U	120	< 260	260	U	100
Naphthalene	12,000	100,000	< 250	250	U	100	< 290	290	U	120	< 260	260	U	110
Nitrobenzene			< 250	250	U	130	< 290	290	U	150	< 260	260	U	130
N-Nitrosodimethylamine			< 250	250	U	100	< 290	290	U	120	< 260	260	U	110
N-Nitrosodi-n-propylamine			< 250	250	U	120	< 290	290	U	130	< 260	260	U	120
N-Nitrosodiphenylamine			< 250	250	U	140	< 290	290	U	160	< 260	260	U	140
Pentachloronitrobenzene			< 250	250	U	130	< 290	290	U	150	< 260	260	U	140
Pentachlorophenol	800	6,700	< 250	250	U	140	< 290	290	U	160	< 260	260	U	140
Phenanthrene	100,000	100,000	< 250	250	U	100	< 290	290	U	120	< 260	260	U	110
Phenol	330	100,000	< 250	250	U	110	< 290	290	U	130	< 260	260	U	120
Pyrene	100,000	100,000	< 250	250	U	120	< 290	290	U	140	< 260	260	U	130
Pyridine			< 250	250	U	88	< 290	290	U	100	< 260	260	U	92

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

RL - Laboratory Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 4
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B11 11/23/2015 (0-2') µg/Kg				15B11 11/23/2015 (6-8') µg/Kg				15B12 11/23/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,2,4,5-Tetrachlorobenzene			< 260	260	U	130	< 270	270	U	140	< 260	260	U	130
1,2,4-Trichlorobenzene			< 260	260	U	110	< 270	270	U	120	< 260	260	U	110
1,2-Dichlorobenzene			< 260	260	U	100	< 270	270	U	110	< 260	260	U	100
1,2-Diphenylhydrazine			< 260	260	U	120	< 270	270	U	130	< 260	260	U	120
1,3-Dichlorobenzene			< 260	260	U	110	< 270	270	U	120	< 260	260	U	110
1,4-Dichlorobenzene			< 260	260	U	110	< 270	270	U	120	< 260	260	U	110
2,4,5-Trichlorophenol			< 260	260	U	200	< 270	270	U	210	< 260	260	U	200
2,4,6-Trichlorophenol			< 260	260	U	120	< 270	270	U	120	< 260	260	U	120
2,4-Dichlorophenol			< 260	260	U	130	< 270	270	U	140	< 260	260	U	130
2,4-Dimethylphenol			< 260	260	U	92	< 270	270	U	97	< 260	260	U	92
2,4-Dinitrophenol			< 740	740	U	260	< 780	780	U	270	< 740	740	U	260
2,4-Dinitrotoluene			< 260	260	U	150	< 270	270	U	150	< 260	260	U	150
2,6-Dinitrotoluene			< 260	260	U	120	< 270	270	U	120	< 260	260	U	120
2-Chloronaphthalene			< 260	260	U	110	< 270	270	U	110	< 260	260	U	110
2-Chlorophenol			< 260	260	U	110	< 270	270	U	110	< 260	260	U	110
2-Methylnaphthalene			**160**	260	J	110	< 270	270	U	120	< 260	260	U	110
2-Methylphenol (o-cresol)	330	100,000	< 260	260	U	170	< 270	270	U	180	< 260	260	U	170
2-Nitroaniline			< 740	740	U	370	< 780	780	U	390	< 740	740	U	380
2-Nitrophenol			< 260	260	U	230	< 270	270	U	250	< 260	260	U	240
3&4-Methylphenol (m&p-cresol)	330	100,000	< 260	260	U	150	< 270	270	U	150	< 260	260	U	150
3,3'-Dichlorobenzidine			< 740	740	U	170	< 780	780	U	180	< 740	740	U	180
3-Nitroaniline			< 740	740	U	740	< 780	780	U	780	< 740	740	U	740
4,6-Dinitro-2-methylphenol			< 1900	1,900	U	400	< 1900	1,900	U	420	< 1900	1,900	U	400
4-Bromophenyl phenyl ether			< 260	260	U	110	< 270	270	U	110	< 260	260	U	110
4-Chloro-3-methylphenol			< 260	260	U	130	< 270	270	U	140	< 260	260	U	130
4-Chloroaniline			< 300	300	U	170	< 310	310	U	180	< 300	300	U	170
4-Chlorophenyl phenyl ether			< 260	260	U	120	< 270	270	U	130	< 260	260	U	130
4-Nitroaniline			< 740	740	U	120	< 780	780	U	130	< 740	740	U	120
4-Nitrophenol			< 370	370	U	170	< 390	390	U	180	< 370	370	U	170
Acenaphthene	20,000	100,000	< 260	260	U	110	< 270	270	U	120	< 260	260	U	110
Acenaphthylene	100,000	100,000	< 260	260	U	100	< 270	270	U	110	< 260	260	U	100
Acetophenone			< 260	260	U	120	< 270	270	U	120	< 260	260	U	120
Aniline			< 300	300	U	300	< 310	310	U	310	< 300	300	U	300
Anthracene	100,000	100,000	< 260	260	U	120	< 270	270	U	130	< 260	260	U	120
Benz(a)anthracene	1,000	1,000	**140**	260	J	120	< 270	270	U	130	< 260	260	U	130
Benzidine			< 740	740	U	220	< 780	780	U	230	< 740	740	U	220
Benzo(a)pyrene	1,000	1,000	**130**	260	J	120	< 270	270	U	130	< 260	260	U	120
Benzo(b)fluoranthene	1,000	1,000	**130**	260	J	130	< 270	270	U	130	< 260	260	U	130
Benzo(ghi)perylene	100,000	100,000	< 260	260	U	120	< 270	270	U	130	< 260	260	U	120
Benzo(k)fluoranthene	800	3,900	< 260	260	U	120	< 270	270	U	130	< 260	260	U	120
Benzoic acid			< 1900	1,900	U	740	< 1900	1,900	U	780	< 1900	1,900	U	740
Benzyl butyl phthalate			< 260	260	U	96	< 270	270	U	100	< 260	260	U	96
Bis(2-chloroethoxy)methane			< 260	260	U	100	< 270	270	U	110	< 260	260	U	100
Bis(2-chloroethyl)ether			< 260	260	U	100	< 270	270	U	110	< 260	260	U	100
Bis(2-chloroisopropyl)ether			< 260	260	U	100	< 270	270	U	110	< 260	260	U	100
Bis(2-ethylhexyl)phthalate			< 260	260	U	110	< 270	270	U	110	< 260	260	U	110
Carbazole			< 1900	1,900	U	280	< 1900	1,900	U	300	< 1900	1,900	U	280
Chrysene	1,000	3,900	**180**	260	J	120	< 270	270	U	130	< 260	260	U	130
Dibenz(a,h)anthracene	330	330	< 260	260	U	120	< 270	270	U	130	< 260	260	U	120
Dibenzofuran	7,000	59,000	< 260	260	U	110	< 270	270	U	110	< 260	260	U	110
Diethyl phthalate			< 260	260	U	120	< 270	270	U	120	< 260	260	U	120
Dimethylphthalate			< 260	260	U	110	< 270	270	U	120	< 260	260	U	120
Di-n-butylphthalate			< 260	260	U	99	< 270	270	U	100	< 260	260	U	99
Di-n-octylphthalate			< 260	260	U	96	< 270	270	U	100	< 260	260	U	96
Fluoranthene	100,000	100,000	**280**	260		120	< 270	270	U	130	< 260	260	U	120
Fluorene	30,000	100,000	< 260	260	U	120	< 270	270	U	130	< 260	260	U	120
Hexachlorobenzene			< 260	260	U	110	< 270	270	U	110	< 260	260	U	110
Hexachlorobutadiene			< 260	260	U	130	< 270	270	U	140	< 260	260	U	130
Hexachlorocyclopentadiene			< 260	260	U	110	< 270	270	U	120	< 260	260	U	110
Hexachloroethane			< 260	260	U	110	< 270	270	U	120	< 260	260	U	110
Indeno(1,2,3-cd)pyrene	500	500	< 260	260	U	120	< 270	270	U	130	< 260	260	U	120
Isophorone			< 260	260	U	100	< 270	270	U	110	< 260	260	U	100
Naphthalene	12,000	100,000	**170**	260	J	110	< 270	270	U	110	< 260	260	U	110
Nitrobenzene			< 260	260	U	130	< 270	270	U	140	< 260	260	U	130
N-Nitrosodimethylamine			< 260	260	U	100	< 270	270	U	110	< 260	260	U	100
N-Nitrosodi-n-propylamine			< 260	260	U	120	< 270	270	U	130	< 260	260	U	120
N-Nitrosodiphenylamine			< 260	260	U	140	< 270	270	U	150	< 260	260	U	140
Pentachloronitrobenzene			< 260	260	U	140	< 270	270	U	150	< 260	260	U	140
Pentachlorophenol	800	6,700	< 260	260	U	140	< 270	270	U	150	< 260	260	U	140
Phenanthrene	100,000	100,000	**220**	260	J	110	< 270	270	U	110	< 260	260	U	110
Phenol	330	100,000	< 260	260	U	120	< 270	270	U	120	< 260	260	U	120
Pyrene	100,000	100,000	**220**	260	J	130	< 270	270	U	130	< 260	260	U	130
Pyridine			< 260	260	U	91	< 270	270	U	96	< 260	260	U	92

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

RL - Laboratory Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 4
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B13 11/20/2015 (0-2') µg/Kg				15B13 11/20/2015 (6-8') µg/Kg				15B14 11/20/2015 (5-7') µg/Kg				15B15 11/20/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,2,4,5-Tetrachlorobenzene			< 270	270	U	130	< 270	270	U	140	< 280	280	U	140	< 280	280	U	140
1,2,4-Trichlorobenzene			< 270	270	U	120	< 270	270	U	120	< 280	280	U	120	< 280	280	U	120
1,2-Dichlorobenzene			< 270	270	U	110	< 270	270	U	110	< 280	280	U	110	< 280	280	U	110
1,2-Diphenylhydrazine			< 270	270	U	130	< 270	270	U	130	< 280	280	U	130	< 280	280	U	130
1,3-Dichlorobenzene			< 270	270	U	110	< 270	270	U	120	< 280	280	U	120	< 280	280	U	120
1,4-Dichlorobenzene			< 270	270	U	110	< 270	270	U	120	< 280	280	U	120	< 280	280	U	120
2,4,5-Trichlorophenol			< 270	270	U	210	< 270	270	U	210	< 280	280	U	220	< 280	280	U	220
2,4,6-Trichlorophenol			< 270	270	U	120	< 270	270	U	130	< 280	280	U	130	< 280	280	U	130
2,4-Dichlorophenol			< 270	270	U	130	< 270	270	U	140	< 280	280	U	140	< 280	280	U	140
2,4-Dimethylphenol			< 270	270	U	95	< 270	270	U	97	< 280	280	U	98	< 280	280	U	99
2,4-Dinitrophenol			< 770	770	U	270	< 780	780	U	270	< 790	790	U	280	< 800	800	U	280
2,4-Dinitrotoluene			< 270	270	U	150	< 270	270	U	150	< 280	280	U	150	< 280	280	U	160
2,6-Dinitrotoluene			< 270	270	U	120	< 270	270	U	120	< 280	280	U	120	< 280	280	U	130
2-Chloronaphthalene			< 270	270	U	110	< 270	270	U	110	< 280	280	U	110	< 280	280	U	110
2-Chlorophenol			< 270	270	U	110	< 270	270	U	110	< 280	280	U	110	< 280	280	U	110
2-Methylnaphthalene			**360**	270		110	< 270	270	U	120	< 280	280	U	120	< 280	280	U	120
2-Methylphenol (o-cresol)	330	100,000	< 270	270	U	180	< 270	270	U	180	< 280	280	U	180	< 280	280	U	190
2-Nitroaniline			< 770	770	U	390	< 780	780	U	390	< 790	790	U	400	< 800	800	U	400
2-Nitrophenol			< 270	270	U	240	< 270	270	U	250	< 280	280	U	250	< 280	280	U	250
3&4-Methylphenol (m&p-cresol)	330	100,000	< 270	270	U	150	< 270	270	U	150	< 280	280	U	150	< 280	280	U	160
3,3'-Dichlorobenzidine			< 770	770	U	180	< 780	780	U	180	< 790	790	U	190	< 800	800	U	190
3-Nitroaniline			< 770	770	U	770	< 780	780	U	780	< 790	790	U	790	< 800	800	U	800
4,6-Dinitro-2-methylphenol			< 1900	1,900	U	410	< 2000	2,000	U	420	< 2000	2,000	U	420	< 2000	2,000	U	430
4-Bromophenyl phenyl ether			< 270	270	U	110	< 270	270	U	110	< 280	280	U	120	< 280	280	U	120
4-Chloro-3-methylphenol			< 270	270	U	130	< 270	270	U	140	< 280	280	U	140	< 280	280	U	140
4-Chloroaniline			< 310	310	U	180	< 310	310	U	180	< 310	310	U	180	< 320	320	U	190
4-Chlorophenyl phenyl ether			< 270	270	U	130	< 270	270	U	130	< 280	280	U	130	< 280	280	U	130
4-Nitroaniline			< 770	770	U	130	< 780	780	U	130	< 790	790	U	130	< 800	800	U	130
4-Nitrophenol			< 380	380	U	170	< 390	390	U	180	< 390	390	U	180	< 400	400	U	180
Acenaphthene	20,000	100,000	< 270	270	U	120	< 270	270	U	120	< 280	280	U	120	< 280	280	U	120
Acenaphthylene	100,000	100,000	< 270	270	U	110	< 270	270	U	110	< 280	280	U	110	< 280	280	U	110
Acetophenone			< 270	270	U	120	< 270	270	U	120	< 280	280	U	120	< 280	280	U	120
Aniline			< 310	310	U	310	< 310	310	U	310	< 310	310	U	310	< 320	320	U	320
Anthracene	100,000	100,000	**200**	270	J	130	< 270	270	U	130	**200**	280	J	130	< 280	280	U	130
Benz(a)anthracene	1,000	1,000	**240**	270	J	130	< 270	270	U	130	**580**	280		130	< 280	280	U	130
Benzidine			< 770	770	U	230	< 780	780	U	230	< 790	790	U	230	< 800	800	U	230
Benzo(a)pyrene	1,000	1,000	**250**	270	J	130	< 270	270	U	130	**480**	280		130	< 280	280	U	130
Benzo(b)fluoranthene	1,000	1,000	**280**	270		130	< 270	270	U	130	**380**	280		130	< 280	280	U	140
Benzo(ghi)perylene	100,000	100,000	**300**	270		120	< 270	270	U	130	**240**	280	J	130	< 280	280	U	130
Benzo(k)fluoranthene	800	3,900	**230**	270	J	130	< 270	270	U	130	**500**	280		130	< 280	280	U	130
Benzoic acid			< 1900	1,900	U	770	< 2000	2,000	U	780	< 2000	2,000	U	790	< 2000	2,000	U	800
Benzyl butyl phthalate			< 270	270	U	99	< 270	270	U	100	< 280	280	U	100	< 280	280	U	100
Bis(2-chloroethoxy)methane			< 270	270	U	110	< 270	270	U	110	< 280	280	U	110	< 280	280	U	110
Bis(2-chloroethyl)ether			< 270	270	U	100	< 270	270	U	110	< 280	280	U	110	< 280	280	U	110
Bis(2-chloroisopropyl)ether			< 270	270	U	110	< 270	270	U	110	< 280	280	U	110	< 280	280	U	110
Bis(2-ethylhexyl)phthalate			< 270	270	U	110	< 270	270	U	110	< 280	280	U	110	< 280	280	U	110
Carbazole			< 1900	1,900	U	290	< 2000	2,000	U	300	< 2000	2,000	U	300	< 2000	2,000	U	300
Chrysene	1,000	3,900	**320**	270		130	< 270	270	U	130	**580**	280		130	< 280	280	U	130
Dibenz(a,h)anthracene	330	330	< 270	270	U	120	< 270	270	U	130	< 280	280	U	130	< 280	280	U	130
Dibenzofuran	7,000	59,000	**120**	270	J	110	< 270	270	U	110	< 280	280	U	110	< 280	280	U	120
Diethyl phthalate			< 270	270	U	120	< 270	270	U	120	< 280	280	U	120	< 280	280	U	130
Dimethylphthalate			< 270	270	U	120	< 270	270	U	120	< 280	280	U	120	< 280	280	U	120
Di-n-butylphthalate			< 270	270	U	100	< 270	270	U	100	< 280	280	U	100	< 280	280	U	110
Di-n-octylphthalate			< 270	270	U	99	< 270	270	U	100	< 280	280	U	100	< 280	280	U	100
Fluoranthene	100,000	100,000	**510**	270		120	< 270	270	U	130	**1,100**	280		130	< 280	280	U	130
Fluorene	30,000	100,000	< 270	270	U	130	< 270	270	U	130	< 280	280	U	130	< 280	280	U	130
Hexachlorobenzene			< 270	270	U	110	< 270	270	U	110	< 280	280	U	110	< 280	280	U	120
Hexachlorobutadiene			< 270	270	U	140	< 270	270	U	140	< 280	280	U	140	< 280	280	U	140
Hexachlorocyclopentadiene			< 270	270	U	120	< 270	270	U	120	< 280	280	U	120	< 280	280	U	120
Hexachloroethane			< 270	270	U	120	< 270	270	U	120	< 280	280	U	120	< 280	280	U	120
Indeno(1,2,3-cd)pyrene	500	500	**230**	270	J	130	< 270	270	U	130	**260**	280	J	130	< 280	280	U	130
Isophorone			< 270	270	U	110	< 270	270	U	110	< 280	280	U	110	< 280	280	U	110
Naphthalene	12,000	100,000	**310**	270		110	< 270	270	U	110	< 280	280	U	110	< 280	280	U	110
Nitrobenzene			< 270	270	U	130	< 270	270	U	140	< 280	280	U	140	< 280	280	U	140
N-Nitrosodimethylamine			< 270	270	U	110	< 270	270	U	110	< 280	280	U	110	< 280	280	U	110
N-Nitrosodi-n-propylamine			< 270	270	U	120	< 270	270	U	130	< 280	280	U	130	< 280	280	U	130
N-Nitrosodiphenylamine			< 270	270	U	150	< 270	270	U	150	< 280	280	U	150	< 280	280	U	150
Pentachloronitrobenzene			< 270	270	U	140	< 270	270	U	150	< 280	280	U	150	< 280	280	U	150
Pentachlorophenol	800	6,700	< 270	270	U	140	< 270	270	U	150	< 280	280	U	150	< 280	280	U	150
Phenanthrene	100,000	100,000	**600**	270		110	< 270	270	U	110	**740**	280		110	< 280	280	U	110
Phenol	330	100,000	< 270	270	U	120	< 270	270	U	130	< 280	280	U	130	< 280	280	U	130
Pyrene	100,000	100,000	**570**	270		130	< 270	270	U	130	**1,000**	280		140	< 280	280	U	140
Pyridine			< 270	270	U	94	< 270	270	U	96	< 280	280	U	97	< 280	280	U	98

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

RL - Laboratory Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 4
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B17 11/20/2015 (6-8') µg/Kg				15B18 11/20/2015 (0-2') µg/Kg				15B18 11/20/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,2,4,5-Tetrachlorobenzene			< 290	290	U	150	< 250	250	U	120	< 260	260	U	130
1,2,4-Trichlorobenzene			< 290	290	U	130	< 250	250	U	110	< 260	260	U	110
1,2-Dichlorobenzene			< 290	290	U	120	< 250	250	U	99	< 260	260	U	100
1,2-Diphenylhydrazine			< 290	290	U	140	< 250	250	U	110	< 260	260	U	120
1,3-Dichlorobenzene			< 290	290	U	120	< 250	250	U	100	< 260	260	U	110
1,4-Dichlorobenzene			< 290	290	U	120	< 250	250	U	100	< 260	260	U	110
2,4,5-Trichlorophenol			< 290	290	U	230	< 250	250	U	190	< 260	260	U	200
2,4,6-Trichlorophenol			< 290	290	U	130	< 250	250	U	110	< 260	260	U	120
2,4-Dichlorophenol			< 290	290	U	150	< 250	250	U	120	< 260	260	U	130
2,4-Dimethylphenol			< 290	290	U	100	< 250	250	U	87	< 260	260	U	92
2,4-Dinitrophenol			< 840	840	U	290	< 700	700	U	250	< 740	740	U	260
2,4-Dinitrotoluene			< 290	290	U	170	< 250	250	U	140	< 260	260	U	150
2,6-Dinitrotoluene			< 290	290	U	130	< 250	250	U	110	< 260	260	U	120
2-Chloronaphthalene			< 290	290	U	120	< 250	250	U	100	< 260	260	U	100
2-Chlorophenol			< 290	290	U	120	< 250	250	U	100	< 260	260	U	100
2-Methylnaphthalene			< 290	290	U	130	< 250	250	U	100	< 260	260	U	110
2-Methylphenol (o-cresol)	330	100,000	< 290	290	U	200	< 250	250	U	170	< 260	260	U	170
2-Nitroaniline			< 840	840	U	420	< 700	700	U	360	< 740	740	U	370
2-Nitrophenol			< 290	290	U	270	< 250	250	U	220	< 260	260	U	230
3&4-Methylphenol (m&p-cresol)	330	100,000	< 290	290	U	170	< 250	250	U	140	< 260	260	U	150
3,3'-Dichlorobenzidine			< 840	840	U	200	< 700	700	U	170	< 740	740	U	170
3-Nitroaniline			< 840	840	U	840	< 700	700	U	700	< 740	740	U	740
4,6-Dinitro-2-methylphenol			< 2100	2,100	U	450	< 1800	1,800	U	380	< 1800	1,800	U	400
4-Bromophenyl phenyl ether			< 290	290	U	120	< 250	250	U	100	< 260	260	U	110
4-Chloro-3-methylphenol			< 290	290	U	150	< 250	250	U	120	< 260	260	U	130
4-Chloroaniline			< 340	340	U	200	< 280	280	U	160	< 300	300	U	170
4-Chlorophenyl phenyl ether			< 290	290	U	140	< 250	250	U	120	< 260	260	U	120
4-Nitroaniline			< 840	840	U	140	< 700	700	U	120	< 740	740	U	120
4-Nitrophenol			< 420	420	U	190	< 350	350	U	160	< 370	370	U	170
Acenaphthene	20,000	100,000	< 290	290	U	130	< 250	250	U	110	< 260	260	U	110
Acenaphthylene	100,000	100,000	< 290	290	U	120	< 250	250	U	99	< 260	260	U	100
Acetophenone			< 290	290	U	130	< 250	250	U	110	< 260	260	U	120
Aniline			< 340	340	U	340	< 280	280	U	280	< 300	300	U	300
Anthracene	100,000	100,000	< 290	290	U	140	< 250	250	U	120	< 260	260	U	120
Benz(a)anthracene	1,000	1,000	< 290	290	U	140	< 250	250	U	120	< 260	260	U	120
Benzidine			< 840	840	U	250	< 700	700	U	210	< 740	740	U	220
Benzo(a)pyrene	1,000	1,000	< 290	290	U	140	< 250	250	U	110	< 260	260	U	120
Benzo(b)fluoranthene	1,000	1,000	< 290	290	U	140	< 250	250	U	120	< 260	260	U	130
Benzo(ghi)perylene	100,000	100,000	< 290	290	U	140	< 250	250	U	110	< 260	260	U	120
Benzo(k)fluoranthene	800	3,900	< 290	290	U	140	< 250	250	U	120	< 260	260	U	120
Benzoic acid			< 2100	2,100	U	840	< 1800	1,800	U	700	< 1800	1,800	U	740
Benzyl butyl phthalate			< 290	290	U	110	< 250	250	U	91	< 260	260	U	95
Bis(2-chloroethoxy)methane			< 290	290	U	120	< 250	250	U	97	< 260	260	U	100
Bis(2-chloroethyl)ether			< 290	290	U	110	< 250	250	U	95	< 260	260	U	100
Bis(2-chloroisopropyl)ether			< 290	290	U	120	< 250	250	U	98	< 260	260	U	100
Bis(2-ethylhexyl)phthalate			< 290	290	U	120	< 250	250	U	100	< 260	260	U	110
Carbazole			< 2100	2,100	U	320	< 1800	1,800	U	270	< 1800	1,800	U	280
Chrysene	1,000	3,900	< 290	290	U	140	< 250	250	U	120	< 260	260	U	120
Dibenz(a,h)anthracene	330	330	< 290	290	U	140	< 250	250	U	110	< 260	260	U	120
Dibenzofuran	7,000	59,000	< 290	290	U	120	< 250	250	U	100	< 260	260	U	110
Diethyl phthalate			< 290	290	U	130	< 250	250	U	110	< 260	260	U	120
Dimethylphthalate			< 290	290	U	130	< 250	250	U	110	< 260	260	U	110
Di-n-butylphthalate			< 290	290	U	110	< 250	250	U	94	< 260	260	U	98
Di-n-octylphthalate			< 290	290	U	110	< 250	250	U	91	< 260	260	U	95
Fluoranthene	100,000	100,000	< 290	290	U	140	< 250	250	U	110	< 260	260	U	120
Fluorene	30,000	100,000	< 290	290	U	140	< 250	250	U	120	< 260	260	U	120
Hexachlorobenzene			< 290	290	U	120	< 250	250	U	100	< 260	260	U	110
Hexachlorobutadiene			< 290	290	U	150	< 250	250	U	130	< 260	260	U	130
Hexachlorocyclopentadiene			< 290	290	U	130	< 250	250	U	110	< 260	260	U	110
Hexachloroethane			< 290	290	U	130	< 250	250	U	110	< 260	260	U	110
Indeno(1,2,3-cd)pyrene	500	500	< 290	290	U	140	< 250	250	U	120	< 260	260	U	120
Isophorone			< 290	290	U	120	< 250	250	U	99	< 260	260	U	100
Naphthalene	12,000	100,000	< 290	290	U	120	< 250	250	U	100	< 260	260	U	110
Nitrobenzene			< 290	290	U	150	< 250	250	U	120	< 260	260	U	130
N-Nitrosodimethylamine			< 290	290	U	120	< 250	250	U	99	< 260	260	U	100
N-Nitrosodi-n-propylamine			< 290	290	U	140	< 250	250	U	110	< 260	260	U	120
N-Nitrosodiphenylamine			< 290	290	U	160	< 250	250	U	140	< 260	260	U	140
Pentachloronitrobenzene			< 290	290	U	160	< 250	250	U	130	< 260	260	U	140
Pentachlorophenol	800	6,700	< 290	290	U	160	< 250	250	U	130	< 260	260	U	140
Phenanthrene	100,000	100,000	< 290	290	U	120	< 250	250	U	100	< 260	260	U	110
Phenol	330	100,000	< 290	290	U	130	< 250	250	U	110	< 260	260	U	120
Pyrene	100,000	100,000	< 290	290	U	140	< 250	250	U	120	< 260	260	U	130
Pyridine			< 290	290	U	100	< 250	250	U	87	< 260	260	U	91

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

RL - Laboratory Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 4
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B19 11/20/2015 (0-2') µg/Kg				15B19 11/20/2015 (6-8') µg/Kg				15B20 11/20/2015 (8-10') µg/Kg				15B21 11/20/2015 (6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,2,4,5-Tetrachlorobenzene			< 250	250	U	130	< 260	260	U	130	< 270	270	U	130	< 380	380	U	190
1,2,4-Trichlorobenzene			< 250	250	U	110	< 260	260	U	110	< 270	270	U	120	< 380	380	U	160
1,2-Dichlorobenzene			< 250	250	U	100	< 260	260	U	110	< 270	270	U	110	< 380	380	U	150
1,2-Diphenylhydrazine			< 250	250	U	120	< 260	260	U	120	< 270	270	U	120	< 380	380	U	180
1,3-Dichlorobenzene			< 250	250	U	110	< 260	260	U	110	< 270	270	U	110	< 380	380	U	160
1,4-Dichlorobenzene			< 250	250	U	110	< 260	260	U	110	< 270	270	U	110	< 380	380	U	160
2,4,5-Trichlorophenol			< 250	250	U	200	< 260	260	U	200	< 270	270	U	210	< 380	380	U	300
2,4,6-Trichlorophenol			< 250	250	U	120	< 260	260	U	120	< 270	270	U	120	< 380	380	U	170
2,4-Dichlorophenol			< 250	250	U	130	< 260	260	U	130	< 270	270	U	130	< 380	380	U	190
2,4-Dimethylphenol			< 250	250	U	89	< 260	260	U	93	< 270	270	U	95	< 380	380	U	130
2,4-Dinitrophenol			< 720	720	U	250	< 750	750	U	260	< 770	770	U	270	< 1100	1,100	U	380
2,4-Dinitrotoluene			< 250	250	U	140	< 260	260	U	150	< 270	270	U	150	< 380	380	U	210
2,6-Dinitrotoluene			< 250	250	U	110	< 260	260	U	120	< 270	270	U	120	< 380	380	U	170
2-Chloronaphthalene			< 250	250	U	100	< 260	260	U	110	< 270	270	U	110	< 380	380	U	150
2-Chlorophenol			< 250	250	U	100	< 260	260	U	110	< 270	270	U	110	< 380	380	U	150
2-Methylnaphthalene			< 250	250	U	110	< 260	260	U	110	< 270	270	U	110	< 380	380	U	160
2-Methylphenol (o-cresol)	330	100,000	< 250	250	U	170	< 260	260	U	180	< 270	270	U	180	< 110	110	U	260
2-Nitroaniline			< 720	720	U	360	< 750	750	U	380	< 770	770	U	390	< 1100	1,100	U	550
2-Nitrophenol			< 250	250	U	230	< 260	260	U	240	< 270	270	U	240	< 380	380	U	350
3&4-Methylphenol (m&p-cresol)	330	100,000	< 250	250	U	140	< 260	260	U	150	< 270	270	U	150	< 380	380	U	210
3,3'-Dichlorobenzidine			< 720	720	U	170	< 750	750	U	180	< 770	770	U	180	< 1100	1,100	U	260
3-Nitroaniline			< 720	720	U	720	< 750	750	U	750	< 770	770	U	770	< 1100	1,100	U	1100
4,6-Dinitro-2-methylphenol			< 1800	1,800	U	390	< 1900	1,900	U	400	< 1900	1,900	U	410	< 2700	2,700	U	590
4-Bromophenyl phenyl ether			< 250	250	U	110	< 260	260	U	110	< 270	270	U	110	< 380	380	U	160
4-Chloro-3-methylphenol			< 250	250	U	130	< 260	260	U	130	< 270	270	U	130	< 380	380	U	190
4-Chloroaniline			< 290	290	U	170	< 300	300	U	170	< 310	310	U	180	< 440	440	U	250
4-Chlorophenyl phenyl ether			< 250	250	U	120	< 260	260	U	130	< 270	270	U	130	< 380	380	U	180
4-Nitroaniline			< 720	720	U	120	< 750	750	U	120	< 770	770	U	130	< 1100	1,100	U	180
4-Nitrophenol			< 360	360	U	160	< 370	370	U	170	< 380	380	U	170	< 540	540	U	250
Acenaphthene	20,000	100,000	< 250	250	U	110	< 260	260	U	110	< 270	270	U	120	< 380	380	U	170
Acenaphthylene	100,000	100,000	< 250	250	U	100	< 260	260	U	100	< 270	270	U	110	< 380	380	U	150
Acetophenone			< 250	250	U	110	< 260	260	U	120	< 270	270	U	120	< 380	380	U	170
Aniline			< 290	290	U	290	< 300	300	U	300	< 310	310	U	310	< 440	440	U	440
Anthracene	100,000	100,000	< 250	250	U	120	< 260	260	U	120	< 270	270	U	130	< 380	380	U	180
Benz(a)anthracene	1,000	1,000	< 250	250	U	120	< 260	260	U	130	< 270	270	U	130	< 380	380	U	180
Benzidine			< 720	720	U	210	< 750	750	U	220	< 770	770	U	230	< 1100	1,100	U	320
Benzo(a)pyrene	1,000	1,000	< 250	250	U	120	< 260	260	U	120	< 270	270	U	120	< 380	380	U	180
Benzo(b)fluoranthene	1,000	1,000	< 250	250	U	120	< 260	260	U	130	< 270	270	U	130	< 380	380	U	190
Benzo(ghi)perylene	100,000	100,000	< 250	250	U	120	< 260	260	U	120	< 270	270	U	120	< 380	380	U	180
Benzo(k)fluoranthene	800	3,900	< 250	250	U	120	< 260	260	U	120	< 270	270	U	130	< 380	380	U	180
Benzoic acid			< 1800	1,800	U	720	< 1900	1,900	U	750	< 1900	1,900	U	770	< 2700	2,700	U	1100
Benzyl butyl phthalate			< 250	250	U	93	< 260	260	U	96	< 270	270	U	99	< 380	380	U	140
Bis(2-chloroethoxy)methane			< 250	250	U	100	< 260	260	U	100	< 270	270	U	110	< 380	380	U	150
Bis(2-chloroethyl)ether			< 250	250	U	97	< 260	260	U	100	< 270	270	U	100	< 380	380	U	150
Bis(2-chloroisopropyl)ether			< 250	250	U	100	< 260	260	U	100	< 270	270	U	110	< 380	380	U	150
Bis(2-ethylhexyl)phthalate			< 250	250	U	100	< 260	260	U	110	< 270	270	U	110	< 380	380	U	160
Carbazole			< 1800	1,800	U	270	< 1900	1,900	U	280	< 1900	1,900	U	290	< 2700	2,700	U	410
Chrysene	1,000	3,900	< 250	250	U	120	< 260	260	U	130	< 270	270	U	130	< 380	380	U	180
Dibenz(a,h)anthracene	330	330	< 250	250	U	120	< 260	260	U	120	< 270	270	U	120	< 110	110	U	180
Dibenzofuran	7,000	59,000	< 250	250	U	110	< 260	260	U	110	< 270	270	U	110	< 380	380	U	160
Diethyl phthalate			< 250	250	U	110	< 260	260	U	120	< 270	270	U	120	< 380	380	U	170
Dimethylphthalate			< 250	250	U	110	< 260	260	U	120	< 270	270	U	120	< 380	380	U	170
Di-n-butylphthalate			< 250	250	U	96	< 260	260	U	99	< 270	270	U	100	< 380	380	U	140
Di-n-octylphthalate			< 250	250	U	93	< 260	260	U	96	< 270	270	U	99	< 380	380	U	140
Fluoranthene	100,000	100,000	< 250	250	U	120	< 260	260	U	120	< 270	270	U	120	< 380	380	U	180
Fluorene	30,000	100,000	< 250	250	U	120	< 260	260	U	120	< 270	270	U	130	< 380	380	U	180
Hexachlorobenzene			< 250	250	U	110	< 260	260	U	110	< 270	270	U	110	< 380	380	U	160
Hexachlorobutadiene			< 250	250	U	130	< 260	260	U	140	< 270	270	U	140	< 380	380	U	200
Hexachlorocyclopentadiene			< 250	250	U	110	< 260	260	U	110	< 270	270	U	120	< 380	380	U	170
Hexachloroethane			< 250	250	U	110	< 260	260	U	110	< 270	270	U	110	< 380	380	U	160
Indeno(1,2,3-cd)pyrene	500	500	< 250	250	U	120	< 260	260	U	120	< 270	270	U	130	< 380	380	U	180
Isophorone			< 250	250	U	100	< 260	260	U	100	< 270	270	U	110	< 380	380	U	150
Naphthalene	12,000	100,000	< 250	250	U	100	< 260	260	U	110	< 270	270	U	110	< 380	380	U	160
Nitrobenzene			< 250	250	U	130	< 260	260	U	130	< 270	270	U	130	< 380	380	U	190
N-Nitrosodimethylamine			< 250	250	U	100	< 260	260	U	110	< 270	270	U	110	< 380	380	U	150
N-Nitrosodi-n-propylamine			< 250	250	U	120	< 260	260	U	120	< 270	270	U	120	< 380	380	U	180
N-Nitrosodiphenylamine			< 250	250	U	140	< 260	260	U	140	< 270	270	U	150	< 380	380	U	210
Pentachloronitrobenzene			< 250	250	U	130	< 260	260	U	140	< 270	270	U	140	< 380	380	U	200
Pentachlorophenol	800	6,700	< 250	250	U	140	< 260	260	U	140	< 270	270	U	140	< 380	380	U	210
Phenanthrene	100,000	100,000	< 250	250	U	100	< 260	260	U	110	< 270	270	U	110	< 380	380	U	160
Phenol	330	100,000	< 250	250	U	120	< 260	260	U	120	< 270	270	U	120	< 110	110	U	170
Pyrene	100,000	100,000	< 250	250	U	120	< 260	260	U	130	< 270	270	U	130	< 380	380	U	190
Pyridine			< 250	250	U	89	< 260	260	U	92	< 270	270	U	94	< 380	380	U	130

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

RL - Laboratory Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 4
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B22 11/20/2015								15B23 11/20/2015							
			(0-2') µg/Kg				(6-8') µg/Kg				(2-4') µg/Kg				(6-8') µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,2,4,5-Tetrachlorobenzene			< 320	320	U	160	< 360	360	U	180	< 2500	2,500	U	1300	< 350	350	U	170
1,2,4-Trichlorobenzene			< 320	320	U	140	< 360	360	U	160	< 2500	2,500	U	1100	< 350	350	U	150
1,2-Dichlorobenzene			< 320	320	U	130	< 360	360	U	150	< 2500	2,500	U	1000	< 350	350	U	140
1,2-Diphenylhydrazine			< 320	320	U	150	< 360	360	U	170	< 2500	2,500	U	1200	< 350	350	U	160
1,3-Dichlorobenzene			< 320	320	U	140	< 360	360	U	150	< 2500	2,500	U	1100	< 350	350	U	150
1,4-Dichlorobenzene			< 320	320	U	140	< 360	360	U	150	< 2500	2,500	U	1100	< 350	350	U	150
2,4,5-Trichlorophenol			< 320	320	U	250	< 360	360	U	280	< 2500	2,500	U	2000	< 350	350	U	270
2,4,6-Trichlorophenol			< 320	320	U	150	< 360	360	U	170	< 2500	2,500	U	1200	< 350	350	U	160
2,4-Dichlorophenol			< 320	320	U	160	< 360	360	U	180	< 2500	2,500	U	1300	< 350	350	U	170
2,4-Dimethylphenol			< 320	320	U	110	< 360	360	U	130	< 2500	2,500	U	890	< 350	350	U	120
2,4-Dinitrophenol			< 920	920	U	320	< 1000	1,000	U	360	< 7200	7,200	U	2500	< 990	990	U	350
2,4-Dinitrotoluene			< 320	320	U	180	< 360	360	U	200	< 2500	2,500	U	1400	< 350	350	U	200
2,6-Dinitrotoluene			< 320	320	U	150	< 360	360	U	160	< 2500	2,500	U	1100	< 350	350	U	160
2-Chloronaphthalene			< 320	320	U	130	< 360	360	U	150	< 2500	2,500	U	1000	< 350	350	U	140
2-Chlorophenol			< 320	320	U	130	< 360	360	U	150	< 2500	2,500	U	1000	< 350	350	U	140
2-Methylnaphthalene			< 320	320	U	140	< 360	360	U	150	< 2500	2,500	U	1100	< 350	350	U	150
2-Methylphenol (o-cresol)	330	100,000	< 320	320	U	220	< 330	330	U	240	< 720	720	U	720	< 330	330	U	230
2-Nitroaniline			< 920	920	U	470	< 1000	1,000	U	520	< 7200	7,200	U	3600	< 990	990	U	500
2-Nitrophenol			< 320	320	U	290	< 360	360	U	330	< 2500	2,500	U	2300	< 350	350	U	310
3&4-Methylphenol (m&p-cresol)	330	100,000	< 320	320	U	180	< 360	360	U	200	< 2500	2,500	U	1400	< 350	350	U	200
3,3'-Dichlorobenzidine			< 920	920	U	220	< 1000	1,000	U	240	< 7200	7,200	U	1700	< 990	990	U	230
3-Nitroaniline			< 920	920	U	920	< 1000	1,000	U	1000	< 7200	7,200	U	7200	< 990	990	U	990
4,6-Dinitro-2-methylphenol			< 2300	2,300	U	500	< 2600	2,600	U	560	< 18000	18,000	U	3900	< 2500	2,500	U	530
4-Bromophenyl phenyl ether			< 320	320	U	140	< 360	360	U	150	< 2500	2,500	U	1100	< 350	350	U	150
4-Chloro-3-methylphenol			< 320	320	U	160	< 360	360	U	180	< 2500	2,500	U	1300	< 350	350	U	170
4-Chloroaniline			< 370	370	U	220	< 410	410	U	240	< 2900	2,900	U	1700	< 400	400	U	230
4-Chlorophenyl phenyl ether			< 320	320	U	160	< 360	360	U	170	< 2500	2,500	U	1200	< 350	350	U	170
4-Nitroaniline			< 920	920	U	150	< 1000	1,000	U	170	< 7200	7,200	U	1200	< 990	990	U	170
4-Nitrophenol			< 460	460	U	210	< 520	520	U	230	< 3600	3,600	U	1600	< 500	500	U	220
Acenaphthene	20,000	100,000	< 320	320	U	140	< 360	360	U	160	< 2500	2,500	U	1100	< 350	350	U	150
Acenaphthylene	100,000	100,000	< 320	320	U	130	**190**	360	J	140	< 2500	2,500	U	1000	< 350	350	U	140
Acetophenone			< 320	320	U	140	< 360	360	U	160	< 2500	2,500	U	1100	< 350	350	U	150
Aniline			< 370	370	U	370	< 410	410	U	410	< 2900	2,900	U	2900	< 400	400	U	400
Anthracene	100,000	100,000	**190**	320	J	150	**210**	360	J	170	< 2500	2,500	U	1200	< 350	350	U	160
Benz(a)anthracene	1,000	1,000	**560**	320		160	**870**	360		170	**1,300**	2,500	J	1200	< 350	350	U	170
Benzidine			< 920	920	U	270	< 1000	1,000	U	300	< 7200	7,200	U	2100	< 990	990	U	290
Benzo(a)pyrene	1,000	1,000	**520**	320		150	**1,200**	360		170	< 1000	1,000	U	1000	< 350	350	U	160
Benzo(b)fluoranthene	1,000	1,000	**540**	320		160	**690**	360		180	< 1000	1,000	U	1000	< 350	350	U	170
Benzo(ghi)perylene	100,000	100,000	**430**	320		150	**590**	360		170	< 2500	2,500	U	1200	< 350	350	U	160
Benzo(k)fluoranthene	800	3,900	**470**	320		150	**790**	360		170	**730**	720		720	< 350	350	U	160
Benzoic acid			< 2300	2,300	U	920	< 2600	2,600	U	1000	< 18000	18,000	U	7200	< 2500	2,500	U	990
Benzyl butyl phthalate			< 320	320	U	120	< 360	360	U	130	< 2500	2,500	U	930	< 350	350	U	130
Bis(2-chloroethoxy)methane			< 320	320	U	130	< 360	360	U	140	< 2500	2,500	U	990	< 350	350	U	140
Bis(2-chloroethyl)ether			< 320	320	U	120	< 360	360	U	140	< 2500	2,500	U	970	< 350	350	U	130
Bis(2-chloroisopropyl)ether			< 320	320	U	130	< 360	360	U	140	< 2500	2,500	U	1000	< 350	350	U	140
Bis(2-ethylhexyl)phthalate			**380**	320		130	< 360	360	U	150	< 2500	2,500	U	1000	< 350	350	U	140
Carbazole			< 2300	2,300	U	350	< 2600	2,600	U	390	< 18000	18,000	U	2700	< 2500	2,500	U	380
Chrysene	1,000	3,900	**680**	320		160	**860**	360		170	**1,200**	1,100		1100	< 350	350	U	170
Dibenz(a,h)anthracene	330	330	< 320	320	U	150	< 330	330	U	170	< 720	720	U	720	< 330	330	U	160
Dibenzofuran	7,000	59,000	< 320	320	U	130	< 360	360	U	150	< 2500	2,500	U	1100	< 350	350	U	140
Diethyl phthalate			< 320	320	U	150	< 360	360	U	160	< 2500	2,500	U	1100	< 350	350	U	160
Dimethylphthalate			< 320	320	U	140	< 360	360	U	160	< 2500	2,500	U	1100	< 350	350	U	150
Di-n-butylphthalate			< 320	320	U	120	< 360	360	U	140	< 2500	2,500	U	960	< 350	350	U	130
Di-n-octylphthalate			< 320	320	U	120	< 360	360	U	130	< 2500	2,500	U	930	< 350	350	U	130
Fluoranthene	100,000	100,000	**960**	320		150	**710**	360		170	**2,200**	2,500	J	1200	< 350	350	U	160
Fluorene	30,000	100,000	< 320	320	U	150	< 360	360	U	170	< 2500	2,500	U	1200	< 350	350	U	160
Hexachlorobenzene			< 320	320	U	130	< 360	360	U	150	< 2500	2,500	U	1100	< 350	350	U	140
Hexachlorobutadiene			< 320	320	U	170	< 360	360	U	190	< 2500	2,500	U	1300	< 350	350	U	180
Hexachlorocyclopentadiene			< 320	320	U	140	< 360	360	U	160	< 2500	2,500	U	1100	< 350	350	U	150
Hexachloroethane			< 320	320	U	140	< 360	360	U	160	< 2500	2,500	U	1100	< 350	350	U	150
Indeno(1,2,3-cd)pyrene	500	500	**350**	320		150	**500**	360		170	< 720	720	U	720	< 350	350	U	160
Isophorone			< 320	320	U	130	< 360	360	U	140	< 2500	2,500	U	1000	< 350	350	U	140
Naphthalene	12,000	100,000	< 320	320	U	130	< 360	360	U	150	< 2500	2,500	U	1000	< 350	350	U	140
Nitrobenzene			< 320	320	U	160	< 360	360	U	180	< 2500	2,500	U	1300	< 350	350	U	170
N-Nitrosodimethylamine			< 320	320	U	130	< 360	360	U	150	< 2500	2,500	U	1000	< 350	350	U	140
N-Nitrosodi-n-propylamine			< 320	320	U	150	< 360	360	U	170	< 2500	2,500	U	1200	< 350	350	U	160
N-Nitrosodiphenylamine			< 320	320	U	180	< 360	360	U	200	< 2500	2,500	U	1400	< 350	350	U	190
Pentachloronitrobenzene			< 320	320	U	170	< 360	360	U	190	< 2500	2,500	U	1300	< 350	350	U	180
Pentachlorophenol	800	6,700	< 320	320	U	170	< 360	360	U	200	< 720	720	U	720	< 350	350	U	190
Phenanthrene	100,000	100,000	**740**	320		130	**500**	360		150	**3,000**	2,500		1000	< 350	350	U	140
Phenol	330	100,000	< 320	320	U	150	< 330	330	U	170	< 720	720	U	720	< 330	330	U	160
Pyrene	100,000	100,000	**930**	320		160	**1,700**	360		180	**2,100**	2,500	J	1200	< 350	350	U	170
Pyridine			< 320	320	U	110	< 360	360	U	130	< 2500	2,500	U	890	< 350	350	U	120

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

RL - Laboratory Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 4
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	Duplicate 11/20/2015 µg/Kg				Duplicate 11/23/2015 µg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL
1,2,4,5-Tetrachlorobenzene			< 260	260	U	130	< 250	250	U	130
1,2,4-Trichlorobenzene			< 260	260	U	110	< 250	250	U	110
1,2-Dichlorobenzene			< 260	260	U	110	< 250	250	U	100
1,2-Diphenylhydrazine			< 260	260	U	120	< 250	250	U	120
1,3-Dichlorobenzene			< 260	260	U	110	< 250	250	U	110
1,4-Dichlorobenzene			< 260	260	U	110	< 250	250	U	110
2,4,5-Trichlorophenol			< 260	260	U	210	< 250	250	U	190
2,4,6-Trichlorophenol			< 260	260	U	120	< 250	250	U	110
2,4-Dichlorophenol			< 260	260	U	130	< 250	250	U	130
2,4-Dimethylphenol			< 260	260	U	93	< 250	250	U	88
2,4-Dinitrophenol			< 750	750	U	260	< 710	710	U	250
2,4-Dinitrotoluene			< 260	260	U	150	< 250	250	U	140
2,6-Dinitrotoluene			< 260	260	U	120	< 250	250	U	110
2-Chloronaphthalene			< 260	260	U	110	< 250	250	U	100
2-Chlorophenol			< 260	260	U	110	< 250	250	U	100
2-Methylnaphthalene			**510**	260		110	< 250	250	U	110
2-Methylphenol (o-cresol)	330	100,000	< 260	260	U	180	< 250	250	U	170
2-Nitroaniline			< 750	750	U	380	< 710	710	U	360
2-Nitrophenol			< 260	260	U	240	< 250	250	U	230
3&4-Methylphenol (m&p-cresol)	330	100,000	< 260	260	U	150	< 250	250	U	140
3,3'-Dichlorobenzidine			< 750	750	U	180	< 710	710	U	170
3-Nitroaniline			< 750	750	U	750	< 710	710	U	710
4,6-Dinitro-2-methylphenol			< 1900	1,900	U	400	< 1800	1,800	U	380
4-Bromophenyl phenyl ether			< 260	260	U	110	< 250	250	U	100
4-Chloro-3-methylphenol			< 260	260	U	130	< 250	250	U	130
4-Chloroaniline			< 300	300	U	180	< 280	280	U	170
4-Chlorophenyl phenyl ether			< 260	260	U	130	< 250	250	U	120
4-Nitroaniline			< 750	750	U	130	< 710	710	U	120
4-Nitrophenol			< 380	380	U	170	< 360	360	U	160
Acenaphthene	20,000	100,000	**2,800**	260		110	< 250	250	U	110
Acenaphthylene	100,000	100,000	**430**	260		110	< 250	250	U	99
Acetophenone			< 260	260	U	120	< 250	250	U	110
Aniline			< 300	300	U	300	< 280	280	U	280
Anthracene	100,000	100,000	**2,300**	260		120	< 250	250	U	120
Benz(a)anthracene	1,000	1,000	**1,300**	260		130	**120**	250	J	120
Benzidine			< 750	750	U	220	< 710	710	U	210
Benzo(a)pyrene	1,000	1,000	**1,100**	260		120	< 250	250	U	120
Benzo(b)fluoranthene	1,000	1,000	**1,400**	260		130	< 250	250	U	120
Benzo(ghi)perylene	100,000	100,000	**910**	260		120	< 250	250	U	120
Benzo(k)fluoranthene	800	3,900	**760**	260		120	< 250	250	U	120
Benzoic acid			< 1900	1,900	U	750	< 1800	1,800	U	710
Benzyl butyl phthalate			< 260	260	U	97	< 250	250	U	92
Bis(2-chloroethoxy)methane			< 260	260	U	100	< 250	250	U	98
Bis(2-chloroethyl)ether			< 260	260	U	100	< 250	250	U	96
Bis(2-chloroisopropyl)ether			< 260	260	U	100	< 250	250	U	99
Bis(2-ethylhexyl)phthalate			< 260	260	U	110	< 250	250	U	100
Carbazole			**520**	1,900	J	290	< 1800	1,800	U	270
Chrysene	1,000	3,900	**1,600**	260		130	**140**	250	J	120
Dibenz(a,h)anthracene	330	330	< 260	260	U	120	< 250	250	U	120
Dibenzofuran	7,000	59,000	**550**	260		110	< 250	250	U	100
Diethyl phthalate			< 260	260	U	120	< 250	250	U	110
Dimethylphthalate			< 260	260	U	120	< 250	250	U	110
Di-n-butylphthalate			< 260	260	U	100	< 250	250	U	94
Di-n-octylphthalate			< 260	260	U	97	< 250	250	U	92
Fluoranthene	100,000	100,000	**5,400**	260		120	**240**	250	J	120
Fluorene	30,000	100,000	**980**	260		120	< 250	250	U	120
Hexachlorobenzene			< 260	260	U	110	< 250	250	U	100
Hexachlorobutadiene			< 260	260	U	140	< 250	250	U	130
Hexachlorocyclopentadiene			< 260	260	U	120	< 250	250	U	110
Hexachloroethane			< 260	260	U	110	< 250	250	U	110
Indeno(1,2,3-cd)pyrene	500	500	**640**	260		120	< 250	250	U	120
Isophorone			< 260	260	U	110	< 250	250	U	99
Naphthalene	12,000	100,000	**340**	260		110	< 250	250	U	100
Nitrobenzene			< 260	260	U	130	< 250	250	U	120
N-Nitrosodimethylamine			< 260	260	U	110	< 250	250	U	100
N-Nitrosodi-n-propylamine			< 260	260	U	120	< 250	250	U	120
N-Nitrosodiphenylamine			< 260	260	U	140	< 250	250	U	140
Pentachloronitrobenzene			< 260	260	U	140	< 250	250	U	130
Pentachlorophenol	800	6,700	< 260	260	U	140	< 250	250	U	130
Phenanthrene	100,000	100,000	**4,100**	260		110	**160**	250	J	100
Phenol	330	100,000	< 260	260	U	120	< 250	250	U	110
Pyrene	100,000	100,000	**6,900**	260		130	**210**	250	J	120
Pyridine			< 260	260	U	93	< 250	250	U	87

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

RL - Laboratory Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 5
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Pesticides and PCBs

	COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B1 11/24/2015 (0-2') µg/Kg				15B1 11/24/2015 (5-7') µg/Kg				15B3 11/24/2015 (0-2') µg/Kg				15B3 11/24/2015 (5-7') µg/Kg				15B4 11/24/2015 (0-2') µg/Kg				15B4 11/24/2015 (6-8') µg/Kg			
				Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
Pesticides	4,4' -DDD	3.3	13,000	< 9.5	9.5	U	9.5	< 2.4	2.4	U	2.4	< 2.1	2.1	U	2.1	< 2.4	2.4	U	2.4	< 2.2	2.2	U	2.2	< 2.4	2.4	U	2.4
	4,4' -DDE	3.3	8,900	< 9.5	9.5	U	9.5	< 2.4	2.4	U	2.4	< 2.1	2.1	U	2.1	< 2.4	2.4	U	2.4	< 2.2	2.2	U	2.2	< 2.4	2.4	U	2.4
	4,4' -DDT	3.3	7,900	< 9.5	9.5	U	9.5	< 2.4	2.4	U	2.4	< 2.1	2.1	U	2.1	< 2.4	2.4	U	2.4	< 2.2	2.2	U	2.2	< 2.4	2.4	U	2.4
	a-BHC	20	480	< 9.5	9.5	U	9.5	< 7.9	7.9	U	7.9	< 7.1	7.1	U	7.1	< 7.9	7.9	U	7.9	< 7.2	7.2	U	7.2	< 7.9	7.9	U	7.9
	a-Chlordane	94	4,200	< 19	19	U	19	< 4.0	4.0	U	4.0	< 3.6	3.6	U	3.6	< 3.9	3.9	U	3.9	< 3.6	3.6	U	3.6	< 4.0	4.0	U	4.0
	Aldrin	5	97	< 4.9	4.9	U	4.9	< 4.0	4.0	U	4.0	< 3.6	3.6	U	3.6	< 3.9	3.9	U	3.9	< 3.6	3.6	U	3.6	< 4.0	4.0	U	4.0
	b-BHC	36	360	< 9.5	9.5	U	9.5	< 7.9	7.9	U	7.9	< 7.1	7.1	U	7.1	< 7.9	7.9	U	7.9	< 7.2	7.2	U	7.2	< 7.9	7.9	U	7.9
	Chlordane			< 190	190	U	190	< 40	40	U	40	< 36	36	U	36	< 39	39	U	39	< 36	36	U	36	< 40	40	U	40
	d-BHC	40	100,000	< 38	38	U	38	< 7.9	7.9	U	7.9	< 7.1	7.1	U	7.1	< 7.9	7.9	U	7.9	< 7.2	7.2	U	7.2	< 7.9	7.9	U	7.9
	Dieldrin	5	200	< 4.9	4.9	U	4.9	< 4.0	4.0	U	4.0	< 3.6	3.6	U	3.6	< 3.9	3.9	U	3.9	< 3.6	3.6	U	3.6	< 4.0	4.0	U	4.0
	Endosulfan I	2,400	24,000	< 38	38	U	38	< 7.9	7.9	U	7.9	< 7.1	7.1	U	7.1	< 7.9	7.9	U	7.9	< 7.2	7.2	U	7.2	< 7.9	7.9	U	7.9
	Endosulfan II	2,400	24,000	< 38	38	U	38	< 7.9	7.9	U	7.9	< 7.1	7.1	U	7.1	< 7.9	7.9	U	7.9	< 7.2	7.2	U	7.2	< 7.9	7.9	U	7.9
	Endosulfan sulfate	2,400	24,000	< 38	38	U	38	< 7.9	7.9	U	7.9	< 7.1	7.1	U	7.1	< 7.9	7.9	U	7.9	< 7.2	7.2	U	7.2	< 7.9	7.9	U	7.9
	Endrin	14	11,000	< 9.5	9.5	U	9.5	< 7.9	7.9	U	7.9	< 7.1	7.1	U	7.1	< 7.9	7.9	U	7.9	< 7.2	7.2	U	7.2	< 7.9	7.9	U	7.9
	Endrin aldehyde			< 38	38	U	38	< 7.9	7.9	U	7.9	< 7.1	7.1	U	7.1	< 7.9	7.9	U	7.9	< 7.2	7.2	U	7.2	< 7.9	7.9	U	7.9
	Endrin ketone			< 38	38	U	38	< 7.9	7.9	U	7.9	< 7.1	7.1	U	7.1	< 7.9	7.9	U	7.9	< 7.2	7.2	U	7.2	< 7.9	7.9	U	7.9
	g-BHC			< 7.6	7.6	U	7.6	< 3.0	3.0	U	3.0	< 1.4	1.4	U	1.4	< 1.6	1.6	U	1.6	< 1.4	1.4	U	1.4	< 1.6	1.6	U	1.6
	g-Chlordane			< 19	19	U	19	< 4.0	4.0	U	4.0	< 3.6	3.6	U	3.6	< 3.9	3.9	U	3.9	< 3.6	3.6	U	3.6	< 4.0	4.0	U	4.0
	Heptachlor	42	2,100	< 38	38	U	38	< 7.9	7.9	U	7.9	< 7.1	7.1	U	7.1	< 7.9	7.9	U	7.9	< 7.2	7.2	U	7.2	< 7.9	7.9	U	7.9
	Heptachlor epoxide			< 38	38	U	38	< 7.9	7.9	U	7.9	< 7.1	7.1	U	7.1	< 7.9	7.9	U	7.9	< 7.2	7.2	U	7.2	< 7.9	7.9	U	7.9
	Methoxychlor			< 190	190	U	190	< 40	40	U	40	< 36	36	U	36	< 39	39	U	39	< 36	36	U	36	< 40	40	U	40
	Toxaphene			< 760	760	U	760	< 160	160	U	160	< 140	140	U	140	< 160	160	U	160	< 140	140	U	140	< 160	160	U	160
PCBs	PCB-1016	100	1,000	< 38	38	U	38	< 40	40	U	40	< 36	36	U	36	< 39	39	U	39	< 36	36	U	36	< 40	40	U	40
	PCB-1221	100	1,000	< 38	38	U	38	< 40	40	U	40	< 36	36	U	36	< 39	39	U	39	< 36	36	U	36	< 40	40	U	40
	PCB-1232	100	1,000	< 38	38	U	38	< 40	40	U	40	< 36	36	U	36	< 39	39	U	39	< 36	36	U	36	< 40	40	U	40
	PCB-1242	100	1,000	< 38	38	U	38	< 40	40	U	40	< 36	36	U	36	< 39	39	U	39	< 36	36	U	36	< 40	40	U	40
	PCB-1248	100	1,000	< 38	38	U	38	< 40	40	U	40	< 36	36	U	36	< 39	39	U	39	< 36	36	U	36	< 40	40	U	40
	PCB-1254	100	1,000	< 38	38	U	38	< 40	40	U	40	< 36	36	U	36	< 39	39	U	39	< 36	36	U	36	< 40	40	U	40
	PCB-1260	100	1,000	< 38	38	U	38	< 40	40	U	40	< 36	36	U	36	< 39	39	U	39	< 36	36	U	36	< 40	40	U	40
	PCB-1262	100	1,000	< 38	38	U	38	< 40	40	U	40	< 36	36	U	36	< 39	39	U	39	< 36	36	U	36	< 40	40	U	40
	PCB-1268	100	1,000	< 38	38	U	38	< 40	40	U	40	< 36	36	U	36	< 39	39	U	39	< 36	36	U	36	< 40	40	U	40

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
N	The concentration is based on the response fo the nearest internal. This flag is used on the TIC form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.
(*)	See report for comment.

TABLE 5
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Pesticides and PCBs

	COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B6 11/20/2015 (3-5') µg/Kg				15B6 11/20/2015 (10-12') µg/Kg				15B9 11/20/2015 (0-2') µg/Kg				15B9 11/20/2015 (6-8') µg/Kg				15B10 11/20/2015 (6-8') µg/Kg			
				Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
Pesticides	4,4' -DDD	3.3	13,000	< 2.3	2.3	U	2.3	< 3.2	3.2	U	3.2	< 2.1	2.1	U	2.1	< 2.5	2.5	U	2.5	< 2.3	2.3	U	2.3
	4,4' -DDE	3.3	8,900	< 2.3	2.3	U	2.3	< 3.2	3.2	U	3.2	< 2.1	2.1	U	2.1	< 2.5	2.5	U	2.5	< 2.3	2.3	U	2.3
	4,4' -DDT	3.3	7,900	< 2.3	2.3	U	2.3	< 3.2	3.2	U	3.2	< 2.1	2.1	U	2.1	< 2.5	2.5	U	2.5	< 2.3	2.3	U	2.3
	a-BHC	20	480	< 7.6	7.6	U	7.6	< 11	11	U	11	< 7.0	7.0	U	7.0	< 8.4	8.4	U	8.4	< 7.6	7.6	U	7.6
	a-Chlordane	94	4,200	< 3.8	3.8	U	3.8	< 5.3	5.3	U	5.3	< 3.5	3.5	U	3.5	< 4.2	4.2	U	4.2	< 3.8	3.8	U	3.8
	Aldrin	5	97	< 3.8	3.8	U	3.8	< 2.6	2.6	U	2.6	< 3.5	3.5	U	3.5	< 4.2	4.2	U	4.2	< 3.8	3.8	U	3.8
	b-BHC	36	360	< 7.6	7.6	U	7.6	< 11	11	U	11	< 7.0	7.0	U	7.0	< 8.4	8.4	U	8.4	< 7.6	7.6	U	7.6
	Chlordane			< 38	38	U	38	< 53	53	U	53	< 35	35	U	35	< 42	42	U	42	< 38	38	U	38
	d-BHC	40	100,000	< 7.6	7.6	U	7.6	< 11	11	U	11	< 7.0	7.0	U	7.0	< 8.4	8.4	U	8.4	< 7.6	7.6	U	7.6
	Dieldrin	5	200	< 3.8	3.8	U	3.8	< 2.6	2.6	U	2.6	< 3.5	3.5	U	3.5	< 4.2	4.2	U	4.2	< 3.8	3.8	U	3.8
	Endosulfan I	2,400	24,000	< 7.6	7.6	U	7.6	< 11	11	U	11	< 7.0	7.0	U	7.0	< 8.4	8.4	U	8.4	< 7.6	7.6	U	7.6
	Endosulfan II	2,400	24,000	< 7.6	7.6	U	7.6	< 11	11	U	11	< 7.0	7.0	U	7.0	< 8.4	8.4	U	8.4	< 7.6	7.6	U	7.6
	Endosulfan sulfate	2,400	24,000	< 7.6	7.6	U	7.6	< 11	11	U	11	< 7.0	7.0	U	7.0	< 8.4	8.4	U	8.4	< 7.6	7.6	U	7.6
	Endrin	14	11,000	< 7.6	7.6	U	7.6	< 11	11	U	11	< 7.0	7.0	U	7.0	< 8.4	8.4	U	8.4	< 7.6	7.6	U	7.6
	Endrin aldehyde			< 7.6	7.6	U	7.6	< 11	11	U	11	< 7.0	7.0	U	7.0	< 8.4	8.4	U	8.4	< 7.6	7.6	U	7.6
	Endrin ketone			< 7.6	7.6	U	7.6	< 11	11	U	11	< 7.0	7.0	U	7.0	< 8.4	8.4	U	8.4	< 7.6	7.6	U	7.6
	g-BHC			< 1.5	1.5	U	1.5	< 2.1	2.1	U	2.1	< 1.4	1.4	U	1.4	< 1.7	1.7	U	1.7	< 1.5	1.5	U	1.5
	g-Chlordane			< 3.8	3.8	U	3.8	< 5.3	5.3	U	5.3	< 3.5	3.5	U	3.5	< 4.2	4.2	U	4.2	< 3.8	3.8	U	3.8
	Heptachlor	42	2,100	< 7.6	7.6	U	7.6	< 11	11	U	11	< 7.0	7.0	U	7.0	< 8.4	8.4	U	8.4	< 7.6	7.6	U	7.6
	Heptachlor epoxide			< 7.6	7.6	U	7.6	< 11	11	U	11	< 7.0	7.0	U	7.0	< 8.4	8.4	U	8.4	< 7.6	7.6	U	7.6
	Methoxychlor			< 38	38	U	38	< 53	53	U	53	< 35	35	U	35	< 42	42	U	42	< 38	38	U	38
	Toxaphene			< 150	150	U	150	< 210	210	U	210	< 140	140	U	140	< 170	170	U	170	< 150	150	U	150
PCBs	PCB-1016	100	1,000	< 38	38	U	38	< 53	53	U	53	< 35	35	U	35	< 42	42	U	42	< 38	38	U	38
	PCB-1221	100	1,000	< 38	38	U	38	< 53	53	U	53	< 35	35	U	35	< 42	42	U	42	< 38	38	U	38
	PCB-1232	100	1,000	< 38	38	U	38	< 53	53	U	53	< 35	35	U	35	< 42	42	U	42	< 38	38	U	38
	PCB-1242	100	1,000	< 38	38	U	38	< 53	53	U	53	< 35	35	U	35	< 42	42	U	42	< 38	38	U	38
	PCB-1248	100	1,000	< 38	38	U	38	< 53	53	U	53	< 35	35	U	35	< 42	42	U	42	< 38	38	U	38
	PCB-1254	100	1,000	< 38	38	U	38	< 53	53	U	53	< 35	35	U	35	< 42	42	U	42	< 38	38	U	38
	PCB-1260	100	1,000	< 38	38	U	38	< 53	53	U	53	< 35	35	U	35	< 42	42	U	42	< 38	38	U	38
	PCB-1262	100	1,000	< 38	38	U	38	< 53	53	U	53	< 35	35	U	35	< 42	42	U	42	< 38	38	U	38
	PCB-1268	100	1,000	< 38	38	U	38	< 53	53	U	53	< 35	35	U	35	< 42	42	U	42	< 38	38	U	38

Notes:

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B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
N	The concentration is based on the response fo the nearest internal. This flag is used on the TIC form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.
(*)	See report for comment.

TABLE 5
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Pesticides and PCBs

	COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B11 11/23/2015 (0-2') µg/Kg				15B11 11/23/2015 (6-8') µg/Kg				15B13 11/20/2015 (0-2') µg/Kg				15B13 11/20/2015 (6-8') µg/Kg				15B18 11/20/2015 (0-2') µg/Kg				15B18 11/20/2015 (6-8') µg/Kg			
				Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
Pesticides	4,4' -DDD	3.3	13,000	< 2.2	2.2	U	2.2	< 2.4	2.4	U	2.4	**3.1**	2.3		2.3	< 2.4	2.4	U	2.4	< 2.1	2.1	U	2.1	< 2.2	2.2	U	2.2
	4,4' -DDE	3.3	8,900	< 2.2	2.2	U	2.2	< 2.4	2.4	U	2.4	**7.9**	2.3		2.3	< 2.4	2.4	U	2.4	< 2.1	2.1	U	2.1	< 2.2	2.2	U	2.2
	4,4' -DDT	3.3	7,900	**4.2**	2.2		2.2	< 2.4	2.4	U	2.4	**9.4**	2.3		2.3	< 2.4	2.4	U	2.4	< 2.1	2.1	U	2.1	< 2.2	2.2	U	2.2
	a-BHC	20	480	< 7.4	7.4	U	7.4	< 8.0	8.0	U	8.0	< 7.8	7.8	U	7.8	< 7.9	7.9	U	7.9	< 6.9	6.9	U	6.9	< 7.5	7.5	U	7.5
	a-Chlordane	94	4,200	< 3.7	3.7	U	3.7	< 4.0	4.0	U	4.0	< 3.9	3.9	U	3.9	< 4.0	4.0	U	4.0	< 3.5	3.5	U	3.5	< 3.7	3.7	U	3.7
	Aldrin	5	97	< 3.7	3.7	U	3.7	< 4.0	4.0	U	4.0	< 3.9	3.9	U	3.9	< 4.0	4.0	U	4.0	< 3.5	3.5	U	3.5	< 3.7	3.7	U	3.7
	b-BHC	36	360	< 7.4	7.4	U	7.4	< 8.0	8.0	U	8.0	< 7.8	7.8	U	7.8	< 7.9	7.9	U	7.9	< 6.9	6.9	U	6.9	< 7.5	7.5	U	7.5
	Chlordane			< 37	37	U	37	< 40	40	U	40	< 39	39	U	39	< 40	40	U	40	< 35	35	U	35	< 37	37	U	37
	d-BHC	40	100,000	< 7.4	7.4	U	7.4	< 8.0	8.0	U	8.0	< 7.8	7.8	U	7.8	< 7.9	7.9	U	7.9	< 6.9	6.9	U	6.9	< 7.5	7.5	U	7.5
	Dieldrin	5	200	< 3.7	3.7	U	3.7	< 4.0	4.0	U	4.0	< 3.9	3.9	U	3.9	< 4.0	4.0	U	4.0	< 3.5	3.5	U	3.5	< 3.7	3.7	U	3.7
	Endosulfan I	2,400	24,000	< 7.4	7.4	U	7.4	< 8.0	8.0	U	8.0	< 7.8	7.8	U	7.8	< 7.9	7.9	U	7.9	< 6.9	6.9	U	6.9	< 7.5	7.5	U	7.5
	Endosulfan II	2,400	24,000	< 7.4	7.4	U	7.4	< 8.0	8.0	U	8.0	< 7.8	7.8	U	7.8	< 7.9	7.9	U	7.9	< 6.9	6.9	U	6.9	< 7.5	7.5	U	7.5
	Endosulfan sulfate	2,400	24,000	< 7.4	7.4	U	7.4	< 8.0	8.0	U	8.0	< 7.8	7.8	U	7.8	< 7.9	7.9	U	7.9	< 6.9	6.9	U	6.9	< 7.5	7.5	U	7.5
	Endrin	14	11,000	< 7.4	7.4	U	7.4	< 8.0	8.0	U	8.0	< 7.8	7.8	U	7.8	< 7.9	7.9	U	7.9	< 6.9	6.9	U	6.9	< 7.5	7.5	U	7.5
	Endrin aldehyde			< 7.4	7.4	U	7.4	< 8.0	8.0	U	8.0	< 7.8	7.8	U	7.8	< 7.9	7.9	U	7.9	< 6.9	6.9	U	6.9	< 7.5	7.5	U	7.5
	Endrin ketone			< 7.4	7.4	U	7.4	< 8.0	8.0	U	8.0	< 7.8	7.8	U	7.8	< 7.9	7.9	U	7.9	< 6.9	6.9	U	6.9	< 7.5	7.5	U	7.5
	g-BHC			< 1.5	1.5	U	1.5	< 1.6	1.6	U	1.6	< 2.0	2.0	U	2.0	< 1.6	1.6	U	1.6	< 1.4	1.4	U	1.4	< 1.5	1.5	U	1.5
	g-Chlordane			< 3.7	3.7	U	3.7	< 4.0	4.0	U	4.0	< 12	12	U	12	< 4.0	4.0	U	4.0	< 3.5	3.5	U	3.5	< 3.7	3.7	U	3.7
	Heptachlor	42	2,100	< 7.4	7.4	U	7.4	< 8.0	8.0	U	8.0	< 7.8	7.8	U	7.8	< 7.9	7.9	U	7.9	< 6.9	6.9	U	6.9	< 7.5	7.5	U	7.5
	Heptachlor epoxide			< 7.4	7.4	U	7.4	< 8.0	8.0	U	8.0	< 7.8	7.8	U	7.8	< 7.9	7.9	U	7.9	< 6.9	6.9	U	6.9	< 7.5	7.5	U	7.5
	Methoxychlor			< 37	37	U	37	< 40	40	U	40	< 39	39	U	39	< 40	40	U	40	< 35	35	U	35	< 37	37	U	37
	Toxaphene			< 150	150	U	150	< 160	160	U	160	< 160	160	U	160	< 160	160	U	160	< 140	140	U	140	< 150	150	U	150
PCBs	PCB-1016	100	1,000	< 37	37	U	37	< 40	40	U	40	< 39	39	U	39	< 40	40	U	40	< 35	35	U	35	< 37	37	U	37
	PCB-1221	100	1,000	< 37	37	U	37	< 40	40	U	40	< 39	39	U	39	< 40	40	U	40	< 35	35	U	35	< 37	37	U	37
	PCB-1232	100	1,000	< 37	37	U	37	< 40	40	U	40	< 39	39	U	39	< 40	40	U	40	< 35	35	U	35	< 37	37	U	37
	PCB-1242	100	1,000	< 37	37	U	37	< 40	40	U	40	< 39	39	U	39	< 40	40	U	40	< 35	35	U	35	< 37	37	U	37
	PCB-1248	100	1,000	< 37	37	U	37	< 40	40	U	40	< 39	39	U	39	< 40	40	U	40	< 35	35	U	35	< 37	37	U	37
	PCB-1254	100	1,000	< 37	37	U	37	< 40	40	U	40	< 39	39	U	39	< 40	40	U	40	< 35	35	U	35	< 37	37	U	37
	PCB-1260	100	1,000	< 37	37	U	37	< 40	40	U	40	< 39	39	U	39	< 40	40	U	40	< 35	35	U	35	< 37	37	U	37
	PCB-1262	100	1,000	< 37	37	U	37	< 40	40	U	40	< 39	39	U	39	< 40	40	U	40	< 35	35	U	35	< 37	37	U	37
	PCB-1268	100	1,000	< 37	37	U	37	< 40	40	U	40	< 39	39	U	39	< 40	40	U	40	< 35	35	U	35	< 37	37	U	37

Notes:

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	COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B19 11/20/2015 (0-2') µg/Kg				15B19 11/20/2015 (6-8') µg/Kg				15B22 11/20/2015 (0-2') µg/Kg				15B22 11/20/2015 (6-8') µg/Kg				15B23 11/20/2015 (2-4') µg/Kg				15B23 11/20/2015 (6-8') µg/Kg			
				Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
Pesticides	4,4' -DDD	3.3	13,000	< 2.2	2.2	U	2.2	< 2.2	2.2	U	2.2	< 14	14	U	14	< 3.1	3.1	U	3.1	< 2.2	2.2	U	2.2	< 3.0	3.0	U	3.0
	4,4' -DDE	3.3	8,900	< 2.2	2.2	U	2.2	< 2.2	2.2	U	2.2	**130**	14		14	< 3.1	3.1	U	3.1	< 2.2	2.2	U	2.2	< 3.0	3.0	U	3.0
	4,4' -DDT	3.3	7,900	< 2.2	2.2	U	2.2	< 2.2	2.2	U	2.2	**280**	14		14	< 3.1	3.1	U	3.1	< 2.2	2.2	U	2.2	< 3.0	3.0	U	3.0
	a-BHC	20	480	< 7.2	7.2	U	7.2	< 7.4	7.4	U	7.4	< 12	12	U	12	< 10	10	U	10	< 7.3	7.3	U	7.3	< 9.9	9.9	U	9.9
	a-Chlordane	94	4,200	< 3.6	3.6	U	3.6	< 3.7	3.7	U	3.7	**300**	23		23	< 5.2	5.2	U	5.2	< 3.7	3.7	U	3.7	< 4.9	4.9	U	4.9
	Aldrin	5	97	< 3.6	3.6	U	3.6	< 3.7	3.7	U	3.7	< 12	12	U	12	< 2.6	2.6	U	2.6	< 3.7	3.7	U	3.7	< 4.9	4.9	U	4.9
	b-BHC	36	360	< 7.2	7.2	U	7.2	< 7.4	7.4	U	7.4	< 12	12	U	12	< 10	10	U	10	< 7.3	7.3	U	7.3	< 9.9	9.9	U	9.9
	Chlordane			< 36	36	U	36	< 37	37	U	37	**1,600**	230		230	< 52	52	U	52	< 37	37	U	37	< 49	49	U	49
	d-BHC	40	100,000	< 7.2	7.2	U	7.2	< 7.4	7.4	U	7.4	< 23	23	U	23	< 10	10	U	10	< 7.3	7.3	U	7.3	< 9.9	9.9	U	9.9
	Dieldrin	5	200	< 3.6	3.6	U	3.6	< 3.7	3.7	U	3.7	< 23	23	U	23	< 1.6	1.6	U	1.6	< 3.7	3.7	U	3.7	< 4.9	4.9	U	4.9
	Endosulfan I	2,400	24,000	< 7.2	7.2	U	7.2	< 7.4	7.4	U	7.4	< 46	46	U	46	< 10	10	U	10	< 7.3	7.3	U	7.3	< 9.9	9.9	U	9.9
	Endosulfan II	2,400	24,000	< 7.2	7.2	U	7.2	< 7.4	7.4	U	7.4	< 46	46	U	46	< 10	10	U	10	< 7.3	7.3	U	7.3	< 9.9	9.9	U	9.9
	Endosulfan sulfate	2,400	24,000	< 7.2	7.2	U	7.2	< 7.4	7.4	U	7.4	< 46	46	U	46	< 10	10	U	10	< 7.3	7.3	U	7.3	< 9.9	9.9	U	9.9
	Endrin	14	11,000	< 7.2	7.2	U	7.2	< 7.4	7.4	U	7.4	< 23	23	U	23	< 10	10	U	10	< 7.3	7.3	U	7.3	< 9.9	9.9	U	9.9
	Endrin aldehyde			< 7.2	7.2	U	7.2	< 7.4	7.4	U	7.4	< 46	46	U	46	< 10	10	U	10	< 7.3	7.3	U	7.3	< 9.9	9.9	U	9.9
	Endrin ketone			< 7.2	7.2	U	7.2	< 7.4	7.4	U	7.4	< 46	46	U	46	< 10	10	U	10	< 7.3	7.3	U	7.3	< 9.9	9.9	U	9.9
	g-BHC			< 1.4	1.4	U	1.4	< 1.5	1.5	U	1.5	< 9.2	9.2	U	9.2	< 2.1	2.1	U	2.1	< 1.5	1.5	U	1.5	< 2.0	2.0	U	2.0
	g-Chlordane			< 3.6	3.6	U	3.6	< 3.7	3.7	U	3.7	**250**	23		23	< 5.2	5.2	U	5.2	< 3.7	3.7	U	3.7	< 4.9	4.9	U	4.9
	Heptachlor	42	2,100	< 7.2	7.2	U	7.2	< 7.4	7.4	U	7.4	< 23	23	U	23	< 10	10	U	10	< 7.3	7.3	U	7.3	< 9.9	9.9	U	9.9
	Heptachlor epoxide			< 7.2	7.2	U	7.2	< 7.4	7.4	U	7.4	< 46	46	U	46	< 10	10	U	10	< 7.3	7.3	U	7.3	< 9.9	9.9	U	9.9
	Methoxychlor			< 36	36	U	36	< 37	37	U	37	< 230	230	U	230	< 52	52	U	52	< 37	37	U	37	< 49	49	U	49
	Toxaphene			< 140	140	U	140	< 150	150	U	150	< 920	920	U	920	< 210	210	U	210	< 150	150	U	150	< 200	200	U	200
PCBs	PCB-1016	100	1,000	< 36	36	U	36	< 37	37	U	37	< 46	46	U	46	< 52	52	U	52	< 37	37	U	37	< 49	49	U	49
	PCB-1221	100	1,000	< 36	36	U	36	< 37	37	U	37	< 46	46	U	46	< 52	52	U	52	< 37	37	U	37	< 49	49	U	49
	PCB-1232	100	1,000	< 36	36	U	36	< 37	37	U	37	< 46	46	U	46	< 52	52	U	52	< 37	37	U	37	< 49	49	U	49
	PCB-1242	100	1,000	< 36	36	U	36	< 37	37	U	37	< 46	46	U	46	< 52	52	U	52	< 37	37	U	37	< 49	49	U	49
	PCB-1248	100	1,000	< 36	36	U	36	< 37	37	U	37	< 46	46	U	46	< 52	52	U	52	< 37	37	U	37	< 49	49	U	49
	PCB-1254	100	1,000	< 36	36	U	36	< 37	37	U	37	< 46	46	U	46	< 52	52	U	52	< 37	37	U	37	< 49	49	U	49
	PCB-1260	100	1,000	< 36	36	U	36	< 37	37	U	37	**210**	46		46	< 52	52	U	52	< 37	37	U	37	< 49	49	U	49
	PCB-1262	100	1,000	< 36	36	U	36	< 37	37	U	37	< 46	46	U	46	< 52	52	U	52	< 37	37	U	37	< 49	49	U	49
	PCB-1268	100	1,000	< 36	36	U	36	< 37	37	U	37	< 46	46	U	46	< 52	52	U	52	< 37	37	U	37	< 49	49	U	49

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
N	The concentration is based on the response fo the nearest internal. This flag is used on the TIC form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.
(*)	See report for comment.

TABLE 5
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
Pesticides and PCBs

	COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	Duplicate 11/20/2015 µg/Kg				Duplicate 11/23/2015 µg/Kg			
				Result	RL	Qual	MDL	Result	RL	Qual	MDL
Pesticides	4,4' -DDD	3.3	13,000	**8**	2.3		2.3	< 2.2	2.2	U	2.2
	4,4' -DDE	3.3	8,900	**22**	2.3		2.3	< 2.2	2.2	U	2.2
	4,4' -DDT	3.3	7,900	**32**	2.3		2.3	**3.6**	2.2		2.2
	a-BHC	20	480	< 7.5	7.5	U	7.5	< 7.2	7.2	U	7.2
	a-Chlordane	94	4,200	< 11	11	U	11	< 3.6	3.6	U	3.6
	Aldrin	5	97	< 3.8	3.8	U	3.8	< 3.6	3.6	U	3.6
	b-BHC	36	360	< 7.5	7.5	U	7.5	< 7.2	7.2	U	7.2
	Chlordane			< 38	38	U	38	< 36	36	U	36
	d-BHC	40	100,000	< 7.5	7.5	U	7.5	< 7.2	7.2	U	7.2
	Dieldrin	5	200	< 3.8	3.8	U	3.8	< 3.6	3.6	U	3.6
	Endosulfan I	2,400	24,000	< 7.5	7.5	U	7.5	< 7.2	7.2	U	7.2
	Endosulfan II	2,400	24,000	< 7.5	7.5	U	7.5	< 7.2	7.2	U	7.2
	Endosulfan sulfate	2,400	24,000	< 7.5	7.5	U	7.5	< 7.2	7.2	U	7.2
	Endrin	14	11,000	< 7.5	7.5	U	7.5	< 7.2	7.2	U	7.2
	Endrin aldehyde			**220**	75		75	< 7.2	7.2	U	7.2
	Endrin ketone			< 7.5	7.5	U	7.5	< 7.2	7.2	U	7.2
	g-BHC			< 1.5	1.5	U	1.5	< 1.4	1.4	U	1.4
	g-Chlordane			< 15	15	U	15	< 3.6	3.6	U	3.6
	Heptachlor	42	2,100	< 7.5	7.5	U	7.5	< 7.2	7.2	U	7.2
	Heptachlor epoxide			< 7.5	7.5	U	7.5	< 7.2	7.2	U	7.2
	Methoxychlor			< 38	38	U	38	< 36	36	U	36
	Toxaphene			< 150	150	U	150	< 140	140	U	140
PCBs	PCB-1016	100	1,000	< 38	38	U	38	< 36	36	U	36
	PCB-1221	100	1,000	< 38	38	U	38	< 36	36	U	36
	PCB-1232	100	1,000	< 38	38	U	38	< 36	36	U	36
	PCB-1242	100	1,000	< 38	38	U	38	< 36	36	U	36
	PCB-1248	100	1,000	< 38	38	U	38	< 36	36	U	36
	PCB-1254	100	1,000	< 38	38	U	38	< 36	36	U	36
	PCB-1260	100	1,000	**110**	38		38	< 36	36	U	36
	PCB-1262	100	1,000	< 38	38	U	38	< 36	36	U	36
	PCB-1268	100	1,000	< 38	38	U	38	< 36	36	U	36

Notes:

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Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
N	The concentration is based on the response fo the nearest internal. This flag is used on the TIC form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.
(*)	See report for comment.

TABLE 6
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
TAL Metals

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B1 11/24/2015 (0-2') mg/Kg				15B1 11/24/2015 (5-7') mg/Kg				15B3 11/24/2015 (0-2') mg/Kg				15B3 11/24/2015 (5-7') mg/Kg				15B4 11/24/2015 (0-2') mg/Kg				15B4 11/24/2015 (6-8') mg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
Aluminum			4,390	360	*	72	10,300	39	*	7.8	5,030	34	*	6.9	3,260	41	*	8.2	6,980	35	*	7.0	8,910	41	*	8.1
Antimony			< 1.8	1.8	U	1.8	< 2.0	2.0	U	2.0	< 1.7	1.7	U	1.7	< 2.1	2.1	U	2.1	< 1.8	1.8	U	1.8	< 2.0	2.0	U	2.0
Arsenic	13	16	3.7	0.7		0.72	7.7	0.8		0.78	19.5	0.7		0.69	33.5	0.8		0.82	19.5	0.7		0.70	2	0.8		0.81
Barium	350	350	38	0.7		0.36	33.9	0.8		0.39	43.4	0.7		0.34	21	0.8		0.41	48.9	0.7		0.35	33	0.8		0.41
Beryllium	7.2	14	0.23	0.29	B	0.14	0.5	0.31		0.16	0.18	0.28	B	0.14	< 0.33	0.33	U	0.16	0.28	0.28	B	0.14		0.33		0.16
Cadmium	2.5	2.5	1.23	0.36		0.14	1	0.39		0.16	3.41	0.34		0.14	4.01	0.41		0.16	1.58	0.35		0.14	1	0.41		0.16
Calcium			20,500	360	*	330	26,800	39	*	36	3,000	3.4	*	3.2	5,910	4.1	*	3.8	7,990	3.5	*	3.2	10,400	4.1	*	3.7
Chromium	30	180	14.7	0.36		0.36	22.5	0.39		0.39	25.3	0.34		0.34	69.6	0.41		0.41	27.5	0.35		0.35	20	0.41		0.41
Cobalt			22.1	0.36		0.36	34.3	0.39		0.39	37.2	0.34		0.34	92.7	0.41		0.41	24.9	0.35		0.35	19	0.41		0.41
Copper	50	270	36.6	0.36		0.36	33.8	0.39		0.39	72.6	0.34		0.34	194	4.1		4.1	100	0.35		0.35	21	0.41		0.41
Iron			73,700	360	*	360	69,000	39	*	39	193,000	340	*	340	222,000	410	*	410	97,500	350	*	350	47,700	41	*	41
Lead	63	400	76	0.7	*	0.36	60.8	0.8	*	0.39	282	6.9	*	3.4	16.1	0.8	*	0.41	2,280	70	*	35	38	0.8	*	0.41
Magnesium			11,300	360	*	360	19,600	39	*	39	1,110	3.4	*	3.4	2,250	4.1	*	4.1	3,660	3.5	*	3.5	6,310	41	*	41
Manganese	1,600	2,000	522	36	*	36	970	3.9	*	3.9	1,030	3.4	*	3.4	2,750	41	*	41	1,020	3.5	*	3.5	741	4.1	*	4.1
Mercury	0.18	0.81	0.04	0.03		0.02	0.04	0.03		0.02	0.31	0.03		0.02	< 0.03	0.03	U	0.02	0.92	0.03		0.02	< 0.03	0.03	U	0.02
Nickel	30	140	26.5	0.36		0.36	36	0.39		0.39	36.8	0.34		0.34	143	0.41		0.41	35.7	0.35		0.35	23	0.41		0.41
Potassium			766	7		2.8	3,160	8		3.1	647	7		2.7	376	8		3.2	1,090	7		2.7	1,750	8		3.2
Selenium	3.9	36	< 1.4	1.4	U	1.2	< 1.6	1.6	U	1.3	< 1.4	1.4	U	1.2	< 1.6	1.6	U	1.4	< 1.4	1.4	U	1.2	< 1.6	1.6	U	1.4
Silver	2	36	< 0.36	0.36	U	0.36	< 0.39	0.39	U	0.39	< 0.34	0.34	U	0.34	< 0.41	0.41	U	0.41	< 0.35	0.35	U	0.35	< 0.41	0.41	U	0.41
Sodium			1,480	7		3.1	3,150	8		3.4	144	7		3.0	889	8		3.5	204	7		3.0	810	8		3.5
Thallium			< 1.4	1.4	U	1.4	< 1.6	1.6	U	1.6	< 1.4	1.4	U	1.4	< 1.6	1.6	U	1.6	< 1.4	1.4	U	1.4	< 1.6	1.6	U	1.6
Vanadium			29.8	0.4		0.36	36.9	0.4		0.39	73.3	0.3		0.34	92.8	0.4		0.41	57.4	0.4		0.35	26	0.4		0.41
Zinc	109	2,200	29.6	0.7		0.36	50.6	0.8		0.39	89.1	0.7		0.34	< 8.2	8.2	U	4.1	95.5	0.7		0.35	34.1	0.8		0.41

Notes:

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TABLE 6
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
TAL Metals

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B6 11/20/2015 (3-5') mg/Kg				15B6 11/20/2015 (10-12') mg/Kg				15B9 11/20/2015 (0-2') mg/Kg				15B9 11/20/2015 (6-8') mg/Kg				15B10 11/20/2015 (6-8') mg/Kg				15B11 11/23/2015 (0-2') mg/Kg				15B11 11/23/2015 (6-8') mg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
Aluminum			4,000	36		7.2	15,500	51		10	5,910	35		7.0	9,780	42		8.3	3,990	36		7.3	6,420	36		7.3	9,670	39		7.7
Antimony			< 1.8	1.8	U	1.8	< 2.6	2.6	U	2.6	< 1.7	1.7	U	1.7	< 2.1	2.1	U	2.1	< 1.8	1.8	U	1.8	< 1.8	1.8	U	1.8	< 1.9	1.9	U	1.9
Arsenic	13	16	11.9	0.7		0.72	8	1.0		1.0	9.8	0.7		0.70	4	0.8		0.83	22.8	0.7		0.73	14.2	0.7		0.73	2	0.8		0.77
Barium	350	350	53.3	0.7		0.36	39	1.0		0.51	44.7	0.7		0.35	38	0.8		0.42	30.4	0.7		0.36	87.5	0.7		0.36	27	0.8		0.39
Beryllium	7.2	14	0.18	0.29	B	0.14	1	0.41		0.20	0.25	0.28	B	0.14	1	0.33		0.17	0.19	0.29	B	0.15	0.4	0.29		0.15		0.31		0.15
Cadmium	2.5	2.5	3.03	0.36		0.14	1	0.51		0.20	2.98	0.35		0.14		0.42	B	0.17	3.55	0.36		0.15	2.06	0.36		0.15	2	0.39		0.15
Calcium			4,700	3.6		3.3	2,070	5.1		4.7	4,510	3.5		3.2	15,800	42		38	411	3.6		3.3	13,500	36		34	5,850	39		36
Chromium	30	180	28.2	0.36		0.36	32.8	0.51		0.51	25.7	0.35		0.35	25	0.42		0.42	45.9	0.36		0.36	18.4	0.36		0.36	23	0.39		0.39
Cobalt			48.7	0.36		0.36	12	0.51		0.51	47.7	0.35		0.35	10	0.42		0.42	54	0.36		0.36	26.8	0.36		0.36	17	0.39		0.39
Copper	50	270	64.6	0.36	*	0.36	17	0.51	*	0.51	28	0.35	*	0.35	20	0.42	*	0.42	40.6	0.36	*	0.36	51.2	0.36		0.36	31	0.39		0.39
Iron			139,000	360		360	31,100	51		51	148,000	350		350	20,700	42		42	164,000	360		360	96,400	360		360	82,500	39		39
Lead	63	400	42.2	0.7		0.36	12	1.0		0.51	24.5	0.7		0.35	33	0.8		0.42	10.3	0.7		0.36	317	7.3	N	3.6	51	0.8	N	0.39
Magnesium			518	3.6	N	3.6	7,430	5.1	N	5.1	2,150	3.5	N	3.5	11,400	42	N	42	774	3.6	N	3.6	1,460	36		36	6,540	39		39
Manganese	1,600	2,000	1,660	36		36	459	5.1		5.1	1,150	3.5		3.5	357	4.2		4.2	484	3.6		3.6	793	3.6		3.6	2,450	39		39
Mercury	0.18	0.81	0.05	0.03	*	0.02	< 0.04	0.04	U*	0.03	0.14	0.03	*	0.02	< 0.03	0.03	U*	0.02	< 0.03	0.03	U*	0.02	0.22	0.03	*	0.02	< 0.03	0.03	U*	0.02
Nickel	30	140	49.6	0.36		0.36	26	0.51		0.51	45.9	0.35		0.35	20	0.42		0.42	42.8	0.36		0.36	33	0.36		0.36	23	0.39		0.39
Potassium			334	7		2.8	4,220	10		4.0	613	7		2.7	3,170	8		3.2	537	7		2.8	707	7		2.8	916	77		30
Selenium	3.9	36	< 1.4	1.4	U	1.2	< 2.0	2.0	U	1.7	< 1.4	1.4	U	1.2	< 1.7	1.7	U	1.4	< 1.5	1.5	U	1.2	< 1.5	1.5	U	1.2	< 1.5	1.5	U	1.3
Silver	2	36	< 0.36	0.36	U	0.36	< 0.51	0.51	U	0.51	< 0.35	0.35	U	0.35	< 0.42	0.42	U	0.42	< 0.36	0.36	U	0.36	< 0.36	0.36	U	0.36	< 0.39	0.39	U	0.39
Sodium			149	7	N	3.1	587	10	N	4.4	214	7	N	3.0	2,730	8	N	3.6	1,010	7	N	3.1	238	7		3.1	1,610	77		33
Thallium			< 1.4	1.4	U	1.4	< 2.0	2.0	U	2.0	< 1.4	1.4	U	1.4	< 1.7	1.7	U	1.7	< 1.5	1.5	U	1.5	< 1.5	1.5	U	1.5	< 1.5	1.5	U	1.5
Vanadium			71.6	0.4		0.36	45	0.5		0.51	80.8	0.3		0.35	30	0.4		0.42	127	0.4		0.36	47.1	0.4		0.36	34	0.4		0.39
Zinc	109	2,200	< 7.2	7.2	U	3.6	67.6	1.0		0.51	4.6	0.7		0.35	45.7	0.8		0.42	< 7.3	7.3	U	3.6	123	7.3		3.6	24.6	0.8		0.39

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

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Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

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N	The concentration is based on the response fo the nearest internal. This flag is used on the TIC form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
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(*)	See report for comment.

TABLE 6
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
TAL Metals

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B13 11/20/2015 (0-2') mg/Kg				15B13 11/20/2015 (6-8') mg/Kg				15B18 11/20/2015 (0-2') mg/Kg				15B18 11/20/2015 (6-8') mg/Kg				15B19 11/20/2015 (0-2') mg/Kg				15B19 11/20/2015 (6-8') mg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
Aluminum			5,130	36		7.3	416	4.1		0.83	5,800	35		6.9	7,740	36		7.1	11,500	39		7.8	13,500	35		6.9
Antimony			< 1.8	1.8	U	1.8	< 2.1	2.1	U	2.1	< 1.7	1.7	U	1.7	< 1.8	1.8	U	1.8	< 2.0	2.0	U	2.0	< 1.7	1.7	U	1.7
Arsenic	13	16	14.2	0.7		0.73	< 0.8	0.8	U	0.83	20.1	0.7		0.69	3	0.7		0.71	2.3	0.8		0.78	1	0.7		0.69
Barium	350	350	95.7	0.7		0.36	3	0.8		0.41	49.1	0.7		0.35	15	0.7		0.36	30.3	0.8		0.39	10.7	0.7		0.35
Beryllium	7.2	14	0.39	0.29		0.15	< 0.33	0.33	U	0.17	0.28	0.28	B	0.14		0.28		0.14	0.64	0.31		0.16	0.53	0.28		0.14
Cadmium	2.5	2.5	0.79	0.36		0.15	< 0.41	0.41	U	0.17	1.95	0.35		0.14		0.36	B	0.14	0.2	0.39	B	0.16	< 0.35	0.35	U	0.14
Calcium			19,400	36		33	1,680	4.1		3.8	11,300	35		32	7,920	3.6		3.3	46,500	39		36	1,450	3.5		3.2
Chromium	30	180	15.3	0.36		0.36	2	0.41		0.41	17.2	0.35		0.35	19	0.36		0.36	19.7	0.39		0.39	28.7	0.35		0.35
Cobalt			8.28	0.36		0.36	1	0.41		0.41	16.3	0.35		0.35	8	0.36		0.36	9.58	0.39		0.39	9.31	0.35		0.35
Copper	50	270	44.8	0.36		0.36	3	0.41		0.41	37.5	0.35	*	0.35	21	0.36	*	0.36	16.5	0.39	*	0.39	18	0.35	*	0.35
Iron			29,000	36		36	1,100	4.1		4.1	79,900	35		35	13,600	36		36	18,600	39		39	16,300	35		35
Lead	63	400	89.3	0.7		0.36	6	0.8		0.41	65.3	0.7		0.35	5	0.7		0.36	5.2	0.8		0.39	4.8	0.7		0.35
Magnesium			5,670	36		36	486	4.1		4.1	1,590	3.5	N	3.5	9,240	36	N	36	8,190	39	N	39	14,200	35	N	35
Manganese	1,600	2,000	216	3.6	N	3.6	62	0.41	N	0.41	938	3.5		3.5	279	3.6		3.6	435	3.9		3.9	244	3.5		3.5
Mercury	0.18	0.81	0.06	0.03		0.02	< 0.03	0.03	U	0.02	0.02	0.03	B*	0.02	< 0.03	0.03	U*	0.02	< 0.03	0.03	U*	0.02	< 0.03	0.03	U*	0.02
Nickel	30	140	16.3	0.36		0.36	2	0.41		0.41	22	0.35		0.35	13	0.36		0.36	16.1	0.39		0.39	16.4	0.35		0.35
Potassium			829	7	N	2.8	153	8	N	3.2	1,130	7		2.7	2,070	7		2.8	1,030	8		3.1	1,870	7		2.7
Selenium	3.9	36	< 1.5	1.5	U	1.2	< 1.7	1.7	U	1.4	< 1.4	1.4	U	1.2	< 1.4	1.4	U	1.2	< 1.6	1.6	U	1.3	< 1.4	1.4	U	1.2
Silver	2	36	< 0.36	0.36	U	0.36	< 0.41	0.41	U	0.41	< 0.35	0.35	U	0.35	< 0.36	0.36	U	0.36	< 0.39	0.39	U	0.39	< 0.35	0.35	U	0.35
Sodium			893	7		3.1	702	8		3.5	792	7	N	3.0	963	7	N	3.1	1,330	8	N	3.4	1,170	7	N	3.0
Thallium			< 1.5	1.5	U	1.5	< 1.7	1.7	U	1.7	< 1.4	1.4	U	1.4	< 1.4	1.4	U	1.4	< 1.6	1.6	U	1.6	< 1.4	1.4	U	1.4
Vanadium			29.7	0.4		0.36	2	0.4		0.41	50.3	0.3		0.35	26	0.4		0.36	25.7	0.4		0.39	36.8	0.3		0.35
Zinc	109	2,200	100	0.7		0.36	4.4	0.8		0.41	49.6	0.7		0.35	41.1	0.7		0.36	37.4	0.8		0.39	51.4	0.7		0.35

Notes:

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RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

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Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

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B	This compound was also present in the method blank
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TABLE 6
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Analytical Results
TAL Metals

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15B22 11/20/2015 (0-2') mg/Kg				15B22 11/20/2015 (6-8') mg/Kg				15B23 11/20/2015 (2-4') mg/Kg				15B23 11/20/2015 (6-8') mg/Kg				Duplicate 11/20/2015 mg/Kg				Duplicate 11/23/2015 mg/Kg			
			Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL	Result	RL	Qual	MDL
Aluminum			6,890	46		9.3	9,890	48		9.7	5,950	38		7.5	17,100	49		9.7	4,720	35		7.0	4,910	34		6.8
Antimony			< 2.3	2.3	U	2.3	< 2.4	2.4	U	2.4	< 1.9	1.9	U	1.9	< 2.4	2.4	U	2.4	< 1.8	1.8	U	1.8	< 1.7	1.7	U	1.7
Arsenic	13	16	14.2	0.9		0.93	34.9	1.0		0.97	9.2	0.8		0.75	8.7	1.0		0.97	6.7	0.7		0.70	18.6	0.7		0.68
Barium	350	350	537	0.9		0.46	121	1.0		0.48	35.8	0.8		0.38	57.5	1.0		0.49	104	0.7		0.35	84	0.7		0.34
Beryllium	7.2	14	0.25	0.37	B	0.19	1	0.39		0.19	0.27	0.30	B	0.15	0.79	0.39		0.19	0.27	0.28	B	0.14	0.24	0.27	B	0.14
Cadmium	2.5	2.5	4.96	0.46		0.19	1	0.48		0.19	2.54	0.38		0.15	0.35	0.49	B	0.19	1.04	0.35		0.14	2.33	0.34		0.14
Calcium			18,700	46		43	71,800	48		45	2,490	3.8		3.5	6,830	4.9		4.5	32,400	35		32	9,820	34		31
Chromium	30	180	128	0.46		0.46	39.5	0.48		0.48	22.7	0.38		0.38	35.4	0.49		0.49	21.7	0.35		0.35	21.4	0.34		0.34
Cobalt			15.9	0.46		0.46	14	0.48		0.48	21.1	0.38		0.38	12	0.49		0.49	7.1	0.35		0.35	28.4	0.34		0.34
Copper	50	270	1340	4.6		4.6	145	0.48		0.48	13.6	0.38	*	0.38	14.3	0.49	*	0.49	75.8	0.35		0.35	35.5	0.34		0.34
Iron			71,300	46		46	30,700	48		48	122,000	380		380	33,000	49		49	25,900	35		35	116,000	340		340
Lead	63	400	1550	9.3		4.6	255	9.7		4.8	155	7.5		3.8	18	1.0		0.49	497	7.0		3.5	476	6.8	N	3.4
Magnesium			3,630	4.6		4.6	9,500	48		48	1,580	3.8	N	3.8	9,100	49	N	49	11,500	35		35	1,280	34		34
Manganese	1,600	2,000	992	4.6	N	4.6	382	4.8	N	4.8	853	3.8		3.8	407	4.9		4.9	284	3.5	N	3.5	1,950	34		34
Mercury	0.18	0.81	0.34	0.04		0.02	2.85	0.18		0.11	< 0.03	0.03	U*	0.02	0.03	0.04	B*	0.02	0.09	0.03		0.02	0.21	0.03	*	0.02
Nickel	30	140	131	0.46		0.46	28	0.48		0.48	24.9	0.38		0.38	23.8	0.49		0.49	22.2	0.35		0.35	38.6	0.34		0.34
Potassium			1,640	9	N	3.6	4,470	10	N	3.8	674	8		2.9	4,990	97		38	993	7	N	2.7	518	7		2.6
Selenium	3.9	36	< 1.9	1.9	U	1.6	< 1.9	1.9	U	1.6	< 1.5	1.5	U	1.3	< 1.9	1.9	U	1.7	< 1.4	1.4	U	1.2	< 1.4	1.4	U	1.2
Silver	2	36	3.09	0.46		0.46	2	0.48		0.48	< 0.38	0.38	U	0.38	< 0.49	0.49	U	0.49	< 0.35	0.35	U	0.35	< 0.34	0.34	U	0.34
Sodium			1,350	9		4.0	4,140	10		4.2	165	8	N	3.2	2,460	10	N	4.2	885	7		3.0	274	7		2.9
Thallium			< 1.9	1.9	U	1.9	< 1.9	1.9	U	1.9	< 1.5	1.5	U	1.5	< 1.9	1.9	U	1.9	< 1.4	1.4	U	1.4	< 1.4	1.4	U	1.4
Vanadium			53.3	0.5		0.46	36	0.5		0.48	66.1	0.4		0.38	42.7	0.5		0.49	31.6	0.4		0.35	55	0.3		0.34
Zinc	109	2,200	2840	93		46	223	9.7		4.8	22.9	0.8		0.38	69.5	1.0		0.49	225	7.0		3.5	236	6.8		3.4

Notes:

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TABLE 7
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Parameters Detected Above Track 1 Soil Cleanup Objectives

COMPOUND	Range in Exceedances	Frequency of Detection	15B1		15B3		15B4		15B6		15B8	15B9	15B10
			11/24/2015		11/24/2015		11/24/2015		11/20/2015		11/20/2015	11/20/2015	11/20/2015
			(0-2')	(5-7')	(0-2')	(5-7')	(0-2')	(6-8')	(3-5')	(10-12')	(6-8')	(0-2')	(6-8')
Sample Results in ug/kg													
Acetone	72-1500	5	-	-	-	-	-	-	-	-	**110**	-	-
Benzene	61-140	3	-	-	-	**65**	-	**140**	-	-	-	-	-
Sample Results in ug/kg													
Benz(a)anthracene	1300-1600	3	-	-	-	-	**1,600**	-	-	-	-	-	-
Benzo(a)pyrene	1100-1300	3	-	-	-	-	**1,300**	-	-	-	-	-	-
Benzo(b)fluoranthene	1100-1400	2	-	-	-	-	**1,100**	-	-	-	-	-	-
Benzo(k)fluoranthene	1100	1	-	-	-	-	**1,100**	-	-	-	-	-	-
Chrysene	1200-1600	3	-	-	-	-	**1,500**	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	640-820	3	**680**	-	-	-	**820**	-	-	-	-	-	-
Sample Results in ug/kg													
4,4' -DDD	8	1	-	-	-	-	-	-	-	-	-	-	-
4,4' -DDE	7.9-130	3	-	-	-	-	-	-	-	-	-	-	-
4,4' -DDT	3.6-280	5	-	-	-	-	-	-	-	-	-	-	-
a-Chlordane	300	1	-	-	-	-	-	-	-	-	-	-	-
PCB-1260	110-210	2	-	-	-	-	-	-	-	-	-	-	-
Sample Results in mg/kg													
Arsenic	14.2-34.9	10	-	-	**19.5**	**33.5**	**19.5**	-	-	-	-	-	**22.8**
Barium	537	1	-	-	-	-	-	-	-	-	-	-	
Cadmium	2.54-4.96	7	-	-	**3.41**	**4.01**	-	-	**3.03**	-	-	**2.98**	**3.55**
Chromium	32.8-128	6	-	-	-	**69.6**	-	-	-	**32.8**	-	-	**45.9**
Copper	51.2-1340	8	-	-	**72.6**	**194**	**100**	-	**64.6**	-	-	-	-
Lead	65.3-2280	11	**76**	-	**282**	-	**2,280**	-	-	-	-	-	-
Manganese	1660-2750	4	-	-	-	**2,750**	-	-	**1,660**	-	-	-	-
Mercury	0.21-2.85	6	-	-	**0.31**	-	**0.92**	-	-	-	-	-	-
Nickel	33-131	10	-	**36**	**36.8**	**143**	**35.7**	-	**49.6**	-	-	**45.9**	**42.8**
Silver	3.09	1	-	-	-	-	-	-	-	-	-	-	-
Zinc	123-2840	5	-	-	-	-	-	-	-	-	-	-	-

Notes:

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TABLE 7
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Parameters Detected Above Track 1 Soil Cleanup Objectives

COMPOUND	Range in Exceedances	Frequency of Detection	15B11		15B12	15B13	15B18	15B21	15B22		15B23		Duplicate	Duplicate
			11/23/2015		11/23/2015	11/20/2015	11/20/2015	11/20/2015	11/20/2015		11/20/2015		11/20/2015	11/23/2015
			(0-2')	(6-8')	(6-8')	(0-2')	(0-2')	(6-8')	(0-2')	(6-8')	(2-4')	(6-8')		
Sample Results in ug/kg														
Acetone	72-1500	5	-	-	**100**	-	-	**72**	-	**1,500**	**510**	-	-	-
Benzene	61-140	3	-	-	**61**	-	-	-	-	-	-	-	-	-
Sample Results in ug/kg														
Benz(a)anthracene	1300-1600	3	-	-	-	-	-	-	-	-	**1,300**	-	**1,300**	-
Benzo(a)pyrene	1100-1300	3	-	-	-	-	-	-	-	**1,200**	-	-	**1,100**	-
Benzo(b)fluoranthene	1100-1400	2	-	-	-	-	-	-	-	-	-	-	**1,400**	-
Benzo(k)fluoranthene	1100	1	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	1200-1600	3	-	-	-	-	-	-	-	-	**1,200**	-	**1,600**	-
Indeno(1,2,3-cd)pyrene	640-820	3	-	-	-	-	-	-	-	-	-	-	**640**	-
Sample Results in ug/kg														
4,4' -DDD	8	1		-	-		-	-		-	-	-	**8**	-
4,4' -DDE	7.9-130	3		-	-	**7.9**	-	-	**130**	-	-	-	**22**	-
4,4' -DDT	3.6-280	5	**4.2**	-	-	**9.4**	-	-	**280**	-	-	-	**32**	**3.6**
a-Chlordane	300	1	-	-	-	-	-	-	**300**	-	-	-	-	-
PCB-1260	110-210	2	-	-	-	-	-	-	**210**	-	-	-	**110**	-
Sample Results in mg/kg														
Arsenic	14.2-34.9	10	**14.2**		-	**14.2**	**20.1**	-	**14.2**	**34.9**	-	-	-	**18.6**
Barium	537	1	-	-	-	-	-	-	**537**	-	-	-	-	-
Cadmium	2.54-4.96	7	-	-	-	-	-	-	**4.96**	-	**2.54**	-	-	-
Chromium	32.8-128	6	-	-	-	-	-	-	**128**	**39.5**	-	**35.4**	-	-
Copper	51.2-1340	8	**51.2**	-	-	-	-	-	**1340**	**145**	-	-	**75.8**	-
Lead	65.3-2280	11	**317**	-	-	**89.3**	**65.3**	-	**1550**	**255**	**155**	-	**497**	**476**
Manganese	1660-2750	4		**2,450**	-	-	-	-	-	-	-	-	-	**1,950**
Mercury	0.21-2.85	6	**0.22**	-	-	-	-	-	**0.34**	**2.85**	-	-	-	**0.21**
Nickel	33-131	10	**33**	-	-	-	-	-	**131**	-	-	-	-	**38.6**
Silver	3.09	1	-	-	-	-	-	-	**3.09**	-	-	-	-	-
Zinc	123-2840	5	**123**	-	-	-	-	-	**2840**	**223**	-	-	**225**	**236**

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL - Laboratory Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 8
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Ground Water Analytical Results
Volatile Organic Compounds

Compound	NYSDEC Ambient Water Quality Standards (AWQS) (µg/L)	MW1 12/2/2015 (µg/L)				MW2 12/2/2015 (µg/L)				MW3 12/1/2015 (µg/L)			
		Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
1,1,1,2-Tetrachlorothane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,1,1-Trichloroethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
1,1,2,2-Tetrachloroethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,1,2-Trichloroethane	1	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,1-Dichloroethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
1,1-Dichloroethene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,1-Dichloropropene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2,3-Trichlorobenzene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2,3-Trichloropropane	0.04	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2,4-Trichlorobenzene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2,4-Trimethylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2-Dibromo-3-chloropropane	0.04	< 1.0	1.0	U	0.50	< 1.0	1.0	U	0.50	< 1.0	1.0	U	0.50
1,2-Dibromoethane		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2-Dichlorobenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2-Dichloroethane	0.6	< 0.60	0.60	U	0.25	< 0.60	0.60	U	0.25	< 0.60	0.60	U	0.25
1,2-Dichloropropane	0.94	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,3,5-Trimethylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,3-Dichlorobenzene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,3-Dichloropropane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,4-Dichlorobenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
2,2-Dichloropropane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
2-Chlorotoluene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
2-Hexanone (Methyl Butyl Ketone)		< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5
2-Isopropyltoluene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
4-Chlorotoluene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
4-Methyl-2-Pentanone		< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5
Acetone	50	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5
Acrolein		< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5
Acrylonitrile	5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5
Benzene	1	< 0.70	0.70	U	0.25	< 0.70	0.70	U	0.25	< 0.70	0.70	U	0.25
Bromobenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Bromochloromethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Bromodichloromethane		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Bromoform		< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
Bromomethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	**1.7**	5.0	J	0.25
Carbon Disulfide	60	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Carbon tetrachloride	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Chlorobenzene	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
Chloroethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
Chloroform	7	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
Chloromethane	5	< 5.0	5.0	U	0.25	**1.1**	5.0	J	0.25	**39**	10	D	0.50
cis-1,2-Dichloroethene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
cis-1,3-Dichloropropene		< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.25
Dibromochloromethane		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Dibromomethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Dichlorodifluoromethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Ethylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Hexachlorobutadiene	0.5	< 0.50	0.50	U	0.20	< 0.50	0.50	U	0.20	< 0.50	0.50	U	0.20
Isopropylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
m&p-Xylenes	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Methyl Ethyl Ketone (2-Butanone)		< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5
Methyl t-butyl ether (MTBE)	10	< 1.0	1.0	U	0.25	**1.3**	1.0		0.25	**0.27**	1.0	J	0.25
Methylene chloride	5	< 3.0	3.0	U	1.0	< 3.0	3.0	U	1.0	< 3.0	3.0	U	1.0
Naphthalene	10	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
n-Butylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
n-Propylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
o-Xylene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
p-Isopropyltoluene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
sec-Butylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Styrene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
tert-Butylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Tetrachloroethene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Tetrahydrofuran (THF)		< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5
Toluene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
trans-1,2-Dichloroethene	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
trans-1,3-Dichloropropene	0.4	< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.25
trans-1,4-dichloro-2-butene	5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5
Trichloroethene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Trichlorofluoromethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Trichlorotrifluoroethane		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Vinyl Chloride	2	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 8
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Ground Water Analytical Results
Volatile Organic Compounds

Compound	NYSDEC Ambient Water Quality Standards (AWQS) (µg/L)	MW4				MW5				MW7			
		12/2/2015				12/2/2015				12/2/2015			
		(µg/L)				(µg/L)				(µg/L)			
		Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
1,1,1,2-Tetrachlorothane	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
1,1,1-Trichloroethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.50	< 5.0	5.0	U	0.50
1,1,2,2-Tetrachloroethane	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
1,1,2-Trichloroethane	1	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.50	< 1.0	1.0	U	0.50
1,1-Dichloroethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.50	< 5.0	5.0	U	0.50
1,1-Dichloroethene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
1,1-Dichloropropene		< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
1,2,3-Trichlorobenzene		< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
1,2,3-Trichloropropane	0.04	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
1,2,4-Trichlorobenzene		< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
1,2,4-Trimethylbenzene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
1,2-Dibromo-3-chloropropane	0.04	< 1.0	1.0	U	0.50	< 2.0	2.0	U	1.0	< 2.0	2.0	U	1.0
1,2-Dibromoethane		< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
1,2-Dichlorobenzene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
1,2-Dichloroethane	0.6	< 0.60	0.60	U	0.25	< 0.6	0.6	U	0.50	< 0.6	0.6	U	0.50
1,2-Dichloropropane	0.94	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.50	< 1.0	1.0	U	0.50
1,3,5-Trimethylbenzene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
1,3-Dichlorobenzene		< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
1,3-Dichloropropane	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
1,4-Dichlorobenzene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
2,2-Dichloropropane	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
2-Chlorotoluene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
2-Hexanone (Methyl Butyl Ketone)		< 2.5	2.5	U	2.5	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0
2-Isopropyltoluene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
4-Chlorotoluene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
4-Methyl-2-Pentanone		< 2.5	2.5	U	2.5	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0
Acetone	50	< 5.0	5.0	U	2.5	**9.7**	10	JS	5.0	< 10	10	U	5.0
Acrolein		< 5.0	5.0	U	2.5	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0
Acrylonitrile	5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0
Benzene	1	< 0.70	0.70	U	0.25	< 0.7	0.7	U	0.50	< 0.7	0.7	U	0.50
Bromobenzene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Bromochloromethane	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Bromodichloromethane		< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Bromoform		< 5.0	5.0	U	0.25	< 10	10	U	0.50	< 10	10	U	0.50
Bromomethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.50	< 5.0	5.0	U	0.50
Carbon Disulfide	60	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Carbon tetrachloride	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Chlorobenzene	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.50	< 5.0	5.0	U	0.50
Chloroethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.50	< 5.0	5.0	U	0.50
Chloroform	7	< 5.0	5.0	U	0.25	< 7.0	7.0	U	0.50	< 7.0	7.0	U	0.50
Chloromethane	5	**4.3**	5.0	J	0.25	**8.3**	5.0		0.50	**2**	5.0	J	0.50
cis-1,2-Dichloroethene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
cis-1,3-Dichloropropene		< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.50	< 0.40	0.40	U	0.50
Dibromochloromethane		< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Dibromomethane	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Dichlorodifluoromethane	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Ethylbenzene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Hexachlorobutadiene	0.5	< 0.50	0.50	U	0.20	< 0.50	0.50	U	0.40	< 0.50	0.50	U	0.40
Isopropylbenzene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
m&p-Xylenes	5	< 1.0	1.0	U	0.25	**0.98**	2.0	J	0.50	< 2.0	2.0	U	0.50
Methyl Ethyl Ketone (2-Butanone)		< 2.5	2.5	U	2.5	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0
Methyl t-butyl ether (MTBE)	10	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Methylene chloride	5	< 3.0	3.0	U	1.0	< 5.0	5.0	U	2.0	< 5.0	5.0	U	2.0
Naphthalene	10	< 1.0	1.0	U	1.0	< 2.0	2.0	U	2.0	< 2.0	2.0	U	2.0
n-Butylbenzene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
n-Propylbenzene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
o-Xylene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
p-Isopropyltoluene		< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
sec-Butylbenzene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Styrene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
tert-Butylbenzene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Tetrachloroethene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Tetrahydrofuran (THF)		< 5.0	5.0	U	2.5	< 10	10	U	5.0	< 10	10	U	5.0
Toluene	5	< 1.0	1.0	U	0.25	**2.3**	2.0		0.50	< 2.0	2.0	U	0.50
trans-1,2-Dichloroethene	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.50	< 5.0	5.0	U	0.50
trans-1,3-Dichloropropene	0.4	< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.50	< 0.40	0.40	U	0.50
trans-1,4-dichloro-2-butene	5	< 2.5	2.5	U	2.5	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0
Trichloroethene	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Trichlorofluoromethane	5	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Trichlorotrifluoroethane		< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50
Vinyl Chloride	2	< 1.0	1.0	U	0.25	< 2.0	2.0	U	0.50	< 2.0	2.0	U	0.50

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 8
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Ground Water Analytical Results
Volatile Organic Compounds

Compound	NYSDEC Ambient Water Quality Standards (AWQS) (µg/L)	MW8 12/2/2015 (µg/L)				MW9 12/2/2015 (µg/L)				MW10 12/2/2015 (µg/L)			
		Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
1,1,1,2-Tetrachlorothane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,1,1-Trichloroethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
1,1,2,2-Tetrachloroethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,1,2-Trichloroethane	1	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,1-Dichloroethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
1,1-Dichloroethene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,1-Dichloropropene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2,3-Trichlorobenzene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2,3-Trichloropropane	0.04	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2,4-Trichlorobenzene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2,4-Trimethylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2-Dibromo-3-chloropropane	0.04	< 1.0	1.0	U	0.50	< 1.0	1.0	U	0.50	< 1.0	1.0	U	0.50
1,2-Dibromoethane		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2-Dichlorobenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2-Dichloroethane	0.6	< 0.60	0.60	U	0.25	< 0.60	0.60	U	0.25	< 0.60	0.60	U	0.25
1,2-Dichloropropane	0.94	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,3,5-Trimethylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,3-Dichlorobenzene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,3-Dichloropropane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,4-Dichlorobenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
2,2-Dichloropropane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
2-Chlorotoluene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
2-Hexanone (Methyl Butyl Ketone)		< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5
2-Isopropyltoluene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
4-Chlorotoluene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
4-Methyl-2-Pentanone		< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5
Acetone	50	< 5.0	5.0	U	2.5	**4.8**	5.0	JS	2.5	< 5.0	5.0	U	2.5
Acrolein		< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5
Acrylonitrile	5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5
Benzene	1	< 0.70	0.70	U	0.25	< 0.70	0.70	U	0.25	< 0.70	0.70	U	0.25
Bromobenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Bromochloromethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Bromodichloromethane		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Bromoform		< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
Bromomethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
Carbon Disulfide	60	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Carbon tetrachloride	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Chlorobenzene	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
Chloroethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
Chloroform	7	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
Chloromethane	5	**1.2**	5.0	J	0.25	**3**	5.0	J	0.25	**1.5**	5.0	J	0.25
cis-1,2-Dichloroethene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
cis-1,3-Dichloropropene		< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.25
Dibromochloromethane		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Dibromomethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Dichlorodifluoromethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Ethylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Hexachlorobutadiene	0.5	< 0.50	0.50	U	0.20	< 0.50	0.50	U	0.20	< 0.50	0.50	U	0.20
Isopropylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
m&p-Xylenes	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Methyl Ethyl Ketone (2-Butanone)		< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5
Methyl t-butyl ether (MTBE)	10	< 1.0	1.0	U	0.25	**0.61**	1.0	J	0.25	**0.33**	1.0	J	0.25
Methylene chloride	5	< 3.0	3.0	U	1.0	< 3.0	3.0	U	1.0	< 3.0	3.0	U	1.0
Naphthalene	10	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
n-Butylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
n-Propylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
o-Xylene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
p-Isopropyltoluene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
sec-Butylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Styrene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
tert-Butylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Tetrachloroethene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Tetrahydrofuran (THF)		< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5
Toluene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
trans-1,2-Dichloroethene	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
trans-1,3-Dichloropropene	0.4	< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.25
trans-1,4-dichloro-2-butene	5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5
Trichloroethene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Trichlorofluoromethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Trichlorotrifluoroethane		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Vinyl Chloride	2	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 8
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Ground Water Analytical Results
Volatile Organic Compounds

Compound	NYSDEC Ambient Water Quality Standards (AWQS) (µg/L)	MW11D 12/2/2015 (µg/L)				MW12D 12/1/2015 (µg/L)				MW13D 12/1/2015 (µg/L)			
		Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
1,1,1,2-Tetrachlorothane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,1,1-Trichloroethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
1,1,2,2-Tetrachloroethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,1,2-Trichloroethane	1	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,1-Dichloroethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
1,1-Dichloroethene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,1-Dichloropropene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2,3-Trichlorobenzene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2,3-Trichloropropane	0.04	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2,4-Trichlorobenzene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2,4-Trimethylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2-Dibromo-3-chloropropane	0.04	< 1.0	1.0	U	0.50	< 1.0	1.0	U	0.50	< 1.0	1.0	U	0.50
1,2-Dibromoethane		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2-Dichlorobenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,2-Dichloroethane	0.6	< 0.60	0.60	U	0.25	< 0.60	0.60	U	0.25	< 0.60	0.60	U	0.25
1,2-Dichloropropane	0.94	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,3,5-Trimethylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,3-Dichlorobenzene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,3-Dichloropropane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
1,4-Dichlorobenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
2,2-Dichloropropane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
2-Chlorotoluene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
2-Hexanone (Methyl Butyl Ketone)		< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5
2-Isopropyltoluene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
4-Chlorotoluene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
4-Methyl-2-Pentanone		< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5
Acetone	50	**3**	5.0	JS	2.5	< 5.0	5.0	U	2.5	**3.3**	5.0	JS	2.5
Acrolein		< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5
Acrylonitrile	5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5
Benzene	1	< 0.70	0.70	U	0.25	< 0.70	0.70	U	0.25	< 0.70	0.70	U	0.25
Bromobenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Bromochloromethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Bromodichloromethane		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Bromoform		< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
Bromomethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	**0.67**	5.0	J	0.25
Carbon Disulfide	60	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Carbon tetrachloride	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Chlorobenzene	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
Chloroethane	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
Chloroform	7	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
Chloromethane	5	**0.3**	5.0	J	0.25	**2.4**	5.0	J	0.25	**16**	5.0		0.25
cis-1,2-Dichloroethene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
cis-1,3-Dichloropropene		< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.25
Dibromochloromethane		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Dibromomethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Dichlorodifluoromethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Ethylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Hexachlorobutadiene	0.5	< 0.50	0.50	U	0.20	< 0.50	0.50	U	0.20	< 0.50	0.50	U	0.20
Isopropylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
m&p-Xylenes	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Methyl Ethyl Ketone (2-Butanone)		< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5
Methyl t-butyl ether (MTBE)	10	**14**	1.0		0.25	**100**	10	D	2.5	**5.1**	1.0		0.25
Methylene chloride	5	< 3.0	3.0	U	1.0	< 3.0	3.0	U	1.0	< 3.0	3.0	U	1.0
Naphthalene	10	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
n-Butylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
n-Propylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
o-Xylene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
p-Isopropyltoluene		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
sec-Butylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Styrene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
tert-Butylbenzene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Tetrachloroethene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Tetrahydrofuran (THF)		< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5	< 5.0	5.0	U	2.5
Toluene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
trans-1,2-Dichloroethene	5	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25	< 5.0	5.0	U	0.25
trans-1,3-Dichloropropene	0.4	< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.25	< 0.40	0.40	U	0.25
trans-1,4-dichloro-2-butene	5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5	< 2.5	2.5	U	2.5
Trichloroethene	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Trichlorofluoromethane	5	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Trichlorotrifluoroethane		< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25
Vinyl Chloride	2	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25	< 1.0	1.0	U	0.25

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 8
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Ground Water Analytical Results
Volatile Organic Compounds

Compound	NYSDEC Ambient Water Quality Standards (AWQS) (µg/L)	Duplicate 12/1/2015 (µg/L)			
		Results	RL	Qual	MDL
1,1,1,2-Tetrachlorothane	5	< 1.0	1.0	U	0.25
1,1,1-Trichloroethane	5	< 5.0	5.0	U	0.25
1,1,2,2-Tetrachloroethane	5	< 1.0	1.0	U	0.25
1,1,2-Trichloroethane	1	< 1.0	1.0	U	0.25
1,1-Dichloroethane	5	< 5.0	5.0	U	0.25
1,1-Dichloroethene	5	< 1.0	1.0	U	0.25
1,1-Dichloropropene		< 1.0	1.0	U	0.25
1,2,3-Trichlorobenzene		< 1.0	1.0	U	0.25
1,2,3-Trichloropropane	0.04	< 1.0	1.0	U	0.25
1,2,4-Trichlorobenzene		< 1.0	1.0	U	0.25
1,2,4-Trimethylbenzene	5	< 1.0	1.0	U	0.25
1,2-Dibromo-3-chloropropane	0.04	< 1.0	1.0	U	0.50
1,2-Dibromoethane		< 1.0	1.0	U	0.25
1,2-Dichlorobenzene	5	< 1.0	1.0	U	0.25
1,2-Dichloroethane	0.6	< 0.60	0.60	U	0.25
1,2-Dichloropropane	0.94	< 1.0	1.0	U	0.25
1,3,5-Trimethylbenzene	5	< 1.0	1.0	U	0.25
1,3-Dichlorobenzene		< 1.0	1.0	U	0.25
1,3-Dichloropropane	5	< 1.0	1.0	U	0.25
1,4-Dichlorobenzene	5	< 1.0	1.0	U	0.25
2,2-Dichloropropane	5	< 1.0	1.0	U	0.25
2-Chlorotoluene	5	< 1.0	1.0	U	0.25
2-Hexanone (Methyl Butyl Ketone)		< 2.5	2.5	U	2.5
2-Isopropyltoluene	5	< 1.0	1.0	U	0.25
4-Chlorotoluene	5	< 1.0	1.0	U	0.25
4-Methyl-2-Pentanone		< 2.5	2.5	U	2.5
Acetone	50	< 5.0	5.0	U	2.5
Acrolein		< 5.0	5.0	U	2.5
Acrylonitrile	5	< 5.0	5.0	U	2.5
Benzene	1	< 0.70	0.70	U	0.25
Bromobenzene	5	< 1.0	1.0	U	0.25
Bromochloromethane	5	< 1.0	1.0	U	0.25
Bromodichloromethane		< 1.0	1.0	U	0.25
Bromoform		< 5.0	5.0	U	0.25
Bromomethane	5	< 5.0	5.0	U	0.25
Carbon Disulfide	60	< 1.0	1.0	U	0.25
Carbon tetrachloride	5	< 1.0	1.0	U	0.25
Chlorobenzene	5	< 5.0	5.0	U	0.25
Chloroethane	5	< 5.0	5.0	U	0.25
Chloroform	7	< 5.0	5.0	U	0.25
Chloromethane	5	**15**	5.0		0.25
cis-1,2-Dichloroethene	5	< 1.0	1.0	U	0.25
cis-1,3-Dichloropropene		< 0.40	0.40	U	0.25
Dibromochloromethane		< 1.0	1.0	U	0.25
Dibromomethane	5	< 1.0	1.0	U	0.25
Dichlorodifluoromethane	5	< 1.0	1.0	U	0.25
Ethylbenzene	5	< 1.0	1.0	U	0.25
Hexachlorobutadiene	0.5	< 0.50	0.50	U	0.20
Isopropylbenzene	5	< 1.0	1.0	U	0.25
m&p-Xylenes	5	< 1.0	1.0	U	0.25
Methyl Ethyl Ketone (2-Butanone)		< 2.5	2.5	U	2.5
Methyl t-butyl ether (MTBE)	10	**5.1**	1.0		0.25
Methylene chloride	5	< 3.0	3.0	U	1.0
Naphthalene	10	< 1.0	1.0	U	1.0
n-Butylbenzene	5	< 1.0	1.0	U	0.25
n-Propylbenzene	5	< 1.0	1.0	U	0.25
o-Xylene	5	< 1.0	1.0	U	0.25
p-Isopropyltoluene		< 1.0	1.0	U	0.25
sec-Butylbenzene	5	< 1.0	1.0	U	0.25
Styrene	5	< 1.0	1.0	U	0.25
tert-Butylbenzene	5	< 1.0	1.0	U	0.25
Tetrachloroethene	5	< 1.0	1.0	U	0.25
Tetrahydrofuran (THF)		< 5.0	5.0	U	2.5
Toluene	5	< 1.0	1.0	U	0.25
trans-1,2-Dichloroethene	5	< 5.0	5.0	U	0.25
trans-1,3-Dichloropropene	0.4	< 0.40	0.40	U	0.25
trans-1,4-dichloro-2-butene	5	< 2.5	2.5	U	2.5
Trichloroethene	5	< 1.0	1.0	U	0.25
Trichlorofluoromethane	5	< 1.0	1.0	U	0.25
Trichlorotrifluoroethane		< 1.0	1.0	U	0.25
Vinyl Chloride	2	< 1.0	1.0	U	0.25

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 9
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Groundwater Analytical Results
Semi-Volatile Organic Compounds

Compound	NYSDEC Ambient Water Quality Standards (AWQS)	MW1				MW2				MW3				MW4			
		12/2/2015				12/2/2015				12/1/2015				12/2/2015			
		(µg/L)				(µg/L)				(µg/L)				(µg/L)			
	(µg/L)	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
1,2,4-Trichlorobenzene		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
1,2-Dichlorobenzene		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
1,2-Diphenylhydrazine		< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
1,3-Dichlorobenzene	3	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
1,4-Dichlorobenzene		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4,5-Trichlorophenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4,6-Trichlorophenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4-Dichlorophenol		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4-Dimethylphenol		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4-Dinitrophenol	5	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4-Dinitrotoluene	5	< 5.0	5.0	U	2.0	< 5.0	5.0	U	2.0	< 5.0	5.0	U	2.0	< 5.0	5.0	U	2.0
2,6-Dinitrotoluene	5	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
2-Chloronaphthalene	10	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
2-Chlorophenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2-Methylnaphthalene		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
2-Methylphenol (o-cresol)	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2-Nitroaniline	5	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0
2-Nitrophenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
3&4-Methylphenol (m&p-cresol)		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
3,3'-Dichlorobenzidine	5	< 5.0	5.0	U	2.4	< 5.0	5.0	U	2.4	< 5.0	5.0	U	2.4	< 5.0	5.0	U	2.4
3-Nitroaniline	5	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0
4,6-Dinitro-2-methylphenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
4-Bromophenyl phenyl ether		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
4-Chloro-3-methylphenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
4-Chloroaniline	5	< 3.5	3.5	U	2.3	< 3.5	3.5	U	2.3	< 3.5	3.5	U	2.3	< 3.5	3.5	U	2.3
4-Chlorophenyl phenyl ether		< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7
4-Nitroaniline	5	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7
4-Nitrophenol		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
Acenaphthene		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
Acetophenone		< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Aniline	5	< 3.5	3.5	U	5.0	< 3.5	3.5	U	5.0	< 3.5	3.5	U	5.0	< 3.5	3.5	U	5.0
Anthracene	50	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Benzidine	5	< 4.5	4.5	U	2.9	< 4.5	4.5	U	2.9	< 4.5	4.5	U	2.9	< 4.5	4.5	U	2.9
Benzoic acid		< 25	25	U	10	< 25	25	U	10	< 25	25	U	10	< 25	25	U	10
Benzyl butyl phthalate	50	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3
Bis(2-chloroethoxy)methane	5	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
Bis(2-chloroethyl)ether	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
Bis(2-chloroisopropyl)ether		< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
Carbazole		< 25	25	U	3.8	< 25	25	U	3.8	< 25	25	U	3.8	< 25	25	U	3.8
Dibenzofuran		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
Diethyl phthalate	50	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Dimethylphthalate	50	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Di-n-butylphthalate	50	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3
Di-n-octylphthalate	50	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3
Fluoranthene	50	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Fluorene	50	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7
Hexachlorocyclopentadiene	5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
Isophorone	50	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
Naphthalene	10	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
N-Nitrosodimethylamine		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
N-Nitrosodi-n-propylamine		< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
N-Nitrosodiphenylamine	50	< 5.0	5.0	U	1.9	< 5.0	5.0	U	1.9	< 5.0	5.0	U	1.9	< 5.0	5.0	U	1.9
Phenol	50	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
Pyrene	50	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7
1,2,4,5-Tetrachlorobenzene		< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50
Acenaphthene	20	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Acenaphthylene		< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Benz(a)anthracene	0.002	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Benzo(a)pyrene		< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Benzo(b)fluoranthene	0.002	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Benzo(ghi)perylene		< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Benzo(k)fluoranthene	0.002	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
Bis(2-ethylhexyl)phthalate	5	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Chrysene	0.002	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Dibenz(a,h)anthracene		< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Hexachlorobenzene	0.04	< 0.40	0.40	U	0.40	< 0.40	0.40	U	0.40	< 0.40	0.40	U	0.40	< 0.40	0.40	U	0.40
Hexachlorobutadiene	0.5	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50
Hexachloroethane	5	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Indeno(1,2,3-cd)pyrene	0.002	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Pentachloronitrobenzene		< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Pentachlorophenol	1	< 0.80	0.80	U	0.80	< 0.80	0.80	U	0.80	< 0.80	0.80	U	0.80	< 0.80	0.80	U	0.80
Phenanthrene	50	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Pyridine	50	< 10	10	U	1.2	< 10	10	U	1.2	< 10	10	U	1.2	< 10	10	U	1.2

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 9
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Groundwater Analytical Results
Semi-Volatile Organic Compounds

Compound	NYSDEC Ambient Water Quality Standards (AWQS)	MW5				MW7				MW8				MW9			
		12/2/2015				12/2/2015				12/2/2015				12/2/2015			
		(µg/L)				(µg/L)				(µg/L)				(µg/L)			
	(µg/L)	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
1,2,4-Trichlorobenzene		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
1,2-Dichlorobenzene		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
1,2-Diphenylhydrazine		< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
1,3-Dichlorobenzene	3	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
1,4-Dichlorobenzene		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4,5-Trichlorophenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4,6-Trichlorophenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4-Dichlorophenol		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4-Dimethylphenol		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4-Dinitrophenol	5	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4-Dinitrotoluene	5	< 5.0	5.0	U	2.0	< 5.0	5.0	U	2.0	< 5.0	5.0	U	2.0	< 5.0	5.0	U	2.0
2,6-Dinitrotoluene	5	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
2-Chloronaphthalene	10	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
2-Chlorophenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2-Methylnaphthalene		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
2-Methylphenol (o-cresol)	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2-Nitroaniline	5	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0
2-Nitrophenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
3&4-Methylphenol (m&p-cresol)		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
3,3'-Dichlorobenzidine	5	< 5.0	5.0	U	2.4	< 5.0	5.0	U	2.4	< 5.0	5.0	U	2.4	< 5.0	5.0	U	2.4
3-Nitroaniline	5	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0
4,6-Dinitro-2-methylphenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
4-Bromophenyl phenyl ether		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
4-Chloro-3-methylphenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
4-Chloroaniline	5	< 3.5	3.5	U	2.3	< 3.5	3.5	U	2.3	< 3.5	3.5	U	2.3	< 3.5	3.5	U	2.3
4-Chlorophenyl phenyl ether		< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7
4-Nitroaniline	5	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7
4-Nitrophenol		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
Acenaphthene		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
Acetophenone		< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Aniline	5	< 3.5	3.5	U	5.0	< 3.5	3.5	U	5.0	< 3.5	3.5	U	5.0	< 3.5	3.5	U	5.0
Anthracene	50	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Benzidine	5	< 4.5	4.5	U	2.9	< 4.5	4.5	U	2.9	< 4.5	4.5	U	2.9	< 4.5	4.5	U	2.9
Benzoic acid		< 25	25	U	10	< 25	25	U	10	< 25	25	U	10	< 25	25	U	10
Benzyl butyl phthalate	50	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3
Bis(2-chloroethoxy)methane	5	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
Bis(2-chloroethyl)ether	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
Bis(2-chloroisopropyl)ether		< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
Carbazole		< 25	25	U	3.8	< 25	25	U	3.8	< 25	25	U	3.8	< 25	25	U	3.8
Dibenzofuran		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
Diethyl phthalate	50	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Dimethylphthalate	50	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Di-n-butylphthalate	50	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3
Di-n-octylphthalate	50	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3
Fluoranthene	50	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Fluorene	50	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7
Hexachlorocyclopentadiene	5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
Isophorone	50	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
Naphthalene	10	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
N-Nitrosodimethylamine		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
N-Nitrosodi-n-propylamine		< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
N-Nitrosodiphenylamine	50	< 5.0	5.0	U	1.9	< 5.0	5.0	U	1.9	< 5.0	5.0	U	1.9	< 5.0	5.0	U	1.9
Phenol	50	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
Pyrene	50	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7
1,2,4,5-Tetrachlorobenzene		< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50
Acenaphthene	20	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Acenaphthylene		< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	**0.05**	0.02		0.02
Benz(a)anthracene	0.002	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	**0.03**	0.02		0.02
Benzo(a)pyrene		< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	**0.03**	0.02		0.02
Benzo(b)fluoranthene	0.002	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	**0.02**	0.02		0.02
Benzo(ghi)perylene		< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	**0.04**	0.02		0.02
Benzo(k)fluoranthene	0.002	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
Bis(2-ethylhexyl)phthalate	5	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	**0.05**	0.02		0.02
Chrysene	0.002	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Dibenz(a,h)anthracene		< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Hexachlorobenzene	0.04	< 0.40	0.40	U	0.40	< 0.40	0.40	U	0.40	< 0.40	0.40	U	0.40	< 0.40	0.40	U	0.40
Hexachlorobutadiene	0.5	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50
Hexachloroethane	5	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Indeno(1,2,3-cd)pyrene	0.002	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Pentachloronitrobenzene		< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Pentachlorophenol	1	< 0.80	0.80	U	0.80	< 0.80	0.80	U	0.80	< 0.80	0.80	U	0.80	< 0.80	0.80	U	0.80
Phenanthrene	50	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Pyridine	50	< 10	10	U	1.2	< 10	10	U	1.2	< 10	10	U	1.2	< 10	10	U	1.2

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 9
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Groundwater Analytical Results
Semi-Volatile Organic Compounds

Compound	NYSDEC Ambient Water Quality Standards (AWQS) (µg/L)	MW10 12/2/2015 (µg/L)				MW11D 12/2/2015 (µg/L)				MW12D 12/1/2015 (µg/L)				MW13D 12/1/2015 (µg/L)			
		Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
1,2,4-Trichlorobenzene		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
1,2-Dichlorobenzene		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
1,2-Diphenylhydrazine		< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
1,3-Dichlorobenzene	3	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
1,4-Dichlorobenzene		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4,5-Trichlorophenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4,6-Trichlorophenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4-Dichlorophenol		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4-Dimethylphenol		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4-Dinitrophenol	5	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2,4-Dinitrotoluene	5	< 5.0	5.0	U	2.0	< 5.0	5.0	U	2.0	< 5.0	5.0	U	2.0	< 5.0	5.0	U	2.0
2,6-Dinitrotoluene	5	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
2-Chloronaphthalene	10	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
2-Chlorophenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2-Methylnaphthalene		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
2-Methylphenol (o-cresol)	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
2-Nitroaniline	5	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0
2-Nitrophenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
3&4-Methylphenol (m&p-cresol)		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
3,3'-Dichlorobenzidine	5	< 5.0	5.0	U	2.4	< 5.0	5.0	U	2.4	< 5.0	5.0	U	2.4	< 5.0	5.0	U	2.4
3-Nitroaniline	5	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0	< 5.0	5.0	U	5.0
4,6-Dinitro-2-methylphenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
4-Bromophenyl phenyl ether		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
4-Chloro-3-methylphenol	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
4-Chloroaniline	5	< 3.5	3.5	U	2.3	< 3.5	3.5	U	2.3	< 3.5	3.5	U	2.3	< 3.5	3.5	U	2.3
4-Chlorophenyl phenyl ether		< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7
4-Nitroaniline	5	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7
4-Nitrophenol		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
Acenaphthene		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
Acetophenone		< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Aniline	5	< 3.5	3.5	U	5.0	< 3.5	3.5	U	5.0	< 3.5	3.5	U	5.0	< 3.5	3.5	U	5.0
Anthracene	50	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Benzidine	5	< 4.5	4.5	U	2.9	< 4.5	4.5	U	2.9	< 4.5	4.5	U	2.9	< 4.5	4.5	U	2.9
Benzoic acid		< 25	25	U	10	< 25	25	U	10	< 25	25	U	10	< 25	25	U	10
Benzyl butyl phthalate	50	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3
Bis(2-chloroethoxy)methane	5	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
Bis(2-chloroethyl)ether	1	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
Bis(2-chloroisopropyl)ether		< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
Carbazole		< 25	25	U	3.8	< 25	25	U	3.8	< 25	25	U	3.8	< 25	25	U	3.8
Dibenzofuran		< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
Diethyl phthalate	50	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Dimethylphthalate	50	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Di-n-butylphthalate	50	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3
Di-n-octylphthalate	50	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3	< 5.0	5.0	U	1.3
Fluoranthene	50	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
Fluorene	50	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7
Hexachlorocyclopentadiene	5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5	< 5.0	5.0	U	1.5
Isophorone	50	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
Naphthalene	10	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4	< 5.0	5.0	U	1.4
N-Nitrosodimethylamine		< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
N-Nitrosodi-n-propylamine		< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6	< 5.0	5.0	U	1.6
N-Nitrosodiphenylamine	50	< 5.0	5.0	U	1.9	< 5.0	5.0	U	1.9	< 5.0	5.0	U	1.9	< 5.0	5.0	U	1.9
Phenol	50	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
Pyrene	50	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7	< 5.0	5.0	U	1.7
1,2,4,5-Tetrachlorobenzene		< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50
Acenaphthene	20	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Acenaphthylene		< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Benz(a)anthracene	0.002	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Benzo(a)pyrene		< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Benzo(b)fluoranthene	0.002	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Benzo(ghi)perylene		< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Benzo(k)fluoranthene	0.002	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0	< 1.0	1.0	U	1.0
Bis(2-ethylhexyl)phthalate	5	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Chrysene	0.002	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Dibenz(a,h)anthracene		< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Hexachlorobenzene	0.04	< 0.40	0.40	U	0.40	< 0.40	0.40	U	0.40	< 0.40	0.40	U	0.40	< 0.40	0.40	U	0.40
Hexachlorobutadiene	0.5	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50	< 0.50	0.50	U	0.50
Hexachloroethane	5	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02	< 0.02	0.02	U	0.02
Indeno(1,2,3-cd)pyrene	0.002	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Pentachloronitrobenzene		< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Pentachlorophenol	1	< 0.80	0.80	U	0.80	< 0.80	0.80	U	0.80	< 0.80	0.80	U	0.80	< 0.80	0.80	U	0.80
Phenanthrene	50	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Pyridine	50	< 10	10	U	1.2	< 10	10	U	1.2	< 10	10	U	1.2	< 10	10	U	1.2

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 9
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Groundwater Analytical Results
Semi-Volatile Organic Compounds

Compound	NYSDEC Ambient Water Quality Standards (AWQS) (µg/L)	Duplicate 12/1/2015 (µg/L)			
		Results	RL	Qual	MDL
1,2,4-Trichlorobenzene		< 5.0	5.0	U	1.5
1,2-Dichlorobenzene		< 1.0	1.0	U	1.0
1,2-Diphenylhydrazine		< 5.0	5.0	U	1.6
1,3-Dichlorobenzene	3	< 1.0	1.0	U	1.0
1,4-Dichlorobenzene		< 1.0	1.0	U	1.0
2,4,5-Trichlorophenol	1	< 1.0	1.0	U	1.0
2,4,6-Trichlorophenol	1	< 1.0	1.0	U	1.0
2,4-Dichlorophenol		< 1.0	1.0	U	1.0
2,4-Dimethylphenol		< 1.0	1.0	U	1.0
2,4-Dinitrophenol	5	< 1.0	1.0	U	1.0
2,4-Dinitrotoluene	5	< 5.0	5.0	U	2.0
2,6-Dinitrotoluene	5	< 5.0	5.0	U	1.6
2-Chloronaphthalene	10	< 5.0	5.0	U	1.4
2-Chlorophenol	1	< 1.0	1.0	U	1.0
2-Methylnaphthalene		< 5.0	5.0	U	1.5
2-Methylphenol (o-cresol)	1	< 1.0	1.0	U	1.0
2-Nitroaniline	5	< 5.0	5.0	U	5.0
2-Nitrophenol	1	< 1.0	1.0	U	1.0
3&4-Methylphenol (m&p-cresol)		< 1.0	1.0	U	1.0
3,3'-Dichlorobenzidine	5	< 5.0	5.0	U	2.4
3-Nitroaniline	5	< 5.0	5.0	U	5.0
4,6-Dinitro-2-methylphenol	1	< 1.0	1.0	U	1.0
4-Bromophenyl phenyl ether		< 5.0	5.0	U	1.5
4-Chloro-3-methylphenol	1	< 1.0	1.0	U	1.0
4-Chloroaniline	5	< 3.5	3.5	U	2.3
4-Chlorophenyl phenyl ether		< 5.0	5.0	U	1.7
4-Nitroaniline	5	< 5.0	5.0	U	1.7
4-Nitrophenol		< 1.0	1.0	U	1.0
Acenaphthene		< 5.0	5.0	U	1.5
Acetophenone		< 5.0	5.0	U	1.6
Aniline	5	< 3.5	3.5	U	5.0
Anthracene	50	< 5.0	5.0	U	1.6
Benzidine	5	< 4.5	4.5	U	2.9
Benzoic acid		< 25	25	U	10
Benzyl butyl phthalate	50	< 5.0	5.0	U	1.3
Bis(2-chloroethoxy)methane	5	< 5.0	5.0	U	1.4
Bis(2-chloroethyl)ether	1	< 1.0	1.0	U	1.0
Bis(2-chloroisopropyl)ether		< 5.0	5.0	U	1.4
Carbazole		< 25	25	U	3.8
Dibenzofuran		< 5.0	5.0	U	1.5
Diethyl phthalate	50	< 5.0	5.0	U	1.6
Dimethylphthalate	50	< 5.0	5.0	U	1.6
Di-n-butylphthalate	50	< 5.0	5.0	U	1.3
Di-n-octylphthalate	50	< 5.0	5.0	U	1.3
Fluoranthene	50	< 5.0	5.0	U	1.6
Fluorene	50	< 5.0	5.0	U	1.7
Hexachlorocyclopentadiene	5	< 5.0	5.0	U	1.5
Isophorone	50	< 5.0	5.0	U	1.4
Naphthalene	10	< 5.0	5.0	U	1.4
N-Nitrosodimethylamine		< 1.0	1.0	U	1.0
N-Nitrosodi-n-propylamine		< 5.0	5.0	U	1.6
N-Nitrosodiphenylamine	50	< 5.0	5.0	U	1.9
Phenol	50	< 1.0	1.0	U	1.0
Pyrene	50	< 5.0	5.0	U	1.7
1,2,4,5-Tetrachlorobenzene		< 0.50	0.50	U	0.50
Acenaphthene	20	< 0.10	0.10	U	0.10
Acenaphthylene		< 0.02	0.02	U	0.02
Benz(a)anthracene	0.002	< 0.02	0.02	U	0.02
Benzo(a)pyrene		< 0.02	0.02	U	0.02
Benzo(b)fluoranthene	0.002	< 0.02	0.02	U	0.02
Benzo(ghi)perylene		< 0.02	0.02	U	0.02
Benzo(k)fluoranthene	0.002	< 1.0	1.0	U	1.0
Bis(2-ethylhexyl)phthalate	5	< 0.02	0.02	U	0.02
Chrysene	0.002	< 0.02	0.02	U	0.02
Dibenz(a,h)anthracene		< 0.02	0.02	U	0.02
Hexachlorobenzene	0.04	< 0.40	0.40	U	0.40
Hexachlorobutadiene	0.5	< 0.50	0.50	U	0.50
Hexachloroethane	5	< 0.02	0.02	U	0.02
Indeno(1,2,3-cd)pyrene	0.002	< 0.10	0.10	U	0.10
Pentachloronitrobenzene		< 0.10	0.10	U	0.10
Pentachlorophenol	1	< 0.80	0.80	U	0.80
Phenanthrene	50	< 0.10	0.10	U	0.10
Pyridine	50	< 10	10	U	1.2

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 10
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Groundwater Analytical Results
Pesticides and PCBs

Compound	NYSDEC Ambient Water Quality Standards (AQWS)	MW1				MW2				MW3				MW4				MW5				MW7				MW8			
		12/2/2015				12/2/2015				12/1/2015				12/2/2015				12/2/2015				12/2/2015				12/2/2015			
	(µg/L)	(µg/L)				(µg/L)				(µg/L)				(µg/L)				(µg/L)				(µg/L)				(µg/L)			
		Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
PCB-1016	0.09	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1221	0.09	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1232	0.09	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1242	0.09	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1248	0.09	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1254	0.09	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1260	0.09	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1262	0.09	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1268	0.09	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
4,4-DDD	0.3	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
4,4-DDE	0.2	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
4,4-DDT	0.11	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
a-BHC	0.94	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005
a-Chlordane		< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Alachlor		< 0.075	0.075	U	0.075	< 0.075	0.075	U	0.075	< 0.075	0.075	U	0.075	< 0.075	0.075	U	0.075	< 0.075	0.075	U	0.075	< 0.075	0.075	U	0.075	< 0.075	0.075	U	0.075
Aldrin		< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002
b-BHC	0.04	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005
Chlordane	0.05	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
d-BHC	0.04	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005
Dieldrin	0.004	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002
Endosulfan I		< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Endosulfan II		< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Endosulfan Sulfate		< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Endrin		< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Endrin aldehyde	5	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Endrin ketone		< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
gamma-BHC	0.05	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.010	0.010	U	0.010	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005
g-Chlordane		< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Heptachlor	0.04	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Heptachlor epoxide	0.03	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Methoxychlor	35	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Toxaphene		< 0.20	0.20	U	0.20	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25	< 0.20	0.20	U	0.20	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25	< 0.20	0.20	U	0.20

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

ND = Non-detect

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
N	The concentration is based on the response fo the nearest internal. This flag is used on the TIC form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.
(*)	See report for comment.

TABLE 10
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Groundwater Analytical Results
Pesticides and PCBs

Compound	NYSDEC Ambient Water Quality Standards (AQWS) (µg/L)	MW9 12/2/2015 (µg/L)				MW10 12/2/2015 (µg/L)				MW11D 12/2/2015 (µg/L)				MW12D 12/1/2015 (µg/L)				MW13D 12/1/2015 (µg/L)				Duplicate 12/1/2015 (µg/L)			
		Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
PCB-1016	0.09	< 0.25	0.25	U	0.25	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1221	0.09	< 0.25	0.25	U	0.25	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1232	0.09	< 0.25	0.25	U	0.25	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1242	0.09	< 0.25	0.25	U	0.25	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1248	0.09	< 0.25	0.25	U	0.25	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1254	0.09	**1.3**	0.25		0.25	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1260	0.09	< 0.25	0.25	U	0.25	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1262	0.09	< 0.25	0.25	U	0.25	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
PCB-1268	0.09	< 0.25	0.25	U	0.25	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
4,4-DDD	0.3	< 0.025	0.025	U	0.025	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
4,4-DDE	0.2	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
4,4-DDT	0.11	< 0.15	0.15	U	0.15	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
a-BHC	0.94	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005
a-Chlordane		< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Alachlor		< 0.075	0.075	U	0.075	< 0.075	0.075	U	0.075	< 0.075	0.075	U	0.075	< 0.075	0.075	U	0.075	< 0.075	0.075	U	0.075	< 0.075	0.075	U	0.075
Aldrin		< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002
b-BHC	0.04	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005
Chlordane	0.05	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050	< 0.050	0.050	U	0.050
d-BHC	0.04	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005
Dieldrin	0.004	< 0.050	0.050	U	0.050	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002
Endosulfan I		< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Endosulfan II		< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Endosulfan Sulfate		< 0.15	0.15	U	0.15	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Endrin		< 0.15	0.15	U	0.15	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Endrin aldehyde	5	< 0.020	0.020	U	0.020	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Endrin ketone		< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
gamma-BHC	0.05	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005	< 0.005	0.005	U	0.005
g-Chlordane		< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Heptachlor	0.04	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Heptachlor epoxide	0.03	< 0.015	0.015	U	0.015	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010	< 0.010	0.010	U	0.010
Methoxychlor	35	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10	< 0.10	0.10	U	0.10
Toxaphene		< 0.20	0.20	U	0.20	< 0.20	0.20	U	0.20	< 0.25	0.25	U	0.25	< 0.20	0.20	U	0.20	< 0.20	0.20	U	0.20	< 0.20	0.20	U	0.20

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

ND = Non-detect

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater S

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
N	The concentration is based on the response fo the nearest internal. This flag is used on the TIC form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.
(*)	See report for comment.

TABLE 11
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Groundwater Analytical Results
Dissolved Metals

Compound	NYSDEC Ambient Water Quality Standards (AWQS)	MW1				MW2				MW3				MW4				MW5				MW7				MW8			
		12/2/2015				12/2/2015				12/1/2015				12/2/2015				12/2/2015				12/2/2015				12/2/2015			
		(µg/L)				(µg/L)				(µg/L)				(µg/L)				(µg/L)				(µg/L)				(µg/L)			
	(mg/L)	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
Aluminum	NS	**0.005**	0.011	B	0.005	< 0.011	0.011	U	0.005	**0.008**	0.011	B	0.005	< 0.011	0.011	U	0.005	**0.009**	0.011	B	0.005	**0.006**	0.011	B	0.005	**0.007**	0.011	B	0.005
Antimony	0.003	< 0.003	0.003	U	0.003	< 0.003	0.003	U	0.003	< 0.003	0.003	U	0.003	< 0.003	0.003	U	0.003	< 0.003	0.003	U	0.003	< 0.003	0.003	U	0.003	< 0.003	0.003	U	0.003
Arsenic	0.025	< 0.003	0.003	U	0.004	< 0.003	0.003	U	0.004	< 0.003	0.003	U	0.004	< 0.003	0.003	U	0.004	< 0.003	0.003	U	0.004	< 0.003	0.003	U	0.004	< 0.003	0.003	U	0.004
Barium	1	**0.037**	0.011		0.001	**0.047**	0.011		0.001	**0.173**	0.011		0.001	**0.297**	0.011		0.001	**0.139**	0.011		0.001	**0.078**	0.011		0.001	**0.044**	0.011		0.001
Beryllium	0.003	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001
Cadmium	0.005	< 0.004	0.004	U	0.0005	< 0.004	0.004	U	0.0005	< 0.004	0.004	U	0.0005	< 0.004	0.004	U	0.0005	< 0.004	0.004	U	0.0005	< 0.004	0.004	U	0.0005	< 0.004	0.004	U	0.0005
Calcium	NS	**251**	0.11		0.11	**177**	0.11		0.11	**215**	0.11		0.11	**51.9**	0.01		0.01	**239**	0.11		0.11	**223**	0.11		0.11	**250**	0.11		0.11
Chromium	0.05	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001
Cobalt	NS	**0.004**	0.005	B	0.001	< 0.005	0.005	U	0.001	**0.003**	0.005	B	0.001	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001	**0.005**	0.005		0.001	**0.004**	0.005	B	0.001
Copper	0.2	< 0.011	0.011	U	0.002	< 0.011	0.011	U	0.002	< 0.011	0.011	U	0.002	< 0.011	0.011	U	0.002	< 0.011	0.011	U	0.002	**0.023**	0.011		0.002	< 0.011	0.011	U	0.002
Iron	0.5	**0.02**	0.02		0.02	**0.36**	0.01		0.01	< 0.02	0.02	U	0.02	< 0.01	0.01	U	0.01	< 0.01	0.01	U	0.01	< 0.01	0.01	U	0.01	**21.8**	0.01		0.01
Lead	0.025	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001
Magnesium	35	**688**	0.11		0.11	**411**	0.11		0.11	**293**	0.11		0.11	**43.9**	0.01		0.01	**288**	0.11		0.11	**393**	0.11		0.11	**612**	0.11		0.11
Manganese	0.3	**0.777**	0.005		0.001	**0.672**	0.005		0.001	**1.25**	0.005		0.001	**0.643**	0.005		0.001	**0.403**	0.005		0.001	**6.25**	0.053		0.011	**1.04**	0.005		0.001
Mercury	0.0007	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015
Nickel	0.1	**0.006**	0.004		0.001	< 0.004	0.004	U	0.001	**0.002**	0.004	B	0.001	< 0.004	0.004	U	0.001	**0.002**	0.004	B	0.001	**0.009**	0.004		0.001	**0.003**	0.004	B	0.001
Potassium	NS	**233**	1.1		0.11	**144**	1.1		0.11	**87.2**	1.1		0.11	**51.2**	1.1		0.11	**105**	1.1		0.11	**129**	1.1		0.11	**214**	1.1		0.11
Selenium	0.01	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002
Silver	0.05	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001
Sodium	2	**5290**	11		11	**3190**	11		11	**1950**	11		11	**122**	1.1		0.11	**2310**	11		11	**2990**	11		11	**4450**	11		11
Thallium	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005
Vanadium	NS	< 0.011	0.011	U	0.001	< 0.011	0.011	U	0.001	< 0.011	0.011	U	0.001	< 0.011	0.011	U	0.001	< 0.011	0.011	U	0.001	< 0.011	0.011	U	0.001	< 0.011	0.011	U	0.001
Zinc	2	**0.008**	0.021	B	0.002	**0.005**	0.021	B	0.002	**0.005**	0.021	B	0.002	**0.003**	0.021	B	0.002	**0.005**	0.021	B	0.002	**0.021**	0.021	B	0.002	**0.005**	0.021	B	0.002

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

ND = Non-detect

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

Bold = Result detected above detection limit

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
N	The concentration is based on the response fo the nearest internal. This flag is used on the TIC form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.
(*)	See report for comment.

TABLE 11
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Groundwater Analytical Results
Dissolved Metals

Compound	NYSDEC Ambient Water Quality Standards (AWQS)	MW9				MW10				MW11D				MW12D				MW13D				Duplicate			
		12/2/2015				12/2/2015				12/2/2015				12/1/2015				12/1/2015				12/1/2015			
		(µg/L)				(µg/L)				(µg/L)				(µg/L)				(µg/L)				(µg/L)			
	(mg/L)	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
Aluminum	NS	**0.01**	0.011	B	0.005	**0.007**	0.011	B	0.005	**0.008**	0.011	B	0.005	**0.008**	0.011	B	0.005	< 0.011	0.011	U	0.005	< 0.011	0.011	U	0.005
Antimony	0.003	< 0.003	0.003	U	0.003	< 0.003	0.003	U	0.003	< 0.003	0.003	U	0.003	< 0.003	0.003	U	0.003	< 0.003	0.003	U	0.003	< 0.003	0.003	U	0.003
Arsenic	0.025	< 0.003	0.003	U	0.004	< 0.003	0.003	U	0.004	**0.005**	0.003		0.004	< 0.003	0.003	U	0.004	< 0.003	0.003	U	0.004	< 0.003	0.003	U	0.004
Barium	1	**0.054**	0.011		0.001	**0.082**	0.011		0.001	**0.02**	0.011		0.001	**0.075**	0.011		0.001	**0.02**	0.011		0.001	**0.02**	0.011		0.001
Beryllium	0.003	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001
Cadmium	0.005	< 0.004	0.004	U	0.0005	< 0.004	0.004	U	0.0005	< 0.004	0.004	U	0.0005	< 0.004	0.004	U	0.0005	< 0.004	0.004	U	0.0005	< 0.004	0.004	U	0.0005
Calcium	NS	**226**	0.11		0.11	**240**	0.11		0.11	**28.4**	0.01		0.01	**71.1**	0.01		0.01	**35.1**	0.01		0.01	**34.8**	0.01		0.01
Chromium	0.05	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001	< 0.001	0.001	U	0.001
Cobalt	NS	**0.002**	0.005	B	0.001	**0.004**	0.005	B	0.001	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001
Copper	0.2	< 0.011	0.011	U	0.002	< 0.011	0.011	U	0.002	< 0.011	0.011	U	0.002	**0.003**	0.011	B	0.002	< 0.011	0.011	U	0.002	< 0.011	0.011	U	0.002
Iron	0.5	< 0.01	0.01	U	0.01	< 0.01	0.01	U	0.01	**0.02**	0.02		0.02	< 0.01	0.01	U	0.01	< 0.01	0.01	U	0.01	**0.03**	0.01		0.01
Lead	0.025	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001
Magnesium	35	**426**	0.11		0.11	**247**	0.11		0.11	**37.7**	0.01		0.01	**148**	0.11		0.11	**55.9**	0.01		0.01	**55.3**	0.01		0.01
Manganese	0.3	**1.18**	0.005		0.001	**5.46**	0.053		0.011	**0.063**	0.005		0.001	**0.609**	0.005		0.001	**0.099**	0.005		0.001	**0.099**	0.005		0.001
Mercury	0.0007	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015
Nickel	0.1	**0.008**	0.004		0.001	**0.008**	0.004		0.001	**0.002**	0.004	B	0.001	**0.002**	0.004	B	0.001	**0.002**	0.004	B	0.001	**0.002**	0.004	B	0.001
Potassium	NS	**146**	1.1		0.11	**82.5**	1.1		0.11	**36**	1.1		0.11	**60.7**	1.1		0.11	**37.1**	1.1		0.11	**35.7**	1.1		0.11
Selenium	0.01	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002
Silver	0.05	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001	< 0.005	0.005	U	0.001
Sodium	2	**2,900**	11		11	**1870**	11		11	**719**	11		11	**1420**	11		11	**832**	11		11	**799**	11		11
Thallium	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005
Vanadium	NS	< 0.011	0.011	U	0.001	< 0.011	0.011	U	0.001	**0.002**	0.011	B	0.001	< 0.011	0.011	U	0.001	< 0.011	0.011	U	0.001	< 0.011	0.011	U	0.001
Zinc	2	**0.028**	0.021		0.002	**0.007**	0.021	B	0.002	**0.004**	0.021	B	0.002	**0.004**	0.021	B	0.002	**0.005**	0.021	B	0.002	**0.004**	0.021	B	0.002

Notes:

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Bold/highlighted- Indicated exceedance of the NYSDEC Groundwat

Bold = Result detected above detection limit

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
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D	The reported concentration is the result of a diluted analysis.
(*)	See report for comment.

Table 12
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Groundwater Analytical Results
Total Metals

Compound	NYSDEC Ambient Water Quality Standards (AWQS) (mg/L)	MW1 12/2/2015 (µg/L)				MW2 12/2/2015 (µg/L)				MW3 12/1/2015 (µg/L)				MW4 12/2/2015 (µg/L)				MW5 12/2/2015 (µg/L)				MW7 12/2/2015 (µg/L)				MW8 12/2/2015 (µg/L)			
		Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
Aluminum	0.1	**0.545**	0.020		0.0048	**0.41**	0.020		0.0048	**2.24**	0.020		0.0048	**0.372**	0.020		0.0048	**0.911**	0.020		0.0048	< 0.020	0.020	U	0.0048	< 0.020	0.020	U	0.0048
Antimony	0.003	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002
Arsenic	0.025	< 0.008	0.008	U	0.002	< 0.008	0.008	U	0.002	**0.005**	0.008	B	0.002	< 0.008	0.008	U	0.002	**0.002**	0.008	B	0.002	**0.002**	0.008	B	0.002	< 0.008	0.008	U	0.002
Barium	1	**0.042**	0.020		0.002	**0.053**	0.020		0.002	**0.211**	0.020		0.002	**0.367**	0.020		0.002	**0.146**	0.020		0.002	**0.076**	0.020		0.002	**0.05**	0.020		0.002
Beryllium	0.003	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002
Cadmium	0.005	< 0.005	0.005	U	0.0010	< 0.005	0.005	U	0.0010	< 0.005	0.005	U	0.0010	< 0.005	0.005	U	0.0010	< 0.005	0.005	U	0.0010	< 0.005	0.005	U	0.0010	**0.001**	0.005	B	0.0010
Calcium	NS	**258**	1.0		0.30	**165**	1.0		0.30	**226**	1.0		0.30	**51.2**	1.0		0.30	**246**	1.0		0.30	**236**	1.0		0.30	**262**	1.0		0.30
Chromium	0.05	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	**0.008**	0.002		0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002
Cobalt	NS	**0.003**	0.010	B	0.002	< 0.010	0.010	U	0.002	**0.006**	0.010	B	0.002	< 0.010	0.010	U	0.002	< 0.010	0.010	U	0.002	**0.005**	0.010	B	0.002	**0.004**	0.010	B	0.002
Copper	0.2	**0.008**	0.010	B	0.002	< 0.010	0.010	U	0.002	**0.011**	0.010		0.002	< 0.010	0.010	U	0.002	**0.004**	0.010	B	0.002	**0.02**	0.010		0.002	< 0.010	0.010	U	0.002
Iron	0.5	**9.07**	0.02		0.02	**34.3**	1.0		1.0	**20.2**	1.0		1.0	**8.79**	0.02		0.02	**2.19**	0.02		0.02	**0.24**	0.02		0.02	**48.8**	1.0		1.0
Lead	0.025	**0.014**	0.004		0.002	< 0.004	0.004	U	0.002	**0.023**	0.004		0.002	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002
Magnesium	35	**662**	1.0		0.10	**399**	1.0		0.10	**286**	1.0		0.10	**41.3**	1.0		0.10	**269**	1.0		0.10	**422**	1.0		0.10	**580**	1.0		0.10
Manganese	0.3	**0.758**	0.010		0.002	**0.602**	0.010		0.002	**1.25**	0.010		0.002	**0.665**	0.010		0.002	**0.404**	0.010		0.002	**5.61**	0.50		0.10	**1.1**	0.010		0.002
Mercury	0.0007	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015
Nickel	0.1	**0.006**	0.008	B	0.002	< 0.008	0.008	U	0.002	**0.006**	0.008	B	0.002	< 0.008	0.008	U	0.002	**0.002**	0.008	B	0.002	**0.006**	0.008	B	0.002	**0.003**	0.008	B	0.002
Potassium	NS	**209**	10		10	**109**	10		10	**84**	10		10	**53**	10		10	**96**	10		10	**123**	10		10	**188**	10		10
Selenium	0.01	**0.018**	0.002		0.001	< 0.002	0.002	U	0.001	< 0.01	0.01	U	0.01	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001	**0.004**	0.002		0.001
Silver	0.05	< 0.010	0.010	U	0.002	< 0.010	0.010	U	0.002	< 0.010	0.010	U	0.002	< 0.010	0.010	U	0.002	< 0.010	0.010	U	0.002	**0.003**	0.010	B	0.002	< 0.010	0.010	U	0.002
Sodium	2	**5,390**	10		10	**2,850**	10		10	**1,900**	10		10	**132**	10		10	**2,390**	10		10	**3,220**	10		10	**4,830**	10		10
Thallium	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005
Vanadium	NS	< 0.020	0.020	U	0.002	< 0.020	0.020	U	0.002	< 0.020	0.020	U	0.002	< 0.020	0.020	U	0.002	< 0.020	0.020	U	0.002	< 0.020	0.020	U	0.002	< 0.020	0.020	U	0.002
Zinc	2	**0.013**	0.020	B	0.002	**0.005**	0.020	B	0.002	**0.022**	0.020		0.002	**0.009**	0.020	B	0.002	**0.013**	0.020	B	0.002	**0.017**	0.020	B	0.002	**0.004**	0.020	B	0.002

Notes:

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(*)	See report for comment.

Table 12
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Groundwater Analytical Results
Total Metals

Compound	NYSDEC Ambient Water Quality Standards (AWQS) (mg/L)	MW9 12/2/2015 (µg/L)				MW10 12/2/2015 (µg/L)				MW11D 12/2/2015 (µg/L)				MW12D 12/1/2015 (µg/L)				MW13D 12/1/2015 (µg/L)				Duplicate 12/1/2015 (µg/L)			
		Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
Aluminum	0.1	**19.4**	1.0		0.24	**0.016**	0.020	B	0.0048	**3.06**	0.020		0.0048	**37.9**	1.0		0.24	**0.997**	0.020		0.0048	**1.05**	0.020		0.0048
Antimony	0.003	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002
Arsenic	0.025	**0.034**	0.008		0.002	**0.021**	0.008		0.002	**0.004**	0.008	B	0.002	< 0.008	0.008	U	0.002	< 0.008	0.008	U	0.002	< 0.008	0.008	U	0.002
Barium	1	**0.13**	0.020		0.002	**0.112**	0.020		0.002	**0.056**	0.020		0.002	**0.311**	0.020		0.002	**0.026**	0.020		0.002	**0.026**	0.020		0.002
Beryllium	0.003	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002	**0.003**	0.002		0.002	< 0.002	0.002	U	0.002	< 0.002	0.002	U	0.002
Cadmium	0.005	**0.002**	0.005	B	0.0010	< 0.005	0.005	U	0.0010	< 0.005	0.005	U	0.0010	**0.002**	0.005	B	0.0010	< 0.005	0.005	U	0.0010	< 0.005	0.005	U	0.0010
Calcium	NS	**289**	1.0		0.30	**249**	1.0		0.30	**36**	0.020		0.006	**113**	1.0		0.30	**35.6**	1.0		0.30	**35.7**	1.0		0.30
Chromium	0.05	**0.047**	0.002		0.002	< 0.002	0.002	U	0.002	**0.018**	0.002		0.002	**0.094**	0.002		0.002	**0.004**	0.002		0.002	**0.004**	0.002		0.002
Cobalt	NS	**0.019**	0.010		0.002	**0.004**	0.010	B	0.002	**0.003**	0.010	B	0.002	**0.039**	0.010		0.002	< 0.010	0.010	U	0.002	< 0.010	0.010	U	0.002
Copper	0.2	**0.096**	0.010		0.002	< 0.010	0.010	U	0.002	**0.028**	0.010		0.002	**0.132**	0.010		0.002	< 0.010	0.010	U	0.002	**0.004**	0.010	B	0.002
Iron	0.5	**48.4**	1.0		1.0	**18.2**	1.0		1.0	**6.67**	0.02		0.02	**78.9**	1.0		1.0	**2.94**	0.02		0.02	**3.08**	0.02		0.02
Lead	0.025	**0.224**	0.004		0.002	< 0.004	0.004	U	0.002	**0.047**	0.004		0.002	**0.053**	0.004		0.002	< 0.004	0.004	U	0.002	< 0.004	0.004	U	0.002
Magnesium	35	**489**	1.0		0.10	**228**	1.0		0.10	**40.2**	1.0		0.10	**174**	1.0		0.10	**60.9**	1.0		0.10	**53.2**	1.0		0.10
Manganese	0.3	**2.45**	0.010		0.002	**5.35**	0.50		0.10	**0.135**	0.010		0.002	**1.46**	0.010		0.002	**0.114**	0.010		0.002	**0.119**	0.010		0.002
Mercury	0.0007	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015	< 0.0002	0.0002	U	0.00015
Nickel	0.1	**0.063**	0.008		0.002	**0.007**	0.008	B	0.002	**0.01**	0.008		0.002	**0.096**	0.008		0.002	< 0.008	0.008	U	0.002	**0.006**	0.008	B	0.002
Potassium	NS	**121**	10		10	**72**	10		10	**34**	10		10	**72.3**	0.2		0.2	**34**	10		10	**36**	10		10
Selenium	0.01	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001	< 0.002	0.002	U	0.001	< 0.01	0.01	U	0.01	< 0.01	0.01	U	0.01	< 0.01	0.01	U	0.01
Silver	0.05	< 0.010	0.010	U	0.002	**0.002**	0.010	B	0.002	< 0.010	0.010	U	0.002	< 0.010	0.010	U	0.002	< 0.010	0.010	U	0.002	< 0.010	0.010	U	0.002
Sodium	2	**3,160**	10		10	**1,710**	10		10	**736**	10		10	**1,290**	10		10	**780**	10		10	**818**	10		10
Thallium	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005	< 0.0005	0.0005	U	0.0005
Vanadium	NS	**0.037**	0.020		0.002	< 0.020	0.020	U	0.002	**0.007**	0.020	B	0.002	**0.085**	0.020		0.002	< 0.020	0.020	U	0.002	**0.004**	0.020	B	0.002
Zinc	2	**0.306**	0.020		0.002	**0.005**	0.020	B	0.002	**0.038**	0.020		0.002	**0.462**	0.020		0.002	**0.008**	0.020	B	0.002	**0.009**	0.020	B	0.002

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

ND = Non-detect

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

Bold = Result detected above detection limit

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
B	This compound was also present in the method blank
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
N	The concentration is based on the response fo the nearest internal. This flag is used on the TIC form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.
(*)	See report for comment.

TABLE 13
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Parameters Detected Above Ambient Groundwater Standards

COMPOUND	Range in Exceedances	Frequency of Detection	MW1	MW2	MW3	MW4	MW5	MW7	MW8	MW9	MW10	MW11D	MW12D	MW13D	Duplicate
			12/2/2015	12/2/2015	12/1/2015	12/2/2015	12/2/2015	12/2/2015	12/2/2015	12/2/2015	12/2/2015	12/2/2015	12/1/2015	12/1/2015	12/1/2015
Sample Results in ug/L															
Chloromethane	8.3-39	4	-	-	**39**	-	**8.3**	-	-	-	-	-	-	**16**	**15**
Sample Results in ug/L															
Acenaphthylene	0.05	1	-	-	-	-	-	-	-	**0.05**	-	-	-	-	-
Benz(a)anthracene	0.03	1	-	-	-	-	-	-	-	**0.03**	-	-	-	-	-
Benzo(a)pyrene	0.03	1	-	-	-	-	-	-	-	**0.03**	-	-	-	-	-
Benzo(ghi)perylene	0.04	1	-	-	-	-	-	-	-	**0.04**	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	0.05	1	-	-	-	-	-	-	-	**0.05**	-	-	-	-	-
Sample Results in ug/L															
PCB-1254	1.3	1	-	-	-	-	-	-	-	**1.3**	-	-	-	-	-
Sample Results in mg/L															
Iron (dissolved)	0.36-21.8	2	-	**0.36**	-	-	-	-	**21.8**	-	-	-	-	-	-
Magnesium (dissolved)	37.7-688	13	**688**	**411**	**293**	**43.9**	**288**	**393**	**612**	**426**	**247**	**37.7**	**148**	**55.9**	**55.3**
Manganese (dissolved)	0.403-5.46	11	**0.777**	**0.672**	**1.25**	**0.643**	**0.403**	**6.25**	**1.04**	**1.18**	**5.46**	-	**0.609**	-	-
Sodium (dissolved)	122-5290	13	**5290**	**3190**	**1950**	**122**	**2310**	**2990**	**4450**	**2,900**	**1870**	**719**	**1420**	**832**	**799**
Sample Results in mg/L															
Aluminum	0.372-19.4	3	**0.545**	**0.41**	**2.24**	**0.372**	**0.911**	-	-	**19.4**	-	**3.06**	**37.9**	**0.997**	**1.05**
Arsenic	0.034	1	-	-	-	-	-	-	-	**0.034**	-	-	-	-	-
Chromium	0.094	1	-	-	-	-	-	-	-	-	-	-	**0.094**	-	-
Iron	2.19-78.9	12	**9.07**	**34.3**	**20.2**	**8.79**	**2.19**	-	**48.8**	**48.4**	**18.2**	**6.67**	**78.9**	**2.94**	**3.08**
Lead	0.047-0.224	3	-	-	-	-	-	-	-	**0.224**	-	**0.047**	**0.053**	-	-
Magnesium	40.2-662	13	**662**	**399**	**286**	**41.3**	**269**	**422**	**580**	**489**	**228**	**40.2**	**174**	**60.9**	**53.2**
Manganese	0.404-5.61	10	**0.758**	**0.602**	**1.25**	**0.665**	**0.404**	**5.61**	**1.1**	**2.45**	**5.35**	-	**1.46**	-	-
Selenium	0.018	1	**0.018**	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	132-5390	13	**5,390**	**2,850**	**1,900**	**132**	**2,390**	**3,220**	**4,830**	**3,160**	**1,710**	**736**	**1,290**	**780**	**818**

Notes:

RL - Laboratory Reporting Limit, MDL=Minimum Detection Limit

ND = Non-detect

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

TABLE 14
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Gas - Volatile Organic Compounds

COMPOUNDS	NYSDOH Soil Outdoor Background Levels ($\mu g/m^3$) [a]	SG1 12/1/2015 (µg/m3)				SG2 12/1/2015 (µg/m3)				SG3 12/1/2015 (µg/m3)				SG4 12/1/2015 (µg/m3)			
		Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
1,1,1,2-Tetrachloroethane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1,1-Trichloroethane	<2.0 - 2.8	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1,2,2-Tetrachloroethane	<1.5	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1,2-Trichloroethane	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1-Dichloroethane	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1-Dichloroethene	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2,4-Trichlorobenzene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2,4-Trimethylbenzene	<1.0	**1.63**	1.00		1.00	**1.64**	1.00		1.00	**1.08**	1.00		1.00	**2.49**	1.00		1.00
1,2-Dibromoethane	<1.5	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2-Dichlorobenzene	<2.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2-Dichloroethane	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2-Dichloropropane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2-Dichlorotetrafluoroethane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,3,5-Trimethylbenzene	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	**1.02**	1.00		1.00
1,3-Butadiene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,3-Dichlorobenzene	<2.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,4-Dichlorobenzene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,4-Dioxane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
2-Hexanone		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
4-Ethyltoluene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
4-Isopropyltoluene		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
4-Methyl-2-pentanone		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Acetone	NA	**434**	29.9	DS	29.9	**622**	29.9	DS	29.9	**572**	29.9	DS	29.9	**3,250**	75.0	DS	75.0
Acrylonitrile		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Benzene	<1.6 - 4.7	**2.51**	1.00		1.00	**9.93**	1.00		1.00	**6.86**	1.00		1.00	**2.18**	1.00		1.00
Benzyl Chloride	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Bromodichloromethane	<5.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Bromoform	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Bromomethane	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Carbon Disulfide	NA	**13.9**	1.00		1.00	**38.3**	1.00		1.00	**20**	1.00		1.00	**8.81**	1.00		1.00
Carbon Tetrachloride	<3.1	**0.28**	0.25		0.25	**0.26**	0.25		0.25	**0.87**	0.25		0.25	**0.8**	0.25		0.25
Chlorobenzene	<2.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Chloroethane	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Chloroform	<2.4	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Chloromethane	<1.0 - 1.4	**2.64**	1.00		1.00	**3.74**	1.00		1.00	**6.19**	1.00		1.00	**1.25**	1.00		1.00
cis-1,2-Dichloroethene	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
cis-1,3-Dichloropropene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Cyclohexane	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Dibromochloromethane	<5.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Dichlorodifluromethane	NA	**1.7**	1.00		1.00	**1.63**	1.00		1.00	**1.38**	1.00		1.00	**1.43**	1.00		1.00
Ethanol		**13.3**	1.00		1.00	**10.9**	1.00		1.00	**16.1**	1.00		1.00	**78.7**	1.00	E	1.00
Ethyl Acetate	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Ethylbenzene	<4.3	**1.19**	1.00		1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Heptane	NA	**561**	30.0	D	30.0	**2840**	30.0	D	30.0	**2,240**	30.0	D	30.0	**111**	1.00		1.00
Hexachlorobutadiene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Hexane	<1.5	**1310**	30.0	DS	30.0	**2520**	30.0	DS	30.0	**5,880**	75.0	DS	75.0	**266**	30.0	DS	30.0
Isopropylalcohol	NA	**5.97**	1.00	S	1.00	**6.29**	1.00	S	1.00	**10.5**	1.00		1.00	**54.3**	1.00		1.00
Isopropylbenzene		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Xylene (m&p)	<4.3	**1.93**	1.00		1.00	**3.37**	1.00		1.00	**1.68**	1.00		1.00	**1.74**	1.00		1.00
Methyl Ethyl Ketone		**10.9**	1.00		1.00	**14.8**	1.00		1.00	< 1.00	1.00	U	1.00	**65.1**	1.00		1.00
MTBE	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Methylene Chloride	<3.4	**2.51**	1.00	S	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
n-Butylbenzene		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Xylene (o)	<4.3	**1.03**	1.00		1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Propylene	NA	**61.7**	29.9	D	29.9	**501**	29.9	D	29.9	**322**	29.9	D	29.9	**139**	29.9	D	29.9
sec-Butylbenzene		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Styrene	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Tetrachloroethene		< 0.25	0.25	U	0.25	**0.26**	0.25		0.25	< 0.25	0.25	U	0.25	**3.52**	0.25		0.25
Tetrahydrofuran	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Toluene	1.0 - 6.1	**2.82**	1.00		1.00	**5.57**	1.00		1.00	**10.3**	1.00		1.00	**2.36**	1.00		1.00
trans-1,2-Dichloroethene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
trans-1,3-Dichloropropene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Trichloroethene	<1.7	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25	**0.42**	0.25		0.25	< 0.25	0.25	U	0.25
Trichlorofluoromethane	NA	**1.01**	1.00		1.00	**1.11**	1.00		1.00	**1.12**	1.00		1.00	**1.11**	1.00		1.00
Trichlorotrifluoroethane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Vinyl Chloride	<1.0	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25
Total CVOCs		**0.28**				**0.5**				**1.3**				**4.32**			
BTEX		**9.48**				**18.87**				**18.84**				**6.28**			
Total VOCs		**2430.02**				**6,580.80**				**9090.50**				**3,990.81**			

Notes:
NA = No guidance value or standard available
(a) = NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, February 2005, Summary of Background Levels for Selected
RL = Laboratory detection limit
Bold = Result detected above detection limit
VOCs = Volatile Organic Compounds
CVOCs = Chlorinated Volatile Organic Compounds
BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
N	The concentration is based on the response fo the nearest internal. This flag is used on the TIC form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 14
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Gas - Volatile Organic Compounds

COMPOUNDS	NYSDOH Soil Outdoor Background Levels ($\mu g/m^3$) [a]	SG5 12/1/2015 (µg/m3)				SG7 12/1/2015 (µg/m3)				SG8 12/1/2015 (µg/m3)				SG9 12/1/2015 (µg/m3)			
		Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
1,1,1,2-Tetrachloroethane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1,1-Trichloroethane	<2.0 - 2.8	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	**1.02**	1.00		1.00
1,1,2,2-Tetrachloroethane	<1.5	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1,2-Trichloroethane	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1-Dichloroethane	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1-Dichloroethene	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2,4-Trichlorobenzene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2,4-Trimethylbenzene	<1.0	**2.76**	1.00		1.00	**3.35**	1.00		1.00	**2.94**	1.00		1.00	**2.61**	1.00		1.00
1,2-Dibromoethane	<1.5	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2-Dichlorobenzene	<2.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2-Dichloroethane	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2-Dichloropropane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2-Dichlorotetrafluoroethane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,3,5-Trimethylbenzene	<1.0	**1.01**	1.00		1.00	**1.26**	1.00		1.00	**1.13**	1.00		1.00	< 1.00	1.00	U	1.00
1,3-Butadiene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,3-Dichlorobenzene	<2.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,4-Dichlorobenzene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,4-Dioxane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
2-Hexanone		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	**5.61**	1.00		1.00	< 1.00	1.00	U	1.00
4-Ethyltoluene	NA	**1.69**	1.00		1.00	**2.26**	1.00		1.00	**1.85**	1.00		1.00	**1.6**	1.00		1.00
4-Isopropyltoluene		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
4-Methyl-2-pentanone		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Acetone	NA	< 1.00	1.00	U	1.00	**582**	9.99	DS	9.99	**2850**	75.0	DS	75.0	**118**	5.01	DS	5.01
Acrylonitrile		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Benzene	<1.6 - 4.7	**10.3**	1.00		1.00	**13.6**	1.00		1.00	< 1.00	1.00	U	1.00	**1.75**	1.00		1.00
Benzyl Chloride	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Bromodichloromethane	<5.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Bromoform	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Bromomethane	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Carbon Disulfide	NA	**26.2**	1.00		1.00	**34.5**	1.00		1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Carbon Tetrachloride	<3.1	**0.35**	0.25		0.25	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25
Chlorobenzene	<2.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Chloroethane	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Chloroform	<2.4	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Chloromethane	<1.0 - 1.4	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
cis-1,2-Dichloroethene	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
cis-1,3-Dichloropropene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Cyclohexane	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Dibromochloromethane	<5.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Dichlorodifluromethane	NA	**2.11**	1.00		1.00	**2.08**	1.00		1.00	**2.03**	1.00		1.00	**27.2**	1.00		1.00
Ethanol		**8.93**	1.00	S	1.00	**14.8**	1.00		1.00	**78.7**	1.00	E	1.00	< 1.00	1.00	U	1.00
Ethyl Acetate	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Ethylbenzene	<4.3	**2.62**	1.00		1.00	**2.87**	1.00		1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Heptane	NA	**3330**	30.0	D	30.0	**290**	9.99	D	9.99	**2.51**	1.00		1.00	**14.8**	1.00		1.00
Hexachlorobutadiene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Hexane	<1.5	**6200**	75.0	DS	75.0	**824**	10.0	DS	10.0	< 1.00	1.00	U	1.00	**117**	1.00		1.00
Isopropylalcohol	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Isopropylbenzene		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Xylene (m&p)	<4.3	**3.98**	1.00		1.00	**5.51**	1.00		1.00	**1.51**	1.00		1.00	**1.53**	1.00		1.00
Methyl Ethyl Ketone		**12.9**	1.00		1.00	< 1.00	1.00	U	1.00	**40.7**	1.00		1.00	< 1.00	1.00	U	1.00
MTBE	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Methylene Chloride	<3.4	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
n-Butylbenzene		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Xylene (o)	<4.3	< 1.00	1.00	U	1.00	**1.59**	1.00		1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Propylene	NA	< 1.00	1.00	U	1.00	**270**	9.99	D	9.99	**7.88**	1.00		1.00	< 1.00	1.00	U	1.00
sec-Butylbenzene		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Styrene	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Tetrachloroethene		**0.39**	0.25		0.25	**6.26**	0.25		0.25	**2.64**	0.25		0.25	**15.8**	0.25		0.25
Tetrahydrofuran	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Toluene	1.0 - 6.1	**44.8**	1.00		1.00	**18.8**	1.00		1.00	**1.23**	1.00		1.00	**1.55**	1.00		1.00
trans-1,2-Dichloroethene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
trans-1,3-Dichloropropene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Trichloroethene	<1.7	< 0.25	0.25	U	0.25	**0.43**	0.25		0.25	**0.27**	0.25		0.25	**9.24**	0.25		0.25
Trichlorofluoromethane	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	**1.45**	1.00		1.00	**11.9**	1.00		1.00
Trichlorotrifluoroethane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Vinyl Chloride	<1.0	**0.28**	0.25		0.25	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25
Total CVOCs		**0.74**				**6.69**				**2.91**				**26.06**			
BTEX		**61.7**				**42.37**				**2.74**				**4.83**			
Total VOCs		**9,648.32**				**2,073.31**				**3,000.45**				**324.00**			

Notes:
NA = No guidance value or standard available
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RL = Laboratory detection limit
Bold = Result detected above detection limit
VOCs = Volatile Organic Compounds
CVOCs = Chlorinated Volatile Organic Compounds
BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
N	The concentration is based on the response fo the nearest internal. This flag is used on the TIC form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 14
Former Mugler Shoring
2401 3rd Avenue, Bronx, NY
Soil Gas - Volatile Organic Compounds

COMPOUNDS	NYSDOH Soil Outdoor Background Levels ($\mu g/m^3$) [a]	SS1 12/2/2015 ($\mu g/m3$)				SS2 12/1/2015 ($\mu g/m3$)				SS3 12/2/2015 ($\mu g/m3$)				SS4 12/1/2015 ($\mu g/m3$)				SS5 12/2/2015 ($\mu g/m3$)			
		Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL	Results	RL	Qual	MDL
1,1,1,2-Tetrachloroethane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1,1-Trichloroethane	<2.0 - 2.8	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1,2,2-Tetrachloroethane	<1.5	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1,2-Trichloroethane	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1-Dichloroethane	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,1-Dichloroethene	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2,4-Trichlorobenzene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2,4-Trimethylbenzene	<1.0	**6.09**	1.00		1.00	**3.42**	1.00		1.00	**4.06**	1.00		1.00	**4.2**	1.00		1.00	**3.97**	1.00		1.00
1,2-Dibromoethane	<1.5	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2-Dichlorobenzene	<2.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2-Dichloroethane	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2-Dichloropropane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,2-Dichlorotetrafluoroethane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,3,5-Trimethylbenzene	<1.0	**2.56**	1.00		1.00	**1.39**	1.00		1.00	**1.61**	1.00		1.00	**2.19**	1.00		1.00	**3.02**	1.00		1.00
1,3-Butadiene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,3-Dichlorobenzene	<2.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,4-Dichlorobenzene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
1,4-Dioxane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
2-Hexanone		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
4-Ethyltoluene	NA	**1.51**	1.00		1.00	**1.09**	1.00		1.00	**1.04**	1.00		1.00	**2.57**	1.00		1.00	< 1.00	1.00	U	1.00
4-Isopropyltoluene		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
4-Methyl-2-pentanone		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	**1.23**	1.00		1.00	< 1.00	1.00	U	1.00	**2.54**	1.00		1.00
Acetone	NA	**53.2**	1.00		1.00	**23.7**	1.00		1.00	**139**	5.01	DS	5.01	**58.2**	1.00		1.00	**102**	5.01	DS	5.01
Acrylonitrile		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Benzene	<1.6 - 4.7	**1.28**	1.00		1.00	< 1.00	1.00	U	1.00	**1.1**	1.00		1.00	< 1.00	1.00	U	1.00	**2.12**	1.00		1.00
Benzyl Chloride	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Bromodichloromethane	<5.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Bromoform	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Bromomethane	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Carbon Disulfide	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Carbon Tetrachloride	<3.1	**0.46**	0.25		0.25	**0.26**	0.25		0.25	**0.43**	0.25		0.25	**0.3**	0.25		0.25	**0.45**	0.25		0.25
Chlorobenzene	<2.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Chloroethane	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Chloroform	<2.4	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Chloromethane	<1.0 - 1.4	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	**1.14**	1.00		1.00	< 1.00	1.00	U	1.00	**1.03**	1.00		1.00
cis-1,2-Dichloroethene	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
cis-1,3-Dichloropropene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Cyclohexane	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Dibromochloromethane	<5.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Dichlorodifluromethane	NA	**1.8**	1.00		1.00	**2.15**	1.00		1.00	**1.86**	1.00		1.00	**2.24**	1.00		1.00	**1.73**	1.00		1.00
Ethanol		**14.2**	1.00		1.00	**14.9**	1.00		1.00	**98.3**	5.01	DS	5.01	**4.05**	1.00	S	1.00	**12.9**	1.00		1.00
Ethyl Acetate	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	**1.09**	1.00		1.00	< 1.00	1.00	U	1.00	**2.85**	1.00		1.00
Ethylbenzene	<4.3	**1.12**	1.00		1.00	**1.51**	1.00		1.00	< 1.00	1.00	U	1.00	**2.48**	1.00		1.00	**2.3**	1.00		1.00
Heptane	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	**1.22**	1.00		1.00	< 1.00	1.00	U	1.00	**1.53**	1.00		1.00
Hexachlorobutadiene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Hexane	<1.5	**3.14**	1.00	S	1.00	< 1.00	1.00	U	1.00	**2.83**	1.00	S	1.00	**9.05**	1.00	S	1.00	**1.76**	1.00	S	1.00
Isopropylalcohol	NA	**1.46**	1.00	S	1.00	< 1.00	1.00	U	1.00	**10.1**	1.00		1.00	< 1.00	1.00	U	1.00	**3.02**	1.00	S	1.00
Isopropylbenzene		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Xylene (m&p)	<4.3	**5.55**	1.00		1.00	< 1.00	1.00	U	1.00	**3.66**	1.00		1.00	**10.5**	1.00		1.00	**9.33**	1.00		1.00
Methyl Ethyl Ketone		**5.13**	1.00		1.00	< 1.00	1.00	U	1.00	**8.69**	1.00		1.00	**6.57**	1.00		1.00	**10.3**	1.00		1.00
MTBE	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	**6.92**	1.00		1.00
Methylene Chloride	<3.4	**1.68**	1.00	S	1.00	< 1.00	1.00	U	1.00	**1.92**	1.00	S	1.00	**1.58**	1.00	S	1.00	**2.48**	1.00	S	1.00
n-Butylbenzene		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Xylene (o)	<4.3	**2.91**	1.00		1.00	< 1.00	1.00	U	1.00	**1.92**	1.00		1.00	**2.46**	1.00		1.00	**5.68**	1.00		1.00
Propylene	NA	**2.68**	1.00		1.00	< 1.00	1.00	U	1.00	**1.81**	1.00		1.00	< 1.00	1.00	U	1.00	**2.46**	1.00		1.00
sec-Butylbenzene		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Styrene	<1.0	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Tetrachloroethene		**0.37**	0.25		0.25	**4.89**	0.25		0.25	**0.26**	0.25		0.25	**2.29**	0.25		0.25	**0.77**	0.25		0.25
Tetrahydrofuran	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Toluene	1.0 - 6.1	**3.14**	1.00		1.00	**1.97**	1.00		1.00	**5.39**	1.00		1.00	**19.4**	1.00		1.00	**10.4**	1.00		1.00
trans-1,2-Dichloroethene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
trans-1,3-Dichloropropene	NA	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Trichloroethene	<1.7	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25
Trichlorofluoromethane	NA	**1.33**	1.00		1.00	**1.01**	1.00		1.00	**1.29**	1.00		1.00	**1.03**	1.00		1.00	**1.35**	1.00		1.00
Trichlorotrifluoroethane		< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00	< 1.00	1.00	U	1.00
Vinyl Chloride	<1.0	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25	< 0.25	0.25	U	0.25
Total CVOCs		**0.83**				**5.15**				**0.69**				**2.59**				**1.22**			
BTEX		**14**				**3.48**				**12.07**				**34.84**				**29.83**			
Total VOCs		**109.61**				**56.29**				**289.95**				**129.11**				**190.91**			

Notes:
NA = No guidance value or standard available
(a) = NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, February 2005, Summary of Background Levels for Selected
RL = Laboratory detection limit
Bold = Result detected above detection limit
VOCs = Volatile Organic Compounds
CVOCs = Chlorinated Volatile Organic Compounds
BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

U	The compound was anlayzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.
J	The value is estimated. This flag is used a) on form 1 when the compound is reported above the MDL, but below the PQL, and b) on the Tentatively Identified Compounds (TIC) form for all compounds identified.
N	The concentration is based on the response fo the nearest internal. This flag is used on the TIC form for all compounds identified.
S	This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.
D	The reported concentration is the result of a diluted analysis.

TABLE 15

Project Permit Listing

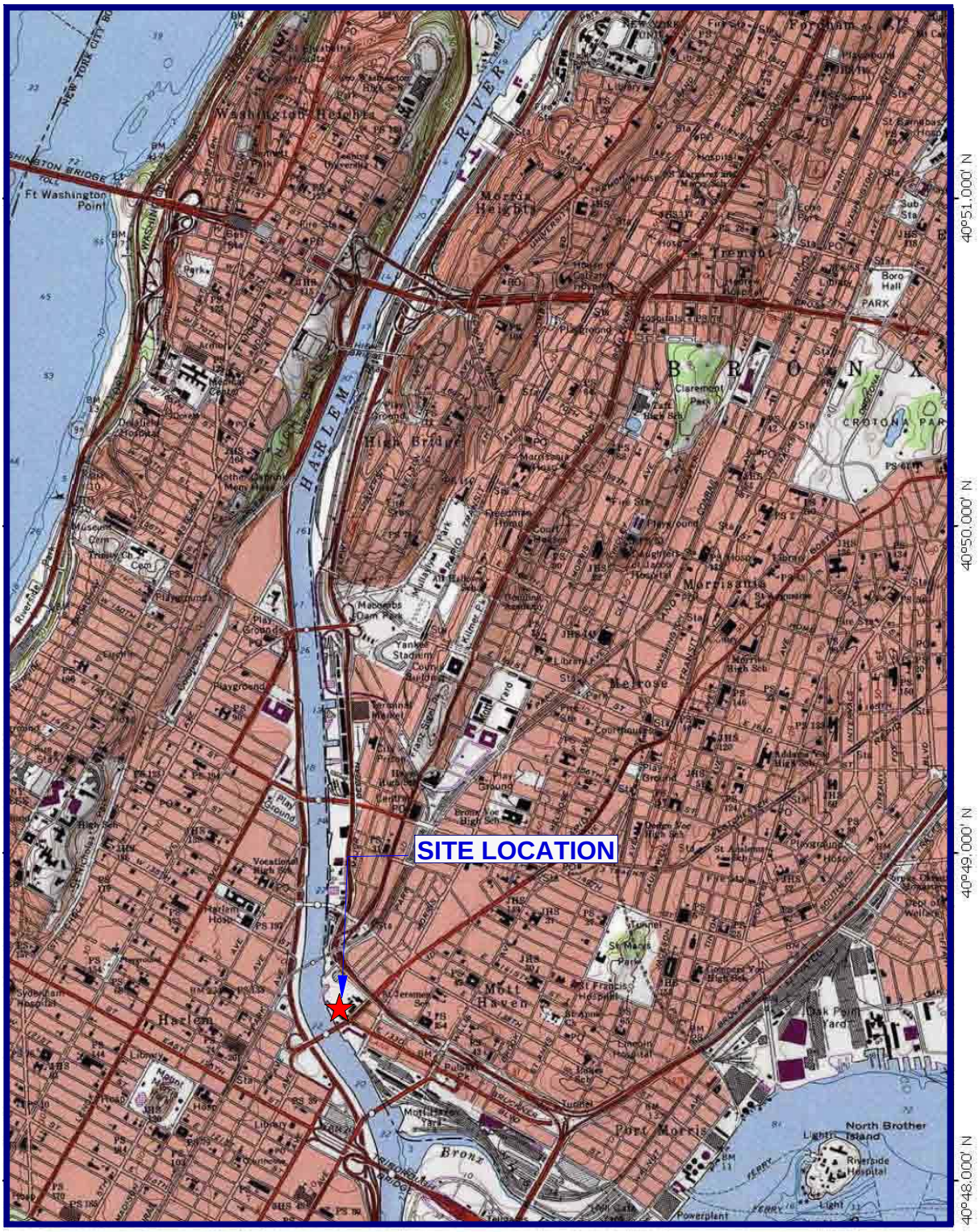
To Be Updated as Project Progresses

Permit	*Permit Number*	*Originating Agency*	*Pursuant to*	*Issued*	*Expires*	*Contact Phone*
NO PERMITS ISSUED AT THIS TIME - TO BE ADDED						

Table 16
Emergency Contact List

General Emergencies		911
NYC Police		911
NYC Fire Department		911
Lincoln Medical Center		(718) 579-5016
NYSDEC Spills Hotline		1-800-457-7362
NYSDEC Project Manager		(518) 402 - 9656
NYC Department of Health		(212) 676-2400
National Response Center		1-800-424-8802
Poison Control		1-800-222-1222
EBC Project Manager	Robert Bennett	(631) 504-6000
EBC BCP Program Manager	Charles Sosik	(631) 504-6000
EBC Site Safety Officer	Kevin Waters	(631) 504-6000
Remedial Engineer	Ariel Czemerinski	(516) 987-1662
Construction Manager	Elliot Lazarus	(516) 808-9085

FIGURES



USGS Central Park Quadrangle 1995, Contour Interval = 10 feet

EBC
ENVIRONMENTAL BUSINESS CONSULTANTS
Phone 631.504.6000
Fax 631. 924 .2870

FORMER MUGLER SHORING INC.
2401 THIRD AVENUE, BRONX NY

FIGURE 1 SITE LOCATION MAP

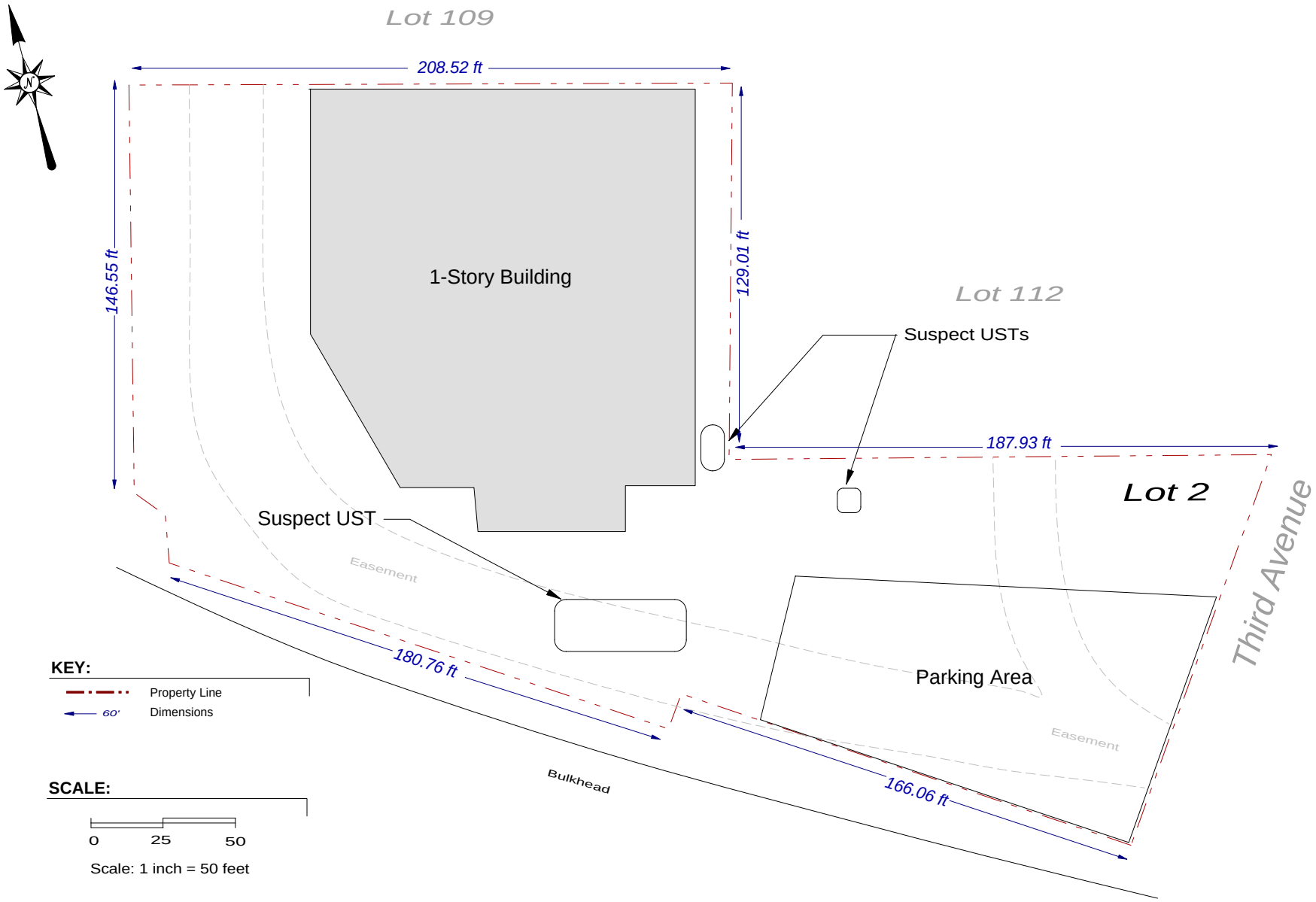


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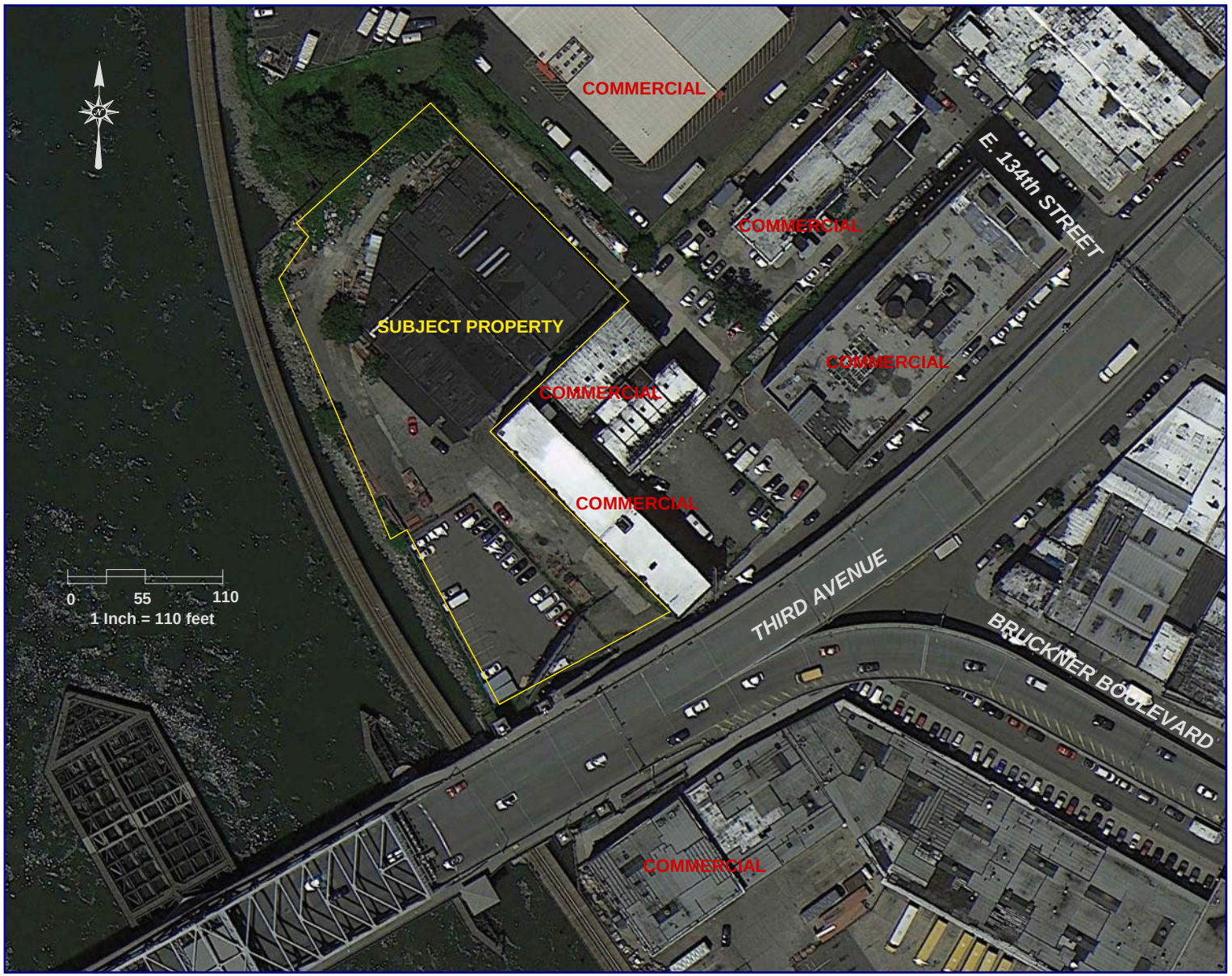
Figure No. 2

Site Name: Former Mugler Shoring Inc.
Site Address: 2401 Third Avenue, Bronx, NY
Drawing Title: Site Boundary Map



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Former Mugler Shoring Inc.
2401 Third Avenue, Bronx NY

FIGURE 3 Project Site and Adjacent Properties

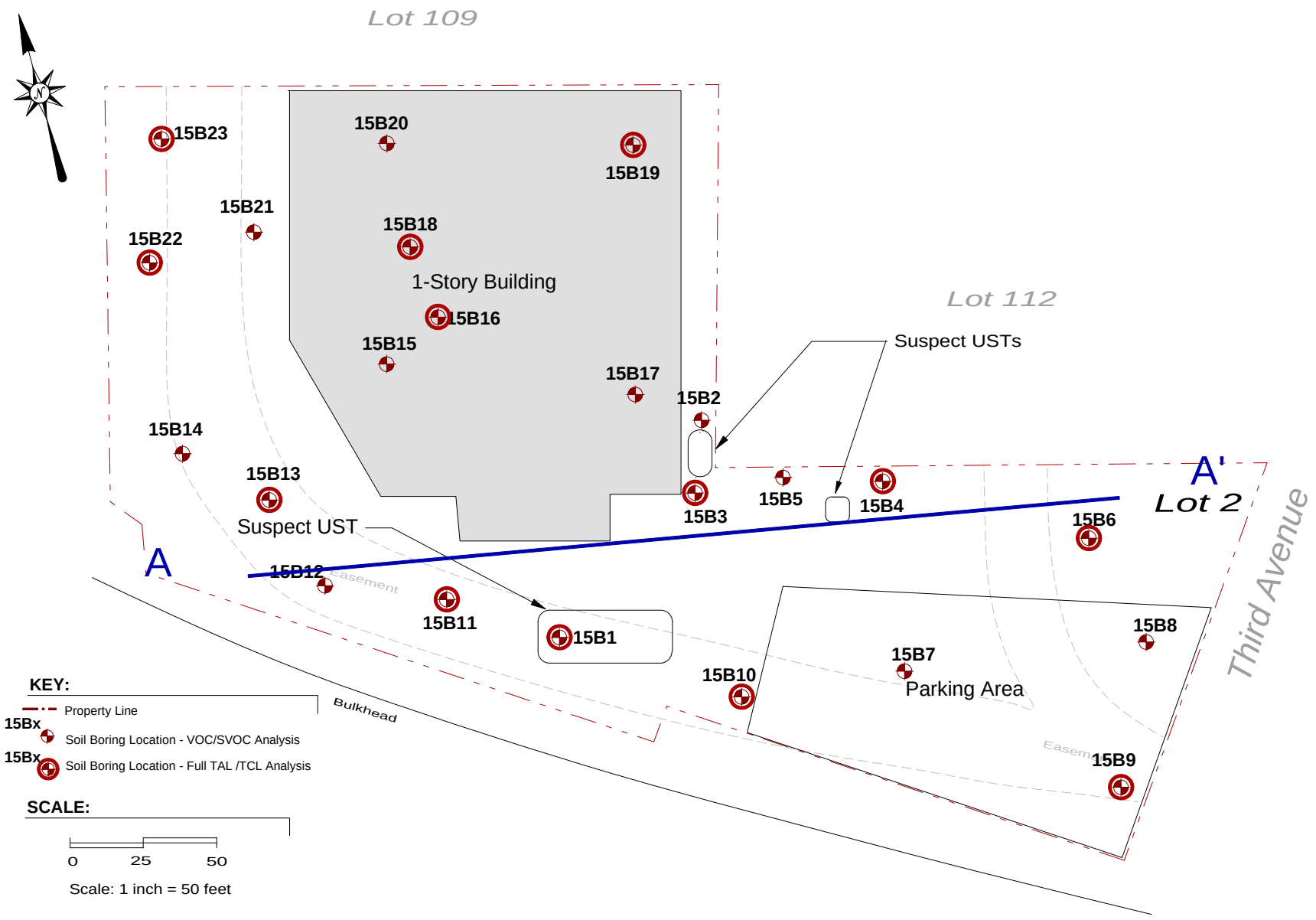

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Figure No. 4

Site Name: Former Mugler Shoring Inc.
Site Address: 2401 Third Avenue, Bronx, NY
Drawing Title: Soil Boring Locations

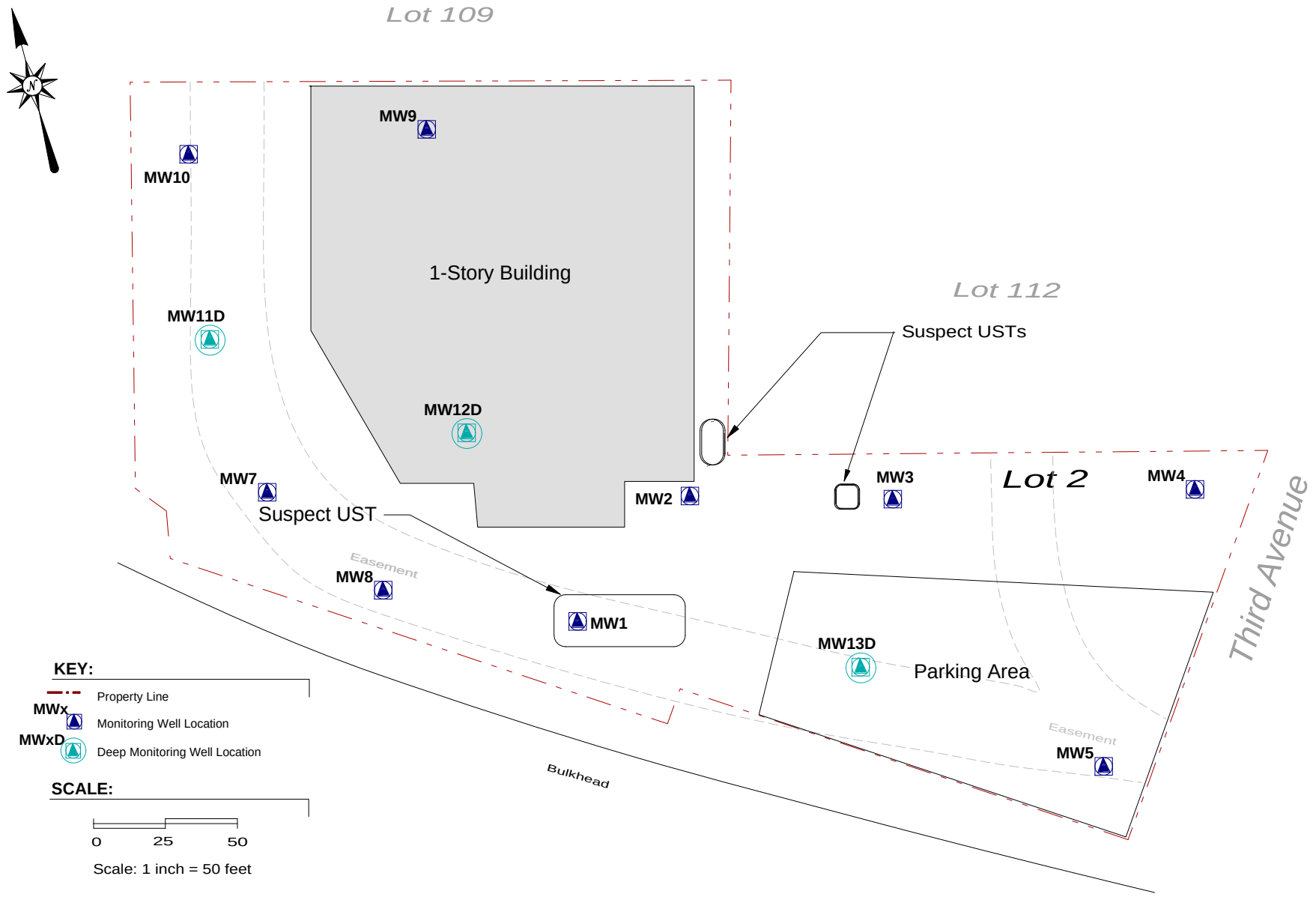

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Figure No. 5

Site Name: Former Mugler Shoring Inc.
Site Address: 2401 Third Avenue, Bronx, NY
Drawing Title: Monitoring Well Locations

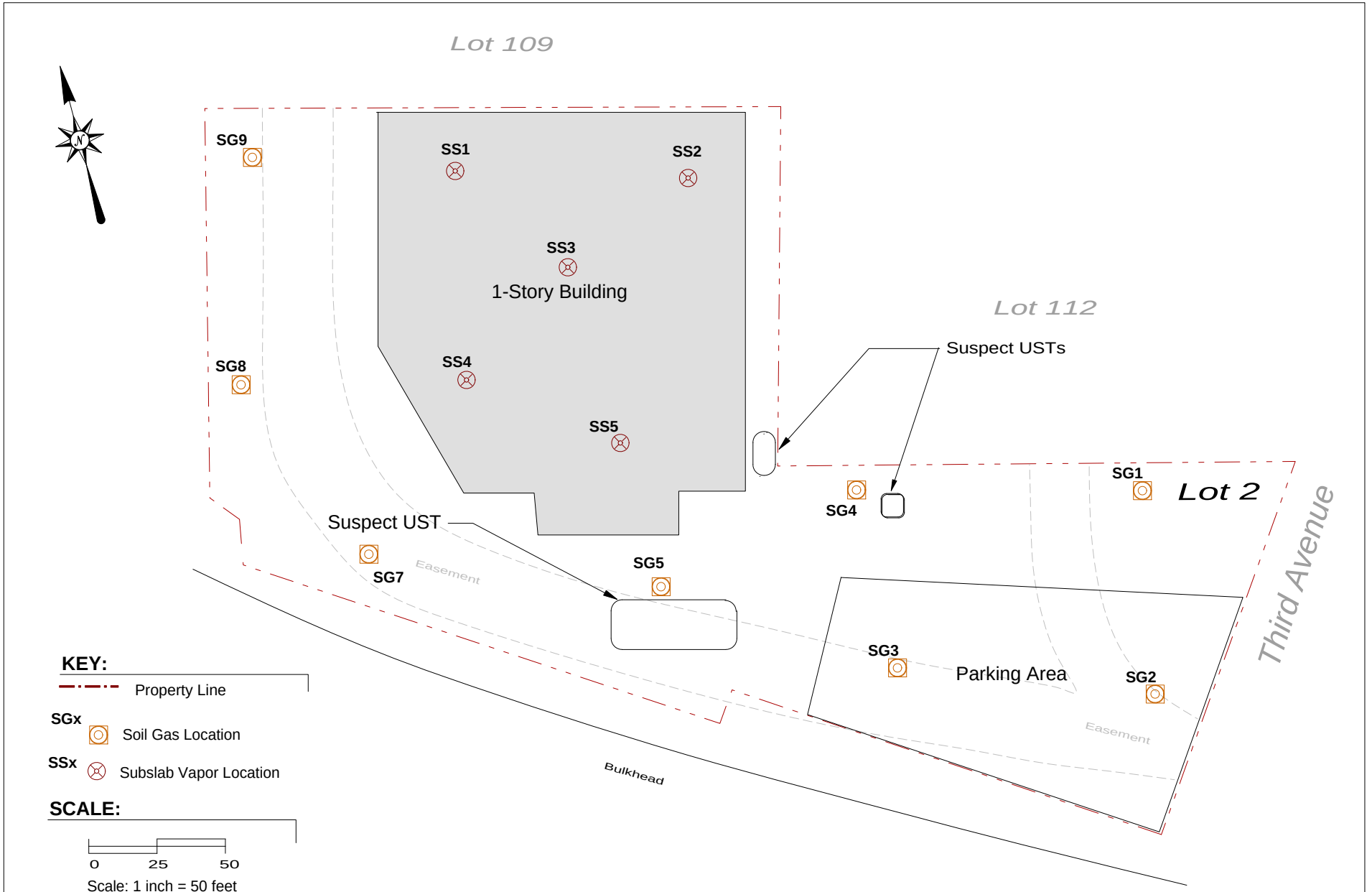

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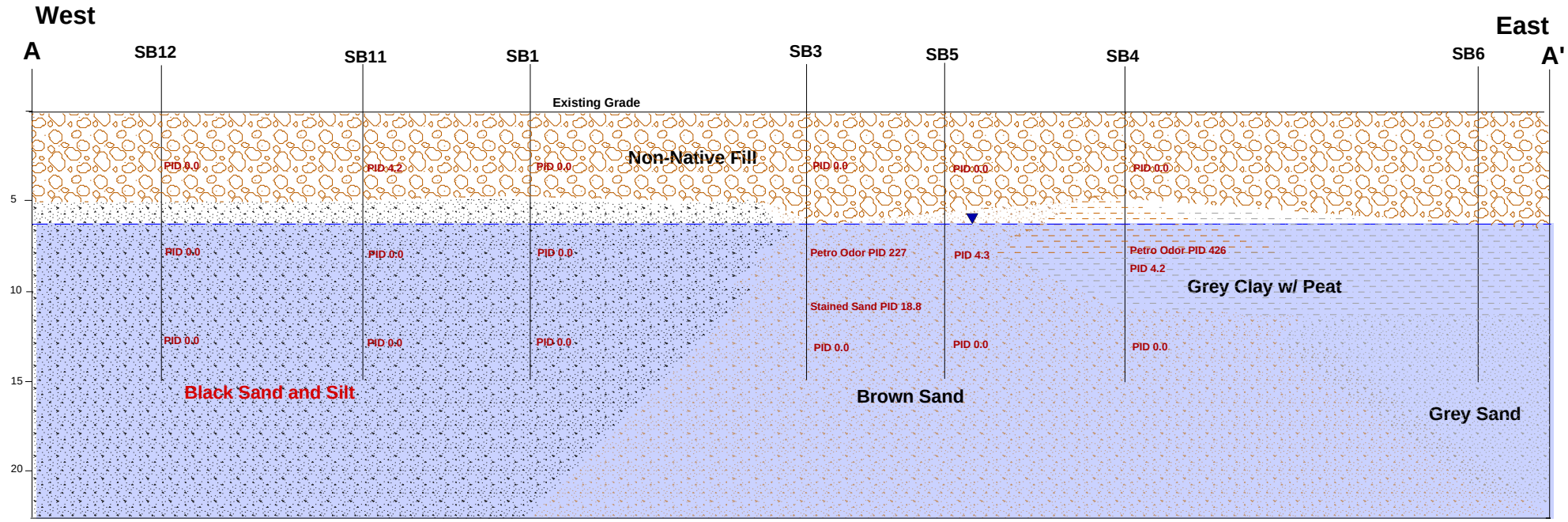
Figure No. 6

Site Name: FORMER MUGLER SHORING INC.
Site Address: 2401 THIRD AVENUE, BRONX, NY
Drawing Title: SOIL GAS SAMPLING LOCATIONS



SCALE

0 15 30 60

1 Inch = 30 Feet

Vertical Exageration 4X

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Former Mugler Shoring
2401 Third Avenue, Bronx, NY

FIGURE 7 Cross-Section A-A'

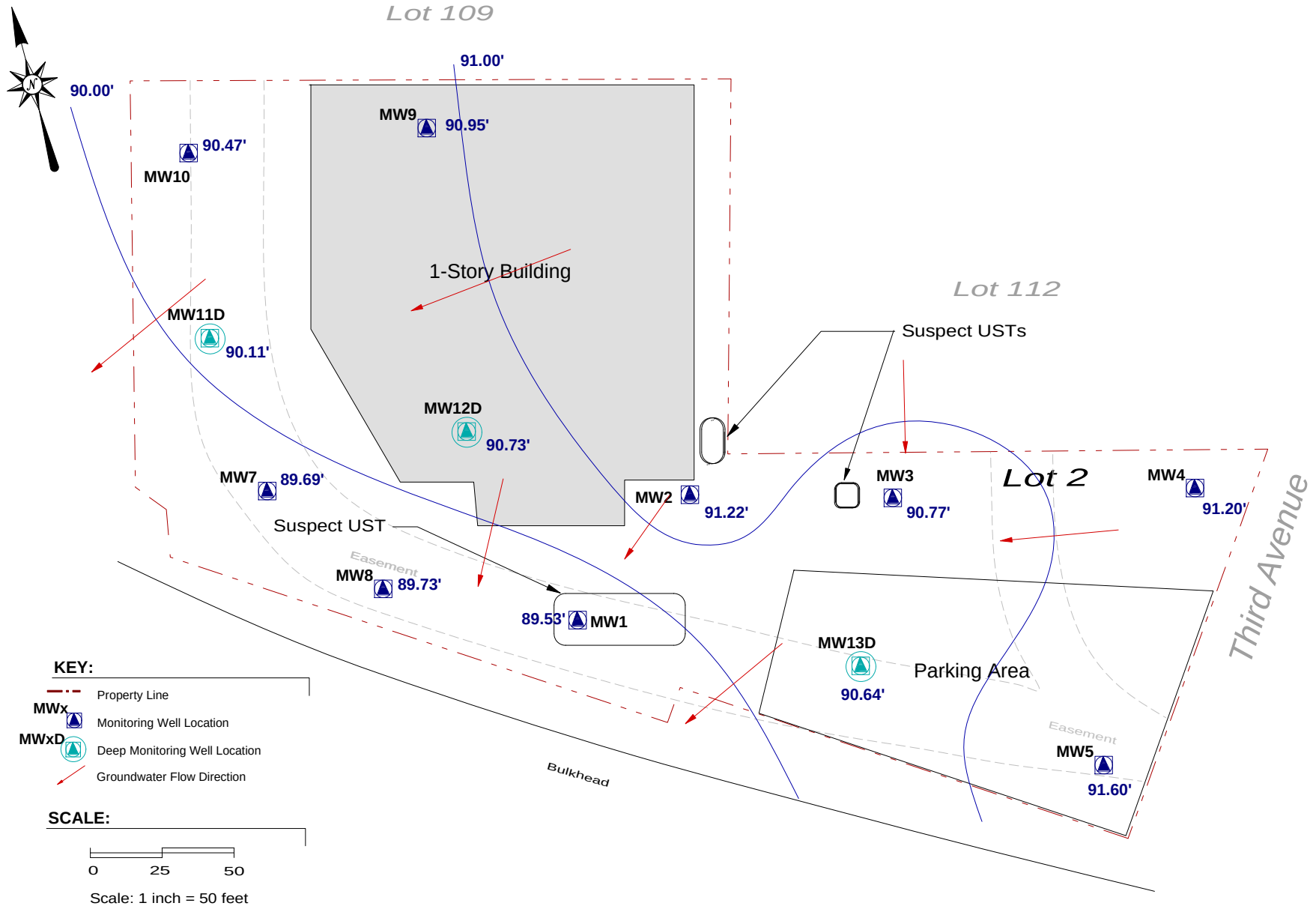

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Figure No. 8

Site Name: FORMER MUGLER SHORING INC.
Site Address: 2401 THIRD AVENUE, BRONX, NY
Drawing Title: GROUNDWATER ELEVATION MAP

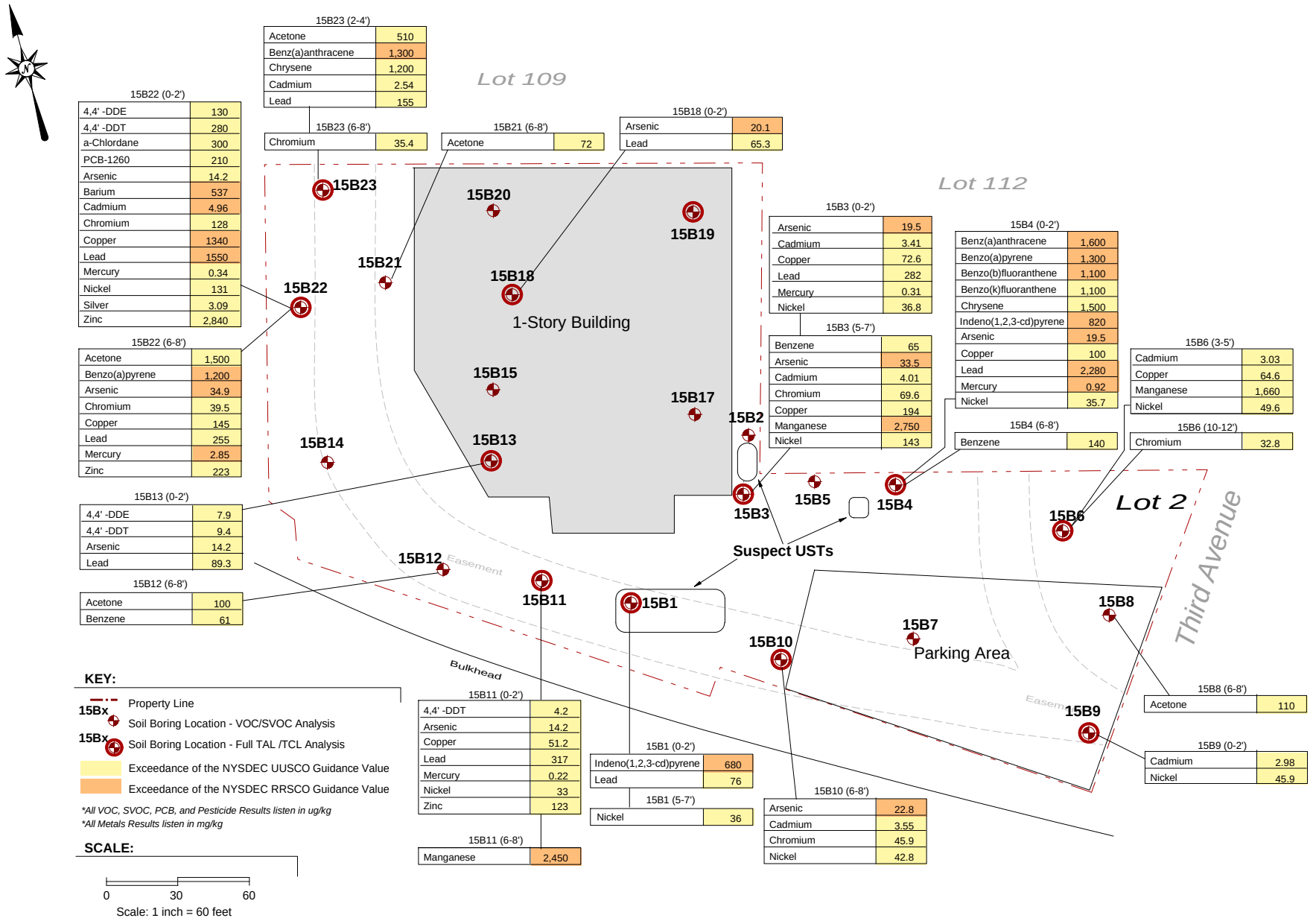

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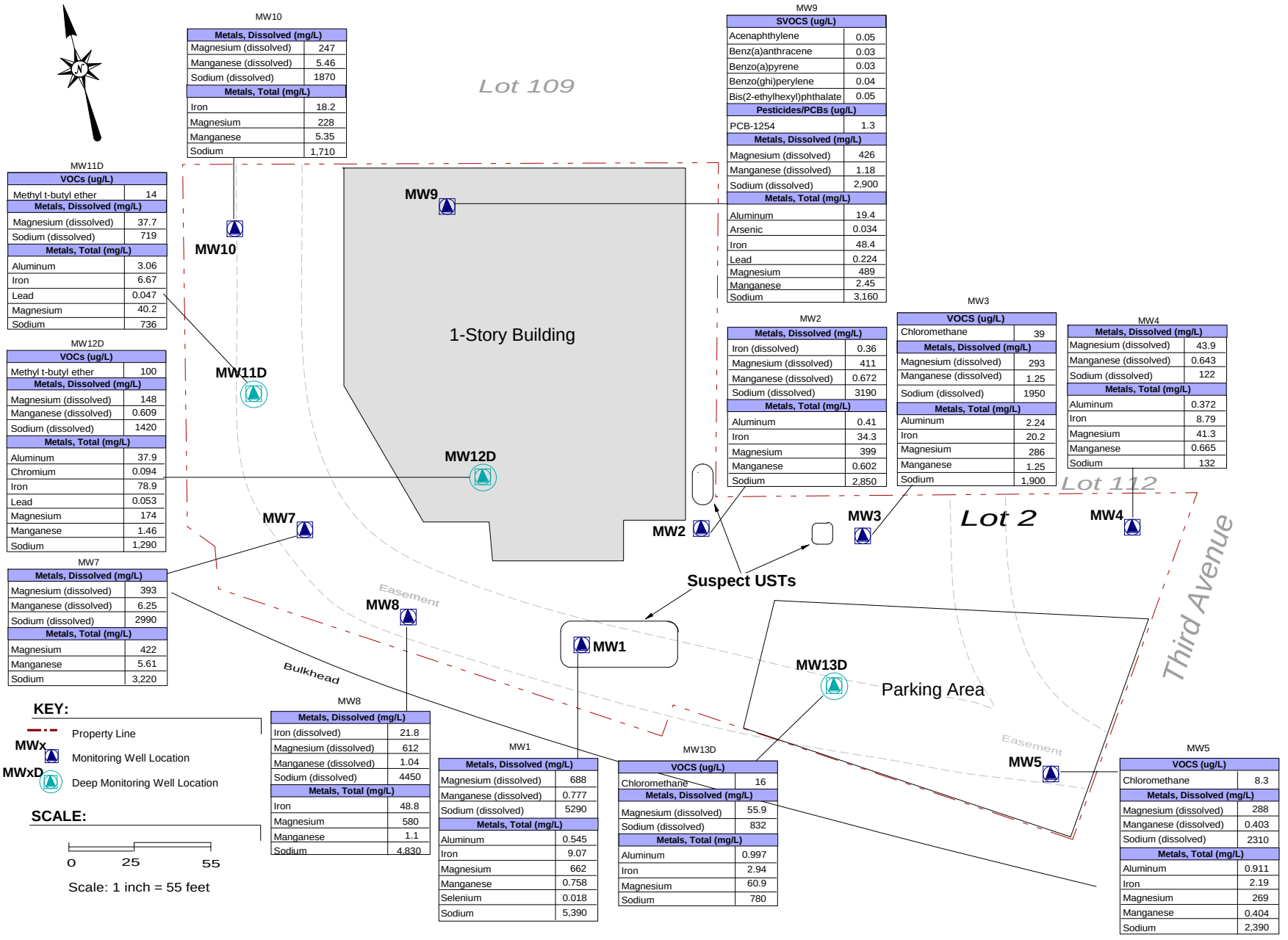
Figure No. 9

Site Name: Former Mugler Shoring Inc.
Site Address: 2401 Third Avenue, Bronx, NY
Drawing Title: Soil Exceedences Map



MW10

Metals, Dissolved (mg/L)	
Magnesium (dissolved)	247
Manganese (dissolved)	5.46
Sodium (dissolved)	1870
Metals, Total (mg/L)	
Iron	18.2
Magnesium	228
Manganese	5.35
Sodium	1,710

MW9

SVOCS (ug/L)	
Acenaphthylene	0.05
Benz(a)anthracene	0.03
Benzo(a)pyrene	0.03
Benzo(ghi)perylene	0.04
Bis(2-ethylhexyl)phthalate	0.05
Pesticides/PCBs (ug/L)	
PCB-1254	1.3
Metals, Dissolved (mg/L)	
Magnesium (dissolved)	426
Manganese (dissolved)	1.18
Sodium (dissolved)	2,900
Metals, Total (mg/L)	
Aluminum	19.4
Arsenic	0.034
Iron	48.4
Lead	0.224
Magnesium	489
Manganese	2.45
Sodium	3,160

MW11D

VOCs (ug/L)	
Methyl t-butyl ether	14
Metals, Dissolved (mg/L)	
Magnesium (dissolved)	37.7
Sodium (dissolved)	719
Metals, Total (mg/L)	
Aluminum	3.06
Iron	6.67
Lead	0.047
Magnesium	40.2
Sodium	736

MW12D

VOCs (ug/L)	
Methyl t-butyl ether	100
Metals, Dissolved (mg/L)	
Magnesium (dissolved)	148
Manganese (dissolved)	0.609
Sodium (dissolved)	1420
Metals, Total (mg/L)	
Aluminum	37.9
Chromium	0.094
Iron	78.9
Lead	0.053
Magnesium	174
Manganese	1.46
Sodium	1,290

MW2

Metals, Dissolved (mg/L)	
Iron (dissolved)	0.36
Magnesium (dissolved)	411
Manganese (dissolved)	0.672
Sodium (dissolved)	3190
Metals, Total (mg/L)	
Aluminum	0.41
Iron	34.3
Magnesium	399
Manganese	0.602
Sodium	2,850

MW3

VOCS (ug/L)	
Chloromethane	39
Metals, Dissolved (mg/L)	
Magnesium (dissolved)	293
Manganese (dissolved)	1.25
Sodium (dissolved)	1950
Metals, Total (mg/L)	
Aluminum	2.24
Iron	20.2
Magnesium	286
Manganese	1.25
Sodium	1,900

MW4

Metals, Dissolved (mg/L)	
Magnesium (dissolved)	43.9
Manganese (dissolved)	0.643
Sodium (dissolved)	122
Metals, Total (mg/L)	
Aluminum	0.372
Iron	8.79
Magnesium	41.3
Manganese	0.665
Sodium	132

MW7

Metals, Dissolved (mg/L)	
Magnesium (dissolved)	393
Manganese (dissolved)	6.25
Sodium (dissolved)	2990
Metals, Total (mg/L)	
Magnesium	422
Manganese	5.61
Sodium	3,220

MW8

Metals, Dissolved (mg/L)	
Iron (dissolved)	21.8
Magnesium (dissolved)	612
Manganese (dissolved)	1.04
Sodium (dissolved)	4450
Metals, Total (mg/L)	
Iron	48.8
Magnesium	580
Manganese	1.1
Sodium	4,830

MW1

Metals, Dissolved (mg/L)	
Magnesium (dissolved)	688
Manganese (dissolved)	0.777
Sodium (dissolved)	5290
Metals, Total (mg/L)	
Aluminum	0.545
Iron	9.07
Magnesium	662
Manganese	0.758
Selenium	0.018
Sodium	5,390

MW13D

VOCS (ug/L)	
Chloromethane	16
Metals, Dissolved (mg/L)	
Magnesium (dissolved)	55.9
Sodium (dissolved)	832
Metals, Total (mg/L)	
Aluminum	0.997
Iron	2.94
Magnesium	60.9
Sodium	780

MW5

VOCS (ug/L)	
Chloromethane	8.3
Metals, Dissolved (mg/L)	
Magnesium (dissolved)	288
Manganese (dissolved)	0.403
Sodium (dissolved)	2310
Metals, Total (mg/L)	
Aluminum	0.911
Iron	2.19
Magnesium	269
Manganese	0.404
Sodium	2,390

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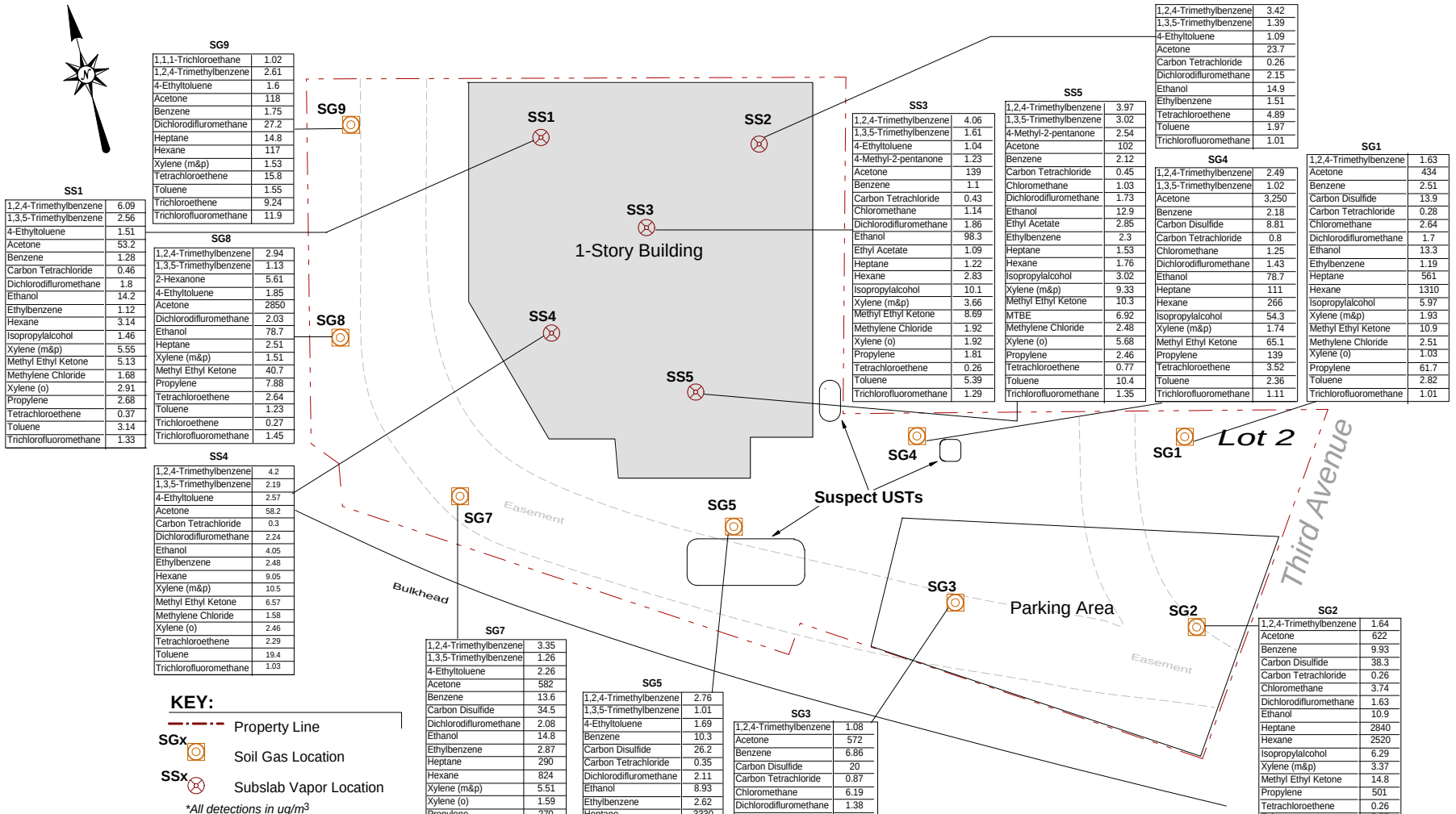
Figure No. 10

Site Name: FORMER MUGLER SHORING INC.
Site Address: 2401 THIRD AVENUE, BRONX, NY
Drawing Title: GROUNDWATER EXCEEDENCES



SS1

1,2,4-Trimethylbenzene	6.09
1,3,5-Trimethylbenzene	2.56
4-Ethyltoluene	1.51
Acetone	53.2
Benzene	1.28
Carbon Tetrachloride	0.46
Dichlorodifluromethane	1.8
Ethanol	14.2
Ethylbenzene	1.12
Hexane	3.14
Isopropylalcohol	1.46
Xylene (m&p)	5.55
Methyl Ethyl Ketone	5.13
Methylene Chloride	1.68
Xylene (o)	2.91
Propylene	2.68
Tetrachloroethene	0.37
Toluene	3.14
Trichlorofluoromethane	1.33

SG9

1,1,1-Trichloroethane	1.02
1,2,4-Trimethylbenzene	2.61
4-Ethyltoluene	1.6
Acetone	118
Benzene	1.75
Dichlorodifluromethane	27.2
Heptane	14.8
Hexane	117
Xylene (m&p)	1.53
Tetrachloroethene	15.8
Toluene	1.55
Trichloroethene	9.24
Trichlorofluoromethane	11.9

SG8

1,2,4-Trimethylbenzene	2.94
1,3,5-Trimethylbenzene	1.13
2-Hexanone	5.61
4-Ethyltoluene	1.85
Acetone	2850
Dichlorodifluromethane	2.03
Ethanol	78.7
Heptane	2.51
Xylene (m&p)	1.51
Methyl Ethyl Ketone	40.7
Propylene	7.88
Tetrachloroethene	2.64
Toluene	1.23
Trichloroethene	0.27
Trichlorofluoromethane	1.45

SS4

1,2,4-Trimethylbenzene	4.2
1,3,5-Trimethylbenzene	2.19
4-Ethyltoluene	2.57
Acetone	58.2
Carbon Tetrachloride	0.3
Dichlorodifluromethane	2.24
Ethanol	4.05
Ethylbenzene	2.48
Hexane	9.05
Xylene (m&p)	10.5
Methyl Ethyl Ketone	6.57
Methylene Chloride	1.58
Xylene (o)	2.46
Tetrachloroethene	2.29
Toluene	19.4
Trichlorofluoromethane	1.03

SS3

1,2,4-Trimethylbenzene	4.06
1,3,5-Trimethylbenzene	1.61
4-Ethyltoluene	1.04
4-Methyl-2-pentanone	1.23
Acetone	139
Benzene	1.1
Carbon Tetrachloride	0.43
Chloromethane	1.14
Dichlorodifluromethane	1.86
Ethanol	98.3
Ethyl Acetate	1.09
Heptane	1.22
Hexane	2.83
Isopropylalcohol	10.1
Xylene (m&p)	3.66
Methyl Ethyl Ketone	8.69
Methylene Chloride	1.92
Xylene (o)	1.92
Propylene	1.81
Tetrachloroethene	0.26
Toluene	5.39
Trichlorofluoromethane	1.29

SS5

1,2,4-Trimethylbenzene	3.97
1,3,5-Trimethylbenzene	3.02
4-Methyl-2-pentanone	2.54
Acetone	102
Benzene	2.12
Carbon Tetrachloride	0.45
Chloromethane	1.03
Dichlorodifluromethane	1.73
Ethanol	12.9
Ethyl Acetate	2.85
Ethylbenzene	2.3
Heptane	1.53
Hexane	1.76
Isopropylalcohol	3.02
Xylene (m&p)	9.33
Methyl Ethyl Ketone	10.3
MTBE	6.92
Methylene Chloride	2.48
Xylene (o)	5.68
Propylene	2.46
Tetrachloroethene	0.77
Toluene	10.4
Trichlorofluoromethane	1.35

SS2

1,2,4-Trimethylbenzene	3.42
1,3,5-Trimethylbenzene	1.39
4-Ethyltoluene	1.09
Acetone	23.7
Carbon Tetrachloride	0.26
Dichlorodifluromethane	2.15
Ethanol	14.9
Ethylbenzene	1.51
Tetrachloroethene	4.89
Toluene	1.97
Trichlorofluoromethane	1.01

SG4

1,2,4-Trimethylbenzene	2.49
1,3,5-Trimethylbenzene	1.02
Acetone	3,250
Benzene	2.18
Carbon Disulfide	8.81
Carbon Tetrachloride	0.8
Chloromethane	1.25
Dichlorodifluromethane	1.43
Ethanol	78.7
Heptane	111
Hexane	266
Isopropylalcohol	54.3
Xylene (m&p)	1.74
Methyl Ethyl Ketone	65.1
Propylene	139
Tetrachloroethene	3.52
Toluene	2.36
Trichlorofluoromethane	1.11

SG1

1,2,4-Trimethylbenzene	1.63
Acetone	434
Benzene	2.51
Carbon Disulfide	13.9
Carbon Tetrachloride	0.28
Chloromethane	2.64
Dichlorodifluromethane	1.7
Ethanol	13.3
Ethylbenzene	1.19
Heptane	561
Hexane	1310
Isopropylalcohol	5.97
Xylene (m&p)	1.93
Methyl Ethyl Ketone	10.9
Methylene Chloride	2.51
Xylene (o)	1.03
Propylene	61.7
Toluene	2.82
Trichlorofluoromethane	1.01

SG7

1,2,4-Trimethylbenzene	3.35
1,3,5-Trimethylbenzene	1.26
4-Ethyltoluene	2.26
Acetone	582
Benzene	13.6
Carbon Disulfide	34.5
Dichlorodifluromethane	2.08
Ethanol	14.8
Ethylbenzene	2.87
Heptane	290
Hexane	824
Xylene (m&p)	5.51
Xylene (o)	1.59
Propylene	270
Tetrachloroethene	6.26
Toluene	18.8
Trichloroethene	0.43

SG5

1,2,4-Trimethylbenzene	2.76
1,3,5-Trimethylbenzene	1.01
4-Ethyltoluene	1.69
Benzene	10.3
Carbon Disulfide	26.2
Carbon Tetrachloride	0.35
Dichlorodifluromethane	2.11
Ethanol	8.93
Ethylbenzene	2.62
Heptane	3330
Hexane	6200
Xylene (m&p)	3.98
Methyl Ethyl Ketone	12.9
Tetrachloroethene	0.39
Toluene	44.8
Vinyl Chloride	0.28

SG3

1,2,4-Trimethylbenzene	1.08
Acetone	572
Benzene	6.86
Carbon Disulfide	20
Carbon Tetrachloride	0.87
Chloromethane	6.19
Dichlorodifluromethane	1.38
Ethanol	16.1
Heptane	2,240
Hexane	5,880
Isopropylalcohol	10.5
Xylene (m&p)	1.68
Propylene	322
Toluene	10.3
Trichloroethene	0.42
Trichlorofluoromethane	1.12

SG2

1,2,4-Trimethylbenzene	1.64
Acetone	622
Benzene	9.93
Carbon Disulfide	38.3
Carbon Tetrachloride	0.26
Chloromethane	3.74
Dichlorodifluromethane	1.63
Ethanol	10.9
Heptane	2840
Hexane	2520
Isopropylalcohol	6.29
Xylene (m&p)	3.37
Methyl Ethyl Ketone	14.8
Propylene	501
Tetrachloroethene	0.26
Toluene	5.57
Trichlorofluoromethane	1.11

KEY:

Property Line

SGx — Soil Gas Location

SSx — Subslab Vapor Location

**All detections in ug/m^3*

SCALE:

0 30 60

Scale: 1 inch = 60 feet

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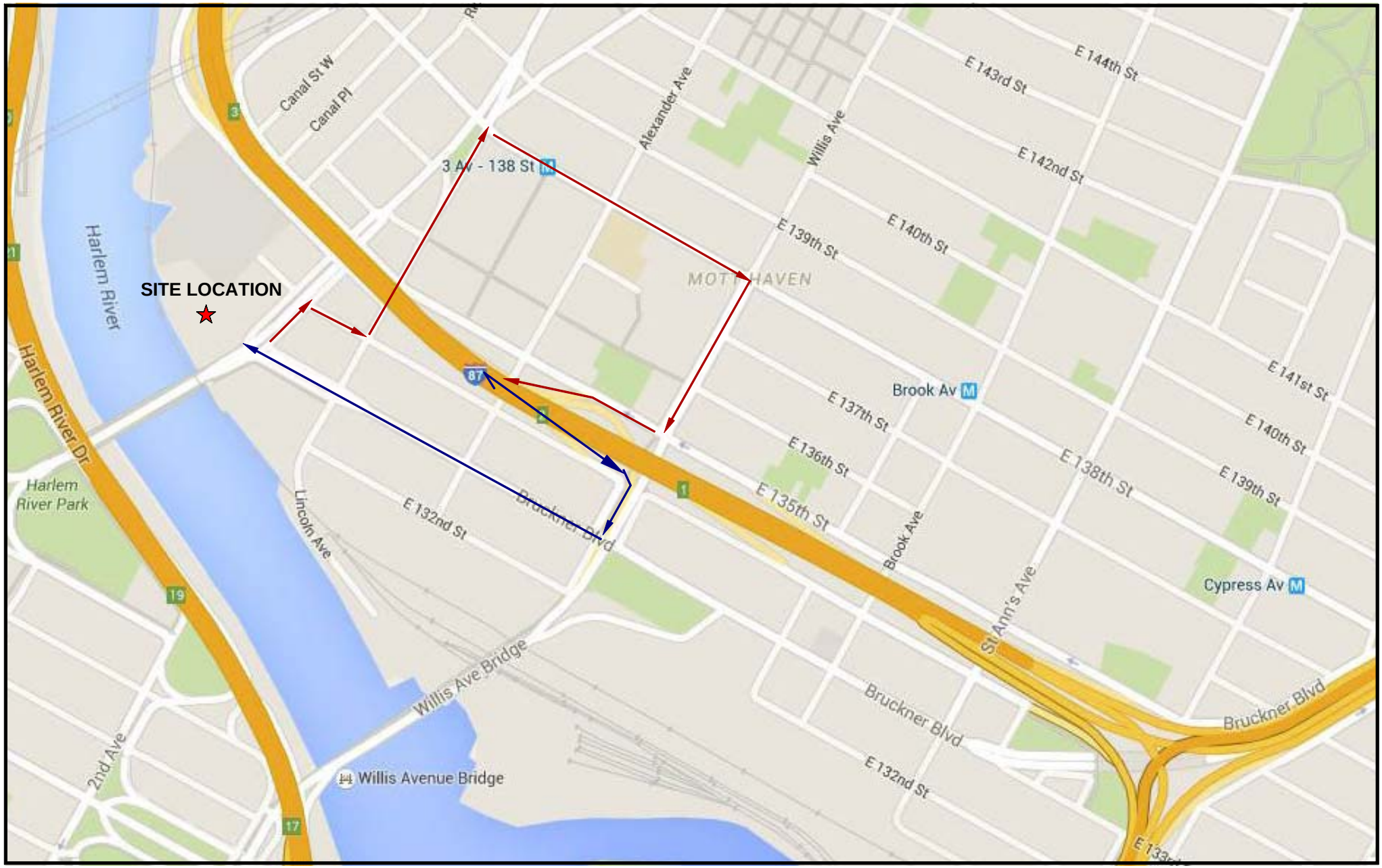
Figure No. 11

Site Name: FORMER MUGLER SHORING INC.

Site Address: 2401 THIRD AVENUE, BRONX, NY

Drawing Title: SOIL GAS DETECTIONS



Key

Truck Route to the Site

Truck Route from the Site

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FORMER MUGLER SHORING

2401 THIRD AVENUE, BRONX, NY

FIGURE 12 TRUCK ROUTES

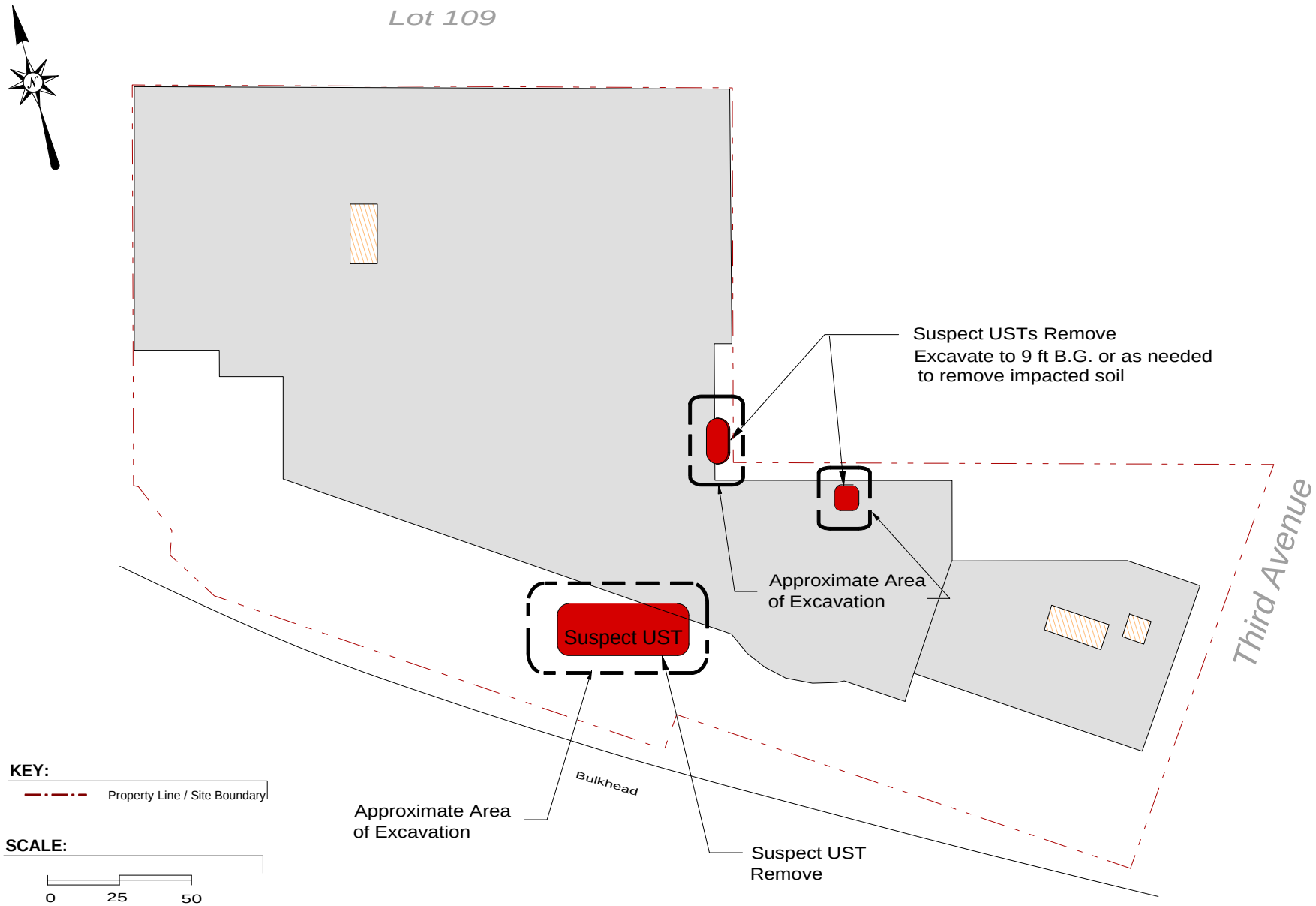

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Figure No. 13

Site Name: Former Mugler Shoring Inc.
Site Address: 2401 Third Avenue, Bronx, NY
Drawing Title: Excavation Plan

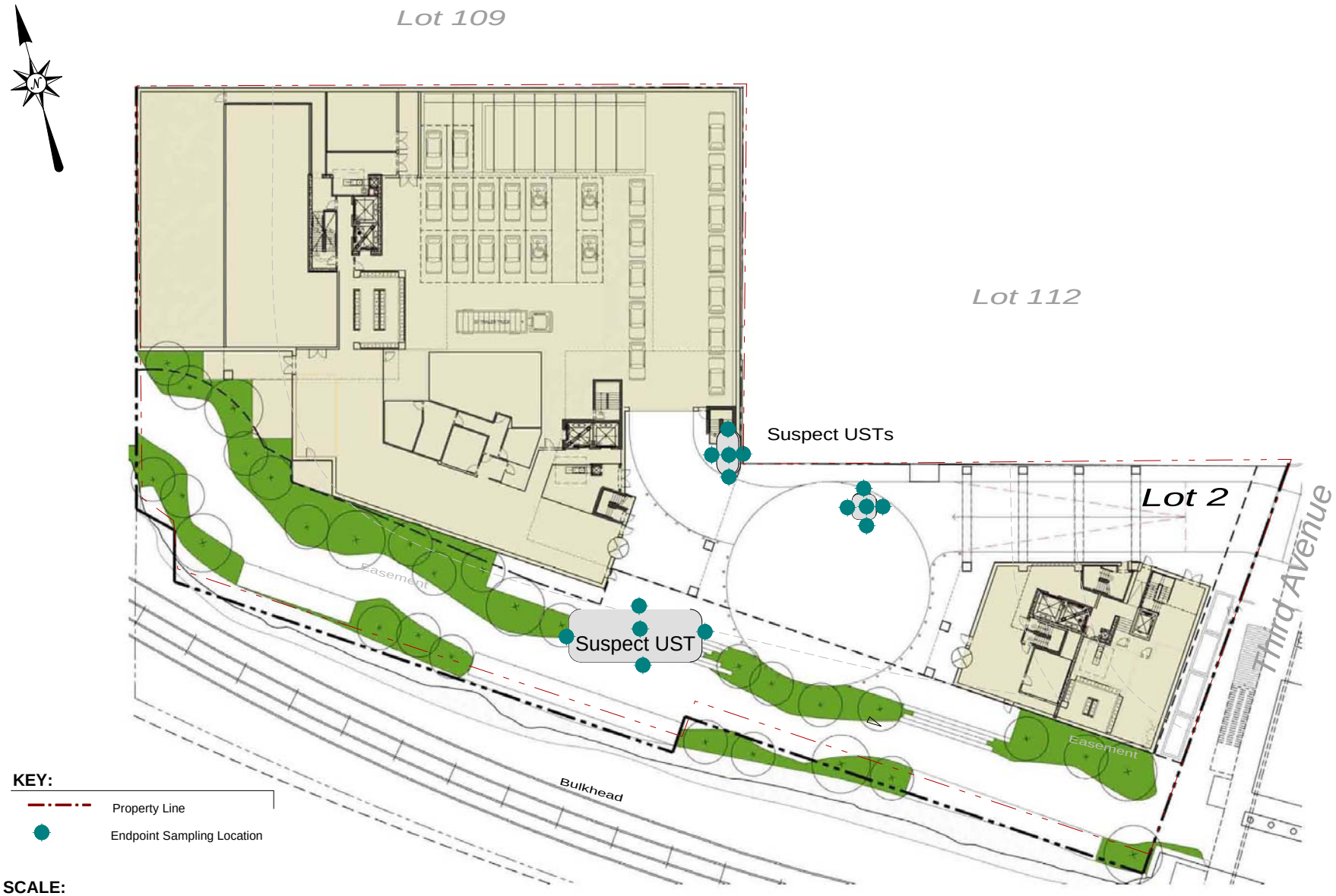

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Figure No. 14

Site Name: FORMER MUGLER SHORING INC.
Site Address: 2401 THIRD AVENUE, BRONX, NY
Drawing Title: ENDPOINT SAMPLING PLAN

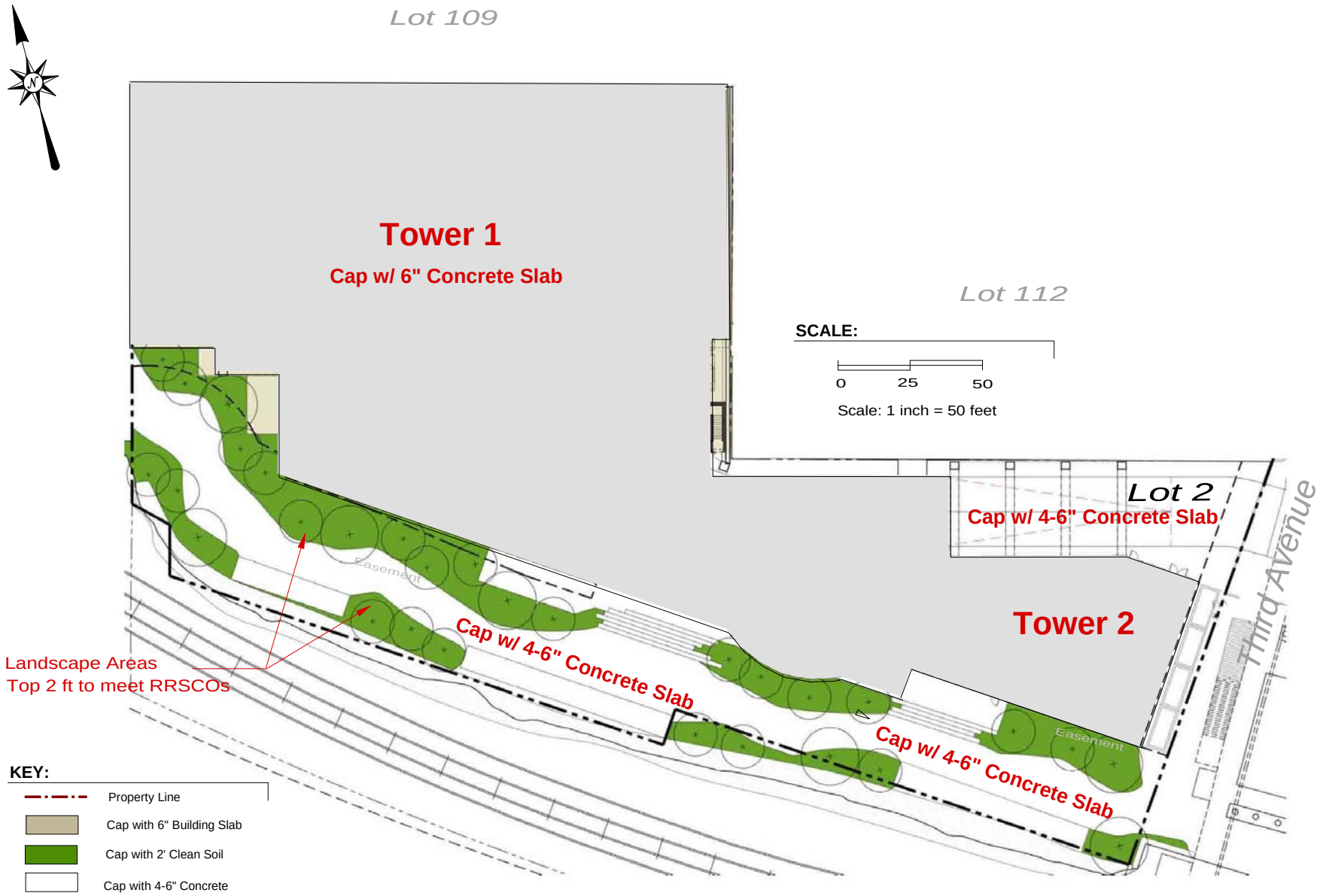

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Figure No. 15

Site Name: FORMER MUGLER SHORING INC.
Site Address: 2401 THIRD AVENUE, BRONX, NY
Drawing Title: CAPPING PLAN

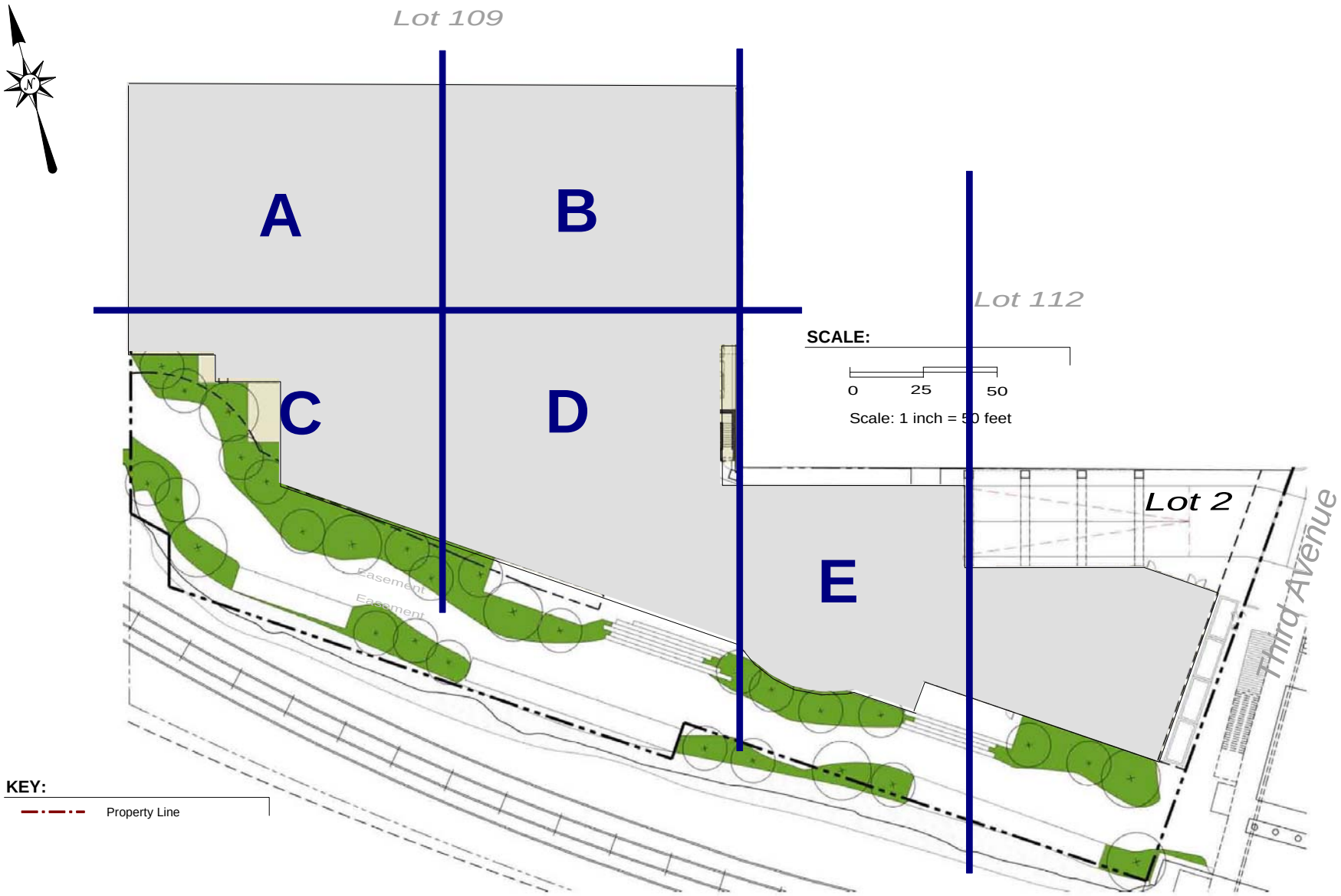

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Figure No. 16

Site Name: FORMER MUGLER SHORING INC.
Site Address: 2401 THIRD AVENUE, BRONX, NY
Drawing Title: GRID MAP

ATTACHMENT A
Metes and Bounds Description of Property

EXHIBIT A

Legal Description

ALL THAT CERTAIN PLOT, PIECE OR PARCEL OF LAND, WITH THE BUILDINGS AND IMPROVEMENTS THEREON ERECTED, SITUATE, LYING AND BEING IN THE BOROUGH AND COUNTY OF BRONX, CITY AND STATE OF NEW YORK, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WESTERLY SIDE OF THIRD AVENUE, 380.21 FEET SOUTHWESTERLY FROM THE CORNER FORMED BY THE INTERSECTION OF THE WESTERLY SIDE OF THIRD AVENUE AND THE SOUTHERLY SIDE OF EAST 134TH STREET;

RUNNING THENCE NORTHWESTERLY ALONG A COURSE FORMING AN INTERIOR ANGLE OF 70 DEGREES 39 MINUTES 15 SECONDS WITH THE NORTHWESTERLY SIDE OF THIRD AVENUE 119.76 FEET TO A POINT;

THENCE SOUTHWESTERLY AT RIGHT ANGLES TO THE LAST MENTIONED COURSE, 6.00 FEET TO A POINT;

THENCE NORTHWESTERLY AT RIGHT ANGLES TO THE LAST MENTIONED COURSE, 10.00 FEET TO A POINT;

THENCE NORTHEASTERLY AT RIGHT ANGLES TO THE LAST MENTIONED COURSE, 6.00 FEET TO A POINT;

THENCE NORTHWESTERLY AT RIGHT ANGLES TO THE LAST MENTIONED COURSE, 58.17 FEET TO A POINT;

THENCE NORTHEASTERLY ALONG A LINE FORMING AN INTERIOR ANGLE OF 89 DEGREES 44 MINUTES 00 SECONDS ON ITS EASTERLY SIDE WITH THE LAST MENTIONED COURSE 129.01 FEET TO A POINT;

THENCE NORTHWESTERLY ALONG A LINE FORMING AN INTERIOR ANGLE OF 90 DEGREES 02 MINUTES 50 SECONDS ON ITS SOUTHERLY SIDE WITH THE LAST MENTIONED COURSE 107.35 FEET TO A POINT;

THENCE NORTHEASTERLY AT RIGHT ANGLES TO THE LAST MENTIONED COURSE 0.35 FEET TO A POINT;

THENCE NORTHWESTERLY ALONG A LINE FORMING AN INTERIOR ANGLE OF 89 DEGREES 45 MINUTES 50 SECONDS ON ITS SOUTHERLY SIDE WITH THE LAST MENTIONED COURSE 101.17 FEET TO THE SOUTHWESTERLY SIDE OF MOTT HAVEN CANAL;

THENCE SOUTHWESTERLY ALONG THE SOUTHEASTERLY SIDE OF MOTT HAVEN CANAL 146.65' TO A POINT;

THENCE SOUTHEASTERLY FORMING AN INTERIOR ANGLE OF 118 DEGREES 57 MINUTES 57 SECONDS WITH THE LAST MENTIONED COURSE A DISTANCE OF 14.93' TO A POINT;

THENCE SOUTHERLY FORMING AN INTERIOR ANGLE OF 241 DEGREES 4 MINUTES 3 SECONDS WITH THE LAST MENTIONED COURSE A DISTANCE OF 17.72' TO A POINT;

THENCE SOUTHEASTERLY FORMING AN INTERIOR ANGLE OF 108 DEGREES 52 MINUTES 16 SECONDS WITH THE LAST MENTIONED COURSE A DISTANCE OF 180.76 FEET TO A POINT;

THENCE NORTHEASTERLY AT RIGHT ANGLES TO THE LAST MENTIONED COURSE A DISTANCE OF 13.00' TO A POINT;

THENCE SOUTHEASTERLY AT RIGHT ANGLES TO THE LAST MENTIONED COURSE A DISTANCE OF 166.06' TO THE NORTHWESTERLY SIDE OF THIRD AVENUE;

THENCE NORTHEASTERLY ALONG THE NORTHWESTERLY SIDE OF THIRD AVENUE 148.43 FEET TO THE POINT OR PLACE OF BEGINNING.

CONTAINING 1.4 ACRES (61,034.98 SQUARE FEET).

TOGETHER WITH THE BENEFITS OF CERTAIN EASEMENTS OF INGRESS, EGRESS AND REGRESS AS DESCRIBED IN DEED BETWEEN GENHAR REALTY CORP. AND CANAL & 3RD CO. RECORDED 4/6/1961 IN LIBER 2430 AT PAGE 382.

TOGETHER WITH THE BENEFITS OF CERTAIN EASEMENTS OF INGRESS, EGRESS AND REGRESS AS DESCRIBED IN DEED BETWEEN CANAL & 3RD CO. AND MAE-JOE REALTY CORP. INC. RECORDED 4/6/1962 IN LIBER 2479 AT PAGE 383.

TOGETHER WITH THE BENEFITS OF CERTAIN EASEMENTS AS TO GAS, ELECTRICITY AND WATER AS DESCRIBED IN DEED BETWEEN RICHARD C. MUGLER, JR. AND KAI DEVELOPMENT CORP. RECORDED 12/30/1997 IN REEL 1519 PAGE 1925.

BEING THE SAME PREMISES AS DESCRIBED IN DEED FROM RICHARD C. MUGLER, JR. TO 2401 3RD AVENUE, L.L.C. RECORDED IN REEL 1785 AT PAGE 871.

ATTACHMENT B
Health and Safety Plan

FORMER MUGLER SHORING INC. SITE

SITE No. C203052

2401 THIRD AVENUE, BRONX, NY

Block 2319 Lot 2

CONSTRUCTION HEALTH AND SAFETY PLAN

APRIL 2016

Prepared for:

2401 3rd Ave Associates Property LLC
512 Seventh Avenue 15th Floor
New York, NY 10018

Prepared by:

EBC
ENVIRONMENTAL BUSINESS CONSULTANTS
1808 Middle Country Road
Ridge, NY 11961

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Former Mugler Shoring Site
2401 Third Avenue, Bronx, New York

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CONSTRUCTION HEALTH AND SAFETY PLAN
Former Mugler Shoring Site
2401 Third Avenue, Bronx, New York

FIGURES

APPENDICES

STATEMENT OF COMMITMENT

This Construction Health and Safety Plan (CHASP) has been prepared to ensure that workers are not exposed to risks from hazardous materials during the Remedial Actions at the Former Mugler Shoring BCP Site, located at 2401 Third Avenue, Bronx, NY.

This CHASP, which applies to persons present at the site actually or potentially exposed to hazardous materials, describes emergency response procedures for actual and potential chemical hazards. This CHASP is also intended to inform and guide personnel entering the work area or exclusion zone. Persons are to acknowledge that they understand the potential hazards and the contents of this Health and Safety policy by signing off on receipt of their individual copy of the document. Contractors and suppliers are retained as independent contractors and are responsible for ensuring the health and safety of their own employees.

1.0 INTRODUCTION AND SITE ENTRY REQUIREMENTS

This document describes the health and safety guidelines developed by Environmental Business Consultants (EBC) for the planned Remedial Action at the Former Mugler Shoring BCP Site, located at 2401 Third Avenue, Bronx, NY, to protect on-site personnel, visitors, and the public from physical harm and exposure to hazardous materials or wastes during remedial activities. In accordance with the Occupational Safety and Health Administration (OSHA) 29 CFR Part 1910.120 Hazardous Waste Operations and Emergency Response Final rule, this CHASP, including the attachments, addresses safety and health hazards related to excavation, loading and other soil disturbance activities and is based on the best information available. The CHASP may be revised by EBC at the request of the owner and/or a regulatory agency upon receipt of new information regarding site conditions. Changes will be documented by written amendments signed by EBC's project manager, site safety officer and/or the EBC health and safety consultant.

Work performed under the remedial action will not involve confined space entry since the excavations will be large and sloped back in accordance with NYCDOB shoring requirements and will not have a limited or restricted means for entry or exit.

1.1 Training Requirements

Personnel entering the exclusion zone or decontamination zone are required to be certified in health and safety practices for hazardous waste site operations as specified in the Federal OSHA Regulations CFR 1910.120e (revised 3/6/90).

Paragraph (e - 3) of the above referenced regulations requires that all on-site management personnel directly responsible for or who supervise employees engaged in hazardous waste operations, must initially receive 8 hours of supervisor training related to managing hazardous waste work.

Paragraph (e - 8) of the above referenced regulations requires that workers and supervisors receive 8 hours of refresher training annually on the items specified in Paragraph (e-1) and/or (e-3).

Additionally all on-site personnel must receive adequate site-specific training in the form of an on-site Health and Safety briefing prior to participating in field work with emphasis on the following:

- Protection of the adjacent community from hazardous vapors and / or dust which may be released during intrusive activities.
- Identification of chemicals known or suspected to be present on-site and the health effects and hazards of those substances.
- The need for vigilance in personnel protection, and the importance of attention to proper use, fit and care of personnel protective equipment.
- Decontamination procedures.
- Site control including work zones, access and security.
- Hazards and protection against heat or cold.
- The proper observance of daily health and safety practices, such as entry and exit of work

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zones and site. Proper hygiene during lunch, break, etc.
- Emergency procedures to be followed in case of fire, explosion and sudden release of hazardous gases.

Health and Safety meetings will be conducted on a daily basis and will cover protective clothing and other equipment to be used that day, potential and chemical and physical hazards, emergency procedures, and conditions and activities from the previous day.

1.2 Medical Monitoring Requirements

Field personnel and visitors entering the exclusion zone or decontamination zone must have completed appropriate medical monitoring required under OSHA 29 CFR 1910.120(f) if respirators or other breathing related PPE is needed. Medical monitoring enables a physician to monitor each employee's health, physical condition, and his fitness to wear respiratory protective equipment and carry out on-site tasks.

1.3 Site Safety Plan Acceptance, Acknowledgment and Amendments

The project superintendent and the site safety officer are responsible for informing personnel (EBC employees and/or owner or owners representatives) entering the work area of the contents of this plan and ensuring that each person signs the safety plan acknowledging the on-site hazards and procedures required to minimize exposure to adverse effects of these hazards. A copy of the Acknowledgement Form is included in **Appendix A**.

Site conditions may warrant an amendment to the CHASP. Amendments to the CHASP are acknowledged by completing forms included in **Appendix B**.

1.4 Key Personnel - Roles and Responsibilities

Personnel responsible for implementing this Health and Safety Plan are:

Name	Title	Address	Contact Numbers
Mr. Robert Bennett	EBC – Project Manager	1808 Middle Country Rd Ridge, NY 11961	(631) 504-6000
Ms. Chawinie Miller	Health & Safety Manager	1808 Middle Country Rd Ridge, NY 11961	(631) 504-6000
Mr. Kevin Waters	Site Safety Officer	1808 Middle Country Rd Ridge, NY 11961	(631) 504-6000

The project manager is responsible for overall project administration and, with guidance from the site safety officer, for supervising the implementation of this CHASP. The site safety officer will conduct daily (tail gate or tool box) safety meetings at the project site and oversee daily safety issues. Each subcontractor and supplier (defined as an OSHA employer) is also responsible for the health and safety of its employees. If there is any dispute about health and safety or project activities, on-site personnel will attempt to resolve the issue. If the issue cannot be resolved at the site, then the project manager will be consulted.

The site safety officer is also responsible for coordinating health and safety activities related to hazardous material exposure on-site. The site safety officer is responsible for the following:

1. Educating personnel about information in this CHASP and other safety requirements to be observed during site operations, including, but not limited to, decontamination procedures, designation of work zones and levels of protection, air monitoring, fit testing, and emergency procedures dealing with fire and first aid.

2. Coordinating site safety decisions with the project manager.

3. Designating exclusion, decontamination and support zones on a daily basis.

4. Monitoring the condition and status of known on-site hazards and maintaining and implementing the air quality monitoring program specified in this CHASP.

5. Maintaining the work zone entry/exit log and site entry/exit log.

6. Maintaining records of safety problems, corrective measures and documentation of chemical exposures or physical injuries (the site safety officer will document these conditions in a bound notebook and maintain a copy of the notebook on-site).

The person who observes safety concerns and potential hazards that have not been addressed in the daily safety meetings should immediately report their observations/concerns to the site safety officer or appropriate key personnel.

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2.0 SITE BACKGROUND AND SCOPE OF WORK

The street address for the Site is 2401 Third Avenue, Bronx, NY. The Site is located in the City of New York in the Port Morris neighborhood of the Borough of the Bronx. The Site is comprised of a single tax parcel covering 61,034.98 (1.4 acres). The subject property is located in the City of New York and Borough of the Bronx (Bronx County). The lot is located on the west side of Third Avenue and is identified as Block 2319 Lot 2 on the NY City tax map. The property has 159 feet of street frontage on Third Avenue and approximately 346 ft of frontage along the north side of the Harlem River.

The property is currently vacant but was must recently used by a shoring company and has historically been used as an iron works, steel fabrication, gear manufacturing, gasket manufacturing and shoring equipment fabrication.

2.1 Previous Investigations

2.1.1 October 2014 – Phase I Environmental Site Assessment (Langan)

A Phase I Environmental Site Assessment Report was prepared by Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) on October 28, 2014. Based upon reconnaissance of the subject and surrounding properties, interviews and review of historical records and regulatory agency databases, Langan identified the following recognized environmental conditions:

- Current and Historical Manufacturing and Industrial Use:
  The Subject Property was historically used for manufacturing purposes since at least 1891. Historical operators include; J.L. Mott Iron Works (1891–1922), Hydraulic Steel Company (1922–1935), General Builders Supply Corporation (1935–1968), Brill Equipment Company (1949–1956), US Gear Manufacturing Company (1965–1971), Ohio Gasket Manufacturing Corporation (1971), and Mugler Inc. (1965–present). Inadvertent releases of solvents, petroleum products, metals, polychlorinated biphenyls (PCB) and/or other chemicals used during manufacturing operations may have adversely impacted soil, groundwater, building components and/or soil vapor. The Subject Property is presently operated by Mugler, Inc. for shoring equipment fabrication, storage, truck loading/unloading, and equipment repairs. As such, there are typical tools, maintenance/repair materials, and miscellaneous equipment used and stored throughout. Discoloration and staining were apparent throughout the interior of the building, suggesting incidental releases of petroleum products during truck maintenance, and the concrete slab was compromised in several areas. Because fractures in the slab provide a conduit for spilled motor oils and/or petroleum products to impact subsurface conditions, current use by Mugler, Inc. constitutes a REC.

- On-Site Petroleum Bulk Storage:
  The following historical underground storage tanks (USTs) were identified:

  - One 550-gallon gasoline UST, located outside the southeast corner of the building, was reportedly closed-in place circa 1999.

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- An area of patched concrete and an apparent abandoned fill port southeast of the building, which is suspected to be associated with another decommissioned UST, was identified during the site reconnaissance.
- One 1,550-gallon gasoline UST was identified on the 1935 through 1946 Sanborn maps.

Based on the known and suspected presence of historic tanks and lack of any documentation of tank closure, the historical USTs are a REC.

- Current and Historical Use of Surrounding Properties:
  Include a private garage (1946–1951), lubricating oils storage (1935–1983), two chemical corporations (1935–1947), a paint manufacturer (1951), a coal yard (1935–1951), an auto building (1908–1947), an auto house (1935–1944), a private garage (1935–1944), a printing facility (1935–1947), and several auto repair shops (2005–2012). In addition, an active New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) site was identified approximately 660 feet northeast (up-gradient) of the Subject Property. Based on investigations conducted to date, the primary contaminants of concern in soil and groundwater are petroleum related compounds. No information was provided with respect to the off-Site migration of contaminants; however, the Environmental Database Report (EDR) report indicates that the potential exists for off-Site migration of site-related contaminants in soil vapor. Potential petroleum and solvent releases associated with the historical surrounding property uses may have adversely impacted groundwater and/or soil vapor at the Subject Property and is considered a REC.

2.1.2 October 2014 - Phase II Investigation Report (Langan)

A remedial investigation was performed by Langan for the property in July and August of 2014. The Phase II included the following scope of work:

1. Completion of a geophysical investigation;
2. Completion of seven soil borings and collection of 14 soil samples;
3. Installation and sampling of six temporary monitoring wells; and
4. Installation and sampling of six soil vapor points. Installed five soil vapor probes around Site perimeter and collected five samples for chemical analysis.

The findings of the Phase II are summarized as follows:

- The geophysical survey identified two major anomaly areas along the southeast corner of the Subject Property Building. Based on their reflection rates and their proximities, these anomalies are indicative of USTs located approximately 2 to 3 ft bgs. Another anomaly area consistent with disturbed soil was located along the western edge of the Subject Property.

- A layer of historic fill was identified throughout the Subject Property with thicknesses ranging from approximately 5 to 13 feet. This fill layer contained SCO exceedances (SVOC and metal) throughout the majority of the Site.

- The suite of metals and SVOCs and their concentrations detected in soil and groundwater

across the site are attributed to historic fill material.

- One of the seven soil borings (SB-3) was installed next to a suspect 550-gallon gasoline UST that was reportedly decommissioned in 1999. Petroleum-like odors and PID readings (up to 700 ppm) were observed in the soil boring at depths of approximately 8 to 9 ft bgs. Groundwater analytical sampling results from this location confirmed the presence of a petroleum release. Article 12 of the New York State Navigation Law requires that anyone with knowledge of a petroleum release must report the discovery to the New York State Spill Hotline as soon as possible. Therefore, on 13 August, 2014, Langan called in a spill and Spill Case No. 1405230 was opened by NYSDEC.

- Soil vapor concentrations are below NYSDOH AGV values; however, based on the presence of VOCs in the soil vapor, remedial measures should include installation of a soil vapor mitigation system.

- Due to the E-designation of the site, additional investigation including soil, groundwater and soil vapor sampling will be required in order to comply with NYCOER guidelines and obtain permits for construction and occupancy of proposed building structures.

- If site development is planned, a Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) should be prepared and implemented. In accordance with the requirements of the E-Designation program, these documents must be submitted to OER for approval prior to the start of Site work. OER will require additional site investigation to support preparation of the RAP. The RAP and CHASP may need to address the following:
    - Handling, transport and disposal of excess material including fill and debris as required for development with all appropriate requirements.
    - A composite cover system for impacted material that may be left in-place after development. The cover system will prevent direct contact with or inhalation of contaminated material.
    - Odor and soil vapor intrusion should be addressed if odorous or VOC-impacted material is left in-place as part of the development.
    - Registration, removal and closure of known petroleum storage tanks.
    - Permitting and treatment, if required, of dewatering effluent.
    - Health and safety requirements addressing the contaminants of concern including a Community Air Monitoring Plan (CAMP) to monitor odor and dust.
    - A contingency plan for removal of currently unknown underground storage tanks or other subsurface structures

2.2 Redevelopment Plans

The redevelopment project consists of the construction of two new 25-story residential tower buildings identified as the east and the west towers. The two towers flank an entry court which is open to the river and Manhattan views to the south. The East Tower is free-standing, serving as a "portal" on Third Avenue, whereas the West Tower has a 7-story base with common amenities and parking for 200 cars. The residential component consists of 475 rental units in an area of 399,798 gross square feet. Commercial (retail) and community space will be included in the west tower base.

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2.3 Description of Remedial Action

Site activities included within the Remedial Action that are included within the scope of this HASP include the following:

1. Excavation of soil/fill exceeding groundwater protection SCOs for those VOC parameters in groundwater above standards to depths as great as 9 feet below grade in the UST source area;
2. Screening for indications of contamination (by visual means, odor, and monitoring with PID) of all excavated soil during any intrusive Site work;
3. Excavation and disposal of historic fill materials as needed for installation of the new buildings basement level foundations.;
4. Excavation and disposal of historic fill materials from planned landscaped (exposed soil) areas;
5. Collection and analysis of end-point samples to evaluate the performance of the remedy with respect to attainment of groundwater protection SCOs for VOCs present in groundwater above standards;
6. Appropriate off-Site disposal of all material removed from the Site in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal;
7. Capping the entire Site with the building foundations, concrete walkways / driveways or 2 ft of soil meeting Restricted Residential SCOs.
8. Import of materials to be used for backfill and cover in compliance with: (1) chemical limits and other specifications, (2) all Federal, State and local rules and regulations for handling and transport of material.
9. Implementation of a Site Management Plan (SMP) for long term maintenance of the Engineering Controls.
10. An Environmental Easement will be filed against the Site to ensure implementation of the SMP.

3.0 HAZARD ASSESSMENT

This section identifies the hazards associated with the proposed scope of work, general physical hazards that can be expected at most sites; and presents a summary of documented or potential chemical hazards at the site. Every effort must be made to reduce or eliminate these hazards. Those that cannot be eliminated must be guarded against using engineering controls and/or personal protective equipment.

3.1 Physical Hazards

3.1.1 Tripping Hazards

An area of risk associated with on-site activities are presented by uneven ground, concrete, curbstones or equipment which may be present at the site thereby creating a potential tripping hazard. During intrusive work, care should be taken to mark or remove any obstacles within the exclusion zone.

3.1.2 Climbing Hazards

During site activities, workers may have to work on excavating equipment by climbing. The

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excavating contractor will conform with any applicable NIOSH and OSHA requirements or climbing activities.

3.1.3 Cuts and Lacerations

Field activities that involve excavating activities usually involve contact with various types of machinery. A first aid kit approved by the American Red Cross will be available during all intrusive activities.

3.1.4 Lifting Hazards

Improper lifting by workers is one of the leading causes of industrial injuries. Field workers in the excavation program may be required to lift heavy objects. Therefore, all members of the field crew should be trained in the proper methods of lifting heavy objects. All workers should be cautioned against lifting objects too heavy for one person.

3.1.5 Utility Hazards

Before conducting any excavation, the excavation contractor will be responsible for locating and verifying all existing utilities at each excavation.

3.1.6 Traffic Hazards

All traffic, vehicular and pedestrian, shall be maintained and protected at all times consistent with local, state and federal agency regulations regarding such traffic and in accordance with NYCDOT guidelines. The excavation contractor shall carry on his operations without undue interference or delays to traffic. The excavation contractor shall furnish all labor, materials, guards, barricades, signs, lights, and anything else necessary to maintain traffic and to protect his work and the public, during operations.

3.2 Work in Extreme Temperatures

Work under extremely hot or cold weather conditions requires special protocols to minimize the chance that employees will be affected by heat or cold stress.

3.2.1 Heat Stress

The combination of high ambient temperature, high humidity, physical exertion, and personal protective apparel, which limits the dissipation of body heat and moisture, can cause heat stress.

The following prevention, recognition and treatment strategies will be implemented to protect personnel from heat stress. Personnel will be trained to recognize the symptoms of heat stress and to apply the appropriate treatment.

1. Prevention
    a. Provide plenty of fluids. Available in the support zone will be a 50% solution of fruit punch and water or plain water.
    b. Work in Pairs. Individuals should avoid undertaking any activity alone.
    c. Provide cooling devices. A spray hose and a source of water will be provided to reduce body temperature, cool protective clothing and/or act as a quick-drench shower in case of an exposure incident.
    d. Adjustment of the work schedule. As is practical, the most labor-intensive tasks should be carried out during the coolest part of the day.

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2. Recognition and Treatment
   a Heat Rash (or prickly heat):
   Cause: Continuous exposure to hot and humid air, aggravated by chafing clothing.
   Symptoms: Eruption of red pimples around sweat ducts accompanied by intense itching and tingling.
   Treatment: Remove source or irritation and cool skin with water or wet cloths.

   b. Heat Cramps (or heat prostration)
   Cause: Profuse perspiration accompanied by inadequate replenishment of body water and electrolytes.
   Symptoms: Muscular weakness, staggering gait, nausea, dizziness, shallow breathing, pale and clammy skin, approximately normal body temperature.
   Treatment: Perform the following while making arrangement for transport to a medical facility. Remove the worker to a contamination reduction zone. Remove protective clothing. Lie worker down on back in a cool place and raise feet 6 to 12 inches. Keep warm, but loosen all clothing. If conscious, provide sips of salt-water solution, using one teaspoon of salt in 12 ounces of water. Transport to a medical facility.
   c. Heat Stroke
   Cause: Same as heat exhaustion. This is also an extremely serious condition.
   Symptoms: Dry hot skin, dry mouth, dizziness, nausea, headache, rapid pulse.
   Treatment: Cool worker immediately by immersing or spraying with cool water or sponge bare skin after removing protective clothing. Transport to hospital.

3.2.2 Cold Exposure

Exposure to cold weather, wet conditions and extreme wind-chill factors may result in excessive loss of body heat (hypothermia) and /or frostbite. To guard against cold exposure and to prevent cold injuries, appropriate warm clothing should be worn, warm shelter must be readily available, rest periods should be adjusted as needed, and the physical conditions of on-site field personnel should be closely monitored. Personnel and supervisors working on-site will be made aware of the signs and symptoms of frost bite and hypothermia such as:

- Shivering;
- reduced blood pressure;
- reduced coordination;
- drowsiness;
- impaired judgment;
- fatigue;
- pupils dilated but reactive to light; and,
- numbing of the toes and fingers.

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3.3 Chemical Hazards

"Urban fill" materials, present throughout the New York City area typically contain elevated levels of semi-volatile organic compounds and metals. These "contaminants" are not related to a chemical release occurring on the site, but are inherent in the reworked fill material in the area which contains ash and bits of tar and asphalt. Considering the previous sampling results and the past and present use of the site, the following compounds are considered for the site as potential contaminants: volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyl's (PCBs), and heavy metals such as arsenic, chromium, lead and mercury.

Based on the findings of the Remedial Investigation and the inherent properties of urban fill, the following compounds are considered for the site as potential contaminants: volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, and heavy metals.

Volatile organic compounds reported to be present in soil include the following:

benzene

Semi-Volatile organic compounds reported to be present in soil and / or fill materials include the following:

Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(a)pyrene	Chrysene
Ideno(1,2,3-cd) pyrene			

PCBs and Pesticides reported to be present in soil and / or fill materials include the following:

4'-4'-DDD	4'-4'-DDE	4'-4'-DDT	a-Chlordane	PCB - 1260

Metals reported to be present in fill materials include the following:

Arsenic	Barium	Cadmium	Chromium	Copper	Lead
Manganese	Mercury	Nickel	Silver	Zinc	

The primary routes of exposure to these contaminants are inhalation, ingestion and absorption. **Appendix C** includes information sheets for suspected chemicals that may be encountered at the site.

3.3.1 Respirable Dust

Dust may be generated from vehicular traffic and/or excavation activities. If visible observation detects elevated levels of dust, a program of wetting will be employed by the site safety officer. If elevated dust levels persist, the site safety office will employ dust monitoring using a particulate monitor (Miniram or equivalent). If monitoring detects concentrations greater than 150 µg/m3 over daily background, the site safety officer will take corrective actions as defined herein, including the use of water for dust suppression and if this is not effective, requiring workers to wear APRs with efficiency particulate air (HEPA) cartridges.

Absorption pathways for dust and direct contact with soils or groundwater will be mitigated with the implementation of latex gloves, hand washing and decontamination exercises when necessary.

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3.3.2 Dust Control and Monitoring During Earthwork

Dust generated during excavation activities or other earthwork may contain contaminants identified in soils at the site. Dust will be controlled by wetting the working surface with water. Calcium chloride may be used if the problem cannot be controlled with water. Air monitoring and dust control techniques are specified in a site specific Dust Control Plan (if applicable). Site workers will not be required to wear APR's unless dust concentrations are consistently over 150 $\mu g/m^3$ over site-specific background in the breathing zone as measured by a dust monitor unless the site safety officer directs workers to wear APRs. The site safety officer will use visible dust as an indicator to implement the dust control plan.

3.3.3 Organic Vapors

Elevated levels of chlorinated VOCs were detected in soil, soil gas and groundwater samples collected during previous investigations at the site. Therefore, excavation activities may cause the release of organic vapors to the atmosphere. The site safety officer will periodically monitor organic vapors with a Photoionization Detector (PID) during excavation activities to determine whether organic vapor concentrations exceed action levels shown in Section 5 and/or the Community Air Monitoring Plan.

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4.0 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) shall be selected in accordance with the site air monitoring program, OSHA 29 CFR 1910.120(c), (g), and 1910.132. Protective equipment shall be NIOSH approved and respiratory protection shall conform to OSHA 29 CFR Part 1910.133 and 1910.134 specifications; head protection shall conform to 1910.135; eye and face protection shall conform to 1910.133; and foot protection shall conform to 1910.136. The only true difference among the levels of protection from D thru B is the addition of the type of respiratory protection. **It is anticipated that work will be performed in Level D PPE.**

4.1 Level D

Level D PPE shall be donned when the atmosphere contains no known hazards and work functions preclude splashes, immersion, or the potential for inhalation of, or contact with, hazardous concentrations of harmful chemicals. Level D PPE consists of:

- standard work uniform, coveralls, or tyvek, as needed;
- steel toe and steel shank work boots;
- hard hat;
- gloves, as needed;
- safety glasses;
- hearing protection;
- equipment replacements are available as needed.

4.2 Level C

Level C PPE shall be donned when the concentrations of measured total organic vapors in the breathing zone exceed background concentrations (using a portable OVA, or equivalent), but are less than 5 ppm. The specifications on the APR filters used must be appropriate for contaminants identified or expected to be encountered. Level C PPE shall be donned when the identified contaminants have adequate warning properties and criteria for using APR have been met. Level C PPE consists of:

- chemical resistant or coated tyvek coveralls;
- steel-toe and steel-shank workboots;
- chemical resistant overboots or disposable boot covers;
- disposable inner gloves (surgical gloves);
- disposable outer gloves;
- full face APR fitted with organic vapor/dust and mist filters or filters appropriate for the identified or expected contaminants;
- hard hat;
- splash shield, as needed; and,
- ankles/wrists taped with duct tape.

The site safety officer will verify if Level C is appropriate by checking organic vapor concentrations using compound and/or class-specific detector tubes.

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- chemical resistant coveralls;
- steel-toe and steel-shank workboots;
- chemical resistant overboots or disposable boot covers;
- disposable inner gloves;
- disposable outer gloves;
- hard hat; and,
- ankles/wrists taped.

The exact PPE ensemble is decided on a site-by-site basis by the Site Safety Officer with the intent to provide the most protective and efficient worker PPE.

4.3 Activity-Specific Levels of Personal Protection

The required level of PPE is activity-specific and is based on air monitoring results (Section 4.0) and properties of identified or expected contaminants. **It is expected that site work will be performed in Level D.** If air monitoring results indicate the necessity to upgrade the level of protection engineering controls (i.e. Facing equipment away from the wind and placing site personnel upwind of drilling locations, active venting, etc.) will be implemented before requiring the use of respiratory protection.

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5.0 AIR MONITORING AND ACTION LEVELS

29 CFR 1910.120(h) specifies that monitoring shall be performed where there may be a question of employee exposure to hazardous concentrations of hazardous substances in order to assure proper selection of engineering controls, work practices and personal protective equipment so that employees are not exposed to levels which exceed permissible exposure limits, or published exposure levels if there are no permissible exposure limits, for hazardous substances.

5.1 Air Monitoring Requirements

If excavation work is performed, air will be monitored for VOCs with a portable ION Science 3000EX photoionization detector, or the equivalent. If necessary, Lower Explosive Limit (LEL) and oxygen will be monitored with a Combustible Gas Indicator (CGI). If appropriate, fugitive dust will be monitored using a MiniRam Model PDM-3 aerosol monitor. Air will be monitored when any of the following conditions apply:

- initial site entry;
- during any work where a potential IDLH condition or flammable atmosphere could develop;
- excavation work begins on another portion of the site;
- contaminants, other than those previously identified, have been discovered;
- each time a different task or activity is initiated;
- during trenching and/or excavation work.

The designated site safety officer will record air monitoring data and ensure that air monitoring instruments are calibrated and maintained in accordance with manufacturer's specifications. Instruments will be zeroed daily and checked for accuracy. Monitoring results will be recorded in a field notebook and will be transferred to instrument reading logs.

5.2 Work Stoppage Responses

The following responses will be initiated whenever one or more of the action levels necessitating a work stoppage are exceeded:

1 The SSO will be consulted immediately
2 All personnel (except as necessary for continued monitoring and contaminant migration, if applicable) will be cleared from the work area (eg from the exclusion zone).
3 Monitoring will be continued until intrusive work resumes.

5.3 Action Levels During Excavation Activities

Instrument readings will be taken in the breathing zone above the excavation pit unless otherwise noted. Each action level is independent of all other action levels in determining responses.

Organic Vapors (PID)	LEL %	Responses
0-1 ppm above background	0%	• Continue excavating • Level D protection • Continue monitoring every 10 minutes

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1-5 ppm Above Background, Sustained Reading	1-10%	• Continue excavating • Go to Level C protection or employ engineering controls • Continue monitoring every 10 minutes
5-25 ppm Above Background, Sustained Reading	10-20%	• Discontinue excavating, unless PID is only action level exceeded. • Level C protection or employ engineering controls • Continue monitoring for organic vapors 200 ft downwind • Continuous monitoring for LEL at excavation pit
>25 ppm Above Background, Sustained Reading	>20%	• Discontinue excavating • Withdraw from area, shut off all engine ignition sources. • Allow pit to vent • Continuous monitoring for organic vapors 200 ft downwind.

Notes: Air monitoring will occur in the breathing zone 30 inches above the excavation pit. Readings may also be taken in the excavation pit but will not be used for action levels.

If action levels for any one of the monitoring parameters are exceeded, the appropriate responses listed in the right hand column should be taken. If instrument readings do not return to acceptable levels after the excavation pit has been vented for a period of greater than one-half hour, a decision will then be made whether or not to seal the pit with suppressant foam.

If, during excavation activities, downwind monitoring PID readings are greater than 5 ppm above background for more than one-half hour, excavation will stop until sustained levels are less then 5 ppm (see Community Air Monitoring Plan).

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6.0 SITE CONTROL

6.1 Work Zones

The primary purpose of site controls is to establish the perimeter of a hazardous area, to reduce the migration of contaminants into clean areas, and to prevent access or exposure to hazardous materials by unauthorized persons. When operations are to take place involving hazardous materials, the site safety officer will establish an exclusion zone, a decontamination zone, and a support zone. These zones "float" (move around the site) depending on the tasks being performed on any given day. The site safety officer will outline these locations before work begins and when zones change. The site safety officer records this information in the site log book. **It is expected that the entire fenced in area of the Site will be the exclusion zone, with the decontamination zone the Site entrance.** The support zone will be the office trailer.

Tasks requiring OSHA 40-hour Hazardous Waste Operations and Emergency Response Operations training are carried out in the exclusion zone. The exclusion zone is defined by the site safety officer but will typically be a 50-foot area around work activities. Gross decontamination (as determined by the site Health and Safety Officer) is conducted in the exclusion zone; all other decontamination is performed in the decontamination zone or trailer.

Protective equipment is removed in the decontamination zone. Disposable protective equipment is stored in receptacles staged in the decontamination zone, and non-disposable equipment is decontaminated. All personnel and equipment exit the exclusion zone through the decontamination zone. If a decontamination trailer is provided the first aid equipment, an eye wash unit, and drinking water are kept in the decontamination trailer.

The support zone is used for vehicle parking, daily safety meetings, and supply storage. Eating, drinking, and smoking are permitted only in the support zone. When a decontamination trailer is not provided, the eye wash unit, first aid equipment, and drinking water are kept at a central location designated by the site safety officer.

6.2 General Site Work

An excavation contractor with appropriate experience, personnel and training (40 hr OSHA Hazardous Waste Operations and Emergency Response Operations - HAZWOPER) is required to perform the removal / cleaning of the USTs soil. After this material is removed the contractor will remove historic fill and uncontaminated soil. The excavation contractor's on-site personnel engaged in historic fill and native soil removal will have a minimum of 24 hour HAZWOPER training.

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7.0 CONTINGENCY PLAN/EMERGENCY RESPONSE PLAN

Site personnel must be prepared in the event of an emergency. Emergencies can take many forms: illnesses, injuries, chemical exposure, fires, explosions, spills, leaks, releases of harmful contaminants, or sudden changes in the weather.

Emergency telephone numbers and a map to the hospital will be posted in the command post. Site personnel should be familiar with the emergency procedures, and the locations of site safety, first aid, and communication equipment.

7.1 Emergency Equipment On-site

Private telephones:	Site personnel.
Two-way radios:	Site personnel where necessary.
Emergency Alarms:	On-site vehicle horns*.
First aid kits:	On-site, in vehicles or office.
Fire extinguisher:	On-site, in office or on equipment.

* Horns: Air horns will be supplied to personnel at the discretion of the project superintendent or site safety officer.

7.2 Emergency Telephone Numbers

General Emergencies	911
New York City Police	911
Lincoln Medical Center	1-718-579-5016
NYSDEC Spills Division	1-800-457-7362
NYSDEC Division of Env. Remediation	1-718-482-4900
NYCDEP	1-718-699-9811
NYC Department of Health	1-212-788-4711
NYC Fire Department	911
National Response Center	1-800-424-8802
Poison Control	1-212-340-4494
Site Safety Officer	1-631-504-6000
Alternate Site Safety Officer	1-631-504-6000

7.3 Personnel Responsibilities During an Emergency

The project manager is primarily responsible for responding to and correcting any emergency situations. However, in the absence of the project manager, the site safety officer shall act as the project manager's on-site designee and perform the following tasks:

- Take appropriate measures to protect personnel including: withdrawal from the exclusion zone, evacuate and secure the site, or upgrade/downgrade the level of protective clothing and respiratory protection;

- Ensure that appropriate federal, state, and local agencies are informed and emergency response plans are coordinated. In the event of fire or explosion, the local fire department should be summoned immediately. If toxic materials are released to the air, the local authorities should be informed in order to assess the need for evacuation;

- Ensure appropriate decontamination, treatment, or testing for exposed or injured personnel;

- Determine the cause of incidents and make recommendations to prevent recurrence; and,

- Ensure that all required reports have been prepared.

The following key personnel are planned for this project:

- Project Manager — Mr. Robert Bennett (631) 504-6000
- Construction Superintendent — to be named
- Site Safety Officer — Mr. Kevin Waters (631) 504-6000

7.4 Medical Emergencies

A person who becomes ill or injured in the exclusion zone will be decontaminated to the maximum extent possible. If the injury or illness is minor, full decontamination will be completed and first aid administered prior to transport. First aid will be administered while waiting for an ambulance or paramedics. A Field Accident Report (**Appendix D**) must be filled out for any injury.

A person transporting an injured/exposed person to a clinic or hospital for treatment will take the directions to the hospital (**Appendix D**).and information on the chemical(s) to which they may have been exposed (**Appendix C**).

7.5 Fire or Explosion

In the event of a fire or explosion, the local fire department will be summoned immediately. The site safety officer or his designated alternate will advise the fire commander of the location, nature and identification of the hazardous materials on-site. If it is safe to do so, site personnel may:

- use fire fighting equipment available on site; or,
- remove or isolate flammable or other hazardous materials that may contribute to the fire.

7.6 Evacuation Routes

Evacuation routes established by work area locations for each site will be reviewed prior to commencing site operations. As the work areas change, the evacuation routes will be altered accordingly, and the new route will be reviewed.

Under extreme emergency conditions, evacuation is to be immediate without regard for equipment. The evacuation signal will be a continuous blast of a vehicle horn, if possible, and/or by verbal/radio communication. When evacuating the site, personnel will follow these instructions:

- Keep upwind of smoke, vapors, or spill location.

- Exit through the decontamination corridor if possible.

- If evacuation through the decontamination corridor is not possible, personnel should remove contaminated clothing once they are in a safe location and leave it near the exclusion zone or in a safe place.

- The site safety officer will conduct a head count to ensure that all personnel have been evacuated safely. The head count will be correlated to the site and/or exclusion zone entry/exit log.

- If emergency site evacuation is necessary, all personnel are to escape the emergency situation and decontaminate to the maximum extent practical.

7.7 Spill Control Procedures

Spills associated with site activities may be attributed to project equipment and include gasoline, diesel and hydraulic oil. In the event of a leak or a release, site personnel will inform their supervisor immediately, locate the source of spillage and stop the flow if it can be done safely. A spill containment kit including absorbent pads, booms and/or granulated speedy dry absorbent material will be available to site personnel to facilitate the immediate recovery of the spilled material. Daily inspections of site equipment components including hydraulic lines, fuel tanks, etc. will be performed by their respective operators as a preventative measure for equipment leaks and to ensure equipment soundness. In the event of a spill, site personnel will immediately notify the NYSDEC (1-800-457-7362), and a spill number will be generated.

7.8 Vapor Release Plan

If work zone organic vapor (excluding methane) exceeds 5 ppm, then a downwind reading will be made either 200 feet from the work zone or at the property line, whichever is closer. If readings at this location exceed 5 ppm over background, the work will be stopped.

If 5 ppm of VOCs are recorded over background on a PID at the property line, then an off-site reading will be taken within 20 feet of the nearest residential or commercial property, whichever is closer. If efforts to mitigate the emission source are unsuccessful for 30 minutes, then the designated site safety officer will:

- contact the local police;
- continue to monitor air every 30 minutes, 20 feet from the closest off-site property. If two successive readings are below 5 ppm (non-methane), off-site air monitoring will be halted.
- All property line and off site air monitoring locations and results associated with vapor releases will be recorded in the site safety log book.

APPENDIX A

SITE SAFETY ACKNOWLEDGEMENT FORM

DAILY BREIFING SIGN-IN SHEET

Date:_____ Person Conducting Briefing:_____

Project Name and Location:_____

1. AWARENESS (topics discussed, special safety concerns, recent incidents, etc…):

_____

_____

_____

_____

2. OTHER ISSUES (HASP changes, attendee comments, etc…):

_____

_____

_____

3. ATTENDEES (Print Name):

1.	11.
2.	12.
3.	13.
4.	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	20.

APPENDIX B

SITE SAFETY PLAN AMENDMENTS

SITE SAFETY PLAN AMENDMENT FORM

Site Safety Plan Amendment #: _____

Site Name: _____

Reason for Amendment: _____

_____

_____

_____

Alternative Procedures: _____

_____

_____

_____

Required Changes in PPE: _____

_____

_____

_____

_____ _____

Project Superintendent (signature) **Date**

_____ _____

Health and Safety Consultant (signature) **Date**

_____ _____

Site Safety Officer (signature) **Date**

APPENDIX C

CHEMICAL HAZARDS

CHEMICAL HAZARDS

The attached International Chemical Safety Cards are provided for contaminants of concern that have been identified in soils and/or groundwater at the site.

International Chemical Safety Cards

BENZENE

ICSC: 0015

Cyclohexatriene
Benzol
C_6H_6
Molecular mass: 78.1

ICSC # 0015
CAS # 71-43-2
RTECS # CY1400000
UN # 1114
EC # 601-020-00-8
May 06, 2003 Peer reviewed

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Highly flammable.	NO open flames, NO sparks, and NO smoking.	Powder, AFFF, foam, carbon dioxide.
EXPLOSION	Vapour/air mixtures are explosive. Risk of fire and explosion: see Chemical Dangers.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Do NOT use compressed air for filling, discharging, or handling. Use non-sparking handtools. Prevent build-up of electrostatic charges (e.g., by grounding).	In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE		AVOID ALL CONTACT!	
•**INHALATION**	Dizziness. Drowsiness. Headache. Nausea. Shortness of breath. Convulsions. Unconsciousness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
•**SKIN**	MAY BE ABSORBED! Dry skin. Redness. Pain. (Further see Inhalation).	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
•**EYES**	Redness. Pain.	Face shield, or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•**INGESTION**	Abdominal pain. Sore throat. Vomiting. (Further see Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Do NOT induce vomiting. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Remove all ignition sources. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer. Do NOT let this chemical enter the environment. Personal protection: complete protective clothing including self-contained breathing apparatus.	Fireproof. Separated from food and feedstuffs oxidants halogens	Do not transport with food and feedstuffs. Note: E F symbol T symbol R: 45-46-11-36/38-48/23/24/25-65 S: 53-45 UN Hazard Class: 3 UN Packing Group: II

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0015

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

International Chemical Safety Cards

BENZENE

ICSC: 0015

IMPORTANT DATA	**PHYSICAL STATE; APPEARANCE:** COLOURLESS LIQUID , WITH CHARACTERISTIC ODOUR. **PHYSICAL DANGERS:** The vapour is heavier than air and may travel along the ground; distant ignition possible. As a result of flow, agitation, etc., electrostatic charges can be generated. **CHEMICAL DANGERS:** Reacts violently with oxidants, nitric acid, sulfuric acid and halogens causing fire and explosion hazard. Attacks plastic and rubber. **OCCUPATIONAL EXPOSURE LIMITS:** TLV: 0.5 ppm as TWA 2.5 ppm as STEL (skin) A1 BEI (ACGIH 2004). MAK: H Carcinogen category: 1 Germ cell mutagen group: 3A (DFG 2004). OSHA PEL: 1910.1028 TWA 1 ppm ST 5 ppm See Appendix F NIOSH REL: Ca TWA 0.1 ppm ST 1 ppm See Appendix A NIOSH IDLH: Ca 500 ppm See: 71432 **ROUTES OF EXPOSURE:** The substance can be absorbed into the body by inhalation through the skin and by ingestion **INHALATION RISK:** A harmful contamination of the air can be reached very quickly on evaporation of this substance at 20°C. **EFFECTS OF SHORT-TERM EXPOSURE:** The substance is irritating to the eyes the skin and the respiratory tract Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis. The substance may cause effects on the central nervous system , resulting in lowering of consciousness Exposure far above the occupational exposure limit value may result in unconsciousness death **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:** The liquid defats the skin. The substance may have effects on the bone marrow immune system , resulting in a decrease of blood cells. This substance is carcinogenic to humans.
PHYSICAL PROPERTIES	Boiling point: 80°C Melting point: 6°C Relative density (water = 1): 0.88 Solubility in water, g/100 ml at 25°C: 0.18 Vapour pressure, kPa at 20°C: 10 Relative vapour density (air = 1): 2.7 Relative density of the vapour/air-mixture at 20°C (air = 1): 1.2 Flash point: -11°C c.c. Auto-ignition temperature: 498°C Explosive limits, vol% in air: 1.2-8.0 Octanol/water partition coefficient as log Pow: 2.13
ENVIRONMENTAL DATA	The substance is very toxic to aquatic organisms. 

N O T E S

Use of alcoholic beverages enhances the harmful effect. Depending on the degree of exposure, periodic medical examination is indicated. The odour warning when the exposure limit value is exceeded is insufficient.

Transport Emergency Card: TEC (R)-30S1114 / 30GF1-II
NFPA Code: H2; F3; R0

ADDITIONAL INFORMATION

ICSC: 0015 **BENZENE**

IMPORTANT LEGAL NOTICE:	Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

International Chemical Safety Cards

BENZ(a)ANTHRACENE

ICSC: 0385

1,2-Benzoanthracene
Benzo(a)anthracene
2,3-Benzphenanthrene
Naphthanthracene
$C_{18}H_{12}$
Molecular mass: 228.3

ICSC # 0385
CAS # 56-55-3
RTECS # CV9275000
EC # 601-033-00-9
October 23, 1995 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Combustible.		Water spray, powder. In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
EXPOSURE		AVOID ALL CONTACT!	
•INHALATION		Local exhaust or breathing protection.	Fresh air, rest.
•SKIN		Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•EYES		Safety goggles face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION		Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Sweep spilled substance into sealable containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Personal protection: complete protective clothing including self-contained breathing apparatus.	Well closed.	T symbol N symbol R: 45-50/53 S: 53-45-60-61

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0385

International Chemical Safety Cards

BENZ(a)ANTHRACENE

I M P O R T A N T D A T A

PHYSICAL STATE; APPEARANCE:
COLOURLESS TO YELLOW BROWN FLUORESCENT FLAKES OR POWDER.

PHYSICAL DANGERS:
Dust explosion possible if in powder or granular form, mixed with air.

CHEMICAL DANGERS:

OCCUPATIONAL EXPOSURE LIMITS:
TLV: A2 (suspected human carcinogen); (ACGIH 2004).
MAK:
Carcinogen category: 2 (as pyrolysis product of organic materials)
(DFG 2005).

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation, through the skin and by ingestion.

INHALATION RISK:
Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.

EFFECTS OF SHORT-TERM EXPOSURE:

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
This substance is probably carcinogenic to humans.

PHYSICAL PROPERTIES

Sublimation point: 435°C
Melting point: 162°C
Relative density (water = 1): 1.274
Solubility in water:
none

Vapour pressure, Pa at 20°C: 292
Octanol/water partition coefficient as log Pow: 5.61

ENVIRONMENTAL DATA

Bioaccumulation of this chemical may occur in seafood.

N O T E S

This substance is one of many polycyclic aromatic hydrocarbons - standards are usually established for them as mixtures, e.g., coal tar pitch volatiles. However, it may be encountered as a laboratory chemical in its pure form. Insufficient data are available on the effect of this substance on human health, therefore utmost care must be taken. Do NOT take working clothes home. Tetraphene is a common name. Card has been partly updated in October 2005 and August 2006: see sections Occupational Exposure Limits, EU classification.

ADDITIONAL INFORMATION

ICSC: 0385 **BENZ(a)ANTHRACENE**

BENZO(a)PYRENE

ICSC: 0104

Benz(a)pyrene
3,4-Benzopyrene
Benzo(d,e,f)chrysene
$C_{20}H_{12}$
Molecular mass: 252.3

ICSC # 0104
CAS # 50-32-8
RTECS # DJ3675000
EC # 601-032-00-3
October 17, 2005 Peer reviewed

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Combustible.	NO open flames.	Water spray, foam, powder, carbon dioxide.
EXPLOSION			
EXPOSURE	See EFFECTS OF LONG-TERM OR REPEATED EXPOSURE.	AVOID ALL CONTACT! AVOID EXPOSURE OF (PREGNANT) WOMEN!	
•INHALATION		Local exhaust or breathing protection.	Fresh air, rest.
•SKIN	MAY BE ABSORBED!	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•EYES		Safety goggles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION		Do not eat, drink, or smoke during work.	Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Evacuate danger area! Personal protection: complete protective clothing including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Sweep spilled substance into sealable containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place.	Separated from strong oxidants.	T symbol N symbol R: 45-46-60-61-43-50/53 S: 53-45-60-61

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0104

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

BENZO(a)PYRENE

ICSC: 0104

I M P O R T A N T D A T A

PHYSICAL STATE; APPEARANCE:
PALE-YELLOW CRYSTALS

PHYSICAL DANGERS:

CHEMICAL DANGERS:
Reacts with strong oxidants causing fire and explosion hazard.

OCCUPATIONAL EXPOSURE LIMITS:
TLV: Exposure by all routes should be carefully controlled to levels as low as possible A2 (suspected human carcinogen); (ACGIH 2005).
MAK:
Carcinogen category: 2; Germ cell mutagen group: 2; (DFG 2005).

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation of its aerosol, through the skin and by ingestion.

INHALATION RISK:
Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed.

EFFECTS OF SHORT-TERM EXPOSURE:

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
This substance is carcinogenic to humans. May cause heritable genetic damage to human germ cells. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

PHYSICAL PROPERTIES

Boiling point: 496°C
Melting point: 178.1°C
Density: 1.4
g/cm³

Solubility in water: none (<0.1 g/100 ml)
Vapour pressure :
negligible
Octanol/water partition coefficient as log Pow: 6.04

ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur in fish, in plants and in molluscs. The substance may cause long-term effects in the aquatic environment.

N O T E S

Do NOT take working clothes home. Benzo(a)pyrene is present as a component of polycyclic aromatic hydrocarbons (PAHs) in the environment, usually resulting from the incomplete combustion or pyrolysis of organic matters, especially fossil fuels and tobacco.

ADDITIONAL INFORMATION

International Chemical Safety Cards

BENZO(b)FLUORANTHENE

ICSC: 0720

Benz(e)acephenanthrylene
2,3-Benzofluoroanthene
Benzo(e)fluoranthene
3,4-Benzofluoranthene
$C_{20}H_{12}$
Molecular mass: 252.3

ICSC # 0720
CAS # 205-99-2
RTECS # CU1400000
EC # 601-034-00-4
March 25, 1999 Peer reviewed

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE			In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			
EXPOSURE		AVOID ALL CONTACT!	
•INHALATION		Local exhaust or breathing protection.	Fresh air, rest.
•SKIN		Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•EYES		Safety spectacles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION		Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Sweep spilled substance into covered containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment.	Provision to contain effluent from fire extinguishing. Well closed.	T symbol N symbol R: 45-50/53 S: 53-45-60-61

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0720

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

International Chemical Safety Cards

BENZO(b)FLUORANTHENE

ICSC: 0720

I	**PHYSICAL STATE; APPEARANCE:** COLOURLESS CRYSTALS	**ROUTES OF EXPOSURE:** The substance can be absorbed into the body by inhalation

IMPORTANT DATA	**PHYSICAL DANGERS:** **CHEMICAL DANGERS:** Upon heating, toxic fumes are formed. **OCCUPATIONAL EXPOSURE LIMITS:** TLV: A2 (suspected human carcinogen); (ACGIH 2004). MAK: Carcinogen category: 2; (DFG 2004).	of its aerosol and through the skin. **INHALATION RISK:** Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly. **EFFECTS OF SHORT-TERM EXPOSURE:** **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:** This substance is possibly carcinogenic to humans. May cause genetic damage in humans.
PHYSICAL PROPERTIES	Boiling point: 481°C Melting point: 168°C Solubility in water: none	Octanol/water partition coefficient as log Pow: 6.12
ENVIRONMENTAL DATA	This substance may be hazardous to the environment; special attention should be given to air quality and water quality. 	

N O T E S

Benzo(b)fluoranthene is present as a component of polycyclic aromatic hydrocarbons (PAH) content in the environment usually resulting from the incomplete combustion or pyrolysis of organic matters, especially fossil fuels and tobacco.ACGIH recommends environment containing benzo(b)fluoranthene should be evaluated in terms of the TLV-TWA for coal tar pitch volatile, as benzene soluble 0.2 mg/m^3. Insufficient data are available on the effect of this substance on human health, therefore utmost care must be taken.

ADDITIONAL INFORMATION

ICSC: 0720 **BENZO(b)FLUORANTHENE**

International Chemical Safety Cards

BENZO(k)FLUORANTHENE

ICSC: 0721

Dibenzo(b,jk)fluorene
8,9-Benzofluoranthene
11,12-Benzofluoranthene
$C_{20}H_{12}$
Molecular mass: 252.3

ICSC # 0721
CAS # 207-08-9
RTECS # DF6350000
EC # 601-036-00-5
March 25, 1999 Peer reviewed

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE			In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			
EXPOSURE		AVOID ALL CONTACT!	
•INHALATION		Local exhaust or breathing protection.	Fresh air, rest.
•SKIN		Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•EYES		Safety spectacles or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION		Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Sweep spilled substance into covered containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment.	Provision to contain effluent from fire extinguishing. Well closed.	T symbol N symbol R: 45-50/53 S: 53-45-60-61

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0721

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

International Chemical Safety Cards

BENZO(k)FLUORANTHENE

ICSC: 0721

I **M**	**PHYSICAL STATE; APPEARANCE:** YELLOW CRYSTALS	**ROUTES OF EXPOSURE:** The substance can be absorbed into the body by inhalation of its aerosol and through the skin.

P O R T A N T D A T A	**PHYSICAL DANGERS:** **CHEMICAL DANGERS:** Upon heating, toxic fumes are formed. **OCCUPATIONAL EXPOSURE LIMITS:** TLV not established. MAK: Carcinogen category: 2; (DFG 2004). **INHALATION RISK:** Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly. **EFFECTS OF SHORT-TERM EXPOSURE:** **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:** This substance is possibly carcinogenic to humans.
PHYSICAL PROPERTIES	Boiling point: 480°C Melting point: 217°C Solubility in water: none Octanol/water partition coefficient as log Pow: 6.84
ENVIRONMENTAL DATA	This substance may be hazardous to the environment; special attention should be given to air quality and water quality. Bioaccumulation of this chemical may occur in crustacea and in fish. 

N O T E S

Benzo(k)fluoranthene is present as a component of polycyclic aromatic hydrocarbons (PAH) content in the environment usually resulting from the incomplete combustion or pyrolysis of organic matters, especially fossil fuels and tobacco.ACGIH recommends environment containing benzo(k)fluoranthene should be evaluated in terms of the TLV-TWA for coal tar pitch volatile, as benzene soluble 0.2 mg/m^3. Insufficient data are available on the effect of this substance on human health, therefore utmost care must be taken.

ADDITIONAL INFORMATION

ICSC: 0721 **BENZO(k)FLUORANTHENE**

International Chemical Safety Cards

CHRYSENE

ICSC: 1672

Benzoaphenanthrene
1,2-Benzophenanthrene
1,2,5,6-Dibenzonaphthalene
$C_{18}H_{12}$
Molecular mass: 228.3

ICSC # 1672
CAS # 218-01-9
RTECS # GC0700000
UN # 3077
EC # 601-048-00-0
October 12, 2006 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Combustible.	NO open flames.	Water spray. Dry powder. Foam. Carbon dioxide.
EXPLOSION	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
EXPOSURE	See EFFECTS OF LONG-TERM OR REPEATED EXPOSURE.	AVOID ALL CONTACT!	
•INHALATION		Local exhaust or breathing protection.	Fresh air, rest.
•SKIN		Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•EYES		Safety goggles	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION		Do not eat, drink, or smoke during work.	Rinse mouth.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Personal protection: P3 filter respirator for toxic particles. Do NOT let this chemical enter the environment. Sweep spilled substance into sealable containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place.	Separated from strong oxidants, Provision to contain effluent from fire extinguishing. Store in an area without drain or sewer access.	T symbol N symbol R: 45-68-50/53 S: 53-45-60-61 UN Hazard Class: 9 UN Packing Group: III Signal: Warning Aqua-Cancer Suspected of causing cancer Very toxic to aquatic life with long lasting effects Very toxic to aquatic life

SEE IMPORTANT INFORMATION ON BACK

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European

International Chemical Safety Cards

CHRYSENE

ICSC: 1672

IMPORTANT DATA

PHYSICAL STATE; APPEARANCE:
COLOURLESS TO BEIGE CRYSTALS OR POWDER

PHYSICAL DANGERS:
Dust explosion possible if in powder or granular form, mixed with air.

CHEMICAL DANGERS:
The substance decomposes on burning producing toxic fumes Reacts violently with strong oxidants

OCCUPATIONAL EXPOSURE LIMITS:
TLV: A3 (confirmed animal carcinogen with unknown relevance to humans); (ACGIH 2006).
MAK not established.

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation of its aerosol, through the skin and by ingestion.

INHALATION RISK:
A harmful concentration of airborne particles can be reached quickly when dispersed

EFFECTS OF SHORT-TERM EXPOSURE:

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
This substance is possibly carcinogenic to humans.

PHYSICAL PROPERTIES

Boiling point: 448°C
Melting point: 254 - 256°C
Density: 1.3 g/cm³

Solubility in water:
very poor
Octanol/water partition coefficient as log Pow: 5.9

ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur in seafood. It is strongly advised that this substance does not enter the environment.

NOTES

Depending on the degree of exposure, periodic medical examination is suggested. Do NOT take working clothes home. This substance does not usually occur as a pure substance but as a component of polyaromatic hydrocarbon (PAH) mixtures. Human population studies have associated PAH's exposure with cancer and cardiovascular diseases.

Transport Emergency Card: TEC (R)-90GM7-III

ADDITIONAL INFORMATION

International Chemical Safety Cards

INDENO(1,2,3-cd)PYRENE

ICSC: 0730

o-Phenylenepyrene
2,3-Phenylenepyrene
$C_{22}H_{12}$
Molecular mass: 276.3

ICSC # 0730
CAS # 193-39-5
RTECS # NK9300000
March 25, 1999 Peer reviewed

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE			In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			
EXPOSURE		AVOID ALL CONTACT!	
•INHALATION		Local exhaust or breathing protection.	Fresh air, rest.
•SKIN		Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•EYES		Safety spectacles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION		Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Sweep spilled substance into covered containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment.	Provision to contain effluent from fire extinguishing. Well closed.	R: S:

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0730

International Chemical Safety Cards

INDENO(1,2,3-cd)PYRENE

ICSC: 0730

I **M** **P**	**PHYSICAL STATE; APPEARANCE:** YELLOW CRYSTALS **PHYSICAL DANGERS:**	**ROUTES OF EXPOSURE:** The substance can be absorbed into the body by inhalation of its aerosol and through the skin. **INHALATION RISK:**

O R T A N T D A T A	**CHEMICAL DANGERS:** Upon heating, toxic fumes are formed. **OCCUPATIONAL EXPOSURE LIMITS:** TLV not established. MAK: Carcinogen category: 2; (DFG 2004).	Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly. **EFFECTS OF SHORT-TERM EXPOSURE:** **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:** This substance is possibly carcinogenic to humans.
PHYSICAL PROPERTIES	Boiling point: 536°C Melting point: 164°C Solubility in water: none	Octanol/water partition coefficient as log Pow: 6.58
ENVIRONMENTAL DATA	This substance may be hazardous to the environment; special attention should be given to air quality and water quality. Bioaccumulation of this chemical may occur in fish. 	

N O T E S

Indeno(1,2,3-cd)pyrene is present as a component of polycyclic aromatic hydrocarbons (PAH) content in the environment usually resulting from the incomplete combustion or pyrolysis of organic matters, especially fossil fuels and tobacco.ACGIH recommends environment containing Indeno(1,2,3-c,d)pyrene should be evaluated in terms of the TLV-TWA for coal tar pitch volatile, as benzene soluble 0.2 mg/m^3. Insufficient data are available on the effect of this substance on human health, therefore utmost care must be taken.

ADDITIONAL INFORMATION

ICSC: 0730 **INDENO(1,2,3-cd)PYRENE**

Material Safety Data Sheet

Version 4.0
Revision Date 03/12/2010
Print Date 12/09/2011

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	4,4'-DDD PESTANAL,250 MG (2,2-BIS(4-CHL&
Product Number	:	35486
Brand	:	Fluka
Company	:	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA
Telephone	:	+1 800-325-5832
Fax	:	+1 800-325-5052
Emergency Phone #	:	(314) 776-6555

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Toxic by ingestion, Harmful by skin absorption., Possible carcinogen.

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

H301	Toxic if swallowed.
H312	Harmful in contact with skin.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H413	May cause long lasting harmful effects to aquatic life.

Precautionary statement(s)

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

HMIS Classification

Health hazard:	2
Chronic Health Hazard:	*
Flammability:	0
Physical hazards:	0

NFPA Rating

Health hazard:	2
Fire:	0
Reactivity Hazard:	0

Potential Health Effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	Harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.
Ingestion	Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane
4,4′-DDD
TDE

Formula : $C_{14}H_{10}Cl_4$
Molecular Weight : 320.04 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane			
72-54-8	200-783-0	-	-

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves.

Eye protection
Face shield and safety glasses

Skin and body protection
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	solid

Safety data

pH	no data available
Melting point	94.0 - 96.0 °C (201.2 - 204.8 °F)
Boiling point	193.0 °C (379.4 °F) at 1.3 hPa (1.0 mmHg)
Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	< 0.00001 hPa (< 0.00001 mmHg) at 25.0 °C (77.0 °F)
Density	1.38 g/cm3
Water solubility	no data available
Partition coefficient: n-octanol/water	log Pow: 6.02

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Conditions to avoid
no data available

Materials to avoid
Strong oxidizing agents

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas
Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

11. TOXICOLOGICAL INFORMATION

Acute toxicity
LD50 Oral - Hamster - > 5,000 mg/kg

TDLo Oral - Human - 428.5 mg/kg
Remarks: Endocrine:Adrenal cortex hypoplasia.

TDLo Oral - rat - 6,000 mg/kg
Remarks: Cardiac:Other changes. Gastrointestinal:Other changes. Kidney, Ureter, Bladder:Changes in both tubules and glomeruli.

TDLo Oral - rat - 14 mg/kg
Remarks: Liver:Changes in liver weight. Endocrine:Estrogenic. Musculoskeletal:Other changes.

TDLo Oral - rat - 2,100 mg/kg
Remarks: Behavioral:Altered sleep time (including change in righting reflex).

LD50 Dermal - rabbit - 1,200 mg/kg
Remarks: Behavioral:Excitement. Behavioral:Convulsions or effect on seizure threshold. Skin irritation

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity

no data available

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies

IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure (GHS)
no data available

Specific target organ toxicity - repeated exposure (GHS)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	Toxic if swallowed.
Skin	Harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information
RTECS: KI0700000

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	LC50 - other fish - 1.18 - 9 mg/l - 96.0 h
	LC50 - Lepomis macrochirus (Bluegill) - 0.04 - 0.05 mg/l - 96.0 h
	LC50 - Oncorhynchus mykiss (rainbow trout) - 0.06 - 0.09 mg/l - 96.0 h
	LC50 - Pimephales promelas (fathead minnow) - 3.47 - 5.58 mg/l - 96.0 h
Toxicity to daphnia and other aquatic invertebrates.	EC50 - Daphnia pulex (Water flea) - 0.01 mg/l - 48 h

Persistence and degradability
no data available

Bioaccumulative potential
Indication of bioaccumulation.

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Product
Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN-Number: 2811 Class: 6.1 Packing group: III
Proper shipping name: Toxic solids, organic, n.o.s. (2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane)
Reportable Quantity (RQ): 1 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
UN-Number: 2811 Class: 6.1 Packing group: III EMS-No: F-A, S-A
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane)
Marine pollutant: No

IATA
UN-Number: 2811 Class: 6.1 Packing group: III
Proper shipping name: Toxic solid, organic, n.o.s. (2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane)

15. REGULATORY INFORMATION

OSHA Hazards
Toxic by ingestion, Harmful by skin absorption., Possible carcinogen.

DSL Status
This product contains the following components that are not on the Canadian DSL nor NDSL lists.

	CAS-No.
2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane	72-54-8

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Acute Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane	72-54-8	

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane	72-54-8	

New Jersey Right To Know Components

	CAS-No.	Revision Date
2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane	72-54-8	

California Prop. 65 Components

	CAS-No.	Revision Date
WARNING! This product contains a chemical known to the State of California to cause cancer. 2,2-bis(4-Chlorophenyl)-1,1-dichloro-ethane	72-54-8	

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

MSDS : 2,2-Bis-(4-chlorophenyl)-1,1-dichloroethylene, 99%
CAS : 72-55-9
SYNONYMS : p,p'-DDE ; ethylene,1,1-dichloro-2,2-bis-(p-chlorophenyl)- ; DDT dehydrochloride ; DDE; 1-1'-(Dichloroethenylidene)bis(4-chlorobenzene)

Catalog of Chemical Suppliers, Buyers, Custom Synthesis Companies And Equipment Manufacturers
[2,2-Bis-(4-chlorophenyl)-1,1-dichloroethylene, 99% 72-55-9]

Suppliers:

Not Available

Buyers:

Not Available

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#
72-55-9	2,2-Bis-(4-chlorophenyl)-1,1-dichloroethylene	99	200-784-6

Hazard Symbols: XN
Risk Phrases: 22 33

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW
Harmful if swallowed. Danger of cumulative effects.Cancer suspect agent.Possible risks of irreversible effects.

Potential Health Effects
Eye:
May cause eye irritation.
Skin:
May cause skin irritation.
Ingestion:
May cause irritation of the digestive tract. May be harmful if swallowed. Ingestion of large amounts may cause liver and/or kidney damage.
Inhalation:
May cause respiratory tract irritation.
Chronic:
May cause cancer according to animal studies. Adverse reproductive effects have been reported in animals. Laboratory experiments have resulted in mutagenic effects.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:
Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin:
Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
Ingestion:
If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
Inhalation:
Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician:
Treat symptomatically and supportively.

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Will burn if involved in a fire.
Extinguishing Media:
For large fires, use water spray, fog or regular foam. For small fires, use dry chemical, carbon dioxide, water spray or regular foam. Cool containers with flooding quantities of water until well after fire is out.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:
Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:
Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Do not ingest or inhale. Use with adequate ventilation.
Storage:
Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.
Exposure Limits
CAS# 72-55-9:

Personal Protective Equipment

Eyes:
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin:
Wear appropriate protective gloves to prevent skin exposure.
Clothing:
Wear appropriate protective clothing to prevent skin exposure.
Respirators:
A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State: Crystals
Color: white
Odor: None reported.
pH: Not available.
Vapor Pressure: 6.5106 mm Hg @ 20 C
Viscosity: Not available.
Boiling Point: 336 deg C
Freezing/Melting Point: 88.00 - 90.00 deg C
Autoignition Temperature: Not available.
Flash Point: Not available.
Explosion Limits, lower: Not available.
Explosion Limits, upper: Not available.
Decomposition Temperature:
Solubility in water: 0.010 ppm
Specific Gravity/Density:
Molecular Formula: C14H8Cl4
Molecular Weight: 318.02

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability:
Stable under normal temperatures and pressures.
Conditions to Avoid:
Incompatible materials, dust generation, strong oxidants.
Incompatibilities with Other Materials:
Strong oxidizing agents - strong bases.
Hazardous Decomposition Products:
Hydrogen chloride, carbon monoxide, carbon dioxide.
Hazardous Polymerization: Has not been reported.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:
CAS# 72-55-9: KV9450000
LD50/LC50:
CAS# 72-55-9: Oral, mouse: LD50 = 700 mg/kg; Oral, rat: LD50 = 880 mg/kg.
Carcinogenicity:
2,2-Bis-(4-chlorophenyl)-1,1-dichloroethylene -
California: carcinogen, initial date 1/1/89

Other:
See actual entry in RTECS for complete information.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Ecotoxicity:
Estimated BCF value = 8,300 based on water solubility. Estimated Koc value = 8,300. There was no movement of DDE reported in soil column mobility experiments.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Dispose of in a manner consistent with federal, state, and local regulations.

**** SECTION 14 - TRANSPORT INFORMATION ****

IATA
Not regulated as a hazardous material.
IMO
Not regulated as a hazardous material.
RID/ADR
Not regulated as a hazardous material.
USA RQ: CAS# 72-55-9: 1 lb final RQ; 0.454 kg final RQ

**** SECTION 15 - REGULATORY INFORMATION ****

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: XN
Risk Phrases:
R 22 Harmful if swallowed.
R 33 Danger of cumulative effects.
Safety Phrases:
S 24/25 Avoid contact with skin and eyes.
WGK (Water Danger/Protection)
CAS# 72-55-9: 3
Canada
None of the chemicals in this product are listed on the DSL/NDSL list.
CAS# 72-55-9 is listed on Canada's Ingredient Disclosure List.
US FEDERAL
TSCA
CAS# 72-55-9 is not listed on the TSCA inventory.
It is for research and development use only.

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 9/28/1998 Revision #3 Date: 3/18/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

4-Cyano-4-Phenylpiperidine Hydrochloride, 99% (TLC)	51304-58-6
Methanesulfonamide	3144-09-0
gamma-Octanoic lactone, 98%	104-50-7
Cis,cis,cis,cis-1,2,3,4-cyclopentane- tetracarboxylic dianhydride,	4802-47-5
Tetrachloroethylene Carbonate, 98+%	22432-68-4
Oxamic Acid, 98%	471-47-6
10,11-Dihydro-5H-Dibenzo(A,D)-Cycloheptene, 98%	833-48-7
Thallium (I) Sulfate, 99.9+%	7446-18-6
N-(2,6-Dimethylphenylcarbamoyl-Methyl)-Iminodiacetic Acid, 99%	59160-29-1
P-(Dimethylamino)cinnamic Acid, 99%	1552-96-1
Biebrich Scarlet, 99% (UV-VIS)	4196-99-0
4-Chlorobenzenediazonium hexafluoro- phosphate	1582-27-0
Ammonium hexachloroiridate(IV), 99.99%	16940-92-4
Methylamine-d2 deuteriochloride, 98+ atom % D	593-51-1
2,2-Bis-(4-chlorophenyl)-1,1-dichloroethylene, 99%	72-55-9
Nitro red	56431-61-9
Methyl 2,3-dichlorobenzoate, 98+%	2905-54-6
Isopropyl Bromoacetate, 98% (GC)	29921-57-1
1-Iodo-4-Nitrobenzene, 99%	636-98-6
4-Ethylcyclohexanol, 99% cis/trans mixture	4534-74-1
Fluorescamine	38183-12-9
Tris(2,2,6,6-Tetramethyl-3,5-Heptanedionato)Dysprosium(III), 99+%	15522-69-7
3-Amino-2,2,5,5-Tetramethyl-1-Pyrrolidinyloxy, 99% (Titr.)	34272-83-8
3,4-Dihydroxyphenylacetic Acid,98%	102-32-9

International Chemical Safety Cards

DDT

ICSC: 0034

Dichlorodiphenyltrichloroethane
1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane
2,2-bis(p-Chlorophenyl)-1,1,1-trichloroethane
1,1'-(2,2,2-Trichloroethylidene)bis(4-chlorobenzene)
p,p'-DDT
$C_{14}H_9Cl_5$
Molecular mass: 354.5

ICSC # 0034
CAS # 50-29-3
RTECS # KJ3325000
UN # 2761
EC # 602-045-00-7
April 20, 2004 Peer reviewed

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Combustible. Liquid formulations containing organic solvents may be flammable. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames.	Powder, water spray, foam, carbon dioxide.
EXPLOSION			
EXPOSURE		PREVENT DISPERSION OF DUST! STRICT HYGIENE! AVOID EXPOSURE OF (PREGNANT) WOMEN!	
•INHALATION	Cough.	Local exhaust or breathing protection.	Fresh air, rest.
•SKIN		Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•EYES	Redness.	Safety goggles, or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION	Tremors. Diarrhoea. Dizziness. Headache. Vomiting. Numbness. Paresthesias. Hyperexcitability. Convulsions.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Give a slurry of activated charcoal in water to drink. Rest. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Do NOT let this chemical enter the environment. Sweep spilled substance into sealable non-metallic containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Personal protection: P3 filter respirator for toxic particles.	Provision to contain effluent from fire extinguishing. Separated from iron, aluminum and its salts, food and feedstuffs See Chemical Dangers.	Do not transport with food and feedstuffs. Severe marine pollutant. T symbol N symbol R: 25-40-48/25-50/53 S: 1/2-22-36/37-45-60-61 UN Hazard Class: 6.1 UN Packing Group: III

SEE IMPORTANT INFORMATION ON BACK

International Chemical Safety Cards

DDT

ICSC: 0034

I M P O R T A N T D A T A

PHYSICAL STATE; APPEARANCE:
COLOURLESS CRYSTALS WHITE POWDER.
TECHNICAL PRODUCT IS WAXY SOLID.

PHYSICAL DANGERS:

CHEMICAL DANGERS:
On combustion, forms toxic and corrosive fumesincludinghydrogen chloride. Reacts with aluminium and iron.

OCCUPATIONAL EXPOSURE LIMITS:
TLV: 1 mg/m³ as TWA A3 (ACGIH 2004).
MAK: 1 mg/m³ H
Peak limitation category: II(8)
(DFG 2003).
OSHA PEL: TWA 1 mg/m^3 skin
NIOSH REL: Ca TWA 0.5 mg/m^3 See Appendix A
NIOSH IDLH: Ca 500 mg/m^3 See: 50293

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by ingestion.

INHALATION RISK:
Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly especially if powdered.

EFFECTS OF SHORT-TERM EXPOSURE:
May cause mechanical irritation. The substance may cause effects on the central nervous system , resulting in convulsions and respiratory depression Exposure at high levels may result in death. Medical observation is indicated.

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
The substance may have effects on the central nervous system and liver. This substance is possibly carcinogenic to humans. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

PHYSICAL PROPERTIES

Boiling point: 260°C
Melting point: 109°C
Density: 1.6
g/cm3

Solubility in water: poor
Octanol/water partition coefficient as log Pow: 6.36

ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. This substance may be hazardous to the environment; special attention should be given to birds. Bioaccumulation of this chemical may occur along the food chain, for example in milk and aquatic organisms. This substance does enter the environment under normal use. Great care, however, should be given to avoid any additional release, e.g. through inappropriate disposal.

N O T E S

Depending on the degree of exposure, periodic medical examination is indicated. Carrier solvents used in commercial formulations may change physical and toxicological properties. Do NOT take working clothes home. Consult national legislation. Agritan, Azotox, Anofex, Ixodex, Gesapon, Gesarex, Gesarol, Guesapon, Clofenotane, Zeidane, Dicophane, Neocid are trade names.

Transport Emergency Card: TEC (R)-61GT7-III

ADDITIONAL INFORMATION

ICSC: 0034 **DDT**

Material Safety Data Sheet

Version 4.2
Revision Date 01/18/2011
Print Date 12/09/2011

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : α-Chlordane

Product Number : 442449
Brand : Supelco
Product Use : For laboratory research purposes.

Supplier : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Manufacturer : Sigma-Aldrich Corporation
3050 Spruce St.
St. Louis, Missouri 63103
USA

Telephone : +1 800-325-5832
Fax : +1 800-325-5052
Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555
Preparation Information : Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant

GHS Classification
Acute toxicity, Inhalation (Category 4)
Acute toxicity, Oral (Category 4)
Acute toxicity, Dermal (Category 3)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3)
Acute aquatic toxicity (Category 1)

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

H302 + H332	Harmful if swallowed or if inhaled.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

Precautionary statement(s)

P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312	Call a POISON CENTER or doctor/ physician if you feel unwell.

HMIS Classification

Health hazard:	2
Flammability:	0
Physical hazards:	0

NFPA Rating

Health hazard:	2
Fire:	0
Reactivity Hazard:	0

Potential Health Effects

Inhalation	Toxic if inhaled. Causes respiratory tract irritation.
Skin	Toxic if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Weight : 208.29 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Chlordane			
5103-71-9	225-825-5	-	-

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	crystalline
Colour	colourless

Safety data

pH	no data available
Melting/freezing point	93.0 - 94.0 °C (199.4 - 201.2 °F)
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available

Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
no data available

Materials to avoid
Strong oxidizing agents

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50
LD50 Oral - rat - 500.0 mg/kg

Inhalation LC50
Dermal LD50
Other information on acute toxicity
no data available

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity

IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation	Toxic if inhaled. Causes respiratory tract irritation.
Ingestion	Toxic if swallowed.
Skin	Toxic if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.

Synergistic effects
no data available

Additional Information
RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	LC50 - Lepomis macrochirus (Bluegill) - 0.0074 mg/l - 96 h

Persistence and degradability
no data available

Bioaccumulative potential

Bioaccumulation	Lepomis macrochirus (Bluegill) - 24 h Bioconcentration factor (BCF): 322

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life.

no data available

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN-Number: 3077 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Chlordane)
Marine pollutant:
Poison Inhalation Hazard: No

IMDG
UN-Number: 3077 Class: 9 Packing group: III EMS-No: F-A, S-F
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Chlordane)
Marine pollutant: Marine pollutant

IATA
UN-Number: 3077 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Chlordane)

Further information
EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

15. REGULATORY INFORMATION

OSHA Hazards
Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant

DSL Status
This product contains the following components that are not on the Canadian DSL nor NDSL lists.

	CAS-No.
Chlordane	5103-71-9

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Acute Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Chlordane	5103-71-9	

New Jersey Right To Know Components

	CAS-No.	Revision Date
Chlordane	5103-71-9	

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information

Material Safety Data Sheet

Version 4.2
Revision Date 07/07/2011
Print Date 12/09/2011

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Aroclor 1262
Product Number	:	442463
Brand	:	Supelco
Supplier	:	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA
Telephone	:	+1 800-325-5832
Fax	:	+1 800-325-5052
Emergency Phone # (For both supplier and manufacturer)	:	(314) 776-6555
Preparation Information	:	Sigma-Aldrich Corporation Product Safety - Americas Region 1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Carcinogen

GHS Classification
Carcinogenicity (Category 1B)
Specific target organ toxicity - repeated exposure (Category 2)
Acute aquatic toxicity (Category 3)
Chronic aquatic toxicity (Category 3)

GHS Label elements, including precautionary statements

Pictogram

Signal word: Danger

Hazard statement(s)

H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P201	Obtain special instructions before use.
P273	Avoid release to the environment.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.

HMIS Classification

Health hazard:	0
Chronic Health Hazard:	*
Flammability:	0
Physical hazards:	0

NFPA Rating

Health hazard:	0
Fire:	0

Reactivity Hazard: 0

Potential Health Effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.
Ingestion	May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No.	EC-No.	Index-No.	Concentration
PCB - Aroclor 1262			
37324-23-5	-	602-039-00-4	-

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Conditions of flammability
Not flammable or combustible.

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	no data available

Safety data

pH	no data available
Melting point/freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available

Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
no data available

Materials to avoid
Strong oxidizing agents

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50
LD50 Oral - rat - 11,300 mg/kg

Inhalation LC50
no data available

Dermal LD50
Other information on acute toxicity
no data available

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity

no data available

Carcinogenicity

Carcinogen

Possible human carcinogen

IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
May cause damage to organs through prolonged or repeated exposure.
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects
no data available

Additional Information
RTECS: TQ1364000

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	LC50 - Oncorhynchus clarki - 50 mg/l - 96 h

Persistence and degradability

Biodegradability	Result: - According to the results of tests of biodegradability this product is not readily biodegradable. Remarks: no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 2315 Class: 9 Packing group: II
Proper shipping name: Polychlorinated biphenyls, liquid
Reportable Quantity (RQ):
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
UN number: 2315 Class: 9 Packing group: II EMS-No: F-A, S-A
Proper shipping name: POLYCHLORINATED BIPHENYLS, LIQUID
Marine pollutant: No

IATA
UN number: 2315 Class: 9 Packing group: II
Proper shipping name: Polychlorinated biphenyls, liquid

15. REGULATORY INFORMATION

OSHA Hazards
Carcinogen

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Chronic Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
PCB - Aroclor 1262	37324-23-5	1989-08-11

New Jersey Right To Know Components

	CAS-No.	Revision Date
PCB - Aroclor 1262	37324-23-5	1989-08-11

California Prop. 65 Components

	CAS-No.	Revision Date
WARNING! This product contains a chemical known to the State of California to cause cancer. PCB - Aroclor 1262	37324-23-5	2008-08-01

California Prop. 65 Components

	CAS-No.	Revision Date
WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. PCB - Aroclor 1262	37324-23-5	2008-08-01

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

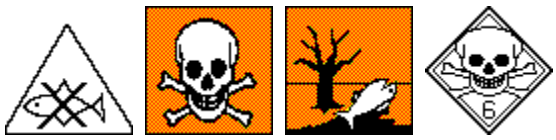
International Chemical Safety Cards

ARSENIC

ICSC: 0013

Grey arsenic
As
Atomic mass: 74.9

ICSC # 0013
CAS # 7440-38-2
RTECS # CG0525000
UN # 1558
EC # 033-001-00-X
October 18, 1999 Peer reviewed



TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Combustible. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames. NO contact with strong oxidizers. NO contact with hot surfaces.	Powder, water spray, foam, carbon dioxide.
EXPLOSION	Risk of fire and explosion is slight when exposed to hot surfaces or flames in the form of fine powder or dust.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
EXPOSURE		PREVENT DISPERSION OF DUST! AVOID ALL CONTACT! AVOID EXPOSURE OF (PREGNANT) WOMEN!	IN ALL CASES CONSULT A DOCTOR!
•INHALATION	Cough. Sore throat. Shortness of breath. Weakness. See Ingestion.	Closed system and ventilation.	Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.
•SKIN	Redness.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
•EYES	Redness.	Face shield or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION	Abdominal pain. Diarrhoea. Nausea. Vomiting. Burning sensation in the throat and chest. Shock or collapse. Unconsciousness.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Evacuate danger area! Sweep spilled substance into sealable containers. Carefully collect remainder, then remove to safe place. Chemical protection suit including self-contained breathing apparatus. Do NOT let this chemical enter the environment.	Separated from strong oxidants, acids, halogens, food and feedstuffs. Well closed.	Do not transport with food and feedstuffs. Marine pollutant. T symbol N symbol R: 23/25-50/53 S: 1/2-20/21-28-45-60-61 UN Hazard Class: 6.1 UN Packing Group: II

SEE IMPORTANT INFORMATION ON BACK

International Chemical Safety Cards

ARSENIC

ICSC: 0013

I M P O R T A N T D A T A

PHYSICAL STATE; APPEARANCE:
ODOURLESS, BRITTLE, GREY, METALLIC-LOOKING CRYSTALS.

PHYSICAL DANGERS:

CHEMICAL DANGERS:
Upon heating, toxic fumes are formed. Reacts violently with strong oxidants and halogens, causing fire and explosion hazard. Reacts with acids to produce

OCCUPATIONAL EXPOSURE LIMITS:
TLV: 0.01 mg/m³ as TWA A1 (confirmed human carcinogen); BEI issued (ACGIH 2004).
MAK:
Carcinogen category: 1; Germ cell mutagen group: 3A; (DFG 2004).
OSHA PEL: 1910.1018 TWA 0.010 mg/m^3
NIOSH REL: Ca C 0.002 mg/m^3 15-minute See Appendix A
NIOSH IDLH: Ca 5 mg/m^3 (as As) See: 7440382

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.

INHALATION RISK:
Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly, when dispersed.

EFFECTS OF SHORT-TERM EXPOSURE:
The substance is irritating to the eyes the skin and the respiratory tract. The substance may cause effects on the gastrointestinal tract cardiovascular system central nervous system kidneys , resulting in severe gastroenteritis, loss of fluid, and electrolytes, cardiac disorders shock convulsions and kidney impairment Exposure above the OEL may result in death. The effects may be delayed. Medical observation is indicated.

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
Repeated or prolonged contact with skin may cause dermatitis. The substance may have effects on the mucous membranes, skin, peripheral nervous system liver bone marrow , resulting in pigmentation disorders, hyperkeratosis, perforation of nasal septum, neuropathy, liver impairment anaemia This substance is carcinogenic to humans. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

PHYSICAL PROPERTIES

Sublimation point: 613°C
Density: 5.7 g/cm^3

Solubility in water:
none

ENVIRONMENTAL DATA

The substance is toxic to aquatic organisms. It is strongly advised that this substance does not enter the environment.

N O T E S

The substance is combustible but no flash point is available in literature. Depending on the degree of exposure, periodic medical examination is suggested. Do NOT take working clothes home. Refer also to cards for specific arsenic compounds, e.g., Arsenic pentoxide (ICSC 0377), Arsenic trichloride (ICSC 0221), Arsenic trioxide (ICSC 0378), Arsine (ICSC 0222).

Transport Emergency Card: TEC (R)-61GT5-II

ADDITIONAL INFORMATION

IMPORTANT LEGAL NOTICE:

International Chemical Safety Cards

BARIUM SULFATE

ICSC: 0827

Barium sulphate
Blanc fixe
Artificial barite
$BaSO_4$
Molecular mass: 233.43

ICSC # 0827
CAS # 7727-43-7
RTECS # CR0600000
October 20, 1999 Peer reviewed

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			
EXPOSURE		PREVENT DISPERSION OF DUST!	
•INHALATION		Local exhaust or breathing protection.	Fresh air, rest.
•SKIN		Protective gloves.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
•EYES		Safety spectacles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION		Do not eat, drink, or smoke during work.	Rinse mouth.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Personal protection: P1 filter respirator for inert particles.		R: S:

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0827

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

International Chemical Safety Cards

BARIUM SULFATE

ICSC: 0827

IMPORTANT DATA	**PHYSICAL STATE; APPEARANCE:** ODOURLESS TASTELESS, WHITE OR YELLOWISH CRYSTALS OR POWDER. **PHYSICAL DANGERS:** **CHEMICAL DANGERS:** Reacts violently with aluminium powder. **OCCUPATIONAL EXPOSURE LIMITS:** TLV: 10 mg/m³ as TWA; (ACGIH 2004). MAK: (Inhalable fraction) 4 mg/m³; (Respirable fraction) 1.5 mg/m³; (DFG 2004). OSHA PEL†: TWA 15 mg/m^3 (total) TWA 5 mg/m^3 (resp) NIOSH REL: TWA 10 mg/m^3 (total) TWA 5 mg/m^3 (resp) NIOSH IDLH: N.D. See: IDLH INDEX **ROUTES OF EXPOSURE:** The substance can be absorbed into the body by inhalation of its aerosol. **INHALATION RISK:** Evaporation at 20°C is negligible; a nuisance-causing concentration of airborne particles can, however, be reached quickly. **EFFECTS OF SHORT-TERM EXPOSURE:** **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:** Lungs may be affected by repeated or prolonged exposure to dust particles , resulting in baritosis (a form of benign pneumoconiosis).
PHYSICAL PROPERTIES	Melting point (decomposes): 1600°C Density: 4.5 g/cm³ Solubility in water: none
ENVIRONMENTAL DATA	

NOTES

Occurs in nature as the mineral barite; also as barytes, heavy spar. Card has been partly updated in October 2005. See section Occupational Exposure Limits.

ADDITIONAL INFORMATION

International Chemical Safety Cards

CADMIUM

ICSC: 0020

Cd
Atomic mass: 112.4

ICSC # 0020
CAS # 7440-43-9
RTECS # EU9800000
UN # 2570
EC # 048-002-00-0
April 22, 2005 Peer reviewed

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Flammable in powder form and spontaneously combustible in pyrophoric form. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames, NO sparks, and NO smoking. NO contact with heat or acid(s).	Dry sand. Special powder. NO other agents.
EXPLOSION	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
EXPOSURE		PREVENT DISPERSION OF DUST! AVOID ALL CONTACT!	IN ALL CASES CONSULT A DOCTOR!
•**INHALATION**	Cough. Sore throat.	Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
•**SKIN**		Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•**EYES**	Redness. Pain.	Safety goggles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•**INGESTION**	Abdominal pain. Diarrhoea. Headache. Nausea. Vomiting.	Do not eat, drink, or smoke during work.	Rest. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Evacuate danger area! Personal protection: chemical protection suit including self-contained breathing apparatus. Remove all ignition sources. Sweep spilled substance into containers. Carefully collect remainder, then remove to safe place.	Fireproof. Dry. Keep under inert gas. Separated from igntion sources, oxidants acids, food and feedstuffs	Airtight. Unbreakable packaging; put breakable packaging into closed unbreakable container. Do not transport with food and feedstuffs. Note: E T+ symbol N symbol R: 45-26-48/23/25-62-63-68-50/53 S: 53-45-60-61 UN Hazard Class: 6.1

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0020

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

International Chemical Safety Cards

CADMIUM

ICSC: 0020

I M P O R T A N T D A T A

PHYSICAL STATE; APPEARANCE:
SOFT BLUE-WHITE METAL LUMPS OR GREY POWDER. MALLEABLE. TURNS BRITTLE ON EXPOSURE TO 80°C AND TARNISHES ON EXPOSURE TO MOIST AIR.

PHYSICAL DANGERS:
Dust explosion possible if in powder or granular form, mixed with air.

CHEMICAL DANGERS:
Reacts with acids forming flammable/explosive gas (hydrogen - see ICSC0001.) Dust reacts with oxidants, hydrogen azide, zinc, selenium or tellurium , causing fire and explosion hazard.

OCCUPATIONAL EXPOSURE LIMITS:
TLV: (Total dust) 0.01 mg/m³
(Respirable fraction)
0.002 mg/m³ as TWA A2 (suspected human carcinogen); BEI issued (ACGIH 2005).
MAK: skin absorption (H);
Carcinogen category: 1; Germ cell mutagen group: 3A; (DFG 2004).
OSHA PEL*: 1910.1027 TWA 0.005 mg/m^3 *Note: The PEL applies to all Cadmium compounds (as Cd).
NIOSH REL*: Ca See Appendix A *Note: The REL applies to all Cadmium compounds (as Cd).
NIOSH IDLH: Ca 9 mg/m^3 (as Cd) See: IDLH INDEX

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.

INHALATION RISK:
A harmful concentration of airborne particles can be reached quickly when dispersed, especially if powdered.

EFFECTS OF SHORT-TERM EXPOSURE:
The fume is irritating to the respiratory tract Inhalation of fume may cause lung oedema (see Notes). Inhalation of fumes may cause metal fume fever. The effects may be delayed. Medical observation is indicated.

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
Lungs may be affected by repeated or prolonged exposure to dust particles. The substance may have effects on the kidneys , resulting in kidney impairment This substance is carcinogenic to humans.

PHYSICAL PROPERTIES

Boiling point: 765°C
Melting point: 321°C
Density: 8.6
g/cm3

Solubility in water: none
Auto-ignition temperature: (cadmium metal dust) 250°C

ENVIRONMENTAL DATA

N O T E S

Reacts violently with fire extinguishing agents such as water,foam,carbon dioxideand halons. Depending on the degree of exposure, periodic medical examination is indicated. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Do NOT take working clothes home. Cadmium also exists in a pyrophoric form (EC No. 048-011-00-X), which bears the additional EU labelling symbol F, R phrase 17, and S phrases 7/8 and 43. UN numbers and packing group will vary according to the physical form of the substance.

ADDITIONAL INFORMATION

International Chemical Safety Cards

CHROMIUM

ICSC: 0029

Chrome
Cr
Atomic mass: 52.0
(powder)

ICSC # 0029
CAS # 7440-47-3
RTECS # GB4200000
October 27, 2004 Peer reviewed

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Combustible under specific conditions.	No open flames if in powder form.	In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION		Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
EXPOSURE		PREVENT DISPERSION OF DUST!	
•INHALATION	Cough.	Local exhaust or breathing protection.	Fresh air, rest.
•SKIN		Protective gloves.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
•EYES	Redness.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION		Do not eat, drink, or smoke during work.	Rinse mouth.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Personal protection: P2 filter respirator for harmful particles.		R: S:

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0029

International Chemical Safety Cards

CHROMIUM

ICSC: 0029

I

M

P

PHYSICAL STATE; APPEARANCE:
GREY POWDER

PHYSICAL DANGERS:
Dust explosion possible if in powder or granular form, mixed with air.

ROUTES OF EXPOSURE:

INHALATION RISK:
A harmful concentration of airborne particles can be reached quickly when dispersed.

O R T A N T D A T A	**CHEMICAL DANGERS:** Chromium is a catalytic substance and may cause reaction in contact with many organic and inorganic substances , causing fire and explosion hazard. **OCCUPATIONAL EXPOSURE LIMITS:** TLV: (as Cr metal, Cr(III) compounds) 0.5 mg/m³ as TWA A4 (ACGIH 2004). MAK not established. OSHA PEL*: TWA 1 mg/m^3 See Appendix C *Note: The PEL also applies to insoluble chromium salts. NIOSH REL: TWA 0.5 mg/m^3 See Appendix C NIOSH IDLH: 250 mg/m^3 (as Cr) See: 7440473 **EFFECTS OF SHORT-TERM EXPOSURE:** May cause mechanical irritation tothe eyesandthe respiratory tract. **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:**
PHYSICAL PROPERTIES	Boiling point: 2642°C Melting point: 1900°C Density: 7.15 g/cm³ Solubility in water: none
ENVIRONMENTAL DATA	

N O T E S

The surface of the chromium particles is oxidized to chromium(III)oxide in air. See ICSC 1531 Chromium(III) oxide.

ADDITIONAL INFORMATION

ICSC: 0029 **CHROMIUM**

IMPORTANT LEGAL NOTICE:	Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

International Chemical Safety Cards

COPPER

ICSC: 0240

Cu
(powder)

ICSC # 0240
CAS # 7440-50-8
RTECS # GL5325000
September 24, 1993 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Combustible.	NO open flames.	Special powder, dry sand, NO other agents.
EXPLOSION			
EXPOSURE		PREVENT DISPERSION OF DUST!	
•INHALATION	Cough. Headache. Shortness of breath. Sore throat.	Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
•SKIN	Redness.	Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•EYES	Redness. Pain.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION	Abdominal pain. Nausea. Vomiting.	Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Sweep spilled substance into containers. Carefully collect remainder. Then remove to safe place. (Extra personal protection: P2 filter respirator for harmful particles).	Separated from - See Chemical Dangers.	R: S:

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0240

International Chemical Safety Cards

COPPER

ICSC: 0240

I

M

P

PHYSICAL STATE; APPEARANCE:
RED POWDER, TURNS GREEN ON EXPOSURE TO MOIST AIR.

PHYSICAL DANGERS:

CHEMICAL DANGERS:

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation and by ingestion.

INHALATION RISK:
Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed.

O **R** **T** **A** **N** **T** **D** **A** **T** **A**	Shock-sensitive compounds are formed with acetylenic compounds, ethylene oxides and azides. Reacts with strong oxidants like chlorates, bromates and iodates, causing explosion hazard. **OCCUPATIONAL EXPOSURE LIMITS:** TLV: 0.2 mg/m³ fume (ACGIH 1992-1993). TLV (as Cu, dusts & mists): 1 mg/m³ (ACGIH 1992-1993). Intended change 0.1 mg/m³ Inhal., A4 (not classifiable as a human carcinogen); MAK: 0.1 mg/m³ (Inhalable fraction) Peak limitation category: II(2) Pregnancy risk group: D (DFG 2005). OSHA PEL*: TWA 1 mg/m^3 *Note: The PEL also applies to other copper compounds (as Cu) except copper fume. NIOSH REL*: TWA 1 mg/m^3 *Note: The REL also applies to other copper compounds (as Cu) except Copper fume. NIOSH IDLH: 100 mg/m^3 (as Cu) See: 7440508	**EFFECTS OF SHORT-TERM EXPOSURE:** Inhalation of fumes may cause metal fume fever. See Notes. **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:** Repeated or prolonged contact may cause skin sensitization.
PHYSICAL PROPERTIES	Boiling point: 2595°C Melting point: 1083°C Relative density (water = 1): 8.9	Solubility in water: none
ENVIRONMENTAL DATA		

N O T E S

The symptoms of metal fume fever do not become manifest until several hours.

ADDITIONAL INFORMATION

ICSC: 0240 **COPPER**

IMPORTANT LEGAL NOTICE:	Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

International Chemical Safety Cards

LEAD

ICSC: 0052

Lead metal
Plumbum
Pb
Atomic mass: 207.2
(powder)

ICSC # 0052
CAS # 7439-92-1
RTECS # OF7525000
October 08, 2002 Peer reviewed

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
EXPOSURE	See EFFECTS OF LONG-TERM OR REPEATED EXPOSURE.	PREVENT DISPERSION OF DUST! AVOID EXPOSURE OF (PREGNANT) WOMEN!	
•INHALATION		Local exhaust or breathing protection.	Fresh air, rest.
•SKIN		Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•EYES		Safety spectacles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION	Abdominal pain. Nausea. Vomiting.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Give plenty of water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment. Personal protection: P3 filter respirator for toxic particles.	Separated from food and feedstuffs incompatible materials See Chemical Dangers.	R: S:

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0052

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

International Chemical Safety Cards

LEAD

ICSC: 0052

I M P O R T A N T D A T A

PHYSICAL STATE; APPEARANCE:
BLUISH-WHITE OR SILVERY-GREY SOLID IN VARIOUS FORMS. TURNS TARNISHED ON EXPOSURE TO AIR.

PHYSICAL DANGERS:
Dust explosion possible if in powder or granular form, mixed with air.

CHEMICAL DANGERS:
On heating, toxic fumes are formed. Reacts with oxidants. Reacts with hot concentrated nitric acid, boiling concentrated hydrochloric acid and sulfuric acid. Attacked by pure water and by weak organic acids in the presence of oxygen.

OCCUPATIONAL EXPOSURE LIMITS:
TLV: 0.05 mg/m³ A3 (confirmed animal carcinogen with unknown relevance to humans); BEI issued (ACGIH 2004).
MAK:
Carcinogen category: 3B; Germ cell mutagen group: 3A; (DFG 2004).
EU OEL: as TWA 0.15 mg/m³ (EU 2002).
OSHA PEL*: 1910.1025 TWA 0.050 mg/m^3 See Appendix C *Note: The PEL also applies to other lead compounds (as Pb) -- see Appendix C.
NIOSH REL*: TWA 0.050 mg/m^3 See Appendix C
*Note: The REL also applies to other lead compounds (as Pb) -- see Appendix C.
NIOSH IDLH: 100 mg/m^3 (as Pb) See: 7439921

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation and by ingestion.

INHALATION RISK:
A harmful concentration of airborne particles can be reached quickly when dispersed, especially if powdered.

EFFECTS OF SHORT-TERM EXPOSURE:

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
The substance may have effects on the blood bone marrow central nervous system peripheral nervous system kidneys , resulting in anaemia, encephalopathy (e.g., convulsions), peripheral nerve disease, abdominal cramps and kidney impairment. Causes toxicity to human reproduction or development.

PHYSICAL PROPERTIES		
	Boiling point: 1740°C	Density: 11.34 g/cm3
	Melting point: 327.5°C	Solubility in water: none

ENVIRONMENTAL DATA	
	Bioaccumulation of this chemical may occur in plants and in mammals. It is strongly advised that this substance does not enter the environment. 

N O T E S

Depending on the degree of exposure, periodic medical examination is suggested. Do NOT take working clothes home.

Transport Emergency Card: TEC (R)-51S1872

ADDITIONAL INFORMATION

ICSC: 0052 **LEAD**

International Chemical Safety Cards

MANGANESE

ICSC: 0174

Mn
Atomic mass: 54.9
(powder)

ICSC # 0174
CAS # 7439-96-5
RTECS # OO9275000
November 27, 2003 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Combustible.	NO open flames.	Dry sand, special powder.
EXPLOSION	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
EXPOSURE		PREVENT DISPERSION OF DUST! AVOID EXPOSURE OF (PREGNANT) WOMEN!	
•INHALATION	Cough.	Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
•SKIN		Protective gloves.	Rinse and then wash skin with water and soap.
•EYES		Safety goggles, or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION	Abdominal pain. Nausea.	Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Sweep spilled substance into containers. Carefully collect remainder, then remove to safe place. (Extra personal protection: P2 filter respirator for harmful particles.)	Separated from acids. Dry.	

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0174

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

International Chemical Safety Cards

MANGANESE

ICSC: 0174

I	**PHYSICAL STATE; APPEARANCE:** GREY - WHITE POWDER **PHYSICAL DANGERS:**	**ROUTES OF EXPOSURE:** The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.

IMPORTANT DATA	Dust explosion possible if in powder or granular form, mixed with air. **CHEMICAL DANGERS:** Reacts slowly with water more rapidly with steam and acids forming flammable/explosive gas (hydrogen - see ICSC0001) causing fire and explosion hazard. **OCCUPATIONAL EXPOSURE LIMITS:** TLV: 0.2 mg/m³ (as TWA); (ACGIH 2003). MAK: (Inhalable fraction) 0.5 mg/m³; Pregnancy risk group: C; (DFG 2007). OSHA PEL*: C 5 mg/m^3 *Note: Also see specific listings for Manganese cyclopentadienyl tricarbonyl and Methyl cyclopentadienyl manganese tricarbonyl. NIOSH REL*: TWA 1 mg/m^3 ST 3 mg/m^3 *Note: Also see specific listings for Manganese cyclopentadienyl tricarbonyl, Methyl cyclopentadienyl manganese tricarbonyl, and Manganese tetroxide. NIOSH IDLH: 500 mg/m^3 (as Mn) See: 7439965	**INHALATION RISK:** Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed. **EFFECTS OF SHORT-TERM EXPOSURE:** The aerosol is irritating to the respiratory tract . **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:** The substance may have effects on the lungs and central nervous system , resulting in increased susceptibility to bronchitis, pneumonitis and neurologic, neuropsychiatric disorders (manganism). Animal tests show that this substance possibly causes toxicity to human reproduction or development.
PHYSICAL PROPERTIES	Boiling point: 1962°C Melting point: 1244°C Density: 7.47 g/cm³	Solubility in water: none
ENVIRONMENTAL DATA	This substance may be hazardous in the environment; special attention should be given to aquatic organisms. 	

N O T E S

Depending on the degree of exposure, periodic medical examination is suggested. The recommendations on this Card also apply to ferro manganese.

ADDITIONAL INFORMATION

ICSC: 0174 **MANGANESE**

International Chemical Safety Cards

MERCURY

ICSC: 0056

Quicksilver
Liquid silver
Hg
Atomic mass: 200.6

ICSC # 0056
CAS # 7439-97-6
RTECS # OV4550000
UN # 2809
EC # 080-001-00-0
April 22, 2004 Peer reviewed

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION	Risk of fire and explosion.		In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE		STRICT HYGIENE! AVOID EXPOSURE OF (PREGNANT) WOMEN! AVOID EXPOSURE OF ADOLESCENTS AND CHILDREN!	IN ALL CASES CONSULT A DOCTOR!
•INHALATION	Abdominal pain. Cough. Diarrhoea. Shortness of breath. Vomiting. Fever or elevated body temperature.	Local exhaust or breathing protection.	Fresh air, rest. Artificial respiration if indicated. Refer for medical attention.
•SKIN	MAY BE ABSORBED! Redness.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
•EYES		Face shield, or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION		Do not eat, drink, or smoke during work. Wash hands before eating.	Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Evacuate danger area in case of a large spill! Consult an expert! Ventilation. Collect leaking and spilled liquid in sealable non-metallic containers as far as possible. Do NOT wash away into sewer. Do NOT let this chemical enter the environment. Chemical protection suit including self-contained breathing apparatus.	Provision to contain effluent from fire extinguishing. Separated from food and feedstuffs Well closed.	Special material. Do not transport with food and feedstuffs. T symbol N symbol R: 23-33-50/53 S: 1/2-7-45-60-61 UN Hazard Class: 8 UN Packing Group: III

SEE IMPORTANT INFORMATION ON BACK

International Chemical Safety Cards

MERCURY

ICSC: 0056

IMPORTANT DATA

PHYSICAL STATE; APPEARANCE:
ODOURLESS, HEAVY AND MOBILE SILVERY LIQUID METAL.

PHYSICAL DANGERS:

CHEMICAL DANGERS:
Upon heating, toxic fumes are formed. Reacts violently with ammonia and halogens causing fire and explosion hazard. Attacks aluminium and many other metals forming amalgams.

OCCUPATIONAL EXPOSURE LIMITS:
TLV: 0.025 mg/m³ as TWA (skin) A4 BEI issued (ACGIH 2004).
MAK: 0.1 mg/m³ Sh
Peak limitation category: II(8) Carcinogen category: 3B (DFG 2003).
OSHA PEL†: C 0.1 mg/m^3
NIOSH REL: Hg Vapor: TWA 0.05 mg/m^3 skin
Other: C 0.1 mg/m^3 skin
NIOSH IDLH: 10 mg/m^3 (as Hg) See: 7439976

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation of its vapour and through the skin , also as a vapour!

INHALATION RISK:
A harmful contamination of the air can be reached very quickly on evaporation of this substance at 20°C.

EFFECTS OF SHORT-TERM EXPOSURE:
The substance is irritating to the skin. Inhalation of the vapours may cause pneumonitis. The substance may cause effects on the central nervous systemandkidneys. The effects may be delayed. Medical observation is indicated.

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
The substance may have effects on the central nervous system kidneys , resulting in irritability, emotional instability, tremor, mental and memory disturbances, speech disorders. Danger of cumulative effects. Animal tests show that this substance possibly causes toxic effects upon human reproduction.

PHYSICAL PROPERTIES

Boiling point: 357°C
Melting point: -39°C
Relative density (water = 1): 13.5
Solubility in water:
none

Vapour pressure, Pa at 20°C: 0.26
Relative vapour density (air = 1): 6.93
Relative density of the vapour/air-mixture at 20°C (air = 1): 1.009

ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. In the food chain important to humans, bioaccumulation takes place, specifically in fish.

N O T E S

Depending on the degree of exposure, periodic medical examination is indicated. No odour warning if toxic concentrations are present. Do NOT take working clothes home.

Transport Emergency Card: TEC (R)-80GC9-II+III

ADDITIONAL INFORMATION

ICSC: 0056 **MERCURY**

International Chemical Safety Cards

NICKEL

ICSC: 0062

Ni
Atomic mass: 58.7
(powder)

ICSC # 0062
CAS # 7440-02-0
RTECS # QR5950000
EC # 028-002-00-7
October 17, 2001 Peer reviewed

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Flammable as dust. Toxic fumes may be released in a fire.		Dry sand. NO carbon dioxide. NO water.
EXPLOSION	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
EXPOSURE		PREVENT DISPERSION OF DUST! AVOID ALL CONTACT!	
•**INHALATION**	Cough. Shortness of breath.	Local exhaust or breathing protection.	Fresh air, rest.
•**SKIN**		Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
•**EYES**		Safety spectacles, or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•**INGESTION**		Do not eat, drink, or smoke during work.	Rinse mouth.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Vacuum spilled material. Carefully collect remainder, then remove to safe place. Personal protection: P2 filter respirator for harmful particles.	Separated from strong acids.	Xn symbol R: 40-43 S: 2-22-36

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0062

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

International Chemical Safety Cards

NICKEL

ICSC: 0062

I	**PHYSICAL STATE; APPEARANCE:** SILVERY METALLIC SOLID IN VARIOUS FORMS. **PHYSICAL DANGERS:**
	ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation of the dust.

IMPORTANT DATA	Dust explosion possible if in powder or granular form, mixed with air. **CHEMICAL DANGERS:** Reacts violently, in powder form, with titanium powder and potassium perchlorate, and oxidants such as ammonium nitrate, causing fire and explosion hazard. Reacts slowly with non-oxidizing acids and more rapidly with oxidizing acids. Toxic gases and vapours (such as nickel carbonyl) may be released in a fire involving nickel. **OCCUPATIONAL EXPOSURE LIMITS:** TLV: (Inhalable fraction) 1.5 mg/m³ as TWA A5 (not suspected as a human carcinogen); (ACGIH 2004). MAK: (Inhalable fraction) sensitization of respiratory tract and skin (Sah); Carcinogen category: 1; (DFG 2004). OSHA PEL*†: TWA 1 mg/m^3 *Note: The PEL does not apply to Nickel carbonyl. NIOSH REL*: Ca TWA 0.015 mg/m^3 See Appendix A *Note: The REL does not apply to Nickel carbonyl. NIOSH IDLH: Ca 10 mg/m^3 (as Ni) See: 7440020	**INHALATION RISK:** Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed. **EFFECTS OF SHORT-TERM EXPOSURE:** May cause mechanical irritation. Inhalation of fumes may cause pneumonitis. **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:** Repeated or prolonged contact may cause skin sensitization. Repeated or prolonged inhalation exposure may cause asthma. Lungs may be affected by repeated or prolonged exposure. This substance is possibly carcinogenic to humans.
PHYSICAL PROPERTIES	Boiling point: 2730°C Melting point: 1455°C Density: 8.9 g/cm3	Solubility in water: none
ENVIRONMENTAL DATA		

N O T E S

At high temperatures, nickel oxide fumes will be formed. Depending on the degree of exposure, periodic medical examination is suggested. The symptoms of asthma often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Anyone who has shown symptoms of asthma due to this substance should avoid all further contact with this substance.

ADDITIONAL INFORMATION

ICSC: 0062 **NICKEL**

International Chemical Safety Cards

SILVER

ICSC: 0810

Argentium
C.I. 77820
Ag

ICSC # 0810
CAS # 7440-22-4
RTECS # VW3500000
September 10, 1997 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Not combustible, except as powder.		
EXPLOSION			
EXPOSURE		PREVENT DISPERSION OF DUST!	
•INHALATION		Local exhaust or breathing protection.	Fresh air, rest.
•SKIN		Protective gloves.	Rinse skin with plenty of water or shower.
•EYES		Safety spectacles, or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION		Do not eat, drink, or smoke during work.	

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment.	Separated from ammonia, strong hydrogen peroxide solutions, strong acids.	

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0810

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

International Chemical Safety Cards

SILVER

ICSC: 0810

I M P O R T A N T

PHYSICAL STATE; APPEARANCE:
WHITE METAL, TURNS DARK ON EXPOSURE TO OZONE, HYDROGEN SULFIDE OR SULFUR.

PHYSICAL DANGERS:

CHEMICAL DANGERS:
Shock-sensitive compounds are formed with acetylene.

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation and by ingestion.

INHALATION RISK:
Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed.

T A N T D A T A	Reacts with acids causing fire hazard. Contact with strong hydrogen peroxide solution will cause violent decomposition to oxygen gas. Contact with ammonia may cause formation of compounds that are explosive when dry. **OCCUPATIONAL EXPOSURE LIMITS:** TLV (metal): 0.1 mg/m³ (ACGIH 1997). EU OEL: 0.1 mg/m³ as TWA (EU 2000). OSHA PEL: TWA 0.01 mg/m^3 NIOSH REL: TWA 0.01 mg/m^3 NIOSH IDLH: 10 mg/m^3 (as Ag) See: IDLH INDEX	**EFFECTS OF SHORT-TERM EXPOSURE:** Inhalation of high amounts of metallic silver vapours may cause lung damage with pulmonary oedema. **EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:** The substance may cause a grey-blue discoloration of the eyes, nose, throat and skin (argyria/argyrosis).
PHYSICAL PROPERTIES	Boiling point: 2212°C Melting point: 962°C	Relative density (water = 1): 10.5 Solubility in water: none
ENVIRONMENTAL DATA	This substance may be hazardous to the environment; special attention should be given to aquatic organisms. 	

N O T E S

Card has been partially updated in March 2008: see Occupational Exposure Limits.

ADDITIONAL INFORMATION

ICSC: 0810 **SILVER**

International Chemical Safety Cards

ZINC POWDER

ICSC: 1205

Blue powder
Merrillite
Zn
Atomic mass: 65.4
(powder)

ICSC # 1205
CAS # 7440-66-6
RTECS # ZG8600000
UN # 1436 (zinc powder or dust)
EC # 030-001-00-1
October 24, 1994 Peer reviewed

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Highly flammable. Many reactions may cause fire or explosion. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames, NO sparks, and NO smoking. NO contact with acid(s), base (s) and incompatible substances (see Chemical Dangers).	Special powder, dry sand, NO other agents. NO water.
EXPLOSION	Risk of fire and explosion on contact with acid(s), base(s), water and incompatible substances.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Prevent build-up of electrostatic charges (e.g., by grounding). Prevent deposition of dust.	In case of fire: cool drums, etc., by spraying with water but avoid contact of the substance with water.
EXPOSURE		PREVENT DISPERSION OF DUST! STRICT HYGIENE!	
•**INHALATION**	Metallic taste and metal fume fever. Symptoms may be delayed (see Notes).	Local exhaust.	Fresh air, rest. Refer for medical attention.
•**SKIN**	Dry skin.	Protective gloves.	Rinse and then wash skin with water and soap.
•**EYES**		Safety spectacles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•**INGESTION**	Abdominal pain. Nausea. Vomiting.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Extinguish or remove all ignition sources. Do NOT wash away into sewer. Sweep spilled substance into containers. then remove to safe place. Personal protection: self-contained breathing apparatus.	Fireproof. Separated from acids, bases oxidants Dry.	Airtight. F symbol N symbol R: 15-17-50/53 S: 2-7/8-43-46-60-61 UN Hazard Class: 4.3 UN Subsidiary Risks: 4.2

SEE IMPORTANT INFORMATION ON BACK

International Chemical Safety Cards

ZINC POWDER

ICSC: 1205

I M P O R T A N T D A T A

PHYSICAL STATE; APPEARANCE:
ODOURLESS GREY TO BLUE POWDER.

PHYSICAL DANGERS:
Dust explosion possible if in powder or granular form, mixed with air. If dry, it can be charged electrostatically by swirling, pneumatic transport, pouring, etc.

CHEMICAL DANGERS:
Upon heating, toxic fumes are formed. The substance is a strong reducing agent and reacts violently with oxidants. Reacts with water and reacts violently with acids and bases forming flammable/explosive gas (hydrogen - see ICSC0001) Reacts violently with sulfur, halogenated hydrocarbons and many other substances causing fire and explosion hazard.

OCCUPATIONAL EXPOSURE LIMITS:
TLV not established.

ROUTES OF EXPOSURE:
The substance can be absorbed into the body by inhalation and by ingestion.

INHALATION RISK:
Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed.

EFFECTS OF SHORT-TERM EXPOSURE:
Inhalation of fumes may cause metal fume fever. The effects may be delayed.

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:
Repeated or prolonged contact with skin may cause dermatitis.

PHYSICAL PROPERTIES

Boiling point: 907°C
Melting point: 419°C
Relative density (water = 1): 7.14
Solubility in water: reaction
Vapour pressure, kPa at 487°C: 0.1
Auto-ignition temperature: 460°C

ENVIRONMENTAL DATA

N O T E S

Zinc may contain trace amounts of arsenic, when forming hydrogen, may also form toxic gas arsine (see ICSC 0001 and ICSC 0222). Reacts violently with fire extinguishing agents such as water, halons, foam and carbon dioxide. The symptoms of metal fume fever do not become manifest until several hours later. Rinse contaminated clothes (fire hazard) with plenty of water.

Transport Emergency Card: TEC (R)-43GWS-II+III
NFPA Code: H0; F1; R1;

ADDITIONAL INFORMATION

ICSC: 1205 **ZINC POWDER**

IMPORTANT LEGAL NOTICE:

APPENDIX D

HOSPITAL INFORMATION AND MAP

FIELD ACCIDENT REPORT

FIELD ACCIDENT REPORT

This report is to be filled out by the designated Site Safety Officer after EVERY accident.

PROJECT NAME _____ PROJECT. NO._____

Date of Accident _____ Time _____ Report By _____

Type of Accident (Check One):

( ) Vehicular ( ) Personal ( ) Property

Name of Injured _____ DOB or Age _____

How Long Employed _____

Names of Witnesses _____

_____

Description of Accident _____

_____

_____

Action Taken _____

_____

_____

Did the Injured Lose Any Time? _____ How Much (Days/Hrs.)? _____

Was Safety Equipment in Use at the Time of the Accident (Hard Hat, Safety Glasses, Gloves, Safety Shoes, etc.)? _____

_____

(If not, it is the EMPLOYEE'S sole responsibility to process his/her claim through his/her Health and Welfare Fund.)

INDICATE STREET NAMES, DESCRIPTION OF VEHICLES, AND NORTH ARROW

HOSPITAL INFORMATION AND MAP

The hospital nearest the site is:

Lincoln Medical and Mental Health Center

234 E 149th St
Bronx, NY 10451
(718) 579-5016

0.9 Miles – About 6 Minutes

Take Lincoln Ave, Rider Ave and Park Ave to E 149th St

6 min (0.9 mi)

1. Head south on Third Ave toward Bruckner Blvd

82 ft

2. Turn left to stay on Third Ave

335 ft

3. Turn right onto E 134th St

299 ft

4. Turn left at the 1st cross street onto Lincoln Ave

0.3 mi

5. Turn left onto E 139th St

312 ft

6. Turn right onto Rider Ave

0.2 mi

7. Turn left onto E 141st St

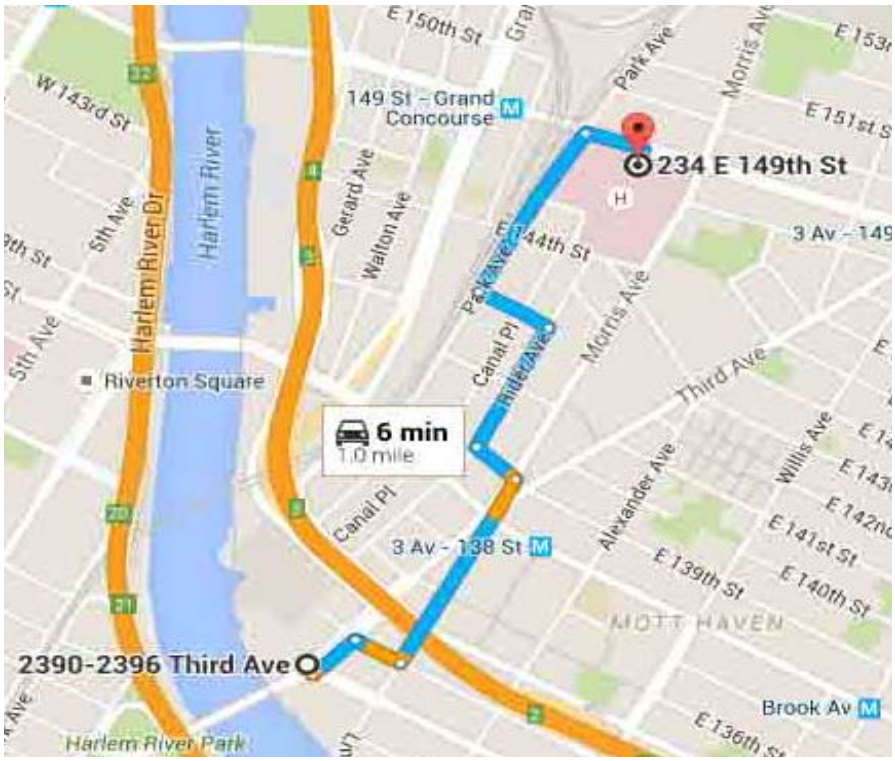
459 ft

8. Turn right onto Park Ave

0.2 mi

Turn right onto E 149th St
Destination will be on the right

46 s (348 ft)



ATTACHMENT C
Quality Assurance Project Plan

QUALITY ASSURANCE PROJECT PLAN
FORMER MUGLER SHORING SITE
2401 Third Avenue, Bronx, NY

Prepared on behalf of:

2401 3rd Ave Associates Property LLC
512 Seventh Avenue 15th Floor
New York, NY 10018

Prepared by:

EBC
Environmental Business Consultants
Ridge, NY 11961

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QUALITY ASSURANCE PROJECT PLAN
FORMER MUGLER SHORINGSITE

TABLES

1.0 INTRODUCTION

This Quality Assurance Project Plan (QAPP) has been prepared in accordance with DER-10 to detail procedures to be followed during the course of the sampling and analytical portion of the project, as required by the approved work plan.

To ensure the successful completion of the project each individual responsible for a given component of the project must be aware of the quality assurance objectives of his / her particular work and of the overall project. The EBC Project Director, Charles Sosik will be directly responsible to the client for the overall project conduct and quality assurance/quality control (QA/QC) for the project. The Project Director will be responsible for overseeing all technical and administrative aspects of the project and for directing QA/QC activities. Mr. Patrick Recio will serve as the Quality Assurance Officer (QAO) and in this role may conduct:

- conduct periodic field and sampling audits;
- interface with the analytical laboratory to resolve problems; and
- interface with the data validator and/or the preparer of the DUSR to resolve problems.

Robert Bennett will serve as the Project Manager and will be responsible for implementation of the IRM and coordination with field sampling crews and subcontractors. Reporting directly to the Project Manager will be the Field Operations Officer, Kevin Waters; who will serve as the on-Site qualified environmental professional who will record observations, direct the field crew and be responsible for the collection and handling of all samples.

1.1 Organization

Project QA will be maintained under the direction of the Project Manager, in accordance with this QAPP. QC for specific tasks will be the responsibility of the individuals and organizations listed below, under the direction and coordination of the Project Manager

.

GENERAL RESPONSIBILITY	SCOPE OF WORK	RESPONSIBILITY OF QUALITY CONTROL
Field Operations	Supervision of Field Crew, sample collection and handling	K. Waters, EBC
Project Manager	Implementation of the RI according to the RIWP.	R. Bennett, EBC
Laboratory Analysis	Analysis of soil samples by NYSDEC ASP methods Laboratory	NYSDOH-Certified Laboratory
Data review	Review for completeness and compliance	3rd party validation

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2.0 QUALITY ASSURANCE PROJECT PLAN OBJECTIVES

2.1 Overview

Overall project goals are defined through the development of Data Quality Objectives (DQOs), which are qualitative and quantitative Statements that specify the quality of the data required to support decisions; DQOs, as described in this section, are based on the end uses of the data as described in the work plan.

In this plan, Quality Assurance and Quality Control are defined as follows:

- Quality Assurance - The overall integrated program for assuring reliability of monitoring and measurement data.

- Quality Control - The routine application of procedures for obtaining prescribed standards of performance in the monitoring and measurement process.

2.2 QA / QC Requirements for Analytical Laboratory

Samples will be analyzed by a New York State Department of Health (NYSDOH) certified laboratory that is certified in the appropriate categories. Data generated from the laboratory will be used to evaluate contaminants such as chlorinated and other volatile organic compounds (VOCs) in soil, soil gas and groundwater. The QA requirements for all subcontracted analytical laboratory work performed on this project are described below. QA elements to be evaluated include accuracy, precision, sensitivity, representativeness, and completeness. The data generated by the analytical laboratory for this project are required to be sensitive enough to achieve required quantification limits as specified in NYSDEC Analytical Services Protocol (NYSDEC ASP, 07/2005) and useful for comparison with clean-up objectives. The analytical results meeting the required quantification limits will provide data sensitive enough to meet the data quality objectives of this remedial program as described in the work plan. Reporting of the data must be clear, concise, and comprehensive. The QC elements that are important to this project are completeness of field data, sample custody, sample holding times, sample preservation, sample storage, instrument calibration and blank contamination.

2.2.1 Instrument Calibration

Calibration curves will be developed for each of the compounds to be analyzed. Standard concentrations and a blank will be used to produce the initial curves. The development of calibration curves and initial calibration response factors must be consistent with method requirements presented in the most recent version of NYSDEC ASP 07/2005).

2.2.2 Continuing Instrument Calibration

The initial calibration curve will be verified every 12 hrs by analyzing one calibration standard. The standard concentration will be the midpoint concentration of the initial calibration curve. The calibration check compound must come within 25% relative percent difference (RPD) of the average response factor obtained during initial calibration. If the RPD is greater than 25%, then corrective action must be taken as provided in the specific methodology.

2.2.3 Method Blanks

Method blank or preparation blank is prepared from an analyte·free matrix which includes the same reagents, internal standards and surrogate standards as me related samples. II is carried through the

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entire sample preparation and analytical procedure. A method blank analysis will be performed once for each 12 hr period during the analysis of samples for volatiles. An acceptable method blank will contain less than two (2) times the CRQL of methylene chloride, acetone and 2-butanone. For all other target compounds, the method blank must contain less than or equal to the CRQL of any single target compound. For non-target peaks in the method blank, the peak area must be less than 10 percent of the nearest internal standard. The method blank will be used to demonstrate the level of laboratory background and reagent contamination that might result from the analytical process itself.

2.2.4 Trip Blanks.

Trip blanks consist of a single set of sample containers filled at the laboratory with deionized. laboratory-grade water. The water used will be from the same source as that used for the laboratory method blank. The containers will be carried into the field and handled and transported in the same way as the samples collected that day. Analysis of the trip blank for VOCs is used to identify contamination from the air, shipping containers, or from other items coming in contact with the sample bottles. (The bottles holding the trip blanks will be not opened during this procedure.) A complete set of trip blanks will be provided with each shipment of samples to the certified laboratory.

2.2.5 Surrogate Spike Analysis

For organic analyses, all samples and blanks will be spiked with surrogate compounds before purging or extraction in order to monitor preparation and analyses of samples. Surrogate spike recoveries shall fall within the advisory limits in accordance with the NY5DEC ASP protocols for samples falling within the quantification limits without dilution.

2.2.6 Matrix Spike / Matrix Spike Duplicate / Matrix Spike Blank (MS/MSDIMSB) Analysis

MS, MSD and MSB analyses will be performed to evaluate the matrix effect of the sample upon the analytical methodology along with the precision of the instrument by measuring recoveries. The MS / MSD / MSB samples will be analyzed for each group of samples of a similar matrix at a rate of 5% (one for every 20 field samples). The RPD will be calculated from the difference between the MS and MSD. Matrix spike blank analysis will be performed to indicate the appropriateness of the spiking solution(s) used for the MS/MSD. 10% of the samples of each matrix should be sampled and anlayzed as Duplicates.

2.3 Accuracy

Accuracy is defined as the nearness of a real or the mean (x) of a set of results to the true value. Accuracy is assessed by means of reference samples and percent recoveries. Accuracy includes both precision and recovery and is expressed as percent recovery (% REC). The MS sample is used to determine the percent recovery. The matrix spike percent recovery (% REC) is calculated by the following equation:

$$\%REC = \frac{SSR - SR}{SA} \times 100$$

Where:
SSR = spike sample results
SR = sample results
SA = spike added from spiking mix

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2.4 Precision

Precision is defined as the measurement of agreement of a set of replicate results among themselves without a Precision is defined as the measurement of agreement of a set of replicate results among themselves without assumption of any prior information as to the true result. Precision is assessed by means of duplicate/replicate sample analyses.

Analytical precision is expressed in terms of RPD. The RPD is calculated using the following formula:

$$RPD = \frac{D^1 - D^2}{(D^1 + D^2)/2} \times 100$$

Where:
RPD = relative percent difference
D^1 = first sample value
D^2 = second sample value (duplicate)

2.5 Sensitivity

The sensitivity objectives for this plan require that data generated by the analytical laboratory achieve quantification levels low enough to meet the required detection limits specified by NYSDEC ASP and to meet all site-specific standards, criteria and guidance values (SGCs) established for this project.

2.6 Representativeness

Representativeness is a measure of the relationship of an individual sample taken from a particular site to the remainder of that site and the relationship of a small aliquot of the sample (i.e., the one used in the actual analysis) to the sample remaining on site. The representativeness of samples is assured by adherence to sampling procedures described in the Remedial Investigation Work Plan.

2.7 Completeness

Completeness is a measure of the quantity of data obtained from a measurement system as compared to the amount of data expected from the measurement system. Completeness is defined as the percentage of all results that are not affected by failing QC qualifiers, and should be between 70 and 100% of all analyses performed. The objective of completeness in laboratory reporting is to provide a thorough data support package. The laboratory data package provides documentation of sample analysis and results in the form of summaries, QC data, and raw analytical data. The laboratory will be required to submit data packages that follow NYSDEC ASP Category B reporting format which, at a minimum, will include the following components:

1. All sample chain-of-custody forms.
2. The case narrative(s) presenting a discussion of any problems and/or procedural changes required during analyses. Also presented in the case narrative are sample summary forms.
3. Documentation demonstrating the laboratory's ability to attain the contract specified detection limits for all target analytes in all required matrices.
4. Tabulated target compound results and tentatively identified compounds.
5. Surrogate spike analysis results (organics).
6. Matrix spike/matrix spike duplicate/matrix spike blank results.
7. QC check sample and standard recovery results
8. Blank results (field, trip, and method).
9. Internal standard area and RT summary.

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2.8 Laboratory Custody Procedures

The following elements are important for maintaining the field custody of samples:

- Sample identification
- Sample labels
- Custody records
- Shipping records
- Packaging procedures

Sample labels will be attached to all sampling bottles before field activities begin; each label will contain an identifying number. Each number will have a suffix that identifies the site and where the sample was taken. Approximate sampling locations will be marked on a map with a description of the sample location. The number, type of sample, and sample identification will be entered into the field logbook. A chain-of-custody form, initiated at the analytical laboratory will accompany the sample bottles from the laboratory into the field. Upon receipt of the bottles and cooler, the sampler will sign and date the first received blank space. After each sample is collected and appropriately identified, entries will be made on the chain-of-custody form that will include:

- Site name and address
- Samplers' names and signatures

2.9 Sample Handling and Decontamination Procedures

Collected samples will be appropriately packaged, placed in coolers and shipped via overnight courier or delivered directly to the analytical laboratory by field personnel. Samples will be containerized in appropriate laboratory provided glassware and shipped in plastic coolers. Samples will be preserved through the use of ice or cold-pak(s) to maintain a temperature of 4^{o}C.

Dedicated disposable sampling materials will be used for both soil and groundwater samples (if collected), eliminating the need to prepare field equipment (rinsate) blanks. However, if non-disposable equipment is used, (stainless steel scoop, etc.) field rinsate blanks will be prepared at the rate of 1 for every eight samples collected. No field filtering will be conducted; any required filtration will be completed by the laboratory.

Decontamination of non-dedicated sampling equipment will consist of the following:

- Gently tap or scrape to remove adhered soil;
- Rinse with tap water;
- Wash with alconox® detergent solution and scrub ;
- Rinse with tap water;
- Rinse with distilled or deionized water.

Prepare field blanks by pouring distilled or deionized water over decontaminated equipment and collecting the water in laboratory provided containers. Trip blanks will accompany samples each time they are transported to the laboratory. Matrix spike and matrix spike duplicates (MS/MSD) will be collected at the rate of one per 20 samples submitted to the laboratory and duplicate samples will be collected at a rate of one per ten samples submitted to the laboratory.

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3.0 ANALYTICAL PROCEDURES

3.1 Laboratory Analysis

Samples will be analyzed by the NYSDOH ELAP laboratory for one or more of the following parameters: VOCs + TICs in soil / groundwater by USEPA Method 8260C, SVOCs + TICs in soil / groundwater by USEPA Method 8270D, Target Analyte List (TAL) Metals 6010 in soil and groundwater, pesticides / PCBs by USEPA Method 8081B/8082A and VOCs in air by USEPA Method TO15 (Table 2). If any modifications or additions to the standard procedures are anticipated and if any nonstandard sample preparation or analytical protocol is to be used, the modifications and the nonstandard protocol will be explicitly defined and documented. Prior approval by EBC's PM will be necessary for any nonstandard analytical or sample preparation protocol used by the laboratory, i.e., dilution of samples or extracts by greater than a factor of five (5).

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4.0 DATA REDUCTION, REVIEW, AND REPORTING

4.1 Overview

The process of data reduction, review, and reporting ensures the assessments or a conclusion based on the final data accurately reflects actual site conditions. This plan presents the specific procedures, methods, and format that will be employed for data reduction, review and reporting of each measurement parameter determined in the laboratory and field. Also described in this section is the process by which all data, reports, and work plans are proofed and checked for technical and numerical errors prior to final submission.

4.2 Data Reduction

Standard methods and references will be used as guidelines for data handling, reduction, validation, and reporting. All data for the project will be compiled and summarized with an independent verification at each step in the process to prevent transcription/typographical errors. Any computerized entry of data will also undergo verification review.

Sample analysis will be provided by a New York State certified environmental laboratory. Laboratory reports will include ASP category B deliverables for use in the preparation of a data usability summary report (DUSR). All results will be provided in accordance with the NYSDEC Environmental Information Management System (EIMS) electronic data deliverable (EDD) format. Analytical results shall be presented on standard NYSDEC ASP-B forms or equivalents, and include the dates the samples were received and analyzed, and the actual methodology used. Note that if waste characterization samples are analyzed they will be in results only format and will not be evaluated in the DUSR.

Laboratory QA/QC information required by the method protocols will be compiled, including the application of data QA/QC qualifiers as appropriate. In addition, laboratory worksheets, laboratory notebooks, chains-of-custody, instrument logs, standards records, calibration records, and maintenance records, as applicable, will be provided in the laboratory data packages to determine the validity of data. Specifics on internal laboratory data reduction protocols are identified in the laboratory's SOPs.

Following receipt of the laboratory analytical results by EBC, the data results will be compiled and presented in an appropriate tabular form. Where appropriate, the impacts of QA/QC qualifiers resulting from laboratory or external validation reviews will be assessed in terms of data usability.

4.3 Laboratory Data Reporting

All sample data packages submitted by the analytical laboratory will be required to be reported in conformance to the NYSDEC ASP (7/2005), Category B data deliverable requirements as applicable to the method utilized. All results will be provided in accordance with the NYSDEC Environmental Information Management System (EIMS) electronic data deliverable (EDD) format. Note that waste characterization samples, if analyzed, will be in results only format and will not be evaluated in the DUSR.

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5.0 CORRECTIVE ACTION

Review and implementation of systems and procedures may result in recommendations for corrective action. Any deviations from the specified procedures within approved project plans due to unexpected site-specific conditions shall warrant corrective action. All errors, deficiencies, or other problems shall be brought to the immediate attention of the EBC PM, who in turn shall contact the Quality Assurance/Data Quality Manager or his designee (if applicable).

Procedures have been established to ensure that conditions adverse to data quality are promptly investigated, evaluated and corrected. These procedures for review and implementation of a change are as follows:

- Define the problem.
- Investigate the cause of the problem.
- Develop a corrective action to eliminate the problem, in consultation with the personnel who defined the problem and who will implement the change.
- Complete the required form describing the change and its rationale (see below for form requirements).
- Obtain all required written approvals.
- Implement the corrective action.
- Verify that the change has eliminated the problem.

During the field investigation, all changes to the sampling program will be documented in field logs/sheets and the EBC PM advised.

If any problems occur with the laboratory or analyses, the laboratory must immediately notify the PM, who will consult with other project staff. All approved corrective actions shall be controlled and documented.

All corrective action documentation shall include an explanation of the problem and a proposed solution which will be maintained in the project file or associated logs. Each report must be approved by the necessary personnel (e.g., the PM) before implementation of the change occurs. The PM shall be responsible for controlling, tracking, implementing and distributing identified changes.

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TABLE 1
SUMMARY OF
SAMPLING PROGRAM RATIONALE AND ANALYSIS

Matrix	Location	Approximate Number of Samples	Frequency	Rationale for Sampling	Laboratory Analysis	Duplicates	Matrix Spikes	Spike Duplicates	Trip Blanks
Soil	UST Areas	15	1 per 900 square feet of excavation base	Endpoint Verification of footing excavations	VOCs EPA Method 8260B, SVOCs EPA Method 8270,	1 per day	1 per 20 samples	1 per 20 samples	1 per trip
	Excavated Petroleum Impacted Soil	1	1 per 800 cy	Waste Characterization for disposal if not stockpiled on site	VOCs EPA Method 8260B, PAHs EPA Method 8270, RCRA metals, pesticides and PCBs by EPA 8081/8082, other as per disposal facility	0	0	0	0
Soil	Excavated Historic Fill Material	19	1 per 800 cy	Waste Characterization for disposal if not stockpiled on site	VOCs EPA Method 8260B, PAHs EPA Method 8270, RCRA metals, pesticides and PCBs by EPA 8081/8082, other as per disposal facility	0	0	0	0
	Excavated Uncontaminated Native Soil	9	7 Grabs for 1st 1,000 cy, 2 for each additional 1,000 cy As per CP51	Clean Verification for disposal if not stockpiled.	VOCs EPA Method 8260B	0	0	0	0
Soil	Excavated Uncontaminated Native Soil	3	2 Composites for 1st 1,000 cy, 1 for each additional 1,000 cy As per CP51	Clean Verification for disposal if not stockpiled.	SVOCs, pesticides/and PCBs by EPA 8081/8082, and RCRA metals.	0	0	0	0

TABLE 2
SAMPLE COLLECTION AND ANALYSIS PROTOCOLS

Sample Type	Matrix	Sampling Device	Parameter	Sample Container	Sample Preservation	Analytical Method#	CRQL / MDLH	Holding Time
Soil	Soil	Scoop Direct into Jar	VOCs	(1) 2 oz Jar	Cool to 4^{o} C	EPA Method 8260C (test method 5035A)	Compound specific (1-5 ug/kg)	14 days
Soil	Soil	Scoop Direct into Jar	SVOCs	(1) 8 oz jar	Cool to 4^{o} C	EPA Method 8270D	Compound specific (1-5 ug/kg)	14 day ext/40 days
Soil	Soil	Scoop Direct into Jar	Pest/PCBs	from 8oz jar above	Cool to 4^{o} C	EPA Method 8081B/8082A	Compound specific (1-5 ug/kg)	14 day ext/40 days
Soil	Soil	Scoop Direct into Jar	Metals	from 8oz jar above	Cool to 4^{o} C	TAL Metals 6010	Compound specific (01-1 mg/kg)	6 months
Groundwater	Water	Pump tubing	VOCs	(3) 40 ml vials	Cool to 4^{o} C 1:1 HCL	EPA Method 8260C	Compound specific (1-5 ug/L)	14 days
Groundwater	Water	Pump tubing	SVOCs	(1) 1 Liter Amber Bottle	Cool to 4^{o} C	EPA Method 8270D	Compound specific (1-5 ug/L)	14 days
Groundwater	Water	Pump tubing	Pesticides and PCBs	(2) 1 Liter Amber Bottle	Cool to 4^{o} C	EPA Method 8081B / 8082A	Compound specific (1-5 ug/L)	14 days
Groundwater	water	Pump tubing	Total Metals	(1) 100 ml	HNO3	TAL Metals 6010	Compound specific (1-5 mg/L)	6 months
Groundwater	water	Pump tubing	Dissolved Metals	(1) 100 ml	None	TAL Metals 6010	Compound specific (1-5 mg/L)	6 months

Notes:
All holding times listed are from Verified Time of Sample Receipt (VTSR) unless noted otherwise. * Holding time listed is from time of sample collection.
The number in parentheses in the "Sample Container" column denotes the number of containers needed.
Triple volume required when collected MS/MSD samples
The number of trip blanks are estimated.
CRQL / MDL = Contract Required Quantitation Limit / Method Detection Limit
NA = Not available or not applicable.

ATTACHMENT D
Community Air Monitoring Plan

COMMUNITY AIR MONITORING PLAN

FORMER MUGLER SHORING SITE
2401 THIRD AVENUE
BRONX, NY

APRIL - 2016

COMMUNITY AIR MONITORING PLAN
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APPENDICES

1.0 INTRODUCTION

This Community Air Monitoring Plan (CAMP) has been prepared for the excavation and construction activities to be performed under a Remedial Action Work Plan (RAWP) at 2401 Third Avenue, in Bronx, NY. The CAMP provides measures for protection for the downwind community (i.e., off-site receptors including residences, businesses, and on-site workers not directly involved in the investigation activities) from potential airborne contaminant releases resulting from excavation activities at the site.

Compliance with this CAMP is required during all activities associated with soil disturbance activities that have the potential to generate airborne particulate matter and volatile organic compounds (VOCs). These activities include excavation and loading of affected soil. This CAMP has been prepared to ensure that remedial activities do not adversely affect passersby, residents, or workers in the area immediately surrounding the Site and to preclude or minimize airborne migration of site-related contaminants to off-site areas.

1.1 Regulatory Requirements

This CAMP was established in accordance with the following requirements:

- New York State Department of Health's (NYSDOH) Generic Community Air Monitoring Plan as presented in DER-10 Technical Guidance for Site Investigation and Remediation (NYSDEC May 3, 2010). This guidance specifies that a community air-monitoring program shall be implemented to protect the surrounding community and to confirm that the work does not spread contamination off-site through the air.

2.0 AIR MONITORING

Petroleum volatile organic compounds (VOCs), chlorinated VOCs, semi-volatile organic compounds (SVOCs), metals and pesticides are the constituents of concern at the Site. The appropriate method to monitor air for these constituents during remediation activities is through real-time VOC and air particulate (dust) monitoring.

2.1 Meteorological Data

At a minimum, wind direction will be evaluated at the start of each workday, noon of each workday, and the end of each workday. These readings will be utilized to position the monitoring equipment in appropriate upwind and downwind locations.

2.2 Community Air Monitoring Requirements

To establish ambient air background concentrations, air will be monitored at several locations around the site perimeter before activities begin. These points will be monitored periodically in series during the site work. When the excavation area is within 20 feet of potentially exposed populations or occupied structures, the perimeter monitoring points will be located to represent the nearest potentially exposed individuals at the downwind location and will take into account the locations of ventilation system intakes of nearby structures.

Fugitive respirable dust will be monitored using a MiniRam Model PDM-3 aerosol monitor (or equivalent). Air will be monitored for VOCs with a portable Ionscience 3000 photoionization detector (PID), or equivalent. All air monitoring data will be documented in a site log book by the designated site safety officer. The site safety officer or delegate must ensure that air monitoring instruments are calibrated and maintained in accordance with manufacturer's specifications. All instruments will be zeroed daily and checked for accuracy. A daily log will be kept. If additional monitoring is required, the protocols will be developed and appended to this plan

3.0 VOC MONITORING, RESPONSE LEVELS, AND ACTIONS

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present.

The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown. All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

All readings will be recorded and made available for NYSDEC and NYSDOH personnel to review. If an exceedance of the Action Limits occurs, an Action Limit Report, as shown in Appendix A, will be completed.

3.1 Potential Corrective Measures and VOC Suppression Techniques

If the 15-minute integrated VOC level at the downwind location persists at a concentration that exceeds the upwind level by more than 5 ppm but less than 25 ppm during remediation activities, then vapor suppression techniques will be employed. The following techniques, or others, may be employed to mitigate the generation and migration of fugitive organic vapors:

- limiting the excavation size;
- limiting the drop-height when loading soil into trucks;
- spraying chemical odorants onto the soil;
- covering soil stockpiles with 6-mil plastic sheeting or tarps;
- hauling waste materials in properly tarped containers; and/or
- applying vapor suppressant foam.

4.0 PARTICULATE MONITORING

Air monitoring for particulates (i.e., dust) will be performed continuously during excavation and loading activities using both air monitoring equipment and visual observation at upwind and downwind locations. Monitoring equipment capable of measuring particulate matter smaller than 10 microns (PM_{10}) and capable of integrating (averaging) over periods of 15 minutes or less will be set up at upwind (i.e., background) and downwind locations, at heights approximately four to five feet above land surface (i.e., the breathing zone). Monitoring equipment will be MIE Data Ram monitors, or equivalent. The audible alarm on the particulate monitoring device will be set at 90 micrograms per cubic meter ($\mu g/m_3$). This setting will allow proactive evaluation of worksite conditions prior to reaching the action level of 100 $\mu g/m^3$ above background. The monitors will be calibrated at least once per day prior to work activities and recalibrated as needed thereafter. In addition, fugitive dust migration will be visually assessed during all intrusive work activities.

The following summarizes particulate action levels and the appropriate responses:

- If the downwind PM-10 particulate level is 100 $\mu g/m^3$ greater than background (upwind perimeter) for the 15-minute period, or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 $\mu g/m^3$ above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 $\mu g/m^3$ above the upwind level, work must be stopped and an evaluation of activities initiated. Work can resume provided that dust suppression measures (as described in Section 2.3.1 below) and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 $\mu g/m^3$ of the upwind level and in preventing visible dust migration.

All readings will be recorded and be available for NYSDEC and NYSDOH personnel to review. If an exceedance of the Action Limits occurs, an Action Limit Report as shown in **Appendix A** will be completed.

4.1 Potential Particulate Suppression Techniques

If the integrated particulate level at the downwind location exceeds the upwind level by more than 100 $\mu g/m^3$ at any time during remediation activities, then dust suppression techniques will be employed. The following techniques, or others, may be employed to mitigate the generation and migration of fugitive dusts:

- limiting the excavation size;
- spraying water onto the excavation faces and equipment;
- covering soil stockpiles with plastic sheeting or tarps;
- use of gravel paths / roadways;
- hauling waste materials in properly tarped containers; and/or
- limiting vehicle speeds onsite.

Work may continue with dust suppression techniques provided that downwind PM_{10} levels are not more than 150 µg/m^3 greater than the upwind levels.

There may also be situations where the dust is generated by remediation activities and migrates to downwind locations, but is not detected by the monitoring equipment at or above the action level. Therefore, if dust is observed leaving the working area, dust suppression techniques such as those listed above will be employed.

If dust suppression techniques do not lower particulates to below 150 µg/m^3, or visible dust persists, work will be suspended until appropriate corrective measures are identified and implemented to remedy the situation.

All air monitoring readings will be recorded in the field logbook and will be available for the NYSDEC and NYSDOH personnel to review.

5.0 DATA QUALITY ASSURANCE

5.1 Calibration

Instrument calibration shall be documented on instrument calibration and maintenance sheets or in the designated field logbook. All instruments shall be calibrated as required by the manufacturer. Calibration checks may be used during the day to confirm instrument accuracy. Duplicate readings may be taken to confirm individual instrument response.

5.2 Operations

All instruments shall be operated in accordance with the manufacturer's specifications. Manufacturers' literature, including an operations manual for each piece of monitoring equipment will be maintained on-site by the SSO for reference.

5.3 Data Review

The SSO will interpret all monitoring data based the established criteria and his/her professional judgment. The SSO shall review the data with the PM to evaluate the potential for worker exposure, upgrades/downgrades in level of protection, comparison to direct reading instrumentation and changes in the integrated monitoring strategy.

Monitoring and sampling data, along with all sample documentation will be periodically reviewed by the PM.

6.0 RECORDS AND REPORTING

All air readings must be recorded on daily air monitoring log sheets and made available for review by personnel from NYSDEC and NYSDOH.

APPENDIX A
ACTION LIMIT REPORT

CAMP
ACTION LIMIT REPORT

Project Location: _____

Date: _____ Time: _____

Name: _____

Contaminant: _____ PM-10: _____ VOC: _____

Wind Speed: _____ Wind Direction: _____

Temperature: _____ Barometric Pressure: _____

DOWNWIND DATA

Monitor ID #: _____ Location: _____ Level Reported: _____

Monitor ID#: _____ Location: _____ Level Reported: _____

UPWIND DATA

Monitor ID #: _____ Location: _____ Level Reported: _____

Monitor ID#: _____ Location: _____ Level Reported: _____

BACKGROUND CORRECTED LEVELS

Monitor ID #: Location: _____ Level Reported: Level Reported: _____

ACTIONS TAKEN

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ATTACHMENT E
Citizen Participation Plan

New York State Department of Environmental Conservation

Brownfield Cleanup Program

Citizen Participation Plan

for

FORMER MUGLER SHORING SITE

2401 Third Avenue
Bronx, NY 10451

September 2015

Contents

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Note: The information presented in this Citizen Participation Plan was current as of the date of its approval by the New York State Department of Environmental Conservation. Portions of this Citizen Participation Plan may be revised during the site's investigation and cleanup process.

Applicant: **2401 3rd Ave Associates Property LLC**
Site Name: **Former Mugler Shoring ("Site")**
Site Address: **2401 Third Avenue**
Site County: **Bronx**
Site Number: **C203052**

1. What is New York's Brownfield Cleanup Program?

New York's Brownfield Cleanup Program (BCP) works with private developers to encourage the voluntary cleanup of contaminated properties known as "brownfields" so that they can be reused and developed. These uses include recreation, housing, and business.

A *brownfield* is any real property that is difficult to reuse or redevelop because of the presence or potential presence of contamination. A brownfield typically is a former industrial or commercial property where operations may have resulted in environmental contamination. A brownfield can pose environmental, legal, and financial burdens on a community. If a brownfield is not addressed, it can reduce property values in the area and affect economic development of nearby properties.

The BCP is administered by the New York State Department of Environmental Conservation (NYSDEC) which oversees Applicants that conduct brownfield site investigation and cleanup activities. An Applicant is a person who has requested to participate in the BCP and has been accepted by NYSDEC. The BCP contains investigation and cleanup requirements, ensuring that cleanups protect public health and the environment. When NYSDEC certifies that these requirements have been met, the property can be reused or redeveloped for the intended use.

For more information about the BCP, go online at: http://www.dec.ny.gov/chemical/8450.html.

2. Citizen Participation Activities

Why NYSDEC Involves the Public and Why It Is Important

NYSDEC involves the public to improve the process of investigating and cleaning up contaminated sites, and to enable citizens to participate more fully in decisions that affect their health, environment, and social well-being. NYSDEC provides opportunities for citizen involvement and encourages early two-way communication with citizens before decision-makers form or adopt final positions.

Involving citizens affected and interest in site investigation and cleanup programs is important for many reasons. These include:

- Promoting the development of timely, effective site investigation and cleanup programs that protect public health and the environment;

- Improving public access to, and understanding of, issues and information related to a particular site and that Site's investigation and cleanup process;

- Providing citizens with early and continuing opportunities to participate in NYSDEC's site investigation and cleanup process;

- Ensuring that NYSDEC makes site investigation and cleanup decisions that benefit from input that reflects the interests and perspectives found within the affected community; and

- Encouraging dialogue to promote the exchange of information among the affected/interested public, State agencies, and other interested parties that strengthens trust among the parties, increases understanding of site and community issues and concerns, and improves decision-making.

This Citizen Participation (CP) Plan provides information about how NYSDEC will inform and involve the public during the investigation and cleanup of the Site identified above. The public information and involvement program will be carried out with assistance, as appropriate, from the Applicant.

Project Contacts

Appendix A identifies NYSDEC project contact(s) to whom the public should address questions or request information about the site's investigation and cleanup program. The public's suggestions about this CP Plan and the CP program for the Site are always welcome. Interested people are encouraged to share their ideas and suggestions with the project contacts at any time.

Locations of Reports and Information

The locations of the reports and information related to the Site's investigation and cleanup program also are identified in Appendix A. These locations provide convenient access to important project documents for public review and comment. Some documents may be placed on the NYSDEC website. If this occurs, NYSDEC will inform the public in fact sheets distributed about the Site and by other means, as appropriate.

Site Contact List

Appendix B contains the site contact list. This list has been developed to keep the community informed about, and involved in, the site's investigation and cleanup process. The site contact list will be used periodically to distribute fact sheets that provide updates about the status of the project. These will include notifications of upcoming activities at the Site (such as fieldwork), as well as availability of project documents and announcements about public comment periods.
The site contact list includes, at a minimum:

- Chief executive officer and planning board chairperson of each county, city, town and village in which the Site is located;
- Residents, owners, and occupants of the Site and properties adjacent to the Site;
- The public water supplier which services the area in which the Site is located;
- Any person who has requested to be placed on the site contact list;

- The administrator of any school or day care facility located on or near the Site for purposes of posting and/or dissemination of information at the facility; and
- Location(s) of reports and information.

The site contact list will be reviewed periodically and updated as appropriate. Individuals and organizations will be added to the site contact list upon request. Such requests should be submitted to the NYSDEC project contact(s) identified in Appendix A. Other additions to the site contact list may be made at the discretion of the NYSDEC project manager, in consultation with other NYSDEC staff as appropriate.

CP Activities

The table at the end of this section identifies the CP activities, at a minimum, that have been and will be conducted during the Site's investigation and cleanup program. The flowchart in Appendix D shows how these CP activities integrate with the site investigation and cleanup process. The public is informed about these CP activities through fact sheets and notices distributed at significant points during the program. Elements of the investigation and cleanup process that match up with the CP activities are explained briefly in Section 5.

- **Notices and fact sheets** help the interested and affected public to understand contamination issues related to a site, and the nature and progress of efforts to investigate and clean up a site.

- **Public forums, comment periods and contact with project managers** provide opportunities for the public to contribute information, opinions and perspectives that have potential to influence decisions about a site's investigation and cleanup.

- **Document repositories** allow the public to access and review project documents including investigation and cleanup work plans and final reports.

The public is encouraged to contact project staff at any time during the Site's investigation and cleanup process with questions, comments, or requests for information. This CP Plan may be revised due to changes in major issues of public concern identified in Section 3 or in the nature and scope of investigation and cleanup activities. Modifications may include additions to the site contact list and changes in planned citizen participation activities.

Technical Assistance Grant

NYSDEC must determine if the Site poses a significant threat to public health or the environment. This determination generally is made using information developed during the investigation of the Site, as described in Section 5.

If the Site is determined to be a significant threat, a qualifying community group may apply for a Technical Assistance Grant (TAG). The purpose of a TAG is to provide funds to the qualifying group to obtain independent technical assistance. This assistance helps the TAG recipient to

interpret and understand existing environmental information about the nature and extent of contamination related to the Site and the development/implementation of a remedy.

An eligible community group must certify that its membership represents the interests of the community affected by the Site, and that its members' health, economic well-being or enjoyment of the environment may be affected by a release or threatened release of contamination at the Site.

For more information about TAGs, go online at http://www.dec.ny.gov/regulations/2590.html.

Note: The table identifying the citizen participation activities related to the Site's investigation and cleanup program follows on the next page:

Citizen Participation Requirements (Activities)	Timing of CP Activity(ies)
Application Process:	
• Prepare site contact list • Establish document repositories	At time of preparation of application to participate in the BCP.
• Publish notice in Environmental Notice Bulletin (ENB) announcing receipt of application and 30-day public comment period • Publish above ENB content in local newspaper • Mail above ENB content to site contact list • Conduct 30-day public comment period	When NYSDEC determines that BCP application is complete. The 30-day public comment period begins on date of publication of notice in ENB. End date of public comment period is as stated in ENB notice. Therefore, ENB notice, newspaper notice, and notice to the site contact list should be provided to the public at the same time.
After Execution of Brownfield Site Cleanup Agreement:	
• Prepare Citizen Participation (CP) Plan	Before start of Remedial Investigation
Before NYSDEC Approves Remedial Investigation (RI) Work Plan:	
• Distribute fact sheet to site contact list about proposed RI activities and announcing 30-day public comment period about draft RI Work Plan • Conduct 30-day public comment period	Before NYSDEC approves RI Work Plan. If RI Work Plan is submitted with application, public comment periods will be combined and public notice will include fact sheet. Thirty-day public comment period begins/ends as per dates identified in fact sheet.
After Applicant Completes Remedial Investigation:	
• Distribute fact sheet to site contact list that describes RI results	Before NYSDEC approves RI Report
Before NYSDEC Approves Remedial Work Plan (RWP):	
• Distribute fact sheet to site contact list about proposed RWP and announcing 45-day public comment period • Public meeting by NYSDEC about proposed RWP (if requested by affected community or at discretion of NYSDEC project manager) • Conduct 45-day public comment period	Before NYSDEC approves RWP. Forty-five day public comment period begins/ends as per dates identified in fact sheet. Public meeting would be held within the 45-day public comment period.
Before Applicant Starts Cleanup Action:	
• Distribute fact sheet to site contact list that describes upcoming cleanup action	Before the start of cleanup action.
After Applicant Completes Cleanup Action:	
• Distribute fact sheet to site contact list that announces that cleanup action has been completed and that summarizes the Final Engineering Report • Distribute fact sheet to site contact list announcing issuance of Certificate of Completion (COC)	At the time NYSDEC approves Final Engineering Report. These two fact sheets are combined if possible if there is not a delay in issuing the COC.

3. Major Issues of Public Concern

This section of the CP Plan identifies major issues of public concern that relate to the Site. Additional major issues of public concern may be identified during the course of the Site's investigation and cleanup process.

The Site is located in an Environmental Justice Area. Environmental justice is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

The Department has received comments regarding the need to perform a Fish & Wildlife Impact Analysis (FWIA) due to the site's close proximity to the Harlem River, and that the Department is in agreement with the issues raised and a FWIA will be performed. The Site is located in an area with a large Hispanic-American population nearby. Therefore, all future fact sheets will be translated into Spanish.

The major issues of concern to the public will be potential impacts of nuisance odors and dust during the removal of affected soil at the Site. Another example of a major issue of public concern would be the impact of increased truck traffic on the surrounding neighborhood. Construction safety issues will also be addressed.

This work will be performed in accordance with procedures which will be specified under a detailed Remedial Program which considers and takes preventive measures for exposures to future residents of the property and those on adjacent properties during construction. Detailed plans to monitor the potential for exposure including a Health and Safety Plan (HASP) and a Community Air Monitoring Plan (CAMP) are required components of the remedial program. Implementation of these plans will be under the direct oversight of the NYSDEC and the New York State Department of Health (NYSDOH).

These plans will specify the following worker and community health and safety activities during remedial activity at the Site:

- On-site air monitoring for worker protection;
- Perimeter air monitoring for community protection;
- The use of odor, vapor, and dust controls, such as water or foam sprays, as needed;
- Monitoring and control of soil, sediments, and water generated during remediation; and
- Truck routes which avoid residential streets.

The HASP and the CAMP will be prepared as part of the Remedial Action Work Plan (RAWP) and will be available for public review at the document repository as identified in Appendix A (page 11).

Furthermore, the Applicant has prepared a Scoping Sheet for Major Issues of Public Concern which will assist them in identifying any concerns. Experience from similar projects, 311 complaints and other construction projects in the area will help in identifying such issues.

4. Site Information

Appendix C contains a map identifying the location of the Site.

Site Description

The Site to be remediated and redeveloped is located in the South Bronx (Bronx County) and is comprised of a single tax parcel covering 61,034.98 (1.4 acres). The subject property is located in the City of New York and Borough of the Bronx (Bronx County). The lot is located on the west side of Third Avenue and is identified as Block 2319 Lot 2 on the NY City tax map. The property has 159 feet of street frontage on Third Avenue and approximately 346 ft of frontage along the north side of the Harlem River. The lot is developed with a one-story 19,450 sf commercial building which according to the NYC Department of Buildings was constructed in 1931.

The land use in the immediate vicinity of the Site includes underutilized or vacant, commercial properties to the north and east, the Third Avenue Bridge to the southeast and the Harlem River to the southwest.

The area surrounding the property is highly urbanized and predominantly consists of heavy commercial / industrial / warehouse properties to the north along a corridor adjacent to the Harlem River. Multi-use residential / commercial (retail) properties are present to the east along Bruckner Boulevard and a large housing project is located to the northeast.

The Lot is currently zoned M1-3/R8 residential / commercial. The M1-3/R8 is a Special Mixed Use District established to encourage investment in, and enhance the vitality of, existing neighborhoods with mixed residential and industrial uses in close proximity and create expanded opportunities for new mixed use communities. New residential and non-residential uses (commercial, community facility and light industrial) can be developed as-of-right and be located side-by-side or within the same building. Pairing an M1 district with an R3 through R10 district ensures a balanced variety of uses.

History of Site Use, Investigation, and Cleanup

The Site is currently owned by the 2401 3rd Ave Associates Property LLC. The property consists of a 1-story commercial / industrial building which is currently vacant. The Requestor purchased the property in January 2015.The property was most recently occupied by a company.

The Subject Property was historically used for manufacturing purposes since at least 1891. Historical operators include; J.L. Mott Iron Works (1891–1922), Hydraulic Steel Company (1922–1935), General Builders Supply Corporation (1935–1968), Brill Equipment Company (1949–1956), US Gear Manufacturing Company (1965–1971), Ohio Gasket Manufacturing Corporation (1971), and Mugler Inc. (1965–2015).

A Phase II investigation performed at the Site in October 2014 historic fill materials and petroleum contamination. The primary contaminants identified included petroleum volatile

organic compounds (VOCs) in soil at a single location, toluene in the vicinity of a suspect 550 gallon underground storage tank. As a result, a spill was reported to the New York State Department of Environmental Conservation (NYSDEC). The NYSDEC assigned spill number 1405230 to the case.

The depth to groundwater at the site is approximately 13 feet below grade. Soil at the site is described as historic fill materials to a depth which ranges from approximately 5 feet to 13 feet below the surface followed by native brown sand with cobble size rocks.

5. Investigation and Cleanup Process

Application

The Applicant has applied for and been accepted into New York's Brownfield Cleanup Program (BCP) as a Volunteer. This means that the Applicant was not responsible for the disposal or discharge of the contaminants or whose ownership or operation of the Site took place after the discharge or disposal of contaminants. The Volunteer must fully characterize the nature and extent of contamination on-site, and must conduct a qualitative exposure assessment, a process that characterizes the actual or potential exposures of people, fish and wildlife to contaminants on the Site and to contamination that has migrated from the Site.

The Applicant proposes that the Site will be used for the construction of two new 25-story residential tower buildings identified as the east and the west towers. The two towers flank an entry court which is open to the river and Manhattan views to the south. The East Tower is free-standing, serving as a "portal" on Third Avenue, whereas the West Tower has a 7-story base with common amenities and parking for 200 cars. The residential component consists of 475 rental units in an area of 399,798 gross square feet. Commercial (retail) and community space will be included in the west tower base. The proposed use is consistent with existing M1-3/R8 zoning of the property.

To achieve this goal, the Applicant will conduct investigation and cleanup activities at the Site with oversight provided by NYSDEC. The Brownfield Cleanup Agreement (BCA) executed by NYSDEC and the Applicant sets forth the responsibilities of each party in conducting these activities at the Site.

Investigation

The Applicant completed a partial site investigation before it entered into the BCP. For the partial investigation, NYSDEC will determine if the data are useable. The Applicant will now conduct an investigation of the Site officially called a "remedial investigation" (RI). This investigation will be performed with NYSDEC oversight. Upon receipt of the RI, the NYSDEC will determine if the investigation goals and requirements of the BCP have been met or if additional work is needed before a remedy can be selected.

The site investigation has several goals:

1) Define the nature and extent of contamination in soil, surface water, groundwater and any

other parts of the environment that may be affected;
2) Identify the source(s) of the contamination;
3) Assess the impact of the contamination on public health and the environment; and
4) Provide information to support the development of a proposed remedy to address the contamination or the determination that cleanup is not necessary.

When the investigation is complete, the Applicant will prepare and submit a report that summarizes the results. This report also will recommend whether cleanup action is needed to address site-related contamination. The investigation report is subject to review and approval by NYSDEC.

NYSDEC will use the information in the investigation report to determine if the Site poses a significant threat to public health or the environment. If the Site is a significant threat, it must be cleaned up using a remedy selected by NYSDEC from an analysis of alternatives prepared by the Applicant and approved by NYSDEC. If the Site does not pose a significant threat, the Applicant may select the remedy from the approved analysis of alternatives.

Remedy Selection

When the investigation of the Site has been determined to be complete, the project likely would proceed in one of two directions:

1. The Applicant may recommend in its investigation report that no action is necessary at the Site. In this case, NYSDEC would make the investigation report available for public comment for 45 days. NYSDEC then would complete its review, make any necessary revisions, and, if appropriate, approve the investigation report. NYSDEC would then issue a Certificate of Completion (COC) (described below) to the Applicant.

or

2. The Applicant may recommend in its investigation report that action needs to be taken to address site contamination. After NYSDEC approves the investigation report, the Applicant may then develop a cleanup plan, officially called a Remedial Work Plan. The Remedial Work Plan describes the Applicant's proposed remedy for addressing contamination related to the Site.

When the Applicant submits a proposed Remedial Work Plan for approval, NYSDEC would announce the availability of the proposed plan for public review during a 45-day public comment period.

Cleanup Action

NYSDEC will consider public comments, and revise the draft cleanup plan if necessary, before approving the proposed remedy. The New York State Department of Health (NYSDOH) must concur with the proposed remedy. After approval, the proposed remedy becomes the selected remedy.

The Applicant may then design and perform the cleanup action to address the site contamination. NYSDEC and NYSDOH oversee the activities. When the Applicant completes cleanup activities, it will prepare a Final Engineering Report (FER) that certifies that cleanup requirements have been achieved or will be achieved within a specific time frame. NYSDEC will review the report to be certain that the cleanup is protective of public health and the environment for the intended use of the Site.

Certificate of Completion

When NYSDEC is satisfied that cleanup requirements have been achieved or will be achieved for the Site, it will approve the FER. NYSDEC then will issue a COC to the Applicant. The COC states that cleanup goals have been achieved, and relieves the Applicant from future liability for site-related contamination, subject to certain conditions. The Applicant would be eligible to redevelop the Site after it receives a COC.

Site Management

Site management is the last phase of the site cleanup program. This phase begins when the COC is issued. Site management may be conducted by the Applicant under NYSDEC oversight, if contamination will remain in place. Site management incorporates any institutional and engineering controls required to ensure that the remedy implemented for the Site remains protective of public health and the environment. All significant activities are detailed in a Site Management Plan (SMP).

An institutional control is a non-physical restriction on use of the Site, such as a deed restriction that would prevent or restrict certain uses of the property. An institutional control may be used when the cleanup action leaves some contamination that makes the Site suitable for some, but not all uses.

An engineering control is a physical barrier or method to manage contamination. Examples include: caps, covers, barriers, fences, and treatment of water supplies.

Site management also may include the operation and maintenance of a component of the remedy, such as a system that is pumping and treating groundwater. Site management continues until NYSDEC determines that it is no longer needed.

Appendix A
Project Contacts and Locations of Reports and Information

Project Contacts

For information about the site's investigation and cleanup program, the public may contact any of the following project staff:

New York State Department of Environmental Conservation (NYSDEC):

Sadique Ahmed P.E.
New York State Department of
Environmental Conservation
625 Broadway
Albany, New York 12233-7016
Tel: (518) 402-9656
Email: saduque.ahmed@dec.ny.gov

Thomas Panzone
Regional Citizen Participation Specialist
NYSDEC Region 2
Office of Communications Services
47-40 21st Street
Long Island City, NY 11101-5407
Tel: (718) 482-4953
Email: thomas.panzone@dec.ny.gov

New York State Department of Health (NYSDOH):

Steven Karpinski
New York State Department of Health
Bureau of Environmental Exposure Investigation
Empire State Plaza – Corning Tower Room 1787
Albany, New York 12237
Tel: (518) 402-7860
Email: beei@health.ny.gov

Locations of Reports and Information

The facilities identified below are being used to provide the public with convenient access to important project documents:

New York Public Library - Mott Haven Branch
321 East 140th Street
Bronx, NY 10454
(718) 665-4878

Hours:
Sunday: Closed
Monday: 10am- 6pm
Tuesday: 10am- 7pm
Wednesday & Thursday: 10am- 7pm
Friday: 10am- 5pm
Saturday: 10am – 5pm

Appendix B - Site Contact List

Local Government Contacts:

City of New York
Hon. Bill de Blasio
Mayor of New York City
City Hall
New York, NY 10007

Hon. Ruben Diaz, Jr.
Bronx Borough President
851 Grand Concourse, Suite 301
Bronx, New York 10451
Telephone (718) 590-3500

George Rodriguez
Chair, Bronx Community Board 1
3024 Third Avenue
Bronx, NY 10455
TEL: (718) 585-7117
FAX: (718) 292-0558

Cedric Loftin
District Manager, Bronx Community Board 1
3024 Third Avenue
Bronx, NY 10455
TEL: (718) 585-7117
FAX: (718) 292-0558

Hon. Melissa Mark - Viverito
New York City Council Speaker – District 8
105 East 116th Street
New York, NY 10029
Telephone (212) 828-9800
Fax (212) 722-6378

Carl Weisbrod
Chair of City Planning (Zoning)
22 Reade St.
Third Floor
New York, NY 10007

Carol Samol
Director, NYC Planning Commission – Bronx Office
1 Fordham Plz.
Bronx, New York 10458
Telephone (718) 220-8500

Constance Moran
New York City Department of Transportation
Bronx Borough Commissioner
55 Water Street, 9th Floor
New York, NY 10041
212-748-6680

Bronx County Clerk's Office
Luis M. Diaz, County Clerk
851 Grand Concourse, Room 118
Bronx, New York 10451
Telephone (866) 797-7214

Hon. Letitia James
Public Advocate
1 Centre Street, 15th Floor
New York, NY 10007

Hon. Scott M. Stringer
Office of the Comptroller
1 Centre Street
New York, NY 10007

Julie Stein
Office of Environmental Planning & Assessment
NYC Dept. of Environmental Protection
96-05 Horace Harding Expressway
Flushing, NY 11373

Daniel Walsh
NYC Office of Environmental Remediation
100 Gold Street – 2nd Floor
New York, NY 10038

Nilda Mesa, Director
NYC Office of Environmental Sustainability
100 Gold Street – 2nd Floor
New York, NY 10038

New York State
Senator José M. Serrano
1916 Park Avenue Suite 202,
New York, NY 10037
Telephone (212) 828-5829
Fax (212) 828-2420

Hon.. Carmen E. Arroyo
NYS Assemblymember
384 East 149th Street, Suite 301
Bronx, New York 10455
Telephone (718) 292-2901

Federal
Hon. Charles Schumer
U.S. Senator
780 Third Avenue, Suite 2301
New York, NY 10017

Hon. Kirsten Gillibrand
U.S. Senator
780 Third Avenue, Suite 2601
New York, NY 10017

Rep. José E. Serrano
Congressional District: 15
1231 Lafayette Avenue, 4th Floor
Bronx, New York 10474
Telephone (718) 620-0084
Fax (718) 620-0658

Contact information for the identified owners, as listed in the New York City ACRIS Database, are as follows:

North

1. Owner / Tenant
   CUBESMART EAST 135TH, LLC
   PTA
   P.O. BOX 320099
   ALEXANDRIA, VA 22320-4099

2. Owner
   GLS REAL ESTATE CO.,
   2413 3RD AVE.
   BRONX, NY 10451-6330

   Occupant / Tenant
   2413 3RD AVE.
   BRONX, NY 10451-6330

3. Owner
   KAI DEVELOPMENT CORP.
   211 W. 58TH ST. APT. 1
   NEW YORK, NY 10019-1418

Occupant / Tenant
2403 3RD AVE
BRONX, NY 10451-6330

4. Owner / Tenant
   FIVE BORO STORAGE INC.
   220 E. 134TH ST. APT. FRNT A.
   BRONX, NY 10451-6410

5. Owner
   MADHATTERS REALTY INC.
   2417 3RD AVE.
   BRONX, NY 10451-6331

   Occupant / Tenant
   2417 3RD AVE
   BRONX, NY 10451-6331

East

6. Owner
   101 LINCOLN ASSOCIATES PROPERTY LLC
   C/O THE CHETRIT GROUP LLC
   512 SEVENTH AVENUE APT. 15TH FLOOR
   NEW YORK, NY 10018

   Occupant / Tenant
   101 LINCOLN AVENUE
   BRONX, NY 10454

Local News Media

Bronx Times
900 E. 132nd Street
Bronx, NY 10454
(718) 597-1116

New York Daily News
4 New York Plaza
New York, NY 10004

New York Post
1211 Avenue of the Americas
New York, NY 10036-8790

NY 1 News
75 Ninth Avenue
New York, NY 10011

Hoy Nueva York
1 MetroTech Center, 18th Floor
Brooklyn, NY 11201

El Diario La Prensa
1 MetroTech Center, 18th Floor
Brooklyn, NY 11201

Impacto New York
225 West 35th Street, Suite 305
New York, NY 10001

La Voz Hispana NY
159 East 116th Street
New York, NY 10029

Public Water Supplier

Hon. Emily Lloyd, Commissioner
New York City Department of Environmental Protection
59-17 Junction Boulevard
Flushing, NY 11373

Requested Contacts

No requests have been made at this time.

Schools and Daycare Facilities

There are no Schools or Daycare facilities within a quarter mile of the project Site. Schools nearest the Site include:

1 City of New York: PS 154 Jonathan D Hyatt
333 East 135th Street, Bronx, NY 10454
Principal: Dr. Alison Coviello
(718) 292-4742

Community, Civic, Religious and other Educational Institutions

Bronx Terminal Market
Attn: Executive Director
610 Exterior Street
Bronx, NY 10451

Mitchell Houses
Management Development Office
NYCHA
303 East 135th Street
Bronx, NY 10454

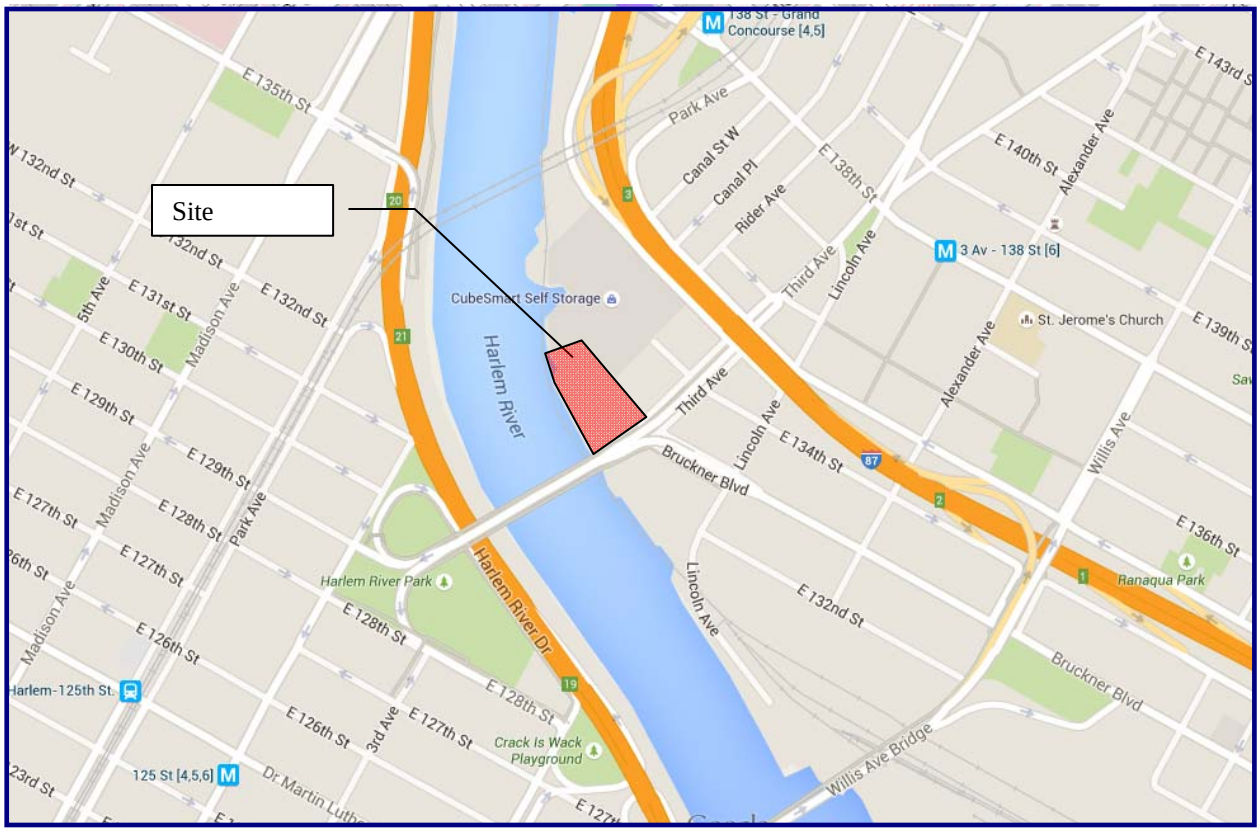
Mitchell Houses
Attn: President, Resident Association
NYCHA
303 East 135th Street
Bronx, NY 10454

Office of Media Relations
NYCHA
250 Broadway
New York, NY 10007

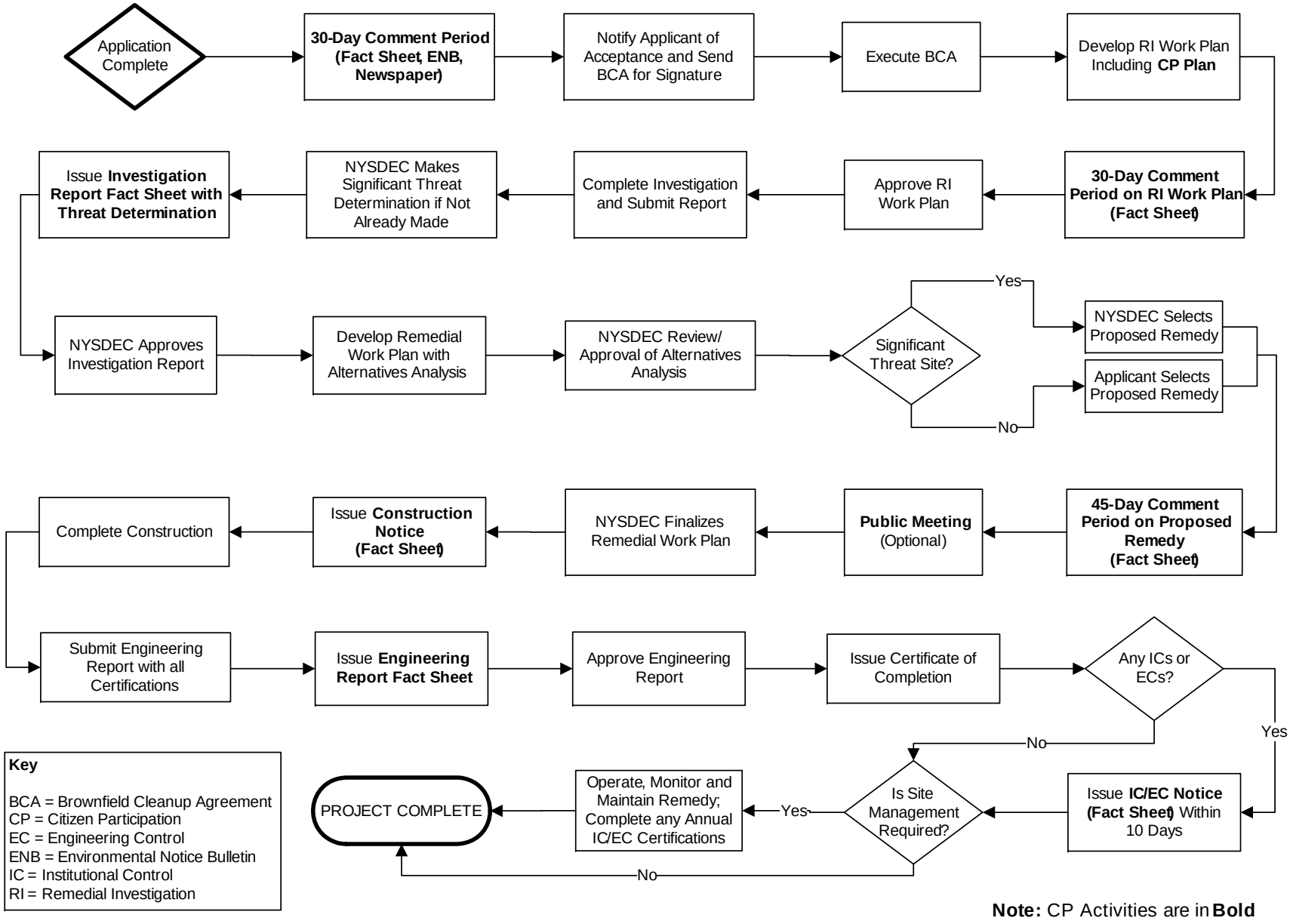
Mitchell Community Center
Attn: Executive Director
210 Alexander Avenue
Bronx, NY 10454

St. Jerome's RC Church
Attn: Pastor
230 Alexander Avenue
Bronx, NY 10454

Appendix C - Site Location Map



Appendix D– Brownfield Cleanup Program Process



Note: CP Activities are in **Bold**

ATTACHMENT F
Resumes

EBC

ENVIRONMENTAL BUSINESS CONSULTANTS

Charles B. Sosik, PG, PHG, Principal

Professional Experience

24 years

Education

MS, Hydrogeology, Adelphi University, NY
BS, Geology, Northern Arizona University, AZ

Areas of Expertise

- Brownfields Redevelopment
- Hazardous Waste Site Investigations
- Pre-purchase Site Evaluations and Support
- Regulatory Negotiations
- Remedial Planning and "Cost to Cure" Analysis
- Strategic Planning
- Real Estate Transactions
- NYC "E" Designations

Professional Certification

- Professional Geologist, NH
- Professional Geologist, Hydrogeologist, WA
- OSHA 40-hr HAZMAT
- OSHA 8-hr. Supervisor

Professional Affiliation / Committees

- NYS Council of Professional Geologists (NYSCPG)
- Association of Groundwater Scientists & Engineers (AGSE)
- NYS RBCA Advisory Committee
- Massachusetts LSP Association
- New Hampshire Association of Professional Geologists
- Interstate Technology Regulatory Council/MTBE Team
- Environmental Business Association, Brownfields Task Force
- Part 375 Working Group

PROFILE

Mr. Sosik has 24 years of experience in environmental consulting. He specializes in advising clients on managing environmental compliance with federal, state, and municipal agencies and has successfully directed numerous investigation and remediation projects involving petroleum, pesticides, chlorinated solvents, heavy metals and radiologically activated media. His work included extensive three-dimensional investigations on MTBE, which have been used effectively to help shape public policy. He also has experience in applying models to groundwater related problems and has completed several large-scale projects to determine fate and transport of contaminants, establish spill scenarios, and closure criteria. His experience and expertise in the area of contaminant hydrogeology has resulted in requests from environmental attorneys, property owners and New York State to serve as an expert witness and technical advisor on a variety of legal disputes.

For the past 10 years Mr. Sosik has been primarily engaged in providing environmental consulting to developers responding to the extensive re-zoning of former industrial and commercial properties, which is currently taking place throughout New York City. These services include everything from pre-purchase evaluations and contract negotiations to gaining acceptance in and moving projects through the NYS Brownfields Program. Mr. Sosik has taken a pro-active role in the continued development of the NYS Brownfields Program and related policy, by attending numerous working seminars, active participation in work groups and task forces and by providing commentary to draft versions of new guidance documents. Throughout his professional career, Mr. Sosik has remained committed to developing innovative cost- efficient solutions to environmental issues, specifically tailored to the needs of his clients.

SELECTED PROJECTS

Scavenger Waste Treatment Facility (SWTF), Suffolk County, NY

Water Treatment Plant EIS - Focused EIS - In response to requests from the Suffolk County Council on Environmental Quality and the Brookhaven Conservation Advisory Council, Mr. Sosik prepared a focused EIS to evaluate the potential impacts to an important surface water resource from the proposed facility including cumulative and synergistic effects with established contaminant plumes in the area.

Advanced Residential Communities, Rockville Centre, NY

Brownfield Project – As the senior project manager on this large scale, high profile redevelopment project, Mr. Sosik was asked to develop a plan to accelerate the regulatory process in the face of general community opposition. Through numerous discussions with the BCP management team, He was able to condense the schedule and review period, through the submission of supporting documents (Investigation Report, Remedial Work Plan) with the BCP application package. Community opposition, which focused on the environmental condition of the site as a means to block the project, was used to advantage in expediting approval of the aggressive interim remedial plan. This will allow the developer to begin remedial work approximately 5 months ahead of schedule.

Former Temco Uniform site, West Haverstraw, NY

Brownfield Project – Mr. Sosik took over management of this project from another consultant following transition of this VCP site to the BCP. Mr. Sosik used the opportunity to renegotiate and revise the scope of work to allow a more cost effective and focused investigation plan without re-writing or resubmitting the RIWP. During the NYSDEC's review of the transition package, he met with and coordinated changes with the NYSDEC Project Manager to gain approval. The result saved the client a significant amount of money, but perhaps more importantly in this case, did so without loss of time.

Grovick Properties, Jackson Heights, NY

Brownfield Project – This Brownfield property is somewhat unique in that it had been investigated and partially remediated by the NYSDEC through the petroleum spill fund. The client was interested in purchasing the property and redeveloping it as office and retail space. Mr. Sosik reviewed the NYSDEC investigation and developed a

supplemental plan to meet the requirements of an RI under the BCP program. By performing this limited amount of field work "up-front" he was able to complete an RI Report and Remedial Plan and submit both with the BCP application package. The NYSDEC and NYSDOH approved the RI Report and the Remedial Plan with minor changes. This cut 120 days from the review process and allowed the client to arrange financing and move his project forward knowing what the clean-up costs would be at the outset.

Metro Management, Bronx, NY

Brownfield Project – The site of a former gas station, the developer had planned to construct a 12-story affordable housing apartment complex with first floor retail space. Since the site was located in an Environmental zone, potential tax credits of 22% for site development, remediation and tangible property could be realized under the BCP. In a pre-application meeting with the NYSDEC, Mr. Sosik realized that the department did not believe the site was eligible for the BCP, since it had been previously investigated and closed under the spills program.

Mr. Sosik assisted the developer in securing financing, and due to the demands of an aggressive construction schedule developed an Interim Remedial Measure (IRM), based on chemical oxidation treatment. Working closely with the clients environmental counsel, Mr. Sosik was able to get the IRM approved without a public comment period. Implementation of the IRM is currently underway.

The project was awarded the 2009 NYC Brownfield Award for Innovation.

Brandt Airflex, NY

Technical Consulting Services - Mr. Sosik provided senior level technical advice and strategic planning in developing an off-site RI/FS for the site, in negotiating a tax reduction for the property due to the environmental condition and in preparing a cost to cure estimate for settlement between business partners. After achieving a favorable tax consideration and settlement agreement for his client

Allied Aviation Services, Dallas, Fort Worth, Airport, Dallas, TX

Jet Fuel Investigation - Mr. Sosik developed and managed an investigative plan to quickly identify the extent and source of jet fuel which was discharging from the Airport's storm drain system to a creek a mile away. Through the use of a refined conceptual model, accelerated investigative techniques and a flexible work plan, he was able to identify the source of the fuel and the migration route within a single week. He then identifled remedial options and successfully negotiated a risk based plan with the Texas regulatory agency that had issued a notice of enforcement action against the facility.

KeySpan – Former LILCO Facilities, Various NY Locations

Pesticide Impact Evaluation - Mr. Sosik developed, negotiated and implemented a site screening procedure to evaluate impact to public health and the environment as the result of past herbicide use at 211 utility sites. Using an unsaturated zone leaching model (PRZM) on a small subset of the sites, he was able to establish mass loading schedules for the remaining sites. This was combined with public well data in a GIS environment to perform queries with respect to mass loading, time transport and proximity to vunerable public supply wells. Using this approach Mr. Sosik was able to show that there were no concerns for future impact. This effort satisfied the public health and resource concerns of the state environmental agency and county health department in a reasonable amount of time and at a fraction of the cost of a full scale investigation.

Former Computer Circuits (Superfund) Site, Hauppauge, NY

CERCLA RI/FS - As Senior Project Manager for the site, he played a major role in regaining control of the investigation activites for the PRP. This action prevented the USEPA from initiating an extensive investigation at the site using a RAC II contractor allowing the client to perform a more efficient investigation. He was involved in all negotiations with EPA and was the project lead in developing a revised site characterization plan (work plan, field sampling plan, quality assurance plan, etc.). By carefully managing all phases of the investigation and continued interaction with each of the three regulatory agencies involved, Mr. Sosik was able to keep the project focused and incrementally reinforce the clients position. The estimated cost of the revised investigation is expected to save the client 1.5 to 2 million dollars.

Sun Oil, Seaford, NY

Remediation Consuliting Services & Project Management - Under an atmosphere of regulatory distrust, political pressure and mounting public hostility toward the client, Mr. Sosik conducted an off-site 3-D investigation to define the extent of contamination and the potential impact on public health. By designing and implementing an aggressive source area remediation program and personal interaction with the public and regulatory agencies, he was able to successfully negotiate a limited off-site remediation favorable to the client. Source area remediation was completed within 6 months and the project successfully closed without damage to the client's public image or working relationship with the regulatory agencies.

Con Edison, Various Locations, NY

Hydrogeologic Consulting Services - Under a general consulting contract, Mr. Sosik conducted detailed subsurface hydrogeologic investigations at five locations to assist in the development of groundwater contingency planning. He also developed and implemented work plans to investigate and remediate existing petroleum, cable fluid, and PCB releases at many of the generating facilities and substations. An important aspect of his role was in assisting the client in strategic planning and negotiations with the regulatory agency.

Keyspan - Tuthill Substation, Aqueboque, NY

Accelerated Site Characterization - Using accelerated site characterization techniques, Mr. Sosik presented the project as a case study in establishing the transport of an herbacide and its metobolites aplied at utility sites in the 1980's The results were then used to establish a screening method for evaluating 211 similar sites controlled by the client in a reasonable and eficient manner.

NYSDEC Spill, East Moriches, NY

Spill Release Analysis - With recognized expertise in the area of gasoline plume development on Long Island, Mr. Sosik was asked by

Charles B. Sosik, PG, PHG, Principal

the State to establish the release date (and principal responsible party) of an extensive petroleum spill, which impacted a residential neighborhood. He used multiple lines of evidence, and a new EPA model (HSSM), which he has helped to refine, to reconstruct the release scenario and spill date, in support of the State Attorney General's cost recovery effort from the PRP.

Minmilt Realty, Farmingdale, NY

Fate & Transport Modeling - He completed an RI/FS at this location for a PCE plume that had been in transit for over 30 years. Mr. Sosik applied a conservative model to evaluate time/concentration impacts under a variety of transport scenarios to a municipal wellfield located 13,000 feet away. Through the use of the model and careful interpretation of an extensive data set compiled from several sources, Mr. Sosik was able to propose a plan which was both acceptable to the regulator and favorable to the client.

Sebonack Golf Course Project, Town of Southampton, NY

IPM Pesticide Study - Provided professional hydrogeologic services in support of the EIS prepared for the development of the site. The proposed development included an 18-hole golf course, clubhouse, dormitory facility, cottages, associated structures, and a 6,000 square foot research station for Southampton College. Mr. Sosik performed an extensive evaluation (using a pesticide-leaching model) on the effects of pesticide and nitrogen loading to groundwater as part of the projects commitment to an Integrated Pest Management (IPM) approach.

NYSDEC, Spills Division, Regions 1 – 4

Petroleum Spills Investigation & Remediation - As a prime contractor/consultant for the NYSDEC in Regions 1-4, Mr. Sosik has managed the investigation and remediation of numerous petroleum spills throughout the State. Many of these projects required the development of innovative investigation and remediation techniques to achieve project goals. He was also involved in many pilot projects and research studies to evaluate innovative investigation techniques such as accelerated site characterization, and alternative approaches to remediation such as monitored natural attenuation and risk based corrective action.

Sun Oil, E. Meadow, NY

Exposure Assessment - Performed to seek closure of the spill file, despite the presence of contaminants above standards, Mr. Sosik determined after the extended assessment that the level of remaining contamination would not pose a future threat to human health or the environment. He used multiple lines of evidence, and a fate and transport model to show that degradation processes would achieve standards within a reasonable time.

Sand & Gravel Mine, NY

Property Development - As part of the development of a sand and gravel mine, Mr. Sosik provided environmental consulting services to assist in obtaining a mining permit, which would result in the construction of a 150-acre lake. Specifically, Mr. Sosik investigated if the proposed lake would reduce groundwater quantity to domestic and public well fields, and/or accelerate the migration of potential surface contaminants to the lower part of the aquifer. After assuming the lead role in negotiations with the regulatory agency, Mr. Sosik was able to obtain a permit for the client by adequately addressing water quality and quantity issues, and by preparing a monitoring plan and spill response plan, acceptable to all parties.

NYSDEC, Mamaroneck, NY

Site Characterization / Source Identification - In a complex hydrogeologic setting consisting of contaminant transport through fractured metomorphic bedrock and variable overburden materials, Mr. Sosik was able to develop and implement a sub-surface investigation to differentiate and separate the impact associated with each of two sources. The results of this investigation were successful in encouraging the spiller to accept responsibility for the release.

Riverhead Municipal Water District, NY

Site Characterization / Remedial Planning - Using accelerated characterization techniques, he implemented a 3-D site investigation to identify two service stations 4,000 ft. away as the source of contamination impacting a municipal wellfield. In accordance with the strict time table imposed by the need to return the wellfield to production by early spring, he designed and implemented a multi-point (9 RW, 6 IW) recovery and injection well system using a 3-d numerical flow model, and completed the project on time. Using a contaminant transport model, Mr. Sosik developed clean-up goals which were achieved in 9 months of operation, well below the projected 3 to 5 year project duration.

Montauk Fire Department, NY

Site Assessment - Mr. Sosik performed a limited investigation and used a 2-D flow model to demonstrate that the property could not have been the source of contamination which had impacted an adjacent wellfield as per the results of a previous investigation. This small focused effort successfully reversed a $500,000, and rising, claim against the department by the water district and the NYSDEC.

PREVIOUS EXPERIENCE

P.W. Grosser Consulting, Bohemia, NY
Senior Project Manager, 1999-2006

Environmental Assessment & Remediation, Patchogue, NY
Senior Project Manager, 1994-1999

Miller Environmental Group, Calverton, NY
Project Manager, 1989-1994

DuPont Biosystems, Aston, PA
Hydrogeologist, 1988-1989

EBC

ENVIRONMENTAL BUSINESS CONSULTANTS

Charles B. Sosik, PG, PHG, Principal

EXPERT WITNESS TESTIMONY AND DEPOSITIONS

Fact Witness -Testimony on relative age of petroleum spill based on nature and extent of residual and dissolved components at the Delta Service Station in Uniondale, NY Fall/1999

Expert Witness / Expert Report for defendant in cost recovery case by NYS Attorney General regarding a Class II Inactive Hazardous Waste (State Superfund) project by the NYSDEC (October 2004 – present, Report: March 2005, Deposition: April 2005)

Expert Witness / Fact Witness for plaintiff seeking compensation for partial expenses incurred during the investigation and remediation of a USEPA CERCLA site due to the release and migration of contaminants from an "upgradient" industrial property. (Deposition May 2005, case settled April 2007).

Expert Witness / Fact Witness for NYS Attorney General with respect to cost recovery for a NYSDEC petroleum spill site in Holtzville, NY (Deposition April 2005 - case settled).

Expert Witness – Statement of opinion and expert testimony at trial for plaintiff seeking damages from a major oil corporation for contamination under a prior leasing agreement in Rego Park, NY. Case decided in favor of plaintiff. Trial July 2007, in favor of Plaintiff. Qualified as Expert Witness.

Expert Witness / Fact Witness for NYS Attorney General with respect to cost recovery for a NYSDEC petroleum spill site in Lindenhurst, NY (Trial date December 2009, in favor of plaintiff. Qualified as Expert Witness.

Expert Witness / Fact Witness for defendant with respect to cost recovery and third party responsibility for a NYSDEC petroleum spill site. (Expert Statement of Fact – October 2005).

Expert Witness for plaintiff seeking damages related to a petroleum spill from the previous owner/operator of a gas station in College Point, NY. Case settled 2009.

Expert Witness for plaintiff (municipal water supply purveyor) seeking damages from major oil companies and manufacturer of MTBE at various locations in Suffolk County, NY. Expert reports July 2007, August 2007 and October 2007, Case settled August, 2008.

Expert Witness - Deposition for NYS Attorney General regarding NYSDEC cost recovery for a petroleum spill site at Sag Harbor, NY. August 2002

Expert Witness - for NYS Attorney General regarding NYSDEC cost recovery for a petroleum spill site at Riverhead, NY. Case settled July 2008.

Expert Witness for defendant responding to a claim from adjacent commercial property owner on the origin of chlorinated solvents on plaintiff's property located in Cedarhurst, NY. Expert opinion submitted to lead counsel on March 6, 2009, case settled April 2009.

Expert Report - for Attorney General on modeling performed to determine the spill release scenario at a NYSDEC petroleum spill site in East Moriches, NY. June 2000.

MODELING EXPERIENCE (PARTIAL LISTING)

PROJECT	MODEL	APPLICATION
Riverhead Water District, Riverhead, NY	MODFLOW, MODPATH	Remediation system design to intercept MTBE plume and prevent continued impact to municipal well field.
NYSDEC - Region 1, Holbrook, NY	MODFLOW, MODPATH	Simulate transport of MTBE plume to predict future impact.
NYSDEC - Region 1, East Moriches, NY	HSSM	Evaluate release scenario and start date of petroleum spill in support of cost recovery by NYS AG office.
AMOCO, Deer Park, NY	HSSM	Estimate release amount, start date and spill scenario to evaluate the potential for mass unaccounted for
Keyspan Energy, Nassau/Suffolk Counties Substations	PRZM	Estimate mass load of simazine used at 211 electric substations and screen sites according to potential for human health and ecological impacts.
Saboneck Golf Club, Southampton NY	PRZM	Estimate mass load of proposed pesticides on new golf course to evaluate acceptability under an IPM program.
Suffolk County Department of Public Works (SCDPW) Scavenger Waste Treatment Plant, Yaphank, NY	DYNFLOW, DYNTRAC	Evaluate time-transport and nitrogen impact on local river system.
SCDPW SUNY Waste Water Treatment Plant, Stony Brook, NY	DYNFLOW, DYNTRAC	Determine outfall location and time-transport of nitrogen from proposed upgrades to an existing wastewater treatment plant
Water Authority of Great Neck North Great Neck, NY	MODFLOW, MODPATH, MT3D	Review of modeling study performed by EPA to evaluate potential future impact to Well field from PCE plume. Identified serious flaws in model construction and implementation, which invalidated conclusions

PUBLICATIONS / PROFESSIONAL PAPERS

Smart Pump & Treat Strategy for MTBE Impacting a Public Water Supply (14th Annual Conference on Contaminated Soils Proceedings, 1998)

Transport & Transformation of BTEX & MTBE in a Sand Aquifer (Groundwater Monitoring & Remediation 05/1998)

Characteristics of Gasoline Releases in the Water Table Aquifer of Long Island (Petroleum Hydrocarbons Conference Proceedings, 1999)

Field Applications of the Hydrocarbon Spill Screening Model (HSSM) (USEPA Interactive Modeling Web Course www.epa.gov/athens/software/training/webcourse Authored module on model application and applied use of calculators, 02/2000)

Comparative Evaluation of MTBE Sites on Long Island, US EPA Workshop on MTBE Bioremediation (Cincinnati, 02/2000)

Comparison of Four MTBE Plumes in the Upper Glacial Aquifer of Long Island (American Geophysical Union, San Francisco, 12/1996)

Analysis and Simulation of the Gasoline Spill at East Patchogue, New York (American Geophysical Union, San Francisco, 12/1998)

AMC Engineering
99 Jericho Turnpike, Suite 300J
Jericho, NY 11590
Phone: (516) 417-8588

ARIEL CZEMERINSKI, P.E.

Mr. Czemerinski is a New York State Professional Engineer and CEO of AMC Engineering PLLC an EBC affiliate. Mr. Czemerinski has with 20 years of experience in the chemical and environmental areas. Areas of expertise include environmental compliance, permitting, remedial system design, process and plant safety, and management of a production facility. Mr. Czemerinski is a Registered Professional Engineer in NY, IN, IL, and MI.

Professional Experience
AMC: 14
Prior: 6 years

Education
Master of Science in Chemical Engineering, Columbia University, New York, NY, Feb. 1990. Bachelor of Science in Chemical Engineering, University Of Buenos Aires, Buenos Aires, Argentina, May 1987

Areas of Expertise

- Vapor Intrusion - Barrier and Sub Slab Venting System Design
- Environmental Assessment Statements and Environmental Impact Assessments under CEQR, ULURP
- Remedial Program Design and Management
- Environmental Compliance, Clean Water Act, Clean Air Act, Hazardous Materials
- Dewatering & Treatment System Design
- NYCDEP Sewer Discharge Permitting
- Transfer Station Permitting and Compliance
- Chemical Process Design and Optimization
- Wastewater Treatment Systems and Permitting, SPEDES, Air
- Zoning Regulations and Permitting
- Safety and Environmental Training
- Waste Management Plans

Professional Certifications

- OSHA 40-hr HAZWOPER
- OSHA 8-hr HAZWOPER Supervisor

EBC

ENVIRONMENTAL BUSINESS CONSULTANTS

Robert Bennett, Project Manager

Professional Experience

EBC: February 2015 - Present
Prior: 7 years

Education

Bachelor of Science, Environmental Science, State University of New York College at Oneonta, Oneonta, NY

Associates in Applied Sciences, Field Biology, State University of New York College at Delhi, Delhi, NY

Areas of Expertise

- Phase I / Phase II Property Assessments
- Waste Characterization / Soil Management
- Brownfield Closure and Planning Board
- Remedial Investigations
- Groundwater, Soil and Soil Vapor Remediation
- Indoor Air Quality (IAQ) Investigations
- Lead-Based Pain Risk Assessor
- Asbestos-Containing Materials Investigator/Inspector
- Landfill Closure and Monitoring
- Dredging Monitoring and Management
- Hazardous Materials Assessments
- Title V & NY Air Permitting and Registrations
- NYS / Nassau & Suffolk County Sanitary Code Compliance

Professional Certification

- OSHA 40-hr HAZWOPER
- OSHA 10-hr Construction Safety
- NYSDOH Asbestos Inspector
- NYCDEP Asbestos Investigator
- EPA Lead-Based Paint Inspector & Risk Assessor

PROFILE

Mr. Bennett has 8 years experience as an environmental consultant and is responsible for assessment and investigative services for a wide variety of projects, including industrial and commercial properties, mass transit facilities, parking structures, and sanitary and wastewater treatment facilities. Mr. Bennett has conducted Phase I, II and III Environmental Site Assessments for commercial, industrial, and residential properties in New York, New Jersey, and Massachusetts.

EBC

ENVIRONMENTAL BUSINESS CONSULTANTS

Robert Bennett, Project Manager

Mr. Bennett conducts research and provides support for various projects on a daily basis and coordinates with clients, regulatory agencies, attorneys and sub-contractors to provide cost-effective business solutions for a plethora of environmental concerns. Mr. Bennett's field experience includes tank removal and installations, dredging oversight and monitoring, asbestos and lead inspections, compliance audits, spill management and closure, soil and groundwater sampling, and both the oversight and operation of soil boring and well installation equipment. In addition, Mr. Bennett has performed project research, data reduction and evaluation, and has prepared reports for both regulatory and client use.

PREVIOUS EXPERIENCE

Dvirka & Bartilucci Engineers and Architects, P.C., Woodbury, NY
Environmental Scientist II, 2014-2015

Gannett Fleming Engineers and Architects, P.C., Woodbury, NY
Environmental Scientist, 2012-2014

Apex Companies L.L.C., Bohemia, NY
Environmental Scientist / Project Manager, 2008-2012

SELECT PROJECT EXPERIENCE

Project:	Fulton Street Redevelopment Project - 1134 Fulton Street, Brooklyn NY
Description:	NYC E-Designation. Soil contaminated with chlorinated solvents and heavy metals requiring excavation, soil management and disposal as well as a Soil Vapor Extraction System under a Remedial Action Work Plan, Soil / Materials Management Plan, Construction Health and Safety Plan and Community Air Monitoring Plan
Client:	Porter Avenue Holdings
Authority:	NYSDEC, NYSDOH & NYCOER
Role:	Mr. Bennett served as the Project Manager for the project.
Project:	Redevelopment Project - 391 Meeker Avenue, Brooklyn NY
Description:	NYC E-Designation. Historic Fill Material requiring excavation, soil management and disposal under a Remedial Action Work Plan, Soil / Materials Management Plan, Construction Health and Safety Plan and Community Air Monitoring Plan
Client:	Draftex Architectural Drafting & As Built Services
Authority:	NYCOER
Role:	Mr. Bennett serves as the Project Manager for the project.
Project:	Redevelopment Project - 1555-1557 Fulton Street, Brooklyn NY

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Robert Bennett, Project Manager

Description:	NYC E-Designation. Historic Fill Material requiring excavation, soil management and disposal under a Remedial Action Work Plan, Soil / Materials Management Plan, Construction Health and Safety Plan and Community Air Monitoring Plan
Client:	Waterfront Property Management, LLC.
Authority:	NYCOER
Role:	Mr. Bennett serves as the Project Manager for the project.

Project:	Governor's Office of Storm Recovery (GOSR) New York Rising Buyout and Acquisition Program / Superstorm Sandy Relief Program
Location:	Long Island and New York City
Type:	Phase I Environmental Site Assessments (ESAs) and Property Evaluation
Contamination:	Asbestos, Lead, Mold and PCBs
Role:	Environmental Scientist II responsible for the creation and review of a high volume of Phase I ESAs

Project:	WMATA Metrorail System Assessment Program
Location:	Washington D.C. Area
Type:	Hazardous materials inspection and evaluation for planning and engineering design purposes.
Contamination:	Asbestos, Lead and PCBs
Role:	Environmental Scientist and Inspection Team Leader

Project:	Armonk Square Redevelopment Plan
Location:	Armonk Square, Armonk, NY
Type:	Monitoring well and recovery well installation. Sub-slab depressurization system (SSDS) installation and operational modifications.
Contamination:	Chlorinated Solvents
Role:	Environmental Scientist responsible for the planning and oversight of monitoring well and recovery well installation. Planning, oversight, and modifications to SSDS.

Project:	Newtown Creek Dredging Project for NYCDEP
Location:	NYCDEP Newtown Creek Wastewater Treatment Facility, Brooklyn, NY
Type:	Navigational waterway dredging
Contamination:	Hazardous and biological pollutants in bottom sediment.
Role:	Environmental Scientist responsible for the implementation and operation of engineering controls and turbidity monitoring.

Project:	Boring / Coring Program, Northeast U.S. Region
Location:	New Bedford Harbor, New Bedford, MA. Long Island and Massachusetts.

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Robert Bennett, Project Manager

Type:	Bathymetric surveys. Borings and Corings advanced through deep sediment and bedrock to determine the proper allocation dredge areas and confined aquatic disposal zones. Additionally, Vibracore drilling was conducted in shallow and easily accessible areas.
Contamination:	PCBs
Role:	Environmental Scientist / Project Manager serving as an on-site geologist to interpret and record geological investigations.
Project:	New York State Air Permit Facilities
Location:	Westchester, Orange and Rockland County, NY
Type:	Title V Air Permits, state registration and permitting for multiple industrial laundering facilities.
Contamination:	Hazardous Air Pollutants
Role:	Environmental Scientist / Project Manager responsible for all air permitting work for a NY-branch office.
Project:	Dredging Oversight and Water Quality Monitoring
Location:	New Bedford Harbor, New Bedford, MA
Type:	Bathymetric surveys. Supervised maintenance dredging and confined aquatic disposal zone excavation operations. Turbidity and sediment flocculation monitoring.
Contamination:	PCBs
Role:	Environmental Scientist providing project oversight, coordinating daily with Mass DEP and sub-contractors. Documenting geological data.
Project:	Stormwater Abatement System Inspections, Repairs and Reporting
Location:	Multiple retailer locations throughout New York State
Type:	Stormwater drainage system and stormwater control structure inspections and repairs
Contamination:	PCBs
Role:	Environmental Scientist / Project Manager assigned to coordinate and perform routine inspections of drainage systems and stormwater control structures. Made repairs to stormwater appurtenances where neccesary.
Project:	ConEdison Truck-flush facility, effluent discharge monitoring.
Location:	Multiple ConEdison truck-flush facilities located throughout New York City, NY.
Type:	Compliance sampling and evaluation with regard to New York City Sewer Effluent Limitations.
Contamination:	Oil & Grease, Metals, Pesticides/PCBs , VOCs, SVOCs
Role:	Effluent sampling. Coordinating with client and laboratory to conduct quarterly sampling events.
Project:	RCRA Closure Support

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Robert Bennett, Project Manager

Location:	Pall Corporation Former Headquarters, East Hills, NY
Type:	Environmental closure of a medical equipment manufacturing facility
Contamination:	Formic Acid, Dimethylacetamide (DMAC)
Role:	Environmental Scientist / Project Manager responsible for the supervision of the removal of all process tanks, piping and associated appurtenances. Accomplished final decommissioning activities. RCRA Closure Report.
Project:	Brownfield Closure Support
Location:	Multiple locations throughout New York City
Type:	Remedial investigations. Interim remedial measures. Soil vapor intrusion studies. RCRA Closure.
Contamination:	VOCs, SVOCs, Oil & Grease, Pesticides/PCBs , Metals
Role:	Environmental Scientist / Project Manager responsible for preparing and conducting remedial investigations, interim remedial measures, soil vapor intrusion studies and RCRA closure.
Project:	Mirant Bowline Power Plant Asbestos Survey
Location:	West Haverstraw, NY
Type:	Asbestos inspection. Personal exposure monitoring. Asbestos labeling Program. Reporting.
Contamination:	Asbestos
Role:	Environmental Scientist / Project Manager serving as a team leader to conduct large scale asbestos inspection, labeling program and reporting.
Project:	Estee Lauder SPCC Facilities
Location:	Multiple manufacturing facilities throughout Long Island
Type:	Spill Prevention Control & Countermeasures (SPCC) inspections, evaluation and reporting.
Contamination:	N/A
Role:	Environmental Scientist / Project Manager responsible for conducting inspections, facility engineering review, and reporting.
Project:	Nassau and Suffolk County Sanitary Code Facility Compliance Audits
Location:	Multiple medical equipment manufacturing facilities throughout Long Island.
Type:	Article XI and XII Sanitary Code Compliance Audits and multiple medical equipment manufacturing facilities.
Contamination:	N/A
Role:	Environmental Scientist / Project Manager responsible for conducting inspections, facility engineering review, and reporting.

PUBLICATIONS

Dredging and Beach Nourishment Public Notices
(Cape Cod Times, 2008-2010)

Environmental Business Consultants •1808 Middle Country Road, Ridge, NY 11961
Ph 631.504.6000 • Fax 631.924.2870 • Email rbennett@ebcincny.com

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ENVIRONMENTAL BUSINESS CONSULTANTS

Kevin Waters, Field Manager

Professional Experience
EBC: October 2010
Prior: 5 years

Education
Bachelor of Science, Geology, State University of New York, Stony Brook

Areas of Expertise
- Field Operations
- Phase II and RI Implementation, Site Characterization Studies
- Health & Safety Monitoring and Oversight
- Waste Characterization / Soil Management
- Site Logistics

Professional Certification
- OSHA 40-hr HAZWOPER
- OSHA 8-hr HAZWOPER Supervisor

PROFILE

Mr. Waters has 10 years experience as an environmental consultant and has worked on a wide range of environmental projects. Mr. Waters has conducted Phase II and III Environmental Site Assessments for commercial, industrial, and residential properties in New York.

Mr. Waters' field experience includes soil, air and groundwater sampling, operations and maintenance of groundwater remediation systems, tank removals, spill management and closure, and oversight of monitoring well installations. In addition, Mr. Waters has prepared reports for both regulatory and client use.

PREVIOUS EXPERIENCE

P.W. Grosser Consulting, Bohemia, NY
Field Hydrogeologist, 2003-2008

SELECT PROJECT EXPERIENCE

Project:	Former Gas Station / car wash to mixed use affordable housing / commercial
Location:	Bronx, NY, Southern Boulevard
Type:	NYS BCP, NYC E-Site Hazmat, Former gas station / gar wash
Contamination:	Petroleum - Gasoline
Role:	Field Operations Manager, Health and Safety Officer

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ENVIRONMENTAL BUSINESS CONSULTANTS

Kevin Waters, Field Manager

SELECT PROJECT EXPERIENCE

Project:	Former Uniforms for Industry Site – Richmond Hill Senior Living Residences / Richmond Place
Location:	Jamaica Ave, Richmond Hill Queens, NY
Type:	NYS BCP, NYC E-Site Hazmat, Noise, Former industrial Laundry
Contamination:	Chlorinated Solvents, Historic Fill, Petroleum - Fuel oil/Mop oil
Role:	Field Operations Manager, Health and Safety Monitoring and Field Oversight

Project:	Rikers Island – West Intake Facility
Location:	NYC Department of Corrections, Rikers Island, NY
Type:	Municipal Construction Project
Contamination:	Hazardous levels of lead, heavy metals in Historic fill
Role:	Field Operations Manager, Health and Safety Monitoring and Field Oversight

Project:	Residential Redevelopment Project
Location:	Williamsburg Section of Brooklyn, Wallabout Street
Type:	NYC E-Designation Site
Contamination:	Hazardous levels of lead, heavy metals, SVOCs in Historic fill
Role:	Implement RI Work Plan, Supervise sample collection in all media

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EBC

ENVIRONMENTAL BUSINESS CONSULTANTS

Kevin R. Brussee, Senior Project Manager

Professional Experience
EBC: January 2008
Prior: 6 years

Education
Bachelor of Science, Environmental Science, Plattsburgh State University, NY
Master of Science, Environmental Studies, University of Massachusetts, Lowell

Areas of Expertise
- Management of Site Investigations / Remedial Oversight NYC "E" Designation Sites
- Management of RI Investigations / RAWP Implementation NYS BCP Sites
- NYSDEC Spill Site Investigations
- Phase I / Phase II Property Assessments
- Waste Characterization / Soil Management

Professional Certification
- OSHA 40-hr HAZWOPER
- OSHA 8-hr HAZWOPER Supervisor

PROFILE

Mr. Brussee has 10 years experience as an environmental consultant/contractor and has worked on and managed a wide range of environmental projects. Mr. Brussee has conducted Phase I, II and III Environmental Site Assessments for commercial, industrial, and residential properties in New York, New Jersey, Maryland and Delaware.

Mr. Brussee's field experience includes tank removal and installations, spill management and closure, soil and groundwater sampling, and both the oversight and operation of soil boring and well installation equipment. In addition, Mr. Brussee has performed project research, data reduction and evaluation, and has prepared reports for both regulatory and client use.

PREVIOUS EXPERIENCE

Eastern Environmental Solutions, Inc., Manorville, NY
Project Manager, 2006-2008

EA Engineering, Science & Technology
Hydrogeologist, 2005-2006

P.W. Grosser Consulting, Bohemia, NY
Field Hydrogeologist, 2002-2003

EBC

ENVIRONMENTAL BUSINESS CONSULTANTS

Kevin R. Brussee, Senior Project Manager

SELECT PROJECT EXPERIENCE

Project:	Former Dico G, Autio and Truck Repair Site - Bronx Park Apartments, redevelopment from commercial to mixed use
Location:	Bronx, NY, White Plains Road
Type:	NYS BCP Site, Former gas station, repair shop & junk yard
Contamination:	Petroleum - Gasoline
Role:	Project Manager, during Site Management Phase

Project:	Former Uniforms for Industry Site – Richmond Hill Senior Living Residences / Richmond Place
Location:	Jamaica Ave, Richmond Hill Queens, NY
Type:	NYS BCP, NYC E-Site Hazmat, Noise, Former industrial Laundry
Contamination:	Chlorinated Solvents, Historic Fill, Petroleum - Fuel oil/Mop oil
Role:	Project Manager, RAWP implementation

Project:	Former Gas Station / car wash to mixed use affordable housing / commercial
Location:	Bronx, NY, Southern Boulevard
Type:	NYS BCP, NYC E-Site Hazmat, Former gas station / gar wash
Contamination:	Petroleum - Gasoline
Role:	Project Manager, RAWP implementation

Project:	Redevelopment of former industrial property to residential
Location:	Williamsburg section of Brooklyn, NY, Bedford Ave
Type:	NYC E-Designation Site, Former dye manufacturing plant
Contamination:	Hazardous levels of heavy metals, fuel oil tanks
Role:	Project Manager, RAWP implementation

Project:	Former Domsey Fiber Corp Site
Location:	Williamsburg section of Brooklyn, NY, Kent Ave
Type:	NYC E-Designation Site, Former commercial property
Contamination:	Chlorinated solvents, fuel oil and Historic fill
Role:	Project Manager, RIWP Development and Implementation, RAWP development and implementation, waste characterization and soil management

PUBLICATIONS

Chemical Stress Induced by Copper, Examination of a Biofilm System;
(Water Science Technology, 2006; 54(9): 191-199.)

EBC

ENVIRONMENTAL BUSINESS CONSULTANTS

Chawinie Reilly, Project Manager / Industrial Hygienist

Professional Experience
EBC: March 2013
Prior: 8 years

Education
Bachelor of Science, Environmental Health and Safety, Stony Brook University, NY

Areas of Expertise
- Phase I / Property Condition Assessments
- Occupational Health and Safety Sampling
- Indoor Air Quality (IAQ) Investigations
- Mold Investigations and Remediation
- Soil and Ground Water Investigations
- Noise Studies
- Lead Paint and Asbestos Surveys
- Hazardous Materials Assessments

Professional Certification
- OSHA 40-hr HAZWOPER
- NYS Asbestos Inspector
- NYC Asbestos Investigator
- USEPA Lead Inspector
- USEPA Lead Risk Assessor
- OSHA 10-hr Construction Health and Safety
- Hazard Analysis and Critical Control Point (HACCP) Certified

PROFILE

Mrs. Reilly has 9 year's experience as an environmental consultant/contractor and has worked on and managed a wide range of environmental projects. Ms. Miller has conducted Phase Is and Property Condition Assessments for commercial, industrial, and residential properties in New York, New Jersey and Connecticut. In addition, Ms. Miller has conducted various IAQ, asbestos, mold and occupational health and safety sampling investigations for a variety of city, state, federal and private clients.

PREVIOUS EXPERIENCE

The Louis Berger Group, New York, New York
Industrial Hygienist, 2008-2013

AEI Consultants, Jersey City, New Jersey
Environmental Scientist, 2005-2008

ATTACHMENT G
BCP Signage Specifications

New York State Brownfield Cleanup Program

FORMER MUGLER SHORING INC. SITE

BCP Site No. C203052

2401 3rd Ave Associates Property LLC

Governor Andrew M. Cuomo

NYSDEC Acting Commissioner Basil Seggos

Mayor Bill de Blasio

Transform the Past… Build for the Future.

Sign Requirements

Size: Horizontal format – 96" wide by 48" high

Construction Materials: Aluminum or wood blank sign boards with vinyl sheeting.

Inserts: **"**New York State and DEC logo", "Program Name", "Site Name", "Site No.", "Name of Party Performing Remedial Activities or New York State Department of Environmental Conservation", "Governor", "DEC Commissioner", "Municipal Executive", "Transform the Past...Build for the Future".

Color Scheme: All body font should be black or green Pantone 350 C or CMYK 80/43/83/42. If blue is desired, use following values: Pantone 288 C or CMYK 100/87/27/19.

New York State and DEC logo: use eps file here (it is high resolution and scalable. If vendor needs a different format, use jpg file here . Both utilize the correct color.

Text:

Program Name (choose one):

State Superfund Program
Brownfield Cleanup Program
1996 Clean Water/Clean Air Bond Act – Environmental Restoration Program
Voluntary Cleanup Program
Petroleum Remediation Program

} Green text (PANTONE 350C or CMYK 100/43/83/42

Site Name: Blue text (PANTONE 288C or CMYK 100/87/27/19)

Site Number: Blue text (PANTONE 288C or CMYK 100/87/27/19)

Name of Party Performing Remedial Activities or New York State Department of Environmental Conservation: Green text (PANTONE 350C or CMYK 100/43/ 83/42

Governor: Black text

DEC Commissioner: Black text

Municipal Executive: Black text

Transform the Past....Build for the Future: Blue text (PANTONE 288C or CMYK 100/87/27/19)

Type Specifications: All type is Ariel.
Format is: Center each line of copy with initial caps and small Letters.

Production Notes: 96” wide x 48” high aluminum blanks will be covered with vinyl sheeting to achieve background color. Copy and logo will be silk screened on this surface.

See Attached Format: Next page.

8'

4'

2"

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

6"

Logo (Use eps or jpg file)
Green Text (See Key) White Background

2"

Program Name

4" Green Text (See Key)

2"

Site Name

4" Blue Text (See Key)

2"

2" **Site No.** BlueText (See Key)

2"

2" **Remedial Party or New York State Department of Environmental Conservation** Green Text (See Key)

2"

2" **Governor** Black Text

2"

2" **Commissioner** Black Text

2"

2" **Municipal Executive** Black Text

2"

Transform the Past…. Build for the Future Blue Text (See Key)

4"

2"

Color Key for Text
Green Text = Pantone 350C or CMYK 80/43/83/42
Blue Text = Pantone 288C or CMYK 100/87/27/19

Project Sign Format

ATTACHMENT H
Estimated Remedial Costs

FORMER MUGLAR SHORING
2401 Third Avenue
Bronx, NY

Summary of Project Costs

NYS Brownfields Cleanup Program
Costs by Task

TASK - ENVIRONMENTAL REMEDIATION	**Alternative 1 - Track 1**	**Alternative 2 - Track 4**
BCP Entry Documents	Completed	Completed
Supplemental Investigation And RI Report	Completed	Completed
Remedial Work Plan, Remedy Scoping & Coordination	$ 18,450.00	$ 18,450.00
Remedial Program Implementation	$ 3,266,179.00	$ 727,655.00
Final Engineering Report, Site Management Plan & IC/ECs	$ 18,200.00	$ 50,450.00
Subtotal	$ 3,302,829.00	$ 796,555.00
15% Contigency	$ 495,424.35	$ 119,483.25
Total	**$ 3,798,253.35**	**$ 916,038.25**

FORMER MUGLER SHORING
REMEDIAL PROGRAM COST ANALYSIS
REMEDIAL ACTION
ALTERNATIVE 1

Description	Category	Quant.	Unit	Unit Cost	Capital Cost
Excavation and Disposal of Impacted Soil					$ 3,257,179.00
Includes costs associated with disposal of excavated soil from petroleum hotspot (and entire site to 8 ft. Includes backfill of the portions of the site as needed to return to grade as per the development plans.l	Supervision, oversight & air monitoring	90	day	$ 850.00	$ 76,500.00
	Project Management & Coordination PM	200	hr	$ 135.00	$ 27,000.00
	Project Management & Coordination Princ.	40	hr	$ 195.00	$ 7,800.00
	Project Management & Coordination Field Manager	100	hr	$ 105.00	$ 10,500.00
	Petroleum Impacted Soil Non Haz disposal (150 cy)	225	tons	$ 55.00	$ 12,375.00
	Soil Non Haz disposal (18,084 cy)	27126	tons	$ 55.00	$ 1,491,930.00
	Excvate top 8 feet of Site (18,084 cy)	90	days	$ 3,500.00	$ 315,000.00
	Backfill Materials (fill excavation and restore grade at Site)	15861	cy	$ 29.00	$ 459,969.00
	End point sample analysis	67	ea	$ 550.00	$ 36,850.00
	Waste Characterization Analysis	22	sample	$ 1,500.00	$ 33,000.00
	Waste Characterization Sample Collection	5	day	$ 850.00	$ 4,250.00
	Deliverables and EDDs	2	LS	$ 2,500.00	$ 5,000.00
	Data Validation	67	ea	$ 115.00	$ 7,705.00
	DUSRs	2	ea	$ 2,500.00	$ 5,000.00
	Testing of backfill materials	26	ea	$ 550.00	$ 14,300.00
	Dewatring west third of site	1	LS	$ 250,000.00	$ 250,000.00
	Shoring	1	LS	$ 500,000.00	$ 500,000.00
Reporting					$ 9,000.00

FORMER MUGLER SHORING
REMEDIAL PROGRAM COST ANALYSIS
REMEDIAL ACTION
ALTERNATIVE 2

Description	Category	Quant.	Unit	Unit Cost	Capital Cost
Excavation and Disposal of Impacted Soil					$ 721,655.00
Includes costs associated with disposal of excavated soil from petroleum hotspot (150 cy) . Includes excavation and backfill of hotspot exacavation and historic fill from building areas (34,391 sf). The soil to go for non-hazardous disposal of all excavated soil either as urban fill or petroleum impacted soil. Non-hazardous soil to be excavated as part of construction.	Supervision, oversight & air monitoring	50	day	$ 850.00	$ 42,500.00
	Project Management & Coordination PM	60	hr	$ 135.00	$ 8,100.00
	Project Management & Coordination Princ.	20	hr	$ 195.00	$ 3,900.00
	Project Management & Coordination Field Manager	60	hr	$ 105.00	$ 6,300.00
	Petroleum Impacted Soil Non Haz disposal (150 cy)	225	tons	$ 55.00	$ 12,375.00
	Soil disposal from building areas (5,094 cy)	7641	tons	$ 55.00	$ 420,255.00
	Backfill Materials	1000	cy	$ 26.00	$ 26,000.00
	Exacvate hotspot, building basement areas and exposed soil areas	50	days	$ 3,500.00	$ 175,000.00
	End point sample analysis	15	ea	$ 200.00	$ 3,000.00
	Waste Characterization Analysis	10	sample	$ 1,500.00	$ 15,000.00
	Waste Characterization Sample Collection	1	day	$ 850.00	$ 850.00
	Testing of backfill materials	3	ea	$ 550.00	$ 1,650.00
	Deliverables and EDDs	1	LS	$ 2,500.00	$ 2,500.00
	Data Validation	15	ea	$ 115.00	$ 1,725.00
	DUSRs	1	ea	$ 2,500.00	$ 2,500.00
Reporting					$ 6,000.00